

Entergy Operations, Inc.  
P.O. Box B  
Killona, LA 70066  
Tel 504 739 6242

James J. Fisicaro  
Director  
Nuclear Safety  
Waterford 3

W3F1-96-0053  
A4.05  
PR

May 9, 1996

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

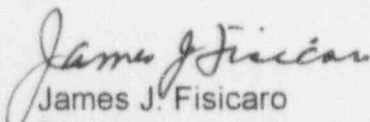
Subject: Waterford 3 SES  
Docket No. 50-382  
License No. NPF-38  
NRC Inspection Report 95-22  
Reply to Notice of Violation

Gentlemen:

In accordance with 10CFR2.201, Entergy hereby submits in Attachment 1 the response to the violations identified in Enclosure 1 of the subject Inspection Report. A two week extension for this violation response was granted by NRC Region IV via telephone communication on April 25, 1996.

Should you have any questions concerning this response, please contact me at (504) 739-6242 or Don Vinci at (504) 739-6370.

Very truly yours,

  
James J. Fisicaro  
Director  
Nuclear Safety

JJF/DFL/tjs  
Attachment

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

IEO/  
11

ATTACHMENT 1

ENTERGY RESPONSE TO THE VIOLATIONS IDENTIFIED IN  
ENCLOSURE 1 OF INSPECTION REPORT 95-22

VIOLATION NO. 9522-01

Technical Specification 6.8.1.a requires, in part, that written procedures be established, implemented, and maintained covering the activities referenced in Appendix A to Regulatory Guide 1.33, Revision 2, 1978. Appendix A, Sections 1 and 9, require that the licensee have Administrative and Maintenance Procedures.

Procedure UNT-006-011, "Condition Reports," Section 5.6.3, requires, in part, that corrective action personnel review the corrective actions taken and verify the adequacy and effectiveness of the corrective actions and applicable associated documentation. Procedure UNT-006-011, Section 4.1, in part, requires that individuals identifying an adverse condition initiate a condition report.

Contrary to the above:

- a. Corrective action personnel failed to verify the adequacy and effectiveness of corrective actions taken in that the actions documented on Condition Report 95-1242 were not verified. Consequently, the functionality of the ultimate heat sink was affected because the wet cooling tower cross-connect valves were assumed to be functional without verification of the operability of the valves.
- b. On October 17, 1995, licensee personnel failed to initiate a condition report after identifying an adverse condition in that the flow through Cold Leg Safety Injection Loop 1A was identified as abnormally low during surveillance testing and a condition report was not generated.

This is a Severity Level IV violation (Supplement 1).

RESPONSE TO VIOLATION 9522-01, EXAMPLE 1

(1) Reason for the Violation

Entergy believes the cause of this example of the violation was inattention to detail in that credit was taken for the operability of valves to maintain a system operable without verification of operability through testing, inspection or some other means. Although the valves were later proved to be operable, in retrospect it would have been appropriate for engineering to confirm operability through Site Procedure W4.101, "Operability/Qualification Confirmation Process." This would have provided an additional barrier to assure assumptions were accurate and comprehensive.

On November 30, 1995, Condition Report (CR) 95-1242 was written by Design Engineering to document several identified design concerns with the Ultimate Heat Sink (UHS), which consists of the Component Cooling Water (CCW) and Auxiliary Component Cooling Water (ACCW) systems. One of the concerns identified was that a single ACCW Wet Cooling Tower (WCT) Basin may not contain enough water for post-LOCA heat removal as described in the FSAR. The CR was issued to the control room stating that the UHS remained operable from an inventory standpoint because make-up flow to one WCT basin from the other WCT basin could be achieved within 5.5 days post-LOCA by opening the WCT basins cross-connect valves, ACC-138 A&B. The Shift Supervisor accepted this evaluation and Operations issued a Standing Instruction to provide make-up to the operable WCT Basin within 5.5 days post-LOCA. Personnel involved with the initiation and review of CR-95-1242, however, failed to verify, through testing, inspection, or some other means, that the credited and qualified source of make-up was in an operable condition.

