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Waterford 3

W3F1-2006-0048

September 18, 2006

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: Reply to Notice of Violation: EA-06-192
Waterford Steam Electric Station, Unit 3
Docket No. 50-382
License No. NPF-38

REFERENCE: 1. Letter from dated D.N. Graves (NRC) to J.E. Venable (Entergy) dated August 18, 2006, Waterford Steam Electric Station Unit 3 – NRC Integrated Inspection Report 05000382/2006003 and Notice of Violation

Dear Sir or Madam:

In the referenced letter, the NRC documented a violation of 10 CFR 50, Appendix B, Criterion III, involving the failure of Entergy Operations, Inc. (Entergy) to translate into specifications, procedures, and instructions the design criteria for the emergency diesel generator air start system since being identified in September 2003. Entergy has evaluated the Notice of Violation and does not contest the violation or dispute the basis for the Severity Level IV cited violation.

Pursuant to the provisions of 10 CFR 2.201, Entergy hereby submits the reply to the Notice of Violation. The reply is provided in Attachment 1 to this letter. The reply addresses (1) the reason for the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved.

This submittal contains new commitments that are identified in Attachment 2. If you have any questions or require additional information, please contact Robert Murillo at (504) 739-6715.

Sincerely,

KSC/RJM/MEM/ssf

Attachments: 1. Reply to Notice of Violation: EA-06-192
2. List of Regulatory Commitments

IED 1

cc: (w/Attachments)

Dr. Bruce S. Mallett
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U. S. Nuclear Regulatory Commission
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NRC Senior Resident Inspector
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U.S. Nuclear Regulatory Commission
Attn: Mr. Mel B. Fields MS O-7E1
Washington, DC 20555-0001

(w/o Attachment 2)

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Attachment 1 to
W3F1-2006-0048
Reply to Notice of Violation, EA-06-192

Reply to a Notice of Violation; EA-06-192

1.0 Restatement of Violation

During an NRC inspection completed on July 7, 2006 and documented in NRC Inspection Report 05000382/2006003, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below.

"10 CFR 50, Appendix B, Criterion III, 'Design Control,' requires, in part, that applicable regulatory requirements and the design basis for systems to which Appendix B applies are correctly translated into specifications, procedures, and instructions. The Final Safety Analysis Report requires that the diesel generator air start system be capable of providing sufficient air capacity to start each diesel a minimum of five times.

Contrary to the above, the licensee failed to translate into specifications, procedures, and instructions the design criteria for the diesel generator air start system. This resulted in the failure to maintain each diesel generator air receiver capable of starting the diesel engine five times as required since being identified in September 2003.

This violation is associated with a Green SDP finding."

2.0 Reason for the Violation

The reason for the violation is that Waterford 3 did not consistently pursue the resolution of the issue with a sense of urgency. Other contributing factors were that the Waterford 3 initial resolution approach was based on partial technical information, Waterford 3 did not effectively plan and prioritize the tasks required for timely resolution, and Waterford 3 placed overreliance on an analytical solution.

On September 5, 2003, Waterford 3 issued Condition Report CR-WF3-2003-2502 to document the NRC position that Waterford 3 is not in compliance with General Design Criteria 17 for five-start capability for the diesel generator air start system.

The initial technical resolution undertaken by Waterford 3 was to prepare a license amendment for NRC review and approval for four-start capability for the diesel generator air start system. However, at the time this decision was made, there was neither additional analysis nor additional testing in place, other than initial plant startup data, that would provide a substantive technical basis for a four-start license amendment. Therefore, the initial decision was predicated on partial technical information.

Many collaborative efforts were taken over a long period of time to determine the analytical and testing baseline required to support a license amendment for four-start capability. However, these efforts were unsuccessful in achieving timely resolution.

In January 2006, Waterford 3 performed a test of the diesel generator air start system, and the diesel started four times. In April 2006, Waterford 3 completed an updated analysis of the January 2006 test data that concluded the diesel generator starting air system had five-start capability, with small margin, if time dependent variables, such as starting air system leakage are excluded. The January 2006 test and the analysis of the test data did not demonstrate five-start capability because the diesel started four times during the test, and the analysis did not account for technical factors discussed in NRC Inspection Report 05000382/2006003. Therefore, Waterford 3 personnel relied on the analytical treatment of data to conclude the diesel generator starting air system had five-start capability.

In summary, Waterford 3, based on partial technical information, placed too much emphasis on an analytical solution to the issue.

