

Mr. Ross P. Barkhurst
Vice President Operations
Entergy Operations, Inc.
Post Office Box B
Killona, Louisiana 70066

Dear Mr. Barkhurst:

SUBJECT: ISSUANCE OF AMENDMENT NO. 96 TO FACILITY OPERATING LICENSE
NPF-38 - WATERFORD STEAM ELECTRIC STATION, UNIT 3 (TAC NO. M88526)

The Commission has issued the enclosed Amendment No. 96 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated December 23, 1993.

The amendment changes the Appendix A Technical Specifications by changing the channel functional test to quarterly for radiation monitors, increases the time to 7 days for remaining in cold shutdown without leak testing the reactor coolant system isolation valves, changes the verification of heater capacity to each refueling outage and changes the demonstration of the emergency power supply to each refueling outage for the pressurizer heaters, and changes the test frequency of the auxiliary feedwater pumps to quarterly on a staggered basis. These changes are in accordance with the guidance in Generic Letter 93-05, "Line Item Technical Specifications Improvements To Reduce Surveillance Requirements For Testing During Power Operation".

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
Original signed by:
David L. Wigginton, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

- Enclosures:
1. Amendment No. 96 to NPF-38
2. Safety Evaluation

NRC FILE CENTER COPY

cc w/enclosures:

See next page
DISTRIBUTION

Docket File NRC/Local PDR PD4-1 Reading C. Grimes (11E22)
D. Wigginton (2) E. Adensam (13A2) W. Beckner J. Roe
P. Noonan ACRS (10) (P315) OGC (15B18) OPA (2G5)
D. Hagan G. Hill (2) A. B. Beach, RIV OC/LFMB (4503)
T. Dunning *See previous concurrence

OFC	LA:PD4-1	PM:PD4-1	OTSB*	OGC*	D:PD4-1
NAME	PNoonan	DWigginton	TDunning	CMarco	WBeckner
DATE	6/3/94	6/6/94	05/26/94	06/01/94	6/6/94
COPY	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO

OFFICIAL RECORD COPY Document Name: WAT88526.AMD

9406150278 940606
PDR ADOCK 05000382
P PDR

DF01



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Docket No. 50-382

June 6, 1994

Mr. Ross P. Barkhurst
Vice President Operations
Entergy Operations, Inc.
Post Office Box B
Killona, Louisiana 70066

Dear Mr. Barkhurst:

SUBJECT: ISSUANCE OF AMENDMENT NO. 96 TO FACILITY OPERATING LICENSE
NPF-38 - WATERFORD STEAM ELECTRIC STATION, UNIT 3 (TAC NO. M88526)

The Commission has issued the enclosed Amendment No. 96 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated December 23, 1993.

The amendment changes the Appendix A Technical Specifications by changing the channel functional test to quarterly for radiation monitors, increases the time to 7 days for remaining in cold shutdown without leak testing the reactor coolant system isolation valves, changes the verification of heater capacity to each refueling outage and changes the demonstration of the emergency power supply to each refueling outage for the pressurizer heaters, and changes the test frequency of the auxiliary feedwater pumps to quarterly on a staggered basis. These changes are in accordance with the guidance in Generic Letter 93-05, "Line Item Technical Specifications Improvements To Reduce Surveillance Requirements For Testing During Power Operation".

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Wigginton".

David L. Wigginton, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 96 to NPF-38
2. Safety Evaluation

cc w/enclosures:
See next page



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ENERGY OPERATIONS, INC.

DOCKET NO. 50-382

WATERFORD STEAM ELECTRIC STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 96
License No. NPF-38

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Energy Operations, Inc. (the licensee) dated December 23, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

9406150281 940606
PDR ADOCK 05000382
P PDR

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-38 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 96, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



William D. Beckner, Director
Project Directorate IV-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 6, 1994

Mr. Ross P. Barkhurst
Entergy Operations, Inc.