During a CCW/ACCW Task Force meeting held on January 12, 1996, engineering personnel questioned the need to perform testing of the cross-connect since it was being credited as the source of basin make-up. ACC-138 A&B had not previously been considered to have an active safety function, and thus were not included in the Inservice Test (IST) Plan. Design Engineering stated that they were in the process of reviewing calculations that could possibly show one Wet Cooling Tower Basin is sufficient for post-LOCA water requirements. Design Engineering also stated that one basin was sufficient given the current winter temperatures. The Task Force determined that testing of water flow between basins was not desirable because of the impact it could have on basin water chemistry. Lowering of one basin level to below Technical Specification requirements would be necessary to verify flow. It was believed that this could more safely be accomplished during a Refuel outage with a basin drained. Testing of the cross connect valves and verification of flow between the basins was added to the Task Force Action Plan with a due date of Refuel 8. The Task Force also requested that the Maintenance representative initiate Condition Identifications on ACC-138A(B) to refurbish the actuators. Condition Identifications 301005 and 301006 were initiated, however no urgency to verify operability of the valves resulted.

On January 22, 1996, the NRC resident inspector noted that the material condition of ACC-138 A&B was degraded. CR-96-0086 was initiated and W4.101 was entered. Under W4.101 both valves were stroked successfully from the control room to confirm operability, but they were unable to be stroked locally using the hand wheels due to stem rusting. However, the valves could have been opened locally, if required 5 days post-accident, by other means. The engineering evaluation performed under W4.101 concluded that the Ultimate Heat Sink was currently operable without WCT basin make-up capability. With a four day average ambient dry bulb temperature of less than 84 °F, a single WCT basin provides enough water to

dissipate post-LOCA ACCW heat loads. Subsequent evaluation has determined that one WCT basin contains sufficient water capacity to meet post-LOCA design basis requirements, provided operator action is taken to return Essential Chiller supply to CCW from ACCW at a CCW temperature of <110 °F.

For the issues documented on CR-95-1242, operability confirmation under the W4.101 process, rather than on the CR initiation form, would have been appropriate. CR-95-1242 was issued to the control room with an engineering evaluation justifying system operability, however this evaluation was not subject to a rigorous cross-discipline review. In retrospect, it would have been appropriate for engineering to verify operability through W4.101. This would have provided an additional barrier to ensure the assumptions being made to support operability were accurate and actions were comprehensive.

As stated in the violation, UNT-006-011 requires that corrective action personnel review the corrective actions taken and verify the adequacy and effectiveness of the corrective actions taken for Significant CRs. This QA Corrective Action verification review is an end process review for CR closure. The Root Cause Analysis for CR 95-1242 was approved on February 9, 1996, and the CR currently remains open for completion of corrective actions.

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

Under W4.101 both valves were stroked successfully from the control room to confirm operability.

ACC-138 A&B have been refurbished such that both local and remote operation are available.

Mandatory Preventive Maintenance (MPM) tasks 021727 and 021728 have been generated and assigned to Operations to test ACC-138 A&B on a quarterly basis.

Emergency Operating Procedures (EOPs) have been reviewed to identify any manual actions for which functional testing of the actuated component does not exist. Eight condition reports have been initiated as a result of this review. None of the conditions have resulted in plant operability concerns.

As the result of Corrective Action Program improvements not directly resulting from this event, UNT-006-011, "Condition Report," was revised on February 1, 1996 to require the identification and implementation of interim actions necessary when a CR is generated. Prior to this, on January 22, 1996, a letter was issued by plant management to all personnel outlining the planned Corrective Action Program improvements which included the adequacy of interim actions and timeliness of generating CRs.



