U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-483/84-23(DE)

Docket No. 50-483 License No. CPPR-139

Licensee: The Union Electric Company
Post Office Box 149
St. Louis, MO 63166

Facility Name: Callaway, Unit 1

Inspection At: Callaway Site, Callaway County, MO

Inspection Conducted: April 23 through June 1, 1984

Inspectors: P. R. Wohld P.R. Wohld 6-22-84
Date

M. J. Farber P.R. Wohld for 6-25-84
Date

D. L. Williams D. L. Williams 6/25/84
Date

C. A. VanDenburgh C.A. VanDenburgh 6-22-84
Date

P. L. Eng P.R. Wohld for 6-22-84
Date

Approved By: L. A. Reyes, Chief
Test Programs Section
Roger D. Walker for 6-25-84
Date

Inspection Summary

Inspection on April 23 through June 1, 1984 (Report No. 50-483/84-23(DE))
Areas Inspected: Routine announced inspection of licensee actions on previous inspection findings; preoperational test procedures review; preoperational test witnessing; preoperational test results packages; air-operated valve testing; plant technical specifications verification; and test program completion. The inspection involved a total of 309 inspector-hours onsite and 228 hours offsite by six NRC inspectors, including 75 inspector-hours onsite during off-shifts.

Results: Of the six areas inspected, no items of noncompliance or deviations were identified in five areas; four items of noncompliance were identified in the remaining area (failure to adequately document the "use-as-is" disposition of nonconforming conditions - Paragraph 5.b; failure to assure that test requirements have been satisfied - Paragraph 5.c; failure to follow administrative instructions for testing - Paragraph 5.c; and failure to conduct activities affecting quality under suitably controlled conditions, two examples - Paragraphs 5.e and 5.k).

## DETAILS

1. Persons Contacted

*#C. D. Naslund, Superintendent of Startup
*#D. E. Heinlien, Assistant Superintendent, Operations
*#J. V. Laux, Supervising Engineer, QA
*#K. R. Evans, Package Review Supervisor
#J. R. Veatch, Supervising Engineer, QA
#R. L. Stright, Licensing Consultant
#E. M. Nagy, Engineer
#M. J. Pechar, QA Consultant
*R. D. Brandt, Operations Advisor
*K. L. Wickes, Supervisor, I&C
*W. R. Robinson, Compliance Supervisor
*J. E. Davis, Superintendent of Compliance
*J. M. Shadduck, Assistant Engineer, Compliance
*A. P. Neuhalfen, Assistant Manager, Operations and Maintenance
*D. T. Keating, Startup Engineer
*W. H. Sheppard, Superintendent of Engineering
*K. R. Bryant, Supervisor, Reactor Engineering
*D. C. Poole, Advisor to the Manager, Callaway Plant
*W. L. Reuler, Westinghouse Site Manager
*M. A. Reidmeyer, QA Engineer
*W. A. Norton, QA Engineer

*Denotes those attending the exit interview on May 25, 1984.

#Denotes those attending the exit interview on June 1, 1984.

Additional plant technical and administrative personnel were contacted by the inspectors during the course of the inspection.

2. Action on Previous Inspection Findings

a. (Closed) Noncompliance (483/83-17-01(DE)): 120V AC, Class 1E, vital instrument power and 125V DC, Class 1E, vital DC power testing. The inspector reviewed the results of testing that addressed this item and verified that testing was completed satisfactorily. Equipment deficiencies noted during testing were properly addressed.

b. (Closed) Open Items (483/83-32-29(DPRP) and 483/83-32-30(DPRP)): Preoperational testing of the emergency diesel-generators per Regulatory Guide 1.108 (Callaway SER Item, Supplement No. 2, page 8-2). The only action remaining to close this item (per Inspection Report No. 50-483/84-09(DE), Paragraph 2, Item v.) was verification of satisfactory simultaneous diesel testing. The inspector reviewed the results of testing performed and verified testing adequacy and satisfactory completion.

