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

MAY - 6 1994

Docket: 50-382
License: NPF-38

Entergy Operations, Inc.
ATTN: Ross P. Barkhurst, Vice President
Operations, Waterford
P.O. Box B
Killona, Louisiana 70066

SUBJECT: NRC INSPECTION REPORT 50-382/93-35

Thank you for your letter of April 1, 1994, in response to our letter and Notice of Violation dated March 4, 1994. 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. Bill Beach, Director
Division of Reactor Projects

cc:
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5/6/94	5/6/94	5/6/94		

ENTERGY

Entergy Operations, Inc.

R. F. Burski

W3F1-94-0038
A4.05
PR

April 1, 1994

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 93-35
Reply to Notices of Violations

Gentlemen:

In accordance with 10CFR2.201, Entergy Operations, Inc. hereby submits in Attachment 1, the responses to the violations identified in Appendix A of the subject Inspection Report.

If you have any questions concerning these responses, please contact G.C. Scott at (504) 739-6703.

Very truly yours,

R.F. Burski
Director
Nuclear Safety

RFB/GCS/tjs
Attachment

cc: L.J. Callan (NRC Region IV), D.L. Wigginton (NRC-NRR),
R.B. McGehee, N.S. Reynolds, NRC Resident Inspectors Office

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ATTACHMENT 1

ENTERGY OPERATIONS, INC. RESPONSE TO THE VIOLATION IDENTIFIED IN APPENDIX A OF INSPECTION REPORT 93-35

VIOLATION NO. 9335-01

Criterion III of Appendix B to 10 CFR Part 50 states, in part, that suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems and components. Criterion III further states, in part, that design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of reviews, by the use of alternate or simplified calculation methods or by the performance of a suitable testing program.

A. Contrary to the above, measures were not established to verify the suitability of application of materials, parts, equipment, and installation processes for replacement of safety-related valve operators with nonsafety-related valve operators. Specifically, in 1988, Design Modification SMP-1960 was implemented which provided for the installation of two safety-related valves, CC-8241A and CC-8251B, in the component cooling water system for Trains A and B, respectively. As part of the design modification, the safety-related pneumatic operators were replaced with nonsafety-related manual operators. An evaluation was not performed to determine the suitability of the operator replacements. In addition, approved work instructions were not provided for replacement of the valve operators. The valves are essential to maintaining the separation of the component cooling water system accident trains.

B. Contrary to the above, the design process used for Design Modification SMP-1960 did not require post modification review, calculation, or testing to ensure the design adequacy in that the hydrostatic test performed would not identify the error-induced mispositioning of valves CC-8241A and CC-8251B, which resulted in crossconnection of two accident trains of the component cooling water system.

This is a Severity Level IV violation. (Supplement I) (382/9335-01)

RESPONSE TO VIOLATION NO. 9335-01 (Example A)

(1) Reason for the Violation

Entergy Operations, Inc. admits this violation and believes that the root cause of this event was a lack of any work instructions for the change-out of the operators for valves CC-8241A and 8251B when station modification package (SMP) 1960 was implemented. The operators were changed from pneumatic to manual without the aid of work instructions. These valves were incorrectly installed with the valve discs not properly aligned with their position indicators. Valves CC-8241A and CC-8251B were purchased as pneumatically operated butterfly valves. Per station modification package SMP-1960, which required installation of these valves in the spring of 1988, the air operators on these valves were to be removed and replaced with manual handwheel operators. The air operators were removed from these valves and replaced with handwheels. This was done without the use of work instructions describing the steps necessary to properly remove the air operator from the valves and install the handwheels.

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

A condition report was generated to enter this self identified condition into the corrective action program.

Waterford 3 could not conclusively ascertain that an evaluation to determine the suitability of the nonsafety-related manual operator replacing the safety-related pneumatic operator had been performed. Consequently Procurement Engineering performed a commercial grade evaluation of the manual operators on valves CC-8241A and CC-8251B to determine their safety qualification and as a result determined them to be acceptable.

Given the fact that this violation is based on past design change practices, Waterford 3 performed a review of current programs and practices to determine if such practices would preclude a similar condition occurring today. Current plant program requirements as documented in procedures UNT-005-015 "Authorization Preparation and Implementation", NOCI-004 "Intradepartmental Administrative Guidelines", and MD-001-026 "Maintenance Department Work Center Planning " require that work instructions be prepared with enough detail, as to provide reasonable assurance that work can be completed in a safe, efficient and professional manner. Also, the Construction Manager has reviewed their programs and procedures and determined that they require appropriate work instructions be included in all work packages.

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

The corrective actions described above are sufficient to prevent recurrence.

(4) Date When Full Compliance Will Be Achieved

Waterford 3 is currently in full compliance.

RESPONSE TO VIOLATION NO. 9335-01 (Example B)

(1) Reason for the Violation

Entergy Operations, Inc. admits this violation and believes the root cause was inadequate post-modification acceptance testing. There were no testing requirements established subsequent to the installation of SMP 1960 which would have verified the valves to be correctly aligned or able to isolate train A and train B of the CCW system correctly.

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

The valve operators for CC-8241A and CC-8251B were adjusted to close the valves, and the valves were locked closed.

Given the fact that this violation is based on past design change practices, Waterford 3 performed a review of current programs and practices to determine if such practices would preclude a similar condition occurring today. Current plant programs as documented in procedure NOECP-303 "Design Engineering Design Change" address post modification testing. The procedure requires design engineering coordination with system engineering to determine the necessity and extent of acceptance testing of design changes. Also, System Engineering and Design Engineering have reviewed their programs and procedures to ensure that they provide for adequate post modification testing as well.

