



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W.
 ATLANTA, GEORGIA 30323

Report Nos.: 50-413/84-87 and 50-414/84-38

Licensee: Duke Power Company
 422 South Church Street
 Charlotte, NC 28242

Docket Nos.: 50-413 and 50-414

License Nos.: NPF-24 and CPPR-117

Facility Name: Catawba Nuclear Station Units 1 and 2

Inspection Conducted: August 26 - September 25, 1984

Inspectors:	<u><i>A.J. Sgnatoris</i></u>	<u>10/22/84</u>
	for P. H. Skinner	Date Signed
	<u><i>A.J. Sgnatoris</i></u>	<u>10/22/84</u>
	for P. K. VanDoorn	Date Signed
Approved by:	<u><i>H.C. Dance</i></u>	<u>10/22/84</u>
	H. C. Dance, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine, unannounced inspection involved 209 resident inspector-hours on site in the areas of followup of NRC and licensee identified items (Units 1 and 2); site tours (Units 1 and 2); review of NCIs and surveillance reports (Unit 2); review of programs for operability evaluation (Unit 1); review of corrective action system (Unit 1); review of key control (Unit 1); review of diesel generator battery seismic report (Unit 1); participation in an emergency drill (Unit 1); maintenance observation (Unit 1); followup of IE Information Notices (Unit 1); plant operations review (Unit 1); surveillance observations (Unit 1); and review of license conditions (Unit 1).

Results: Two violations and two deviations were identified. The violations were: failure to follow procedure for control of keys and failure to follow procedure for RHR pump surveillance testing. The deviations were: failure to meet commitment for updated construction deficiency report and failure to meet test parameters specified for diesel generators.

REPORT DETAILS

1. Licensee Employees Contacted

R. L. Dick, Vice President, Construction
*G. W. Grier, Corporate QA Manager
*J. W. Hampton, Station Manager
H. L. Atkins, QA Engineering Supervisor
*W. H. Bradley, QA Supervisor
*J. W. Cox, Superintendent, Technical Services
*W. F. Beaver, Performance Engineer
L. R. Davison, Project QA Manager
S. W. Dressler, Projects Engineer
J. W. Glenn, QA Engineer
C. W. Graves, Jr., Superintendent, Operations
*C. L. Hartzell, Licensing and Projects Engineer
*D. P. Hensley, QA Technician
J. F. Knuti, Operating Engineer
*P. G. Leroy, Licensing Engineer
*R. A. Morgan, Senior QA Engineer
C. E. Muse, Operating Engineer
K. W. Schmidt, QA Engineer
*G. T. Smith, Superintendent, Maintenance
R. White, CSRG Chairman
*J. W. Willis, Senior QA Engineer

Other licensee employees contacted included construction craftsmen, technicians, operators, mechanics, security force members, and office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 25, 1984, with those persons indicated in paragraph 1 above. The two violations and two deviations were discussed in detail and were acknowledged by the licensee. They were: (1) a violation for failure to follow operations management procedure for control of keys, described in paragraph 5.f; (2) a violation for failure to follow requirements of RHR pump surveillance test procedure, described in paragraph 12; (3) a deviation for failure to meet commitment for an update to a construction deficiency report, described in paragraph 6.c; and (4) a deviation for failure to load diesel generators to committed values described in paragraph 13.b. Also two unresolved items were identified which are described in paragraphs 5.g and 5.h.

3. Licensee Action on Previous Enforcement Matters

- a. (Closed) Unresolved Item 413/83-31-01, 414/83-26-01: Review of Corrective Action System. Previous review (see NRC Report No. 413/84-82, 414/84-36) of this item showed that the construction corrective action system was working effectively, however, procedure improvements could be made. These procedure improvements have been implemented for Construction QA Procedures S2 and R6. These actions are considered satisfactory.
- b. (Closed) Violation 414/84-19-01: Inadequate Instructions to Control Instrumentation Installation. Responses for this item were submitted on June 8, 1984 and June 13, 1984. The inspector reviewed the responses and verified implementation of corrective actions described in the responses and considers licensee actions to be acceptable. Although work is not yet complete for Unit 2, an adequate program to assure proper installations has been implemented.

