UNITED STAT TO NUCLEAR REGULATORY COMMISSION REGION II 101 MARIETTA ST., N.W., SL TE 3100 ATLANTA, GEORGIA 30 503

### FEB 2 2 1982

SSINS 50-395

D. G. Eisenhut, Director, Division of Licensing, Office of MEMORANDUM FOR: Nuclear Reactor Regulation

FROM:

R. C. Lewis, Director, Division of Resident and Reactor Project Inspection

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ATTACHMENT 2

SUBJECT:

SOUTH CAROLINA ELECTRIC AND GAS COMPANY, V. C. SUMMER UNIT 1, DOCKET 50-395, STATUS OF FACILITY COMPLETION

In accordance with inspection Procedure No. 94300B, the enclosures list the remaining open items that require resolution before findings of readiness for operation may be endorsed by NRC Region-II- Remaining construction testing, and inspection items identified in the enclosures have been categorized by our recommended mandatory completion milestones. See Stem J. on following Page

The licensee's projected fuel loading date is late March 1982. Region II considers fuel loading date of mid April to be achievable.

R. C. Lewis

Enclosures:

- Items to be completed prior to 1. Fuel Loading >
- Items to be completed prior to 2. Initial Criticality
- Items to be completed prior to 3. Exceeding 5% Rated Power
- Items to be completed prior to 4. Full Power Operation
- Preoperational Testing Status 5. and Operational Preparedness
- Construction Status 6.
- Status of Inspections Required 7. by MC 2512, MC 2513, and MC 2514
- cc: J. Taylor, DDRP
  - B. Grimes, DDEP
  - E. Jordan, DDEQA
  - L. Cobb, DDFFMS
  - B. Kane, LPM

Contact: V. L. Brownlee 242-5577

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#### ITEMS TO BE COMPLETED PRIOR TO FUEL LOADING

- I. The licensee will complete the commitment to review, rewrite and approve all General Operating Procedures, Systems Operating Procedures and Emergency Operating Procedures and resolve any further commments after an NRC Region II procedure review. (82-06-03), (82-06-04) (81-31-01) (81-31-02) (81-28-05) (81-28-06) (81-28-07) (81-23-03) (81-23-07) (81-23-08) (81-23-09) (80-29-04) (80-25-03) (80-25-04) (80-25-05) (80-15-03)
- II. The licensee will complete to the satisfaction of NRC Region II the requirements of the following bulletins:
  - A. Audibility problems encountered during evacuation alarm in high noise area (79-BU-18)
  - B. Possible loss of ENS with loss of cffsite power (80-BU-15)
- III. The licensee will complete to the satisfaction of NRC Region II the following Construction Deficiency Reports (50.55e items) and Part 21 identified items:
  - A. Correct ASCO solenoid valve failures in the safety-related air system(79-30-04)
  - B. Inadvertent boron dilution while using the residual heat removal system (80-37-05)
  - C. Correct the use of unqualified Kerite splice material used on safetyrelated control and power cables. (81-32-03)
- IV. The licensee will complete to the satisfaction of NRC Region II the following open items:
  - A. Administrative Procedure (AP-101) conflicts with Standard Technical Specification. (79-28-02)
  - B. Establish details to leak check accumulator check valves (79-31-01)
  - C. Low battery voltage alarm does not exist in control room as committed to in FSAR section 8.3.2.15.2 (79-37-03)
  - D. Complete for review the test deficiency list evaluation and categorization of test deficiencies that will exist at core load date (80-01-02)
  - E. Resolve preoperational safety injection test SI-3, accummulator blowdown test results (80-13-06)

- G. Install orifice to limit the boron dilution rate to less than 150 gpm. (81-31-05)
- H. Correct H. P. training program problems (80-33-02)
- I. Complete area radiation monitor installation and testing (80-33-07)
- J. Verify preservice inspection has been satisfactorily completed and that no rejectable indications remain uncorrected (81-17-02)
- K. Resolve reporting inconsistencies in preservice inspection records (81-17-03)
- L. Perform correct installation of the liquid filter vent and the piping (81-21-01)
- M. Fire proof ladder opening on IE switchgear (81-29-06)
- N. Resolve NRC comments of surveillance test procedure review (STP 103.002, STP 104.002, STP 104.003, STP 104.004, STP 104.005, STP 120.001, STP 120.003, STP 128.002 and STP 144.001) (81-29-07, 08, 09, 10, 11, 12)
- Establish administrative controls to remove power from the RHR suction isolation valves. (81-31-07)
- P. Resolve NRC review comments of preoperational leak detection test LD-2. (81-32-02)
- Q. Resolve NRC comments on the Plant Safety Review and the Nuclear Safety Review Committees. (81-32-04)
- R. Resolve concerns regarding preservice inspection of the pressurizer support weld (82-02-01)
- S. Establish and have available to the operators the as-built flow diagrams (82-06-02)
- Complete the installation of permanent plant fire protection equipment and systems (82-09-02)
- U. Perform an evaluation on the adequacy of the emergency breathing air supply to the fire brigrade and resolve problems (82-09-02)
- V. Complete the revision to the fire protection administrative control procedures (82-09-03)

