



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA STREET, N.W.  
 ATLANTA, GEORGIA 30303

JUL 23 1984

Report No.: 50-413/84-72

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

Docket No.: 50-413

License No.: CPPR-116

Facility Name: Catawba

Inspection Dates: June 18-22, 1984

Inspection at Catawba site near Rock Hill, South Carolina

Inspectors: G. A. Belisle 7/16/84  
 G. A. Belisle Date Signed  
L. E. Foster 7/16/84  
 L. E. Foster Date Signed

Accompanying Personnel: H. C. Whitcomb, III, Region II  
 R. P. Lilly, General Accounting Office  
 L. D. Weeks, General Accounting Office

Approved by: M. Upright 7/18/84  
 M. Upright, Section Chief Date Signed  
 Division of Reactor Safety

SUMMARY

Areas Inspected:

This routine, announced inspection involved 96 inspector-hours on site in the areas of licensee actions on previous enforcement matters and licensee actions on previously identified inspection findings.

Results:

Of the two areas inspected, no violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

R. Abernathy, Test Supervisor  
W. Anfin Jr., Maintenance Support Engineer  
J. Ashe, Station Support Engineer  
\*J. Barbour, Operations QA Manager  
W. Bradley, QA Supervisor  
\*J. Cox, Technical Services Superintendent  
\*R. Cox, Maintenance Support Engineer  
\*G. Grier, Corporate QA Manager  
\*J. Hampton, Catawba Manager  
\*C. Hartzell, Licensing Engineer  
W. Newton, QA Technician  
\*P. LeRoy, Licensing Engineer  
L. Ryley, Security Compliance Representative  
\*G. Smith, Maintenance Superintendent  
J. Stackley, IAE Support Engineer  
\*J. Willis, Senior QA Engineer  
\*R. Wilson, Maintenance Planning Engineer

Other licensee employees contacted included engineers, technicians, and office personnel.

#### Other Organizations

L. Weeks, GAO  
R. Lilly, GAO

#### NRC Resident Inspectors

P. Skinner, Senior Resident Inspector, Operations  
P. Van Doorn, Senior Resident Inspector, Construction

\*Attended exit interview.

### 2. Exit Interview

The inspection scope and findings were summarized on June 22, 1984, with those persons indicated in paragraph 1 above. In addition, clarification was provided for one item during a telephone conference conducted June 25, 1984, between Duke Power Company and NRC Region II personnel. The licensee acknowledged closure of 28 NRC items from previous inspection reports.

## 3. Licensee Action on Previous Enforcement Matters

- a. (Closed) Severity Level IV Violation (413/83-52-01 and 414/83-39-01): Lack of Qualifications for Auditors.

The licensee response dated February 15, 1984, was considered acceptable by Region II. The licensee has taken corrective action by incorporating requirements for auditors in QA Procedure QA-130, Qualification and Training of Lead Auditors, Revision 9. The inspector reviewed the revised procedure and confirmed that the procedure had been revised to include the training and qualification requirements for auditors. To qualify as an auditor, the candidate must accumulate a total of eight points which are derived from education and experience. Training includes ANSI N45.2, N45.2.12, and N45.2.23 plus, actual training in conducting audits. Permanent records of training and other qualifications of auditors are included on Form QA-130-B. Licensee management stated that records of all auditors have been backfitted to depict their training and qualifications.

- b. (Closed) Unresolved Item (413/84-04-01; 414/84-04-01): Feedwater System Deviation From Performance Specification.

This item was closed with the identification of a violation in NRC Inspection Report Nos. 50-413/84-18 and 50-414/84-14, paragraph 8.a.

- c. (Closed) Severity Level IV Violation (413/84-18-01): Failure to Control Repaired/Salvaged Items.

The licensee response dated June 8, 1984, was considered acceptable by Region II. The licensee stated that the Brooks rotometer and valves discussed in the violation had been properly tagged and segregated as required by Material Handling Procedure 6.2. Other corrective action included reinstruction of personnel on applicable procedures and the importance of following procedures.

- d. (Open) Severity Level IV Violation (413/84-18-02): Failure to Provide Adequate Handling and Storage Procedures and Instructions.

