

Mr. Charles M. Dugger
Vice President Operations
Entergy Operations, Inc.
P. O. Box B
Killona, LA 70066

April 9, 1997

SUBJECT: ISSUANCE OF AMENDMENT NO. 124 TO FACILITY OPERATING LICENSE
NPF-38 - WATERFORD STEAM ELECTRIC STATION, UNIT 3 (TAC NO. M97378)

Dear Mr. Dugger:

The Commission has issued the enclosed Amendment No. 124 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3 (WAT-3). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated December 2, 1996 as supplemented by letters dated February 4 and March 14, 1997.

The amendment changes the TSs to reflect the adoption by the licensee of the Containment Leakage Rate Testing Program specified in 10 CFR Part 50, Appendix J, Option B for WAT-3. Implementation of the performance-based leakage rate testing program will be based on the guidance provided by Regulatory Guide 1.163, "Performance-Based Containment Leak Test Program," dated September 1995.

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:

Chandu P. Patel, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

140043

Docket No. 50-382

Enclosures: 1. Amendment No. 124 to NPF-38
2. Safety Evaluation

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

April 10, 1997

Mr. Charles M. Dugger
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Killona, LA 70066

SUBJECT: ISSUANCE OF AMENDMENT NO. 124 TO FACILITY OPERATING LICENSE
NPF-38 - WATERFORD STEAM ELECTRIC STATION, UNIT 3 (TAC NO. M97378)

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The amendment changes the TSs to reflect the adoption by the licensee of the Containment Leakage Rate Testing Program specified in 10 CFR Part 50, Appendix J, Option B for WAT-3. Implementation of the performance-based leakage rate testing program will be based on the guidance provided by Regulatory Guide 1.163, "Performance-Based Containment Leak Test Program," dated September 1995.

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,

Chandu P. Patel

Chandu P. Patel, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosures: 1. Amendment No. 124 to NPF-38
2. Safety Evaluation

cc w/encls: See next page

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Waterford 3

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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. 124
License No. NPF-38

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Operations, Inc. (the licensee) dated December 2, 1996 as supplemented by letters dated February 4 and March 14, 1997, 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.

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. 124, 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 to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Chandu P. Patel

Chandu P. Patel, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: April 10, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 124

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.

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3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.
- c. After each closing of each penetration subject to Type B testing, except containment air locks, if opened following a Type A or B test, by leak rate testing the seal in accordance with the Containment Leakage Rate Testing Program.

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be in accordance with the Containment Leakage Rate Testing Program.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With containment leakage rate not within limits, restore containment leakage rates to within limits prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be determined in accordance with the Containment Leakage Rate Testing Program.

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WATERFORD - UNIT 3

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CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one containment air lock door inoperable:
 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days.
 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 4. The provisions of Specification 3.0.4 are not applicable.
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. By verifying seal leakage in accordance with the Containment Leakage Rate Testing Program,
- b. By conducting overall air lock leakage tests in accordance with the Containment Leakage Rate Testing Program.
- c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time.

CONTAINMENT SYSTEMS

AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.1.5 Primary containment average air temperature shall not exceed 120 °F.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the containment average air temperature greater than 120 °F, reduce the average air temperature to within the limit within 8 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.5 The primary containment average air temperature shall be the arithmetical average of the temperatures at any three of the following locations and shall be determined at least once per 24 hours:

Location

- a. Containment Fan Cooler No. 1A Air Intake
- b. Containment Fan Cooler No. 1B Air Intake
- c. Containment Fan Cooler No. 1C Air Intake
- d. Containment Fan Cooler No. 1D Air Intake

CONTAINMENT SYSTEMS

CONTAINMENT VESSEL STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.6 The structural integrity of the containment vessel shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the structural integrity of the containment vessel not conforming to the above requirements, restore the structural integrity to within the limits prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.6 The structural integrity of the containment vessel shall be determined during the shutdown for each Type A containment leakage rate test and at the intervals as specified in the Containment Leakage Rate Testing Program by a visual inspection of the exposed accessible interior and exterior surfaces of the vessel and verifying no apparent changes in appearance of the surfaces or other abnormal degradation in accordance with the Containment Leakage Rate Testing Program.

CONTAINMENT SYSTEMS

CONTAINMENT VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.7 Each containment purge supply and exhaust isolation valve (CAP 103, CAP 104, CAP 203, and CAP 204) shall be OPERABLE and may be open at no greater than the 52° open position allowed by the mechanical stop for less than 90 hours per 365 days.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With a containment purge supply and/or exhaust isolation valve(s) open for greater than or equal to 90 hours per 365 days at any open position, close the open valve(s) or isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With a containment purge supply and/or exhaust isolation valve(s) having a measured leakage rate exceeding the limits of Surveillance Requirement 4.6.1.7.2, restore the inoperable valve(s) to OPERABLE status within 24 hours, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.7.1 The cumulative time that the purge supply or exhaust isolation valves are open during the past 365 days shall be determined at least once per 7 days.