- W. Resolve descrepancies between the fire protection features provided and those listed in the SER (82-09-04)
- X. Evaluate the adequacy of welds and bolting for the reactor vessel head lifting structure. (82-13-02)

## ITEMS TO BE COMPLETED PRIOR TO INITIAL CRITICALITY

- I. The licensee will complete to the satisfaction of NRC Region II the requirements of the following bulletins:
  - A. Pipe support base plate designs using concrete expansion anchor bolts (79-BU-02)
  - B. Seismic analysis for as-built Safety-Related piping systems (79-BU-14)

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- C. Surveillance of mechanical snubbers (81-BU-01)
- II. The licensee will complete to the satisfaction of NRC Region II the following Construction Deficiency Reports (50.55e items) and Part 21 identified items:
  - A. Establish corrective measures to correct deficiencies regarding rod drop analysis (80-05-02)
  - B. Correction of overspeed tripping upon restart of the Terry Turbine within 30 minutes after shutdown (80-16-06)
  - C. Corroded hermetic connectors in containment electrical penetrations (81-05-10)
  - D. Turbine driven emergency feedwater pump lube oil cooler not correct for pump (81-08-09)
  - E. Diesel generator fuel oil line missing pipe supports (81-28-01)
  - F. Correct diesel generator slow start times attributed to fuel oil header drain down (81-29-01)
  - G. Service water pump oil leakage around upper bearing pot (81-29-03)
  - H. Resolve the problem concerning Westinghouse containment isolation valves. (82-06-01)

11.		licensee will complete to the satisfaction of NRC Region II the owing open items:
	Α.	Reinspect areas shimmed after HFT (80-22-01) HLW
	Β.	Reinspect supports and restraints which were adjusted after HFT (80-22-02) Hui
	Ċ.	Complete commitments made in question 211.25 of FSAR concerning RHR suction valves (80-25-06)
	D.	Resolve Emergency Feedwater Reliability Analysis report which describes system features that do not exist (80-29-02)
	E.	Modify particulate monitors to maintain a 1.0 cfm airborne sampling rate (80-31-01)
	F.	Revise and update environmental surveillance procedures manual to identify equipment calibration and maintenance (80-32-02)
	G.	Rearrange entrance to radiation control area access (80-33-03)
	н.	Complete area radiation monitor installation and testing (80-33-07)
	Ι.	Complete the Emergency Feedwater system commitments (81-03-04)
	J.	Clarify preservice valve program basis (81-05-18)
	к.	Correct equivalent piping resistance values (L/D values) in preopera- tional safety injection test SI-3 results. (81-08-04)
	٤.	Correct preoperational reactor building spray test SP-3 results. (81-08-05)
	м.	Resolve preoperational reactor building spray test SP-2 acceptability (81-08-07)
	Ν.	Resolve the problem of the discharge isolation valves being to close to the sample monitoring point to prevent a release (81-11-01)
	0.	Verify that bolt skewness on concrete expansion anchors does not reduce the safety factor below acceptable criteria (81-16-01)
	Ρ.	Review method of locking 36" purge valves shut (81-29-05)
	Q.	Verify that temporary cable is capable of use during emergency if RHR pump cooling units need repair. (81-31-03)
	R.	Resolve NRC comments on cooldown made from Control Room Evacuation panel (81-31-04)

- S. Complete modifications to separate the auctioneered temperature circuits for the control and interlock functions (81-31-06)
- T. Install special clamp to eliminate flexing of the acoustic transducer connection on the pressurizer safety valves (81-32-05)
- U. Resolve NRC concerns regarding the adequacy of installation of locking devices (82-13-01).

### ITEMS TO BE COMPLETED PRIOR TO EXCEEDING 5% RATED POWER

 The licensee will complete to the satisfaction of NRC Region II the requirements of the following bulletins:

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- A. Maintenance of adequate minimum flow through centrifugal charging pumps following secondary side high energy line rupture (80-BU-18)
- B. Failure of gate type valves to close against differential pressure (81-BU-02)
- II. The licensee will complete to the satisfaction of NRC Region II the following Construction Deficiency Reports (50.55e items) and Part 21 identified items:
  - A. Charging/Safety injection pump damage due to secondary line break and no flow (80-29-01)
  - B. Westinghouse 3 inch gate valve closure failure (80-37-10)
  - C. Sodium hydroxide tank relief valve not suitable for application (81-05-08)
  - D. Westinghouse 4 inch gate valves closure failure (81-05-09)
  - E. Improper termination of solenoid valve which could result in failure of the reactor building air compressor suction valve (81-23-01)
- III. The licensee will complete to the satisfaction of NRC Region II the following open items:
  - A. Correct the hydrogen recombiner HI hydrogen alarm set at 6% versus proposed Technical Specification limit of 2% (80-06-07)
  - B. Install and test the post-accident containment atmosphere sampling system and conduct training on the system's use for appropriate personnel (81-12-11)
  - C. Install and test of the post-accident gaseous and particulate effluent sampling system and conduct training on the system's use for appropriate personnel (81-12-12)
  - D. Install and test the high range Reactor Building Area Monitor (81-12-23)

- E. Demonstrate the capability to account for all personnel onsite within about 30 minutes (81-12-51).
- F. Approval and implementation of the Corporate Emergency Management Plan (81-12-54)
- G. Correction of deficiencies identified in the Prompt Notification System for warning the public within the 10 mile Emergency Planning Zone (82-03-02).

