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U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION  
DOCKET NO. 50/395  
OPERATING LICENSE NO. NPF-12  
10 CFR 50.54(a)(3) / 10 CFR 50.59 BIENNIAL REPORT

South Carolina Electric & Gas Company (SCE&G) is submitting the Eighteenth Report pursuant to 10 CFR 50.59(d) and 10 CFR 50.54(a) for the Virgil C. Summer Nuclear Station.

This report contains a brief description of changes and modifications made to the facility, as described in the Final Safety Analysis Report (FSAR) and the Fire Protection Evaluation Report (FPER), as well as a summary of the 10 CFR 50.59 evaluations. Non-Conformance Notices (identified by their NCN numbers), procedure changes (identified by their procedure numbers), Modification Changes (identified by the MRF and MCN numbers), Engineering Change Requests (identified by the ECR numbers) and changes to the Physical Security Plan (identified by Amendment Number) were completed during the time frame of two years prior to August 6, 2002. There were no reportable changes to the quality assurance program during this period.

Should you have any questions, please call Mr. Ronald B. Clary at (803-345-4757) at your convenience.

Very truly yours,

Stephen A. Byrne

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DMS (RC-03-0220)

IE47  
A006  
A053

Identification No.	Description
FSAR RN 02-046 ECR 50105	This change to the FSAR reflects a modification to hardpipe demineralized water to the Auxiliary Steam Condensate Return Unit. A license amendment was not required for this change.
FSAR RN 00-046 MRF 20548	This change to the FSAR deletes the discussion regarding RM-G7 being moved from the Reactor Building to Penetration 309. A license amendment was not required for this change.
FSAR RN 00-075	This change to the FSAR revised Table 8.3 to reflect current data resulting from calculation DC08360-006. A license amendment was not required for this change.
FSAR RN 02-008 ECR 50032	This change to the FSAR reflects the removal of the injector cooling systems for 'A' and 'B' Diesel Generators. A license amendment was not required for this change.
FSAR RN 00-080 ECR 50308 DC00040-077	This change to the FSAR reflects changes made in the timelines for the RWST swapover following a LOCA. A license amendment was not required for this change.
FSAR RN 03-003 ECR 50328	This change to the FSAR reflects changes to the post LOCA environmental conditions, RB Spray and RBCU operating times, and implements the use of simultaneous HL and CL injection during the Recirculation Phase of a LOCA. A license amendment was not required for this change.
FSAR RN 00-066 ECR 50340 NCN 001396	This change to the FSAR reflects the repair activities associated with the 'A' Reactor Coolant Hot Leg leak. A license amendment was not required for this change.
FSAR RN 00-084 ECR 50348	This change to the FSAR reflects changes made to the Station Air System drawing to show existing components in outlying buildings. A license amendment was not required for this change.
FSAR RN 99-0164	This change to the FSAR updates Table 12.3-3 to reflect current survey instrumentation and equipment, updates information to support the Emergency Plan, updates Table 12.3-1 to delete reference to outdated equipment, and makes clarifications to 12.3.2.1.2 and 12.3.2.3.1.1. A license amendment was not required for this change.
FSAR RN 00-087 SOP 502	This change to the FSAR reflects changes in the Station Operating Procedure for Fuel Handling Building fans to restore Fuel Handling Building differential pressure to a normal value when needed. A license amendment was not required for this change.
FSAR RN 00-090 ECR 50359 MRF 22199	This change to the FSAR reflects the removal of a flow test connection in the CC System and the line being cut and capped. A license amendment was not required for this change.
FSAR RN 01-002	This change to the FSAR revised Table 3.2-1 to list the safety classification of various Fire Service containment isolation valves. A license amendment was not required for this change.
FSAR RN 01-004	This change to the FSAR revised Section 11.5.5.2 to show the correct relief valve setpoints for the Primary Spent Resin Storage Tank and the Nuclear Blowdown Spent Resin Storage Tank. A license amendment was not required for this change.
FSAR RN 01-103	This change to the FSAR resolved inconsistent descriptions of Main Condenser Vacuum Pump discharge path lineup. A license amendment was not required for this change.
FSAR RN 01-014 ECR 50370	This change to the FSAR revised Figure 10.4-5 to identify the as-built configuration of the CW System after ECR 50370 implementation. A license amendment was not required for this change.