4.6.1.7.2 At least once per 3 months each containment purge supply and exhaust isolation valve with resilient material seals shall be demonstrated OPERABLE in accordance with the Containment Leakage Rate Testing Program.

4.6.1.7.3 Each containment purge supply and exhaust isolation valve shall be demonstrated OPERABLE during each COLD SHUTDOWN exceeding 24 hours by verifying that the mechanical stops limit the valve opening to a position < 52° open.

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent containment spray systems shall be OPERABLE with each spray system capable of taking suction from the RWSP on a containment spray actuation signal and automatically transferring suction to the safety injection system sump on a recirculation actuation signal. Each spray system flow path from the safety injection system sump shall be via an OPERABLE shutdown cooling heat exchanger.

APPLICABILITY: MODES 1, 2, 3, and 4*.

ACTION:

With one containment spray system inoperable, restore the inoperable spray system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable spray system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the water level in the containment spray header riser is > 149.5 feet MSL elevation.
- b. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is correctly positioned to take suction from the RWSP.
- c. By verifying, that on recirculation flow, each pump develops a total head of greater than or equal to 219 psid when tested pursuant to Specification 4.0.5.
- d. At least once per 18 months, during shutdown, by:
 1. Verifying that each automatic valve in the flow path actuates to its correct position on a CSAS test signal.

*With Reactor Coolant System pressure > 400 psia.

3/4.6 CONTAINMENT SYSTEMS

BASES

3/4.6.1 PRIMARY CONTAINMENT

3/4.6.1.1 CONTAINMENT INTEGRITY

Primary CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with the leakage rate limitation, will limit the SITE BOUNDARY radiation doses to within the limits of 10 CFR Part 100 during accident conditions.

3/4.6.1.2 CONTAINMENT LEAKAGE

The limitations on containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the safety analyses at the peak accident pressure, P_a . As an added conservatism, the measured overall integrated leakage rate is further limited to $\leq 0.75 L_a$ during the performance of the periodic Type A tests to account for possible degradation of the containment leakage barriers between leakage tests. Also, the summation of penetration leakages measured during Type B and C testing is limited to $0.6 L_a$. At all other times between required leakage rate tests, overall containment leakage is limited to L_a . The maximum allowable containment leakage rate, L_a , is 0.5 % by weight of the containment air per 24 hours at the design basis accident pressure, P_a , of 44 psig.

The surveillance requirements for measuring leakage rates are consistent with the requirements of 10 CFR 50, Appendix J, Option B, and leakage rate testing is performed in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program". Leakage rate testing is conducted periodically as specified in the Containment Leakage Rate Testing Program.

The periodic performance of Type A, B and C tests verifies that the containment leakage rate does not exceed the levels assumed in the safety analyses.

Secondary containment bypass leakage paths previously identified in Table 3.6-1 are now identified in the Technical Requirements Manual.

3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on CONTAINMENT INTEGRITY and containment leak rate. Surveillance testing of the air lock seals provides assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

CONTAINMENT SYSTEMS

BASES

3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that (1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the annulus atmosphere of 0.65 psid, (2) the containment peak pressure does not exceed the design pressure of 44 psig during either LOCA or steam line break conditions, and (3) the minimum pressure of the ECCS performance analysis (BTP CSB 61) is satisfied.

The maximum peak pressure expected to be obtained from an MSLB event is 42.3 psig. The limit for initial positive containment pressure of +27 inches water (approximately 1.0 psig) will limit the total pressure to less than 44 psig which is less than the design pressure and is consistent with the safety analyses. The limit for initial positive containment pressure includes a correction of 1.20 inches water for possible instrument error and an additional 6.8 inches water for conservatism.

The limit of 14.375 psia for initial negative containment pressure ensures that the minimum containment pressure is consistent with the ECCS performance analysis ensuring core reflood under LOCA conditions.

3/4.6.1.5 AIR TEMPERATURE

The limitation on containment average air temperature ensures that the containment peak air temperature does not exceed the design temperature of 269.3°F during LOCA conditions and 413.5°F during MSLB conditions and is consistent with the safety analyses.

3/4.6.1.6 CONTAINMENT VESSEL STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment steel vessel will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to ensure that the vessel will withstand the maximum pressure of 43.76 psig in the event of a main steam line break accident. A visual inspection in conjunction with Type A leakage test is sufficient to demonstrate this capability.