c. (Closed) Open Item (483/84-04-02(DE)): Diesel - generator voltage regulator spiking. New cables were installed by the licensee. During surveillance testing of the diesel generators the output of the voltage regulators was monitored using a strip chart recorder. Voltage and frequency controls were operated to provide changes in reactive and real load and no spiking was observed. The inspector reviewed the surveillance procedure and the recordings of voltage regulator output and is satisfied that the problem has been resolved.

d. (Closed) Open Item (483/84-04-04(DE)): Main Steam System results package discrepancies. The Joint Test Group met and issued corrective action which accurately specified how the Main Steam Isolation Valve stroke times were actually recorded.

e. (Closed) Noncompliance (483/84-04-05(DE)): Power-operated relief valve acceptance. Union Electric adequately addressed this item as indicated in its letter to NRC dated May 1, 1984. The inspector met with the chairman (acting) of the Joint Test Group and verified completion of the corrective action.

f. (Closed) Open Item (483/84-09-02(DE)): Main Feedwater System results package discrepancies. The Joint Test Group (JTG) met and issued corrective action for the discrepancy in pump speeds and for the rework of the mini-flow isolation valve control linkage.

g. (Closed) Open Item (483/84-09-04(DE)): Auxiliary Feedwater System results package discrepancies. The JTG met and issued corrective action. A copy of the approved vendor procedure for calibration of the speed control loop has been entered into the system file. JTG minutes will indicate that the tachometer-indicator problem was evaluated and it was found that the turbine had not responded to a speed control signal. This problem was corrected during the performance of the five cold, quick-start tests.

h. (Closed) Open Item (483/84-09-05(DE)): Hot Functional Test results package discrepancies. JTG met and issued corrective action which was recorded in JTG meeting minutes. Startup Field Report SFR-2-GN-027A was entered in the hot functional record to indicate the corrective action for the cavity cooling problem. Generic retests were entered in the record to resolve the calibration problem with the two flow instruments.

i. (Closed) Open Item (483/84-09-06(DE)): Data to support recorded cooldown rate. The JTG met and entered data sheet 8.8 into the test record. The inspector reviewed the data sheet to verify its accuracy and is satisfied that the data supports the recorded cooldown rate of 75°F per hour.

j. (Closed) Open Item (483/84-09-07(DE)): Addendum to a Request for Corrective Action (RCA). The inspector met with the Quality Assurance supervisor and reviewed the addendum to the RCA in question. The inspector is satisfied that the issues are now clearly defined and that the corrective action specified is adequate.

k. (Open) Open Item (483/82-11-07(DE)): Verification of electrical power independence. The inspector discussed the results of an NRC evaluation of requirements in this area. Per memorandum from D. G. Eisenhut, Director, Division of Licensing, to R. L. Spessard, Director, Division of Engineering, Region III, dated May 31, 1984:

"The four (4) channel redundancy of the 125 V DC comes about from the four channel redundancy required for instrument power supplies of the reactor protection and engineered safety features systems. These systems require up to two-out-of-four coincidence trip logic of redundant and independent channels. Independence of channels requires compliance with IEEE Std 279, IEEE Std 384 and NUREG-0800, July 1981 (Standard Review Plan - SRP). The SRP, Pg. 7.1-24, states, "Electrical independence shall include the utilization of separate power sources." Because the power source redundancy requirement stems from the plant protection and Engineered Safety Features systems, verification occurs in those preoperational tests, e.g., CS-03SB01, Reactor Protection System Logic preoperational test and, CS-03SA02, Engineered Safeguards preoperational test." Additional clarification is provided in the memorandum. Closure is pending the completion of testing in this area and review of test results by the inspector.

l. (Open) Open Items (483/83-17-07(DE) and 483/83-17-08(DE)): Testing at maximum and minimum design voltages. Review of these items since they were addressed in Paragraph 2, Item u., of Inspection Report No. 50-483/84-09(DE) indicates that there is more margin to trip for the ECCS breakers than indicated in the report. Resolution of this item is a license condition. An evaluation must be provided by the licensee that shows adequate ECCS pump breaker margin to trip prior to reactor power operation.

3. Preoperational Test Procedure Reviews

Below is a list of preoperational tests for which the inspectors have completed their test procedure review. The procedures were reviewed against the FSAR, SER, and applicable Regulatory Guides, Standards, and portions of 10 CFR 50. The inspectors have no further questions on these procedures.

