



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

Report Nos. 50-413/88-15 and 50-414/88-15

Licensee: Duke Power Company
 422 South Church Street
 Charlotte, N.C. 28242

Docket Nos.: 50-413 and 50-414

License Nos.: NPF-35 and NPF-52

Facility Name: Catawba 1 and 2

Inspection Conducted: March 26, 1988 - April 25, 1988

Inspectors: T.A. Peebles for 5-6-88
 P. K. Van Doorn Date Signed

T.A. Peebles for 5-6-88
 M. S. Lesser Date Signed

Approved by: T.A. Peebles 5-6-88
 T. A. Peebles, Section Chief Date Signed
 Projects Branch 3
 Division of Reactor Projects

SUMMARY

Scope: This routine, unannounced inspection was conducted on site inspecting in the areas of review of plant operations; surveillance observation; maintenance observation; review of licensee nonroutine event reports; followup of previously identified items; design changes and modifications; and Part 21 reports.

Results: Of the eight (8) areas inspected, three apparent violations were identified: TS Violation Due to Open Sliding Link Causing Inoperability of Diesel Generator (paragraph 3.h.) and Failure to Follow TS for Pressurizer Safety Valve Position Indication (paragraph 8.b.) and Failure to Follow TS for Gross Radioactivity Calculation (paragraph 8.c.).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *H. B. Barron, Operations Superintendent
- W. F. Beaver, Performance Engineer
- W. H. Bradley, QA Surveillance
- S. W. Brown, Reactor Engineer
- R. H. Casler, Unit 1 Coordinator
- R. H. Charest, Station Chemistry Supervisor
- S. S. Cooper, Operating Engineer
- *M. A. Cote, Licensing Specialist
- *T. E. Crawford, Integrated Scheduling Superintendent
- W. P. Deal, Health Physics Supervisor
- C. S. Gregory, I. & E. Support Engineer
- *C. L. Hartzell, Compliance Engineer
- F. N. Mack, Project Services Engineer
- W. W. McCollough, Mechanical Maintenance Supervisor
- W. R. McCollum, Station Services Superintendent
- C. E. Muse, Unit 2 Coordinator
- *T. B. Owen, Station Manager
- F. P. Schiffley, II, Licensing Engineer
- G. T. Smith, Maintenance Superintendent
- J. M. Stackley, I. & E. Engineer
- D. Tower, Shift Operating Engineer
- *R. F. Wardell, Technical Services Superintendent
- J. W. Willis, Senior QA Engineer, Operations

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

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on April 25, 1988, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

Inspector Followup Item 413,414/88-15-01: Inoperable RN Pit Level Transmitters Interpretation Implementation.

Unresolved Item 413,414/88-15-02: Clogging of S/G Sample Lines and Blocking Flow to EMF 34.

Inspector Followup Item 413,414/88-15-03: Changes in RHR Operation with Low Flow Annunciators.

Inspector Followup Item 413,414/88-15-04: Evaluation of Corrective Action for Diesel Generator Failures.

Inspector Followup Item 413,414/88-15-05: Improved Guidance for Part 21 Implementation.

Violation 414/88-15-06: TS Violation Due to Open Sliding Link Causing Inoperability of Diesel Generator.

Violation 414/88-15-07: Failure to Follow TS for Pressurizer Safety Valve Position Indication Instrumentation.

Licensee Identified Violation 414/88-15-08: Failure to Follow TS for Gross Radioactivity Calculation.

3. Licensee Action on Previous Enforcement Matters (92702)

- a. (CLOSED) Unresolved Item 413/85-14-01: Adequacy of Part 21 Implementation. The previously identified program deficiencies were corrected via new procedures and inadequate evaluations were not identified. Therefore, this item is closed. Additional inspections were performed in this area which did identify a need for further guidance, see paragraph 9.
- b. (CLOSED) Unresolved Item 414/87-36-03: Review of NSW Maintenance Work Documentation. Documentation was identified which described the major activities performed on the Nuclear Service Water System. The licensee indicated that they are striving to improve maintenance documentation for an improved work history. In addition, the licensee has developed a special chemical cleaning method for the cooling water lines which has resulted in improved flows. This methodology is described in licensee Intrastation Letter (Reeves to Hartzell) dated March 25, 1988. Licensee actions are considered acceptable.
- c. (CLOSED) Violation 413,414/88-06-01: Failure to Follow TS for Nuclear Service Water System. The response for this violation was submitted on April 12, 1988. The inspector confirmed the completion of corrective actions described in the response which were acceptable.