3.0 Corrective Steps Taken and the Results Achieved

The following are the corrective steps that have been taken and the results that have been achieved.

Operations Procedure, OP-100-014, was updated in September 2003 to specify the operational requirements for the diesel generator starting air system. This change was made as a compensatory measure pursuant to Generic Letter 91-18 (RIS 2005-20).

This issue is still being tracked as a RIS 2005-20 issue due to non-conformance with Standard Review Plan 9.5.6, five start capacity requirement. There was no actual degradation of the diesel generator starting air system. The diesel generator starting air system remains operable and capable of performing its safety function.

The Licensing Manager and the Manager, Corrective Actions and Assessments, have conducted a review of Waterford 3 RIS 2005-20 issues and other regulatory issues to assess the approach for and the timeliness of the resolution. The Site Senior Management has been briefed on the initial assessment. Additional efforts will be taken as discussed in Section 4.0 of this attachment.

4.0 Corrective Steps to be taken to Avoid Further Violations

The following are the corrective steps that will be taken to prevent recurrence.

Waterford 3 will implement a modification to the diesel generator starting air system to provide additional margin beyond the 5 start capacity requirement of Standard Review Plan 9.5.6. The modification will include an approximate target of an additional thirty percent margin to each of the four receivers for the two diesel generator starting air systems, beyond the 5 start capacity requirement of Standard Review Plan 9.5.6. The modification is expected to be completed by May 31, 2007.

This schedule includes the time for engineering analysis, contract development, hardware installation, testing, and design records completion. Also, the schedule takes into consideration Refuel 14 commencing in November 2006 and ending the latter part of December 2006 for which resources are already or will be committed for engineering and licensing work.

Appropriate operational procedures will be revised to establish the operational requirements, for example, number of receivers and minimum receiver pressure, for the diesel generator starting air system.

Waterford 3 has selected the diesel generator air start system modification as the resolution because this alternative provides additional margin, and the proposed resolution is the most expeditious course of action for resolution.

Prior to implementing the modification, Waterford 3 will perform another test of the diesel generator air start system before the end of September 2006. The purpose of this test is to establish a more accurate baseline for the current capacity of the diesel generator air start system, which can then be used as an input into the planned modification.

The NRC technical issues documented in NRC Inspection Report 05000382/2006003 will be addressed as follows:

Air Leakage

The analysis of the January 2006 test removed most of the affect of system leakage in Calculation ECM98-017. Upon completion of the diesel generator starting air system test, currently scheduled before the end of September 2006, Waterford 3 will revise the calculation to analyze the new data. The revised analysis will no longer include the removal of the system leakage between starts.

Rolling Resistance and Temperature Effects

Analysis of the January 2006 test results in Calculation ECM98-017 did not completely address rolling resistance and temperature effects. The calculation will be revised to analyze the new data from the September 2006 test. The revision will address rolling resistance and temperature effects.

Regarding the effective and timely resolution of this regulatory issue, a review will be completed of regulatory issues that are complex and long term in nature to ensure the resolution approach is appropriate and timely. A review will also be performed of the process for monitoring and resolving complex and long term regulatory issues. This evaluation will be completed by November 15, 2006. Appropriate changes will be implemented that improve the monitoring and timely resolution of such regulatory issues.

5.0 Date when Full Compliance will be Achieved

Waterford 3 will be in full compliance by May 31, 2007 after completion of the modification for the diesel generator starting air system and update of the corresponding operational, design, and licensing basis documentation.

Attachment 2 to
W3F1-2006-0048
List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE (Check One)		SCHEDULED COMPLETION DATE (If Required)
	ONE- TIME ACTION	CONTINUING COMPLIANCE	
A review will be completed of regulatory issues that are complex and long term in nature to ensure the resolution approach is appropriate and timely. A review will also be performed of the process for monitoring and resolving complex and long term regulatory issues. This evaluation will be completed by November 15, 2006. Appropriate changes will be implemented that improve the monitoring and timely resolution of such regulatory issues.	✓		November 15, 2006
Waterford 3 will be in full compliance by May 31, 2007 after completion of the modification for the diesel generator starting air system and update of the corresponding operational, design, and licensing basis documentation.	✓		May 31, 2007
Prior to implementing the modification, Waterford 3 will perform another test of the diesel generator air start system before the end of September 2006. The purpose of this test will be to establish a more accurate baseline for the current capacity of the diesel generator air start system, which can then be used as an input into the planned modification.	✓		September 30, 2006.