Waterford 3

cc:

Mr. William H. Spell, Administrator
Radiation Protection Division
Office of Air Quality and Nuclear Energy
Post Office Box 82135
Baton Rouge, Louisiana 70884-2135

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

Mr. Jerrold G. Dewease
Vice President, Operations
Support
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286

Resident Inspector/Waterford NPS
Post Office Box 822
Killona, Louisiana 70066

Mr. R. F. Burski, Director
Nuclear Safety
Entergy Operations, Inc.
P. O. Box B
Killona, Louisiana 70066

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

Mr. Robert B. McGehee
Wise, Carter, Child & Caraway
P.O. Box 651
Jackson, Mississippi 39205

Mr. Harry W. Keiser, Executive Vice-
President and Chief Operating Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286-1995

Mr. D. F. Packer
General Manager Plant Operations
Entergy Operations, Inc.
P. O. Box B
Killona, Louisiana 70066

Chairman
Louisiana Public Service Commission
One American Place, Suite 1630
Baton Rouge, Louisiana 70825-1697

Mr. L. W. Laughlin, Licensing Manager
Entergy Operations, Inc.
P. O. Box B
Killona, Louisiana 70066

Winston & Strawn
Attn: N. S. Reynolds
1400 L Street, N.W.
Washington, DC 20005-3502

ATTACHMENT TO LICENSE AMENDMENT NO. 96

TO FACILITY OPERATING LICENSE NO. NPF-38

DOCKET NO. 50-382

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE PAGES

3/4 3-32
3/4 3-33
3/4 4-9
3/4 4-19
3/4 7-4
3/4 7-5

INSERT PAGES

3/4 3-32
3/4 3-33
3/4 4-9
3/4 4-19
3/4 7-4
3/4 7-5

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

- ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.5.1.
- ACTION 24 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12.
- ACTION 25 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.
- ACTION 27 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:
1. Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
 2. If the monitor is not restored to OPERABLE status within 7 days after the failure, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
- ACTION 28 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, operation of the plant may continue for up to 30 days provided grab samples are taken once per 8 hours and these samples are analyzed for gross activity within 24 hours.
- If the monitor is not restored to OPERABLE status within 30 days after the failure, continue sampling and prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. AREA MONITORS				
a. Fuel Storage Pool Area Fuel Handling Building Ventilation System Isolation	S	R	Q	*
b. Containment - Purge & Exhaust Isolation	S	R	Q	1, 2, 3, 4 & **
2. PROCESS MONITORS				
a. Containment Atmosphere				
1) Gaseous Activity - RCS Leakage Detection	S	R	Q	1, 2, 3, & 4
2) Particulate Activity - RCS Leakage Detection	S	R	Q	1, 2, 3, & 4
b. Control Room Intake Monitors	S	R	Q	ALL MODES
c. Steam Generator Blowdown	S	R	Q	1, 2, 3, & 4
d. Component Cooling Water Monitors A&B	S	R	Q	ALL MODES
e. Component Cooling Water Monitor A/B	S	R	Q	1, 2, 3, & 4

*With irradiated fuel in the storage pool.

**During CORE ALTERATIONS or movement of irradiated fuel within the containment.

TABLE 4.3-3 (Continued)

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
3. EFFLUENT ACCIDENT MONITORS				
a. Containment High Range	S	R	Q	1, 2, 3, & 4
b. Plant Stack High Range	S	R	Q	1, 2, 3, & 4
c. Condenser Vacuum Pump High Range	S	R	Q	1, 2, 3, & 4
d. Fuel Handling Building Exhaust High Range	S	R	Q	1*, 2*, 3*, & 4*
e. Main Steam Line High Range	S	R	Q	1, 2, 3, & 4

*With irradiated fuel in the storage pool.

INSTRUMENTATION

INCORE DETECTORS

LIMITING CONDITION FOR OPERATION

3.3.3.2 The incore detection system shall be OPERABLE with:

- a. At least 75%* of all incore detector locations, and
- b. A minimum of two quadrant symmetric incore detector locations per core quadrant.

An OPERABLE incore detector location shall consist of a fuel assembly containing a fixed detector string with a minimum of four OPERABLE rhodium detectors.

APPLICABILITY: When the incore detection system is used for monitoring:

- a. AZIMUTHAL POWER TILT,
- b. Radial Peaking Factors,
- c. Local Power Density,
- d. DNB Margin.