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

As mentioned previously, engineering evaluation has determined that one WCT basin contains sufficient water capacity to meet post-LOCA design basis requirements, provided operator action is taken to return Essential Chiller supply to CCW from ACCW at a CCW temperature of <110 °F. This action will be incorporated into an emergency response engineering resource guide, which will be referenced in emergency plan implementing procedures, by July 1, 1996. Supplemental reading on the procedure changes and the contents of the resource guide involving this action will be issued to emergency response engineering personnel by August 1, 1996. As an interim action, a Standing Instruction has been issued in the control room for operators to implement this action, five days post-LOCA.

The WCT basins cross-connect line will be tested during the next refueling outage to ensure make-up capability from one basin to the other.

Quality Assurance performed a QA Service Assessment of the W4.101 process in February, 1996, as a result of an unrelated issue. Several recommendations for improvements to the process were made.

The W4.101 process will be re-reviewed by a cross-discipline team to identify necessary improvements, including necessary guidance on crediting alternate components for system operability. This review will also consider the previous QA recommendations. This action will be completed by July 15, 1996.

This event will be reviewed with Operations, Engineering, Licensing, and QA personnel for lessons learned. This action will be completed by June 20, 1996.

The lessons learned from this event will be reviewed with the Waterford 3 management team involved with the performance and review of operability determinations. This action will be completed by June 20, 1996.

As a result of recent events associated with the ACCW system, a Management/Supervisor meeting was held on March 6, 1996 to discuss and emphasize the expectations of having a self-critical and questioning attitude along with developing a "defense-in-depth" barrier mentality. All-Hands Meetings have followed and Departmental Meetings are ongoing to further emphasize these expectations. The Departmental Meetings will be completed by June 1, 1996.

Additional efforts are underway to address the generic issues associated with this and other recent events (ACCW). An integrated plan to address desired improvements in engineering and other areas is under development and will

be provided for NRC review during a meeting tentatively scheduled in June, 1996.

(4) Date When Full Compliance Will Be Achieved

Waterford 3 is currently in full compliance. Additional actions are being taken to ensure process improvements and to minimize the potential for future violations.

RESPONSE TO VIOLATION 9522-01, EXAMPLE 2

(1) Reason for the Violation

On January 4, 1996, Condition Report (CR) 96-0011 was initiated when it was discovered by an instrument calibration task force that the 1A Loop flow measuring orifice plate for SI IFE0311 appeared to be installed backwards. The CR identified that Refuel 7 HPSI flow balance data revealed the flow through the 1A Loop was about 10% to 20% lower than it had been historically and 10% to 20% less than the other loops. Per discussion with the orifice vendor, installing the orifice plate backwards would give up to 20% less flow indication, but will affect indication only, not actual flow. Condition Identification (CI) 300711 was initiated to correct the problem. Investigation into this CR led to questions regarding actions taken following the Refuel 7 surveillance testing.

Following the performance of OP-903-108, "Safety Injection Flow Balance Test," following Refuel 7, the Safety Injection (SI) System Engineer noted the flow anomaly for the 1A Loop. The sum of the cold leg injection flow rates, excluding the highest flow rate, was 679 gpm, which was approximately 30 to 40 gpm lower than historical values, but satisfied the test acceptance criteria and TS required minimum criteria of 675 gpm. Consideration was given to possible causes of the low flow indication by the system engineer and engineering management. Several maintenance activities had been performed on the SI system which were believed to have potentially affected the flow rate.

Procedure UNT-006-011, "Condition Report," provides guidance on actions that should be taken when a potential adverse condition is identified: "When a potential adverse condition has been identified that requires further investigation or analysis to validate the condition or facilitate a proper operability/reportability review, such investigation or analysis should be carried out expeditiously and appropriate plant management should be made aware of the potential adverse condition." When the HPSI flow anomaly was identified by the system engineer, appropriate engineering management personnel were notified. As stated above, consideration was given to

possible causes of the reduced flow indication. At that time, the flow anomaly was not considered to be an adverse condition by engineering personnel, and hence, a condition report was not required. However, a thorough follow-up investigation, subsequent to the initial considerations, was not performed to identify the cause of the anomaly. Management expectations at Waterford 3 are such that a more questioning attitude should have resulted in thorough follow-up investigation for the identified anomaly. In this instance engineering management did not effectively communicate the expectations of actions to be taken for identified discrepancies which do not result in exceeding acceptance criteria.

