

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 50-458
License No.: NPF-47
Report No.: 50-458/97-05
Licensee: Entergy Operations, Inc.
Facility: River Bend Station
Location: St. Francisville, Louisiana
Dates: February 10-14, 1997
Inspectors: Thomas R. Meadows, Reactor Engineer (Examiner)
Thomas O. McKernon, Reactor Engineer (Examiner)
Michael E. Murphy, Reactor Engineer (Examiner)
Approved By: John L. Pellet, Chief, Operations Branch
Division of Reactor Safety

Attachment: Supplemental Information

EXECUTIVE SUMMARY

River Bend Station NRC Inspection Report 50-458/96-05

This inspection reviewed a portion of the licensee's implementation of the improved standard Technical Specifications. The inspectors were to ascertain whether the licensee had invoked the appropriate provisions or conditions of the NRC approval documented in the safety evaluation. Particular emphasis was to be placed on licensee procedures and controls for those requirements that have been relocated from the Technical Specifications to other documents.

Operations

- The inspectors concluded that the licensee's audits, conducted up to the time of this inspection, were adequate in scope to review the transition process to the improved Technical Specifications (Section 03.01).
- The licensee successfully revised its previous Technical Specifications to the format of NUREG-1434, "BWR Standard Technical Specifications," and relocated requirements to other documents as appropriate in accordance with the license Amendment 81 safety evaluation. The inspectors noted some vulnerabilities in the licensee's safety function determination program (Section 03.02).
- The inspectors closed a violation for a failure to implement the requirements of Technical Specifications 3.0.6 and 5.5.10 (Sections 03.02 and 08.1).
- The inspectors concluded through a sampling of relocated Technical Specification elements and a review of the supporting control process that the licensee had successfully implemented the Improved Technical Specification program. In addition, the majority of the recent problems identified with the licensee's surveillance program were not caused by the improved Technical Specification conversion process (Section 03.03).
- The inspectors reviewed one safety related surveillance procedure to determine its adequacy and concluded that the surveillance test appropriately tested the affected circuits of the subject sensor and instrument loop (Section 03.04).

Report Details

I. Operations

03 Operations Procedures and Documentation

03.01 Licensee Audits

a. Inspection Scope (TI2515/130)

The inspectors reviewed the licensee's Technical Review Manual Comment Resolutions & Audits from October 1995 through November 1996. These licensee audits were conducted to verify that the improved Technical Specifications contained all of the requirements from the original Technical Specifications or there was documented justification for relocation of the original requirements.

b. Observations and Findings

The licensee's audits reviewed a sample of the requirements from the Technical Specifications, Technical Specification bases, and technical requirements manual. The licensee's audits also included some of the revised surveillance procedures.

The licensee determined that the more restrictive, less restrictive, and relocated Technical Specification requirements were accounted for in the technical requirements manual or the Technical Specification bases and justifications were properly documented. The inspectors could find no Technical Specification requirements that were unaccounted for within the scope of the licensee's audits. The licensee also audited some surveillance procedures, revised as part of the Technical Specification transition. The licensee determined that the audited surveillance procedures complied with Plant Administrative Procedures.

c. Conclusions

The inspectors concluded that the licensee's audits conducted up to the time of this inspection were adequate in scope to review the transition process to the improved Technical Specifications.

03.02 Improved Technical Specification Implementation

a. Inspection Scope (TI2515/130)

The inspectors reviewed the improved standard Technical Specifications, which the licensee implemented at the station in October 1995, using the format and guidance of NUREG-1434, "BWR Standard Technical Specifications." The inspectors compared the current Improved Technical Specifications with marked up copies of the previous Technical Specifications and the safety evaluation report, approved and

issued for the requested license Amendment 81, to determine the disposition of requirements from the previous Technical Specifications. The licensee provided a change document which described the changes made to the previous Technical Specifications and disposition of items and actions that were not transferred to the new Technical Specifications. The inspectors reviewed and verified the information and justifications given in the change document. Where previous Technical Specifications requirements were not transferred to the current Technical Specifications, the inspectors verified the requirements were dispositioned as noted in the change document.

b. Observations and Findings

All of the requirements the inspectors reviewed from the previous Technical Specifications were properly dispositioned, either by capture in the current Technical Specifications, the Updated Final Safety Analysis Report, the technical requirements manual, the Technical Specifications bases, or facility operating and surveillance procedures. The inspectors noted several instances in which the change document did not clearly describe the justification for some changes, but in each case a facility representative was able to provide additional documentation and explanation as to the proper disposition of the requirement in question. Overall, the change document was detailed and provided an adequate reference for the inspectors to conduct the inspection.