ACTION:

- a. With the incore detection system inoperable, do not use the system for the above applicable monitoring or calibration functions.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.2 The incore detection system shall be demonstrated OPERABLE:

- a. By performance of a CHANNEL CHECK within 24 hours prior to its use and at least once per 7 days thereafter when required for monitoring the AZIMUTHAL POWER TILT, radial peaking factors, local power density or DNB margin:
- b. At least once per 18 months by performance of a CHANNEL CALIBRATION operation which exempts the neutron detectors but includes all electronic components. The neutron detectors shall be calibrated prior to installation in the reactor core.

*For the remainder of fuel cycle 6 the incore detection system may be considered OPERABLE with $< 75\%$ and $\geq 50\%$ of all incore locations provided that penalties are applied to the COLSS and CPCs to account for a 1% increase (from 6.92% to 7.92%) in overall uncertainty of CECOR measured planar radial peaking factors (F_{xy}) and power distributions calculated by COLSS.

REACTOR COOLANT SYSTEM

3/4.4.3 PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.3.1 The pressurizer shall be OPERABLE with:

- a. A steady-state water volume greater than or equal to 26% indicated level (350 cubic feet) but less than or equal to 62.5% indicated level (900 cubic feet), and,
- b. At least two groups of pressurizer heaters powered from Class 1E buses each having a nominal capacity of 150 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With only one group of the above required pressurizer heaters OPERABLE, restore at least two groups to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the reactor trip breakers open within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1.1 The pressurizer water volume shall be determined to be within its limit at least once per 12 hours.

4.4.3.1.2 The capacity of each of the above required groups of pressurizer heaters shall be verified to be at least 150 kW at least once each refueling interval.

4.4.3.1.3 The emergency power supply for the pressurizer heaters shall be demonstrated OPERABLE at each refueling interval by:

- a. Verifying the above pressurizer heaters are automatically shed from the emergency power sources upon the injection of an SIAS test signal.
- b. Verifying that the above heaters can be manually placed and energized on the emergency power source from the control room.

REACTOR COOLANT SYSTEM

AUXILIARY SPRAY

LIMITING CONDITION FOR OPERATION

3.4.3.2 Both auxiliary spray valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With only one of the above required auxiliary spray valves OPERABLE, restore both valves to OPERABLE status within 30 days or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With none of the above required auxiliary spray valves OPERABLE, restore at least one valve to OPERABLE status within the next 6 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.2.1 The auxiliary spray valve shall be verified to have power available to each valve every 24 hours.

4.4.3.2.2 The auxiliary spray valves shall be cycled at least once per 18 months.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- d. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours.
- e. Monitoring the reactor head flange leakoff system at least once per 24 hours.

4.4.5.2.2 Each Reactor Coolant System pressure isolation valve specified in Table 3.4-1, Section A and Section B, shall be demonstrated OPERABLE by verifying leakage to be within its limit:

- a. At least once per 18 months,
- b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 7 days or more and if leakage testing has not been performed in the previous 9 months,
- c. Prior to returning the valve to service following maintenance, repair, or replacement work on the valve,
- d. Following valve actuation for valves in Section B due to automatic or manual action or flow through the valve:
 - 1. Within 24 hours by verifying valve closure, and
 - 2. Within 31 days by verifying leakage rate.

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

4.4.5.2.3 Each Reactor Coolant System pressure isolation valve power-operated valve specified in Table 3.4-1, Section C, shall be demonstrated OPERABLE by verifying leakage to be within its limit:

- a. At least once per 18 months, and
- b. Prior to returning the valve to service following maintenance, repair, or replacement work on the valve.

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

TABLE 3.4-1

REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

SECTION A.

SI-329A	SIT Check
SI-329B	"
SI-330A	"
SI-330B	"
SI-336A	Cold Leg Injection Check
SI-336B	"
SI-335A	"
SI-335B	"
SI-510A	Hot Leg Injection Check
SI-512A	"
SI-510B	"
SI-512B	"
SI-241	HPSI Check
SI-242	"
SI-243	"
SI-244	"

SECTION B

SI-142A	LPSI Check
SI-142B	"
SI-143A	"
SI-143B	"

SECTION C POWER-OPERATED VALVES

SI-401A	SDC Suction Isolation
SI-401B	"
SI-405A	"
SI-405B	"

(a) Maximum Allowable Leakage (each valve):

1. Except as noted below, leakage rates greater than 1.0 gpm are unacceptable.
2. For power-operated valves (POVs) only, leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are acceptable if the latest measured rate has not exceeded the rate determined by the previous test by an amount that reduces the margin between previous measured leakage rate and the maximum permissible rate of 5.0 gpm by 50% or greater.
3. For power-operated valves (POVs) only, leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are unacceptable if the latest measured rate exceeded the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50% or greater.
4. Leakage rates greater than 5.0 gpm are unacceptable.