<u>Identification No.</u>	<u>Description</u>
FSAR RN 01-083 ECR 50374 ECR 70001 MRF 34889 NCN 99-0071	This change to the FSAR revised the CS System design flag 8 on Figure 9.3-16, Sh 3 to reflect the correct system design pressure. A license amendment was not required for this change.
FSAR RN 01-005	This change to the FSAR revised Table 11.5-5 to show the correct design data for Waste Disposal Pumps XPP0052 and XPP0110. A license amendment was not required for this change.
FSAR RN 01-025	This change to the FSAR revised Table 9.3-6 to reflect the BR System correct design pressure, temperature, filter removal capabilities, and material type. A license amendment was not required for this change.
FSAR RN 01-031	This change to the FSAR corrects and clarifies the Refueling Machine description in Section 9.1.4.3.1. A license amendment was not required for this change.
FSAR RN 01-029	This change to the FSAR revised the Tables in Section 10 to reflect the latest heat balance and condenser testing results. A license amendment was not required for this change.
FSAR RN 01-003	This change to the FSAR revised Section 11.5.3.2 to correct and remove information regarding radwaste handling equipment. A license amendment was not required for this change.
FSAR RN 01-033	This change to the FSAR revised Figure 8.3-8 and Table 10.2-O to reflect the correct information on controlled engineering drawing 203-201. A license amendment was not required for this change.
FSAR RN 01-042	This change to the FSAR revised Section 10.2 to reflect the current basis for the evaluation of turbine missiles. A license amendment was not required for this change.
FSAR RN 01-018 ECR 50354	This change to the FSAR revised Figure 11.2-2 to show a drain valve in the Reactor Coolant Drain Tank piping for the Reactor Coolant System. A license amendment was not required for this change.
FSAR RN 01-039	This change to the FSAR revised Section 9.3.6.2.2.2 to require the Recycle Holdup Tank level to be less than 15% for venting under the diaphragm. A license amendment was not required for this change.
FSAR RN 00-092	This change to the FSAR revised Section 17.2.1.1 to correct the duties and responsibilities of the General Manager, Nuclear Plant Operations. A license amendment was not required for this change.
FSAR RN 01-049	This change to the FSAR revised Section 10.4.7.1.3 to clarify the actions taken upon the loss of an operating Condensate Pump. A license amendment was not required for this change.
FSAR RN 01-047	This change to the FSAR revised Table 11.2-2 to correct design information for tank outlet strainers and Figure 11.2-2, Sh 5 to reflect the actual line size for the Decontamination Pit Collection Pit strainer. A license amendment was not required for this change.
FSAR RN 01-051	This change to the FSAR revised the combined capacity of the Main Condenser Cleaning Pit sump pumps and removed redundant information on the Main Circulating Water pump pressures. A license amendment was not required for this change.
FSAR RN 01-053	This change to the FSAR revise the design parameters for the Nuclear Blowdown Holdup Tank pumps and corrected typographical errors. A license amendment was not required for this change.

