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Refer to: RC-94-0232

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20055

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS)
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
10 CFR 50.54(a)(3) / 10 CFR 50.59(b)(2) ANNUAL REPORT

South Carolina Electric & Gas Co. is submitting the eleventh Annual Report pursuant to 10 CFR 50.59(b) and 10 CFR 50.54(a) for Virgil C. Summer Nuclear Station.

This report contains a brief description of changes and modifications made to the facility or to the quality assurance program, as described in the Final Safety Analysis Report (FSAR) and the Fire Protection Evaluation Report (FPER), as well as a summary of the safety evaluations performed to evaluate these changes. Non-Conformance Notices (identified by their Non-Conformance Notice [NCN] numbers), procedure changes (identified by their procedure numbers), Bypass Authorization Requests (identified by their Bypass Authorization Request [BAR] numbers) and modifications (identified by the Modification Request Form [MRF], and Modification Change Notice [MCN] numbers) were completed during the time frame of one year prior to August 6, 1993, which ended the eleventh year following the issuance of the VCSNS Operating License.

Should you have any question concerning this issue, please call Mr. Michael J. Zaccone at (803) 345-4328 at your convenience

Very truly yours,

John L. Skolds

MJZ/JLS/nkk
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ELEVENTH ANNUAL 10CFR50.59 REPORT

VIRGIL C. SUMMER NUCLEAR STATION

ELEVENTH ANNUAL 10CFR50.59 REPORT
VIRGIL C. SUMMER NUCLEAR STATION

Identification
No.

Acronyms and abbreviations used throughout this report are listed on the last page.

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|---------------------------|--|
| BAR 93-10 | This BAR requested a jumper to allow operation of the condensate polishing disposal liner transfer pumps' discharge selector valve XVT09256-WI via position switch on XPN5437 (SSWI19). The jumper enabled and required the valve (XVT09256-WI) to be manually operated. The level in the disposal liner (XTK-155-WI) may be observed by other indications. This BAR and its disposition do not involve an unreviewed safety question. |
| FSAR Rev.
Notice 92-02 | This change to FSAR Section 17.2.1.5 reflects an administrative change to the VCSNS organization for training. The change reflects that VCSNS has accredited training programs based on the system-based approach to training as described in Generic Letter 87-07. NUREG-1262 specified that if the training programs are accredited and based on a systems-based approach to training, that there will be no decrease in the margin of safety. This change does not involve an unreviewed safety question. |
| FSAR Rev.
Notice 92-12 | This change to FSAR Section 17.2 reflects changes to the VCSNS organization for program administration, clarification to more appropriately define 'assessments,' the deletion of the "biennial review" reference, deletion of hydrostatic procedures from Section 17.2.9.1, and a change to allow three (3) days for review and approval of "Temporary" approvals vice one (1) day, to allow for interdepartmental mail delivery. These changes do not represent a decrease in the level of commitments. |
| FSAR Rev.
Notice 92-16 | This change to FSAR Section 8.3.4 clarifies the use of crosslinked polyethylene insulated cables installed in the plant. This change does not involve an unreviewed safety question. |
| FSAR Rev.
Notice 92-21 | This change to FSAR Section 13.1 reflects administrative changes made to the operating organization at VCSNS. This change reassigns existing groups to report to different managers in order to achieve a more efficient business structure. No physical change is introduced to the plant configuration, and no impact is made to its safe operation. This change does not involve an unreviewed safety question. |
| FSAR Rev.
Notice 92-23 | This change to FSAR figure 9.4-8 reflects as-built conditions and flow information for the Recycle Evaporator and Shield Slab tap location on 426'-6" elevation. This change does not involve an unreviewed safety question. |