No violations or deviations were identified.

4. Unresolved Items*

New unresolved items identified during this inspection are discussed in paragraphs 5.g. and 5.h.

5. Independent Inspection Effort (71302, 92706) (Units 1 and 2)

- a. The inspectors conducted tours of various plant areas. During these tours, various plant conditions and activities were observed to determine that they were being performed in accordance with applicable requirements and procedures. No significant problems were identified during these tours and the various evolutions observed were being performed in accordance with applicable procedures.
- b. The inspector reviewed construction Nonconforming Item Reports (NCIs) to determine if appropriate documentation and evaluations were being made.
- c. The inspector reviewed construction QA surveillance reports to determine if surveillances were thorough and whether appropriate corrective actions were being pursued. Surveillances reviewed were C84-86, C84-87, C84-88, C84-89, C84-90, C84-91, C84-92, C84-93, C84-94, C84-95, and C84-97.

*An Unresolved Item is a matter about which more information is required to determine whether it is acceptable or may involve a violation or deviation.

- d. The inspectors participated in an emergency Technical Support Center activation drill on August 29, 1984. The licensee appropriately addressed minor problems identified.
- e. The inspector reviewed the qualification report for diesel generator batteries and racks and compared field conditions to test conditions identified in the report. The inspector noted that one rack in the field was loaded with two less batteries than the test rack. Review of the applicable seismic conditions with design personnel indicated that the test would qualify this condition. Design personnel also indicated that dummy cells would be placed in the empty spaces.
- f. The inspector reviewed the program for control of keys utilized by operations personnel. The applicable procedure is Operations Management Procedure 2-9, Rev. 8: Administration and Control of Keys. This procedure requires, in part, the following:

Paragraph 3.2 requires access to site keys to be under the direct control of the Shift Supervisor or his designee and also requires the key locker to be kept locked at all times.

Paragraphs 6.2.A and E require two copies of each key, one working key and a file key.

Paragraph 6.4.B requires that, for long term removal keys, the reason for removal be logged in the Key Log and Master Key Index.

Paragraph 7.1.D requires all keys to be logged out in the Key Log when removed from the key locker.

Paragraph 9.2 requires kirk keys to be logged in a section of the log designated for kirk keys.

Contrary to the above, on September 13, 1984, key control was not performed in accordance with procedure requirements in that,

- (1) The key locker was left unlocked and unattended.
- (2) Two keys were not available for key No. 681.
- (3) Reasons for long term removal of keys were not logged in either the Key Log or Master Key Index.
- (4) Key No. 6905 was not in the key locker and was not logged out on either the Key Log or Master Key Index. Kirk keys were not logged out on the key log. Examples are Nos. 690, 692, 693, 694, 697, 699, 703, and 704.
- (5) Several kirk keys were logged other than in the section designated for kirk keys.

This violates Technical Specification 6.8.1 which requires implementation of written procedures affecting equipment control recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. This is a violation 413/84-87-01: Failure to Follow Procedure for Control of Keys.

- g. The inspector reviewed licensee processes for evaluating operability of plant systems and components. Operability evaluations are required to be performed by licensee personnel to determine status of components and systems such as would be necessary to assure compliance with Technical Specifications. Although operability evaluations appear to have been performed at Catawba, it could not be determined during this inspection period, whether this process was sufficiently formalized via procedure controls and whether evaluations were being performed in a timely manner. For example, personnel involved with Work Requests informally contact Design/Engineering personnel relative to operability when hangers must be removed. No formal requirement is defined. Problems identified via the Licensee Event Report process are reviewed relative to system operability by the Licensing and Projects Engineer, but it appears that this process is not a formal requirement.

Discrepancies identified via Nonconforming Item Reports (NCIs) are being considered for operability by QA and Licensing and Projects (L&P) personnel. A requirement for operability review by QA personnel is defined in QA procedure QCK-1, but it appears that the L&P role is not clearly defined. It is also not clear that QA personnel would be the appropriate personnel to conduct such a review. It also appears that there is not a formal requirement to perform timely reviews of surveillance/performance test results for operability questions.