The inspectors reviewed a sample of the licensee's Improved Technical Specifications. All of the requirements sampled were appropriately dispositioned as noted in the change document. However, the inspectors noted that most of the associated improved Technical Specification surveillance procedures, in the selected inspection sample, did not require a change in content exclusively due to the change from the old Technical Specifications. Because of this, the inspectors selected an additional surveillance procedure for review that had been affected by the improved Technical Specification conversion and did a technical review of its adequacy (see Section 03.04).

The inspectors noted two potential vulnerabilities in the licensee's Safety Function Determination Program Implementing Procedure (OSP-0040), and discussed these with the licensee staff for their consideration. One of the functions of this procedure was to provide operators guidance for determining the maximum out-of-service time allowed for a Technical Specification supported system such as high pressure core spray, when one or more of its supporting systems was inoperable. The inspectors believed that the definition of "Maximum Out-of-Service Time" was confusing. The inspectors thought that operators could incorrectly calculate this time, or at least initially generate some delay in taking required actions, if additional guidance was not provided by Procedure OSP-0040.

Second, the inspectors noted that Procedure OSP-0040 allowed the extension of a previously determined maximum out of service time by the licensee's Operations Superintendent, but gave no additional guidance such as: (1) how long this extension would be, (2) what kind of safety review process would be initiated (i.e., 10 CFR 50.59 review), or (3) who must be informed. The inspectors determined that Procedure OSP-0040 was vulnerable because it did not clearly discuss the disposition and handling of a situation where the Operations Superintendent would approve an extension of a previously assessed out of service time for a supported system.

The licensee acknowledged these two potential vulnerabilities in Procedure OSP-0040.

Additionally, the inspectors noted that recently licensed operators failed to implement the requirements of Technical Specification 3.06 and 5.5.10, "Safety Function Determination Program." This incident was documented in NRC Inspection Report 50-458/96-16. The licensee determined that operators demonstrated inadequate knowledge of the design bases and Technical Specifications by not identifying that concurrently removing the high and low pressure spray systems from service could have constituted a loss of safety function and required entry into Technical Specification 3.03 (See Section 08.1). The inspectors noted that the licensee's process relied on licensed operator integrated plant and system knowledge for the correct implementation of the safety function determination program and the improved standard Technical Specifications. This was because a correct safety evaluation required not only interpreting the new improved Technical Specification requirements but also knowledge of the associated bases documents. This was not the case when interpreting the requirements of the old Technical Specifications since the operator merely applied the applicable action steps required for the supported system that was affected. This sometimes led to cascading Technical Specification action statements for multiple system applications that depended on the same support system. The inspectors noted that with the new improved Technical Specification, cascading Technical Specifications could be avoided with the proper use of the licensee's safety function determination program.

c. Conclusions

The licensee successfully revised its previous Technical Specifications to the format of NUREG-1434 and relocated requirements to other documents as appropriate. However, the licensee's Safety Function Determination Procedure OSP-0040 had some potential vulnerabilities in the clarity of the out-of-service time definition and the depth of guidance for extending a previously assessed maximum out-of-service time.