- FSAR Rev.
Notice 92-26 This change to FSAR figure 9.3-4 and Table 3.2-1 clarifies the as-built safety class change at the sample tube connections to seven (7) nuclear sample coolers. The actual class boundary was not previously shown on the figure. The sample coolers were incorrectly classified in Table 3.2-1. This change does not involve an unreviewed safety question.
- FSAR Rev.
Notice 93-12 This change to FSAR figure 9.4-1 clarifies the TSC air supply locations which had improper gridmark coordinates. This administrative change has been revised to properly show the branch continuations. This change does not involve an unreviewed safety question.
- FSAR Rev.
Notice 93-17 This change to FSAR Tables 3.7-1 and 3.7-3 clarifies the applicability of ASME Code Case N-411 to damping values for seismic analysis of balance of plant piping and Westinghouse supplied piping. This change is acceptable per RG 1.84, Rev. 25. This change does not involve an unreviewed safety question.
- FSAR Rev.
Notice 93-19 This change to FSAR Section 3.6.2.1 reflects the removal of the requirement for arbitrary intermediate break points to be postulated in high energy piping systems. Arbitrary intermediate pipe ruptures are no longer specified or defined in MEB 3-1. This action allows the elimination of pipe whip restraints and jet impingement shields placed to mitigate the effects of arbitrary intermediate pipe ruptures. Although not all Safety Evaluation Questions could be answered "NO," this revision is allowed per the specific guidance issued in Generic Letter 87-11, without prior NRC approval.
- FSAR Rev.
Notice 93-27 This change to FSAR figure 8G-1 clarifies additional information updating fuse resistances at another temperature (40 C). This change is to enhance the FSAR figure and to maintain uniformity with plant drawings. This change does not involve an unreviewed safety question.
- FSAR Rev.
Notice 93-31 This change to FSAR figures 1.2-20 and 1.2-21 reflects a change in the height of the monorail over the Main Steam Stop Valves. The monorail height was raised to facilitate the use of an electric hoist during valve maintenance. The change in the monorail height has no effect on the margin of safety and has no impact on the Turbine Building structural design. This change does not involve an unreviewed safety question.
- MRF 21365
FSAR Rev.
Notice 91-16 This change to FSAR figure 10.4-5 reflects modifications to the circulating water screen house well level switches' trip function that opened the CW pump/motor feeder breaker when the water level dropped to 417'. The protective feature was removed because the likelihood of an inadvertent CW pump trip due to a level switch failure is greater than a loss of suction due to low water level in the screen house well. This change does not involve an unreviewed safety question.

MRF 21902 MCN 21902A FSAR Rev. Notice 91-17	This change to FSAR Section 5.2.7.1.3 and figure 9.3.12 reflects the substitution of the RB Leak Detection Sump and associated components with the RB Sump and associated level transmitters for detection of unidentified RC leakage. The use of the RB Sump is equivalent to the Leak Detection Sump, and the use of the qualified components in the RB Sump will provide the same level of leakage detection as previously rendered by the Leak Detection Sump. This change does not involve an unreviewed safety question.
MRF 21022 MRF 21349 MRF 21659 FSAR Rev. Notice 92-04	This change to FSAR figure 7.3-1 clarifies the meaning of symbols used to describe RB Cooling Units' starting signals. The meaning of the "/" between 1A(B) and 2A(B) was not clear. Additionally, changes to FSAR Chapter 8 reflect modifications to the 115 kV network. Installation details on the addition of offsite power voltage regulator XTF-6 were added, as well as the incorporation of new electrical calculation results and solid state degraded voltage relay installation. These changes do not involve an unreviewed safety question.
MRF 20548 FSAR Rev. Notice 92-11	This change to FSAR Sections 6.2 and 12.1.4 and figures 1.2-6, 12.1-23, and 12.1-24 reflects a modification to the Radiation Monitoring system. The original RM-G7 instrument was replaced with a more reliable unit which fully meets the post-accident monitoring qualification requirements. This change does not involve an unreviewed safety question.
MRF 21518 MRF 21475 FSAR Rev. Notice 92-14	This change to FSAR Sections 2.3.3.1 and 2.3.3.2 and figures 2.3-85 and 2.3-85F reflects modifications to the meteorological data gathering system. An instrument elevator to the 61 meter self-supporting tower was added, and the meteorological data/computer link to the plant was upgraded. These changes will ensure the requirements of RG 1.23 are met. This change does not involve an unreviewed safety question.
MRF 20992 FSAR Rev. Notice 92-15	This change to FSAR Section 9.2.1 reflects a temporary modification to the Service Water system which removed the "A" screen wash pump. Testing demonstrated that adequate screen wash pump flow exists without this pump. MRF 21073 later removed all three (3) screen wash pumps permanently. This change does not involve an unreviewed safety question.
MRF 21558 FSAR Rev. Notice 92-18	This change to FSAR Sections 8.3.2.1.2 and 8.3.2.1.5.2 and figures 8.3.2aa, 8.3.2ab, and 8.3-1 reflects a modification to the battery ground detection system. MRF 21558 replaced the battery ground detection indicating lights with circuitry that provides an audible alarm. The NNS ground detectors are electrically isolated from the system's safety related components and the system is seismically supported to prevent damage to safety equipment in the event of an accident. DC ground detection circuitry will increase the reliability of the DC system. This change does not involve an unreviewed safety question.

