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

April 25, 2012

Vice President, Operations
Entergy Operations, Inc.
Waterford Steam Electric Station, Unit 3
17265 River Road
Killona, LA 70057-3093

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - ISSUANCE OF AMENDMENT RE: REQUEST TO REVISE THE TECHNICAL SPECIFICATIONS BASED UPON A REVISED FUEL HANDLING ACCIDENT ANALYSIS (TAC NO. ME6049)

Dear Sir or Madam:

The Commission has issued the enclosed Amendment No. 235 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated April 13, 2011.

The TS change is a result of a revised Fuel Handling Accident analysis which determined that the current TSs may not be conservative for all scenarios. The amendment provides new applicability and/or action language that include load movements over irradiated fuel assemblies.

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

Sincerely,

N. Kalyanam, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosures:
1. Amendment No. 235 to NPF-38
2. Safety Evaluation

cc w/encls: Distribution via Listserv

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

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-382

WATERFORD STEAM ELECTRIC STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 235
License No. NPF-38

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Entergy Operations, Inc. (EOI), dated April 13, 2011, 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. 235, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. EOI 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 and shall be implemented within 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael T. Markley, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility Operating
License No. NPF-38 and
Technical Specifications

Date of Issuance: April 25, 2012

ATTACHMENT TO LICENSE AMENDMENT NO. 235

TO FACILITY OPERATING LICENSE NO. NPF-38

DOCKET NO. 50-382

Replace the following pages of the Facility Operating License and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Operating License

REMOVE	INSERT
-4-	-4-

Technical Specifications

REMOVE	INSERT
3/4 3-29	3/4 3-29
3/4 3-32	3/4 3-32
3/4 7-16	3/4 7-16
3/4 7-16a	3/4 7-16a
3/4 7-18a	3/4 7-18a
3/4 7-18b	3/4 7-18b
3/4 8-8	3/4 8-8
3/4 8-12	3/4 8-12
3/4 8-15	3/4 8-15
3/4 9-3	3/4 9-3
3/4 9-4	3/4 9-4
3/4 9-7	3/4 9-7

or indirectly any control over (i) the facility, (ii) power or energy produced by the facility, or (iii) the licensees of the facility. Further, any rights acquired under this authorization may be exercised only in compliance with and subject to the requirements and restrictions of this operating license, the Atomic Energy Act of 1954, as amended, and the NRC's regulations. For purposes of this condition, the limitations of 10 CFR 50.81, as now in effect and as they may be subsequently amended, are fully applicable to the equity investors and any successors in interest to the equity investors, as long as the license for the facility remains in effect.

(b) Entergy Louisiana, LLC (or its designee) to notify the NRC in writing prior to any change in (i) the terms or conditions of any lease agreements executed as part of the above authorized financial transactions, (ii) any facility operating agreement involving a licensee that is in effect now or will be in effect in the future, or (iii) the existing property insurance coverages for the facility, that would materially alter the representations and conditions, set forth in the staff's Safety Evaluation enclosed to the NRC letter dated September 18, 1989. In addition, Entergy Louisiana, LLC or its designee is required to notify the NRC of any action by equity investors or successors in interest to Entergy Louisiana, LLC that may have an effect on the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

1. Maximum Power Level

EOI is authorized to operate the facility at reactor core power levels not in excess of 3716 megawatts thermal (100% power) in accordance with the conditions specified herein.

2. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 235, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. EOI shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
	a. Deleted					
	b. Containment - Purge & Exhaust Isolation	1/train	1, 2, 3, 4 & **	40 mR/h or $\leq$ 2x background whichever is Higher	20 - 5×10^5 mR/h	25
2.	PROCESS MONITORS					
	a. DELETED					
	b. Control Room Intake Monitors	1/intake	ALL MODES & ***	$\leq 5.45 \times 10^{-6}$ µCi/cc	10^{-8} - 10^{-2} µCi/cc	26
	c. Steam Generator Blowdown Monitor	1	1, 2, 3, & 4	$\leq 10^{-3}$ µCi/cc	10^{-6} - 10^{-1} µCi/cc	28
	d. Component Cooling Water Monitors A&B	1/line	ALL MODES	$\leq 10^{-4}$ µCi/cc	10^{-7} - 10^{-2} µCi/cc	28
	e. Component Cooling Water Monitor A/B	1	1, 2, 3, & 4	$\leq 10^{-4}$ µCi/cc	10^{-7} - 10^{-2} µCi/cc	28

*Deleted
**During CORE ALTERATIONS or load movements with or over irradiated fuel within the containment.
***During load movements with or over irradiated fuel.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. AREA MONITORS				
a. Deleted				
b. Containment - Purge & Exhaust Isolation	S	R	Q	1, 2, 3, 4 & **
2. PROCESS MONITORS				
a. DELETED				
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

*Deleted
**During CORE ALTERATIONS or load movements with or over irradiated fuel within the containment.
***During load movements with or over irradiated fuel.

3/4.7.6 CONTROL ROOM AIR CONDITIONING SYSTEM

CONTROL ROOM EMERGENCY AIR FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6.1 Two control room emergency air filtration trains (S-8) shall be OPERABLE. (Note 1)

APPLICABILITY: MODES 1, 2, 3, 4, 5, and 6
During load movements with or over irradiated fuel assemblies.

