



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

OCT 28 1996

Michael B. Sellman, Vice President
Operations - Waterford
Entergy Operations, Inc.
P.O. Box B
Killona, Louisiana 70066

SUBJECT: NRC INSPECTION REPORT 50-382/96-11

Thank you for your letter of October 21, 1996, in response to our letter and Notice of Violation dated September 20, 1996. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. E. Dyer", is written above the typed name.

J. E. Dyer, Director
Division of Reactor Projects

Docket No.: 50-382
License No.: NPF-38

cc:
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G PDR

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-2-

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Entergy Operations, Inc.

-3-

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OCT 28 1996

Entergy Operations, Inc.

-4-

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan
DRP Director
Branch Chief (DRP/D)
Project Engineer (DRP/D)
Branch Chief (DRP/TSS)

Resident Inspector
DRS-PSB
MIS System
RIV File
Leah Tremper (OC/LFDCB, MS: TWFN 9E10)

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10/25/96	10/25/96	10/26/96				

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OCT 28 1996

Entergy Operations, Inc.

-4-

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan
DRP Director
Branch Chief (DRP/D)
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GAPick;cm <i>[Signature]</i>	PHHar <i>[Signature]</i>	JEDyer <i>[Signature]</i>					
10/25/96	10/25/96	10/26/96					

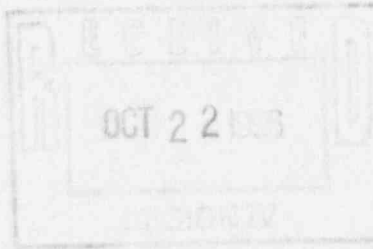
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Entergy

Entergy Operations, Inc.
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James J. Fisicaro
Director
Nuclear Safety
Waterford 3



W3F1-96-0173
A4.05
PR

October 21, 1996

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
NRC Inspection Report 96-11
Reply to Notice of Violation

Gentlemen:

In accordance with 10CFR2.201, Entergy Operations, Inc. hereby submits in Attachment 1 the response to the violation identified in Enclosure 1 of the subject Inspection Report.

The staff expressed concern with the violation in the cover letter of Inspection Report 96-11, because the susceptibility of the auxiliary component cooling water (ACCW) system to a waterhammer had been addressed previously in Inspection Report (IR) 95-23. Additionally, concern arose because the written instructions for an instrument loop calibration activity were not sufficient to prevent a July 29, 1996, inadvertent ACCW pump start and system waterhammer. Waterford 3 shares your concerns, and as detailed in IR 95-23, has taken comprehensive corrective actions to address those matters. These corrective actions included, among other things: (1) instituting administrative controls to manually close ACCW pump discharge valves before starting the pumps at any time, and (2) operating the ACCW pumps continuously, with periodic venting to detect air intrusion. Those interim measures are intended to forestall future waterhammer events, until a more permanent solution (Design Change 3470) can be implemented during Refuel Outage 8.

97-0086

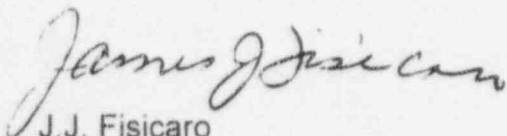
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NRC Inspection Report 96-11
Reply to Notice of Violation
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October 21, 1996

Regarding concern with respect to the inadvertent ACCW pump start and system waterhammer, due to the inadvertent nature of the pump start Operations was unable to first close and then throttle the associated discharge valves. Waterford 3 agrees that the Work Authorization Instructions should have been more prescriptive. The corrective action (including implementation of DC-3470) as outlined in the violation response should address this concern.

If you have any questions concerning this response, please contact me at (504) 739-6242 or Tim Gaudet at (504) 739-6666.

Very truly yours,



J.J. Fisicaro
Director
Nuclear Safety

JJF/PRS/ssf
Attachment

cc: L.J. Callan (NRC Region IV)
C.P. Patel (NRC-NRR)
R.B. McGehee
N.S. Reynolds
NRC Resident Inspectors Office

ATTACHMENT 1

ENTERGY OPERATIONS, INC. RESPONSE TO THE VIOLATION IDENTIFIED IN
ENCLOSURE 1 OF INSPECTION REPORT 96-11

VIOLATION NO. 9611-03

Technical Specification 6.8.1.a requires, in part, that written procedures shall be maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Appendix A, Section 9, requires that the licensee have maintenance procedures/written instructions appropriate to the circumstances.

Contrary to the above, on July 29, 1996, Work Authorization (WA) 01149346, which provided written instructions for adjusting the process temperature meter for component cooling water temperature control loop manual/automatic station CC ITIC7070 B, was not appropriate to the circumstances in that the written instructions did not require returning the manual/automatic setpoint to its original state prior to returning the system to service and, as a result, Auxiliary Component Cooling Water Pump B inadvertently started automatically and caused a waterhammer in the system.

