



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

Report No.: 50-413/85-22

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

Docket No.: 50-413

License No.: NPF-35

Facility Name: Catawba 1

Inspection Conducted: June 3-7, 1985

Inspector:

*G. A. Befisle*  
G. A. Befisle

*6/27/85*  
Date Signed

Accompanying Personnel: L. R. Moore, Region II  
J. H. Moorman, III, Region II

Approved by:

*C. M. Upright*  
C. M. Upright, Section Chief  
Division of Reactor Safety

*6/27/85*  
Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 96 inspector-hours on site in the areas of QA program review, QA/QC administration, audits, records and document control.

Results: No violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

J. Aycock, Project Engineer  
\*J. Barbour, Manager, QA Operations Division  
G. Bell, QA Supervisor, Audit Division  
E. Burrell, Document Control Clerk  
\*B. Caldwell, Superintendent of Station Services  
\*L. Coggins, QA Engineer  
\*J. Cox, Superintendent of Technical Services  
\*L. Davison, Project QA Manager (Construction)  
D. Dease, Administrative Supervisor, Document Control  
S. Dressler, Projects Engineer  
\*J. Effinger, QA Supervisor, Audit Division  
\*J. Frye, Manager, QA Audit Division  
\*J. Hampton, Station Manager  
\*C. Hartzell, Compliance Engineer  
R. Johnson, Technician  
\*G. Keener, QA Surveillance  
J. Knudsen, Document Control Clerk  
\*J. Lanning, Administrative Coordinator  
T. Newton, QA Clerk  
R. Powell, Document Control Clerk  
R. Rouse, Senior QA Specialist  
\*D. Simpson, Technical Specialist, Compliance  
\*G. Smith, Superintendent of Maintenance  
\*E. Williams, QA Technician  
\*J. Willis, Senior QA Engineer

#### NRC Resident Inspectors

\*P. Skinner, Senior Resident Inspector  
K. Van Doorn, Senior Resident Inspector

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on June 7, 1985, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed below. No dissenting comments were received from the licensee.

Inspector Followup Item, Review problem identification reporting system and escalation system upon implementation, paragraph 6.

The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. QA Program Review (35701)

Reference: 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants

The inspector reviewed the licensee QA Program required by the above reference and verified that these activities were conducted in accordance with regulatory requirements. The following criteria were used during this review to assess overall acceptability of the established program:

- Personnel responsible for preparing implementing procedures understand the significance of changes to these procedures.
- Licensee procedures are in conformance with the QA Program.

The procedures discussed throughout this report were reviewed to verify conformance with the QA Program. The inspectors reviewed QA Program implementation as a part of the inspection. Each specific area is detailed in other paragraphs of this report. Problem areas, if identified, are detailed in the specific area inspected.

5. QA/QC Administration (35740, 35751)

References: 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants

The inspector reviewed the licensee QA/QC administration program required by the reference to verify that activities were conducted in accordance with regulatory requirements. The following criteria were used during this review to determine the overall acceptability of the established program:

- Licensee QA program documents identified those structures, systems, components, documents, and activities to which the QA program applies.
- Procedures and responsibilities had been established for making changes to these documents.
- Administrative controls had been established for QA/QC department procedure review, inspection, and auditing. These controls assured review and approval prior to implementation, provided methods to make changes and revisions, and established methods for distribution and obsolete procedure recall.

- Responsibilities had been established to assure QA program review for overall effectiveness.
- Administrative controls had been established to modify the QA program based on identified problems areas.

The documents listed below were reviewed to verify that these criteria had been incorporated into the licensee's administrative procedures for QA/QC administrative activities.

Quality Standards Manual for Structures, Systems and Components,  
2/20/85

QA-100, Preparation and Issue of Quality Assurance Procedures,  
Revision 8

Administrative Policy Manual, Revision 21

Duke Power Company Materials Manual, Revision 8

Material Handling Procedure 1.7, Control of Materials Transfers,  
Revision 2

Material Handling Procedure 2.3, Onsite Certification of Items,  
Revision 3

Material Handling Procedure 3.1, Storage Methods and Areas, Revision 5

Material Handling Procedure 5.2, Prestaging Materials for Work  
Requests, Revision 2

Material Handling Procedure 7.1, Warehouse Humidity and Temperature  
Measurement, Revision 2

The inspector reviewed auditing activities as discussed in paragraph 6. Corrective action was reviewed as part of auditing activities. An overall review of QA activities was also conducted as part of auditing activities.

