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DEWTON, H. R. Office of Nuclear Reactor Regulation, Director (post 851125

SUBJECT: Forwards addl info re initial plant test program, in response to 851030 request. FSAR Section 14.2.7 will be revised in future FSAR amend to provide justification for exception to Reg Guide 1.20, Position C.3.1.

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Carolina Power & Light Company

JAN 06 1986

SERIAL: NLS-85-430

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
UNIT NO. 1 - DOCKET NO. 50-400
INITIAL PLANT TEST PROGRAM

Dear Mr. Denton:

Carolina Power & Light Company hereby submits additional information concerning the Shearon Harris Nuclear Power Plant Initial Plant Test Program. The attached information is submitted in response to an NRC request for additional information transmitted by letter dated October 30, 1985.

If you have any additional questions or require further information, please contact me.

Yours very truly,

S. R. Zimmerman
Manager
Nuclear Licensing Section

JHE/ccc (3071JDK)

Attachment

cc: Mr. B. C. Buckley (NRC)
Mr. G. F. Maxwell (NRC-SHNPP)
Dr. J. Nelson Grace (NRC-RII)
Mr. Travis Payne (KUDZU)
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Mr. H. A. Cole

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411 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

SHEARON HARRIS NUCLEAR POWER PLANT
NRC QUESTION 640.2

FSAR Subsection 14.2.12.1.69, Reactor Internals Inspection Test Summary, should be reinstated or FSAR Subsection 14.2.7 should be modified to provide technical justification for exception to Regulatory Guide 1.20, Position C.3.1.

RESPONSE

FSAR Section 14.2.7 will be revised in a future FSAR amendment to provide justification for exception to Regulatory Guide 1.20, Position C.3.1. Attached are draft FSAR pages reflecting this change.

(3071JDK/ccc)

14.2.7 CONFORMANCE OF TEST PROGRAMS WITH REGULATORY GUIDES

The following applicable regulatory guides will be used as guidance in development of the initial test program:

a) Regulatory Guide 1.20, Rev. 2, May, 1976, Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Initial Startup Testing. | 22

INSERT A

b) Regulatory Guide 1.37, Rev. 0, March, 1973, Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Plants. | 22

c) Regulatory Guide 1.41, Rev. 0, March, 1973, Preoperational Testing of Redundant On-Site Electric Power Systems to Verify Proper Load Group Assignments. | 22

d) Regulatory Guide 1.52, Rev. 2, March, 1978, Design, Testing, and Maintenance Criteria for Engineered - Safety - Feature Atmosphere Cleanup System Air Filtration and Absorption Units of Light-Water-Cooled Nuclear Power Plants.

e) Regulatory Guide 1.68, Rev. 2, August, 1978, Initial Test Programs for Water-Cooled Nuclear Power Plants.

f) Regulatory Guide 1.68.2, Rev. 1, July, 1978, Initial Startup Test Program to Demonstrate Remote Shutdown Capability for Water-Cooled Nuclear Power Plants. | 22

g) Regulatory Guide 1.79, Rev. 1, September, 1975, Preoperational Testing of Emergency Core Cooling Systems for Pressurized Water Reactors with the following clarifications/exceptions: | 22

Reg. Position	Clarifications/Exceptions
C.1.b.(2)	The capability to realign valves for recirculation shall be tested for the plant. Test of a recirculation sump to demonstrate vortex control, acceptable pressure drops across suction lines and valves, and adequate NPSH will be conducted for the plant by model tests. CP&L will verify by appropriate physical examination and flow demonstration test that recirculation sump suction lines are not obstructed and that valves are properly installed.

INSERT A (PAGE 14.2.7-1)

Regulatory Position	Clarifications/Exceptions
C.3.1	CP&L commits to the inspection program of 3.1.3 which shall be done by NSSS vendor after Hot Functional Testing. NSSS vendor shall use vendor inspection procedure and transmit final data to CP&L for plant storage. No CP&L procedure applies.

(3071JDK/ccc)

SHEARON HARRIS NUCLEAR POWER PLANT
NRC QUESTION 640.5.4.K
DSER OI-208

FSAR Subsection 14.2.12.2.32, Steam Turbine-Driven Auxiliary Feedwater Pump Endurance Test, should be modified to test system operability for a two hour period under simulated loss of all AC power conditions (letter to all Westinghouse Systems OL applicants from D. F. Ross (NRC), dated March 10, 1980). This would include securing any area or component cooling systems which are powered from AC sources.

