



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

Report Nos.: 50-413/85-35 and 50-414/85-32

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

Docket Nos.: 50-413 and 50-414

License Nos.: NPF-35 and CPPR-117

Facility Name: Catawba 1 and 2

Inspection Conducted: July 26 - August 25, 1985

Inspectors: H C Dance / fr 9/9/85
P. H. Skinner Date Signed
H C Dance / fr 9/9/85
P. K. VanDoorn Date Signed
Approved by: H C Dance 9/9/85
H. Dance, Section Chief Date Signed
Division of Reactor Projects

SUMMARY

Scope: This routine unannounced inspection involved 163 inspector-hours on site in the areas of followup of previously identified items (Unit 1); site tours (Units 1 and 2); surveillance observation (Unit 1); plant operations review (Unit 1); followup of nonroutine events (Units 1 and 2); maintenance observation (Unit 1); fuel receipt and storage (Unit 2); comparison of as-built plant to FSAR (Unit 2); preoperational test program implementation (Unit 2); and fire prevention and protection (Unit 2).

Results: Of the 10 areas inspected, no violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. W. Hampton, Station Manager
- E. M. Couch, Project Manager
- W. Allgood, Completion Engineer Electrical
- H. L. Atkins, QA Engineering Supervisor
- H. B. Barron, Operations Superintendent
- *W. H. Bradley, QA Surveillance
- B. F. Caldwell, Station Services Superintendent
- *J. W. Cox, Superintendent, Technical Services
- T. E. Crawford, Operations Engineer
- *L. R. Davison, Project QA Manager
- J. R. Ferguson, Assistant Operating Engineer
- *C. L. Hartzell, Licensing and Projects Engineer
- R. A. Jones, Test Engineer
- C. S. Kelly, Instrumentation/Electrical Technical Support
- *P. G. LeRoy, Licensing Engineer
- *W. W. McCollough, Maintenance Engineer
- C. E. Muse, Operating Engineer
- T. D. Mills, Construction Engineer, Electrical
- *D. B. O'Brien, Administrative Methods Supervisor
- *G. T. Smith, Maintenance Superintendent
- D. Tower, Operating Engineer
- J. E. Whichard, Supervisor, Electrical Technical Support
- R. E. White, Chairman, Catawba Safety Review Group
- *E. G. Williams, Project QA Technician

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 August 26, 1985, with those persons indicated in paragraph 1 above. The unresolved items described in paragraphs 8.b and 9 were discussed in detail. The licensee acknowledged the findings and had no dissenting comments. The licensee did not identify as proprietary any of the materials provided + or reviewed by the inspectors during this inspection.

A copy of the preliminary draft of AEOD case study report "Decay Heat Removal Problems at U.S. Pressurized Water Reactors" and a NUREG-1154 "Loss of Main and Auxiliary Feedwater Event at the Davis-Besse Plant on June 9,

1985" were given to the licensee during this reporting period. These are information documents which have been forwarded to the Public Document Room.

3. Licensee Action on Previous Enforcement Matters (92702) (Unit 1)

- a. (Closed) Violation 413/84-104-01: Failure to Control Teflon Tape. The response to this item was submitted on January 24 and August 9, 1985. The inspector reviewed this response and verified implementation of corrective actions and considers licensee action to be acceptable.
- b. (Closed) Deviation 413/85-20-02: Failure to Meet Commitment to Control Teflon Tape. The response to this item was submitted on August 9, 1985. The inspector reviewed this response and verified corrective actions and considers licensee action to be acceptable.

4. Unresolved Items*

New unresolved items are identified in paragraphs 8 and 9.

5. Independent Inspection Effort (71707)(71302) (Units 1 and 2)

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.

6. Surveillance Observation (61726) (Unit 1)

During the inspection period, the inspector verified plant operations were in compliance with various Technical Specifications requirements. Typical of these requirements were confirmation of compliance with the Technical Specifications for reactor coolant chemistry, refueling water tank, emergency power systems, safety injection, emergency safeguards systems, control room ventilation, and direct current electrical power sources. The inspector verified that surveillance testing was performed in accordance with the approved written procedures, test instrumentation was calibrated, limiting conditions for operation were met, appropriate removal and restoration of the affected equipment was accomplished, test results met requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

Typical of the surveillance items that were witnessed in part or in full were various calibrations of portions of the nuclear instrumentation and radiation monitoring systems.

*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.

No violations or deviations were identified.

7. Plant Operations Review (Unit 1) (71707 and 71710)

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 logs, 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 observed a practice emergency TSC activation drill.

The inspectors also verified by observation and interviews, that measures taken to assure 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 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.

8. Review of Licensee Nonroutine Event Reports (92700)(90711) (Units 1 and 2)

- a. The below listed Licensee Event Reports (LER) were reviewed to determine if the information provided met NRC requirements. The determination included: adequacy of description, verification of compliance with Technical Specifications and regulatory requirements, corrective action taken, existence of potential generic problems, reporting requirements satisfied, and the relative safety significance of each event. Additional inplant reviews and discussion with plant personnel, as appropriate, were conducted for those reports indicated by an asterisk (*). The following LERs are closed.