Within this area, no violations or deviations were identified.

#### 6. Audits (35741, 40702, and 40704)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants, and Fuel Reprocessing Plants
  - (b) Regulatory Guide 1.144, Auditing of Quality Assurance Programs for Nuclear Power Plants
  - (c) ANSI N45.2.12-1977, Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants

- (d) Regulatory Guide 1.146, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants
- (e) ANSI N45.2.23-1978, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants
- (f) Regulatory Guide 1.33, Quality Assurance Program Requirements (Operation)
- (g) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
- (h) Technical Specifications, Section 6

The inspector reviewed the licensee audit program required by references (a) through (h) to verify that the program had been established in accordance with regulatory requirements, industry guides and standards, and Technical Specifications. The following criteria were used during this review to determine the overall acceptability of the established program:

- The audit program scope was defined consistent with Technical Specifications and QA program requirements.
- Responsibilities were assigned in writing for overall management of the audit program.
- Methods were defined for taking corrective action on deficiencies identified during audits.
- The audited organization was required to respond in writing to audit findings.
- Distribution requirements were defined for audit reports and corrective action responses.
- Checklists were required to be used in performing audits.
- Measures were established to assure that QA audit personnel met minimum education, experience, and qualification requirements for the audited activity.

The documents listed below were reviewed to verify that these criteria had been incorporated into the auditing program:

Duke-1-A	Duke Power Company Topical Report Quality Assurance Program, Revision 7
QA-122	Corrective Action Escalation Policy, Revision 1

QA-123	Processing of Nonconforming Item Reports by Quality Assurance General Office Personnel, Revision 0
QA-130	Qualification and Training of Auditors, Revision 11
QA-131	Quality Assurance Training, Revision 7
QA-132	Qualification and Training of Operations Division Surveillance Personnel, Revision 0
QA-140	Quality Assurance Inspector Training, Revision 9
QA-150	Trend Analysis, Revision 5
QA-160	Performance of Corporate Quality Assurance Audits, Revision 1
QA-210	Department Audit Procedure, Revision 17
QA-230	Department Audit Scheduling and Followup, Revision 10
APM-2.6	Review and Audit, Revision 21

The inspector selected the following audits for review:

NP-85-8 (CN)	Technical Services and Operations Activities
NP-85-7 (CN)	Corrective Action
NP-85-6 (CN)	Fire Protection and Prevention Program
NP-85-3 (CQA)	Operations Quality Assurance Program Activities
NP-85-2 (CN)	Administrative Services and Maintenance Activities
NP-84-23 (CM)	Crisis Management and Emergency Plans
NP-84-22 (CN)	Operations and Maintenance Activities
NP-84-17 (CN)	Technical Services and Administrative Services Activities

These audits were conducted from September 1984 to May 1985.

During this audit review, the inspector verified the following auditing functions:

Audits were performed as scheduled

Audits were issued within allowable timeframes

Audit findings were responded to within allowable time frames

Corrective action for audit findings was completed as scheduled

Auditors verified corrective action completion as scheduled

Audits were performed by qualified personnel. The specific qualifications for three lead auditors, four auditors, and six specialist were verified.

Audits were performed using approved checklists.

The inspector discussed auditor training with a QA Supervisor. Current or projected auditor training included the following areas:

- Task Inventory Program (Plant Systems)

- Nuclear Engineering

- Basic Engineering

- QA Specific Training

- Health Physics

- Chemistry

- Career Assistance Program

- Licensed Operator Training

The inspector reviewed audit schedules for 1984 and 1985. The inspector observed Audit SP-85-1 (CN) in progress. This audit was requested to be performed by Quality Assurance (QA) Management to verify the correct application of QA condition materials in operating nuclear stations. The inspector verified that this audit was being conducted using an approved checklist. The inspector questioned participating auditors as to their methodology for conducting this audit, and the findings to date. The auditors informed the inspector that findings had not been identified to date.