CS-03KE03-01, Rev. 0, Fuel Handling Integrated Test
CS-03KE05, Rev. 0, Refueling Machine and RCC Change Fixture
CS-03KE05-01, Rev. 0, Refueling Machine and RCC Change Fixture Retest
CS-03KE06, Rev. 0, Refueling Machine Indexing
CS-03KE07, Rev. 0, Containment Building Polar Crane
CS-03GS01, Rev. 0, Post-Accident Hydrogen Removal System
CS-03GT01, Rev. 0, Containment Purge System HVAC
CS-03EJ01, Rev. 1, Residual Heat Removal Cold

No items of noncompliance or deviations were identified.

4. Preoperational Test Performance Witnessing

The inspector witnessed portions of the following preoperational test during this inspection period:

CS-03AL01-1, Motor Driven Auxiliary Feedwater Control Valve Test

The inspector witnessed test performance to assure that it was conducted in accordance with approved procedures, that test equipment was properly installed, that test data was collected and recorded properly, that the ability of licensee personnel conducting the test was adequate, that deficiencies and test problems were documented, and that test changes were processed in an approved manner.

No items of noncompliance or deviations were identified.

5. Preoperational Test Results Package Reviews

The inspectors reviewed the following preoperational test results packages during this period:

CS-03AB03, Rev. 1, Main Steam Isolation Valve
CS-03AE02, Rev. 0, Steam Generator Level Control
CS-03BB05, Rev. 1, Reactor Coolant System Hot
CS-03BB15, Rev. 0, Reactor Coolant System Leak Detection
CS-03BG05, Rev. 1, Boric Acid Blending
CS-03BG06, Rev. 0, Chemical and Volume Control System Hot Preoperational Test
CS-U3EF02, Rev. 0, Essential Service Water Ultimate Heat Sink
CS-03EJ01, Rev. 1, Residual Heat Removal Cold
CS-03EM02, Rev. 0, Safety Injection System Flow Verification
CS-03EM03, Rev. 0, Safety Injection Check Valve Test
CS-03EP01, Rev. 1, Accumulator Testing
CS-03GS01, Rev. 0, Post Accident Hydrogen Removal System
CS-03GT01, Rev. 0, Containment Purge System HVAC
CS-03KE03-01, Rev. 0, Fuel Handling Integrated Test
CS-03KE05, Rev. 0, Refueling Machine and RCC Change Fixture
CS-03KE05-01, Rev. 0, Refueling Machine and RCC Change Fixture Retest
CS-03KE06, Rev. 0, Refueling Machine Index Test
CS-03KE07, Rev. 0, Containment Building Polar Crane
CS-03NG01, Rev. 0, 480 Volt Class 1E Electrical
CS-03NN01, Rev. 1, 120 Volt Vital AC
CS-04NN01, Rev. 1, 120 Volt Vital AC
CS-03SA01, Rev. 0, Engineered Safeguards (NSSS)
CS-03SA02, Rev. 0, Engineered Safeguards (BOP)
CS-03SB01, Rev. 0, Reactor Protection System Logic
CS-030001, Rev. 0, Primary Reactor Containment Leakage Rate Test
CS-030003, Rev. 0, Containment Structural Integrity Test

The packages were reviewed to ensure that test results are being adequately evaluated, test data meets acceptance criteria, deviations are properly identified and resolved, review procedures are being followed, and administrative practices are adequate with respect to test execution and data evaluation. Below are inspector review comments related to the results packages:

a. CS-03AE02, Rev. 0, Steam Generator Water Level Control

A test log entry of January 28, 1984, indicates that a Startup Field Report (SFR) would be generated because the indicators of PR-514 were not indicating according to its label plate. As identified by a Quality Assurance review, the test log does not document the resolution of this problem. The Joint Test Group Chairman stated in subsequent discussions with the inspector that although this SFR did not affect the results of this preoperational test package, the SFR in question would be added to the test package to complete the record. The inspector has no further questions in this area.

b. CS-03BG05, Rev. 1, Boric Acid Blending

(1) JTG Minutes 176, comment c, states that based on the disposition of SFR-BG-134A, acceptance criteria 2.1 and 2.13 are acceptable. However SFR-BG-134A deals specifically with acceptance criterion 2.2. The JTG Chairman stated that this would be corrected in a future set of JTG Minutes.