- d. (CLOSED) Violation 413,414/88-08-01: Failure to Follow Procedures Resulting in Two Inadvertent Safety Injections. The response for this violation was submitted on April 8, 1988. The corrective actions were discussed with the Operations Superintendent and appear to be acceptable.
- e. (CLOSED) Violation 413,414/88-08-02: Inadequate Corrective Action Involving Mounting Hardware Modification for Rotork Motors. The response for this violation was submitted on April 8, 1988. The inspector verified the completion of the corrective actions described in the response which were acceptable.
- f. (CLOSED) Violation 413,414/88-13-01: Failure to Follow TS Administrative Requirements for Approval of Modifications. Corrective actions implemented for this violation were described in NRC Report 413,414/88-13 and this violation did not require a response. The licensee has chosen not to respond and, therefore, this item is closed.
- g. (OPEN) Unresolved Item 413,414/88-13-02: Evaluation of Corrective Action Regarding Control of Sliding Links and Jumpers. The licensee held a management meeting to discuss actions to address this issue. These actions include stressing the importance of following procedures, performing on the scene signoffs, ensure adequacy of procedures in various areas, formal procedure training, review of post-modification testing, review of past problems to determine the need for further actions such as inspections and documentation of all actions performed. Licensee actions are continuing and will be reviewed further.
- h. (CLOSED) Unresolved Item 414/88-13-03: Evaluation of Inoperable Equipment Due to Open Sliding Link. The licensee determined this item reportable after being prompted by the inspectors and reported the event on April 12, 1988, in LER 414/88-11. A sliding link (T-15) was discovered open during the performance of PT/2/A/4200/09, Engineered Safeguard Features (ESF) Actuation Periodic Test on December 29, 1987. One portion of the test was to verify the capability of Train B 4160 volt emergency bus (2ETB) to deenergize and load shed immediately upon simulating a degraded voltage condition in conjunction with an ESF signal. Degraded voltage is defined as 83.3-90% of rated voltage. The bus failed to deenergize due to the open sliding link which should have been closed. The licensee determined that the open sliding link would have prevented bus deenergization during power operations only if 2ETB had been powered from the alternate offsite power source via circuit breaker 2ETB4. The license initially concluded that since 2ETB is normally powered from the normal offsite power source via breaker 2ETB3, the event was not reportable and the diesel generator had been operable.

The licensee failed to recognize, until pointed out by the inspectors, that power to 2ETB had in fact been aligned to the alternate power source on December 17, 1987, while the unit was at power. The alignment was made to support testing and had remained that way through unit shutdown for refueling on December 24 and until the test was performed on December 29. After formally investigating the event, the licensee was unable to determine how the sliding link became open. The consequences were evaluated to determine the level of significance. Had a degraded voltage situation occurred coincident with an ESF actuation between December 17 and December 29, bus 2ETB would not have properly load shed and the diesel generator would have been paralleled to the degraded offsite power. This situation would last for 10 minutes until a timer actuated a different portion of the circuitry to trip open breaker 2ETB4, divorcing the emergency bus from the degraded voltage. With loads being powered from a degraded voltage, excessive current would be drawn. The licensee determined that overheating damage would occur after one hour but not during the ten minutes in question. Based upon this evaluation the inspector concluded that the system would have ultimately performed its safety function but not immediately as intended therefore the 2B diesel generator is considered to have been inoperable due to the open sliding link. This is identified as Violation 414/88-15-06: TS Violation Due to Open Sliding Link Causing Inoperability of Diesel Generator.

One Violation is identified and described in paragraph 3.h. above.

4. Unresolved Items

One new unresolved item is identified in paragraph 5.g. An Unresolved Item is a matter about which more information is required to determine whether it is acceptable or may involve a violation.