ACTION:

a. With one control room emergency air filtration train inoperable for reasons other than ACTION b, restore the inoperable train to OPERABLE status within 7 days.

b. With one or more control room emergency air filtration trains inoperable due to inoperable control room envelope boundary in MODES 1, 2, 3, or 4, then perform the following:

   1. Immediately initiate action to implement mitigating actions; and
   2. Within 24 hours, verify mitigating actions ensure control room envelope occupant exposures to radiological, chemical, and smoke hazards will not exceed limits; and
   3. Within 90 days, restore the control room envelope boundary to OPERABLE status.

c. If the required ACTION and associated allowable outage times of ACTION a or b are not met in MODES 1, 2, 3, or 4, then be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. If the required ACTION and the associated allowable outage time of ACTION a is not met in MODES 5 or 6, or during load movements with or over irradiated fuel assemblies, then perform the following:

   1. Immediately place OPERABLE control room emergency air filtration train in emergency radiation protection mode (or toxic gas protection mode if automatic transfer to toxic gas protection mode is inoperable); or
   2. Immediately suspend load movements with or over irradiated fuel assemblies and operations involving CORE ALTERATIONS.

ACTION (Continued):

e. With one or more control room emergency air filtration trains inoperable due to an inoperable control room envelope boundary in MODES 5 or 6, or during load movements with or over irradiated fuel assemblies, immediately suspend load movements with or over irradiated fuel assemblies and operations involving CORE ALTERATIONS.

f. With two control room emergency air filtration trains inoperable in MODES 1, 2, 3, or 4 for reasons other than ACTION b, immediately enter LCO 3.0.3.

g. With two control room emergency air filtration trains inoperable in MODES 5 and 6 or during load movements with or over irradiated fuel assemblies, immediately suspend load movements with or over irradiated fuel assemblies and operations involving CORE ALTERATIONS.

SURVEILLANCE REQUIREMENTS

4.7.6.1 Each control room air filtration train (S-8) shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 continuous hours with the heaters on.

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

1. Verifying that the filtration train satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 4225 cfm ±10%.

Note 1: The control room envelope (CRE) boundary may be opened intermittently under administrative control.

CONTROL ROOM AIR TEMPERATURE - OPERATING

LIMITING CONDITION FOR OPERATION

3.7.6.3 Two independent control room air conditioning units shall be OPERABLE.

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

ACTION:

a. With one control room air conditioning unit inoperable, restore the inoperable unit to OPERABLE status within 7 days or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With two control room air conditioning units inoperable, return one unit to an OPERABLE status within 1 hour or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.6.3 Each control room air conditioning unit shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the operating control room air conditioning unit is maintaining average control room air temperature less than or equal to 80°F.

b. At least quarterly, if not performed within the last quarter, by verifying that each control room air conditioning unit starts and operates for at least 15 minutes.

*During load movements with or over irradiated fuel assemblies, TS 3.7.6.4 is also applicable.

CONTROL ROOM AIR TEMPERATURE - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.7.6.4 Two independent control room air conditioning units shall be OPERABLE.

APPLICABILITY: MODES 5 and 6, and during load movements with or over irradiated fuel assemblies.

ACTION:

a. With one control room air conditioning unit inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room air conditioning unit.

b. With both control room air conditioning units inoperable, or with the OPERABLE control room air conditioning unit, required to be in operation by ACTION a, not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS and load movements with or over irradiated fuel assemblies.

SURVEILLANCE REQUIREMENTS

4.7.6.4 The control room air conditioning units shall be demonstrated OPERABLE per the Surveillance Requirements of 4.7.6.3.

ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator with:

   1. A diesel oil feed tank containing a minimum volume of 339 gallons of fuel, and

   2. The diesel fuel oil storage tanks, and

   3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, or load movements with or over irradiated fuel. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the top of the fuel seated in the reactor pressure vessel, immediately initiate corrective action to restore the required sources to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 (except for Surveillance Requirement 4.8.1.1.2a.5.)

LIMITING CONDITION FOR OPERATION

3.8.2.2 As a minimum, one 125-volt battery bank (3A-S or 3B-S) and one associated full capacity charger shall be OPERABLE.

APPLICABILITY: MODES 5 and 6.

ACTION:

a. With the required battery bank inoperable, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration or load movements with or over irradiated fuel; initiate corrective action to restore the required battery bank to OPERABLE status as soon as possible.

b. With the required full capacity charger inoperable, demonstrate the OPERABILITY of its associated battery bank by performing Surveillance Requirement 4.8.2.1a.1. within 1 hour, and at least once per 8 hours thereafter. If any Category A limit in Table 4.8-2 is not met, declare the battery inoperable.

SURVEILLANCE REQUIREMENTS

4.8.2.2 The above required 125-volt battery bank and charger shall be demonstrated OPERABLE per Surveillance Requirement 4.8.2.1.