The licensee response to this item dated June 8, 1984, was not considered acceptable to Region II. During this inspection, the inspector discussed the reasons why the licensee response was not acceptable. A meeting was held with licensee personnel to discuss further action to be taken to assure that materials are properly packaged, handled, and stored to prevent damage. The licensee was informed that these practices are to be effective and implemented at all times whether the material is in transit, in a staging area, or in temporary or final storage.

Licensee reevaluation and subsequent response dated June 26 has been reviewed and is still considered unacceptable as the licensee is continuing to only consider protection of items in final storage. Regulatory requirements and ANSI Standards require that items be properly handled and stored from arrival on site until removal from the site, not just when in final storage. The licensee is revising some material handling procedures to include more detail and stated that additional training of personnel will be implemented by August 31, 1984.

- e. (Open) Severity Level IV Violation (413/84-18-03): Failure to Perform Preventive Maintenance as Required.

The licensee responses dated May 23 and June 8, 1984, were not considered acceptable by Region II. A meeting was conducted with the following Duke personnel on June 19, 1984:

W. Anfin, Jr., Mechanical Maintenance  
 R. Cox, Maintenance Support Engineer  
 P. LeRoy, Licensing Engineer  
 R. Wilson, Planning Engineer

During this meeting, discussion of this violation indicated that additional actions would be needed by Duke personnel. Based on this meeting, additional evaluation will be required for critical systems, structures, and components (CSSC) by engineering preventive maintenance (PM) personnel for inclusion into the PM program.

- f. (Closed) Severity Level IV Violation (413/84-18-04): Failure to Establish Measures to Require Evaluation of Design Nonconformances.

The licensee responses dated May 23 and June 8, 1984, were considered acceptable by Region II. This violation was denied by the licensee. Based on a telephone conference call on June 25, 1984, and previous telephone calls with the licensee, sufficient clarification was given to justify denial of this violation. Based on these telephone conversations the following information was provided:

- Design nonconformance reports (DNC) are the option of the licensee as to their applicability to non-QA condition systems as stated in PR-202, Design Nonconformance.
- The FSAR was modified to delete the AFW pumps taking a suction from the hotwell under vacuum conditions. This source of water is available but under different circumstances.
- The requirements for the nuclear station modification (NSM) issued to install vents in the AFW suction lines from the hotwell will be completed. Retest requirements for this NSM will verify operability of AFW pumps being able to supply water from the hotwell under non-vacuum conditions.

- g. (Closed) Severity Level V Violation (413/84-18-05): Failure to Establish Measures to Recall Obsolete Drawings.

The licensee responses dated May 23 and June 8, 1984, were considered acceptable by Region II. The inspector reviewed Drawings CN-2592-1.0 and CN-2592-1.1 and verified that Variation Notice (VN) VN-42085 had been incorporated into the drawings for clarification. The date these drawings were revised was June 11, 1984. The inspector also reviewed QA Procedures PR-201, Variation Notices, Revision 20, and R-3, Design Drawing and Specification Variation, Revision 22. Clarification has been added in both procedures for actions to be taken if a VN has been cleared. Procedural controls now require that if a VN has been cleared, Design Engineering will deny authorization to supersede or void the VN. A new VN must be generated against the latest release document. If the VN has not been closed, then Design may allow the VN to be superseded or voided. The inspector verified by telephone that design personnel had been reinstructed in these procedural changes.

The inspector concluded that the licensee had determined the full extent of the violation, taken action to correct current conditions, and developed corrective actions needed to preclude recurrence of similar problems. Corrective actions stated in the licensee response have been implemented.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Licensee Actions On Previously Identified Inspection Findings

- a. (Closed) Inspector Followup Item 413/83-52-02, 414/83-39-02: Suitability of 1-Hour Fire Rated Records Storage.

The inspector reviewed the following documents:

- (1) Memo to file from S. R. Christopher, dated February 17, 1984, File No. CN-1435.00
- (2) Memo from C. L. Hartzell to J. W. Cox, dated March 13, 1984, File No. CN-101.00
- (3) Memo from J. W. Cox to P. H. Berton, dated May 15, 1984, File No. 101.00
- (4) Memo from P. H. Barton to S. B. Hager, dated June 5, 1984

(5) SD 2.2.1, Procedure for Records Management, Revision 20, Memo 1 contains the onsite satellite record file review listed in SD 2.2.1. It also makes recommendations for records storage in the office building, administration, auxiliary service, and service buildings (both east and west of the truck bay). The recommendation for record storage in the service building (east of the truck bay) is for record storage in a Class 350 2-hour filing device with impact resistance. Memo 2 summarizes memo 1. Memo 3 requests information to locate these filing devices. Memo 4 states that these filing devices are not available. The licensee is in the process of procuring additional filing devices and is expected to meet fire survey recommendation (Memo 1) by December 31, 1984. It has been recognized by the licensee that since 2-hour impact resistant filing devices are not available, alternate satellite record storage locations will have to be found and procedurally delineated.