The inspector reviewed audit finding corrective action as previously discussed and also reviewed non-conforming item (NCI) corrective action. NCIs are tracked by on-site QA and Compliance personnel. Many NCIs have been outstanding for considerable periods of time awaiting final resolution. One NCI was identified in February 1980, but corrective action is not scheduled for completion until June 1986. This is due to the complexity of the corrective action resolution.



The inspector received a listing of outstanding NCIs dated June 4, 1985. Eighty-eight NCIs were outstanding. The licensee had identified problems with resolving NCIs in a timely manner in Trend Analysis Report CN 085-01, dated March 18, 1985, from the Quality Assurance Engineer, Technical Services, to the Vice President, Nuclear Production. This report listed approximately 80 NCIs that were used to determine the negative trend that there was a significant increase in the number of NCIs with late resolution.

This negative trend was investigated by the Vice President, Nuclear Production, and a response was returned to the QA Engineer, Technical Services, on April 11, 1985. This response identified two reasons for NCI late resolution and it also addressed steps to reverse the trend, one of which was assigning an additional person to the Compliance Section. This person tracks and expedites NCI resolution.

NCIs continue to be written as problems are identified, but NCI resolution has become more timely. Of the NCIs identified in CN 085-01, approximately 30 have been resolved. A sample of six NCIs written in May (NCI 267, 269, 270, 271, 272, and 273) identified that three have been essentially completed and the remaining three are pending QA corrective action approval.

The inspector questioned QA personnel as to how upper management was involved in NCI and audit finding resolution. Status reports are generated to upper management (such as CN 085-01) and for audit findings, but the licensee did not have a formal escalation procedure until June 6, 1985. The purpose of this procedure (QA-122) is to establish policy to assure that conditions adverse to quality are escalated to appropriate management levels when they have not been resolved at lower levels in a timely manner. This procedure is due for implementation September 1, 1985, for all licensee Nuclear Power Plants.

Within this area one inspector followup item was identified. The licensee is planning to replace existing methods of reporting nonconformances. This new Problem Identification Report (PIR) system is currently under development with an estimated implementation date the latter part of 1985. Additionally, the new escalation policy (QA-122) is due for implementation September 1, 1985. Until these administrative control systems for nonconforming item reporting and escalation can be reviewed for adequacy, this is identified as inspector followup item 413/85-22-01.

## 7. Records (35748, 39701)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
  - (b) Regulatory Guide 1.33, Quality Assurance Program Requirements
  - (c) ANSI 18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants



- (d) Regulatory Guide 1.88, Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants
- (e) ANSI N45.2.9-1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants

The inspector reviewed the licensee's administrative controls for the collection, storage, and maintenance of records required by references (a) through (e), and verified that the administrative controls are in accordance with regulatory requirements, industry guides and standards, and Technical Specifications. The following criteria were used during the review to determine the overall acceptability of the established program:

Responsibilities had been assigned to assure that records will be maintained, and the retention periods had been specified.

Record storage controls had been established which accomplish the following:

Define the record storage locations.

Designate a custodian(s) in charge of storage of each class of records.

Describe the filing system(s) to be used to allow for the retrieval of records.

Establish a method for verifying that the records received for storage are in agreement with any attendant transmittal documents.

Make provisions for governing access to files and for maintaining an accountability of records removed from the storage facility.

Establish methods for filing supplemental information and disposing of superseded records.

The documents listed below were reviewed to verify that these criteria had been incorporated into the licensee's administrative procedures for the control of records.

Duke 1-A	Duke Power Company Topical Report Quality Assurance Program, Revision 7
APM 2.2	Records Management, Revision 21
QA-102	Storage of Special Processed Records, Revision 4
QA-111	Transfer of QA Records, Revision 4

QA-116	Quality Assurance Records Collection, Storage, and Retention, Revision 5
QA-301	Management of Projects QA Records, Revision 8
QA-410	Processing of QA Records for Purchased Items, Revision 11
QA-411	Filing of QA Records for Purchased Items, Revision 11
QA-504	Quality Assurance, Operations, Revision 14
SD-2.2.1	Procedure for Records Management, Revision 24

Plant records are stored in the QA vault, the document control vault, and at various satellite file locations. These locations are delineated in SD 2.2.1. The inspector visited the QA vault, document control vault, materials office, I&E section, and projects satellite file locations. All areas visited were controlled in accordance with requirements. Various start-up test records, Nuclear Safety Review Board meeting minutes, completed work requests, and operators logs were retrieved from the document control vault. All records were found to be stored properly, readily retrievable, and complete. Licensee personnel interviewed had adequate understanding of record retention requirements.

