SOUTH CAROLINA ELECTRIC & GAS COMPANY
POST OFFICE BOX 764
COLUMBIA, S. C. 29218

DEC 19 AM 8:52

CGSV-03-0094-NO

December 17, 1979

Mr. James P. O'Reilly
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Region II
101 Marietta St. N. W., Suite 3100
Atlanta, Georgia 30303

RE: Virgil C. Summer Nuclear Station Unit #1
Docket No.: 50-395
Report: RII-JLS 79-37

Dear Mr. O'Reilly:

Attached is our response to the referenced report which summarizes Mr. J. L. Skolds' inspections October 13 through November 9, 1979. Specifically we have addressed the infraction dealing with the two procedural violations during Reactor Coolant System Cold Hydro Test (79-37-01). We consider that the actions we have taken are appropriate to assure that this type event will not recur.

Should you have any questions or comments, please contact us at your convenience.

Very truly yours,

T. C. Nichols
Vice-President & Group Executive
Power Production & System Operations

BGC:nfb

cc: H. T. Babb
D. A. Nauman
O. W. Dixon
M. Whitaker
J. L. Skolds
File (2)

1756 148

8001160066 790404
OFFICIAL COPY

SOUTH CAROLINA ELECTRIC AND GAS COMPANY

VIRGIL C. SUMMER NUCLEAR STATION UNIT NO. 1

Docket No.: 50-395

Report No.: RII:JLS 79-37

Event Date: November 2, 1979

Description of Event

During the Reactor Coolant System Cold Hydro Test, two steps governing that test were violated: (1) A heatup rate of about 55°F in one hour was achieved in the RCS, exceeding the 50°F/hr. procedural limit. (2) The maximum RCS temperature reached approximately 155°F, exceeding the 150°F limit specified in the procedure.

Probable Consequences

The heatup rate limitation is imposed on the Reactor Coolant System to limit stresses in the reactor vessel. Since the system was at low pressure (less than 455 psig) and the heatup rate lasted for a short time (about 1 hour), no detrimental effects were caused by the heatup rate.

The 150°F limit on RCS temperature is an administrative limit imposed primarily to protect the reactor coolant pump seals, should off-site power, and thus, cooling to the reactor coolant pumps be lost. There were no detrimental effects caused by achieving a 155°F RCS temperature since cooling water was not lost to the reactor coolant pumps. It is also necessary that plant chemistry meet certain specifications before exceeding 150°F. These specifications were met. The overtemperature condition was terminated quickly by repairing the valve and placing it into service. Had the valve not been repaired in a timely manner, the reactor coolant pumps (the heat source) could have been stopped to terminate the heatup.

Cause of Event

Plant operating personnel were attempting to operate too close to procedural limits. This initial condition combined with the failure of the residual heat removal heat exchanger outlet valve to the closed position caused both procedural violations. It should be noted that the valve had operated properly in previous tests. The failed valve was identified and repaired quickly, but not before the procedural violations occurred.

1756 149

Cause of Event (cont.)

The valve failed due to the mechanical separation of the valve stem from the operator stem. The results of the present evaluation indicates that the separation was due to improper torquing of the clamp bolts holding the stems together.

Immediate Corrective Action Taken

Shift personnel were instructed to conduct tests and operations using appropriate conservative limits so that procedural limits will not be exceeded. The valve was repaired within minutes from the identification of failure.

Subsequent Corrective Action

Directives have been issued to instruct personnel not to conduct testing or operation at the limits. Valves at the V. C. Summer Nuclear Station similar to the RHR butterfly valve have been checked for proper torque.