- b. (Closed) Inspector Followup Item 413/83-52-03, 414/83-39-03: Document Issuance from QA Vault.

The inspector reviewed QA-111, Transfer of QA Records, Revision 4. This procedure delineates QA records transfer from one division to another or one location to another within the QA department. The inspector reviewed QA document issuance from the QA vault. Discussions with QA personnel indicated that adequate procedural controls for QA document issuance exist and are understood. The inspector selected three QA records that had been issued from the QA Vault and verified that procedural controls were being fully implemented.

- c. (Closed) Inspector Followup Item 413/83-52-04, 414/83-39-04: Water Piping in Document Control Vault.

The inspector reviewed Request for Modification CN 50014 (approved 5/16/84). This modification description is to "remove" this water pipe from the Document Control Vault. By "remove", it is meant that the possibility of water entering Document Control by this pipe breaking is eliminated. The modification is priority 1 with a December 1, 1984 estimated completion date.

- d. (Closed) Inspector Followup Item 413/83-52-07, 414/83-39-07: Storage of Records in QA Office.

The inspector reviewed QA-504, Quality Assurance Records, Operations, Revision 12. This procedure provides requirements and guidelines for collection, storage, and maintenance of QA records which are the QA Department Operation Division's responsibility. The inspector also reviewed SD 2.2.1, Procedures for Records Management, Revision 20. This procedure requires that records relating to QA requirements are

properly maintained as specified in the Administrative Policy Manual (APM) for nuclear stations. These two procedures delineate satellite record locations and controls to be applied to storage in these locations. The inspector verified that QA department personnel records are being stored in accordance with these procedural controls.

- e. (Closed) Inspector Followup Item 413/83-52-08, 414/83-39-08: QA Vault Door Certification.

The inspector reviewed a memo from R. F. Edmonds to J. W. Hampton, dated June 11, 1984, Re: Catawba Nuclear Station, QA Vault Fire Protection, Fire Door 51114, File Nos. CN-1435.01, -1435.03, and -1415.00. This memo explains why a UL label identifying the QA vault door as a "Class A" 3-hour fire rated was not affixed to the door. The inspector verified that the required hardware changes had been made to this door, that the door was properly identified (S1114), and that the door now meets AKSI N45.2.9 and NFPA 80 requirements.

- f. (Closed) Inspector Followup Item 413/84-18-06: TS Testing at Less Than Monthly Frequencies.

The inspector reviewed SD 3.2.2, Development and Conduct of Periodic Testing Program, Revision 5. Paragraph 6 requires that to assure all regulatory commitments regarding surveillance items which are required to be performed more frequently than once per month are met, each station group or section shall implement a monthly surveillance procedure which will require verification of performance of all surveillance items which were required during the month. The inspector interviewed personnel in operations, health physics, and IAE. The operations group procedure to meet this requirement is in draft. Health physics procedures have been written and approved.

The inspector also reviewed a draft security procedure to meet this requirement. These surveillance requirements can also be tracked by computer program by performance group personnel.

- g. (Closed) Inspector Followup Item 413/84-18-07: Frequency Clarification for Periodic Test Scheduling Index.

The inspector reviewed SD 3.2.2, Development and Conduct of the Periodic Testing Program, Revision 5. The identified inconsistency on page 4 and page 5 of the procedure relating to defining the time span frequency for the Periodic Test Scheduling Index (PTS) has been eliminated. The PTS now contains only those surveillances to be performed monthly or at a greater frequency.

- h. (Closed) Inspector Followup Item 413/84-18-08: Clarify Retest Requirements for QA Condition 1 and 3 Items.

The inspector reviewed SD 3.2.2, Development and Conduct of the Periodic Testing Program, Revision 5. Attachment 8 of this procedure has been modified to delete the EPB and SM systems. The safety-related positions of these systems are required to be retested.