5. Plant Operations Review (Units 1 and 2) (71707 and 71710)

- a. The inspectors reviewed plant operations throughout the reporting period to verify conformance with regulatory requirements. Technical Specifications (TS), 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 verified by observation and interviews, the 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; and 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 activities. The inspectors reviewed Problem Investigation Reports to determine if the licensee was appropriately documenting problems and implementing appropriate corrective actions.

b. Unit 1 Summary

The unit operated at 100% power the entire reporting period. Significant problems during the period included failures of 1A Diesel Generator (discussed in paragraph 7.c.) and problems with Steam Generator Feedwater Regulating Valves. On March 28 the Feedwater Regulating Valve for 1C Steam Generator failed open and operators were able to take manual control and stop the transient. The licensee has determined that high temperatures in the circuit cabinets are contributing to electronic failures and is in the process of generating a modification to cool the cabinets. On April 18 impulse tubing ruptured on the charging pump discharge flow element. Operators were required to secure charging and letdown for 17 minutes to isolate the leak. Bearing temperatures to Reactor Coolant Pumps increased, however, no limits were exceeded. Approximately 300 gallons were spilled as the leak lasted for 50 minutes.

c. Unit 2 Summary

The unit started the period operating at 98% power due to calibration problems on reactor coolant loop temperature detectors. Power was reduced below 65% twice to repair an oil seal leak in the 2B Main Feed Pump, which was causing oil leakage into the condensate system. The unit experienced Feedwater Regulating Valve (FRV) Problems as did Unit 1. Erratic operation of two FRVs initiated Steam Generator level and reactor power swings and manual control was at times necessary. The unit shutdown to Mode 3 on April 23 due to grounded exciter windings in the main generator.

- d. The inspector conducted a general Auxiliary Building tour on April 4, 1988. Upon exiting the radiation control area a hand and foot monitor indicated contamination of the sole of the inspectors left shoe. Two other hand and foot monitors did not show the contamination, however, several hand held friskers did. The licensee was asked to explain this inconsistency. The radioactive material was unable to be retained for analysis but was expected to be low energy beta emitting material which was easily shielded since it was in a crack in the sole. The hand and foot monitors have been shown to be generally more sensitive than hand held friskers and are calibrated daily. They do have some limitations inherent in any instrument.

The frisker was able to "look" into the crack in the sole and the material could also have had some directional properties. The count rate was low. The licensee checked the hand and foot monitors and discovered that the detector which had shown the contamination was actually defective. The licensee indicated that the contamination was relatively minor and not significant had it gone undetected.

- e. The inspectors met with licensee management on March 29, 1988, to discuss general programs and various program initiatives in progress at the station. The licensee discussed details of the Site Management Council, Radiological Control Observation Program and Single Point Access, System Expert Program, Unit 2 Steam Generator Delta-P problems and the Station Work Management System. Other initiatives include implementation of a Site Design Engineering organization, improved training for 10 CFR 50.59 evaluators, unidentified Reactor Coolant System leakage task force and Main Feedwater System task force.
- f. On April 12 one of the two Train B Nuclear Service Water (RN) pit level transmitters was declared inoperable due to it failing its periodic calibration check. TS 3.3.2, item 14g of table 3.3-3 requires that the unit be in hot standby in 6 hours with 1 of the transmitters inoperable. The licensee has a standing TS interpretation to require that all actions that would automatically occur on a low pit level be taken manually. This includes start of all 4 RN pumps, shutting of cross connect valves, realignment of pump suction valves to the Standby Nuclear Service Water Pond (SNSWP) and aligning diesel generator cooling discharge valves to the SNSWP. If these actions are taken, the licensee may declare the instrument operable and no longer be in the Action Statement.

The inspectors confirmed with Region II management that this is an acceptable method of meeting the TS Action Statement, provided the manual actions taken are clearly at least as conservative as the instrument's automatic functions. On April 12, however, the licensee failed to perform all of the required actions. Fortunately, the instrument was successfully calibrated and returned to service in less than five hours, therefore, the TS was not violated. The licensee agreed and committed to writing a procedure to implement the interpretation. This is identified as Inspector Followup Item 413,414/88-15-01: Inoperable RN Pit Level Transmitters Interpretation Implementation, pending completion of procedure by licensee.