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

The responsible engineer was counseled on questioning attitude and actions which should have been taken to ensure a follow-up investigation of the identified discrepancy, even though the acceptance criteria was met.

Management expectations regarding test data or information gathered from the plant were reviewed with Systems Engineering personnel at a staff meeting on February 28, 1996.

Additionally, for existing equipment trending programs, Equipment Trend Program Guidelines have been issued which provide recommendations on establishing alert limits and alarm limits to identify degraded and adverse trends, respectively, for which CR initiation is required.

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

No additional corrective action is required.

(4) Date When Full Compliance Will Be Achieved

Waterford 3 is currently in full compliance.

VIOLATION NO. 9522-03

Technical Specification 6.8.1.a requires, in part, that written procedures be established, implemented, and maintained covering the activities referenced in Appendix A to Regulatory Guide 1.33, Revision 2, 1978. Appendix A, Sections 1 and 9, require that the licensee have Administrative and Maintenance Procedures.

Contrary to the above, as of December 12, 1995, the licensee did not have maintenance procedures to ensure all mechanical retests were identified, scheduled, and completed.

This is a Severity Level IV violation (Supplement I).

RESPONSE TO VIOLATION 9522-03

(1) Reason for the Violation

Entergy believes that the cause for this violation is that no formal process was in place to ensure all maintenance retests were performed in a timely manner after refueling outages. This condition involved a number of post refueling outage work packages, which were found to have uncompleted post maintenance testing. The majority of these retests required system/component walkdowns to identify leaks after the systems were returned to service. Performance of the maintenance retests was dependent upon coordination between Operations and Maintenance. This coordination resulted in most maintenance retests being performed along with the operability retests or during subsequent system operation. However, no formal program was established to ensure this coordination for all cases.

The removal and restoration of equipment from service is tracked by the Equipment Out of Service (EOS) Checklist, which is used by the Shift Supervisor to identify which post maintenance tests are necessary to ensure operability of the subject component/system. The completion of all operability tests is verified and approved by the Shift Supervisor prior to declaring equipment operable following maintenance. A contributing cause for the uncompleted maintenance retests may be attributed to a lack of urgency for completion of these tests, since they were not required to satisfy component operability criteria prior to returning systems to service.

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

The identified retests have been performed and documented for the identified work packages.



A Condition Report (CR-95-1266) was generated in accordance with Waterford 3 Administrative Procedure UNF-006-011, "Condition Report", to provide a means to implement the Waterford 3 Corrective Action Program.

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

The Shift Technical Advisor group will create a program for refueling outage maintenance to ensure that component post maintenance retests and inspections are completed in a timely manner. This action will be completed by January 31, 1997.

(4) Date When Full Compliance Will Be Achieved

Waterford 3 is currently in full compliance.

VIOLATION NO. 9522-04

Technical Specification 6.8.4.a requires, in part, that the licensee perform an integrated leak test for each system containing primary coolant sources outside of containment at refueling cycle intervals or less.

Contrary to the above, the licensee failed to perform an integrated leak test for each system containing primary coolant sources at refueling cycle intervals or less (i.e., 18 months). Specifically, the interval between integrated leak tests for Refueling Outage 6 (April 23, 1994) and Refueling Outage 7 (January 23, 1996) was 21 months.

This is a Severity Level IV violation (Supplement I).