RESPONSE

Auxiliary Feedwater Design

The Shearon Harris AFW System consists of three pumps and subsystems. The two motor driven Auxiliary Feedwater Pumps are powered from their respective emergency buses. In the event of loss of the normal power source, power is supplied by the emergency diesel generators associated with these power buses.

The Steam Driven Auxiliary Feedwater Pump is supplied from two steam generators and taken from the main steam lines upstream of the MSIVs. The Turbine Steam Supply Valves are DC motor operated from redundant vital DC buses. The turbine trip and throttle valve requires solenoid actuation to allow a spring to close it. The power supply for the trip solenoid is 125 V DC, thereby maintaining only DC powered control for the steam driven pump. To allow remote opening of the turbine trip and throttle valve, a DC motor operator is provided. The Auxiliary Feedwater Pump Turbine is equipped with an electronic speed controller powered from a safety grade DC supply. Thus, loss of all AC power will not affect the capability of the Turbine Driven Pump to supply water to the steam generators.

The Steam Driven Auxiliary Feedwater Pump has a self contained lube oil system with attached shaft driven oil pump and oil cooler supplied from the first stage of the pump, discharging back into the suction of the pump. No AC power is required to operate the Steam Driven Auxiliary Feedwater Pump oil pump.

The Shearon Harris Auxiliary Feedwater Pumps (both steam driven and motor) are located in a large area on the 236 foot elevation of the Reactor Auxiliary Building in which excessive ambient temperatures and humidity will not exceed the design limits for safety related equipment in the area.

Auxiliary Feedwater Testing

During Hot Functional Testing, a simulated loss of AC power will be demonstrated. This test will align the 1B-SB diesel generator to 6.9 KV Emergency Bus 1B-SB and disable both 6.9 KV Emergency Buses 1A-SA and 1B-SB from the grid. Auxiliary Buses 1A, 1B, and 1C remain energized through the normal supply grid to allow Reactor Coolant Pump operation (simulated heat source). All non-essential loads are de-energized.

After the 1B-SB Diesel Generator is synchronized to the Emergency Bus 1B-SB, Emergency Bus 1A-SA is dropped - disabling Auxiliary Feedwater Motor Driven Pump 1A-SA. Auxiliary Feedwater Turbine Driven Pump is brought up using DC control power and Auxiliary Feedwater Motor Driven Pump 1B-SB is de-energized and racked out.

(3071JDK/ccc)

This test will demonstrate operation of the Auxiliary Feedwater Turbine Driven Pump under adverse lighting and communication conditions (see attached draft FSAR Section 14.2.12.1.83 for Turbine Driven Pump two hour run during simulated loss of on-site power).

After fuel load, the subject abstract on the Auxiliary Feedwater Turbine Driven Pump Endurance Test states that a 48 hour endurance test will be run. The two hour run (Section 5.2.5 of March 10, 1980 D. F. Ross (NRC) letter) will be done during HFT.

FSAR Subsection 14.2.12.2.32 will be modified to include a test method to measure and evaluate environmental (temperature and ambient) conditions around the Auxiliary Feedwater Pump to satisfy the acceptance criteria of 14.2.12.2.32.d.2.

The Harris design allows remote (MCB) operation from DC power supplies only and does not require local operation by operators. As stated in the Auxiliary Feedwater Design, the pumps are located in a large area (i.e., not enclosed in a separate room) and operation will not violate environmental qualification.

(3071JDK/ccc)

70. Gross Failed Fuel Detection System Test Summary

71. Essential Services Chilled Water System Test Summary

72. Stud Tensioner Hoist Load Test Summary

73. Polar Crane Test Summary

74. Feedwater Heater Drain, Level, and Bypass Control Systems Test Summary

75. Seismic Instrumentation Test Summary

76. Extraction Steam System Test Summary

77. Primary Sampling System Test Summary

78. Secondary Sampling System Test Summary

79. Loss of Instrument Air Test Summary

80. Containment Building Hot Penetration Testing

81. Simulated Loss of On-Site Power Test Summary

23 | 82. AC Distribution System Minimum Operating Voltage Test Summary

83. Auxiliary Feedwater Turbine 2 Hour Run Test Summary

There are certain prerequisites which apply in general to all preoperational tests. For convenience, these general prerequisites are listed here rather than included in each summary.