03.03 Implementation of Controls

a. Inspection Scope (TI2515/130)

The inspectors reviewed selected revisions to various sections of the relocated Technical Specification elements listed in the attachment. The applicable change control mechanisms identified in the safety evaluation report for the license Amendment 81, as well as completeness for the conversion to the improved Technical Specifications were verified.

b. Observations and Findings

The inspectors verified that the original Technical Specification elements were accurately relocated to either the Updated Safety Analysis Report, Technical Specifications, or the technical requirements manual. For changes to the Improved Technical Specifications made since review of the licensee's amendment 81, such as surveillance testing amperage specifications for verifying high pressure core spray diesel generator safety battery capacity in Surveillance Requirement 3.8.4.7, the inspectors verified that the changes were controlled by the plant modification process. Additionally, other changes which resulted in a lessening of the licensee's previous Technical Specification were verified to be controlled by the 10 CFR 50.59 process. For example, the limited condition of operation action time for Technical Specification 3.5.3 increased from 1 to 2 hours. This change had been reviewed and accepted through the NRC safety evaluation review process.

The inspectors also noted that not all of the licensee's operating and surveillance procedures identified for revision as apart of the Technical Specification transition had been revised. The inspector found that the licensee had prioritized procedures to be revised by order of safety importance. The inspectors found that the most important procedures that the licensee identified had been revised at the time of this inspection. The other procedures were scheduled to be revised within the scope of the licensee's standard review plan. Furthermore, it was determined that the licensee had developed a cross reference document to assist the plant staff in meeting original or relocated Technical Specification requirements until all plant procedures could be revised per the standard review plan. The inspectors concluded that this approach appeared acceptable considering the magnitude of document revisions required by the Improved Technical Specification conversion process.

Since implementation of the improved Technical Specification in October 1995, the licensee had experienced numerous surveillance test related deficiencies. The inspectors reviewed these deficiencies and determined that the majority of the recent problems identified with the licensee's surveillance program were not caused by the improved Technical Specification conversion process. The inspectors found only two instances directly attributable to implementation of the improved Technical Specification, and both were licensee identified. The first was a failure to perform a

surveillance test on the prefilters for the standby gas treatment, control room fresh air and fuel building ventilation systems. This surveillance requirement was added by the improved Technical Specification and the licensee failed to identify the added requirement during the verification and validation reviews. The second was a failure to check the position of the hydrogen mixing valves on a monthly basis. This surveillance was missed because of an error in the renumbering system and subsequent failure to properly include the surveillance in the cross reference during the transition to the improved Technical Specification. These events were reported in detail in NRC Inspection Reports 50-458/96-26 and 96-17, respectively.

Because of the continuing incidence of surveillance procedure problems at River Bend Station, the licensee staff indicated they continue their program of comprehensive audits of revised surveillance procedures and other affected procedures to ensure that all of the requirements of the original Technical Specifications have been retained in the Improved Technical Specifications, or adequately dispositioned in other documents.

c. Conclusion

The inspectors concluded through a sampling of relocated Technical Specification elements and a review of the supporting control process that the licensee had successfully implemented the Improved Technical Specification program. In addition, the majority of the recent problems identified with the licensee's surveillance program were not caused by the improved Technical Specification conversion process.

03.04 Surveillance Review

a. Inspection Scope (TI2515/130)

The inspectors randomly selected for review Surveillance Procedure STP-508-4202, "RPS/Isolation Actuation Instrumentation Drywell Pressure-High Channel Calibration Test and Logic System Functional Test (C71-N050B, C71-N650B)," Revision 12. The review focused on comparing the test procedure against the applicable diagrams to verify the procedure adequately tested all actuations and trip logic functions as required by the improved Technical Specifications.

b. Observations and Findings

The inspectors verified that the surveillance tested the sensor device, performed required calibrations, and performed the logic channel functional test as required by the new Improved Technical Specifications. A review of the vendor drawings listed in the attachment against the procedure verified that all affected circuits were appropriately tested.

c. Conclusion

The inspectors concluded that the reviewed surveillance test appropriately tested the affected circuits of the subject sensor and instrument loop.

O8 Miscellaneous Operations Issues

O8.1 Violation 50-458/96-16-02 (Closed): failure to properly implement Technical Specifications 3.06 and 5.5.10.