- MRF 21377
FSAR Rev.
Notice 92-19
- This change to FSAR figure 9.4-17 reflects a modification to the IB general ventilation system to provide cooling at the MSIVs and associated components. Flexible ducts were installed to supply air directly at the MSIVs and associated subcomponents (limit switches, solenoid valves, etc.), to increase EQ life of the subcomponents. The airflow was redistributed to maintain a more uniform heat gradient and prevent hot spots at the MSIVs. This change does not involve an unreviewed safety question.
- MRF 21645
FSAR Rev.
Notice 92-28
- This change to FSAR figure 9.3-16 reflects a modification to the Boric Acid Transfer pump discharge line. This change installed a flow element and test connection to the 2" discharge line, downstream of XVD08320A-CS to accurately measure transfer pump flow, as required by ASME Section XI pump testing. This change does not involve an unreviewed safety question.
- MRF 22010
NCN 4054
FSAR Rev.
Notice 93-05
- This change to FSAR Section 9.4.6.2.5 and figure 9.4-17 reflects modifications which installed temperature switches at the inlets of the AHU servicing the Emergency Feedwater Pumps and Service Water Booster Pumps. The temperature switches trip the respective AHU upon detection of high inlet temperature so that during non-accident conditions the AHU may provide cooling as originally intended. This will ensure that design basis loads imposed on the chilled water system are not exceeded. This change does not involve an unreviewed safety question.
- MCN 21634B
FSAR Rev.
Notice 93-25
- This change to FSAR Table 5.2-1 updated the applicable code addenda for reactor coolant system piping. This change clarifies the applicable ASME code year and addenda for the reactor coolant loop piping and Class 1 branch piping. This change revises the applicable ASME code year and addenda for fatigue qualification of ASME Class 1 piping to enhance snubber reduction. This change does not involve an unreviewed safety question.
- MRF 21538
FSAR Rev.
Notice 93-29
- This change to FSAR Appendix 3A and figures 8.3-2ab and 8.3-5 reflects a modification to the DC control power source for the three (3) reactor coolant pumps' 7.2 kV breaker trip coils. This change removed the power source from the substation DC distribution system and reconnected a power source from the plant Class 1E DC distribution system. This modification enhances the reliability of the reactor coolant pump 7.2 kV circuit breaker trip system by providing a more reliable DC control power source. This change does not involve an unreviewed safety question.
- MRF 22000
FPER Rev.
Notice 93-02
FSAR Rev.
Notice 93-30
- This change to FPER Section 4.11.2.1 and FSAR Section 9.4.7.2.3 reflects a modification to the Service Building ventilation system. This change replaced the Service Building AHU XAH29 with three (3) separate HVAC package units. This change does not involve an unreviewed safety question.

MRF 21644 FSAR Rev. Notice 93-35	This change to FSAR figures 8.3-1, 8.3-2aa, 8.3-4, and 8G-4 reflects a modification to the electrical distribution systems at VCSNS. This change improved breaker coordination and replaced obsolete breakers. This change does not involve an unreviewed safety question.
MCN 20993F FSAR Rev. Notice 93-36	This change to FSAR figure 9.3-11 reflects a modification to the Fuel Handling Building drain system. This change removes the decontamination room tabulator and the temporarily installed reverse osmosis skid used to remove silica from the Spent Fuel Pool water. This change does not involve an unreviewed safety question.
MRF 21719 FSAR Rev. Notice 93-42	This change to FSAR figure 11.2.2 reflects a modification to the Waste Processing system. This change upgraded the level instrumentation on the spent resin storage tank XTK0036. This change does not involve an unreviewed safety question.
MCN 20285H SOP 118 Rev.11, Change C	This change to the RCP oil coolers reflects a modification to the oil cooler flexible hose installation and snubber reduction for the component cooling water piping. Procedure SOP 118 Rev.11, Change C reflects operating procedure differences required by the modification. This change does not involve an unreviewed safety question.
MRF 20951 AOP 509.4 Rev.0, Chg B AOP 509.15 Rev.0, Chg B	This change to the Fire Detection System reflects a replacement of components and detectors that have become obsolete or unrepairable. This phase of the modification requires new operating procedures for operator interface with the system. This change does not involve an unreviewed safety question.
MRF 22137 STP 105.014 Rev.13, Chg A STP 145.001 Rev.6 PTP 109.001 Rev.2, Chg A	This change to the Waste Processing system locates a new containment isolation valve above the RB flood level and allows LCV-1003 to be dedicated for RCDT level control. LCV-1003 controls were revised to delete the containment isolation function, therefore, procedure changes for testing the operation of LCV-1003 and the containment isolation valve were required. This change does not involve an unreviewed safety question.
MRF 22413 OAP 106.3 Rev.0, Chg C	This change to the locked valve program reflects modifications to the drawing for the Alternate Purge Ventilation Fan Discharge Valve XVB06092-HR. This valve is throttled prior to being locked in position. The locked valve program and drawing were changed to reflect the correct nomenclature. This change does not involve an unreviewed safety question.
MRF 22516 SOP 306 Rev.11, Change C	This change to the Diesel Generator Air Start system revises the setpoint for the diesel generator air start compressor auto start/stop pressure switch. The setpoint value was changed from 425psig (increasing) to 415psig (increasing). Operating procedure SOP 306 Rev.11, Change C reflects changes required by the modification. This change does not involve an unreviewed safety question.