General Prerequisites:

a) Construction is complete and the system is released for testing in accordance with the start-up manual.

b) Required component testing, instrument calibrations, and system flushing/cleaning are complete.

c) Required electrical power supplies, control circuits, and instrumentation are operational.

d) Approved flow diagrams, logic diagrams, wiring diagrams, specifications, and vendors' technical data are available.

e) For fluid systems, hydrostatic tests are complete.

f) Communications have been established as required.

14.2.12.1.83 Auxiliary Feedwater Turbine Pump Two Hour Run

a. Test Objectives

1. To demonstrate turbine driven pump and related AFW system operation on loss of all AC power to the AFW system.

2. To document component performance during a two hour run of the AFW system in a recirculation mode.

3. To monitor turbine bearing temperatures on plant computer and to ensure the parameters remain within design specifications.

4. To demonstrate remote control station will control turbine speed range of 2300-4100 RPM.

b. Prerequisites

1. All general prerequisites are met.

2. Condensate Storage Tank level within normal operating limits.

3. Service water system available as back-up to Condensate Storage Tank.

4. Steam available for operation of AFW turbine.

5. Hot Functional Testing in progress.

6. Simulated loss of on-site power test in progress.

c. Test Method

1. Start Turbine Driven Pump from MCB by opening 1MS-70, 1MS-72.

2. Monitor turbine bearing temperatures on plant computer.

3. Monitor pump speed on MCB.

4. Vary pump speed from MCB M/A station.

d. Acceptance Criteria

1. Pump starts from operator initiation signal on MCB.

2. MCB M/A station will vary pump speed over range of 2300 to 4100 RPM.

3. Bearing temperatures on turbine, read on computer, do not exceed 160°F.

SHEARON HARRIS NUCLEAR POWER PLANT
NRC QUESTION 640.5.4.t
DSER OI-202

FSAR Subsection 14.2.12.2.26, Natural Circulation Test Summary, should be modified to include monitoring of the depressurization rate resulting from the use of auxiliary spray in accordance with the Westinghouse Revised Special Low Power Testing Program as described in the letter from E. P. Rahe (Westinghouse) to H. R. Denton (NRC) dated July 8, 1981.

RESPONSE

In lieu of modifying FSAR Section 14.2.12.2.26, FSAR Section 14.2.12.2.22, Pressurizer Heaters and Spray Valves Capability Test Summary, will be modified to include monitoring of the depressurization rate resulting from the use of auxiliary spray. Attached are marked-up FSAR pages reflecting this change. These changes will be included in a future FSAR amendment.

(3071JDK/ccc)

4) The pressurizer pressure response, as the auxiliary spray valve is opened is within the allowable depressurization rate graphed in the Westinghouse NSSS Startup Manual.

2) The general prerequisites are met.

3) Vary charging flow to allow a 5 percent increase in pressurizer level and obtain subcooling data.

23

4) Initiate an RCS cooldown of 10F/hour to 552F and obtain subcooling data.

c) Test Method

1) With the pressurizer spray valves closed, all heaters are energized, and the time to reach a 2300 psig system pressure is measured and recorded.

2) With all pressurizer heaters de-energized, both spray valves are opened, and the time to reach a 2000 psig system pressure is measured and recorded.

3) With all pressurizer heaters de-energized, auxiliary spray valve is opened, and the time to reach 2000 psig system pressure is measured and recorded.

d) Acceptance Criteria

1) The pressurizer pressure response, as the heaters are energized, is within the allowable ~~range~~ pressurization rate graphed in the Westinghouse NSSS Start-up Manual.

2) The pressurizer pressure response, as the spray valves open, is within the allowable ~~range~~ depressorization rate graphed in the Westinghouse NSSS Start-up Manual.

3) The rate of change of pressurizer pressure with respect to the increase of pressurizer pressure and RCS temperature change is determined for natural circulation data.

23

14.2.12.2.23 Gross Failed Fuel Detection System Test Summary

a) Test Objective

1) To verify proper operation of the Gross Failed Fuel Detection System during power ascension.

b) Prerequisites

1) Power level is established to meet the test requirements.

2) The general prerequisites are met.

c) Test Method

1) At steady state power levels of 25 and 100 percent, verify that detector H.V. is at the setting determined during the initial preoperational setup.

2) At a power level of 100 percent, set the high alarm to 2 X 10^4 CPM above the level established by the plant chemistry section, to be within technical specifications.