(b) To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.

(c) Minimum test differential pressure shall not be less than 200 psid.

TABLE 3.7-2

MAXIMUM ALLOWABLE LINEAR POWER LEVEL-HIGH TRIP SETPOINT WITH INOPERABLE
STEAM LINE SAFETY VALVES DURING OPERATION WITH BOTH STEAM GENERATORS

<u>MAXIMUM NUMBER OF INOPERABLE SAFETY VALVES ON ANY OPERATING STEAM GENERATOR</u>	<u>MAXIMUM ALLOWABLE LINEAR POWER LEVEL-HIGH TRIP SETPOINT (PERCENT OF RATED THERMAL POWER)</u>
1	86.8
2	69.4
3	52.1
4	34.7

PLANT SYSTEMS

EMERGENCY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three independent steam generator emergency feedwater pumps and associated flow paths shall be OPERABLE with:

- a. Two feedwater pumps, each capable of being powered from separate OPERABLE emergency busses, and
- b. One feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With one emergency feedwater pump inoperable, restore the required emergency feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With two emergency feedwater pumps inoperable be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.
- c. With three emergency feedwater pumps inoperable, immediately initiate corrective action to restore at least one emergency feedwater pump to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.7.1.2 The emergency feedwater system shall be demonstrated OPERABLE:

- a. At least once per 31 days by:
 1. Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per 92 days on a STAGGERED TEST BASIS by:
 1. Verifying that each motor-driven pump develops a discharge pressure of greater than or equal to 1298 psig on recirculation flow.
 2. Verifying that the turbine-driven pump develops a discharge pressure of greater than or equal to 1342 psig on recirculation flow when the steam generator pressure is greater than 750 psig. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 18 months during shutdown by:
 - 1. Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an emergency feedwater actuation test signal.
 - 2. Verifying that each pump starts automatically upon receipt of an emergency feedwater actuation test signal.

- d. Following any cold shutdown of 30 days or longer or whenever feed-water line cleaning through the emergency feedwater line has been performed, by verifying, by means of a flow test, the normal flow path from the condensate storage pool through each emergency feedwater pump to each of the steam generators. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 for the turbine-driven pump.

PLANT SYSTEMS

CONDENSATE STORAGE POOL

LIMITING CONDITION FOR OPERATION

3.7.1.3 The condensate storage pool (CSP) shall be OPERABLE with a contained volume of at least 82% indicated level (170,000 gallons).

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

With the condensate storage pool inoperable, within 4 hours either:

- a. Restore the CSP to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours, or
- b. Demonstrate the OPERABILITY of the wet cooling tower basins as a backup supply to the emergency feedwater pumps and restore the condensate storage pool to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.3.1 The condensate storage pool shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume is within its limits when the pool is the supply source for the emergency feedwater pumps.

4.7.1.3.2 The wet cooling tower basins shall be demonstrated OPERABLE at least once per 12 hours whenever the wet cooling tower basins are the supply source for the emergency feedwater pumps by verifying:

- a. That each automatic and/or non-automatic valve in the flow path from the wet cooling tower basins to the emergency feedwater pumps is open or OPERABLE.
- b. That the wet cooling tower basins contain a minimum contained water volume of 170,000 gallons.
- c. That both auxiliary component cooling trains required by Specification 3.7.3 are OPERABLE and in operation.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 96 TO