Further review is necessary to determine if operability evaluations are adequately controlled. This is Unresolved Item 413/84-87-02: Review of Operability Evaluations.

- h. The inspector reviewed the processes of identifying, documenting, and correcting nonconforming items. QA Procedure QCK-1 describes the nonconforming item (NCI) system. Other more routine corrective actions, such as repair of leaking valves, are handled via the Nuclear Production Work Request program. It appears that the Work Request system is routinely used to perform repairs of components. The Work Request system does not appear to require that unusual problems, such as apparent program breakdowns, unusual failure mechanisms, and problems caused by obvious misoperation of components, be reviewed for cause, preventive action and generic implications. The NCI program addresses these types of evaluations; however, it does not appear that NCIs are being written as a result of these situations identified via the work request program. In addition, discussions with various personnel utilizing the Work Request system indicated that unusual situations would not be handled differently than the normal Work Request process. Although QCK-1 requires any personnel identifying a

nonconforming item to initiate an NCI, all but a few NCIs have been initiated by QA personnel. It could not be determined whether all personnel have been appropriately trained in the NCI process. An example of a program breakdown that could have been discovered via the NCI process is the valve torque problem described in Inspection Report No. 50-413/84-91. This process requires further review to determine if the licensee corrective action system is adequate. This is Unresolved Item 413/84-87-03: Review of Operations Corrective Action Program.

No violations or deviations except as described in paragraph 5.f. were identified.

6. Licensee Identified Items 50.55(e) (Units 1 and 2) (99020)

- a. (Closed) CDR 413/79-14-01 (SD 79-02): Steam Generator Water Level Measurements System Errors. Reports for this item were submitted on August 21, 1979 and December 28, 1983. The inspector reviewed these reports and verified implementation of corrective actions described in the reports and considers licensee actions to be acceptable.
- b. (Closed) CDR 414/82-06: Undersized Socket Welds. Reports for this item were submitted on March 31, 1982; April 15, 1982; and October 17, 1983. The inspector reviewed these reports and verified implementation of corrective actions described in the reports and considers licensee actions to be acceptable.
- c. (Closed) CDR 414/84-04: Partial Penetration Welds Undersized. Reports for this item were submitted on April 25, 1984; May 22, 1984; June 13, 1984; and September 6, 1984. The inspector reviewed these reports and verified implementation of corrective actions described in the reports and considers licensee actions to be acceptable.

The licensee committed in the report for this item dated April 25, 1984, that an updated report would be submitted to the NRC by August 15, 1984. Contrary to this commitment, an updated report to the NRC was not issued until September 6, 1984. It should be noted that this report was not submitted until after the inspector identified that the report was overdue. This is a Deviation 414/84-38-01: Failure to Meet Commitment for Updated Construction Deficiency Report.

- d. (Closed) CDR 414/84-14: Non-Qualified Manual Valves Between Qualified IE Solenoid Valves and Safety-Related Actuators. Reports for this item were submitted on June 8, 1984 and June 13, 1984. The inspector reviewed these reports and verified implementation of corrective actions described in the reports and considers licensee actions to be acceptable.

No violations or deviations, except as identified in paragraph 6.c., were identified.

7. Maintenance Observation (Unit 1) (62703)

Station maintenance activities of selected systems and components were observed/reviewed to ascertain that they were conducted in accordance with the requirements. The inspector verified licensee conformance to the requirements in the following areas of inspection: (1) that the activities were accomplished using approved procedures, and functional testing and/or calibrations were performed prior to returning components or systems to service; (2) quality control records were maintained; (3) that the activities were accomplished by qualified personnel; and (4) parts and materials used were properly certified. Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance.

No violations or deviations were identified.