3/4.6.1.7 CONTAINMENT VENTILATION SYSTEM

The use of the containment purge valves is restricted to 90 hours per year in accordance with Standard Review Plan 6.2.4 for plants with the Safety Evaluation Report for the Construction License issued prior to July 1, 1975. The purge valves have been modified to limit the opening to approximately 52° to ensure the valves will close during a LOCA or MSLB; and therefore, the SITE BOUNDARY doses are maintained within the guidelines of 10 CFR Part 100. The purge valves, as modified, comply with all provisions of BTP CSB 6-4 except for the recommended size of the purge line for systems to be used during plant operation.

PROCESS CONTROL PROGRAM (Continued)

2. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.
- b. Shall become effective after review and acceptance by the PORC and the approval of the Plant Manager.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 The ODCM shall be approved by the Commission prior to implementation.

6.14.2 Licensee-initiated changes to the ODCM:

- a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.3p. This document shall contain:
 1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
 2. A determination that the change will maintain the level of radioactive effluent control required pursuant to 10 CFR 20.1302, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose or setpoint calculations.
- b. Shall become effective after review and acceptance by the PORC and the approval of the Plant Manager.
- c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

6.15 CONTAINMENT LEAKAGE RATE TESTING PROGRAM

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995.

The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a , is 44 psig.

The maximum allowable containment leakage rate, L_a , is 0.5% of containment air weight per day at P_a .

CONTAINMENT LEAKAGE RATE TESTING PROGRAM (Continued)

Leakage rate acceptance criteria are:

- a. Containment leakage rate acceptance criteria is $\leq 1.0 L_a$. During the first unit startup following each test performed in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60 L_a$ for the Type B and Type C tests and $\leq 0.75 L_a$ for Type A tests.
- b. Air lock acceptance criteria are:
 1. Overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$.
 2. Leakage rate for each door is $\leq 0.01 L_a$ when pressurized to ≥ 10 psig.
- c. Combined bypass leakage rate acceptance criteria is $\leq 0.06 L_a$ when tested at $\geq P_a$.
- d. Containment purge valves with resilient seals acceptance criteria is $\leq 0.06 L_a$ when tested at $\geq P_a$.

The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of Specification 4.0.3 are applicable to the Containment Leakage Rate Testing Program.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 124 TO

FACILITY OPERATING LICENSE NO. NPF-38

ENTERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3

DOCKET NO. 50-382

1.0 INTRODUCTION

On September 12, 1995, the U.S. Nuclear Regulatory Commission (NRC) approved issuance of a revision to 10 CFR Part 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors" which was subsequently published in the Federal Register on September 26, 1995, and became effective on October 26, 1995. The NRC added Option B, "Performance-Based Requirements," to allow licensees to voluntarily replace the prescriptive testing requirements of 10 CFR Part 50, Appendix J, with testing requirements based on both overall performance and the performance of individual components.

By application dated December 2, 1996 as supplemented by letters dated February 4 and March 14, 1997, Entergy Operations, Inc. (the licensee), submitted a request for changes to the Waterford Steam Electric Station, Unit 3 (WAT-3), Technical Specifications (TSs). The proposed TS changes would permit implementation of 10 CFR Part 50, Appendix J, Option B, and reference Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak Test Program," dated September 1995, which specifies a method acceptable to the NRC for complying with Option B.

The February 4 and March 14, 1997, letters provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

Compliance with 10 CFR Part 50, Appendix J, provides assurance that the primary containment, including those systems and components which penetrate the primary containment, do not exceed the allowable leakage rate specified in the TS and Bases. The allowable leakage rate is determined so that the leakage rate assumed in the safety analyses is not exceeded.

On February 4, 1992, the NRC published a notice in the Federal Register (57 FR 4166) discussing a planned initiative to begin eliminating requirements

marginal to safety which impose a significant regulatory burden. 10 CFR Part 50, Appendix J, "Primary Containment Leakage Testing for Water-Cooled Power Reactors," was considered for this initiative and the staff undertook a study of possible changes to this regulation. The study examined the previous performance history of domestic containments and examined the effect on risk of a revision to the requirements of Appendix J. The results of this study are reported in NUREG-1493, "Performance-Based Leak-Test Program".

Based on the results of this study, the staff developed a performance-based approach to containment leakage rate testing. On September 12, 1995, the NRC approved issuance of this revision to 10 CFR Part 50, Appendix J, which was subsequently published in the Federal Register on September 26, 1995, and became effective on October 26, 1995. The revision added Option B, "Performance-Based Requirements" to Appendix J to allow licensees to voluntarily replace the prescriptive testing requirements of Appendix J with testing requirements based on both overall and individual component leakage rate performance.

