



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W., SUITE 2900
 ATLANTA, GEORGIA 30323-0199

Report No.: 50-395/94-02

Licensee: South Carolina Electric & Gas Company
 Columbia, SC 29218

Docket No.: 50-395

License No.: NPF-12

Facility Name: V. C. Summer Nuclear Plant

Inspection Conducted: February 28-March 4, 1994

Inspector: Edwin Lea
 Edwin Lea

4/1/94
 Date Signed

Accompanying Personnel: Frank Jagger, INEL

Approved by: Lawrence L. Lawyer
 Lawrence L. Lawyer, Chief
 Operator Licensing Section
 Operations Branch
 Division of Reactor Safety

4/1/94
 Date Signed

SUMMARY

Scope:

This routine, announced inspection was conducted in the area of the licensed operator requalification program during the period February 8, 1994-March 4, 1994. The purpose of the inspection was to (1) verify that the licensee's requalification program for reactor operators (ROs) and senior reactor operators (SROs) ensures safe power plant operation by evaluating how well the individual operators and crews had mastered training objectives; (2) assess the facility licensee's effectiveness in evaluating and revising the requalification program for licensed operators based on their operational performance, including requalification examinations; and (3) assess the licensee's effectiveness in ensuring that the individuals who are licensed to operate the facility satisfy the conditions of their licenses as specified in 10 CFR 55.53.

Results:

The examination team concluded that (1) the licensee's requalification program for ROs and SROs was adequate to ensure safe power plant operations, (2) the facility licensee was generally effective in evaluating and revising the subject programs, and (3) the facility licensee was effective in ensuring that the individuals who are licensed to operate the facility satisfy the conditions of their licenses.

The inspectors identified examination administration as a strength (Paragraph 2.c).

The inspectors identified one violation for failure to follow procedures (Paragraph 2.d).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *L. Allen, Shift Supervisor in Training
- *J. Berley, Nuclear Licensing & Operating Experience Secretary
- *D. Lavigne, General Manager Nuclear Services
- *M. Fowlkes, Nuclear Licensing Manager
- *A. Koon, Nuclear Operations Department Project Coordinator
- *T. Matlosz, Supervisor Nuclear Training
- *K. Nettles, General Manager Station Support
- *J. Skolds, Vice President Nuclear Operations
- *G. Taylor, General Manager Nuclear Plant Operations
- *R. White, Santee Coper Representative

Other licensee employees contacted included instructors, engineers, technicians, operators, and office personnel.

NRC Personnel

- *T. Farnholtz
- *B. Hagg

*Attended exit interview

2. Licensed Operator Requalification Program Evaluation (2515/117)

a. Scope

The NRC conducted a routine, announced inspection of the V. C. Summer licensed operator requalification program during the period February 8, 1994 through March 4, 1994. The purpose of the inspection was to (1) verify that the licensee's requalification program for reactor operators (Ros) and senior reactor operators (SROs) ensures safe power plant operation by evaluating how well the individual operators and crews had mastered training objectives; (2) assess the facility licensee's effectiveness in evaluating and revising the requalification program for licensed operators based on their operational performance, including requalification examinations; and (3) assess the licensee's effectiveness in ensuring that the individuals who are licensed to operate the facility satisfy the conditions of their licenses as specified in 10 CFR 55.53.

b. Examination Development

The inspectors reviewed the licensee's requalification written and operating examinations. The examinations were compared to guidelines provided in the licensee's "Nuclear Training Manual" and Examiner Standards (ES), NUREG-1021, Revision 7. The inspectors found that the licensee developed examinations were adequate. The Station Support Group Nuclear Manual identified the framework for all training activities conducted for the V. C. Summer Nuclear Station personnel.

The inspectors compared weekly and annual job performances measures (JPMs), simulator scenarios, and written examinations to the licensee's sample plan. A review of the questions on selected examinations revealed the questions were written to adequate knowledge and abilities (KA) levels. The review of the questions also revealed an adequate knowledge level and adequate difficulty separation between RO and SRO questions. The inspectors concluded that the licensee's requalification training program was adequate.