ELECTRICAL POWER SYSTEMS

ONSITE POWER DISTRIBUTION

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.3.2 As a minimum, the following electrical busses shall be energized in the specified manner:

a. One division of A.C. ESF busses consisting of one 4160 volt and one 480-volt A.C. ESF bus (3A3-S and 3A31-S or 3B3-S and 3B31-S).

b. Two 120-volt A.C. SUPS busses energized from their associated inverters connected to their respective D.C. busses (3MA-S, 3MB-S, 3MC-S, or 3MD-S).

c. One 120-volt A.C. SUPS Bus (3A-S or 3B-S) energized from its associated inverter connected to its respective D.C. bus.

d. One 125-volt D.C. bus (3A-DC-S or 3B-DC-S) connected to its associated battery bank.

APPLICABILITY: MODES 5 and 6.

ACTION:

With any of the above required electrical busses not energized in the required manner, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, or load movements with or over irradiated fuel, initiate corrective action to energize the required electrical busses in the specified manner as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.3.2 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

3/4.9.3 DECAY TIME

LIMITING CONDITION FOR OPERATION

3.9.3 The reactor shall be subcritical for at least 72 hours.

APPLICABILITY: During load movements with or over irradiated fuel in the reactor pressure vessel.

ACTION:

With the reactor subcritical for less than 72 hours, suspend all operations involving load movements with or over irradiated fuel in the reactor pressure vessel.

SURVEILLANCE REQUIREMENTS

4.9.3 The reactor shall be determined to have been subcritical for at least 72 hours by verification of the date and time of subcriticality prior to load movements with or over irradiated fuel in the reactor pressure vessel.

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

LIMITING CONDITION FOR OPERATION

3.9.4 The containment building penetrations shall be in the following status:

a. The equipment door is closed,

b. A minimum of one door in each airlock is capable of being closed, and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere shall be either:

1. Closed by a manual or automatic isolation valve, blind flange, or equivalent, or

2. Capable of being closed by an OPERABLE containment purge and exhaust isolation system.

Note: Penetration flow path(s) described in a, b, and c above, that provides direct access from the containment atmosphere to the outside atmosphere may be unisolated under administrative controls.

APPLICABILITY: During CORE ALTERATIONS or load movements with or over irradiated fuel within the containment.

ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or load movements with or over irradiated fuel in the containment building.

SURVEILLANCE REQUIREMENTS

4.9.4.1 Verify each required containment penetration is in the required status prior to the start of and once per 7 days during CORE ALTERATIONS or load movements with or over irradiated fuel within containment.

4.9.4.2 Verify each required containment purge and exhaust valve actuates to the isolation position on an actual or simulated actuation signal 72 hours prior to performing initial CORE ALTERATIONS or load movements with or over irradiated fuel within containment.

NOTE - SR 4.9.4.2 is not required to be met for containment purge and exhaust valve(s) in penetrations closed to comply with LCO 3.9.4.c.1.

3/4.9.7 CRANE TRAVEL - FUEL HANDLING BUILDING

LIMITING CONDITION FOR OPERATION

3.9.7 Cranes in the fuel handling building shall be restricted as follows:

a. The spent fuel handling machine shall be used* for the movement of fuel assemblies (with or without CEAs) and shall be OPERABLE with:

   1. A minimum hoist capacity of 1800 pounds, and

   2. An overload cutoff limit of less than or equal to 1900 pounds, and,

b. Loads in excess of 2000 pounds shall be prohibited from travel over irradiated fuel assemblies in the Fuel Handling Building, except over assemblies in a transfer cask using a single-failure-proof handling system.

APPLICABILITY: With irradiated fuel assemblies in the Fuel Handling Building.

ACTION:

a. With the spent fuel handling machine inoperable, suspend the use of the spent fuel handling machine for movement of fuel assemblies and place the crane load in a safe position.

b. With loads in excess of 2000 pounds over irradiated fuel assemblies in the Fuel Handling Building, except over assemblies in a transfer cask using a single-failure-proof handling system, place the crane load in a safe position.

c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.7.1 The spent fuel handling machine shall be demonstrated OPERABLE within 72 hours prior to the start of fuel assembly movement and at least once per 7 days thereafter by performing a load test of at least 1800 pounds and demonstrating the automatic load cutoff when the hoist load exceeds 1900 pounds.

4.9.7.2 The electrical interlock system which prevents crane main hook travel over irradiated fuel assemblies in the Fuel Handling Building, except over assemblies in a transfer cask using a single-failure-proof handling system, shall be demonstrated OPERABLE within 7 days prior to crane use and at least once per 7 days thereafter during crane operation.

4.9.7.3 Administrative controls which prevent crane auxiliary hook travel with loads in excess of 2000 pounds over the irradiated fuel assemblies in the Fuel Handling Building, including over assemblies in a transfer cask, shall be enforced during crane operations.

*Not required for movement of new fuel assemblies outside the spent fuel pool and Cask Storage Pit.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 235 TO

FACILITY OPERATING LICENSE NO. NPF-38

ENTERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3

DOCKET NO. 50-382

1.0 INTRODUCTION

By application dated April 13, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11105A131), Entergy Operations, Inc. (the licensee), requested changes to the Technical Specifications (TSs) for Waterford Steam Electric Station, Unit 3 (Waterford 3).