- g. The inspector discussed with the licensee problems associated with Steam Generator sampling after plant transients. Apparently corrosion products (magnetite) are clogging sample flow from one random steam generator. This line also provides flow through the Steam Generator Water Sample Monitor (EMF-34). The inspector

identified Unresolved Item 413/85-55-08 to review the fact that Item 17 of Table 3.3-10 of TS only requires 1 of 4 steam line radiation monitors to be operable where standard TS would require all 4 to be operable. This item was resolved and closed in Report 413,414/87-27 based on NRR acceptance of alternate methods to detect primary to secondary leaks, namely the condenser air ejector radiation monitors and the Steam Generator Water Sample Monitor (EMF-34). EMF-34 however cannot be relied upon to identify a steam generator with a primary to secondary leak after a plant transient until the clogged sample line is blown clear with air. As the condenser air ejector radiation monitor cannot identify which steam generator has a problem and 3 out of 4 steam line radiation monitors may be inoperable for an unlimited amount of time, the licensee's methods for localizing a tube leak apparently are degraded. This is identified as Unresolved Item 413,414/88-15-02: Clogging of S/G Sample Lines and Blocking Flow to EMF-34, pending solution by licensee.

- h. During Unit 2 operations in Mode 5 the inspector observed a low flow annunciator on the operating train of Residual Heat Removal (ND). The system is such that Train A ND typically would supply loops C and D cold legs. Flow element 2NDFE5190 will provide a low flow annunciator at less than 2000 gpm. Train B ND supplies loops A and B cold legs and flow element 2NDFE5180 will provide another low flow annunciator. OP/1(2)/A/6200/04, Residual Heat Removal, allows operating the ND system with one ND pump supplying all four loops through cross connect valves. The total desired ND flow rate is 3000 gpm, therefore, 1500 gpm is sensed by each flow element and the low flow annunciator remains in alarm.

The inspector was concerned that the operators would not have adequate warning of an actual loss of decay heat removal capability due to the annunciator already in an alarmed condition. The licensee has taken credit for this annunciator in its October 2, 1987 letter in response to Generic Letter 87-12, Loss of RHR.

The licensee agreed with the inspector's concerns and committed to revising the procedures to require ND flow only through two loops, thus the flow element would see 3000 gpm and be above the alarm reset point. This is identified as Inspector Followup Item 413,414/88-15-03: Changes in RHR Operation with Low Flow Annunciators, pending revision of OP/1(2)/A/6200/04.

No violations or deviations were identified.

6. Surveillance Observation (Units 1 and 2) (61726)

- a. During the inspection period, the inspector verified plant operations were in compliance with various TS requirements. Typical of these requirements were confirmation of compliance with the TS 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.

- b. The inspectors witnessed or reviewed the following surveillances:

Diesel Generator 2B PT/2/A/4350/02B
Operability (twice)

NC System Leakage PT/2/A/4150/01D
Calculation Unit 2

- c. The licensee requested an interpretation of TS 3.8.1.1 Action c. during this inspection period. The action requires that when one Diesel Generator (D/G) is out of service the other D/G be tested within 24 hours. The licensee requested guidance relative to a situation whereby the initially failed D/G becomes operable but the second D/G cannot be tested within 24 hours due to it being inadvertently inoperable. The TS requires the second D/G to be tested even if the first D/G becomes operable. The inspector discussed this issue with NRC:NRR (Jabbour and Giardina) who indicated that it would be appropriate for the licensee to declare the second D/G inoperable, reenter the action for the second D/G and then test the first D/G within the new 24 hour period. This guidance was given to the licensee.

No violations or deviations were identified.

7. Maintenance Observations (Units 1 and 2) (62703)

- a. Station maintenance activities of selected systems and components were observed/reviewed to ascertain that they were conducted in accordance with requirements. The inspector verified licensee conformance to the requirements in the following areas of inspection: the activities were accomplished using approved procedures, and functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities performed were accomplished by qualified personnel; 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.

- b. The inspectors witnessed the following maintenance activities in part:

Troubleshooting activities on the 1A Diesel Generator.

Troubleshooting activities on the 2B Diesel Generator.

- c. The licensee has experienced a significant number of diesel generator failures since October 1987. Some of the failures were random isolated faults however the majority of the failures appear to be related to a common root cause and that is the design of the pneumatic trip logic system. The following is a summary of some of the recent failures.