Identification No.	Description
FSAR RN 01-054	This change to the FSAR revised design parameters in Table 10.4-3 for the Traveling Screens and the Lube Water Booster Pump. A license amendment was not required for this change.
FSAR RN 01-055	This change to the FSAR revised design information in Table 11.2-6, Tank Overflow Protection, and Table 11.2-6a, Tanks Outside Containment. A license amendment was not required for this change.
FSAR RN 01-023	This change to the FSAR revised Section 9.1.4.2.1 to delete the discussion on Part Length Rods and to clarify the steps of the refueling procedure. A license amendment was not required for this change.
FSAR RN 01-076 ECR 50367	This change to the FSAR revised Figure 9.3-2 to reflect as-built information for the Instrument Air System valves XVA12696 and XVA12697. A license amendment was not required for this change.
FSAR RN 00-015	This change to the FSAR revised to update Figure 6.2-60a to the current controlled engineering drawing. A license amendment was not required for this change.
FSAR RN 00-033	This change to the FSAR revised Section 10.3.1.4 and Table 10.3-1 to reflect the design environments specified in the design specifications. A license amendment was not required for this change.
FSAR RN 01-071	This change to the FSAR deleted Figure 3.6-133. A license amendment was not required for this change.
FSAR RN 01-072	This change to the FSAR revised Section 5.5.2.2 to correctly describe the cladding material of the Steam Generator tubesheets as INCONEL. A license amendment was not required for this change.
FSAR RN 00-029 ECR 50203	This change to the FSAR revised to show original components installed on the Diesel Generators but not shown on Figure 9.5-2. A license amendment was not required for this change.
FSAR RN 00-020	This change to the FSAR revised Figure 9.2-1 to correctly show the as-built piping configuration in the Service Water System. A license amendment was not required for this change.
FSAR RN 01-081	This change to the FSAR clarified the procedure to be used for purge mode of Control Room ventilation stipulating that chlorine bottles be removed from the site. A license amendment was not required for this change.
FSAR RN 01-082	This change to the FSAR deleted references to a level controller for the recirculation valve on the Nuclear Blowdown Holdup Tank. A license amendment was not required for this change.
FSAR RN 00-059 Chem Nuclear Services Procedure	This change to the FSAR revised Sections 11.5.3.1 and 11.5.3.2.3 to allow flexibility in resin transfer operations. A license amendment was not required for this change.
FSAR RN 01-083 ECR 70001	This change to the FSAR revised ECCS Figures 6.3-1 Sh 1 and Sh 3 to show the as-built flow configuration as a result of field walkdowns. A license amendment was not required for this change.
FSAR RN 03-029 ECR 50141	This change to the FSAR deleted the Waste Gas System purge flow transmitter and indicator. A license amendment was not required for this change.
FSAR RN 02-001 ECR 50372	This change to the FSAR revised Figure 9.2-2 to show the Service Water flow going through the shell side of the Diesel Generator Aftercoolers. A license amendment was not required for this change.
FSAR RN 01-090 MRF 22553 MCN K	This change to the FSAR revised Sections 10.2.1, 10.3.1.2, Figure 10.1-2, and Figure 10.1-3 to reflect the latest heat balance information. A license amendment was not required for this change.