RG 1.163 was developed as a method acceptable to the NRC staff for implementing Option B. This RG states that the Nuclear Energy Institute (NEI) guidance document NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," provides methods acceptable to the NRC staff for complying with Option B with four exceptions which are described therein.

Option B requires that the RG or other implementation document used by a licensee to develop a performance-based leakage rate testing program must be included, by general reference, in the plant TS. The licensee has referenced RG 1.163 in the proposed WAT-3 TS.

RG 1.163 specifies an extension in Type A test frequency to at least one test in 10 years based upon two consecutive successful tests. Type B tests may be extended up to a maximum interval of 10 years based upon completion of two consecutive successful tests and Type C tests may be extended up to 5 years based on two consecutive successful tests.

By letter dated October 20, 1995, NEI proposed TS to implement Option B. After some discussion, the staff and NEI agreed on final TS which were transmitted to NEI in a letter dated November 2, 1995. These TS are to serve as a model for licensees to develop plant-specific TS in preparing amendment requests to implement Option B.

In order for a licensee to determine the performance of each component, factors that are indicative of or affect performance, such as an administrative leakage limit, must be established. The administrative limit is selected to be indicative of the potential onset of component degradation. Although these limits are subject to NRC inspection to assure that they are selected in a reasonable manner, they are not TS requirements. Failure to meet an administrative limit requires the licensee to return to the minimum value of the test interval.

Option B requires that the licensee maintain records to show that the criteria for Type A, B and C tests have been met. In addition, the licensee must maintain comparisons of the performance of the overall containment system and the individual components to show that the test intervals are adequate. These records are subject to NRC inspection.

3.0 EVALUATION

The licensee's December 2, 1996, letter to the NRC proposes to establish a "Primary Containment Leakage Rate Program" and proposes to add this program to the technical specifications. The program references RG 1.163 which specifies methods acceptable to the staff for complying with Option B. This requires a change to TS 3/4.6.1.1, "Containment Integrity," 3/4.6.1.2, "Containment Leakage," 3/4.6.1.3, "Containment Air Locks," 3/4.6.1.6, "Containment Vessel Structural Integrity," and 3/4.6.1.7, "Containment Ventilation System," and adds Specification 6.15, "Containment Leakage Rate Testing Program," to implement the performance-based leakage rate testing program as permitted by 10 CFR Part 50, Appendix J, Option B.

Option B permits a licensee to choose Type A; or Type B and C; or Type A, B and C; testing to be done on a performance basis. The licensee has elected to perform Type A, B and C testing on a performance basis.

The staff has reviewed the licensee's proposed TS changes and finds them consistent with the requirements of 10 CFR Part 50, Appendix J, Option B, in that the changes include general reference in the TS to the regulatory guide used by the licensee to develop the performance-based leakage-testing program for WAT-3. The staff has also compared the proposed TS with the model TS in the November 2, 1995, letter to NEI, and finds them to be consistent with the intent of the model TS, with several exceptions, noted below.

3.1 EXCEPTION TO THE MODEL TS GUIDANCE

3.1.1 Containment Integrity

TS 3.6.1.1 action statement requires containment integrity to be restored within 1 hour or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours. The Model uses 1 hour, 12 hours, and 36 hours. This difference is due to the Model being written to the Improved TS and the licensee using the Standard TS. This is not a deviation from Option B, but a difference between the Standard TS and the Model TS. The licensee's ACTION is more conservative than the Model and is therefore, acceptable.

Surveillance Requirements (SRs) 4.6.1.1.a and 4.6.1.1.b are retained as these are requirements outside of Option B and should be retained in the TS. The annotation for SR 4.6.1.1.a is likewise applicable to the licensee's current format. While the proposed format is somewhat different from the Model, it preserves the structure of the current TS and is consistent with RG 1.163 and is, therefore, acceptable.

3.1.2 Containment Leakage

TS 3.6.1.2, action statement requires that with containment leakage rates not within limits, restore the leakage rates to within the limits "prior to increasing the reactor coolant temperature above 200°F." The licensee desires to maintain this wording, since most leak rate tests are performed while shutdown. Model TS 3.6.1.1 requires returning containment to operable condition within 1 hour, or placing the unit in hot shutdown within 12 hours and cold shutdown within 36 hours. While the Model TSs correct a deficiency in the current TS, which does not recognize that containment leakage rates can be determined during plant operation (Modes 1 through 4), keeping the current TSs ACTION is still adequately restrictive. This is because limiting condition for operation (LCO) 3.0.3 of the current TSs, which is entered when an ACTION of a particular TS cannot be entered because of circumstances in excess of those addressed in the TS, would apply if leakage were determined to be exceeded during plant operations. LCO 3.0.3 requires initiating action within 1 hour to place the unit in hot standby in 6 hours, in hot shutdown in the next 6 hours, and in cold shutdown within the next 24 hours. The required actions in the licensee's current TSs are more conservative than the Model TSs, therefore, the proposed changes are acceptable.

