



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DUKE POWER COMPANY

NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION

SALUDA RIVER ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-413

CATAWBA NUCLEAR STATION, UNIT 1

FACILITY OPERATING LICENSE

License No. NPF-24

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that for purposes of loading fuel and conducting precritical testing:
 - A. The application for license filed by the Duke Power Company acting for itself and North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc. (the licensees) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I; and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Catawba Nuclear Station, Unit 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-116 and the application, as amended, the provisions of the Act and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);
 - E. Duke Power Company* is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

*Duke Power Company is authorized to act as agent for the North Carolina Electric Membership Corporation and the Saluda River Electric Cooperative, Inc., and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

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- F. The licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
 - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-24, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements have been satisfied;
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings and the Memorandum and Order (Authorizing Issuance of a License to Load Fuel and Conduct Certain Precritical Testing) issued by the Atomic Safety and Licensing Board dated May 30, 1984, regarding this facility, Facility Operating License No. NPF-24 is hereby issued to the Duke Power Company, the North Carolina Electric Membership Corporation, and the Saluda River Electric Cooperative, Inc., (the licensees) to read as follows:
- A. This license applies to the Catawba Nuclear Station, Unit 1, a pressurized water reactor and associated equipment (the facility) owned by the Duke Power Company, the North Carolina Electric Membership Corporation, and the Saluda River Electric Cooperative, Inc. The facility is located on the licensees' site in York County, South Carolina, on the shore of Lake Wylie approximately 6 miles north of Rock Hill, South Carolina, and is described in Duke Power Company's Final Safety Analysis Report, as supplemented and amended through Revision No. 11, and in its Environmental Report, as supplemented and amended through Revision No. 6;
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Duke Power Company, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this license;

- (2) North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc., to possess the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this license;
 - (3) Duke Power Company, pursuant to the Act and 10 CFR Part 70 to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended through Revision No. 11;
 - (4) Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required and to receive and possess any byproduct, source and special nuclear material as sealed neutron sources for reactor startup in amounts as required;
 - (5) Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (6) Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the limited operation of the facility authorized herein.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Duke Power Company is authorized to load fuel and conduct pre-operational tests and startup tests, in accordance with the conditions specified herein and in Attachment I to this license. Attachment I is hereby incorporated into this license and the items therein shall be completed as specified. This license and the authorization herein is restricted to fuel loading and precritical operations.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Duke Power Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan. The designated requirements of the following Technical Specifications in Appendix A are not applicable during fuel load and precritical operations:

- (a) T.S. 3.1.2.1 Boration Systems - Flow Path - Shutdown - OPERABLE emergency power source not required.
- (b) T.S. 3.2.2.1 Reactivity Control Systems - Charging Pump - Shutdown - OPERABLE emergency power source not required.
- (c) T.S. 3/4.3.2 Engineered Safety Features Actuation System Instrumentation - In Tables 3.3-3, 3.3-4 and 4.3-2, Items 1 (Safety Injection - Emergency Diesel Generator Operation), 15 (Emergency Diesel Generator Operation - Diesel Building Ventilation Operation, Nuclear Service Water Operation), and 17 (Diesel Building Ventilation Operation) are excepted. In Table 3.3-5, Items 2.a.9 (Emergency Diesel Generator Operation), 3.a.9 (Emergency Diesel Generator Operation), 4.a.9 (Emergency Diesel Generator Operation), and 13.d. (Emergency Diesel Generator Operation) as well as Notes (1) and (4) (Diesel generator starting and sequence loading delays included) for Response Times are excepted.
- (d) T.S. 3.7.1.2.a. Auxiliary Feedwater System - capability of being powered from emergency buses not required.
- (e) T.S. 3.7.6 - ACTION Control Room Area Ventilation System -
b. for MODES 5 and OPERABLE emergency power source not
6. required.
- (f) T.S. 3.8.1.1.b., A.C. Sources - Operating - OPERABLE
4.8.1.1.2, 4.8.1.1.3, diesel generators not required.
4.8.1.1.4

- (g) T.S. 3.8.1.2.b. and A.C. Sources - Shutdown - OPERABLE
4.8.1.2 diesel generator not required.

(3) Antitrust Conditions

Duke Power Company shall comply with the antitrust conditions delineated in Appendix C to this license.

(4) Inservice Testing of Pumps and Valves (Section 3.9.6, SSER #2)*

Pursuant to 10 CFR Part 50.55a and for the reasons set forth in Section 3.9.6 of SSER #2, the relief identified in the submittal dated March 9, 1983, that Duke Power Company has requested from the pump and valve testing requirements of 10 CFR Part 50, Section 50.55a(g)(3) and (g)(4)(i) is granted for that portion of the initial 120-month period during which the staff completes its review.