The TS change is a result of a revised Fuel Handling Accident (FHA) analysis that determined that the current TSs may not be conservative for all scenarios. The amendment provides new applicability and/or action language that include load movements over irradiated fuel assemblies. Waterford 3 has implemented administrative controls, in accordance with U.S. Nuclear Regulatory Commission (NRC) Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety," dated December 29, 1998 (ADAMS Accession No. ML031110108), to apply revised applicability until such time that the NRC completes its review and issues the revised TSs.

2.0 REGULATORY EVALUATION

2.1 Background

The Waterford 3 FHA Analysis of Record (AOR) was performed by Combustion Engineering. The AOR documented fuel rod damage predicted to result from horizontal and vertical drop scenarios in the fuel storage pool and the reactor building and concluded that 60 fuel rods is the largest number that could fail from the worst postulated assembly drop.

The licensee identified that the FHA AOR did not include the weight of components such as Control Element Assemblies (CEA), neutron source, or handling grapples and concluded that the existing AOR results were not conservative because the re-evaluation established that a greater number of fuel rods could be damaged if an irradiated fuel assembly or other loads are dropped onto stored irradiated fuel. The licensee stated that a new analysis was performed by

Westinghouse Electric Company LLC (Westinghouse) to update the Waterford 3 FHA AOR, using the methodology from the original FHA analysis that the NRC reviewed and approved in NUREG-0787, "Safety Evaluation Report related to the operation of Waterford Steam Electric Station, Unit No. 3," July 1981, Section 15.4.2.

In Section 4.0, "TECHNICAL ANALYSIS" of its letter dated April 13, 2011, the licensee stated:

> The Westinghouse calculation updated the predicted number of fuel pin failures for various fuel designs (Standard and High Density Fuel with OPTIN and/or ZIRLO cladding) and for various fuel bundle weight combinations (bundle / discretionary weight/ grapple weight).
>
> The revised dose calculation was performed using the same methodology that was approved in the NRC Waterford 3 Alternate Source Term (AST) Safety Evaluation Report (SER) [(ADAMS Accession No. ML050890248).]. The dose consequences due to failure of two assemblies will be the new licensing basis and will replace the dose consequences due to 60 rods failure. These dose consequences due to failure of two assemblies remain within the Regulatory Guide 1.183 ["Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," July 2000] and [Title 10 of the *Code of Federal Regulations* (10 CFR)] 10 CFR 50.67 acceptance criteria limits.

2.2 Regulatory Review Criteria

The proposed changes provide new applicability and/or action language that include load movements over irradiated fuel assemblies. The NRC staff's evaluation of the proposed changes is based upon the following regulations, generic letters, regulatory guides, and standards:

1. In 10 CFR 50.36, "Technical specifications," the NRC established its regulatory requirements related to the content of TS. Pursuant to 10 CFR 50.36, TS are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls.

   - 10 CFR 50.36(b) states the TSs "will be derived from the analyses and evaluation included in the safety analysis report..."

   - 10 CFR 50.36(c)(2)(ii) states, in part, that

     > A technical specification limiting condition for operation of a nuclear reactor must be established for each item meeting one or more of the following criteria...
     >
     > (B) Criterion 2. A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the

failure of or presents a challenge to the integrity of a fission product barrier.

2. 10 CFR 50.59 establishes the requirements for changes, tests, and experiments.

3. 10 CFR 50.67, "Accident source term," for the dose acceptance criterion.

4. 10 CFR Part 50, Appendix A, "General Design Criterion [GDC] for Nuclear Power Plants," GDC 19, "Control room," and GDC 61, "Fuel storage and handling and radioactivity control."

5. NRC Generic Letter (GL) 2003-01, "Control Room Habitability," dated June 12, 2003 (ADAMS Accession No. ML031620248).

6. NRC RG 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," May 2003 (ADAMS Accession No. ML031490664).

7. NRC RG 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents" at Nuclear Power Reactors," July 2000 (ADAMS Accession No. ML003716792).

8. NUREG-0800, Revision 3, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," March 2007, Section 6.4, "Control Room Habitability Systems," for control room (CR) dose; Section 9.4.5, "Engineered Safety Feature Ventilation System"; Section 15.7.4, "Radiological Consequences of Fuel Handling Accidents"; and Section 15.0.1, "Radiological Consequence Analyses Using Alternative Source Terms."

3.0 TECHNICAL EVALUATION

3.1 Summary Description

The license amendment request will revise the following TSs:

TS 3.3.3.1 (Radiation Monitoring Instrumentation)
TS 3.7.6.1 (Control Room Emergency Air Filtration System)
TS 3.7.6.3 (Control Room Air Temperature - Operating)
TS 3.7.6.4 (Control Room Air Temperature - Shutdown)
TS 3.8.1.2 (A.C. [Alternating Current] Sources - Shutdown)
TS 3.8.2.2 (D.C. [Direct Current] Sources - Shutdown)
TS 3.8.3.2 (Onsite Power Distribution - Shutdown)
TS 3.9.3 (Decay Time)
TS 3.9.4 (Containment Building Penetrations)
TS 3.9.7 (Crane Travel - Fuel Handling Building)

3.2 Detailed Description of TS Changes

Change 1, TS 3.3.3.1 (Radiation Monitoring Instrumentation):

Current footnotes with (**) and (***) for Table 3.3-6, "Radiation Monitoring Instrumentation," and Table 4.3-3, "Radiation Monitoring Instrumentation Surveillance Requirements," state:

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

Revised footnotes with (**) and (***) for Table 3.3-6 and Table 4.3-3 would state:

> ** During CORE ALTERATIONS or load movements with or over irradiated fuel within the containment.
> *** During load movements with or over irradiated fuel.