No violations or deviations were identified

c. Examination Administration

The inspectors observed the licensee's evaluators and operators during simulator scenarios, simulator JPMs, and in-plant JPMs, to determine if examinations were administered as detailed in the NUREG-1021, Revision 7, "Operator Licensing Examiner Standards (ES)." The inspectors also observed the examination process to determine if weaknesses/inconsistencies which were identified in Requalification Report 50-395/93-300, still existed. The inspectors determined that the administration of the examinations was adequate, and that previously identified weaknesses had been corrected.

Evaluators provided briefings prior to the administration of JPMs and simulator scenarios as required by the ESs. The briefings were very detailed; the evaluators stressed the need for the operator to provide information detailing actions taken during the performance of JPMs and proper communication during simulator scenarios. The evaluators were consistent in the administration of all JPMs. The evaluators provided proper cuing, and there were no inappropriate promptings of the operators. The evaluators effectively identified weaknesses and provided questions as needed to obtain clarification of actions taken by the operator during the examination process.

The inspectors concluded that the evaluators administered the examinations using guidelines specified in the ES, and that the weaknesses and inconsistencies identified in Requalification Report 50-395/93-300, which pertain to examination administration, were no longer a weakness.

No violations or deviations were identified

d. Remediation and Retesting

The inspectors reviewed licensed operator training records for the 1991 and 1993 requalification cycle and procedures that pertained to operator licensing requalification. The training records indicated that there were no failures on annual examinations administered by the licensee during the 1991 and 1993 cycles. However, there were four licensed operators who failed to obtain acceptable scores on weekly examinations. The inspector reviewed the licensee's procedures to

determine what type of remediation and retesting was required for operators who failed an examination and reviewed the remediation and retesting of the four failing operators. The team concluded that the facility licensee had failed to provide adequately documented remediation.

Training Manual Appendix II.5, "Requalification Program For US NRC Licensed Operators and Senior Reactor Operators," Revision 4, provided guidance which "...applies to Nuclear Training and the individuals enrolled in the Licensed Operator Requalification Program." Paragraph 7.E.1 of the appendix stated "Each student will be required to achieve a grade of at least 80 percent in the case of written quizzes or a grade of "Satisfactory" in the case of oral quizzes." Paragraph 7.E.2 stated "Remedial training and another quiz will be required for any student failing to achieve the level of competence as described in Paragraph 7.E.1." Training Manual Chapter 7, Training Documentation provided "...guidance for the preparation, review, and retention of Nuclear Training Department documents and records. This guidance applies to documents and records generated by the Nuclear Training Department related to the content, schedule, and attendance of training programs, and the results of performance evaluations and employee evaluations and employee qualification to perform independent work activities." Section VII.B.4 of Chapter 7 stated "Student folders will be established for each permanent SBU employee and long-term contractor. Student folders will contain:

4. Remedial training documents. This section contains documentation related to any remedial training completed as a result of exam or evaluation failure or audit results."

The student folders did not contain any documentation related to remedial training. Documentation was required by the procedure to be completed in the event a licensed operator failed to achieve an acceptable grade on an examination. The licensee did provide documentation which indicated that those operators who failed examinations were retested. During discussions with training management it was stated that "...the burden of remediation for a failure of a weekly quiz is put on the operator to self-study in preparation for an examination retake and that remediation was not documented." The failure to provide documentation indicating what type of remedial training was given to those licensed operators who failed weekly quizzes was a violation of V. C. Summer's training procedures. This failure of the licensee to provide documentation of remediation for licensed operators who failed weekly exams was identified as violation 50-395/94-02-01.

e. Operator Performance

The inspectors observed licensed operators' performance during simulator scenarios and JPMs and conducted operator interviews to determine if the licensee's requalification program effectively trained licensed operators on subject areas identified in 10 CFR. The JPMs and simulator scenarios administered to the operators, included

many of the subject areas identified in 10 CFR 55.59. The operators performed satisfactorily during the simulator scenarios and JPMs. The crews completed all assigned critical tasks identified in the simulator scenarios. Communication between the shift supervisors (SS) and other control room personnel was adequate. The SS did an adequate job in directing activities during scenarios and the ROs were able to locate and operate equipment effectively. One operator failed to successfully complete one of the five JPMs.

