UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-8931

October 23, 2002

South Carolina Electric & Gas Company
ATTN: Mr. Stephen A. Byrne
Senior Vice President, Nuclear Operations
Virgil C. Summer Nuclear Station
P. O. Box 88
Jenkinsville, SC 29065

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION - NRC EXAMINATION REPORT 50-395/2002-301

Dear Mr. Byrne:

During the week of September 9, 2002, the Nuclear Regulatory Commission (NRC) administered operating examinations to to six Senior Reactor Operator (SRO) applicants who had applied for licenses to operate the Virgil C. Summer Nuclear Station. On September 17, 2002, the NRC administered the NRC written examination to the six applicants. The enclosed report documents the examination results and findings which were discussed on September 13, 2002.

All Senior Reactor Operator applicants who received the written examination and operating test passed. No findings of significance were identified. A Simulation Facility Report is included in this report as Enclosure 2. There were three Post Examination comments. Post examination comment resolutions are included in this report as Enclosure 3.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact me at (404) 562-4638.

Sincerely,

/RA/

Michael E. Ernstes, Chief
Operator Licensing and Human
Performance Branch
Division of Reactor Safety

Docket No. 50-395
License No. NPF-12

Enclosure: (See page 2)

Enclosures: 1. Report Details
2. Simulation Facility Report
3. NRC Resolution of Comments

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NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	50-395
License No.:	NPF-12
Report No.:	50-395/02-301
Licensee:	South Carolina Electric & Gas (SCE&G) Company
Facility:	Virgil C. Summer Nuclear Station
Location:	P. O. Box 88 Jenkinsville, SC 29065
Dates:	Operating Examination - September 9-13, 2002 Written Examination - September 17, 2002
Examiners:	Lee R. Miller, Senior Operations Engineer Steven D. Rose, Operations Engineer
Approved by:	Michael E. Ernstes, Chief Operator Licensing and Human Performance Branch Division of Reactor Safety

Enclosure 1

SUMMARY OF FINDINGS

ER 05000395/02-301, on 9/9-13/2002, South Carolina Electric & Gas Company, Virgil C. Summer Nuclear Station licensed operator examinations.

NRC examiners conducted an announced operator licensing initial examination in accordance with the guidance of Examination Standards, NUREG-1021, Revision 8, Supplement 1. This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

Six senior reactor operator (SRO) applicants received written examinations and operating tests. The NRC administered the operating tests during the week of September 9, 2002. The NRC administered the written examination on September 17, 2002.

Report Details

4. OTHER ACTIVITIES (OA)

4OA5 Operator Licensing Initial Examinations

a. Inspection Scope

The examiners evaluated six SRO applicants who were being assessed under the guidelines of the Examination Standards (ES), NUREG-1021, Revision 8, Supplement 1. The NRC developed the written examination. The licensee reviewed and validated the written exam. The simulator scenarios and Job Performance Measure (JPM) set were validated during a preparation visit conducted during the week of August 19, 2002. The written examination was administered by the NRC on September 17, 2002. Six senior reactor operator (SRO) applicants received written examinations and operating tests. The examiners reviewed the results of the written examination and evaluated the applicants' compliance with and use of plant procedures during the simulator scenarios and JPMs.

b. Issues and Findings

No findings of significance were identified.

Six of six SRO applicants passed the written examination and the operating examination.

The licensee submitted two post-examination comments on the written examination and one comment on the operating test (ADAMS Accession Number: ML022940037). A copy of NRC's resolution of these comments is provided in Enclosure 3. The NRC accepted one and part of the other written examination comments and revised the final SRO written examination answer key accordingly (ADAMS Accession Number: ML022950184). The NRC reviewed the comment provided concerning the operating test. The comment was a request to accept two possible classifications on a security event. The NRC did not accept the comment.