SHEARON HARRIS NUCLEAR POWER PLANT
NRC QUESTION 640.7

FSAR Section 1.8, Regulatory Guide 1.68.3, should be modified to address the exception taken to Position C.10 as contained in the letter from M. A. McDuffie (CP&L) to H. R. Denton (NRC), dated November 15, 1983.

RESPONSE

FSAR Section 1.8, Regulatory Guide 1.68.3 will be modified to address the exception taken to Position C.10 in a future FSAR amendment. Attached is the marked-up draft FSAR page reflecting this change.

(3071JDK/ccc)

Regulatory Guide 1.68.3 (REV 0) PREOPERATIONAL TESTING OF INSTRUMENT AND CONTROL AIR SYSTEMS | 11

C.10 and

The SHNPP project will comply with this guide as described in Section 14.2.12 except for Regulatory Position C.11. Regulatory Position C.11 does not apply to SHNPP because of the design of the Instrument Air System. To overpressurize the system would require three failures; therefore, overpressurization is not a credible failure and applicable testing will not be done.

Regulatory Position C.10 does not apply to SHNPP because the instrument air system does not contain any single large loads which would cause a significant perturbation in the normal instrument air pressure.

SHEARON HARRIS NUCLEAR POWER PLANT
NRC QUESTION 14A

FSAR Section 14.2.12.1, Section 14.2.12.2, Figure 14.2.11-1, and Figure 14.2.11-2 should be modified to include all test summaries contained in FSAR Subsection 14.2.12.

RESPONSE

FSAR Section 14.2.12.1, Section 14.2.12.2, and Figure 14.2.11-2 will be modified to include test summaries contained in FSAR Section 14.2.12 in a future FSAR amendment. No changes to FSAR Figure 14.2.11-1 are necessary. Attached are marked-up draft FSAR pages reflecting these changes.

(3071JDK/ccc)

14.2.12 INDIVIDUAL TEST DESCRIPTIONS

These summaries describe the various tests which are specified as preoperational tests and start-up tests in Regulatory Guide 1.68. Preoperational tests must be completed before fuel loading, and start-up tests must be completed after fuel loading. The scope and titles of these summaries may not in all cases correspond directly to the actual test procedures which will be used during the two test programs. Certain test procedures may include more than one test as described in these summaries, and in some cases, tests described in one summary may be covered under more than one procedure. The overall scope and content of the tests described in these summaries will be addressed in final procedures. It should be noted that all system acceptance tests are designated as preoperational tests, but only those tests listed in Section 14.2.12.1 must be completed prior to fuel loading. The test program will include those features designed to prevent or mitigate anticipated transients without scram (ATWS) that will be incorporated into the SHNPP design.

4.2.12.1 Preoperational Test Summaries

The following is an index of preoperational test summaries described in this Section:

1. Heat Tracing and Freeze Protection Test Summary
2. Main, Auxiliary and Start-Up Transformers Test Summary
3. 6.9 kV Switchgear Test Summary
4. 480 V AC Distribution Test Summary
5. 120 V ESF Uninterruptible AC System Test Summary
6. Class 1E DC System Test Summary
7. Normal Emergency AC/DC Lighting Systems Test Summary
8. Communications System Test Summary
9. Annunciator System Test Summary
10. Reactor Protection System Engineered Safety Features Actuation Logic Test Summary
11. Reactor Protection System Engineered Safety Features Actuation Response Time Test Summary | 23
12. Piping Vibration Test Summary
13. Metal Impact Monitoring System Test Summary
14. Radiation Monitoring System Test Summary
15. Excore Nuclear Instrumentation System (NIS) Test Summary
16. Emergency Diesel Generator Test Summary