Identification No.	Description
FSAR RN 02-016 ECR 70041	This change to the FSAR updated Section 3.6.2.1.1 to the latest pipe break criteria per MEB 3-1, Rev 2 and GL 87-11. A license amendment was not required for this change.
FSAR RN 00-056 ECR 50283	This change to the FSAR revised Chapter 15 accident analyses for updated iodine spiking methodology and dose conversion factors. A license amendment was not required for this change.
FSAR RN 01-006 ECR 50417	This change to the FSAR revised Sections 2.2.3.1.3 and 3.5.1 regarding the discussions of compressed gas container accidents. A license amendment was not required for this change.
FSAR RN 03-016 ECR 50465A	This change to the FSAR revised Figure 9.2-2 to addition of a drain valve in support of the removal of the Service Water piping link seal to the Diesel Generator building for leak detection investigation. A license amendment was not required for this change.
FSAR RN 01-086 ETBT 497	This change to the FSAR revised Section 5.2.1.4 and Table 5.2-12 to reflect changes made by an evaluation allowing replacement of the INCONEL X-750 (Rev A) Split Pins with new CW 316 SS Split Pins that are not susceptible to PWSCC. A license amendment was not required for this change.
FSAR RN 01-094 NCN 01-0219 Troubleshooting Plan 0100152	This change to the FSAR revised Figure 10.4-5 to show the replacement of IPV00885C-CW with a straight pipe and spool piece. A license amendment was not required for this change.
FSAR RN 02-019 ECR 70116	This change to the FSAR revised Section 11.4.2 to update the setpoint discussion for RM-A3 and RM-A4. A license amendment was not required for this change.
PTP 230-010, Rev 0, Chg N	This change to a plant test procedure provides instructions for isolating the main condenser steam dumps to support the use of ultrasonic leak detection equipment. A license amendment was not required for this change.
PTP 106.005, Rev 0, Chg N	This change to a plant test procedure provides for the use of PRC-01 ion exchange resin in the CVCS mixed bed demineralizer during RF 12. A license amendment was not required for this change.
SOP 301, Rev 10, Chg C	This change to a system operating procedure provides for manual voltage control of the main generator. A license amendment was not required for this change.
SOP 105, Rev 12, Chg G	This change to a system operating procedure provides for adding nitrogen under the diaphragms of the Recycle Holdup Tanks to act as a diluent. A license amendment was not required for this change.
PTP 106.005, Rev 0, Chg A	This change to a plant test procedure provides instruction for using PRC-01 ion exchange resin in the Spent Fuel Pool demineralizers. A license amendment was not required for this change.
CP 920, Rev 3	This change to a Chemistry Procedure provides guidance for operation of the Post Accident Sampling System and corrected typographical errors. A license amendment was not required for this change.
PTP 160.022, Rev 0, Chg B	This change to a plant test procedure provides instructions for Spent Fuel Pool Cooling requirements for defueled operations. A license amendment was not required for this change.
STP 170.005, Rev 3, Chg B	This change to a Surveillance Test Procedure provides instructions for Spent Fuel Pool cooling requirements while defueled. A license amendment was not required for this change.

<u>Identification No.</u>	<u>Description</u>
SAP 1160, Rev 5	This change to a Station Administrative Procedure revised medical requirements to conform to Regulatory Guide 8.15 and made various administrative changes. A license amendment was not required for this change.
GTP 315, Rev 2	This change to a General Test Procedure incorporated the Containment Inservice Inspection Program. A license amendment was not required for this change.
SAP 1102, Rev 3	This change to a Station Administrative Procedure eliminated reference to the Independent Safety Engineering Group (ISEG). As ISEG had been removed from Technical Specifications earlier (with NRC approval), a license amendment was not required for this change.
OAP 106.3, Rev 5	This change to an Operations Administrative Procedure deleted various components from the Locked Valve Program. A license amendment was not required for this change.
SOP 106, Rev 9 Chg C & D	This change to a Station Operating Procedure added an off-normal condition for operation of the Reactor Makeup Water System with the Reactor Make Water Pumps out of service. A license amendment was not required for this change.
OAP 106.3, Rev 5, Chg A ECR 70025	This change to an Operations Administrative Procedure deleted various components from the Locked Valve Program. A license amendment was not required for this change.
SOP 102, Rev 17, Chg H NCN 01-1394, Disp 2	This change to a Station Operating Procedure added the capability to manually purge the Volume Control Tank until RF 13 at which time a malfunctioning check valve was repaired. A license amendment was not required for this change.
ARP-001-XCP-603 and 613 EIR 80540	This change to Annunciator Response Panel Procedures was made to allow Component Cooling Water flow to the Seal Water Heat Exchanger to be temporarily throttled to less than 250 gpm for support Volume Control Tank operation. A license amendment was not required for this change.
CP 620, Rev 13	This change to a Chemistry Procedure provides guidance for operation of various chemical injection systems for corrosion inhibitors. A license amendment was not required for this change.
PTP 160.5, Rev 1	This change to a Plant Test Procedure revised the loading scheme for the Chemical and Volume Control System mixed bed demineralizers in support of using PRC-1 resin during plant shutdowns. A license amendment was not required for this change.
STD-OP-1992-6105, Rev 4	This change to a Westinghouse Procedure modified the Return Insert Flexure Clipping Tool Operating Procedure. A license amendment was not required for this change.
STP 110.001 CER 02-1005	This change to a Surveillance Test Procedure eliminated the use of the reactor canal/cavity push-pull ventilation system during core alterations and fuel movement. A license amendment was not required for this change.
ECR 50178 ECR 50178B	These changes to the facility specify the Cycle 13 Reload Core Design. A license amendment was not required for this change.
ECR 50320	This change to the facility removed the Service Water expansion joints in both diesel generators and replaced them with hard pipes. A license amendment was not required for this change.
ECR 50327	This change to the facility revised the setpoint for relief valves XVR07510A,B,C,D. A license amendment was not required for this change.