(5) Inservice Inspection Program (Sections 5.2.4 and 6.6, SSER #2)

Within six months of the date of this license, Duke Power Company shall submit the inservice inspection program for staff review and approval.

(6) Initial Startup Test Program (Section 14, SER, SSER #3)

Duke Power Company shall conduct those aspects of the post-fuel-loading initial test program described in Chapter 14 of the FSAR, as amended, which are consistent with the limits of this license without making any major modifications unless such modifications have prior NRC approval. Major modifications are defined as:

- (a) elimination of any safety-related test;
- (b) modification of objectives, test method, or acceptance criteria for any safety-related test**;

*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

**Safety-related tests are those tests which verify the design, construction and operation of safety-related systems, structures, and equipment.

- (c) performance of any safety-related test at a power level different from that stated in the FSAR by more than 5 percent of rated power;*
- (d) failure to satisfactorily complete the entire initial startup test programs by the time core burnup equals 120 effective full power days;*
- (e) deviation from initial test program administrative procedures or quality assurance controls described in the FSAR; and
- (f) delays in test program in excess of 30 days (14 days if power level exceeds 50 percent), concurrent with power operation. If continued power operation is desired during a delay, Duke Power Company shall provide justification that adequate testing has been performed and evaluated to demonstrate that the facility can be operated at the planned power level with reasonable assurance that the health and safety of the public will not be endangered.*

(7) Environmental Equipment Qualification (Section 3.11, SSER #3)

Prior to March 31, 1985, Duke Power Company shall environmentally qualify all electrical equipment as required by 10 CFR 50.49.

(8) Fire Protection Program (Section 9.5.1, SER, SSER #2, SSER #3)

Duke Power Company shall maintain in effect all provisions of the approved fire protection program as delineated in NUREG-0954 through SSER #3 issued with the license.

(9) Progress of Offsite Emergency Preparedness (Section 13.3, SER, SSER #1, SSER #2)

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

(10) Detailed Control Room Design Review, I.D.1 (Section 18.0, SER, SSER #2)

Duke Power Company shall correct all human engineering deficiencies according to the schedule contained in the letter from H. B. Tucker of the Duke Power Company to H. R. Denton of the NRC dated February 20, 1984.

*These major modifications would not, in any event, be authorized under the conditions of this license.

(11) Inadvertent Boron Dilution (Section 15.2.4.2, SSER #3)

- (a) In modes 3, 4 and 5, Duke Power Company shall monitor reactor coolant boron concentrations hourly and take steps to restore the boron concentration at required levels such that criticality cannot be achieved even with all control rods fully withdrawn.
- (b) In modes 3 and 4, Duke Power Company shall not operate the plant with the secondary system pressure above the Reactor Coolant System pressure.

(12) Operating Staff Experience Requirements (Section 13, SSER #3)

Duke Power Company (DPC) shall have a licensed senior operator on each shift who has had at least six months of hot operating experience on a similar type plant, including at least six weeks at power levels greater than 20% of full power, and who has had start-up and shutdown experience. For those shifts where such an individual is not available on the plant staff, an advisor shall be provided who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Use of advisors who were licensed only at the RO level will be evaluated on a case-by-case basis. Advisors shall be trained on plant procedures, technical specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. For each shift, the remainder of the shift crew shall be trained in the role of the advisors. The training of the advisors and remainder of the shift crew shall be completed prior to achieving criticality. Prior to achieving criticality, DPC shall certify to the NRC the names of the advisors who have been examined and have been determined to be competent to provide advice to the operating shifts. These advisors shall be retained until the experience levels identified in the first sentence above have been achieved. The NRC shall be notified at least 30 days prior to the date DPC proposes to release the advisors from further service.

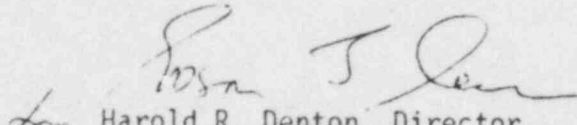
- D. The facility requires exemptions from certain requirements of Appendices A and J to 10 CFR Part 50. These exemptions are described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, (Section 6.2.6), and the Safety Evaluation Report, Supplement No. 3 (Sections 3.10.1.3, 3.11, 6.2.1, 6.2.4, 6.2.6, 8.3.1, 9.4, 9.5.1, 11.5 and 15.4.4) issued with the license. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. These exemptions are, therefore, hereby granted pursuant to 10 CFR 50.12. With the

granting of these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;

