

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-382/84-12

Docket: 50-382

Construction Permit: CPPR-103

Licensee: Louisiana Power & Light Company (LP&L)  
142 Delaronde Street  
New Orleans, Louisiana 70174

Facility: Waterford Steam Electric Station, Unit 3

Inspection At: Taft, Louisiana

Inspection Conducted: March 1 through April 30, 1984

Inspectors: J. A. Flippo 6-5-84  
for G. L. Constable, Senior Resident Inspector Date

J. A. Flippo 6-5-84  
T. A. Flippo, Resident Inspector Date

[Signature] 6/6/84  
K. A. Whittlesey, Reactor Inspector Date

Assisting Personnel: T. L. Cook, Senior Engineer, EG&G  
R. L. Persons, Operations Specialist, EG&G  
H. C. Rockhold, Senior Engineer, EG&G  
J. M. Fehringer, Operations Specialist, EG&G

Approved: [Signature] 6/6/84  
W. A. Crossman, Chief Date  
Reactor Project Section B

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Inspection Summary

Inspection Conducted March 1 through April 30, 1984 (Report 50-382/84-12)

Areas Inspected: Routine, announced inspection of: (1) Technical Specification Review; (2) Human Engineering Walkdown; (3) Test Results Evaluation; (4) Surveillance and Maintenance Procedure Reviews; (5) Three Mile Island Open Items; (6) Followup on 50.55(e) Items; (7) Emergency Operating Procedures Verification; and (8) Open Issues Review. This inspection involved 1088 inspector-hours onsite by three NRC inspectors.

Results: Within the eight areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

Principal Licensee Employees

- \*R. S. Leddick, Senior Vice President, Nuclear Operations
- \*R. P. Barkhurst, Plant Manager
- \*T. F. Gerrets, QA Manager
- \*W. M. Morgan, Operations QA Supervisor
- \*L. L. Bass, Project QA Engineer
- \*L. F. Storz, Assistant Plant Manager, Nuclear
- \*M. J. Wise, Startup Manager
- \*O. D. Hayes, Operations Superintendent
- \*R. G. Pittman, QA Engineer
- \*P. V. Prasankumar, Technical Support Superintendent
- \*J. N. Woods, Plant Quality Manager
- \*D. W. Herrin, Onsite Licensing Engineer
- \*S. A. Alleman, Assistant Plant Manager, Plant Technical Support

\*Present at exit interview.

In addition to the above personnel, the NRC inspectors held discussions with various operation, construction, engineering, technical support, and administrative members of the licensee's staff.

2. Plant Status

The Waterford 3 site is presently in the preoperational testing phase. Construction and startup are reported at 100% and 97% complete, respectively. Plant staff has accepted 91 systems out of 117 systems that are required for fuel load. LP&L forecast for fuel load is now May 30, 1984.

3. Technical Specification Review

On March 15, 1984, the NRC resident inspector attended a meeting between LP&L and NRC in Bethesda. The purpose of the meeting was to discuss proposed changes to LP&L Technical Specifications.

No violations or deviations were identified.

4. Human Engineering Walkdown

During this inspection period, the NRC inspector reviewed the completed human engineering deficiencies (HED) listed below and verified that each deficiency was completed.

B1-F02	E2-F06	B4-F12	B6-F01
B1-F05	B2-F09	B5-F11	B6-F34
B1-F08	B2-F10	B5-F19	B6-F42
B1-F10	B3-F06	B5-F21	B6-F47
B2-F01	B3-F14	B5-F22	
B2-F05	B4-F05	B5-F25	

All of the above items are considered closed.

No violations or deviations were identified.

5. Test Results Evaluation

The NRC inspectors reviewed the following preoperational test results for technical content, compliance with the Final Safety Analysis Report (FSAR), and compliance with licensee's administrative procedures.

SPO-36-002	Component Cooling Water and Auxiliary Component Cooling Water
SPO-36-003	Wet and Dry Cooling Tower Fans
SPO-39-001	Emergency Diesel Generator
SPO-46E-001	Chilled Water System
SPO-53A-001	Chemical & Volume Control System (Pumps)
SPO-53A-004	Chemical & Volume Control System (Valves)
SPO-60A-001	High Pressure Safety Injection
SPO-63-001	Engineered Safety Features Actuation
SPO-69-001	Vibration & Loose Parts Monitoring
SPO-73-001	Emergency Feedwater
SPO-76-001	Steam Generators

Although there were no violations, these specific observations were made.

