

March 31, 2004

Mr. Joseph E. Venable
Vice President Operations
Entergy Operations, Inc.
17265 River Road
Killona, LA 70066-0751

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 (WATERFORD 3) -
REQUEST FOR ADDITIONAL INFORMATION RELATED TO REVISION TO
FACILITY OPERATING LICENSE AND TECHNICAL SPECIFICATIONS -
EXTENDED POWER UPRATE REQUEST (TAC NO. MC1355)

Dear Mr. Venable:

By letter dated November 13, 2003, and supplemented by letters dated January 29 and March 4, 2004, Entergy Operations, Inc. proposed revisions to the Waterford 3 operating license and Technical Specifications which would allow an increase in the rated thermal power from 3,441 megawatts thermal (MWt) to 3,716 MWt.

After reviewing your request, the Nuclear Regulatory Commission staff has determined that additional information is required to complete the review. We discussed this information with your staff by telephone and they agreed to provide the additional information requested in the enclosure within 30 days of receipt of this letter.

If you have any questions, please call me at (301) 415-1480.

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: Request for Additional Information

cc w/encl: See next page

March 31, 2004

Mr. Joseph E. Venable
Vice President Operations
Entergy Operations, Inc.
17265 River Road
Killona, LA 70066-0751

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 (WATERFORD 3) -
REQUEST FOR ADDITIONAL INFORMATION RELATED TO REVISION TO
FACILITY OPERATING LICENSE AND TECHNICAL SPECIFICATIONS -
EXTENDED POWER UPRATE REQUEST (TAC NO. MC1355)

Dear Mr. Venable:

By letter dated November 13, 2003, and supplemented by letters dated January 29 and March 4, 2004, Entergy Operations, Inc. proposed revisions to the Waterford 3 operating license and Technical Specifications which would allow an increase in the rated thermal power from 3,441 megawatts thermal (MWt) to 3,716 MWt.

After reviewing your request, the Nuclear Regulatory Commission staff has determined that additional information is required to complete the review. We discussed this information with your staff by telephone and they agreed to provide the additional information requested in the enclosure within 30 days of receipt of this letter.

If you have any questions, please call me at (301) 415-1480.

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: Request for Additional Information

cc w/encl: See next page

DISTRIBUTION

PUBLIC	PDIV-1 r/f	RidsOgcRp
RidsAcrcAcnwMailCenter	RidsNrrDlpmLpdiv1 (RGramm)	RidsNrrPMNKalyanam
RidsNrrLADJohnson	RidsRgn4MailCenter (AHowell)	RDennig/RLobel
RidsNrrDlpmDpr	RidsNrrDeDpr	RidsNrrDssaDpr
RidsNrrLADBaxley		

Accession No.: ML040910239

* RAI input from the staff without any major change

OFFICE	PDIV-1/PM	PDIV-1/LA	DSSA/SPSB*	PDIV-1/SC
NAME	NKalyanam	DBaxley	RDennig/RLobel	RGramm
DATE	3/29 /04	3/29/04	3/25/04	3/30/04

OFFICIAL COPY

REQUEST FOR ADDITIONAL INFORMATION

ENTERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3 (WATERFORD 3)

DOCKET NO. 50-382

1. Verify that all input parameters to the containment peak pressure and temperature (both loss-of-coolant accident (LOCA) and main steam line break (MSLB)), minimum pressure LOCA, environmental qualification (EQ), and subcompartment analyses remain the same as those in the final safety analyses report (FSAR) except for those affected by the power uprate. For example: containment volume, heat sink descriptions, heat exchanger performance, equipment flow rates and flow temperatures, initial relative humidity, refueling water storage pool (RWSP) temperature, ultimate heat sink temperature, etc. Justify any changes made for the power uprate analyses.

2. It appears that the proposed power uprate will use the graded approach to considering instrument uncertainties for the power uprate. Please respond to the following questions concerning the graded approach.
 - (i) How are the parameters selected which will be subject to the graded approach?

 - (ii) Branch Technical Position HICB-12, "Guidance on Establishing and Maintaining Instrument Setpoints," Version 7.0, states that the licensee should consider "all known applicable uncertainties regarding setpoint application" when utilizing the graded approach. Recognizing that this position applies to instrument setpoints, nevertheless, justify the fact that the proposed use of the graded approach for containment analysis does not consider uncertainties at all for those parameters included in the graded approach. The containment analysis uses the selected parameters at their nominal values.

 - (iii) Please describe how the use of the graded approach is consistent with the Waterford 3 technical specifications (TS). For example, the RWSP temperature is listed as a parameter to which the graded approach would be applied. The TS specify a value of 100 °F. The analysis uses a value of 100 °F. How is instrument uncertainty taken into account in this case? Discuss, in general, the relationship between the Waterford 3 TSs and the graded approach used for containment analysis.

 - (iv) What assurance is there, in applying the graded approach to containment analysis, that the containment design pressure would not be exceeded if the uncertainties were included? The staff does not consider it acceptable to credit the undefined margin between the containment design pressure and the (undefined) ultimate containment failure pressure.

ENCLOSURE

3. The version of GOTHIC has been changed for the analyses in this submittal from GOTHIC 5.0 to GOTHIC 7.0.
 - (i) Please verify that the use of GOTHIC 7.0 is consistent with the conditions discussed in an NRC letter to Nuclear Management Company dated September 29, 2003, on the Kewaunee docket (NRC ADAMS Accession Number ML032681050).
 - (ii) Has a determination been made, in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.59, that prior NRC review and approval of the use of GOTHIC 7.0 for power uprate calculations is not required? Please specify the specific criteria of 10 CFR 50.59 which are satisfied to support this conclusion.
4. Verify that the same assumptions are made regarding the use of 8 percent reevaporation as in the FSAR (Page 6.2-8).
5. Verify that the MSLB break area is adjusted to provide dry steam to the containment, as described in the FSAR (Page 6.2-8).
6. Verify that the methods and assumptions for calculating the EQ envelope have not changed from those described in the FSAR.
7. Verify that net pump suction head (NPSH) calculations for the emergency core cooling system pumps and containment spray pumps have been revised and that the results are acceptable. Have the required NPSH values (NPSH_R) of these pumps been revised?
8. Please specify any differences from the FSAR in the analytic methods and assumptions used to perform the subcompartment analyses.

Waterford Steam Electric Station, Unit 3

cc:

Mr. Michael E. Henry, State Liaison Officer
Department of Environmental Quality
Permits Division
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Vice President, Operations Support
Entergy Operations, Inc.
P. O. Box 31995
Jackson, MS 39286-1995

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
& Chief Operating Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, MS 39286-1995

Chairman
Louisiana Public Services Commission
P. O. Box 91154
Baton Rouge, LA 70825-1697