Amendment No. 23

17. Deleted
18. Fire Protection System Test Summary
19. Normal Service Water Test Summary
20. Emergency Service Water Test Summary
21. Compressed and Instrument Air Systems Test Summary
22. Reactor Coolant System Hydrostatic Test Summary
23. RTD/TC Cross Calibration Test Summary
24. Pressurizer Relief Tank (PRT) Test Summary
25. Safety Injection System Performance Test Summary
26. High-Head Safety Injection System Check Valve Test Summary
27. Safety Injection Accumulators Test Summary
28. Residual Heat Removal System Cold Test Summary
29. Residual Heat Removal System Hot Test Summary
30. Containment Spray System Test Summary
31. Chemical and Volume Control ~~System~~ Cold Test Summary
32. Chemical and Volume Control System Hot Test Summary
33. Deleted
34. Auxiliary Feedwater System Test Summary
35. Fuel Handling Equipment System Test Summary
36. Fuel Pool Cooling and Cleanup System Test Summary
37. Component Cooling Water System Test Summary
38. Gaseous Waste Processing System Test Summary
39. Solid Waste Processing System Test Summary
40. Liquid Waste Processing System Test Summary
41. Containment Isolation Test Summary
42. Containment Integrated Leak Rate Test and Structural Integrity Test Summary

43. Reactor Coolant System Hot Functional Test Summary

44. Piping Thermal Expansion and Dynamic Effects Test Summary

45. ~~Reserved~~ Deleted by Amendment 4

46. Deleted by Amendment 20 | 23

47. Pressurizer Pressure and Level Control Test Summary

48. Deleted by Amendment 23 | 23

49. ~~Reserved~~ Deleted by Amendment 4

50. Main Steam System Test Summary

51. Feedwater System Test Summary

52. Condensate System Test Summary

53. Turbine Generator Test Summary

54. Circulating Water System Test Summary

55. Condenser Vacuum and Condensate Makeup System Test Summary

56. Waste Processing Computer Test Summary

57. Containment Ventilation Test Summary

58. Plant HVAC Test Summary

59. Engineered Safety Features Integrated Test Summary

60. Process Computer Test Summary

61. Boron Recycle Test Summary

62. Refueling Water Storage Tank Test Summary

63. Primary Makeup Water System Test Summary

64. Rod Control System Test Summary

65. Passive Safety Injection System Check Valve Test Summary

66. Containment Recirculation Sump Test Summary

67. Containment Vacuum Relief Test Summary

68. Combustible Gas Control System Test Summary

69. Deleted

70. Gross Failed Fuel Detection System Test Summary

71. Essential Services Chilled Water System Test Summary

72. Stud Tensioner Hoist Load Test Summary

73. Polar Crane Test Summary

74. Feedwater Heater Drain, Level, and Bypass Control Systems Test Summary

75. Seismic Instrumentation Test Summary

76. Extraction Steam System Test Summary

77. Primary Sampling System Test Summary

78. Secondary Sampling System Test Summary

79. Loss of Instrument Air Test Summary

80. Containment Building Hot Penetration Testing

81. Simulated Loss of On-Site Power Test Summary

23 | 82. AC Distribution System Minimum Operating Voltage Test Summary

83. Auxiliary Feedwater Turbine 2 Hour Run Test Summary

There are certain prerequisites which apply in general to all preoperational tests. For convenience, these general prerequisites are listed here rather than included in each summary.

General Prerequisites:

a) Construction is complete and the system is released for testing in accordance with the start-up manual.

b) Required component testing, instrument calibrations, and system flushing/cleaning are complete.

c) Required electrical power supplies, control circuits, and instrumentation are operational.

d) Approved flow diagrams, logic diagrams, wiring diagrams, specifications, and vendors' technical data are available.

e) For fluid systems, hydrostatic tests are complete.

f) Communications have been established as required.

b) Prerequisites

1) The general prerequisites are met.

2) Sufficient unit auxiliary loads are operable with which to load the AC distribution system.

c) Test Method

1) Load the required AC distribution buses to 30 percent or more of each bus' normal continuous loading and measure/record the steady state voltage and loading. 17

2) With the required AC distribution buses loaded to 30 percent or more, install recorders on the string of buses that were analyzed by the AE to have the lowest voltage. Separately start a large Class 1E motor and a large non-Class 1E motor and record the voltages and loadings of the resulting transients.

