

APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report No. 50-382/92-04

Operating License No. NPF-38

Licensee: Entergy Operations, Inc. (Entergy)

Facility Name: Waterford 3 Steam Electric Station

Inspection At: Waterford 3, Killona, Louisiana

Inspection Conducted: February 3-7, 1992

Inspector: H. F. Bundy, Reactor Inspector, Test Programs Section
Division of Reactor Safety

Approved:



J. E. Gagliardo, Chief, Test Programs Section
Division of Reactor Safety

2/7/92
Date

Inspection Summary

Inspection Conducted February 3-7, 1992 (Report 50-382/92-04)

Areas Inspected: A routine, announced inspection was conducted to review licensee actions on previous inspection findings and to evaluate the licensee's surveillance procedures and records.

Results: Licensee actions satisfied commitments associated with Open Items 382/9114-01 and -02 which dealt with the licensee's reevaluation of some of the recommendations for instrumentation enhancements contained in Generic Letter 88-17, "Loss of Decay Heat Removal."

Surveillance tests were being scheduled and performed as required by the Technical Specifications (TS). The scheduling of TS-required surveillances appeared to be comprehensive. For the sample selected, no errors were identified in the TS to procedures cross-reference matrix.

The acceptance criteria were clearly stated in the procedures reviewed. In most instances, the applicable TS was referenced, and the procedures appeared to accomplish the stated test objectives. With minor exceptions, the records reviewed were complete and of high quality and indicated the completion of adequate reviews.

The surveillance procedure for the core operating limit supervisory system (COLSS) kilowatt per foot margin alarm (TS 4.2.1.3) failed to require

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verification of the as-found setpoint. Licensee representatives stated this had been self-identified as a potential problem. Potentially Reportable Event (PRE) Report 92-003 had been initiated to resolve the issue and will be reviewed as a part of future routine inspections.

One violation involving the failure of the shift supervisor or control room supervisor to complete the required post-test reviews of a work authorization was identified in paragraph 3.

DETAILS

1. PERSONS CONTACTED

Army

- 1. Burski, Director, Nuclear Safety
- 2. Baker, Director, Operations Support and Assessments
- 3. Starkey, Manager, Operations and Maintenance
- 4. Lockhart, Manager, Quality Assurance
- 5. Leonard, Technical Services Manager
- *6. Brian, Superintendent, Plant Engineering
- *7. Gaudet, Supervisor, Operational Licensing
- 8. Day, Supervisor, Shift Technical Advisors
- 9. M. Melancon, Supervisor, Reactor Engineering Performance
- *10. P. Boudreaux, Technical Specifications Coordinator
- *11. C. J. Thomas, Operational Licensing Engineer
- 12. J. Gavigan, Systems Engineer

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- 13. S. Butler, Resident Inspector
- *14. W. F. Smith, Senior Resident Inspector

The inspector also interviewed other licensee employees during the inspection.

*Denotes attendance at exit meeting conducted on February 7, 1992.

2. LICENSEE ACTION ON PREVIOUSLY IDENTIFIED INSPECTION FINDINGS (92701)

(Closed) Open items (382/9114-01 and -02): These items involved reevaluation of installation of a high-core exit temperature alarm and alarms to detect approaching loss of shutdown cooling, respectively.

The availability of these alarms was recommended in Generic Letter 88-17, "Loss of Decay Heat Removal." The reevaluations were completed by the licensee's outage risk assessment (ORA) task force and documented in Memorandum W3F1-91-0382 of August 14, 1991. The ORA task force recommended installation of plant computer alarms for high core exit temperature and low shutdown cooling flow. The modifications were to be implemented by Design Change 3355. These planned modifications were responsive to the inspector's concerns and these open items are considered closed.

3. SURVEILLANCE PROCEDURES AND RECORDS (61700)

The purpose of this inspection was to ascertain whether the surveillance of safety-related systems and components was being conducted in accordance with approved procedures as required by the TS. Pursuant to this objective, the inspector reviewed the administrative procedures and scheduling documents listed in Attachment 1. The inspector then selected certain TS surveillance

requirements and reviewed the associated licensee surveillance test procedures and an appropriate number of test result records for each procedure. Selected test personnel were also verified to have appropriate qualifications. The TS surveillance requirements, together with the associated procedures reviewed by the inspector, are tabulated in Attachment 2.

The inspector determined that surveillance tests were being scheduled and performed as required by the TS. The scheduling of TS-required surveillances appeared to be comprehensive. For the sample selected, no errors were identified in the TS to procedures cross-reference matrix.

The acceptance criteria were clearly stated in the procedures reviewed. In most instances the applicable TS was referenced. The procedures appeared to accomplish test objectives. The records reviewed were complete and of high quality. With certain exceptions discussed below, the completion of adequate reviews was indicated in the records.

For the core operating limit supervisory system (COLSS) kilowatt per foot margin alarm required by TS 4.2.1.3, the inspector observed that Procedure NE-05-103, Revision 3, "COLSS Alarm Verification," failed to require verification of the as-found setpoint. The licensee replied that this issue had been self-identified as a potential problem and that Potentially Reportable Event (PRE) Report 92-003 had been initiated for resolution. The NRC will review PRE 92-003 as a part of future routine inspection efforts.

