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Waterford 3

W3F1-2006-0053

September 29, 2006

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

**SUBJECT:** Reply to Notice of Violation: EA-06-136  
Waterford Steam Electric Station, Unit 3  
Docket No. 50-382  
License No. NPF-38

**REFERENCE:** 1. Letter from A. T. Howell (NRC) to J.E. Venable (Entergy) dated August 30, 2006, Waterford Steam Electric Station, Unit 3 – NRC Inspection Report 05000382/2006009 and Notice of Violation

Dear Sir or Madam:

In the referenced letter, the NRC documented two examples of a violation of 10 CFR 50.9 related to Waterford 3 reporting to the NRC inaccurate information associated with the NRC's Safety System Unavailability (SSU), High Pressure Injection and Residual Heat Removal, Performance Indicators ("PIs"). Entergy and the NRC have discussed this matter at length, and we accept the NRC Severity Level IV violation as the final resolution.

The reason for the violation of 10 CFR 50.9 is that Waterford 3 relied on complex technical analyses for reporting performance indicator data for Safety Injection (SI) train B and Containment Spray (CS) train B. However, the analyses provided by Waterford 3 did not fully recognize the potential application of differing assumptions and conservatisms to bound the condition of past availability between November 11 of 2003 and September 11 of 2004.

The technical issue of concern was whether the as-found position of valve SI-602B would have prevented SI train B and CS train B from performing their intended safety functions. Waterford 3 in good faith completed an extensive analysis using engineering practices and procedures which indicated with reasonable assurance that these systems would have performed their intended safety functions during the time that valve SI-602B was not fully in the required "closed" position. Therefore, Waterford 3 continued to report the SI and CS systems as "available" during this time interval. The NRC's analysis concluded that the safety function was not adequately demonstrated which would therefore require reporting these systems as "unavailable".

*JED*

Entergy understands and believes in our obligation to provide complete and accurate information to the NRC. Entergy places a high priority on promptly resolving technical differences with the staff.

Table 1 in Attachment 1 of this letter provides the pre-MSPI SSU unavailability values for Safety Injection and Containment Spray systems.

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/ssf

- Attachments: 1. Reply to Notice of Violation: EA-06-136  
2. List of Regulatory Commitments

cc: (w/Attachments)

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U. S. Nuclear Regulatory Commission  
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(w/o Attachment 2)

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**Attachment 1 to  
W3F1-2006-0053  
Reply to Notice of Violation, EA-06-136**

## Reply to a Notice of Violation; EA-06-136

### 1.0 Restatement of Violation

"During an NRC Inspection conducted on March 6 through May 11, 2006, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 50.9 requires, in part; 'Information provided to the Commission by a licensee shall be complete and accurate in all material respects.'

Contrary to the above, from approximately November 1, 2004, (when the licensee initially submitted the subject performance indicator information) to May 11, 2006, information provided to the Commission in the form of system unavailability statistics for the high pressure safety injection (Train B) and containment spray (Train B) systems was not complete and accurate in all material respects. The licensee significantly under-reported the unavailability hours for each train. This was material because the NRC used the information to determine its response (e.g., inspection) to the data.

This is a Severity Level IV violation (Supplement VII)."

### 2.0 Reason for the Violation

The reason for the violation of 10 CFR 50.9 is that Waterford 3 relied on complex technical analyses for reporting performance indicator data for Safety Injection (SI) train B and Containment Spray (CS) train B. However, the analyses provided by Waterford 3 did not fully recognize the potential application of differing assumptions and conservatisms to bound the condition of past availability between November 11 of 2003 and September 11 of 2004.

The technical issue of concern was whether the as-found position of valve SI-602B would have prevented SI train B and CS train B from performing their intended safety functions. Waterford 3 in good faith completed an extensive analysis using engineering practices and procedures which indicated with reasonable assurance that these systems would have performed their intended safety functions during the time that valve SI-602B was not fully in the required "closed" position. Therefore, we continued to report the SI and CS systems as "available" during this time interval. Waterford 3 recognizes that we should have established more robustness in the methods, measurements, and analysis by employing more diversity and conservatism in establishing the valve as found position. The NRC's analysis concluded that the safety function was not adequately demonstrated which would therefore require reporting these systems as "unavailable".