This is a Severity Level IV violation (Supplement 1) (50-382/9611-03)

RESPONSE

(1) Reason for the Violation

Entergy believes the root causes of the violation are inadequate administrative controls and personnel error for the following reasons:

- Procedure MI-005-563, Component Cooling Water Temperature Control Loop Calibration, Precaution Step 4.1.2 and Section 8.17, System Restoration, are misleading. This procedure provides instructions for the calibration of Control Loops CC IT7075A, CC IT7076A, CC IT7075B, and CCIT7076B. The procedure must be used for calibration or periodic testing, and may be employed in troubleshooting suspected instrument malfunctions. Step 4.1.2 states, "When performing system restoration, the Auxiliary Component Cooling Water Pump A or B may start if the Nuclear Plant Operator (NPO) has not returned the setpoint on Manual/Automatic (M/A) Station CC ITIC7070 A or B to its original state, before connecting wires during performance of Section 8.17 (System Restoration)." The Caution in Section 8.17 states, "Failure to perform Step 8.17.1 may result in starting of the ACCW pump." Step 8.17.1 states, "Have Operations return M/A station CC ITIC7070 A or B Setpoint to its original state." An I&C Technician could misconstrue from the wording that a reset of the

associated setpoint is required only where a wiring reconnection is necessary, since that is the only discussion. The caution, precaution, and restoration section do not discuss action to be taken (setpoint reset) when a card is removed and reinstalled as was the case in this event or for any other maintenance.

- Standards, Policies, and Administrative Controls are not sufficiently prescriptive. WA packages are planned in accordance UNT-005-015 "Work Authorization Preparation and Implementation", MD-001-026 "Maintenance Work Center Planning," and the Planning Information Guide Notebook (PIGN). Requirements are in place that specify that the planner assemble appropriate work instructions in the job plan. For this event, the planner may have been influenced by the foreman's prior knowledge of the scope of the job, since it appears that a thorough review of requirements was not performed. Considering the importance and sensitivity of the system being worked on, this job plan warranted more specific steps.
- The supervisor pre-job briefings did not include discussion on equipment restoration which might have been expected, but was not specifically required. The initial pre-job brief held on 7/18/96 to perform troubleshooting covered the precautions, limitations, and initial condition section of procedure MI-005-563, but the supervisor did not cover the restoration section of MI-005-563. Another briefing was conducted with a new crew ten (10) days later on 7/28/96 to continue troubleshooting and corrective maintenance. This briefing also did not include discussion on the restoration section.
- Operations failed to appropriately reset the associated setpoint due to inadequate turnover notes. The I & C Technician involved in completing the M/A Station meter adjustment verbally notified, just prior to Operation's turnover, the NPO that work had been completed but did not communicate the need for setpoint restoration. During the Control Room Supervisor (CRS) turnover from day shift to night shift the CRS noticed that the CCW temperature setpoint needed to be reset and communicated that to the oncoming CRS. The oncoming CRS made a note on his list of turnover items. Later that night, while reviewing his list of turnover items, the CRS on duty noticed an item dealing with ACCW, but due to the lack of detail in his notes failed to recognize that he needed to reset the setpoint.

(2) Corrective Steps That Have Been Taken and the Results Achieved

- a) The ACC-126B setpoint was immediately readjusted to 85° F and the ACCW Pump B was secured.
- b) Management expectations of what must be discussed in the course of pre-job briefings with respect to equipment restoration was presented to all Maintenance Personnel via a September 26, 1996 memorandum from the Maintenance Manager.
- c) Operations management reviewed this event with the operations crew that was on shift when the ACCW Pump B inadvertently started.

(3) Corrective Steps Which Will Be Taken to Avoid Further Violations

- a) Procedure MI-005-563 will be revised to provide a clearer understanding of what the intent is and the consequences are for restoring a M/A Station as described in Step 4.1.2.
- b) More guidance will be provided for the maintenance planners on when more detailed work instructions are needed in a job plan, through revision of the Planning Information Guide Notebook.
- c) Operations will review the method by which turnovers are performed. Particular emphasis will be placed on establishing how important items which have been discussed during the course of a turnover and which need to be performed at a later time in the shift are not overlooked.
- d) All of the control loops in the plant that utilize NTD cards to generate setpoints will be identified and a review will be completed to determine whether procedure changes are required to ensure that the setpoints are restored properly following any maintenance.
- e) Management expectations of what must be discussed in the course of pre-job briefings will be reiterated to the Maintenance Department personnel through presentations at shop meetings.

(4) Date When Full Compliance Will Be Achieved

Based on the measures taken, Waterford 3 is in full compliance. Waterford 3 will complete Corrective Steps 3(a), 3(b), and 3(c) by 11/30/96, while Corrective Steps 3(d) and 3(e) will be finished by December 31, 1996.