8. Followup of IE Information Notices (Units 1 and 2) (92717)

The inspector reviewed licensee actions relative to IE Information Notices to ensure receipt, review, and implementation of appropriate corrective actions. The inspector reviewed licensee actions for IE Information Notice Nos. 83-03, 83-19, and 83-56.

9. Licensee Event Report Review (Unit 1) (92700)

(Closed) Licensee Event Report (LER) 84-01, Boric Acid Transfer Pump Failures Due to Improper Valve Lineup, was reviewed to verify that reporting requirements had been met, causes had been identified, corrective actions appeared appropriate, generic applicability had been considered, and the LER forms were complete. The inspector also verified that the licensee had reviewed the events in detail to determine that no unreviewed safety questions were involved or violations of regulations were identified.

No violations or deviations were identified.

10. Plant Operations Review (Unit 1) (71707 and 64704)

The inspectors reviewed plant operations throughout the reporting period to verify conformance with regulatory requirements, Technical Specifications, and administrative controls. Control room logs, danger tag log, Technical Specification Action Item Log, and the removal and restoration log were routinely reviewed. Shift turnovers were observed to verify that they were conducted in accordance with approved procedures.

The inspectors also verified by observation and interviews, that measures taken to assure the physical protection of the facility met current requirements. Areas inspected included the security organization, the establishment and maintenance of gates, doors, and isolation zones in the proper condition, that access control and badging were proper, and procedures were followed.

In addition to the areas discussed above, the areas toured were observed for fire prevention and protection activities. These included such things as combustible material control, fire protection systems and materials, and fire protection associated with maintenance and construction activities.

No violations or deviations were identified.

11. Licensee Action on Previously Identified Inspection Findings (Units 1 and 2) (92701)
 - a. (Closed) Inspector Followup Item 413/84-29-08: TMI Action Item II.E.4.1. As stated in IE Report 84-29, there are no dedicated hydrogen penetrations at Catawba. In addition, NRC is reviewing this item and it is being tracked as license condition 10. Since this item is being tracked as a license condition and will be the subject of further NRR/DPC correspondence, the inspector followup item associated with this concern is closed.
 - b. (Closed) Inspector Followup Item 413/84-82-01 and 414/84-36-01: Handling of Nonconforming Items Identified on Unit 2 for Unit 1 Applicability. NRC review determined that nonconforming item information was being forwarded from Unit 2 to appropriate Unit 1 personnel, but this process was not formalized. Appropriate instructions have been provided to personnel and the Nonconforming Item (NCI) procedures for Construction and Nuclear Production Departments have been changed to describe this process.
 - c. (Closed) Inspector Followup Item 413/84-84-82-02: Review and Revision of Procedures to Include Requirements to Monitor Pump Parameters to Assure Correct Operation. A review of procedures has been performed and documented to identify and revise applicable procedures to assure that pump parameters will be monitored when startup up a specific pump.
 - d. (Closed) Inspector Followup Item 413/84-79-01: Inadequate Administrative Procedures Describing the Training Requirements for Mitigating Core Damage. Training procedures have been revised to identify the training and retraining requirements and who is required to be trained in actions to mitigate a core damage.
 - e. (Closed) Inspector Followup Item 413/84-70-02: Incorporation of the Utility Advisor Evaluation Team (UAET) Recommendations. All UAET recommendations have been incorporated into the Shift Advisor program for Catawba.
 - f. (Closed) Inspector Followup Item 413/84-70-03: Shift Advisor Medicals. The two Catawba based Shift Advisors have satisfactorily passed a medical examination prior to the commencement of fuel loading.

This failure to follow procedure, in that the RHR 1A pump was not declared inoperable as specified in step 12.20 of PT/1/A/4200/10A on September 17, when the personnel error was identified is a violation of Technical Specification 6.8.1 which requires procedures to be established and implemented. This is violation 413/84-87-04: Failure to follow procedure for RHR pump surveillance testing.