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

The corrective actions described above are sufficient to prevent recurrence.

(4) Date When Full Compliance Will Be Achieved

Waterford 3 is currently in full compliance.

VIOLATION NO. 9335-02

Criterion XVI of Appendix B to 10 CFR Part 50 and the licensee's approved Quality Assurance Program description, Revision 5, require that measures be established to assure that conditions adverse to quality are promptly identified and corrected.

1. Contrary to the above, the corrective actions taken in response to Condition Identifications 265759 and 272856, initiated on October 10, 1989, and December 17, 1990, respectively, for correction of seat leakage in valve CC-8251B (or CC-8241A) had not yet been implemented. The seat leakage resulted in a degradation of the train separation of the component cooling water system.

2. Contrary to the above, the corrective actions taken in response to Condition Identifications 251421, 266587, and 273518, completed on December 14, 1987, January 16, 1990, and April 5, 1991, respectively, were inadequate to prevent the failure of the Main Steam Drip Pot Motor-Operated Drain Valve MS-120A to close during the performance of Surveillance Procedure OP-903-094, Revision 7, "ESFAS Subgroup Relay Test - Operating," on January 2, 1994, because of interference between the valve actuator declutch lever and an adjacent support. The three condition identifications and the failure's root cause all identified interference between the declutch lever on Valve MS-120A and an adjacent support.

This is a Severity Level IV violation. (Supplement I)(382/9335-02).

RESPONSE

(1) Reason for the Violation

Entergy Operations, Inc. admits this violation and believes the root cause is untimeliness in the implementation for corrective actions(s) for item 1 and inadequate corrective action taken in response to prior identification of conditions adverse to quality for item 2. The two examples described above indicate that these past conditions were identified, but were not properly corrected and as such, resulted in a degradation or failure which could have been prevented. Section 2 below will describe changes to the corrective action program which have been implemented since these past identifications were made, and resulted in the timely and appropriate correction of the identified degradation and failure described herein.

The first example involved a degradation of the train separation of the component cooling water system. The degradation was discovered as a result of troubleshooting performed in response to an unsatisfactory inservice test conducted on December 30, 1993. In 1989, CI-265759 had been written to troubleshoot valve CC-8251B for seat leakage. The mechanical stop adjustment performed under CI-265759 did not correct the seat leakage problem. CI-272856 was then generated to rework the valve. The completion of this task was given a routine priority based on the problem description. Due to parts delays and the need to qualify a welding procedure, the CI was not scheduled for work until refueling outage 6 (March of 1994). If CI 272856 had been worked Waterford 3 is confident that the discovery of the partially open valves CC-8241A and CC-8251B would have occurred.

The second example involved a surveillance test failure on January 3, 1994. During troubleshooting, electrical maintenance personnel identified an interference condition involving the valve declutch lever on the motor operator for MSIV Upstream Normal Drain Valve MS-120 A. During the performance of Surveillance Procedure OP-903-094, "ESFAS Subgroup Relay Test-Operating", MS-120 A would not stroke. This valve is normally open and required to close when receiving an ESFAS Containment Isolation Actuation signal (CIAS). It was reported that the valve stem did not move and subsequent troubleshooting showed the valve's declutch lever was found stuck and wedged against a structural support in the "down" position. The interference of the declutch lever prevented the valve's disengagement from the manual mode and the valve's automatic engagement to the motor upon receipt of an electrical command. This interference had been documented in three prior instances, the last of which occurred in 1991, without proper evaluation and corrective action being completed.

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

Specific corrective actions for the degradation of the CC-8241 A and CC-8251 B included correcting a misalignment of the valve operators under CI-289046. Root Cause Investigation (RCI) 94-001 was initiated to address the concerns associated with this event. Additional specific corrective actions are discussed in response to Notice of Violation 9335-01.

Specific corrective actions to return MS-120 A to service are documented in Condition Report number CR-94-026. An engineering evaluation was performed and included consideration of thermal expansion and seismic considerations. Based on that evaluation, the declutch lever was modified to alleviate the structural interference condition. The evaluation and modification were completed under WA 01117480. In addition, a visual inspection of other accessible

safety related valves was performed to determine if other valves had similar problems. None were found to exhibit an interference problem similar to MS-120 A.

Generic corrective actions completed in association with a prior notice of violation (9333-01), resulted in an improved corrective action process for Waterford 3. Those actions included training sessions by department to emphasize corrective action program goals, define individual responsibilities, clarify entry requirements for the corrective action process, and discuss management expectations. In addition, a Condition Report Board was initiated in November, 1993 to review condition reports and condition identifications on the front end to ensure proper priority and dedication of resources.

In addition, Corrective Action procedures and Directives were revised to further clarify definitions, responsibilities and actions.

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

Additional specific corrective action for the degradation of the train separation of the Component Cooling Water system includes recurring training (Industry Events) for engineering and operations personnel.

Additional specific corrective action for the interference condition of MS-120 A includes the incorporation of the associated condition report in recurring training for engineering and maintenance personnel to reinforce improved evaluation efforts.

(4) Date When Full Compliance Will Be Achieved

The specific corrective action discussed in Section 3 shall be completed by December 31, 1994.

bcc to DMB (IE01)

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5/6/94	5/6/94	5/6/94		