<u>DATE</u>	<u>ENGINE</u>	<u>CAUSE</u>
October 7, 1987	1B	Suspected defective P-3 shuttle valve
November 3, 1987	1A	P-3 shuttle valve, miscellaneous logic elements and air leaks
December 1, 1987	1B	P-3 shuttle valve
March 21, 1988	1A	Various components replaced cause undetermined
April 12, 1988	1A	Stuck pressure switch
April 12, 1988	2B	Corroded pressure switch
April 19, 1988	1A	Various components replaced, cause undetermined
April 25, 1988	1A	Out of cal OR gate

The pneumatic trip logic system essentially functions as follows: Various temperatures and pressures are sensed and converted to pneumatic logic signals for trip actuations. Some of the trip signals are blocked by the P-3 shuttle valve for 60 seconds while the engine attains running speed and engine parameters stabilize. After 60 seconds a timer causes the P-3 shuttle valve to shift, allowing all logic signals to be processed by the pneumatic logic board for possible shutdown situations. All of the above mentioned failures were characterized by the engine tripping 60-70 seconds after start with multiple annunciators. The licensee determined the P-3 shuttle valve unreliable in that when it was required to shift (60 seconds) it would not seat properly allowing numerous pneumatic logic signals to be vented off thus providing erroneous trip signals to the logic

board. The licensee replaced the P-3 shuttle valves in December on all four diesel generators with a pressure switch and faster acting pneumatic "OR" gate. The problem appeared to be resolved until late March when valid failures occurred over the next few weeks on 1A and 2B diesel generators, each again characterized by tripping after 60 seconds with multiple alarms. The licensee discovered components such as corroded pressure switches which apparently would stick providing erroneous trip signals. In some cases the licensee was unable to recreate the trip because components were recently exercised and in at least two cases the cause was not determined. Generally after extensive troubleshooting and component replacement the licensee has declared the diesel generator operable based on successfully passing its operability performance test. The licensee believes many problems are a result of moisture in the diesel generator control air resulting from previous poor maintenance practices. The licensee has increased its frequency of blowing down after coolers and monitoring the air. Although problems continue to exist on the 1A diesel generator (4 failures in 4 weeks), the inspectors are also concerned with the reliability of the pneumatic trip system on all the diesels as there have been recent failures on 3 out of the 4 engines. The root cause may not have been determined in some of the failures. The licensee has now undergone 7 failures in the last 100 valid tests on Unit 1 and is required by TS 4.8.1.1.3 to submit a special report evaluating the reliability of the diesel generators. Unit 2 has had 4 failures in the last 100 tests. A meeting with the licensee has been scheduled to discuss diesel generator reliability concerns. This is identified as Inspector Followup Item 413,414/88-15-04: Evaluation of Corrective Action for Diesel Generator Failures.

No violations or deviations were identified.

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

- 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 (*). The following LERs are closed:

*LER 413/87-28	Reactor Trip due to Failure of Main Turbine Combined Intermediate Valve
*LER 413/87-36	Technical Specification Violation Regarding Inoperability of the NSW System due to Incorrect Design Recommendation (Violation issued in Report 88-06)

- *LER 413/87-42 Diesel Generator Auto Start and Failure of Emergency Load Group to Energize due to Equipment Malfunctions
- LER 413/88-12 Inadvertent Waste Gas Release due to Personnel Error (Voluntary Report)
- *LER 413/88-13 Technical Specification Violation because both Trains of Containment Spray System Inoperable due to a Management Deficiency
- LER 413/88-14 Inoperable Fire Barrier in Violation of Technical Specifications due to Management Deficiency
- *LER 414/86-31, Rv.1 Nuclear Service Water Inoperable due to D/G Equipment Failures (See Report 88-06)
- LER 414/88-05 Auxiliary Feedwater Autostart During Testing due to Unknown Cause and Procedural Deficiency
- *LER 414/88-06 Feedwater Isolation During RTD Testing due to a Personnel Error
- *LER 414/88-08 Technical Specification Violation due to Inadequate Implementation of Compensatory Measures by Management (Violation issued-see below)
- *LER 414/88-09 Missed Reactor Coolant Gross Radioactivity Calculation Surveillance due to a Personnel Error (LIV issued-see below)
- *LER 414/88-10 Failure of Rotork Actuator on RHR Valve due to Installation and Management Deficiencies (See Report 88-13)
- *LER 414/88-11 Essential Switchgear Incoming Breaker Fails to Trip due to Open Sliding Link in Control Circuit (See paragraph 3.h.)