(2) During testing of the boric acid transfer pumps it was determined that the maximum pump runout flow was below the design point and acceptance criterion 2.1 was not met. SFR-BG-121A was written and dispositioned by Westinghouse to "use-as-is". Information explaining the rational for this disposition was not provided in the SFR. Further investigation by the inspector determined that the quality assurance procedures for the disposition of nonconformance reports dispositioned by Westinghouse and Bechtel were not being followed.

A Westinghouse site instruction for the "Processing and Control of Nonconformance Reports - NSSS Equipment", requires that a Field Deficiency Report (FDR) be developed if the nonconformance affects site interface/installation, plant operation, maintenance or standardization. It was determined that in addition to SFR-GR-121A, an FDR was not generated for SFR-BB-155A, SFR-EM-57A, SFR-EJ-060A, SFR-EJ-079A, and SFR-EJ-085A. Similarly, Bechtel's site instructions were not followed in that detailed information explaining the rationale for the disposition of "use-as-is" was not provided for SFR-AL-025A and SFR-AL-026 as required by Section 2.0 of EDPI 4.70-01. These SFRs were selected by the inspector based upon their disposition for "use-as-is" without justification on the SFR for this recommendation.

Failure to document the justification for "use-as-is" nonconformances is considered to be an item of noncompliance (483/84-23-01(DE)).

Subsequent to this finding the licensee has agreed to assure that documentation exists for justification of all Westinghouse SFRs resolved "use-as-is" and to sample ten percent or one hundred (whichever is less) of Bechtel SFRs resolved "use-as-is" to see if there are more than a few isolated discrepancies

within the Bechtel program. The milestone agreed on for completion was five percent plant power operation. This action was included as a license condition.

(3) During testing to evaluate the acceptability of the emergency boration flow rate to the charging pump suction per acceptance criterion 2.3, it was determined that the flow meter was pegged high at 150 gpm. This discrepancy was dispositioned by SFR-BG-122A as acceptable based on being greater than the required value of 120 gpm, and subsequently evaluated and approved without comment by the Joint Test Group (JTG). There were no documented attempts to determine if the meter was broken, out of calibration or isolated. This is an example of inadequate documentation and evaluation to assure that test requirements have been satisfied. This is discussed further in item c.(1) and c.(2) below.

c. CS-03BG06, CVCS System Hot Preop

(1) Step 7.1.4 of the test procedure records the flow data for letdown orifice SBG04A in table 8.1. This value is required by acceptance criterion 2.1 to be 45 ± 3 gpm. As stated in the test log the data was obtained by "best estimate" because the meter was not graduated between 0 and 50 gpm. Quality Control test witnessing of the procedure refused to verify this acceptance criteria value based upon the use of the ungraduated meter. The test summary documented this problem. Subsequent JTG review and evaluation was inadequate in that no further discussion or evaluation was documented as to why this acceptance criteria obtained by the use of a ungraduated meter and best estimate was acceptable.

(2) The seal water flows to the main coolant pumps recorded in table 8.2 exceed their allowable values in eight places. There is no mention or evaluation in the test log, test summary or JTG minutes of this discrepancy. Test Director review comment #14 states that the expected values in the test procedure are incorrect, however his comment was rejected based on the specified values in table 8.2 being more conservative.

Items b.(3), c.(1) and c.(2) are considered to be examples of inadequate documentation and evaluation to assure that test requirements have been satisified and as such are considered to be an item of noncompliance (483/84-23-02(DE)).

(3) The following examples were noted in which the test procedure was not accomplished in accordance with the administrative requirements of SAI-5:

The Letdown Heat Exchanger outlet flow and charging header flows recorded in table 8.2 by step 7.1.22 are below their expected values. The test log incorrectly states that this is due to the limitation on positive displacement pump outlet flow, however the test summary correctly identifies that this

flow was not obtained due to a change in the test procedure directed by the Shift Test Director due to a need for steady state plant operations. This change to the test method should have been accomplished by a Minor Change Notice (MCN).