Entergy understands and believes in our obligation to provide complete and accurate information to the NRC. Entergy places a high priority on promptly resolving technical differences with the staff.

### 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.

Upon discovery, Waterford 3 initiated Condition Report CR-WF3-2004-2847 on September 9, 2004. Valve SI 602B was returned to service on September 11, 2004.

Table 1 provides the pre-MSPI SSU unavailability values for SI and CS systems.

Table 1 <sup>1</sup>			
PI System	PI Color	PI Transition Time	PI Unavailability
HPSI	White	2003-Q4	2.6% <sup>2</sup>
HPSI	Yellow	2004-Q1	7.0% <sup>3</sup>
HPSI	Red	2004-Q2	11.3% <sup>4</sup>
CS	White	2004-Q1	3.6%
CS	Yellow	2004-Q2	5.8%
Notes:			
<sup>1</sup> The PI transition time is the initial quarter the PI would have transitioned to the given color. HPSI would have stayed red and CS would have stayed yellow until April 1, 2006 upon transition to MSPI.			
<sup>2</sup> NRC calculated unavailability value is 2.5%			
<sup>3</sup> NRC calculated unavailability value is 6.9%			
<sup>4</sup> NRC calculated unavailability value is 11.2%			

### 4.0 Corrective Steps to be taken to Avoid Further Violations

Waterford 3 will focus oversight to better ensure that complex performance indicator issues are promptly resolved and that performance indicator information is accurate and complete. Accordingly, Waterford 3 will implement the following enhancements:

- a The Nuclear Safety Assurance Director will develop and administer a case study on this issue with the objective to reinforce to cognizant personnel lessons learned to ensure performance indicator issues are promptly resolved with bounding conservatism and are accurately and completely reported to the NRC.
- b The Engineering Director will develop and administer a case study on this issue with the objective to reinforce to engineering site supervision lessons learned to ensure robustness, conservatism, and diversity in the methods employed to determine component status for safety system readiness.

- c The Licensing Manager will conduct training for selected Waterford 3 personnel on the Reactor Oversight Process per RIS 2006-13.
- d The Manager, Corrective Actions and Assessments, will conduct a review of industry operating experience including NRC violations and Entergy Condition Reports in the last two years applicable to performance indicators and 10 CFR 50.9, and appropriate lessons learned will be communicated to personnel.
- e Quality Assurance will perform an independent review of the reporting of Waterford 3 PIs for two consecutive quarters.

These enhancements will be completed by March 30, 2007, and the enhancements will be tracked for closure in the Waterford 3 Commitments Management System (CMS).

#### **5.0 Date when Full Compliance will be Achieved**

Entergy is in full compliance with 10 CFR 50.9 with the submittal of this letter and the documentation of the SSU PI unavailability values.

**Attachment 2 to  
W3F1-2006-0053  
List of Regulatory Commitments**

### **List of Regulatory Commitments**

The following 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.

#### One Time Commitment:

Waterford 3 will implement the following enhancements:

- a The Nuclear Safety Assurance Director will develop and administer a case study on this issue with the objective to reinforce to cognizant personnel lessons learned to ensure performance indicator issues are promptly resolved with bounding conservatism and are accurately and completely reported to the NRC.
- b The Engineering Director will develop and administer a case study on this issue with the objective to reinforce to engineering site supervision lessons learned to ensure robustness, conservatism, and diversity in the methods employed to determine component status for safety system readiness.
- c The Licensing Manager will conduct training for selected Waterford 3 personnel on the Reactor Oversight Process per RIS 2006-13.
- d The Manager, Corrective Actions and Assessments, will conduct a review of industry operating experience including NRC violations and Entergy Condition Reports in the last two years applicable to performance indicators and 10 CFR 50.9, and appropriate lessons learned will be communicated to personnel.
- e Quality Assurance will perform an independent review of the reporting of Waterford 3 PIs for two consecutive quarters.

These enhancements will be completed by March 30, 2007, and the enhancements will be tracked for closure in the Waterford 3 Commitments Management System (CMS).