- E. Duke Power Company shall fully implement and maintain in effect all provisions of the Commission approved physical security, guard training and qualification and safeguards contingency plans, including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plans which contain 10 CFR 73.21 information are collectively entitled: "Catawba Nuclear Station Physical Security Plan" Revision 1 dated February 1, 1982, with additional pages dated May 17, 1982 (transmittal letter May 27, 1982), Revision 2 dated May 17, 1982 (transmittal letter dated May 18, 1982), Revision 3 dated July 20, 1982 (transmittal letter dated August 18, 1982), Revision 4 dated June 1, 1983 (transmittal letter dated June 20, 1983), and Revision 5 dated April 13, 1984 (transmittal letter dated April 16, 1984); and the "Catawba Nuclear Station Safeguards Contingency Plan" dated June 29, 1981 (transmittal letter dated June 30, 1981), Revision 1 dated February 1, 1982 (transmittal letter dated February 10, 1982), Revision 2 dated January 3, 1983 (transmittal letter dated January 25, 1983), Revision 3 dated April 13, 1984 (transmittal letter dated April 16, 1984); and the "Catawba Nuclear Station Training and Qualification Plan" dated October 21, 1981 and Revision 4 dated October 25, 1983.
- F. Reporting to the Commission
- Duke Power Company shall report any violations of the requirements contained in Section 2, Items C.(1), C.(4) through C.(12) of this license within twenty-four (24) hours. Initial notification shall be made in accordance with the provisions of 10 CFR 50.72 with written follow-up in accordance with the procedures described in 10 CFR 50.73 (b), (c) and (e).
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims;

H. This license is effective as of the date of issuance and shall expire when superseded by another license or license amendment.

FOR THE NUCLEAR REGULATORY COMMISSION


Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. Attachment 1
2. Appendix A -
 Technical Specifications
3. Appendix B -
 Environmental Protection Plan
4. Appendix C -
 Antitrust Conditions

Date of Issuance: **JUL 18 1984**

ATTACHMENT 1

ITEMS TO BE COMPLETED TO THE SATISFACTION OF NRC REGION II
PRIOR TO EXCEEDING 200°F (MODE 4)

1. Duke Power Company shall relocate containment atmosphere monitor sample lines to reduce potential plateout and to provide representative sampling.
2. Duke Power Company shall complete the ice condenser testing and all associated steel erection removed during ice loading.

PROPOSED LICENSE AUTHORIZATION AND CONDITIONS FOR A LOW POWER LICENSE

1. Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of McGuire Nuclear Station, Units 1 and 2, and Oconee Nuclear Station, Units 1, 2, and 3.

2. Turbine Missiles (Section 3.5.1.3, SER)

Duke Power Company shall submit for NRC staff approval, within three years of date of issuance of this license, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities acceptable to the NRC staff or volumetrically inspect all low pressure turbine rotors within three years or by the second refueling outage, and thereafter every three years or every other refueling outage until a maintenance program is approved by the staff.

3. Control of Heavy Loads (Section 9.1.5, SER)

Prior to startup following the second refueling outage, Duke Power Company shall have made commitments necessary to implement changes and modifications required to fully satisfy the guidelines of Sections 5.1.2 through 5.1.6 of NUREG-0612 (Phase-II-nine-month response to the NRC generic letter dated December 22, 1980).

4. Steam Generator Tube Rupture (Section 15.4.4, SER)

Prior to startup following the first refueling outage, Duke Power Company shall submit for NRC review and approval an analysis which demonstrates that the steam generator tube rupture (SGTR) analysis presented in the FSAR, including the assumed operator actions, is the most severe case with respect to the release of fission products and calculated doses.

5. Emergency Response Capabilities, I.D.1 (Generic Letter 82-33, Supplement 1 to NUREG-0737).

- (a) Regulatory Guide 1.97, Revision 2 Compliance

Prior to startup following the first refueling outage, Duke Power Company shall implement (installation or upgrade) the requirements of

R.G. 1.97 Rev. 2 with the exception of: (a) neutron flux, (b) RHR heat exchanger outlet temperature, (c) quench tank temperature, (d) containment spray flow, and (e) containment atmosphere temperature.

(b) Emergency Response Facilities

Prior to completion of the startup test program, Duke Power Company shall have a fully functional Emergency Operations Facility.

(c) Safety Parameter Display System (SPDS)

Prior to completion of the startup test program, Duke Power Company shall have SPDS operational.

6. Inadvertent Boron Dilution (Section 15.2.4.2, SER, SSER #2)

Prior to initial criticality, Duke Power Company shall have redundant boron dilution alarms installed and operable in the Control Room.