MRF 90009 MCN 90009D SOP 201 Rev.9,Chg D	This change to the Moisture Separator Reheaters reflects a modification to the tube bundles. This change improves the overall efficiency of and changes the secondary heat balance for VCSNS. This change does not involve an unreviewed safety question.
MCN 21511H	This change to various plant systems reflects modifications to the existing Auxiliary Steam and Charging/Volume Control systems to prevent AB equipment damage due to steam line breaks. This modification installed a pipe cap on the inlet side of the Boron Thermal Regeneration System reheat heat exchanger. This change does not involve an unreviewed safety question.
MRF 22074	This change to the Pressurizer Heater system reflects a modification to improve the breaker/fuse coordination. This change replaced the heater breakers with heater fuses. This modification was made to improve the coordination for the system in order to reduce breaker failures. This change does not involve an unreviewed safety question.
MCN 33475D	This change to the Sample system reflects a modification to the Waste Containment Isolation Valves. This change reflects as-built conditions for the limit switch on the Pressurizer Relief Tank sample header. This change enhances the ability to meet RG 1.97. This change does not involve an unreviewed safety question.
MRF 34006	This change to the Residual Heat Removal system reflects a modification to piping supports. This change corrects support deficiencies on the relief valve piping. The piping stresses were brought within code allowable limits for thrust loads combined with seismic loads. These changes do not involve an unreviewed safety question.
ODCM Rev.17	This change to the ODCM reflects modification allowing onsite oil incineration, use of current census data, multiple year meteorological data, and RG 1.21, Effluent Release Report. This change does not involve an unreviewed safety question.
EMP 115.023 Rev.2	This change to EMP115.023, Rev.2, "Temporary Power Supply to XBC1A/1B Swing Charger," reflects the provision for supplying the swing battery charger from a non-safety power supply. The swing charger is declared inoperable in this configuration, but would not affect the other train due to DC train independence. This change does not involve an unreviewed safety question.

Station and
Chemistry/
Health Physics
Procedures

The following listed procedures were changed to reflect administrative reorganization of the VCSNS management in order to more efficiently operate the station:

CHPEP 100 Rev.2, Change A	SAP 102 Rev.7, Change A
CHPEP 101 Rev.1, Change A	SAP 105 Rev.6
CHPEP 103 Rev.1, Change A	SAP 120 Rev.6, Change A
CHPEP 104 Rev.0, Change B	SAP 121 Rev.6, Change B
CHPEP 107 Rev.2, Change A	SAP 140 Rev.4
CHPEP 108 Rev.1, Change B	SAP 142 Rev.9, Change B
CHPEP 109 Rev.1, Change A	SAP 143 Rev.6, Change G
CHPEP 201 Rev.2, Change A	SAP 153 Rev.0, Change G
CHPEP 401 Rev.0, Change A	SAP 154 Rev.0, Change A
CHPEP 403 Rev.0, Change A	SAP 500 Rev.7
CHPEP 404 Rev.1, Change A	SAP 501 Rev.5, Change A
CHPEP 405 Rev.1, Change A	SAP 502 Rev.4, Change A
	SAP 1160 Rev.0, Change B

These changes were necessary to delineate the responsibilities of the Manager, Chemistry Services, and the Manager, Health Physics and Radwaste Services. These changes do not involve an unreviewed safety question.

ACRONYMS AND ABBREVIATIONS

AB	Auxiliary Building
AHU	Air Handling Unit
BAR	Bypass Authorization Request
CHPEP	Chemistry, Health Physics Emergency Procedure
CW	Circulating Water
DC	Direct Current
EMP	Electrical Maintenance Procedure
EQ	Equipment Qualification
FPER	Fire Protection Evaluation Report
FSAR	Final Safety Analysis Report
HVAC	Heating Ventilating and Air Conditioning
IB	Intermediate Building
MCN	Modification Change Notice
MRF	Modification Request Form
MSIV	Main Steam Isolation Valve
NCN	Nonconformance Notice
ODCM	Offsite Dose Calculation Manual
PTP	Plant Test Procedure
RB	Reactor Building
RC	Reactor Coolant
RCDT	Reactor Coolant Drain Tank
RCP	Reactor Coolant Pump
RG	Regulatory Guide
SAP	Station Administrative Procedure
SOP	Station Operating Procedure
STP	Surveillance Test Procedure
TSC	Technical Support Center