Step 7.5.3.8 to change the CVCS pump configuration was not performed in order to maintain plant conditions in support of Hot Functional Testing which was in progress. The JTG minutes of February 15, 1984 document that this change did not affect the test results and that it was required to be accomplished by an MCN.

The startup engineer signed for the 180 day calibration of temperature loops BG-LPT-126, 127 and 130 when these loops were 21, 13 and 11 days respectively in excess of the calibration requirements of prerequisite 6.1. Although the JTG Minutes of February 15, 1984 indicate that the engineer was reinstructed after the fact on this occurrence, it remains an example of a test procedure change that should have been accomplished by an MCN.

The test log indicates that step 7.4.7.7 was not performed, however the step has been signed off as completed. The test log states that this step was not performed based upon a recommendation by Chemistry. This change to the test method is required to be accomplished by an MCN.

Step 7.3.2 which requires that both boric acid storage tanks contain 4% boric acid has been signed. However the test log indicates that due to other testing in progress, the test method was changed to draw suction of both boric acid transfer pumps from boric acid storage tank TBG03A while maintaining demineralized water in tank TBG03B. This change to the test method is required to be accomplished by an MCN.

Item c.(3) provides five examples of a failure to write MCNs for test procedure changes. Failure to follow the administrative instructions of SAI-5 was previously addressed in noncompliance 483/83-17-02(DE). In a letter from D. F. Schnell to J. F. Streeter dated December 9, 1983, Union Electric indicated that proper action was taken by November 14, 1983 to avoid future noncompliance. Since preoperational test CS-03BG06 was performed from December 10, 1983, to December 26, 1983, and approved on March 27, 1984, this item is considered to be a repeat item of noncompliance (483/84-23-03(DE)).

Subsequent to finding this item, the licensee presented documentation of Startup QA surveillance activities in this area, their identification of a trend, and a Level 2 Request for Corrective Action, No. 58402-013, Rev. 0, dated February 22, 1984. Corrective action was accepted by QA on March 7, 1984. While corrective action was needed earlier in the program, it has been addressed at this time and the preoperational test program is complete. This inspector has no further question on this noncompliance with respect to preoperational testing.

d. CS-U3EF02, Rev. 0, Essential Service Water Ultimate Heat Sink

During the inspection period the licensee informed the inspector that additional testing of the Ultimate Heat Sink (UHS) will be required during warm weather conditions. The testing is required to meet testing commitments in SNUPPS-C FSAR, Item 240.7C, which were not adequately addressed in the FSAR, Chapter 14, test abstract. The inspector verified that testing during the licensee's Startup Program (post fuel loading) is acceptable. Testing, with subsequent data evaluation, is expected to verify that the UHS will perform its design basis cooling function during limiting design conditions. This is an open item (483/84-23-04(DE)) pending the completion of testing and data evaluation by the licensee and subsequent review by the inspector.

e. CS-03EM03, Rev. 0, Safety Injection Check Valve Test

A review of the test results indicated that Safety Injection Pump, PEM01B, was started on a frequency greater than that allowed by the motor manufacturer's limits stated on the pump motor outline drawing. The start series in which the limits were exceeded began at 9:00 p.m. on December 26, 1983. Subsequent to finding that the manufacturer limits were exceeded, the inspector found that (1) the limits were not available in the test procedure; (2) these and other safety-related motor start limits (Centrifugal Charging and Residual Heat Removal pump motors) were not in applicable plant operating procedures; and (3) the Shift Supervisor and other control room personnel questioned were not aware by training or previous experience of the appropriate motor start limits. This constitutes a failure to control activities affecting quality and is considered an example of noncompliance (483/84-23-05(DE)).

f. CS-03GT01, Rev. 0, Containment Purge HVAC

During the review of the results package the inspector felt that the failure mode at Containment Isolation Valves had been inadequately tested. The loss of air supply failure position was verified but the loss of electrical to the control solenoid wasn't tested. The licensee agreed with the inspectors concerns and tested the valves for loss of electrical power.

g. CS-03KE06, Rev. 0, Refueling Machine Indexing Test

While verifying the proper indexing of the refueling machine in the reactor vessel, the Start-up Engineer was using the travel limit switches in bypass and inadvertently impacted the dummy fuel assembly with the core barrel. Investigation and inspection of the dummy fuel assembly revealed that two grid straps had been dislodged into the reactor vessel. Inspection of the core barrel revealed no damage.