The inspector verified the corrective actions described in the licensee's response letter, dated February 6, 1997, to be reasonable and complete. No similar problems were identified.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on February 13, and on March 7, 1997. The licensee acknowledged the findings presented. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

D. Burnett, Senior Chemist
M. Chilson, Licensing Specialist
G. Davant, Licensing, Senior Staff
T. Gates, Plant Engineering Supervisor
T. Hildebrandt, Outage Manager
R. King, Director, Nuclear Safety and Regulatory Affairs
D. Lorfing, Licensing Supervisor
J. McGaha, Executive Vice President
J. McGhee, Operations Technical Assist
W. O'Malley, Operations Manager
A. Shahkarami, Engineering Manager
W. Stacey, Business Services Manager
C. Sutherland, Training Supervisor
W. Trudell, Operations Training Supervisor
L. Woods, Operations Supervisor
G. Zinke, Quality Assurance Manager

NRC

W. Smith, Senior Resident Inspector

INSPECTION PROCEDURES USED

T12515/130 Improved Standard Technical Specification Implementation Audits

ITEM CLOSED

Closed

50-458/9616-02 VIO Failure to implement the safety function determination program
(Section O8.1)

LIST OF DOCUMENTS REVIEWED

Standard Technical Specifications:

Existing TS 2.1.4 "Reactor Vessel Water Level"
Existing TS 3/4.1.2 "Reactivity Anomalies"
Existing TS 3/4.3.3 "Emergency Core Cooling System Actuation Instrumentation"

Existing TS 3/4.3.5 "RCIC System Instrumentation"
Existing TS 3/4.4.1.3 "Recirculation Loop Flow"
Existing TS 3/4.4.2.2 "S/RVs Low-Low Set Function"
Existing TS 3/4.4.6.1 "RCS Pressure/Temperature Limits"
Existing TS 3/4.4.9.2 "RHR Cold Shutdown"
Existing TS 3/4.5.1 "ECCS-Operating"
Existing TS 3/4.5.2 "ECCS-Shutdown"
Existing TS 3/4.5.3 "Suppression Pool"
Existing TS 3/4.6.1.4 "Primary Containment Air Locks"
Existing TS 3/4.7.2 "Main Control Room Air Conditioning System"
Existing TS 3/4.8.2.1 "DC Sources-Operating"
Existing TS 3/4.8.4.3 "RPS Electric Power Monitoring"
Existing TS 3/4.6.9.2 "Special Reports"

Other Documents:

STP-508-4202 "RPS/Isolation Actuation Instrumentation Drywell Pressure- High Channel Calibration Test and Logic System Functional Test (C71-N050B, C71-N650B)" Revision 12

General Electric Drawing 828E445AA Sheets 6,10,15,18

General Electric Drawing 828E531AA Sheets 2,3,4,9,10,11,12,14,15,18

License Amendment Request No. 95-11 "TRM Surveillance SR 3.8.4.7, item c HPCS DC Capacity Test" dated January 12, 1996

River Bend Station (RBS) Improved Technical Specification Cross Reference dated July 26, 1995

NUREG 1434, Sept. 1992, "BWR Standard Technical Specifications"

Processing RBS Improved Technical Specifications, NLP-10-014, Revision 0

Initiation of a Change to a Licensing Document, RBNP-027, Revision 0

Technical Specification Amendment 81, Safety Evaluation Report

RBS Operating Licensing Manual, Volumes 1 & 2, Amendment 88

Surveillance Credits/Action Verifications, dated October 1, 1995

Technical Review Manual Comment Resolutions & QA Audits from October 1995 through January 1997

Safety and Environmental Evaluations, RBNP-057, Revision. 4

Control and Use of RBS Procedures, RBNP-001, Revision 13

Guidelines for Development, Revision, and use of RBS procedures, Revision 3

Station Surveillance Test Program, ADM-0015

Safety Function Determination Program, OSP-0040, Revision. 2

Reply to NRC Notice of Violation IR 96-016, ltr dated Feb. 6, 1997, Rich Kink to USNRC

Improved Technical Specification Conversion Package

Amendment No. 81 to Facility Operating License NPF-47 dated July 20, 1995