Change 2, TS 3.7.6.1 (Control Room Emergency Air Filtration System):

Current APPLICABILITY under LCO 3.7.6.1 of TS 3/4.7.6, "Control Room Air Conditioning System," states:

APPLICABILITY:	MODES 1, 2, 3, 4, 5, and 6 During movement of irradiated fuel assemblies.

Revised APPLICABILITY would state:

APPLICABILITY:	MODES 1, 2, 3, 4, 5, and 6 During load movements with or over irradiated fuel assemblies.

Current ACTION items d, d.2, e, and g under TS 3.7.6.1 state:

d. If the required ACTION and the associated allowable outage time of ACTION a is not met in MODES 5 or 6, or during movement of irradiated fuel assemblies, then perform the following:

   2. Immediately suspend movement of irradiated fuel assemblies and operations involving CORE ALTERATIONS.

e. With one or more control room emergency air filtration trains inoperable due to an inoperable control room envelope boundary in MODES 5 or 6, or during movement of irradiated fuel assemblies, immediately suspend movement of irradiated fuel assemblies and operations involving CORE ALTERATIONS.

g. With two control room emergency air filtration trains inoperable in MODES 5 and 6 or during movement of irradiated fuel assemblies,

immediately suspend movement of irradiated fuel assemblies and operations involving CORE ALTERATIONS.

Revised ACTION items d, d.2, e, and g under TS 3.7.6.1 would state:

d. If the required ACTION and the associated allowable outage time of ACTION a is not met in MODES 5 or 6, or during load movements with or over irradiated fuel assemblies, then perform the following:

   2. Immediately suspend load movements with or over irradiated fuel assemblies and operations involving CORE ALTERATIONS.

e. With one or more control room emergency air filtration trains inoperable due to an inoperable control room envelope boundary in MODES 5 or 6, or during load movements with or over irradiated fuel assemblies, immediately suspend load movements with or over irradiated fuel assemblies and operations involving CORE ALTERATIONS.

g. With two control room emergency air filtration trains inoperable in MODES 5 and 6 or during load movements with or over irradiated fuel assemblies, immediately suspend load movements with or over irradiated fuel assemblies and operations involving CORE ALTERATIONS.

<u>Change 3, TS 3.7.6.3 (Control Room Air Temperature - Operating)</u>

Current footnote (*) to APPLICABILITY states:

*During movement of irradiated fuel assemblies, TS 3.7.6.4 is also applicable.

Revised footnote (*) to APPLICABILITY would state:

*During load movements with or over of irradiated fuel assemblies, TS 3.7.6.4 is also applicable.

<u>Change 4, TS 3.7.6.4 (Control Room Air Temperature - Shutdown)</u>:

Current APPLICABILITY under Limiting Condition for Operation (LCO) 3.7.6.4, "Control Room Air Conditioning System – Shutdown," states:

MODES 5 and 6, and during movement of irradiated fuel assemblies.

Revised APPLICABILITY under LCO 3.7.6.4 would state:

MODES 5 and 6, and during load movements with or over irradiated fuel assemblies.

Current ACTION b states:

b. With both control room air conditioning units inoperable, or with the OPERABLE control room air conditioning unit, required to be in operation by ACTION a, not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS and movement of irradiated fuel assemblies.

Revised ACTION b would state:

b. With both control room air conditioning units inoperable, or with the OPERABLE control room air conditioning unit, required to be in operation by ACTION a, not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS and load movements with or over irradiated fuel assemblies.

Change 5, TS 3.8.1.2 (A.C. Sources - Shutdown):

Current ACTION item under TS 3.8.1.2 states:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, movement of irradiated fuel, or crane operation with loads over the fuel storage pool. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the top of the fuel seated in the reactor pressure vessel, immediately initiate corrective action to restore the required sources to OPERABLE status.

Revised ACTION item under TS 3.8.1.2 would state:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, or load movements with or over irradiated fuel. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the top of the fuel seated in the reactor pressure vessel, immediately initiate corrective action to restore the required sources to OPERABLE status.

Change 6, TS 3.8.2.2 (D.C. Sources - Shutdown):

Current ACTION a under TS 3.8.2.2 states:

a. With the required battery bank inoperable, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration or movement of irradiated fuel; initiate corrective action to restore the required battery bank to OPERABLE status as soon as possible.

Revised ACTION a under TS 3.8.2.2 would state:

a. With the required battery bank inoperable, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration or load movements with or over irradiated fuel; initiate corrective action to restore the required battery bank to OPERABLE status as soon as possible.

Change 7, TS 3.8.3.2 (Onsite Power Distribution - Shutdown):

Current ACTION item under TS 3.8.3.2 states:

With any of the above required electrical busses not energized in the required manner, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, or movement of irradiated fuel, initiate corrective action to energize the required electrical busses in the specified manner as soon as possible.