3) Transmit the bus voltage and loading data taken in steps 1 and 2 above to the AE for evaluation and validation of the AE's analytical techniques and assumptions used in the bus loading analysis program.

d) Acceptance Criteria

1) None

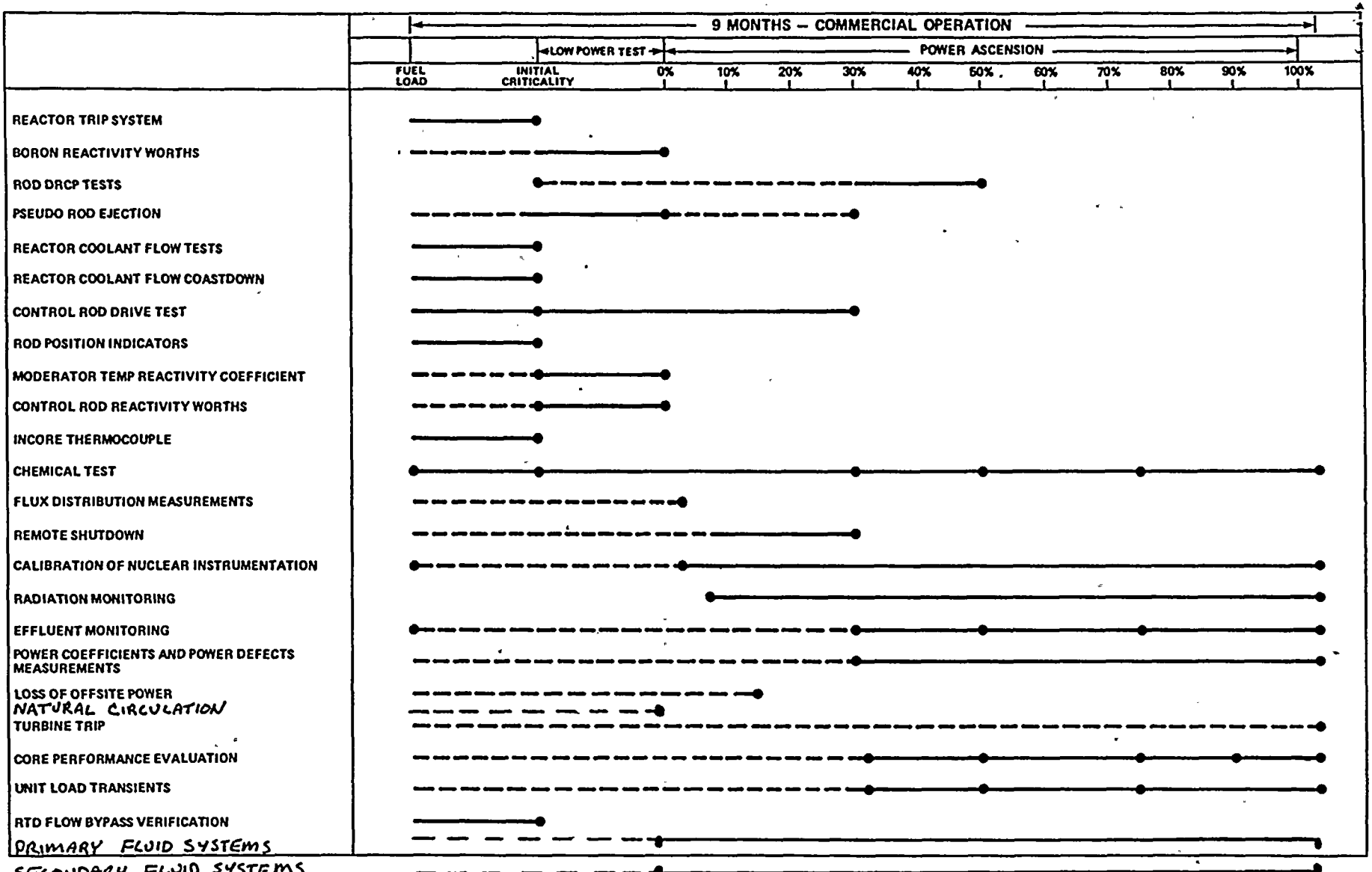
14.2.12.2 Start-Up Test Summaries

The following is an index of start-up test summaries described in this Section:

1. Movable Incore Detector Test Summary
2. Rod Control and Position Indication System Test Summary
3. Rod Drive Mechanism Timing Test Summary
4. Rod Drop Time Measurement Test Summary
5. Reactor Coolant System Flow Measurement Test Summary
6. Reactor Coolant System Flow Coastdown Test Summary
7. Calibration of Nuclear Instrumentation Test Summary
8. Rod Control System Test Summary
9. Flux Distribution Measurement Test Summary
10. Core Performance Test Summary