FACILITY OPERATING LICENSE NO. NPF-38

ENTERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3

DOCKET NO. 50-382

1.0 INTRODUCTION

By letter dated December 23, 1993, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Waterford Steam Electric Station, Unit No. 3 Technical Specifications (TSs). The proposed amendment would incorporate the line-item TS improvements that were identified by the staff of the U.S. Nuclear Regulatory Commission (NRC) as reported in NUREG-1366, "Improvements to Technical Specification Surveillance Requirements," December 1992. The TS improvements were based on an NRC study of surveillance requirements and included information provided by licensee personnel that plan, manage, and perform surveillances. The study included insights from a qualitative risk assessment of surveillance requirements based on the standard TSs for Westinghouse plants and the TSs for the Edwin I. Hatch Nuclear Plant, Unit 2. The staff examined operational data from licensee event reports, the nuclear plant reliability data system (NPRDS), and other sources to assess the effect of TS surveillance requirements on plant operation. The staff evaluated the effect of longer surveillance intervals to reduce the possibility for plant transients, wear on equipment, personnel radiation exposure, and burden on personnel resources. Finally, the staff considered surveillance activities for which the safety benefits are small and not justified when compared to the effects of these activities on the safety of personnel and the plant. The NRC staff issued guidance on the proposed TS changes to all holders of operating licenses or construction permits for nuclear power reactors in Generic Letter (GL) 93-05, "Line Item Technical Specifications Improvements To Reduce Surveillance Requirements For Testing During Power Operation" dated September 27, 1993.

2.0 EVALUATION

The licensee proposed the modifications to the TS surveillance requirements as discussed below.

(1) Quarterly Surveillance Intervals

The surveillance intervals for the following specifications were changed from monthly to quarterly:

TS Table 4.3-3 for the radiation monitoring instrumentation to perform channel functional tests for all functional units. This change is in verbatim compliance with the GL and is based on the licensee's findings that the change is supported by operational experience. Therefore, this change is acceptable.

TS 4.7.1.2 for auxiliary feedwater pumps to perform tests to verify the specified discharge pressure. These tests to verify the specified discharge pressure were also modified to specify that they are to be performed on a staggered test basis. The GL also addressed the change in test frequency for the head-flow operating point, however, Waterford does not have this requirement in the TS since the system has a fixed orifice in the pump recirculation lines which controls flow such that it is not subject to variation. This arrangement was approved at the time of original licensing. The staff has reviewed the licensee's proposed changes (including some reformatting changes) and because the proposed revisions are supported by operational experience, this change is acceptable.

(2) Pressurizer Heater Testing

TS 4.4.3.1 was modified by changing the frequency of testing of pressurizer heaters for systems without dedicated safety-related pressurizer heaters to once each refueling interval. Waterford does not have dedicated safety-related pressurizer heaters and in accordance with the staff's recommendation in NUREG-1366, the proposed change modifies the surveillance requirement test frequency for heater capacity, TS 4.4.3.1.2, from "per 92 days" to "each refueling interval". A redundant group of pressurizer proportional heaters and three redundant groups of backup heaters are available to be placed manually on the emergency diesel generator after a loss of offsite power. The TS for emergency power supply, TS 4.4.3.1.3, is also proposed to be changed from "at least once per 18 months" to "at each refueling interval". These changes are consistent with the GL and the proposed revisions are supported by operational experience. Therefore, these changes are acceptable.

(3) Reactor Coolant System (RCS) Leakage

TS 4.4.5.2.2.b was modified by replacing 72 hours with 7 days for the time that the unit has been in cold shutdown to indicate when each pressure isolation valve must be demonstrated operable. This test is performed by verifying leakage to be within its limits before entering Mode 2 if leakage testing has not been performed in the previous 9 months. The basis for this change is that this surveillance has a potential for causing problems resulting from a hurried recovery, and extending the interval does not significantly alter the associated risk. The licensee has performed an evaluation and has determined that this change is compatible with operating experience. These changes are, therefore acceptable.

The proposed TS modifications are consistent with the guidance provided in GL 93-05. This guidance is based on the NRC staff findings and recommendations stated in NUREG-1366. In addition, the licensee states that the proposed TS changes are compatible with plant operating experience. The staff concludes that the proposed TS changes do not adversely affect plant safety and will result in a net benefit to the safe operation of the facility and, therefore, are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Louisiana State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (59 FR 7689). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: T. G. Dunning, OTSB
D. L. Wigginton, PDIV-1

Date: June 6, 1994