Revised ACTION item under TS 3.8.3.2 would state:

With any of the above required electrical busses not energized in the required manner, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, or load movements with or over irradiated fuel, initiate corrective action to energize the required electrical busses in the specified manner as soon as possible.

Change 8, TS 3.9.3 (Decay Time):

Current APPLICABILITY, ACTION, and SR 4.9.3 under LCO 3.9.3 state:

> APPLICABILITY: During movement of irradiated fuel in the reactor pressure vessel.
>
> ACTION:
>
> With the reactor subcritical for less than 72 hours, suspend all operations involving movement of irradiated fuel in the reactor pressure vessel.
>
> SURVEILLANCE REQUIREMENTS
>
> 4.9.3 The reactor shall be determined to have been subcritical for at least 72 hours by verification of the date and time of subcriticality prior to movement of irradiated fuel in the reactor pressure vessel.

Revised APPLICABILITY, ACTION, and SR 4.9.3 under LCO 3.9.3 would state:

> APPLICABILITY: During load movements with or over irradiated fuel in the reactor pressure vessel.
>
> ACTION:
>
> With the reactor subcritical for less than 72 hours, suspend all operations involving load movements with or over irradiated fuel in the reactor pressure vessel.
>
> SURVEILLANCE REQUIREMENTS
>
> 4.9.3 The reactor shall be determined to have been subcritical for at least 72 hours by verification of the date and time of subcriticality prior to load movements with or over irradiated fuel in the reactor pressure vessel.

Change 9, TS 3.9.4 (Containment Building Penetrations):

Current APPLICABILITY, ACTION, and SRs 4.9.4.1 and 4.9.4.2 under LCO 3.9.4 state:

> APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.
>
> ACTION:
>
> With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel in the containment building.

SURVEILLANCE REQUIREMENTS

4.9.4.1 Verify each required containment penetration is in the required status prior to the start of and once per 7 days during CORE ALTERATIONS or movement of irradiated fuel within containment.

4.9.4.2 Verify each required containment purge and exhaust valve actuates to the isolation position on an actual or simulated actuation signal 72 hours prior to performing initial CORE ALTERATIONS or movement of irradiated fuel within containment.

Revised APPLICABILITY, ACTION, and SRs 4.9.4.1 and 4.9.4.2 under LCO 3.9.4 state:

APPLICABILITY: During CORE ALTERATIONS or load movements with or over irradiated fuel within the containment.

ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or load movements with or over irradiated fuel in the containment building.

SURVEILLANCE REQUIREMENTS

4.9.4.1 Verify each required containment penetration is in the required status prior to the start of and once per 7 days during CORE ALTERATIONS or load movements with or over irradiated fuel within containment.

4.9.4.2 Verify each required containment purge and exhaust valve actuates to the isolation position on an actual or simulated actuation signal 72 hours prior to performing initial CORE ALTERATIONS or load movements with or over irradiated fuel within containment.

Change 10, TS 3.9.7 (Crane Travel - Fuel Handling Building):

Current APPLICABILITY under LCO 3.9.7 states:

During movement of irradiated fuel assemblies in the fuel handling building, or with irradiated fuel assemblies in the Fuel Handling Building.

Revised APPLICABILITY under LCO 3.9.7 would state:

With irradiated fuel assemblies in the Fuel Handling Building.

3.3 NRC Staff Evaluation

3.3.1 Radiological Consequences

The NRC staff reviewed the regulatory and technical analyses performed by the licensee in support of its proposed revision of the postulated FHA AOR and related TS changes. The conclusions of this SE are based on the NRC staff's evaluation of descriptions and results of the licensee's analyses and other supporting information docketed by the licensee.

Section 3.3.1 of this SE describes the NRC staff's evaluation of the impact of the proposed changes on the radiological consequences of an FHA at Waterford 3. The AOR assumes that a design basis FHA is postulated to occur during movement of irradiated fuel assemblies within the fuel building and/or reactor building. The FHA is modeled as the dropping of a single fuel assembly and handling tool or of a heavy object onto other spent fuel assemblies. The proposed change impacts the assumed fuel failure resulting from the postulated FHA. Proposed TS changes are also discussed in Section 3.2 of this SE related to the applicability and/or action regarding load movements over irradiated fuel assemblies in containment and in the fuel storage pool. The NRC staff's review is below.

3.3.1.1 Revised FHA Analysis

RG 1.183, Appendix B, "Assumptions for Evaluating the Radiological Consequences of a Fuel Handling Accident," states, in part, that

> The number of fuel rods damaged during [an FHA] should be based on a conservative analysis that considers the most limiting case. This analysis should consider parameters such as the weight of the dropped heavy load or the weight of a dropped fuel assembly (plus any attached handling grapples), the height of the drop, and the compression, torsion, and shear stresses on the irradiated fuel rods. Damage to adjacent fuel assemblies, if applicable (e.g., events over the reactor vessel), should be considered.

The licensee identified that the current FHA AOR did not include the weights of components such as Control Element Assemblies, neutron source, or handling grapples. Therefore, the licensee performed a revised analysis of a postulated FHA to include the weights of any additional components as stated above.