4OA6 Meetings

Exit Meeting Summary

The Chief Examiner presented the preliminary examination results on September 13, 2002, to members of licensee management. The licensee acknowledged the examination results presented. No proprietary information was received.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

*S. Byrne, Senior VP
*G. Halnon, General Manager Nuclear Plant Operations
*K. Nettles, General Manager Nuclear Support Services
*D. Gatlin, Operations Manager
*D. Goldston, Operations Supervisor
*A. Koon, Supervisor, Operations Training
*S. Furstenburg, Training Manager

*Attended Exit Interview

INSPECTION PROCEDURES USED

NUREG-1021, Rev. 8 supplement 1: Operator Licensing Examination Standards for Power Reactors

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

SIMULATION FACILITY REPORT

Facility Licensee: Virgil C. Summer Nuclear Station Unit 1

Facility Docket No.: 50-395

Operating Tests Administered on: September 9-13, 2002

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of noncompliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information that may be used in future evaluations. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, the following items were observed:

ITEM	DESCRIPTION
Annunciator XCP-614 (2-6), CCW to CHG PP VLV	Did not properly model the 20 sec. time delay as in the plant.
XCP-621, “CRB INSERT LIMIT LO”	Alarm would come in inappropriately

FACILITY COMMENTS

NRC RESOLUTION OF FACILITY COMMENTS

QUESTION #17 SRO:

Recommendation accepted:

The NRC agrees with the licensee's comment that answer A is correct, charging flow will decrease in response to a level reference signal decrease of 5%.

QUESTION #24 SRO

The NRC agrees with the licensee's comment that answer D is the correct answer. The NRC disagrees with the licensee's comment that answer B is also a correct answer.

The NRC reviewed the licensee's comments, the licensee's supporting information, and the systems training material for Core Subcooling Monitor, IC-12. The facility's reference material indicated that the RTD temperature and thermocouple temperature inputs were auctioneered high in the microprocessor. The microprocessor calculated saturation temperature by comparing the pressure signal to the respective temperature signals (RTD or thermocouple) and the Temperature margin-to-saturation was indicated on the main control board (MCB) by four meters (two meters per train). The meters indicate margin to saturation based on pressure versus auctioneered high RTD temperature and pressure versus auctioneered high thermocouple temperature. The review revealed that the facility's reference material was silent concerning whether the Subcooling Monitor would autoselect the other thermocouple assigned in the failed thermocouple core quadrant.

In conclusion, the NRC has determined, based on the above discussion, that answer D is the only correct answer.

ADMINISTRATIVE JPM A.4 CLASSIFY AN EMERGENCY PLAN EVENT

The NRC disagrees with the licensee's comment that the initiating conditions were unclear. The initial conditions clearly stated three conditions: (1) Severe weather warnings for the site. (2) An armed intrusion is in progress. (3) The RWST has been destroyed by an explosion. The information given in the initial conditions provides the applicants with adequate information to classify the emergency plan event and indicate the basis for the classification.

The NRC disagrees with the licensee's comment that the detection method provided enough latitude to allow defaulting to a higher classification. With security as the initiating event, the applicant should consider condition 281, "Ongoing Severe Security Threat". The detection method for condition 281 was stated as, "Security safeguards contingency event which results in adversaries commandeering an area of the plant, but not impacting shutdown capacity." The initial condition (2), "an armed intrusion is in progress", met the condition 281 detection statement.

The initial conditions provided in the examination did not meet the condition 381, "Security Threat Involving Imminent Loss of Physical Control of the Plant", detection

method statement because there was no information given or implied which indicated a physical attack on the plant involving imminent occupancy of either the Control Room or Control Room Evacuation Panel Rooms was in progress. With the information provided in the initial conditions selection of condition 281 would result in an Alert declaration.

The applicant must also consider the impact on classification from initial condition (3): "The RWST has been destroyed by an explosion". The loss of the RWST met condition 292 , "Other Hazards being Experienced or Projected Which have a Significant Potential for Affecting Plant Safety". However, it did not meet condition 392, "Other Hazards being experienced or Projected with Plant not in Cold Shutdown", since the RWST is not a function needed for Hot Shutdown. With the information provided in the initial conditions selection of condition 292 would result in an Alert declaration.

The NRC also disagrees with the licensee's proposal to accept either the classification of Alert or Site Area Emergency as long as the candidate stated the proper justification. The NRC examination team is absolutely certain that nothing was stated directly or implied by them that could have been construed that more than one classification category would be acceptable. There are times when classification of an emergency plan event must be made without the benefit of all the facts or within the comfort zone of the IEDs, but with the information known at the time. Escalation to the next higher emergency action level is not always appropriate.

In conclusion, the NRC determined that based on the initiating conditions, an armed intrusion is in progress and the RWST destroyed by an explosion, the only correct classification was an Alert.