7. Anticipatory Reactor Trip, II.K.3.10 (Section 5.7.2, SER)

Prior to exceeding 70% power, Duke Power Company shall complete the described turbine trip tests to verify that PORVs will not be challenged when the anticipatory trip bypass is in effect.

8. Residual Heat Removal System (Section 5.44, SER, SSER #2)

Prior to startup following the first refueling outage, Duke Power Company shall upgrade the pressurizer power operated relief valves (PORVs) and the steam generator PORVs to safety related.

9. Load Reduction Capability (Section 8.4.10, SER, SSER #2)

Prior to exceeding 5% of rated power, Duke Power Company shall provide, for NRC review, information ensuring that the transient voltages and frequency resulting from 100% load rejection will not damage redundant safety equipment.

10. Internal Corrosion Protection For Fuel Oil Storage Tanks (Section 9.5.4.2, SER)

Prior to startup following the first refueling outage, Duke Power Company shall apply internal corrosion protection to the fuel oil storage tanks, or by March 1, 1985, provide for staff review and approval justification for not coating the tanks.

11. Hydrogen Control Measures, II.B.7 (Section 6.2.5, Appendix C, SER)

- (a) Before initial criticality, the distributed ignition system for hydrogen control shall be installed and operable, and shall have been demonstrated to be activated upon a safety injection signal.
- (b) Prior to exceeding 5% power, upgraded analyses shall be provided on the following issues and submitted for staff review and approval:
 - (1) thermal response of the containment atmosphere and essential equipment for a spectrum of accident sequences using revised heat transfer models.
 - (2) effects of upper compartment burns on the operation and survival of air return fans and ice condenser doors.
 - (3) operability of the glow plug igniter in a spray environment typical of that expected in the upper compartment of the containment.

12. Quality Assurance Issues (ASLB PID)

- a) Prior to exceeding 5% power, Duke Power Company shall:
 - 1) upgrade its procedures for control of weld filler material to prevent the mix-up of carbon and stainless steel filler material.
 - 2) confirm to the Staff whether or not socket welds made by a particular construction crew incorporated a required gap between components being welded and, if not, what the results were.
 - 3) modify its instructions and procedures for walk-down inspections to remove any indications that such inspections are only for the purpose of discovering construction damage.
- b) Within six months, or prior to full power operation (whichever is later), Duke Power Company is to modify and clarify its written policy on harassment of employees (which currently focuses on equal rights/equal opportunity issues) to make it clear that it precludes actions against QA/QC inspectors intended to impede the inspector's proper performance of his duties.

13. Seismic Equipment Qualification (Section 3.10, SSER #2, SSER #3)

(a) For the solid-state protection system, Duke Power Company shall:

1) Prior to exceeding 5% power:

- a) verify the applied torque values for cabinet mounting bolts to ensure a friction-type connection;
- b) revise the field mounting to ensure a "snug fit" i.e., uniform bearing condition;
- c) recheck the mounting bolts; and
- d) provide written confirmation of the completion of items a), b) and c) herein.

2) At each refueling outage, recheck the mounting bolt torque values.

(b) For the residual heat removal pump and motor, Duke Power Company shall, prior to exceeding 5% power, provide to the NRC staff written confirmation of the results of the revised analysis using a revised finite element grid to determine critical stress at the nozzle-to-casing interface (element 92).

14. Environmental Qualification of Equipment (Section 3.11, SSER #2, SSER #3)

(a) Prior to initial criticality, the issue of temperature/pressure profiles inside the containment must be acceptably resolved with the staff.

(b) Prior to initial criticality, the environmental conditions resulting from a pipe break in the doghouse should be finalized and the environmental qualification of the affected equipment re-evaluated with respect to those conditions.

15. Fire Protection Program (Section 9.5.1, SER, SSER #2)

(a) Prior to exceeding initial criticality, Duke Power Company shall provide for NRC staff review and approval:

- 1) Justification for the adequacy of the standby makeup pump capacity;
- 2) Specific identification of the required cold shutdown repair materials and procedures for their installation;
- 3) Post-fire shutdown procedures and training.

(b) Prior to initial criticality, Duke Power Company must complete the following features of the fire protection program:

- 1) Replace cork sealant material with fire-rated silicone foam as described in Section 9.5.1.5 of Supplement No. 3 to the SER;
- 2) Install a fire detector in the bay above the Turbine Driven Auxiliary Feedwater Pump Pit;
- 3) Complete the installation and acceptance tests of the carbon dioxide fire suppression system for 1A Diesel Generator.