The inspector reviewed the posted authorized access list, CNS Directive 2.2.1, Enclosure 15, for document control in conjunction with the after hours Document Control access log for the period of March 20, 1985, through March 30, 1985. No unauthorized access was noted.

Within this area, no violations or deviations were identified.

#### 8. Document Control (35742, 39702)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
  - (b) Regulatory Guide 1.33, Quality Assurance Program Requirements
  - (c) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
  - (d) Regulatory Guide 1.88, Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records
  - (e) ANSI N45.2.9-1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants

The inspector reviewed the licensee document control program required by references (a) through (e) to verify that the program had been established in accordance with regulatory requirements, industry guides or standards, and Technical Specifications. The following criteria were used during this review to determine the overall acceptability of the established program:

- Administrative controls had been established for drawing issuance, drawing change review, obsolete drawing control, and as constructed and as-built drawing updating.
- Administrative controls had been established for maintenance of indices for drawings, manuals, Technical Specifications, FSARs, and procedures.
- Administrative controls had been established which assign specific responsibilities for drawing and document control programs.

The following documents were reviewed to verify that these criteria had been incorporated into the licensee's QA Program for document controls.

Duke 1-A	Duke Power Company Topical Report Quality Assurance Program, Revision 7
QA-100	Preparation and Issue of Quality Assurance Procedures, Revision 8
QA-107	Temporary Procedure Changes, Revision 2
APM 2.1	Document Control, Revision 21
SD 2.1.5	Drawing Distribution and Control, Revision 20
SD 2.1.6	Security Document Control, Revision 11
SD 2.2.1	Procedure for Records Management, Revision 24

The inspector reviewed the following QA surveillance reports:

CN-84-43	Document Control, Drawings, August 29, 1984
CN-84-33	Document Control, Microfilming and Miscellaneous Document Storage and Retention, July 18, 1984
CN-84-57	Document Control, Manuals, October 4, 1984
CN-84-66	Document Control, Storage and Administration, Satellite File Controls, and Miscellaneous Storage and Retention, December 28, 1984

These surveillance reports identified no major programmatic deficiencies; however, some minor discrepancies were noted in the implementation. These discrepancies were expeditiously corrected.

The inspector verified that controlled documents in the following remote files contained the latest revision:

Control Room Procedures:	OP 1 A 6100 05, Revision 13
	OP 1 A 6150 02A, Revision 9
	OP 1 A 6150 08, Revision 4
	OP 1 A 6200 01, Revision 31
	OP 1 A 6200 04, Revision 25
	OP 1 A 6200 06, Revision 7
	OP 1 A 6200 07, Revision 11
	OP 1 A 6200 10, Revision 24
	OP 1 A 6200 19, Revision 2
	OP 1 A 6250 03B, Revision 7

Operators Office Drawings:	CN 1533-1.2, Revision 5
	CN 1554-1.4, Revision 7
	CN 1652-1.4, Revision 10
	CN 1559-1.0, Revision 4
	CN 2573-1.3, Revision 4
	CN 2576-1.1, Revision 0
	CN 2590-1.0, Revision 2
	CN 1609-4.1, Revision 3
	CN 1608-1.1, Revision 9

I&E Office Drawings:	CN 1740-01-02, Revision 3
	CNEE 0026-01.07, Revision 3
	CNEE 0150-03.11, Revision 13
	CN 2915-01, Revision 35
	CN 2915-02, Revision 25
	CN 2915-11, Revision 17
	CN 2915-14, Revision 3
	CN 2907-01, Revision 35

Controlled copies of the Station Directives located in the I&E section (copy 16) and the Operations sections (copies 51 and 62) were verified to contain the latest revisions.

Within this area, no violations or deviations were identified.