The inspector selected six licensed operators at random and questioned each about plant modifications and recently implemented changes to Title 10 of the Code of Federal Regulations. Operators were typically familiar with those changes associated with plant modifications. However, when the operators were questioned about new 10 CFR 20 requirements, four of the six interviewed were unable to give complete answers to the questions. The operators also stated that minimal training had been given on the new 10 CFR 20 requirements.

No violations or deviations were identified

f. Feedback and Management Involvement

The inspectors reviewed documentation and interviewed licensed operators to obtain information on how the operators' problems or concerns are relayed to management. The inspectors reviewed feedback forms that described concerns identified by the licensed operators. The feedback forms were typically submitted following scheduled training. Each feedback form was reviewed by training, and actions were taken when applicable. Several of the candidates interviewed indicated that they had received additional training as a result of the feedback program. The operators interviewed also stated that management encouraged open communication between management and licensed operators while in the plant and control room.

The inspectors did not observe any managers from operations observing activities associated with the requalification process. The operators interviewed indicated that the failure of the managers to observe simulator activities was not typical. The operators stated that managers typically observed training activities each week. The operators further stated that discussions were typically held with the managers, and each operator was encouraged to voice concerns.

No violations or deviations were identified.

3. Action on Previous Inspection Findings

(Closed) IFI 50-395/93-300-01, "The identification of documentation that establishes the basis of controls used to reestablish feed to Sgs when implementing EOP 15.0."

During requalification examination 93-300, administered May 17 to June 11, 1993, NRC examiners noted that EOP 15.0 allowed operations to simultaneously reestablish feedwater flow to hot/dry steam generators

(Sgs). NRC examiners informed the licensee of statements in the WOG ERG Background Document that stated feedwater flow should be reestablished to only one steam generator at a time when hot/dry steam generator conditions exist. The WOG's method of reestablishing feedwater flow to a hot/dry steam generator was intended to isolate failure, which could have resulted from excessive thermal stresses, to one steam generator. The NRC requested information from the licensee to justify their method of reestablishing feedflow to a hot/dry SG.

The inspectors reviewed and discussed with the licensee, the corrective actions submitted for IFI 50-395/93-300-01. The licensee revised EOP 15.0 to address those concerns identified in IFI 50-395/93-300-01. EOP 15.0, Revision 7, was changed to include "CAUTION - Step 4.a.4." The caution stated:

"If RCS T-hot GREATER THAN 550 degrees F, EFW valves should only be open to Sgs with Wide Range level GREATER THAN 10 percent [35 percent]. If Wide Range level in all Sgs is LESS THAN 10 percent [35 percent], EFW valves should be open to only one SG, until RCS T-hot is LESS THAN 550 degrees F, to limit any failure to one SG."

The caution was written to direct the operators to reestablish EFW flow to only one SG at time, thus isolating the failure to one SG. The change to EOP 15.0 adequately addressed operational concerns identified in IFI 50-395/93-300-01, and provided consistency between the licensee's operating procedure and the WOG ERG Background Document. Based on the corrective actions taken by the licensee, IFI 50-395/93-300-01 is closed.

4. Exit Interview

At the conclusion of the site visit, the inspectors met with representatives of the plant staff listed in paragraph one to discuss the results of the inspection. The licensee did not identify as proprietary any material provided to, or reviewed by the inspectors. The inspectors further discussed in detail the inspection findings listed below. The licensee did not express any dissenting comments.

<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
IFI 395/93-300-01	Closed	The identification of documentation that establishes the basis of controls used to reestablish feed to Sgs when implementing EOP 15.0 (Paragraph 3.0)
VIO 393/94-02-01	Open	NOV - Failure to adhere to 10 CFR 50, Appendix B, Criterion V regarding procedure compliance (Paragraph 2.d)