- a. During the performance of the preoperational test SPO-39-001 "Emergency Diesel Generator," it was determined the emergency diesel generator fuel oil storage tanks do not have sufficient storage for 7 days worth of fuel for each diesel at full load (FSAR 9.5.4.1). Additionally, the minimum storage tank quantity identified in Technical Specification (3.8.1.1.6.2) is less than the quantity needed for 7 days. After further calculations, LP&L feels that they met the 7-day requirements. A copy of the data has been sent to NRR for their evaluation.
- b. During the performance of the preoperational test, SPO-36-002, "Component Cooling Water and Auxiliary Component Cooling Water" (CCW), it was determined that CCW flow to the high pressure

safety injection pumps (HPSI), low pressure safety injection pumps (LPSI), shutdown heat exchangers and sample coolers were lower than what was stated in the FSAR.

HPSI, 20 gpm per FSAR/ 8 gpm actual

LPSI, 20 gpm per FSAR/8 gpm actual

Shutdown Heat Exchanger (Normal Flow)/75 gpm each actual  
100 gpm each per FSAR

Sample Cooler - 80 gpm each per FSAR/80 gpm actual for  
all 4 coolers

These are four examples which will require updating of the FSAR

No violations or deviations were identified.

#### 6. Surveillance and Maintenance Procedure Reviews

The NRC inspectors reviewed the following surveillance and maintenance procedures to ascertain that the procedures adequately control safety-related operations within the applicable regulatory requirements.

OP-903-045 (Rev. 0)	Emergency Feedwater Flowpath Line-up Verification
OP-903-046 (Rev. 2)	Emergency Feedwater Pump Operability Check
OP-903-014 (Rev. 2)	Emergency Feedwater Flow Verification
OP-903-047 (Rev. 1)	Emergency Feedwater Actuation Signal Test
OP-903-062 (Rev. 1)	Chilled Water Valve Lineup Check
OP-903-066 (Rev. 2)	Electrical Breaker Alignment Check
OP-903-067 (Rev. 2)	Unit Power Supply Transfer Check
OP-903-068 (Rev. 1)	Emergency Diesel Generator Operability Verification
OP-903-067 (Rev. 0)	Emergency Diesel Post Inspection Operability Check
OP-903-049 (Rev. 1)	Component Cooling Water and Auxiliary Cooling Water Loop Operability Check
OP-903-050 (Rev. 2)	Component Cooling Water and Auxiliary Component Cooling Water Pump Operability Test
OP-903-028 (Rev. 0)	Safety Injection Actuation Signal Test
OP-903-002 (Rev. 1)	Boron Flowpath Valve Lineup

The following item was identified during the review of OP-903-063 (Rev. 0), "Emergency Diesel Post Inspection Operability Check," the testing identified in Step 8.6.11 of this procedure was discussed with

licensee's representatives and does not appear to satisfy Technical Specification 4.8.1.1.2.d.8 (Load test with pump on mini-flow recirculation.) This is an open item 8412-01.

No violations or deviations were identified.

7. Three Mile Island (TMI) Open Items

Most of the TMI lessons-learned were specifically addressed during the FSAR review process. At this time, a detailed NRC inspection is in progress covering each of these open items. The following items are now considered closed:

I.A.1.1	Shift Technical Advisor
I.A.1.2	Shift Supervisor Administrative Duties
I.A.2.1	Immediate Upgrading of RO and SRO Training and Qualification
I.A.2.3	Administration of Training Programs for Licensed Operators
I.C.5	Procedures for Feedback of Operating Experience to Plant Staff
I.C.6	Verify Correct Performance of Operating Activities
I.C.7	NSSS Vendor Review of Low Power Test Procedures
II.B.4	Training for Mitigating Core Damage
II.D.1	Relief and Safety Valves
II.D.3	Relief and Safety Valve Indication
II.K.2	Orders on B&W Plants
II.K.3	Final Recommendations of B&O Task Force
III.D.3	Inplant Radiation Monitoring

The items listed below still remain open.

I.C.2	Shift Relief and Turnover Procedures
I.D.1	Control Room Design
II.E.1.2	Auxiliary Feedwater Initiation and Indication
II.E.4.1	Containment Dedicated Penetrations - Hydrogen Control
II.F.1	Additional Accident Monitoring Instrumentation
II.F.2	Inadequate Core Cooling Instrumentation
II.K.1	IE Bulletins on Measures to Mitigate SBLOCA's and Loss of FW Accidents

No violations or deviations were identified.