Identification No.	Description
ECR 50335	This change to the facility upgraded a 3" diesel fuel oil pip cross-tie from non-nuclear safety to nuclear safety related. A license amendment was not required for this change.
ECR 50387	This change to the facility installed connections to allow the use of a package boiler in lieu of the Auxiliary Boiler. A license amendment was not required for this change.
ECR 50163	This change to the facility installed a data feed to the facility computer from various Water Treatment facility monitors and Turbine Cycle Sample Panel. A license amendment was not required for this change.
ECR 50138	This change to the facility replaced the Alterex Voltage Regulator on the Main Generator. A license amendment was not required for this change.
ECR 50450	This change to the facility performs the Mechanical Stress Improvement Process (MSIP) for 'B' and 'C' reactor vessel hot leg nozzle welds. A license amendment was not required for this change.
ECR 70051	This change to the facility specifies the Cycle 14 Reload Core Design. A license amendment was not required for this change.
NCN 00-1863, Disp 1	This Non-Conformance Notice was dispositioned to Accept As-Is debris located in the annular space between the reactor vessel and the primary shield wall. A license amendment was not required for this change.
NCN 00-1603, Disp 1	This Non-Conformance Notice was dispositioned to Accept As-Is the reactor cavity seal ring being absent during power operation. A license amendment was not required for this change.
NCN 01-1491	This Non-Conformance Notice was dispositioned to temporarily Accept As-Is the use of portable liquid rad-waste equipment. A license amendment was not required for this change.
NCN 02-0803, Disp 1,2,4	This Non-Conformance Notice was dispositioned to Accept As-Is the wall thinning in Service Water 'A' Train piping based on acceptable ASME Code allowances. A license amendment was not required for this change.
NCN 01-0758 NCN 01-0790 NCN 02-1287 ECR 50458	This Non-Conformance Notice was dispositioned to repair steam cutting of 'A/B/C' Steam Generator shell and cover openings and evaluate the thread conditions of the threaded stud holes. A license amendment was not required for this change.
NCN 02-1616, Disp 1	This Non-Conformance Notice was dispositioned to temporarily Accept As-Is the continued use of Yarway vent and drain valves installed on 'A' and 'B' Seal Injection Filters. A license amendment was not required for this change.
SFP Troubleshooting Plan ECR 50183	This troubleshooting plan was developed as a data collection activity to run SFP pumps at a higher than normal flow rate in support of the SFP Rerack project. A license amendment was not required for this change.
Lube Water Booster Pump Troubleshooting Plan 0100152	This troubleshooting plan removes IPV00885C, performs a test to evaluate XPP0055 (Lube Water Booster Pump) with XVT00884C closed. A license amendment was not required for this change.
TSR 1060	This Technical Specification interpretation placed administrative control to add response time testing to the operability requirements for Source Range Nuclear Instrumentation. A license amendment was not required for this change.