RESPONSE TO VIOLATION 9522-04

(1) Reason for the Violation

Entergy believes that the cause for this violation is the misapplication of the Technical Specification 4.0.2 interval extension to Technical Specification Section 6.0, Administrative Controls. It was incorrectly assumed that the 25% interval extension applied to all sections of the Technical Specifications and was not limited to the Surveillance Requirements of Section 4.0.

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

A Condition Report (CR-96-0149) was generated in accordance with Waterford 3 Administrative Procedure UNT-006-011, "Condition Report", to provide a means to implement the Waterford 3 Corrective Action Program.

Repetitive Tasks scheduled in System Information Management System (SIMS) have a 25% extension automatically added to the task interval, which establishes "late dates" for these tasks. The interval for performance of OP-903-110, RAB Fluid System Leak Test, on task 000666 has been changed to ensure the Technical Specification surveillance late date is 18 months or less from the previous completion date.

A review of all repetitive surveillance tasks was performed to determine if any other items from Technical Specification Section 6.0 were scheduled in SIMS. Three additional repetitive surveillance tasks were found. The performance interval of these surveillance tasks has been revised to ensure the Technical Specification surveillance late date does not exceed the interval specified in Technical Specification Section 6.0. It should be noted that the Technical Specification interval for these three tasks were not exceeded.

The performance of other items from Technical Specification Section 6.0 are scheduled in the Commitment Management System (CMS). A commitment has been generated to ensure the Technical Specification surveillance item is completed within the intervals specified. A review of the commitments and commitment dates was performed and no 25% interval extension had been added to the due dates.

A review of Technical Specification Sections 2.0 and 5.0 was also performed which verified these sections do not contain any items scheduled by SIMS or CMS.

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

A caution will be added to UNT-007-012, "Implementation of Technical Specification Changes", by the Shift Technical Advisor (STA) group to ensure that a surveillance interval extension is not added to any Technical Specification surveillance other than those addressed by Technical Specification Section 4.0. This action will be completed by July 31, 1996.

(4) Date When Full Compliance Will Be Achieved

Waterford 3 is currently in full compliance.

VIOLATION NO. 9522-05

License Condition 2.E of the Waterford 3 Facility Operating License, requires, in part, that the licensee fully implement and maintain in effect all provisions of the Commission-approved physical security plan, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements, revisions to 10 CFR 73.55, and revisions to the authority of 10 CFR 50.90 and 10 CFR 50.54(p).

Section 6.3 of the Waterford 3 Physical Security Plan requires, in part, that illumination in the protected area be at least 0.2 foot-candles.

Contrary to the above, on January 24, 1996, the licensee failed to ensure that the temporary enclosure for the vacuum degasifier pumps and a trench between the ionics trailer and the polisher building, areas within the protected area, were illuminated to at least 0.2 foot-candles.

This is a Severity Level IV violation (Supplement III).

RESPONSE TO VIOLATION 9522-05

(1) Reason for the Violation

Entergy believes that the cause of the violation was personnel error in that security personnel failed to identify the areas within the protected area which required temporary protective lighting as required by security procedure PS-012-102, "Protective Lighting." Also, in reviewing this event, it was discovered that evening shift security officers sometimes did not begin their tours immediately upon assuming the responsibility, which could lead to not identifying the need for temporary lighting in a timely manner.

In addition, Maintenance personnel are required to notify Security if work being performed creates the need for temporary lighting. The removal of the trench covers is not a routine task. The Maintenance personnel performing the work did not realize this would create the need for temporary lighting, and hence, did not notify Security.

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

A letter has been sent to all security personnel emphasizing the requirements of procedure PS-012-102 as it relates to determining areas that require temporary lighting. The letter also states that initial evening shift protected area patrols will be conducted once the security officer assumes his patrol responsibilities.

This violation was discussed at a Mechanical Maintenance shop meeting to heighten the awareness of temporary lighting requirements, especially to be considered for non-routine work.

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

No additional corrective action is required.

(4) Date When Full Compliance Will Be Achieved

Waterford 3 is currently in full compliance.