Additionally, the specific value for bypass leakage has been moved to the Administrative Controls section of the TS, consistent with other specific values listed for containment leakage and air lock leakage.

3.1.3 Containment Air Locks

TS 3.6.1.3, Containment Air Locks (which is TS 3.6.1.2 in the Model), is essentially equivalent to the Model, with changes due to differences in format and ACTION times between the licensee's current TS and the Model. LCO 3.6.1.3.a is equivalent to Note 1 of the Model and also addresses normal entry and exit. LCO 3.6.1.3.b defines operability as including overall air lock leakage for consistency with the current TS and is equivalent to the Model, which contains this as a SR. ACTION a1 and a2 are equivalent to the Model with only a format change to the licensee's current TS. ACTION a3 for a containment air lock door is more conservative than that in the Model by 6 hours. ACTION a4 is retained consistent with License Amendment 99 (see Safety Evaluation Report dated September 20, 1994). ACTION b is more conservative than the Model by 6 hours. The SRs are the same as the Model with the exception of the seal leakage and overall leakage being two separate requirements. The Model has within TS 3.6.1.3 a Note to evaluate leak rate testing against the criteria applicable to TS 3.6.1.1, whereas the licensee's proposal references the requirements of TS 3.6.1.3 in SR 4.6.1.1. The required actions and SRs in the licensee's TSs are either equivalent or more conservative than the Model TSs, therefore the proposed changes are acceptable.

3.1.4 Containment Vessel Structural Integrity

SR 4.6.1.6, which requires visual examination of the accessible interior and exterior surfaces of containment is being revised to reference the Containment Leakage Rate Testing Program and delete the Special Report, which is no longer required by Option B. Note that the reporting requirements of 10CFR50.72 and 10CFR50.73 are still applicable. While the proposed format is somewhat different than the Model TSs, it preserves the structure of the current TSs and is consistent with RG 1.163, therefore, the proposed change is acceptable.

3.1.5 Containment Ventilation System

TS 3.6.1.7 for the containment purge isolation valves is contained in the Model as part of TS 3.6.1.3. The differences between the licensee's proposal and the Model essentially involve special testing required after the performance of limited purges at power. This accounts for the licensee's requirements for verifying cumulative open time in SR 4.6.1.7.1 and mechanical stop position in the LCO and SR 4.6.1.7.3. ACTION a is required for this capacity and therefore is being retained in the TS. ACTION b is more conservative than the Model in that the option of continuing to operate with excessive leakage by use of a deactivated valve has not been incorporated into the licensee's proposal. Additionally, the completion times for required actions in the licensee's proposal are more conservative by 6 hours. The required frequency of 3 months for SR 4.6.1.7.2 is being retained rather than adopting the frequency of 184 days or within 92 days of opening the valves as specified in the Model. Since the licensee's proposal maintains previously approved features, and either conforms to or is more conservative than the Model, the proposed change is acceptable.

3.1.6 Containment Leakage Rate Testing Program

The proposal for the Administrative Controls section of the licensee's TS was amended to add the limits for containment bypass leakage and containment purge valves with resilient seals. These limits are in the current TS, and are merely being moved to the Administrative Controls consistent with other limits in the current TS and are, therefore, acceptable.

3.1.7 Containment Leakage Bases

The Bases for TS 3/4.6.1.2 were modified to explain the leakage acceptance criteria and change the plant procedure number referenced for bypass leakage to the Technical Requirements Manual. In addition, a reference to Option B of 10 CFR Part 50, Appendix J, and Regulatory Guide 1.163 were added for clarity. Although the licensee's current Bases contains significantly less information than the Model Bases the staff found the additional information added acceptable.

3.2 SUMMARY

In summary, the staff has reviewed the changes to the TS and associated Bases proposed by the licensee and finds that they are in compliance with the requirements of Appendix J, Option B, and are consistent with the guidance of Regulatory Guide 1.163, and finds them to be consistent with the intent of the model TS except as noted above, and are therefore, acceptable.

4.0 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.

5.0 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 (62 FR 2189). 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.

6.0 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.

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