- b. As reported in LER 414/88-08, the licensee failed to comply with accident monitoring instrument requirements, TS 3.3.3.6, for Pressurizer Safety Relief Valve position indication on February 24, 1988. The TS requires the position indicator (Acoustic monitors) to be restored to operable status within 48 hours or the plant to be shut down. Contrary to this action, the licensee compensated for the

acoustic monitors by utilizing an unqualified Resistance Temperature Detector. This is Violation 414/88-15-07: Failure to Follow TS for Pressurizer Safety Valve Position Indication Instrumentation. Note: On April 7, 1988, the licensee issued an intrastation letter requiring approval of compensatory actions by the Superintendent of Operations, Station Manager or Duty Station Manager in response to this issue.

- c. TS 4.4.8 requires that Reactor Coolant System Gross Radioactivity Calculation be performed at least once per 72 hours when the plant is in Modes 1 through 4. As described in LER 414/88-09, the licensee failed to perform this calculation on February 22, 1988. This is a violation, however, since requirements specified in 10 CFR Part 2, Appendix C, Section V are satisfied, this violation is not being cited. This is Licensee Identified Violation 414/88-15-08: Failure to Follow TS for Gross Radioactivity Calculation.

Two violations were identified as described in paragraphs 8.b. and c. above.

9. 10CFR Part 21 Implementation

The inspector reviewed the licensee program for implementation of 10 CFR Part 21. The program is contained in Station Directive 2.8.1, Problem Investigation Process and Regulatory Reporting. The Catawba Safety Review Group (CSRSG) conducts investigations and completes reports for reportable events including Part 21 items. The Compliance Section determines reportability. The inspector reviewed various Licensee Event Reports (LERs) and Problem Investigation Reports (PIRs) to verify appropriate evaluations were being made and reports were developed for Part 21 issues. Seven Part 21 evaluations had been made out of a sample of 200 PIRs and these appeared acceptable. LERs have recently been submitted for Part 21 issues, e.g. LER 413/87-37 and LER 414/88-04.

The CSRSG chairman indicated that formal guidance was not provided relative to recognizing Part 21 implications during the routine investigation process for feed back to Compliance although he thought good communications existed between the two groups. Also formal guidance is not available relative to special information required in a Part 21 report. The licensee was requested to consider improved formal guidance. This is Inspector Followup Item 413,414/88-15-05: Improved Guidance for Part 21 Implementation.

No violations or deviations were identified.

10. Design, Design Changes and Modifications (Units 1 and 2) (37700)

The inspector reviewed the process established by the licensee to assure that design changes and modifications (NSMs) are being developed, processed and controlled in accordance with the requirements of the TS,

Duke Power Company Topical Report Quality Assurance Program (QCP) and 10 CFR 50.59. Specific attributes reviewed were: (1) review and approval was performed in accordance with established procedures; (2) post modification testing was performed where specified; (3) associated procedure changes were made, as required; (4) as built drawings were changed to reflect the NSM's; (5) training on the modifications was being provided to operations personnel in a reasonable timeframe depending on the NSM; and, (6) changes are reviewed in accordance with 10 CFR 50.59.

In addition, the licensee's program for temporary modifications, lifted leads and jumpers, as described in Station Directive 4.4.4, was reviewed to verify: that review and approval are in accordance with TS and 10 CFR 50.59; that detailed procedures are used for control of these system changes; that a formal record is maintained and periodically reviewed; and that testing is conducted upon removal, when required.

The following modifications were reviewed:

CN 10540	Human Engineering Deficiency (HED) Modification on Unit 1 Auxiliary Shutdown Panel.
CN 10742	Replace Auxiliary Feedwater Check Valves
CN 10941	Motor Operated Valves Control Circuit Modifications For Torque Switch Bypass Contacts. (NI and CA)
CN 10981	Replace Valves 1RN47A and 1RN48B
CN 20125	Manual Reset of Main Steam Isolation Signal Modification
CN 20227	HED Modifications on Unit 2 Auxiliary Shutdown Panel
CN 20303	Installation of Temporary Steam Generator Level Instruments on 2C Steam Generator
CN 20314	Replace Valve 2NC14
CN 20371	Replace Valves 2RN47A and 48B
TSM 8816 IAE	Temporary Modification to Jumper Out Bad Cell in Battery 1EBA

No violations or deviations were identified.