11. Power Coefficient ~~and Power Defect~~ & Measurement Test Summary
12. Control Rod Reactivity Worth Test Summary
13. Boron Reactivity Worth Test Summary
14. Automatic Rod Control Test Summary
15. Psuedo Rod Ejection Test Summary
16. Steam Generator Moisture Carryover Test Summary
17. Load Swing Test Summary
18. Large Load Reduction and Generator Trip From 100 Percent Power Test Summary
19. Turbine Trip From 100 Percent Power Test Summary
20. Remote Shutdown Test Summary
21. Loss of Offsite Power Test Summary
22. Pressurizer Heaters and Spray Valves Capability Test Summary
23. Gross Failed Fuel Detection System Test Summary
24. Pressurizer Continuous Spray Flow Verification Test Summary
25. Reactor Coolant System Leakrate Test Summary
26. Natural Circulation Test Summary
27. Main Steam and Feedwater Systems Test Summary
28. Shield Survey Test Summary
29. Loss of Feedwater Heater(s) Test Summary
30. Main Steam Isolation Valve Test Summary
31. Steam Generator Test for Condensation Induced Water Hammer
32. Steam Turbine Driven Auxiliary Feed Pump Endurance Test
33. RTD Loop Bypass Flow Rate Verification Summary

23



SHEARON HARRIS NUCLEAR POWER PLANT
Carolina Power & Light Company
FINAL SAFETY ANALYSIS REPORT

INITIAL START-UP TEST SCHEDULE–(SHNPP)
FIGURE 14.2.11-2

SHEARON HARRIS NUCLEAR POWER PLANT
NRC QUESTION 14B

FSAR Appendix A should be modified to address all PSRB requests for additional information.

RESPONSE

FSAR Appendix A will be revised to address all PSRB requests for additional information in a future FSAR amendment.

SHEARON HARRIS NUCLEAR POWER PLANT
NRC QUESTION 14C

FSAR Subsection 14.2.12.1.46, Pressurizer Safety Valves Test Summary, should be reinstated or FSAR Subsection 14.2.7 should be modified to provide technical justification for exception to Regulatory Guide 1.68, Appendix A.1.a.(2)(i).

RESPONSE

FSAR Section 14.2.7 will be modified to provide justification for exception to Regulatory Guide 1.68, Appendix A.1.a.(2)(i). Attached is the marked-up draft FSAR page reflecting this change.

(3071JDK/ccc)

14.2.7 CONFORMANCE OF TEST PROGRAMS WITH REGULATORY GUIDES

The following applicable regulatory guides will be used as guidance in development of the initial test program:

a) Regulatory Guide 1.20, Rev. 2, May, 1976, Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Initial Startup Testing. | 22

b) Regulatory Guide 1.37, Rev. 0, March, 1973, Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Plants. | 22

c) Regulatory Guide 1.41, Rev. 0, March, 1973, Preoperational Testing of Redundant On-Site Electric Power Systems to Verify Proper Load Group Assignments. | 22

d) Regulatory Guide 1.52, Rev. 2, March, 1978, Design, Testing, and Maintenance Criteria for Engineered - Safety - Feature Atmosphere Cleanup System Air Filtration and Absorption Units of Light-Water-Cooled Nuclear Power Plants.

INSERT 1

e) Regulatory Guide 1.68, Rev. 2, August, 1978, Initial Test Programs for Water-Cooled Nuclear Power Plants.

f) Regulatory Guide 1.68.2, Rev. 1, July, 1978, Initial Startup Test Program to Demonstrate Remote Shutdown Capability for Water-Cooled Nuclear Power Plants. | 22

g) Regulatory Guide 1.79, Rev. 1, September, 1975, Preoperational Testing of Emergency Core Cooling Systems for Pressurized Water Reactors with the following clarifications/exceptions: | 22

Reg. Position	Clarifications/Exceptions
C.1.b.(2)	The capability to realign valves for recirculation shall be tested for the plant. Test of a recirculation sump to demonstrate vortex control, acceptable pressure drops across suction lines and valves, and adequate NPSH will be conducted for the plant by model tests. CP&L will verify by appropriate physical examination and flow demonstration test that recirculation sump suction lines are not obstructed and that valves are properly installed.

INSERT 1 (PAGE 14.2.7-1)

Regulatory Position	Clarifications/Exceptions
A.1.a.(2)(i)	Reactor Coolant System Safety Relief Valves will be vendor tested simulating ambient normal air temperature of containment and normal loop seal temperature water. The relief valves will be set in place just prior to Hot Functional Testing. No CP&L test to be written

(3071JDK/ccc)