- i. (Closed) Inspector Followup Item 413/84-18-09: Calibration Procedures for Performance Personnel.

The inspector toured the performance group calibration laboratory. Personnel were actively engaged in instrument calibration. Typical equipment being calibrated by this laboratory are Heise gages, Meriam D/P gages, Helicoid gages, Rosemont Transmitters, and L&K Transmitters. The inspector reviewed the following procedures:

IP/O/B/4000/03,	Performance Calibration of Ashcroft Test Gages, dated 5/17/84
IP/O/B/4000/04,	Performance Calibration of Heise Gages, Revision 1
IP/O/B/4000/05,	Performance Calibration of Meriam Test D/P Gages, dated 5/10/84
IP/O/B/4000/06,	Performance Calibration of Rosemont Test Transmitters, dated 5/12/84
IP/O/B/4000/07,	Performance Calibration of L&K Test Transmitters, dated 5/12/84
IP/O/B/4000/08,	Performance Calibration of Ametek Test Gages, dated 5/17/84
IP/O/B/4000/09,	Performance Calibration of Helicoid Test Gages, dated 5/17/84

The inspector randomly selected equipment history file records for certain instruments and verified they are being maintained as required by Station Directives and the APM.

- j. (Closed) Inspector Followup Item 413/84-18-10: Indirect Technical Specification Calibration Program Development.

The inspector interviewed IAE and Performance personnel. IAE personnel identified that their indirect TS calibrations are included on existing computer programs that track calibration due dates. Work requests are



generated when this instrumentation calibration is required. Performance personnel procedurally track indirect TS instrument calibration. The inspector reviewed the following procedures:

- PT/1/A/4200/04B, Containment Spray Pump 1A Performance Test, dated 10/26/83
- PT/1/A/4200/05A, Safety Injection Pump 1A Performance Test, dated 8/11/83
- PT/1/A/4200/07A, Centrifugal Charging Pump 1A Performance Test, dated 5/3/84
- PT/1/A/4200/10A, Residual Heat Removal Pump 1A Performance Test, dated 5/5/84

These tests, Section 8, Prerequisite System Conditions, require verification that gages used for data collection are calibrated prior to use.

- k. (Closed) Inspector Followup Item 413/84-18-11: Inservice Inspection Program Development.

The licensee had developed a program to assure that inservice testing required by TS, 10 CFR 50.55.a.(g), and ASME Section XI is accomplished. The licensee Inservice Testing Program for Pumps and Valves, Revision 1, dated May 16, 1984, was reviewed and discussed with licensee personnel.

- 1. (Closed) Inspector Followup Item 413/84-18-12: Performance TS Procedure Development.

The inspector interviewed performance personnel about procedure development to meet TS requirements. The performance group tracks all TS requirements assigned monthly or greater frequency. Currently two computer data bases are available for this information. The data tree program lists all surveillances and the frequency that have to be performed. This information can be sorted in different ways such as by group responsibility, procedure number (gives a numerical listing that can be checked against the station master procedure index), or by surveillance requirement frequency (monthly, bi-annual, etc). The second data base is Catawba Periodic Testing (CPT). This CPT data base is procedurally delineated in SD 3.2.2, Development and Conduct of the Periodic Testing Program, Revision 5. This data base can be sorted 16 different ways, some of which are by group, test interval, acceptable conditions (mode or temperature), or requiring condition. All TS requirements have been identified based on the latest available TS. These TS may vary slightly prior to license issuance. Procedures have been identified for these TS requirements; however, all procedures have not been written at the date of this inspection.

Procedures yet to be written are for TS requirements due at long intervals (refueling, annually). The computer program tracks periodic testing frequency and those groups that need to finalize procedures are notified prior to PT completion dates. These management controls apply to all groups involved with PT performance.

- m. (Closed) Inspector Followup Item 413/84-18-13: Operations TS Procedure Development.

See paragraph 5.1., Inspector Followup Item 413/84-18-12.

- n. (Closed) Inspector Followup Item 413/84-18-14: Chemistry TS Procedure Development.

See paragraph 5.1., Inspector Followup Item 413/84-18-12.

- o. (Closed) Inspector Followup Item 413/84-18-15: IAE TS Procedure Development.

See paragraph 5.1., Inspector Followup Item 413/84-18-12.

- p. (Closed) Inspector Followup Item 413/84-18-16: Transmission TS Procedure Development.

