SOUTH CAROLINA ELECTRIC & GAS COMPANY
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O. W. DIXON, JR.
VICE PRESIDENT
NUCLEAR OPERATIONS

August 24, 1983

Mr. James P. O'Reilly
Regional Administrator
U.S. Nuclear Regulatory Commission
Region II, Suite 2900
101 Marietta Street, N.W.
Atlanta, Georgia 30303

SUBJECT: Virgil C. Summer Nuclear Station
Docket No. 50/395
Operating License No. NPF-12
Notice of Violation
NRC Inspection Report 83-17

Dear Mr. O'Reilly:

Please find attached South Carolina Electric and Gas Company's response to the Notice of Violation as addressed in Appendix A of NRC Inspection Report 83-17.

If there are any questions, please call us at your convenience.

Very truly yours,

O. W. Dixon, Jr.

HCF:CJM:OWD/mac/fjc
Attachment

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APPENDIX A
NOTICE OF VIOLATION
ITEM A

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

The reason for the violation is attributed to personnel error. On May 24, 1983, with the Plant in Mode 1, the Control Room Foreman (Senior Reactor Operator) left the defined Control Room boundary and entered a room adjacent to the Control Room to determine the status of a "Danger Tag Out." The event was approximately one (1) to three (3) minutes in duration. During this time, a Senior Reactor Operator was not in the Control Room to assume command functions as required by Technical Specification 6.2.2.(b).

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The Control Room Foreman promptly returned to the Control Room and compliance with Technical Specification 6.2.2.(b) was established.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION

The Control Room Foreman was counselled on his actions. Additionally, Operations personnel attended a lecture devoted to personnel errors and inattention to detail.

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company is in full compliance with Technical Specification 6.2.2.(b).

APPENDIX A
NOTICE OF VIOLATION
ITEM B.1

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

Satellite procedure files had been established at in-plant operator stations for use as reference material for the operator training program and general information. Actual plant operations and evolutions were controlled from the Main Control Board using the Control Room Copy of procedures.

The procedures at the in-plant operator stations had not been updated due to personnel error by the clerical staff. Personnel did not adhere to the requirements of Plant Document Procedure (PDP-101), "Document Control Procedure."

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The following immediate corrective actions were taken:

a) The Plant had recently been aligned for normal plant operations, following a maintenance outage. All completed system alignments were reviewed and verified to have been completed using the latest revision of the applicable procedures as compared against the Master Control Copy of the procedure. It should be noted that the majority of the revisions and changes that were not posted were recent procedure updates generated during the system realignments and startup following the outage.

b) The in-plant procedures were withdrawn from use, audited, and corrected.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED Continued

c) The volume of controlled procedures issued to the Operations Group was evaluated. Approximately 5000 separate controlled procedures were being maintained. The amount exceeded actual needs and imposed an administrative burden to keep them updated. The number of controlled procedures was reduced to reflect actual needs.

d) The method of determining procedure issue requirements was reviewed, and the procedure distribution files were updated to more clearly reflect the issue requirements.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION

The Licensee considers this to be an isolated event and plans no further action.

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company is in full compliance with the procedural requirements.

APPENDIX A
NOTICE OF VIOLATION
ITEM B.2

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

The Digital Metal Impact Monitoring System (DMIMS) is located behind the operators in the Main Control Room. At the time of the violation, the only indication of a DMIMS alarm condition was a small red light annunciated on the front of the panel. The operators were unaware that the system was in an alarmed condition.

The failure to detect and respond to the DMIMS alarm is an operator error. This error is attributed to a lack of routine surveillance of the DMIMS and operator unfamiliarity with the DMIMS. Additionally, the problem was compounded by the fact that an audible alarm did not exist on the system. Operator acknowledgement of the alarm depended solely on visual recognition.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The following actions have been taken:

a) On May 27, 1983, a training notice was issued to all licensed operators describing the DMIMS and the significance of the panel indications. Initial training on the DMIMS was given as a part of operator licensee training. The training notice was issued for refamiliarization purposes.

b) An annunciator alarm was added on the Main Control Board to give the operator an audible and visual indication when the DMIMS alarms.

IV. ACTION TAKEN TO AVOID FURTHER VIOLATION

Station Administrative Procedure (SAP-200), "Conduct of Operations," is being revised to incorporate a check of the DMIMS by the Control Room Supervisor as a part of the shift turnover.

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company will be in full compliance by October 1, 1983.

APPENDIX A
NOTICE OF VIOLATION
ITEM C.1

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

The fire extinguishers discovered to be in non-conformance with Preventive Test Procedure (PTP-114.002), "Fire Extinguisher Checks," on May 6, 1983, were being used by welding personnel (construction) during a plant outage. These extinguishers are not maintained in accordance with Operation's Fire Protection Program.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The Fire Protection Coordinator inspected the Reactor Building after the identification of the violation and removed all unauthorized fire extinguishers; compliance with Operation's Fire Protection Program was re-established.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION

The following actions were taken to prevent further violation:

1) On May 27, 1983, Security personnel were directed to restrict the access of unauthorized fire extinguishers into the protected areas.