16. Instrumentation for Detection of Inadequate Core Cooling, II.F.2
(Section 4.4.3.4, SER, SSER #2)

Prior to startup following the first refueling outage, Duke Power Company shall complete the upgrade of the existing subcooling margin monitor and the existing backup display.

17. Revised Main Steam Line Break Analysis (Section 6.2.1.1, SER, SSER #2)

Prior to initial criticality, a revised main steam line break analysis acceptable to the staff shall be completed, using a revised heat transfer model accounting for additional heat transfer to steam during tube bundle uncovering in the steam generator.

18. Containment Purge Valve Operability (Section 6.2.4, SSER #3)

Prior to initial criticality, Duke Power Company shall submit documentation acceptable to the NRC staff demonstrating the ability of 4-inch valves in the Containment Air Addition and Release System (i.e., Valves VQ2A, VQ3B, VQ15B and VQ16A shown on FSAR Figure 9.5.10-1) to close against the buildup of containment pressure following a design basis LOCA.

19. Upgrade Emergency Operating Procedures, I.C.1 (Section 13.5.2, SER, SSER #2)

Duke Power Company shall submit for NRC review a report identifying the safety-significant deviations in the Plant Specific Technical Guidelines from NRC-approved generic technical guidelines and provide justification for these deviations. This report must be approved by the NRC prior to initial criticality.

PROPOSED LICENSE CONDITIONS FOR A LOW POWER LICENSE

TO BE COMPLETED TO SATISFACTION OF REGION II

Prior to initial criticality:

- A. Duke Power Company shall complete the following corrective action(s) pertaining to Construction Deficiency Reports (50.55e Items):
1. Correct steam generator water narrow range level measurement system errors.
 2. Replace Limitorque valve operator drain plugs with drilled hole type of plug.
 3. Re-evaluate equipment located inside the valve doghouse for higher temperature tolerance following a steam line break accident.
- B. Duke Power Company shall complete the following corrective action(s) required as a result of violations:
1. Provide records to indicate acceptable testing for the preoperational test of the upper head injection.
 2. Provide assurance to follow procedures for maintenance of safety-related equipment.
 3. Provide emergency condition analysis for stress and support design calculations.
 4. Resolve pipe support discrepancies.
 5. Assure ability to control repaired/salvaged items.
 6. Evaluate equipment for possible damage after turnover to operations and prior to full implementation of preventive maintenance (PM) program; complete review of Critical Structures, Systems and Components PM requirements.
- C. Duke Power Company shall complete the requirements from bulletins on the following subjects:
1. Pipe support base plate design using concrete expansion anchor bolts.
 2. Seismic analysis for as-built safety-related piping systems.

- D. Duke Power Company shall complete the following corrective actions for unresolved items:
1. Provide additional study of calculations to confirm technical adequacy of evaluation for piping analysis support load increase.
 2. Resolve main steam water hammer problem.
- E. Duke Power Company shall complete the following corrective action required by deviations:
1. Comply with FSAR commitments for the performance of thermal expansion preoperational testing.
 2. Review and make necessary improvements in hydrogen gas piping system for reactor coolant pump drain tank.
- F. Duke Power Company shall perform the following inspection followup items:
1. Resolve discrepancy between the designed and actual capacity for the charging system reciprocating charging pump.
 2. Relocate liquid discharge valve IWL124.
 3. Relocate reactor coolant monitor IEMF48.
 4. Resolve problems with liquid leakage, overflow, spillage, etc.
 5. Resolve QA program pertaining to lack of control for use of aerosols.
 6. Return the Standby Shutdown Facility to normal operating condition.
 7. Complete post inspection testing of the emergency diesel generators and supporting systems.
 8. Complete precritical hot functional testing.
- G. The following allegation concerning Duke Power Company will be satisfactorily resolved by NRC Region II:
- Review licensee's action concerning alleged failure to maintain interpass temperature of stainless steel socket welds including resolution to unresolved items 84-31-01 and 84-31-02.
- H. Duke Power Company shall complete the fire protection items 1, 2, 5 and 6 identified in DPC letter to NRR dated June 29, 1984.

Prior to exceeding 5% power:

A. Duke Power Company shall complete the requirements of the following bulletin:

Failures of GE type HFA relays in use in class IE safety systems.

B. Duke Power Company shall perform the following inspection followup item:

Resolve differences in procedure and FSAR descriptions of power coefficient test.

C. Duke Power Company shall complete the following TMI Task Action Items:

1. I.G.1, Training During Low Power Testing
2. II.B.2, Plant Shielding
3. II.B.3, Post Accident Sampling
4. II.B.4, Training for Mitigating Core Damage