Attempts to retrieve the grid straps have been only partially successful. The license conducted a cleanup of the reactor vessel and piping penetrations and has determined that no credible foreign material remains in the reactor coolant system.

h. CS-03SA01, Rev. 0, Engineered Safeguards (NSSS)

(1) Evaluation of response time strip chart recordings using the 60 Hertz signal as a reference showed that the chart speed was not 200 mm/sec as stated but was slow with variance of 2% to 6%. Application of this factor results in response times which are longer than those calculated.

(2) During the verification of the Engineered Safety Features Actuation System (ESFAS) reset function the Feedwater Regulating Valves returned to their preactuation state (open). This was recognized as improper and troubleshooting revealed that the cause was jumpering of the P-4 contact (reactor trip breakers open) which provided the latch to hold the valves shut. A retest was conducted which only verified proper operation of the electrical latch but did not physically verify that the valves remained shut as required by the licensee's commitment to Inspection and Enforcement Bulletin 80-06.

(3) The tested actuation point of Power Operated Relief Valve (PORV) BB-PC456A for Cold Overpressure Protection was 357°F at 2400 psia. Examination of the Technical Specification curve for this setpoint shows that the maximum allowable pressure for 357°F is 2200 psia. The present setpoint thus allows a 200 psia overpressure of the primary system.

(4) A discrepancy exists between the method used for calculating the 95% and 105% voltages values in this procedure and the method used in CS-03SA02. These voltages are the bounds of the input pulse used for initiating channel actuations for time response testing.

(5) There is no explanation in the test package for the absence of component actuation times from data sheet 8.16, Part II, for valves KC-HV253, SJ-HV19, FC-HV312 and SJ-HV5.

Subsequent to the identification of these items the licensee performed the following corrective actions: evaluation of all time response recordings to assure that the variance in chart speed did not affect acceptance of the response data, retesting of the reset function for the Feedwater Regulating Valves to assure that they did not reopen improperly, submission of a question to Westinghouse to evaluate the PORV cold overpressure setpoints, evaluation of the discrepancy between calculation methods to assure that acceptability of the data was not impacted, and entering reasons for absence of component actuation times and placing the components on the JTG punchlist to assure that they are properly tested. The inspector verified the completion of all items and has no further questions in this area.

i. CS-03SA02, Rev. 0, Engineered Safeguards (BOP)

(1) There were a series of test log entries on February 15, 1984, which indicated problems with computer points. A final log entry on February 16, 1984, stated that all points were

retested and were satisfactory. There was no explanation of how the retest was conducted and there was no documentation contained in or referenced by the results package to show that the retest was acceptable.

(2) Examination of Appendix C and data sheet 8.13 revealed a discrepancy with regard to the input terminals for the response testing of instruments GGRT27 and GGRT28. The locations appeared to be switched from one sheet to the other.

(3) Examination of data sheets 8.6 (1 through 12) and 8.13 (1 and 2) revealed a discrepancy on seven of the fourteen data sheets between the process setpoint of 10E-5 microcuries per cubic centimeter and the test input voltage of 3.4 volts which corresponds to a setpoint of 10E-4 microcuries per cubic centimeter.

(4) Examination of the Test Program Coordinator and Joint Test Group review sheets showed that many comments were rejected as being invalid. There was no evidence of the Joint Test Group evaluating the rejected comments.

(5) Incorporation of a dispositioned Startup Field Report (SFR-2-SA-039C) after the Joint Test Group had reviewed and approved the package caused inconsistencies between the approval cover sheet, Joint Test Group minutes, the test summary, and the condition of the package itself. The first three documents indicated that there were open acceptance criteria items to be resolved yet review of the package showed that these items were signed off.