2) A central issue and control point was designated on May 18, 1983, to ensure that all fire extinguishers used for supplementary fire protection during fire watch activities, within the protected area, were under the Fire Protection Program.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION Continued

3) PTP-114.002 is being revised to include the inspection, maintenance, and hydrostatic testing of the fire extinguishers identified in Item 2. This revision is expected to be issued by September 15, 1983.

V. DATE OF FULL COMPLIANCE

South Carolina Electric & Gas Company will be in full compliance by September 15, 1983.

APPENDIX A
NOTICE OF VIOLATION
ITEM C.2

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

The Annunciator Response Procedures (ARP) for annunciator points 1-5 on panels XCP-0608(A) and XCP-0609(B) incorrectly identified the alarms as relating to the hydrogen recombiners when in fact they relate to the post accident hydrogen analyzers. The ARPs were developed prior to license issue and had not been updated to reflect true plant configuration.

Additionally, Operations personnel failed to respond to the alarm and correct the inherent procedural errors because of personnel error.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The alarm condition was promptly investigated and reset upon establishment that the post accident hydrogen analyzers were not actually in an alarm.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION

The following actions were taken to prevent further violation:

1) All Operations personnel, including the individual who failed to respond to the alarm condition, were counselled on the need for increased attention to detail and awareness of plant conditions. These lectures were completed by May 27, 1983.

IV. ACTION TAKEN AND RESULTS ACHIEVED Continued

2) ARPs are being reviewed for correctness and procedural adequacy. The procedural error on points 1-5 on XCP-0608(A) and XCP-0609(B) had been identified prior to the occurrence and were in the revision process. The revision for the subject ARPs were issued on June 24 and June 27, 1983. The remaining ARPs are being reviewed at this time with an expected completion date of January 1, 1984.

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company will be in full compliance by January 1, 1984.

APPENDIX A
NOTICE OF VIOLATION
ITEM C.3

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

Maintenance and testing of the reactor trip breakers were conducted on May 3, 1983, without specific procedures as stated in the violation because:

1) The informal installation instructions provided by the vendor were inadequate.

2) The Assistant Manager of Maintenance and the Electrical Supervisor made an error in judgement in that they believed that existing procedures were sufficient to control and document work activities. Prior to the occurrence of the violation, the Station Manager had given specific instructions that the activity be covered by station procedures.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The data needed to adequately document the results of the activity was subsequently obtained from the technical representative.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION

The following actions were taken to prevent further violation:

1) The Assistant Manager of Maintenance and the Electrical Supervisor were counselled on their failure to perform maintenance and testing on the reactor trip breakers without a specific procedure.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION Continued

2) Station Administrative Procedure (SAP-108) will be developed to improve the program and procedural control of contractor labor at Virgil C. Summer Nuclear Station. This commitment is expected to be complete in February 1984.

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company will be in full compliance in February 1984.

APPENDIX A
NOTICE OF VIOLATION
ITEM D.1

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

Station Administration Procedure (SAP-201), "Danger Tagging," requires that Technical Specification applicability be determined for components prior to their removal from service. The block on the danger tag sheet was inadvertently checked "NO" by Operations personnel on May 12, 1983, when Steam Generator B Feedwater Flow Transmitter FT-486 was being valved out and danger tagged for modification to the associated tubing and hanger. An additional personnel error occurred when construction personnel failed to notify the Shift Supervisor to clear the tags upon completion of their work on May 13, 1983. The Shift Supervisor consequently failed to note during a subsequent review of the Danger Tag Log that the inoperable transmitter was a Mode restraint.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The danger tags were removed and the transmitter was returned to service at 1310 hours on May 23, 1983, after the performance of a satisfactory Channel Check.

IV. ACTION TAKEN TO PREVENT FURTHER VIOLATION

A series of lectures were held with operators and their supervisors concerning attention to detail and awareness of plant conditions. These lectures were completed on May 27, 1983.

V. DATE OF FULL COMPLIANCE

South Carolina Electric & Gas Company is in full compliance.

APPENDIX A
NOTICE OF VIOLATION
ITEM D.2

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

The Intermediate Building (IB) Preaction Sprinkler System was inoperable between the hours of 0730 and 1030 on May 19, 1983, because of personnel error. The Auxiliary Operator (AO) assigned the task of resetting the sprinkler system failed to inform the Shift Supervisor and/or the Control Room Foreman that the manual isolation valve was closed. The failure to communicate the system status is a violation of Station Administrative Procedure (SAP-200), "Conduct of Operations".

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

Upon notification at 0930 hours of the inoperability of the sprinker system, the Shift Supervisor directed his personnel to reset the deluge valve. At approximately 1000 hours, the plant Fire Protection Coordinator arrived at the Control Room. He was prepared to implement the continuous fire watch and also to supply assistance in resetting the deluge valve. The deluge valve was reset and the IB Preaction Sprinkler System returned to operable status at 1030 hours on May 19, 1983. Action Statement (a) of Technical Specification 3.7.9.2.(g) was exited without establishing the continuous fire watch.