<u>Identification No.</u>	<u>Description</u>
WO 0105502	This non-standard repair temporarily cut and plugged the 'B' Main Feed Pump warmup line to stop leakage from the pump nozzle connection, then temporarily installed a blank flange and valve to allow draining to assist in weld repair of the leaking 'B' Main Feed Pump casing drain. A license amendment was not required for this change.
WO 0105998	This non-standard repair temporarily installed a blank flange to isolate leakage past the 'A' Main Feed Pump casing drain. A license amendment was not required for this change.
Scaffolding Request 4139	This scaffolding request evaluated and allowed scaffolding to be left in 'C' Steam Generator compartment for the remainder of Cycle 13. A license amendment was not required for this change.
ODCM, Rev 24	This change to the Offsite Dose Calculation Manual revised Table 1.2-2 to permit use of the 6" Reactor Building purge to continue after 30 days if IFT08252 is out of service. A license amendment was not required for this change.
PSP Amendment 45	This change to the Physical Security Plan revised the layout drawing of closed circuit television surveillance to add two cameras to enhance the fields of observation of perimeter intrusion detection. There was no reduction in the effectiveness of the Plan as a result of this change.
EP 100, Rev 43	This change to the Radiation Emergency Plan made enhancements based on changes at the State level and by the NRC, clarified position responsibilities, and made several editorial descriptive changes. There was no reduction in the effectiveness of the Plan as a result of this change.
EP 100, Rev 44	This change to the Radiation Emergency Plan made enhancements to the detection methodology for various accident classifications and made several editorial descriptive changes. There was no reduction in the effectiveness of the Plan as a result of this change.
EP 100, Rev 45	This change to the Radiation Emergency Plan made enhancements to based on upgrades made to the telephone system. There was no reduction in the effectiveness of the Plan as a result of this change.



ABBREVIATIONS and ACRONYMS

AMSAC	ATWS Mitigation System Actuation Circuitry
ANSI	American National Standards Institute
ARP	Annunciator Response Procedure
ASME	American Society of Mechanical Engineers
ATWS	Anticipated Transient Without Scram
BAR	Bypass Authorization Request
CBA	Cost Benefit Analysis
CCW	Component Cooling Water
CHG	Charging
CNSI	Chem-Nuclear Services Incorporated
CP	Chemistry Procedure
CRUD	Chalk River Unknown Deposit
CST	Condensate Storage Tank
CTO	Caution Tag Out
dp	Differential Pressure
EA	Environmental Assurance System
ECCS	Emergency Core Cooling System
ECR	Engineering Change Request
EFW	Emergency Feed Water
ESF	Emergency Safeguards Features
ETBT	Equal To / Better Than
FO	Field Operating procedure (CNSI)
FPER	Fire Protection Evaluation Report
FSAR	Final Safety Analysis Report
GOP	General Operating Procedure
GPM	Gallons per minute
GTP	General Test Procedure
HP	High Pressure
HVAC	Heating Ventilation and Air Conditioning
IA	Instrument Air
IB	Intermediate Building
I&C	Instrumentation and Control
LOCA	Loss of Coolant Accident
MCN	Minor Change Notification (to a Modification Request Form)
MRF	Modification Request Form
MS	Main Steam
MSIV	Main Steam Isolation Valve
NaOH	Sodium Hydroxide
NCN	Non-Conformance Notification
NPSH	Net Positive Suction Head
NSAL	Nuclear Safety Advisory Letter (from Westinghouse)
NSD	Nuclear Safety Division (Westinghouse)
PIP	Problem Identification Program
PORV	Power Operated Relief Valve
PRA	Probabilistic Risk Assessment
PSP	Physical Security Plan
QA	Quality Assurance
RB	Reactor Building
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System

ABBREVIATIONS and ACRONYMS

REP	Reactor Engineering Procedure
Rev	Revision
RG	Regulatory Guide
RHR	Residual Heat Removal
RN	Revision Notice
RTD	Resistance Temperature Detector
RWP	Radiation Work Permit
SAP	Station Administrative Procedure
SI	Safety Injection
SOP	Standard Operating Procedure
SPCR	Set Point Change Request
SRWP	Standing Radiation Work Permit
STP	Surveillance Test Procedure
TDEFWP	Turbine Driven Emergency Feed Water Pump
TLD	Thermal Luminescent Dosimeter
TYPO	Typographical error
VCSNS	Virgil C. Summer Nuclear Station
WO	Work Order