For the fuel bundle drop scenarios in the fuel storage pool and core locations, the results of the licensee's updated postulated FHA analysis assumes that all the fuel pins in the dropped and impacted fuel assemblies fail (472 pins or 236 per assembly). As referenced in an e-mail dated February 22, 2012 (ADAMS Accession No. ML120680064), the licensee identified in Waterford 3 analysis CR-WF3-2004-2077 that its CR heating, ventilation, and air-conditioning (HVAC) equipment room was isolated from the rest of the CR envelope. As a result, the licensee concluded that its CR radiological dose analyses needed to be revised to not include the CR HVAC equipment room within the CR volume assumption. The licensee determined that its assumed CR volume in the licensee's AOR would be decreased from 220,000 cubic feet (ft^3) to 168,500 ft^3.

The licensee's FHA AOR was impacted by three changes: (1) the assumed number of fuel pins failed; (2) the assumed CR volume was reduced as stated above; and (3) the assumed CR unfiltered inleakage. The NRC staff previously approved use of the CR unfiltered inleakage of value 100 cubic feet per minute (cfm) at Waterford 3 in the licensee's previously approved AST amendment. Therefore, the NRC staff determined that the licensee's use of the revised CR unfiltered inleakage assumption of 100 cfm is acceptable. The acceptability of the licensee's decrease in its assumed CR volume is contingent upon the acceptable technical review conducted by the NRC's Containment and Ventilation Branch. The methodology and all other inputs, parameters, and/or assumptions used in the radiological model remained unchanged and are consistent with the licensee's current licensing basis and its previously approved AST amendment. The licensee used the RADTRAD modeling code to confirm the radiological consequence results of the above changes. The NRC staff conducted a quantitative analysis multiplying the current AOR doses by the ratio of assumed fuel pin failures in the proposed FHA to those in the current AOR (472 pins/60 pins). The NRC staff found the increase in the postulated doses to be representative of the increase in the number of fuel pins failed. The NRC staff determined that the radiological consequences of the licensee's updated postulated FHA will not exceed the regulatory acceptance criteria of 6.3 roentgen equivalent man (rem) total effective dose equivalent (TEDE) at both the exclusion area boundary (EAB) and low population zone (LPZ), and 5.0 rem TEDE in the CR. Based on the above, the NRC staff concludes that the licensee's revised postulated FHA analysis is acceptable from a radiological consequence perspective.

As a result of its revised FHA analysis, the licensee further concluded that some of its current TSs were not conservative for the assumed scenarios, and did not contain all the necessary applicability requirements. Therefore, for applicable TSs referenced in Section 3.1 of this SE, the licensee proposed to revise the applicability and/or action statements to ensure plant safety during all required load movements over irradiated fuel.

3.3.1.2 Summary

The design basis accident (DBA) radiological consequences were evaluated considering the licensee's revised postulated FHA analysis and TS changes. Based on the above, the NRC staff determined that the licensee will continue to meet the regulatory acceptance criteria for radiological dose consequences at the EAB, LPZ, and CR, as specified in 10 CFR 50.67, RG 1.183, and GDC 19. The NRC staff's comparison of the licensee's revised radiological dose consequence results to the regulatory acceptance criteria is shown below in Table 1.

The NRC staff concludes that with the proposed changes implemented, the licensee will continue to meet the applicable dose acceptance criteria given in 10 CFR 50.67, or fractions thereof as defined by RG 1.183, for both the EAB and LPZ, and for the CR. The NRC staff further concludes with reasonable assurance that Waterford 3 will continue to provide sufficient safety margins, with adequate defense-in-depth, to address unanticipated events, analysis assumptions, and input parameters. Therefore, the staff concludes that the proposed license amendment is acceptable with respect to the radiological consequences of a postulated FHA.

Table 1

Comparison of the Radiological Dose Consequence Results Of Revised Postulated Fuel Handling Accident (Limiting Case of 472 Pins Failed)

	Baseline Case (rem TEDE)	Acceptance Criteria (rem TEDE)	Proposed Amendment (rem TEDE)
Exclusion Area Boundary (EAB)	0.580	6.3	4.560
Low Population Zone (LPZ)	0.089	6.3	0.700
Control Room (CR)	0.105	5.0	0.824

3.3.2 Evaluation of the Proposed Load Movement

The existing FHA AOR documented fuel rod damage predicted to result from horizontal and vertical drop scenarios in the fuel storage pool and the reactor buildings. The existing AOR concluded that the failure of 60 fuel rods is the largest number of fuel rods that could fail from the worst postulated assembly drop. After additional scenarios by the licensee were identified as contributing to the accident, a reevaluation using the same methodology was performed. The licensee determined that the existing AOR results were not conservative because the re-evaluation established that a greater number of fuel rods could be damaged if an irradiated fuel assembly dropped onto stored irradiated fuel.

The licensee proposed changes to the TSs to conform with the initial conditions of the revised FHA analysis. The licensee proposed changing the applicability statement of TS 3.9.7. The change would make the TS applicable at all times whenever irradiated fuel is in the fuel handling building. The proposed change included the initial condition of the FHA analysis that irradiated fuel assemblies were present in the fuel handling building. Therefore, the applicability statement would be consistent with the requirements of 10 CFR 50.36 and is acceptable.