IV. ACTION TAKEN TO AVOID FURTHER VIOLATION

The following actions have been initiated to prevent further violation:

1) A lack of clear communication between the plant operators and Control Room personnel contributed to the failure to make the Shift Supervisor aware of plant conditions. This problem has been addressed with Operations personnel during a series of conferences completed on May 27, 1983.

2) The operator who closed the isolation valve and failed to inform either the Shift Supervisor or Control Room Foreman was counselled on May 26, 1983.

3) A Special Instruction, which provides additional guidelines on operator response for Integrated Fire & Security (IF&S) alarm conditions, was issued on May 27, 1983.

4) The fire brigade requalification training presently being given to Operations personnel is currently covering operator response to IF&S alarms. The lesson plans were revised to specifically address the interface with the sprinkler systems and corresponding Technical Specifications. This training is expected to be complete for all fire brigade personnel by September 30, 1983.

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company will be in full compliance by September 30, 1983.

APPENDIX A
NOTICE OF VIOLATION
ITEM D.3

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

The reason for the violation was a combination of personnel error and procedural deficiencies. Surveillance Test Procedure (STP-120.002), "Turbine Driven Emergency Feedwater Pump Test," was completed on May 25, 1983. The procedure required the speed controller to be reset to "Fast" at the completion of this step. Since the pump was not operated between May 25, 1983, and the discovery of the isolation, there is no indication that this procedure step was ever completed.

The plant underwent mode changes from Mode 3 to Mode 1 on May 28 and May 29, 1983. At the completion of each startup, when the Emergency Feedwater System is placed in automatic, STP-120.003, "Emergency Feedwater Valve Verification," is completed. The procedure, which addresses the position of the emergency feedwater valves as required by Surveillance Requirement 4.7.1.2.a.4, was determined to be deficient in that it did not verify the position of the speed control which is located on the Main Control Board.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The Turbine Driven Emergency Feedwater Pump was returned to operable status when the speed controller was placed in "Fast" immediately after the discovery of the violation by the NRC Inspector.

IV. ACTION TAKEN TO AVOID FURTHER VIOLATION

The following actions were taken to prevent further violation:

1) A revision to STP-120.002, "Turbine Driven Emergency Feedwater Pump Test," was issued on July 26, 1983, to include a signoff step for resetting the speed control to "Fast." Additionally, a second verification of step completion is performed and documented in this procedure.

2) A revision to STP-120.003, "Emergency Feedwater Valve Verification," was issued on June 17, 1983, to include a signoff step for verification that the speed control is set to "Fast" when aligning the system for automatic control. The completion of this step is independently verified.

3) A revision to System Operating Procedure (SOP-211), "Emergency Feedwater System," was issued on June 16, 1983, to require that the speed control be set to "Fast."

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company is in full compliance.

APPENDIX A
NOTICE OF VIOLATION
ITEM E

I. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

South Carolina Electric and Gas Company is in agreement with the violation as stated.

II. REASON(S) FOR THE VIOLATION

The reason for the violation is attributed to personnel error and procedural inadequacy.

On May 1, 1983, with the Plant in Mode 5, Train B of the Boron Injection Tank Heat Tracing was deenergized to prevent boiling in the system with the recirculation pumps out of service. On May 17, 1983, with the Plant in Mode 4, the Assistant Manager of Operations directed the Shift Supervisor to energize the heat tracing prior to Mode 3 entry on May 18, 1983. The Shift Supervisor failed to perform this assignment.

System Operating Procedures (SOP's) and their associated attachments are the controlling documents for ensuring a system or component is initially aligned to perform its safety function. The electrical alignment checklist of SOP-112, "Safety Injection System," was inadequate in that it failed to require verification of the position of the main power breaker in the local control panel. This procedure deficiency prevented the system misalignment from being corrected or identified on the electrical alignment sheet.

The power availability to the heat tracing cabinet is monitored once per eight (8) hours and is documented on the operators log. However, this was not identified as a Technical Specification item on the log sheet.

III. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

The inoperable condition of the heat tracing was recognized at 0430 hours on May 20, 1983, and the system was subsequently energized by 0445 hours. The applicable Surveillance Test Procedure was then performed to verify system operability.

IV. ACTION TAKEN TO AVOID FURTHER VIOLATION

Corrective actions taken to prevent further violation were:

1) SOP-112, "Safety Injection System," was revised to include the main power breaker located in the local control panel for the heat tracing system. This action was completed on July 1, 1983.

2) The operator logs have been revised to identify the power availability to the heat trace panel as a Technical Specification item. The logs have also been revised to establish separate logs for Technical Specification items. This action was completed on July 26, 1983.

3) The responsible Shift Supervisor who was instructed to energize the heat tracing on May 17, 1983, was counselled in regard to his failure to follow instructions on May 25, 1983.

V. DATE OF FULL COMPLIANCE

South Carolina Electric and Gas Company is in full compliance.