*LER 84-17, Rev. 2	Auto Start of Motor Driven Auxiliary Feedwater Pumps
*LER 85-05	Power Range Channel Inoperable During the Mode Change
LER 85-07	Auto Start of Diesel Generators During Generator PCB Troubleshooting
*LER 85-09	Safety Injection During Loss of Control Room Test

*LER 85-18	Diesel Generator and Turbine Driven Auxiliary Feedwater Pump Concurrently Inoperable
*LER 85-19	Inoperable Steam Generator Channel Not Tripped Within One Hour
*LER 85-24	Both Trains of Control Room Ventilation Simultaneously Inoperable
*LER 85-35	Motor Driven Auxiliary Feedwater Pump Automatic Start
LER 85-37	Auxiliary Feedwater Pump Inadvertent Start During Testing
*LER 85-42	Nuclear Instrumentation System Power Range Reactor Trip

- b. The inspector reviewed aspects of an incident involving a diesel generator failure which occurred on August 13, 1985 (Report due September 6, 1985). During additional testing associated with this event conducted on August 16, 1985, a loss of power on a Unit 1 buss resulted in a loss of control power to some Unit 2 components which resulted in closing of an outlet valve (2NV189B) for the volume control tank (VCT) in the Chemical and Volume Control System. This resulted in the VCT being filled with water and possibly challenging the tanks relief valve (75 psi.). A contributing factor in this situation was the fact that the operator on the Unit 2 side left the control board to assist Unit 1 operators while the VCT was being filled. The inspector requested the licensee to evaluate actions that need to be taken to assure adequate operations coverage on Unit 2, an evaluation of interunit electrical interfaces existence which could effect safe operations, determination if operators were aware of these interfaces, and determine if this electrical problem is a design nonconformance relative to electrical separation/independence. The licensee, to date, has restricted transfer of Unit 2 operators to Unit 1 unless the shift supervisor deems it absolutely necessary, and has implemented an operator update to warn operators of possible problems relative to electrical interfaces. A detailed design review of electrical interfaces and review for design nonconformance is in progress. Until this review is completed and reviewed by NRC this item will be Unresolved Item 413/85-35-01, 414/85-32-01: Review of Electrical Interfaces Between Units.

No violations or deviations were identified.

9. Maintenance Observation (63703) (Unit 1)

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 performed 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 effect system performance.

During this period the inspector reviewed documentation associated with work performed on Component Cooling (KC) system valves 1KC50A and 1KC53B. A portion of this work included an attempt to stop leakage past the seat of valve 1KC50A by injecting Furmanite compound into the area immediately adjacent to the valve. Since this area was also a portion of the operating train, the inspector requested licensee personnel provide the analysis performed to determine unreviewed safety aspects as required by 10 CFR 50.59. The licensee has not provided this documentation at this time, however, they are continuing the search for this material. This item is identified as an Unresolved Item (413/85-35-02): 10 CFR 50.59 Documentation of Furmanite Injection Into An Operating System, pending completion of the licensee's search for this material.

No violations or deviations were identified.

10. Fuel Receipt and Storage (60501B) (Unit 2)

The inspector observed receipt of fuel modules in progress to verify that the licensee was meeting requirements of approved procedures and Materials License SNM-1949. Attributes considered in this review included personnel training, housekeeping/cleanliness control, health physics controls, security, receiving inspection and documentation.

No violations or deviations were identified.

11. Comparison of As-Built Plant to FSAR Description (37301) (Unit 2)

The inspector performed walkdown inspections of portions of safety related systems to determine if piping, valves and instrumentation installation was in accordance with current flow diagrams and FSAR descriptions. The inspector also verified that these systems were compatible with the latest draft technical specification. The following portions of systems were observed: Main Steam System, Safety-Related portion associated with steam generator D shown on Dwg. No. CN-2593-1.0, Rev. 4; and Containment Spray System, train B portion shown on Dwg. No. CN-2563-1.0, Rev. 3. (Note: Control and instrumentation logic was also verified to be in accordance with the FSAR for the containment spray system).

No violations or deviations were identified.

12. Preoperational Test Program Implementation (70302 and 71302) (Unit 2)

- a. The inspector conducted tours to verify that turned over equipment was adequately protected and controlled. This review included observation of construction activities, observation for fire hazards and observation of security boundaries.
- b. The inspector reviewed Nuclear Production aspects of the turnover program to determine if a well defined program meeting regulatory requirements was in place. Special attention was given to control of exceptions and methods of closeout or transfer for final turnovers. In addition, the inspector reviewed the turnover documentation for the Containment Spray System to determine if regulatory and licensee procedural requirements were met. The inspector specifically verified control of exceptions identified for this system.

No violations or deviations were identified.

13. Fire Prevention/Protection for Construction (42051C) (Unit 2)

The inspector conducted tours of various plant areas to verify that flammable materials were properly controlled, materials such as covers and wood scaffolding were treated with fire retardant, appropriate ventilation is provided and excessive accumulation of flammables did not occur. In addition the inspector observed special processes, such as welding, were conducted safely relative to fire protection. The inspector also reviewed the licensee program for maintenance of fire suppression equipment and the program for drills and training. The results of the most recent drill were discussed with construction safety personnel. In addition to this months effort, numerous site tours conducted previously by the NRC Resident Inspector included observation of fire protection. Based on numerous observations in this area and the fact that construction is essentially complete this inspection module is considered complete. Fire protection will continue to be a consideration in future tours.

No violations or deviations were identified.