Subsequent to the introduction of these items the JTG met and issued corrective action which included documenting in meeting minutes the method used for retesting the computer points, correcting the typographical errors which resulted in the wrong setpoint on the data sheets and the terminal point switching, and entering into the minutes clarification of the evaluation of rejected comments and the conflict between the Test Summary and the balance of the package. The inspector reviewed these items and has no further questions in this area.

j. CS-03SB01, R0, Reactor Protection System Logic

Test results reviewed by the inspector indicate that all testing has either been satisfactorily completed or otherwise properly addressed and tracked as an open item within the licensee's system. Testing remains to be completed per NRC open item (483/82-11-07(DE)) as further discussed in Paragraph 2, Item k. of this report.

k. CS-030001, Rev. 0, Primary Reactor Containment Leakage Rate Test

During the review of the results package the inspector noted that the containment electrical penetrations were not vented to atmospheric pressure. These penetrations are normally pressurized by a

nitrogen system but this system is not seismically qualified and therefore can not be assumed to be available during an accident. The inspector added the local leak rate testing results of these penetrations to the results obtained on CS-030001 and verified that the total containment leak rate was within allowable limits. During the exit interview the inspector notified the licensee that the electrical penetrations have to be exposed to the peak differential pressure during the test or the results of local leak rate testing of the electrical penetrations have to be added in order to obtain the actual containment leakage.

The inspector also noted that procedure OTN-6N-00001, Rev. 0, "Containment Cooling and Control Rod Drive Mechanism Cooling Procedure" did not include precautions for the time limits required for sequential starts of the Containment Fan Coolers. These precautions are necessary to prevent opening of the motor thermal overload protection. The specific limits for these motors were provided in Startup Field Report SFR-2-GH-035A after the thermal overload protection had to be replaced. Failure to include the limits in the operating procedure is another example of a noncompliance (483/84-23-05(DE)), failure to control activities affecting quality under suitably controlled conditions.

No other items of noncompliance or deviations were identified.

6. Air-operated Valve Testing

A review of a number of test packages and generic valve testing performed indicates that all air-operated valves are tested for their failure positions or loss of air pressure at the valve diaphragm. However, while some valves are functionally tested for their "failure position" or loss of electrical power to the valve control solenoid, testing in this area is not always done. While the inspector believes that electrical failure testing is desirable, there is no clear requirement to perform this testing, the basic difference being that the air supply is "unqualified" and common to both electrical power trains while the electrical power to the valves solenoids should be both qualified (Class 1E) and meet redundance requirements. Hence, the inspector has no further comment on this area.

No items of noncompliance or devations were identified.

7. Technical Specification Verification

During the review of preoperational test results packages the inspectors reference the technical specifications frequently to determine both their accuracy and applicability and to determine whether or not preoperational results complied with technical specification requirements. During the review of the Engineered Safety Features Actuation System (ESFAS) test results approximately three man-days was spent comparing instrument, channel, and component response times recorded in the test to the technical specifications. This involved reviewing the Final Safety Analysis

Report (FSAR) to ensure that all required components were tested and design values were not exceeded, and comparing Technical Specification requirements, preoperational results, and FSAR specifications. A discrepancy was noted during the review of the testing of the Cold Overpressure Protection Controller. As tested the controller has a setpoint which violates the technical specification curve. This is discussed in paragraph 5.h.(3) of this report.

No items of noncompliance or deviations were identified.

8. Test Program Completion

The review of over 75 percent of all safety-related test results packages by Region III inspectors and a review of the licensee tracking indicates, with a high degree of confidence, that the test program is generally complete and that all incomplete items or test deficiencies have been properly addressed and tracked in the licensee's Master Tracking System (MTS). A sample of open items in the MTS was reviewed by Region III inspectors indicating that milestones have been properly assigned to listed items. Additional review is continuing on a few of the remaining tests not yet reviewed by Region III.

No items of noncompliance or deviations were identified.

9. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in Paragraph 5.d.

10. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on May 25 and June 1, 1984, to discuss the scope and findings of the inspection. The licensee acknowledged the statements made by the inspectors with respect to items discussed in the report.