

August 31, 2001

Mr. John T. Herron  
Vice President Operations  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING AMENDMENT  
REQUEST FOR REFUELING WATER STORAGE POOL - WATERFORD  
STEAM ELECTRIC STATION, UNIT 3 (TAC NO. MB1688)

Dear Mr. Herron:

By letter dated April 2, 2001, you requested review and approval of changes to the Waterford Steam Electric Station, Unit 3, design basis as described in the Updated Final Safety Analysis Report for which it has been determined that an unreviewed safety question exists. The change concerns design requirements for the alignment of the Refueling Water Storage Pool (RWSP) boundary isolation valves to the RWSP purification system.

During the course of review of these requests, the Nuclear Regulatory Commission staff has determined that additional information is necessary to complete our review. The enclosed request for additional information (RAI) was e-mailed to your licensing staff on August 3, 2001, and discussed during a telephone call on August 9, 2001. Your staff agreed to a response within 30 days of the receipt of the RAI. If circumstances result in the need to revise the target date, please call me at the earliest opportunity.

Sincerely,

*/RA/*

N. Kalyanam, Project Manager, Section 1  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosure: As stated

cc: See next page

Waterford Generating Station 3

cc:

Administrator  
Louisiana Department of Environmental Quality  
7220 Bluebonnet Road  
P. O. Box 82135  
Baton Rouge, LA 70884

Vice President, Operations Support  
Entergy Operations, Inc.  
P. O. Box 31995  
Jackson, MS 39286

Director  
Nuclear Safety Assurance  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

Wise, Carter, Child & Caraway  
P. O. Box 651  
Jackson, MS 39205

General Manager Plant Operations  
Waterford 3 SES  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

Licensing Manager  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

Winston & Strawn  
1400 L Street, N.W.  
Washington, DC 20005-3502

Resident Inspector/Waterford NPS  
P. O. Box 822  
Killona, LA 70066-0751

Regional Administrator, Region IV  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, TX 76011

Parish President Council  
St. Charles Parish  
P. O. Box 302  
Hahnville, LA 70057

Executive Vice-President  
and Chief Operating Officer  
Entergy Operations, Inc.  
P. O. Box 31995  
Jackson, MS 39286-1995

Chairman  
Louisiana Public Services Commission  
Baton Rouge, LA 70825-1697

WATERFORD STEAM ELECTRIC STATION, UNIT 3  
REALIGNMENT OF REFUELING WATER STORAGE POOL (RWSP) BOUNDARY  
ISOLATION VALVES TO RWSP PURIFICATION SYSTEM  
REQUEST FOR ADDITIONAL INFORMATION

TAC NO. MB1688

Plant Systems Branch

- 1) Please explain how the margin of 1.29 ft. in following statement on page 7 of the submittal is derived:

"A margin exists between the actual volume available to ensure NPSH [Net Positive Suction Head] and the manufacturer's required NPSH. This NPSH margin of approximately 1.29 ft. SIS [Safety Injection Sump] level more than accounts for the combined instrument uncertainty for the RWSP water level ..... "

Also, please explain the rationale for the assumption in this paragraph stating that instrument uncertainty is implicitly accounted for in the RWSP analytical level 76.4% due to NPSH conservatism.

- 2) In Cases 1 and 3, should pipe break be assumed for non-seismic piping during a seismic event instead of pipe crack?
- 3) On page 14 of submittal regarding flooding outside containment: What is the maximum postulated leak from the RWSP Purification System piping? If pipe break should be assumed instead of pipe crack, re-evaluate flooding analysis outside containment.
- 4) On page 14 of submittal under Jet Impingement: Are there any other high energy line break effects on the RWSP Purification System to consider such as turbine missiles, etc.?
- 5) Are any other regulatory analyses (Station Black Out, Anticipated Transients Without Scram, Fire) affected by Case 1-4 scenarios?
- 6) In Cases 1 and 3, is there any impact on spent fuel pool inventory due to RWSP Purification System pipe break or crack?
- 7) On page 14 of submittal, the paragraph on flooding outside containment states: "a leak from the RWSP Purification System piping would not prohibit operation of any safety-related equipment located in the area." Please expound on why this is so.

Probabilistic Risk Analysis

On page 14 of your application, it is stated that

" the results [of the flooding analysis] indicate that a leak from the RWSP Purification System piping would not prohibit operation of any safety-related equipment located in the area."

Please provide the following :

- 1) A brief description of the approach and major assumptions (e.g., maximum postulated leak) of the flooding analysis;
- 2) A list of important safety-related equipment located in flooding areas considered in the analysis; and
- 3) A summary of the results of the flooding analysis which have formed the basis for determining that safety equipment would not be affected.

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