13. Operating License Conditions (Unit 1) (92706)

- a. Attachment 1 to the Catawba operating license identified items that were to be completed prior to exceeding 200F (Mode 4). The first item addresses relocation of containment atmosphere monitor sample lines and is discussed in IE Report 413/84-90. The second item addressed the completion of ice condenser testing and all associated steel erection removed during ice loading. The inspector reviewed the following testing and work requests:

MP/0/A/7150/06 - Ice Condenser Lower Inlet Door Testing and Corrective Maintenance

MP/0/A/7150/07 - Ice Condenser Intermediate Deck Door Corrective Maintenance

TP/1/A/1200/23 - Initial Ice Basket Weight Determination

TP/1/A/1100/02 - Ice Condenser Region Functional Test

MP/0/A/7150/10 - Inspection of Ice Condenser Flow Passages

MP/0/A/7150/08 - Ice Condenser Floor Drain Inspection

Shutdown Work Request No. 8695 - This work request removed the sections of the ice condenser required to load ice and perform testing. This work request has been cleared and reviewed for acceptability.

Based on this review, the inspector considers the utility has met the license conditions identified in Enclosure 1.

- b. One of the items identified as a "Proposed License Condition for a Low Power License to be Completed to Satisfaction of Region II" is item F.7, complete post inspection testing of the emergency diesel generators and supporting systems. Performance engineering personnel identified that the testing had been completed on 1A diesel generator but the results had not been reviewed. The inspector reviewed the test results of TP/1/A/1100/05, Diesel Generator 1A Post Inspection Run. As a result of this review, a deviation was identified. In a letter from July 6, 1984, to H. R. Denton from H. B. Tucker, Duke committed to perform two fast starts on the diesel generators, and specified the parameters that would be met during these test. Parameter B.4.b of

This failure to follow procedure, in that the RHR 1A pump was not declared inoperable as specified in step 12.20 of PT/1/A/4200/10A on September 17, when the personnel error was identified is a violation of Technical Specification 6.8.1 which requires procedures to be established and implemented. This is violation 413/84-87-04: Failure to follow procedure for RHR pump surveillance testing.

13. Operating License Conditions (Unit 1) (92706)

- a. Attachment 1 to the Catawba operating license identified items that were to be completed prior to exceeding 200°F (Mode 4). The first item addresses relocation of containment atmosphere monitor sample lines and is discussed in IE Report 413/84-90. The second item addressed the completion of ice condenser testing and all associated steel erection removed during ice loading. The inspector reviewed the following testing and work requests:

MP/O/A/7150/06 - Ice Condenser Lower Inlet Door Testing and Corrective Maintenance

MP/O/A/7150/07 - Ice Condenser Intermediate Deck Door Corrective Maintenance

TP/1/A/1200/23 - Initial Ice Basket Weight Determination

TP/1/A/1100/02 - Ice Condenser Region Functional Test

MP/O/A/7150/10 - Inspection of Ice Condenser Flow Passages

MP/O/A/7150/08 - Ice Condenser Floor Drain Inspection

Shutdown Work Request No. 8695 - This work request removed the sections of the ice condenser required to load ice and perform testing. This work request has been cleared and reviewed for acceptability.

Based on this review, the inspector considers the utility has met the license conditions identified in Enclosure 1.

- b. One of the items identified as a "Proposed License Condition for a Low Power License to be Completed to Satisfaction of Region II" is item F.7, complete post inspection testing of the emergency diesel generators and supporting systems. Performance engineering personnel identified that the testing had been completed on 1A diesel generator but the results had not been reviewed. The inspector reviewed the test results of TP/1/A/1100/05, Diesel Generator 1A Post Inspection Run. As a result of this review, a deviation was identified. In a letter from July 6, 1984, to H. R. Denton from H. B. Tucker, Duke committed to perform two fast starts on the diesel generators, and specified the parameters that would be met during these test. Parameter B.4.b of

this letter identified that the peak load would be about 4100 KW. The load applied for this section of the test was 2900-3000 KW. This was discussed with the test personnel responsible for conduct of the test and they stated that they were not aware of the requirements stated in the letter. This is identified as a deviation (413/84-87-05), Failure to meet test parameters specified for diesel generator.

No violations or deviations were identified except as described in paragraph 13.b.