Work Authorization (WA) 01063159 involved the determination of the moderator temperature coefficient and WAs 01082411, 01083743, 01085086, and 01086262 involved verification of COLSS alarm functions. In each of the work authorizations, the shift supervisor or control room supervisor post-test reviews were marked NA [not applicable]. WA01063159 involved the performance of Procedure NE-2-002, Revision 4, Change 4, "Startup Test Procedure Variable TAVG Test," in response to TS 4.1.1.3.2c. WAs 01082411, 01083743, 01085086, and 01086262 involved the performance of Procedure NE-05-103 in response to TS 4.2.1.3. Section 5.3.7 of Administrative Procedure UNT-007-004, Revision 7, "TS Surveillance Control," required the shift supervisor or control room supervisor, or at either's discretion, the shift technical advisor, to perform the post-test review of surveillance and test work packages to ensure cognizance of the results and to determine if all of the acceptance criteria were met. The procedure included a note stating that Section 5.3.7 did not apply to uncontrolled maintenance. However, there was a statement in Administrative Procedure UNT-5-012, Revision 1, Change 2, "Repetitive Task Identification," that for all controlled maintenance the releasing organization field shall be coded OPS for Operations. Because the planner had entered OPS in the releasing organization field for each of the above WAs, it was presumed that the planner considered them controlled maintenance. Therefore, the post-test review by the shift supervisor or control room supervisor should have been completed. Failure of the shift supervisor or control room supervisor to complete the post-test review for WA01063159 as required by Administrative Procedure UNT-007-004 is an apparent

violation (382/9204-01) of TS 6.8.1, which required implementation of written procedures covering surveillance and test activities of safety-related equipment. WA 01063159 involved surveillance testing of the reactor, which is safety-related equipment.

Because the reactor engineering staff reviewed the subject work authorizations and appeared competent to make operability determinations in these instances, the inspector did not identify any adverse safety impact from the failure of the shift supervisor or control room supervisor to perform the post-test reviews. However, the licensee was unable to clearly define uncontrolled maintenance as it related to surveillance testing. Licensee representative agreed that it would be necessary to take corrective action to assure that the shift supervisor's post-test review was not waived for tests for which they should be immediately cognizant of the results. No course of action had been established by the licensee at the conclusion of the inspection.

4. EXIT MEETING

The inspector met with licensee representatives denoted in paragraph 1 on February 7, 1992, and summarized the scope and findings of this inspection. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspector during this inspection.

ATTACHMENT 1

Administrative Control and Scheduling Documents Reviewed

1. Administrative Procedure UNT-007-004, Revision 7, "TS Surveillance Control"
2. Administrative Procedure UNT-5-012, Revision 1, Change 2, "Repetitive Task Identification"
3. Report, "TS Surveillance Cross Reference Matrix," dated June 12, 1991
4. Report, "Maintenance Report TS Late Date Report for 2/06/92 to 2/15/92," dated February 6, 1992
5. Report, "OPS Tasks Status," dated January 7, 1992

ATTACHMENT 2

Surveillance Test Procedures and Records Reviewed

<u>TS</u>	<u>Description</u>	<u>Procedure Nos.</u>
4.1.1.3.2c	Determine MTC within 7 EFPD of reaching 2/3 of expected core burnup	NE-2-002, R4, C4
4.2.1.3	At least once per 31 days, verify COLSS Margin Alarm actuates at a THERMAL POWER less than or equal to the core power operating limit based on kw/ft.	NE-05-103, R3
Table 4.3-1 Item 16	Calibrate reactor coolant flow-low reactor trip each refueling	MI-03-510, R4, C3
Table 4.3-2 Item 5.b	Calibrate RWSP-low SIS recirculation trip each refueling	MI-003-317, R4, C3
4.4.3.2.2	Cycle the auxiliary spray valves at least once per 18 months	OP-903-033, R8
4.4.5.1C	Perform a functional test on containment air cooler condensate flow switches at least once per 18 months	MI-003-409, R4,
4.5.2d.1	At least once per 18 months, verify the action of the open permissive interlock and isolation valve position alarms of the shutdown cooling system when the RCS pressure is between 392 psia and 422 psia	OP-903-025, R3
4.5.1c	Verify at least once per 31 days when RCS pressure is above 1750 psia that SIT isolation valve operator breakers are padlocked in the open position.	OP-903-026, R5, C1
4.6.1.1a	At least once per 31 days verify that all penetrations not capable of being closed by operable containment automatic isolation valves, and required to be closed during accident conditions, are closed by valves, blind flanges, or deactivated automatic valves, except as provided in Table 3.6-2	OP-903,031, R5, C1
4.6.1.5	Determine primary containment average air temperature at least once per 24 hours	OP-903-001, R12, C2

<u>TS</u>	<u>Description</u>	<u>Procedure Nos.</u>
4.7.6e.1	At least once per 18 months, verify the pressure drop across the control room A/C combined HEPA filters and charcoal adsorber banks is less than 7.8 inches water gauge with the system at a flow rate of 4225 cfm \pm 10%	PE-05-004, R5
4.7.12.1b	Verify each essential services chilled water loop is operable at least once per 31 days by verifying the water outlet temperature is \leq 42° F at a flow rate \geq 500 gpm	OP-903-001, R12, C2
4.8.3.1	Verify specified busses energized in required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses	OP-903-066, R5, C2