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Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Sir / Madam:

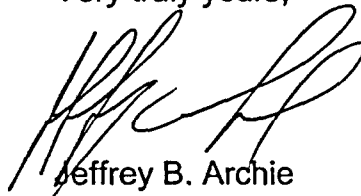
Subject: VIRGIL C. SUMMER NUCLEAR STATION  
DOCKET NO. 50/395  
OPERATING LICENSE NO. NPF-12  
10 CFR 50.59 BIENNIAL REPORT

South Carolina Electric & Gas Company (SCE&G) is submitting the Nineteenth Report pursuant to 10 CFR 50.59(d) for the Virgil C. Summer Nuclear Station.

This report contains a brief summary of the evaluations performed in support of those changes and modifications made to the facility in accordance with 10 CFR 50.59(c). A brief description of the changes is also provided. This report covers the time frame from approximately August 6, 2002 until September 30, 2005, and contains those evaluations subsequently completed or not captured in the previous submittal (Eighteenth Report) dated October 29, 2003.

Should you have any questions, please call Mr. Robert G. Sweet at (803) 345-4080 at your convenience.

Very truly yours,



Jeffrey B. Archie

AMM/JBA/dr  
Enclosure

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File (818.02-8, RR-8450)  
DMS (RC-05-0182)

IE47

## 10 CFR 50.59 Summary of Evaluations and Changes

<b>Parent Document</b>	<b>Change Description</b>	<b>Evaluation Summary</b>
Non-Conformance Notice – 02-1616 Disposition 1	This activity allows for the continued use of Yarway packed valves on the seal injection filter vents and drains on a temporary accept-as-is basis	While the Yarway packed valves do not meet the zero leakage design assumed for this application, the evaluation confirmed that present leakage of these valves is maintained at zero and they do not affect the amount of any actual external leakage that may occur post LOCA.
Non-Conformance Notice – 02-1650	This activity allows for the continued use of the currently installed BNL ball valves on the seal injection filter isolation lines.	The evaluation concluded that while the valves are not hermetically sealed, the actual leakage from the valves is maintained at zero and the use of the valves does not affect the amount of actual external leakage that may occur during a LOCA.
Abnormal Operating Procedure – 501.2	Change allows opening of steam propagation barrier doors and fire doors to allow for additional cooling of electrical equipment upon the loss of the Chilled Water System.	The change addresses a condition that is beyond the design basis of the plant, but PRA evaluation supports frequency of occurrence is still below 1E-6 per year.
Work Order 0217223	The activity will remove a void in the piping by venting and re-filling an applicable portion of the gravity drain line of the emergency boration system with a temporary vent rig.	The evaluation considered the potential failure mechanisms of the non-nuclear safety vent rig and the potential effects to safety related equipment. The evaluation also addressed the potential effects the activity would have should either an emergency boration be required or an SI event occurs concurrent with a failure of the temporary vent rig. The evaluation concluded that the activity would not result in an adverse impact to the plant or to equipment important to safety.

<b>Parent Document</b>	<b>Change Description</b>	<b>Evaluation Summary</b>
FSAR Revision Notice 02-052	A summary statement is added to the FSAR to address post LOCA long term cooling, including credit for the negative reactivity boron worth of inserted control rod and Xenon at the time of hot leg switchover to address the potential for recriticality due to sump dilution when realigning to hot leg recirculation.	The evaluation reviewed the "Method of Assuring Post-LOCA Subcriticality" and the "Method for Demonstrating Control Rod Insertion in Post-LOCA Evaluations" methodologies and concluded that they were either previously approved by the NRC or not described in the UFSAR or its references.
Non-Conformance Notice – 02-1616 Disposition 4	This activity will replace the Yarway seal injection vent and drain valves with zero leakage design Rockwell Edwards Hermavalves. These replacement valves are heavier, thereby increasing the loading on the affected piping.	The impact of the valve replacement on the affected piping was evaluated in a piping calculation and determined that the increased loading satisfied the ASME Code of Record and was acceptable.
Engineering Change Request 70344	This ECR, in part, revised the DBA LOCA dose calculation to reflect 3 changes: 1) a lower RB Spray Elemental Iodine Removal Constant, 2) Thyroid Dose Conversion factors based on ICRP 30, and 3) a higher Recirculation Loop Leakage allowance.	The evaluation concluded 1) the RB Spray Elemental Iodine Removal Constant methodology change did not result in a departure from a method of evaluation described in the FSAR since the results were conservative, 2) the Thyroid Dose Conversion factors methodology change had been previously approved by the NRC for the intended application, and 3) the Recirculation Loop Leakage change did not result in more than a minimal increase in accident consequences.
Engineering Change Request 70041	This activity developed design calculations utilizing NUREG/CR-2913 to define physical parameters associated with the consequences of potential pipe breaks.	The evaluation concluded that the use of the NRC approved methodology contained in NUREG/CR-2913 is acceptable and is within the limitations of the original safety evaluation for the FSAR.

Parent Document	Change Description	Evaluation Summary
Preventive Test Procedure 106.005	This activity changed the loading and application guidelines for the mixed bed demineralizers to provide for the evaluation of a specialized media.	The evaluation determined that the demineralizers perform no direct safety function, and that any release of any of the specialized media into plant systems would have the same effect as the equivalent volume of conventional ion exchange media.
Engineering Change Request 70370	This activity was the Cycle 15 reload core design.	The evaluation found that the reload design was within the bounds of the current FSAR requirements. Two revised methodologies that were utilized in the design had previously been reviewed and approved by the NRC.
Engineering Change Request 70370A	This activity was the Cycle 15 reload core design including the use of reconstituted fuel assemblies.	The evaluation concluded that the use of the reconstituted fuel assemblies in the core design continued to meet all the design and acceptance criteria.
Work Order 0410005	This activity will vary the "A" steam generator level setpoint from 51% to 66% (normal setpoint is 61.6%) to determine if level has an impact on the frequency and magnitude of flow spikes.	The evaluation concluded that the testing is bounded by the previously completed analysis performed in 1995 to support moisture carryover testing of the steam generators.
Engineering Change Request 50316	This activity was to add an additional interlock in the Safety Injection System and the Containment Spray System to further enhance the switchover from the RWST to the containment sump.	The evaluation concluded that no additional single failure mechanism was introduced by this activity and the analysis contained in the FSAR remained applicable.
Chemistry Procedure - 625	This activity allows for the addition of hydrogen peroxide to the RCS and the spent fuel pool.	The evaluation concluded that the activity was bounded by current Technical Specification and FSAR requirements when utilized in the RCS during plant shutdowns for the

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		initiation of corrosion product releases.
Engineering Change Request 70511 (and 70511A)	This activity is the Cycle 16 reload core design (and redesigned reload).	The evaluations concluded that the reload (and the redesigned reload) were bounded by currently approved methodologies. Use of the Lead Test Assemblies was reviewed and approved by the NRC prior to the evaluation.
FSAR Revision Notice 05-035	This activity incorporates changes to chemistry procedures that allow for the addition of hydrogen peroxide to the RCS and the spent fuel pool.	The evaluation concluded that the activity was bounded by current Technical Specification and FSAR requirements when utilized in the RCS during plant shutdowns for the initiation of corrosion product releases and in the spent fuel pool for clarity.