The licensee has approximately 100 procedures associated with transmission activities; however, only four of these activities are controlled by TS requirements. These four procedures have been developed and approved by the licensee. The inspector reviewed PT0/A/4971/06/R for ITE 27H Relay, MP/0/A/2001/05 for W Circuit Breaker, and PT/0/A/49/13/R for Underfrequency Sensor. Specifying the use of lubricants, cleaning fluids, and chlorinated hydrocarbons without specifying vendor, trade name, or precautions in MP 2001/05 was discussed with the licensee. The licensee stated that they would review the procedures to assure that adequate controls were specified and that materials used were on the approved list.

- q. (Closed) Inspector Followup Item 413/84-18-17: Health Physics TS Procedure Development.

See paragraph 5.1., Inspector Followup Item 413/84-18-12.

- r. (Closed) Inspector Followup Item 413/84-18-18: Maintenance TS Procedure Development.

See paragraph 5.1., Inspector Followup Item 413/84-18-12.

- s. (Closed) Inspector Followup Item 413/84-18-19: Security TS Procedure Development.

The inspector discussed security procedure development with the Security Licensing Coordinator and reviewed performance schedules and procedures. Documents reviewed were: PTO/4400-01/H, Fire Door Inspections, Nuclear Safety Evaluation Checklists (Form 34634), ALARA Evaluation Checklists (Form 18855), and Procedure Indexing Form 18652. Procedure PTO/4400/01/H lists the doors to be inspected, location, frequencies, responsibilities, and action required to correct deficiencies. This procedure was prepared to satisfy TS Section 4.7.11.2.

- t. (Closed) Inspector Followup Item 413/84-18-20: Reactor Engineering TS Procedure Development.

See paragraph 5.1., Inspector Followup Item 413/84-18-12.

- u. (Closed) Inspector Followup Item 413/84-18-21: Lack of Shelf-Life Program.

Material Handling Procedure 3.2, Shelf Life Program, dated June 18, 1984, had been developed and approved by the licensee. A review of the procedure revealed that the data will be computerized and that controls will be implemented from receipt inspection to disposal of out-of-date items. The merits of requiring vendors to supply shelf life data along with other documentation required by purchase orders was also discussed with the licensee.

- v. (Open) Inspector Followup Item 413/84-18-22: Lack of a Program to Control the Use of Aerosols.

Discussions with licensee personnel revealed that procedures were being developed to control the use of aerosols in the Reactor Containment and the Auxiliary Building. Further discussions revealed that these controls would be primarily for the protection of stainless steel products and would not specifically include controls for the protection of materials such as plastics, nylons, polyesters, epoxies, bakelite, elastometers, rubber, and other man-made materials. Licensee Power Chemistry Materials Guide, Revision 3, was reviewed to determine if controls to protect products other than steel had been included. Results of review were that the guide contained many products which had been approved for use in the plant, but was primarily for the protection of stainless steel and reactor plant systems. The guide did not include products acceptable, or restricted, for use on or in the vicinity of plastics, nylons, elastometers, and other man-made products which could be inadvertently degraded due to contact with unknown chemicals present in many commercial type, commonly used, aerosol products.

- w. (Closed) Inspector Followup Item 413/84-18-23: Lack of Control of Shaft Keys.

The licensee advised the inspector that they did not have or need a special procedure for the control of shaft keys as these items are controlled as spare parts. The licensee could not recall any problems resulting from using incorrect keys as they are purchased, identified, stored, issued, and installed by individual part number. To further ensure that shaft keys continue to be adequately controlled, the licensee stated that this would be discussed with maintenance personnel during their weekly meetings.

- x. (Closed) Inspector Followup Item 413/84-18-24: Determination of Level "A" Storage Area.

The licensee has evaluated the need for determining where material requiring Level A Storage will be stored and controlled. Licensee Letter dated June 14, 1984, from Construction Department to Nuclear Production Department, specifies that Warehouse 2 may be used to store material requiring Level A Storage.

- y. (Closed) Inspector Followup Item 413/84-18-25: Removal of Vendor from Approved List.

The inspector reviewed Procedure QA-601, Vendor Evaluation, Revision 7, to determine if the licensee had incorporated elements for removal of vendors from the approved list. The review revealed that causes for removal and methods to be utilized for removal of vendors from the approved list are included in the revised procedure.