## ITEMS TO BE COMPLETED PRIOR TO FULL POWER OPERATION

I. The licensee will complete to the satisfaction of NRC Region II the following open items:

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- A. Resolve the problem of the reactor building temperature being greater than expected during hot functional testing (80-25-09)
- B. Installation of control room habitability items to sustain seven people for seven days after an accident (80-29-07)
- C. Incorporation of control room human factors audit review commitments (81-03-08)

## PREOPERATIONAL TESTING STATUS AND OPERATIONAL PREPAREDNESS

### Preoperational Test Status

Preoperational Testing is approximately 85% complete. Hot Functional Testing is complete. The overall status of the test program is summarized below.

	# Tests	# Started	# Completed	Approved
Preops required for Fuel Load	136	132	113	90
Preops required After Fuel Load	32	3	0	0

191 of the 234 functional tests requiring completion prior to fuel loading have been completed and approved.

# CONSTRUCTION STATUS

As of February 1982, construction was 99% complete.

## STATUS OF INSPECTIONS REQUIRED BY MC 2512, MC 2513 AND MC 2514

All modules in the Regional inspection program are considered complete except as noted below:

MC 2512		Percent Complete
47065B	Containment (Prestressing) - Review of Quality Records	90
50090B	Safety-Related Pipe Support and Restraint Systems	90
73051B	Inservice Inspection - Review of Program	90
7055B	Preservice Inspection - Observation of work and work activities	90
MC 2513		Percent Complete
36301B	Operational Staffing Inspection	80
37301	Comparison of As Built to FSAR Description	0
40301B	Safety Committee Activity Inspection	80
41301B	Inspection of Operationing Staff Training	g 0
42450B	Operating Procedures Inspection	90
42452B	Emergency Procedures Inspection	80
70322B	Evaluation Test Results ESF	0
70323B	Evaluation Test Results CLIRT	0
70324B	Evaluation Test Results HFT	0
70325B	Evaluation Test Results RPS	0
70326B	Evaluation Test Results Loss of Offsite Power	0

HEW

70329B	Verification that Tests are Evaluated by Licensee	0
71301B	Technical Specification Review	90
81x108 thru 81x908	Physical Protection	33
82331B	Emergency Plan - Facilities equipment, Procedures	50
83320B	Radiation Protection - Preoperational inspection	70
84330B	Radioactive Waste Systems - Preoperational Liquid and Solid Waste System	50
84331B	Radioactive Waste Systems - Preoperational Gaseous Waste System	40
84332B	Radioactive Waste Systems - QC and Capability Test	40
85102B	Materials Accountability	90
MC 2514		Percent Complete
MC 2514 72500B		
		Complete
72500B	Initial Fuel Loading Procedure Review Pre-critical Test Procedure Review (Protective Trip Circuit or Rod Drop	Complete 90
72500B 72564B	Initial Fuel Loading Procedure Review Pre-critical Test Procedure Review (Protective Trip Circuit or Rod Drop Measurements) (Pre-critical Test Procedure Review (RCS Leak Test or Pressurizer	<u>Complete</u> 90 90
72500B 72564B 72566B	<pre>Initial Fuel Loading Procedure Review Pre-critical Test Procedure Review   (Protective Trip Circuit or Rod Drop   Measurements) (Pre-critical Test Procedure Review   (RCS Leak Test or Pressurizer   Effectiveness) Low Power Test Procedure Review (Initial</pre>	<u>Complete</u> 90 90 0 90
72500B 72564B 72566B 72570B	<pre>Initial Fuel Loading Procedure Review Pre-critical Test Procedure Review (Protective Trip Circuit or Rod Drop Measurements) (Pre-critical Test Procedure Review (RCS Leak Test or Pressurizer Effectiveness) Low Power Test Procedure Review (Initial Criticality) Power Ascension Phase Procedure Review (Natural Circulation or Power Reactivity</pre>	<u>Complete</u> 90 90 0 90

72582B	Power Ascension Phase Procedure Review (Shutdown from Outside Control Room) (Group A)	0
72583B	Power Ascension Phase Procedure - LOP	0
72584B	Power Ascension Procedure Review (Asymmetry or Psuedo Rod Ejection Test)	0

#### UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

#### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

SOUTH CAROLINA ELECTRIC & GAS COMPANY

Docket No. 50-395

(Virgil C. Summer Nuclear Station, Unit 1)

#### CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO INTERVENOR'S MOTION FOR ADMISSION OF NEW CONTENTION" dated March 16, 1982 in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or as indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system this 16th day of March, 1982:

\*Herbert Grossman, Esq., Chairman Administrative Judge Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, DC 20555

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