March 5, 2002

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

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - CORRECTION TO AMENDMENT NO. 180 RE: EMERGENCY DIESEL GENERATOR SURVEILLANCE REQUIREMENTS (TAC NO. MB2371)

Dear Mr. Venable:

The Commission issued on February 26, 2002, Amendment No. 180 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. The amendment consisted of changes to the Technical Specifications (TSs) in response to your application dated July 10, 2001, as supplemented by letter dated December 20, 2001. The amendment modified TS Surveillance Requirements (SR) 4.8.1.1.2.e to allow to allow performance of specific SRs (4.8.1.1.2.e.1, 2, 4, 6, 10, and 12) during any mode of plant operation. A copy of our related Safety Evaluation (SE) was also enclosed.

Errors were discovered on pages 1 and 4 of the SE, subsequent to the February 26, 2002, issuance, and were in Section 1.0, "INTRODUCTION," and Section 3.7, "SR 4.8.1.1.2.e.6." Revised pages of 1 and 4 of the SE are enclosed with the corrections identified by a marginal vertical bar. Please replace pages 1 and 4 of the previous submittal with the enclosed, revised sheets.

Please call N. Kalyanam, at (301) 415 1480, with any questions you may have.

Sincerely,

/RA/

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

Docket No. 50-382

Enclosure: Pages 1 and 4 of the Safety Evaluation

cc w/encls: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 180 TO

FACILITY OPERATING LICENSE NO. NPF-38

ENTERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3

DOCKET NO. 50-382

1.0 INTRODUCTION

By letter dated July 10, 2001, as supplemented by letter dated December 20, 2001, Entergy Operations, Inc. (Entergy, the licensee) submitted a request for changes to the Waterford Steam Electric Station, Unit 3, (Waterford 3) Technical Specifications (TSs). The proposed changes relate to Emergency Diesel Generator (EDG) surveillance testing and modify Surveillance Requirement (SR) 4.8.1.1.2.e regarding the testing of EDGs during any mode of plant operation. The purpose of the proposed change is to provide Entergy additional flexibility in the scheduling of maintenance activities, reduce plant refueling outage duration, and increase EDG availability when the plant is shut down. Currently, as directed by SR 4.8.1.1.2.e, SRs 4.8.1.1.2.e.1 through 4.8.1.1.2.e.12 are required to be performed at least once per 18 months during shutdown. The proposed change would permit SRs 4.8.1.1.2.e.1, 4.8.1.1.2.e.2, 4.8.1.1.2.e.4, 4.8.1.1.2.e.6, 4.8.1.1.2.e.10, and 4.8.1.1.2.e.12 to be performed during any mode of plant operation. SRs 4.8.1.1.2.e.3, 4.8.1.1.2.e.5, 4.8.1.1.2.e.7, 4.8.1.1.2.e.8, 4.8.1.1.2.e.9, and 4.8.1.1.2.e.11 will be performed only when the plant is shutdown. This is achieved by deleting the words "during shutdown" from 4.8.1.1.2.e and adding them to the specific SRs (4.8.1.1.2.e.3, 4.8.1.1.2.e.5, 4.8.1.1.2.e.7, 4.8.1.1.2.e.8, 4.8.1.1.2.e.9, and 4.8.1.1.2.e.11). The change to SR 4.8.1.1.2.c.1.a is editorial in nature.

This amendment is based on a similar evaluation and approval for Niagra Mohawk Power Corporation for Nine Mile Point Nuclear Station, Unit 2, dated March 7, 1995. Also, similar changes for testing of the EDG lockout features (SR 4.8.1.1.2.e.12) have been reviewed and approved by the Nuclear Regulatory Commission (NRC) for Millstone Nuclear Power Station, Unit 3 and Catawba Nuclear Stations, Units 1 and 2.

The December 20, 2001, supplemental letter provided additional information that did not change the scope of the request or the initial proposed no significant hazard consideration determination (66 FR 44168, published August 22, 2001).

2.0 BACKGROUND

General Design Criterion (GDC)-17, “Electric Power Systems,” of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50 requires, in part, that nuclear power

During the test, the EDG operates in parallel with offsite power and is loaded to its continuous rating. To create load rejection, the EDG output breaker is manually opened. This results in EDG rejecting its load and isolating it from the 4160 V vital bus. The load is simultaneously picked up by the offsite power source. The licensee states that the previous full-load test data indicates that voltage on the 4160 V safety buses was within ± 5% of the initial test voltage and stabilized within one second. This relatively minor transient was well within the capability of the loads on the vital buses. The + 5% value properly ensures stability of the safety bus and is within the design rating of the switchgear (4760 V). The - 5% falls above the instantaneous Loss of Voltage TS trip set point of greater than or equal to 3245 V. It is also above the degraded voltage values of $\leq$ 3675 V with inverse time characteristic of a high of 9 seconds to a low of 2 seconds time delay and sustained degraded voltage values of $\leq$ 3875 with a time delay of 12.5 seconds. The licensee states that the instantaneous loss of voltage trip was used for a tolerance value based on the Refueling Outage 9 EDG 100% load rejection test data that resulted in a voltage drop of approximately 2% with stabilizing in about 0.5 seconds.

Based on the previous test results, the staff concludes that since performance of this SR in the past did not cause significant perturbation to the electrical distribution system, the performance of this SR during power operation is acceptable.

3.6 SR 4.8.1.1.2.e.4

This SR requires, at least once per 18 months during shutdown, verification that on an SIAS, the EDG starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The steady-state EDG voltage and frequency shall be 4160 +420, - 240 V and 60 +/- 1.2 Hz within 10 seconds after the auto-start signal, the EDG voltage and frequency shall be maintained within these limits during the test. The licensee has proposed to perform this test during power operation. The licensee states that the design of their ESF subgroup relays offers Waterford 3 the ability to start the EDG with the SIAS actuation test signal during power operation without causing any loads to shed or ESF loads to start. Based on the above, the staff concludes that since the SIAS to the EDG can be generated without causing any loads to shed or ESF loads to start, the performance of this SR during power operation is acceptable.

3.7 SR 4.8.1.1.2.e.6

This SR requires at least once per 18 months during shutdown, verification that the EDG operates for at least 24 hours. During 2 hours of this test, the EDG shall be loaded to greater than or equal to 4700 kW to 4900 kW and during 22 hours of this test, the EDG shall be loaded to 4000 kW to 4400 kW. The EDG voltage and frequency shall be 4160 +420, -240 V and 60 +/-1.2 Hz within 10 seconds after the start signal, and the steady state EDG voltage and frequency shall be 4160 +/- 420 V and 60 +1.2, -.3 Hz during the test. Within 5 minutes after completing this 24 hour test, SR 4.8.1.1.2.a.4 is performed. This test is presently performed only during shutdown. The reason for the mode restriction is to prevent unnecessary perturbation to the electrical distribution systems, which could challenge steady state operation if the reactor is in Mode 1 or 2. The licensee has proposed to perform this surveillance during power operation.

The licensee states that each month the EDGs are run during power operation to satisfy monthly TS requirements. The EDG system lineup with the offsite power for the monthly test is the same as the lineup for the 24-hour endurance run. Therefore, performing the 24-hour

cc:

Mr. Michael E. Henry, Administrator
and State Liaison Officer
Department of Environmental Quality
P. O. Box 82135
Baton Rouge, LA 70884-2135

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

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

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

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

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

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

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

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

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

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

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