8. Followup on 50.55(e) Items

a. (Closed) SCD 55 "Holdup and Boric Acid Makeup Tanks Incorrect Structural Calculations"

Combustion Engineering, Inc. (C-E) informed Ebasco Services, Inc. (Ebasco) that during the review of the vendor stress reports for the four holdup tanks and for both boric acid makeup tanks, the structural calculations were found to be in error. Ebasco reviewed the structural support designs and issued DCN-AS-404 and 405 to delete the existing incorrectly designed supports. Drawings LOU 1564 G-892504 and LOU 1564 G-893511 were revised to reflect design changes. The NRC inspector reviewed NCR-W3-3666, weld travelers, associated checklists and inspection reports, and inspected the installation for compliance with current design. Construction modifications and documentation of work performed are complete. This item is considered closed.

b. (Closed) SCD 71 "Inadequate Review of CIWA's for Reportability"

The Condition Identification and Work Authorization (CIWA) form used for identification, documentation, evaluation, and correction of conditions discovered at Waterford 3 requires review for reportability within the guidelines of 10 CFR 50.55(e). LP&L discovered that those CIWA's routed to Ebasco Site Support Engineering (ESSE) and the LP&L work group (since June 1981) were not receiving formal evaluation for reportability. As a result of this programmatic deficiency, new procedures for reportability screening, evaluation, and reporting were implemented. Additionally, screening was performed for all historical CIWA's which had not received prior evaluation; and the LP&L QA group was assigned the responsibility of screening those CIWA's generated on a day to day basis. The NRC inspector interviewed key QA personnel, viewed logs of historical and ongoing reviews, and reviewed LP&L Quality Assurance Procedures QASP 15.2 and QASP 15.3 for screening, evaluation and reporting of 10 CFR 50.55(e) deficiencies. Although several items reportable under 10 CFR 50.55(e) were identified by the applicant during the historical review, all had been previously reported to the NRC. This item is considered closed.

c. (Closed) SCD 82 "Bent Control Element Assembly Rods"

Upon visual receipt inspection of Control Element Assemblies (CEA) at Waterford 3, deviation from the straightness specification for the rods was detected. Of the 16 CEA's returned to C-E for evaluation and/or repair, 8 were repaired and 1 was replaced before being returned to the site. Upon C-E's recommendation, each CEA was drag tested by LP&L in its designated fuel assembly. The NRC inspector reviewed the documentation package associated with the deficiency including correspondence, DN 1089-83, and

CIWA 4580. Addenda to CIWA 4580 indicates that drag forces observed during testing were in all cases within acceptable limits. This item is considered closed.

No violations or deviations were identified.

9. Emergency Operating Procedure (EOP) Verification

As a followup to EOP verification conducted February 11-18, 1984, (NRC Inspection Report 50-382/84-01) the NRC inspector observed the completion, by LP&L operators, of the verification of draft procedures on the San Onofre Nuclear Generating Station simulator. On March 25, 1984, operators and supervisors simulated real time events in order to evaluate the "Safety Function Recovery Procedure," OP-902-008. The operators used the "Emergency Entry Procedure," OP-902-000 as well as other previously tested EOP's to evaluate the logic of the "Safety Function Recovery Procedure."

In general, the effort satisfactorily verified the procedure. Training of the remainder of the operators and supervisors in the use of these procedures will be completed prior to fuel load. Plans for this training are essentially in place. Portions of this training effort will be observed by NRC inspectors and reported in a subsequent report.

No violations or deviations were noted.

10. Open Issues Review

On March 12, 1984, William J. Dircks, Executive Director for Operations, established a task force approach to dealing with all open issues, including allegations, that remain to be resolved before the NRC can make a licensing decision

The team initially arrived onsite April 2, 1984, to begin an in-depth probe of the issues, principally the allegations. The results of this effort will be documented in a supplement to the Waterford 3 Safety Evaluation Report (SSER). Any enforcement actions arising out of this task force effort will be issued in accordance with current NRC enforcement policy.

At the end of this inspection period, the allegations review is still in progress.

No violations or deviations will be identified until the conclusion of this effort.



11. Open Items

One new open item was identified in this report in paragraph 6.

8412-01 OP-903-063 "Emergency Diesel Post Inspection Operability Check" does not appear to satisfy Technical Specification 4.8.1.1.2.d.8.

12. Site Tour

At various times during the course of this inspection period, the NRC inspectors conducted general tours of the Fuel Handling Building, Reactor Auxiliary Building, Turbine Building, and Reactor Building to observe ongoing construction and testing.

13. Exit Interviews

The NRC inspectors met with the licensee representatives at various times during the course of the inspection. The scope and findings of the inspection were discussed.