The NRC staff evaluated the licensee's proposed changes against the applicable regulatory requirements of 10 CFR 50.36. The NRC staff reviewed the proposed changes to the applicability of TS 3.9.7 and concluded that the change is acceptable.

3.3.3 Evaluation of Ventilation and Air Handling Systems

3.3.3.1 Control Room Habitability

The CR emergency ventilation system is a mitigation system designed to minimize unfiltered air leakage into the CR and to filter the CR atmosphere to protect the CR occupants in the event of accidents previously analyzed. An important part of the CR emergency ventilation system is the CR boundary. The CR emergency ventilation system is not an initiator or precursor to any accident previously evaluated. Performing tests to verify the operability of the CR boundary and implementing a program to assess and maintain CR habitability ensure that the CR emergency ventilation system is capable of adequately mitigating radiological consequences to CR occupants during accident conditions, and that the CR emergency ventilation system will perform as assumed in the consequence analyses of design basis accidents. The fuel handling building ventilation system is not required to mitigate the consequences of an FHA.

Examples of load movements include movement of new fuel assemblies, irradiated fuel assemblies, and the dummy fuel assembly. The load movements do not include the movement of the spent fuel machine or refuel machine without loads attached. It also does not include load movements in containment when the reactor vessel head is still installed. Load movements also exclude suspended loads weighing less than the amount that would cause fuel pin failures (e.g., Section 4.0 of the licensee's letter dated April 13, 2011, describes no fuel failure for loads weighing less than 1000 mass-pounds (lbm) based upon the 2000 lbm analysis for drops distributed over two assemblies).

The licensee stated that the proposed changes do not require any exemptions or relief from regulatory requirements. In addition, the proposed TS changes do not affect any systems, structures, or components described in the Waterford 3 Final Safety Analysis Report. In addition, the NRC staff concludes that the licensee has provided adequate justification to support the requested changes and reasonable assurance that Waterford 3 will continue to comply with the applicable regulatory requirements.

The licensee revised the FHA analysis using the guidance provided in RG 1.183. The revision is consistent with its past application to adopt the AST. In its SE dated March 29, 2005 (ADAMS Accession No. ML050890248), the NRC staff accepted the licensee's conclusion that the radiological consequences resulting from the postulated FHA using the AST at the EAB and LPZ, and in the CR are within the dose criteria specified in 10 CFR 50.67. The staff also concluded that the method, assumptions, and parameters used in the analyses were consistent with the conservative guidance provided in RG 1.1.83. The staff has verified that the revised CR parameters in the postulated FHA remain bounded by the NRC-approved AST CR parameters for containment inleakage. The new Waterford 3 FHA analysis credits 100 cfm of CR envelope unfiltered inleakage versus the 220 cfm used in the original analysis. However, the margin of safety is not eroded since the latest tracer gas testing resulted in a measured CR envelope unfiltered inleakage of 59 cfm.

The proposed changes impose restrictions on the movement of all loads (including irradiated fuel assemblies) over irradiated fuel-assemblies in containment or in the fuel storage pool. These changes are consistent with licensing basis and are more conservative than the licensee's current TS bases, and are consistent with applicable regulations and regulatory

guidance. Based on the above, the NRC staff concludes that the proposed TS changes are acceptable.

3.3.3.2 Containment Penetrations

The proposed changes to SRs 4.9.4.1 and 4.9.4.2 do not alter the performance of the surveillance itself. The changes revise the applicability and/or action wording regarding load movements over irradiated fuel assemblies in containment and in the fuel storage pool and assures that penetrations are in their required status during core alterations and load movements with or over irradiated fuel within containment. There is no change to the intent of how the new SRs 4.9.4.1 and 4.9.4.2 will be performed from that of former the SRs 4.9.4.1 and 4.9.4.2.

Based on the above, the NRC staff concludes that the proposed TS changes are in compliance with the requirements of 10 CFR 50.36, 10 CFR 50.59, 10 CFR 50.67, GDC 19, and GDC 61, and continue to meet the guidelines of GL 2003-01, RG 1.197, RG 1.183, and NUREG-0800. Therefore, the NRC staff concludes that the proposed changes are 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. 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 published in the *Federal Register* on August 23, 2011 (76 FR 52701). 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: S. Wu, O. Hopkins, R. Torres, L. Benton, S. Mazumdar, S. Som, and R. Grover

Date: April 25, 2012

April 25, 2012

Vice President, Operations
Entergy Operations, Inc.
Waterford Steam Electric Station, Unit 3
17265 River Road
Killona, LA 70057-3093

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - ISSUANCE OF AMENDMENT RE: REQUEST TO REVISE THE TECHNICAL SPECIFICATIONS BASED UPON A REVISED FUEL HANDLING ACCIDENT ANALYSIS (TAC NO. ME6049)

Dear Sir or Madam:

The Commission has issued the enclosed Amendment No. 235 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated April 13, 2011.

The TS change is a result of a revised Fuel Handling Accident analysis which determined that the current TSs may not be conservative for all scenarios. The amendment provides new applicability and/or action language that include load movements over irradiated fuel assemblies.

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

Sincerely,
/RA/

N. Kalyanam, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosures:
1. Amendment No. 235 to NPF-38
2. Safety Evaluation

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