



South Carolina Electric & Gas Company  
P.O. Box 88  
Jenkinsville, SC 29065  
(803) 345-4344

Gary J. Taylor  
Vice President  
Nuclear Operations

October 10, 1995  
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Gentlemen:

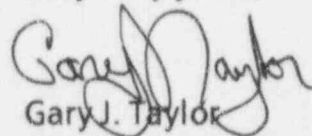
Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS)  
DOCKET NO. 50/395  
OPERATING LICENSE NO. NPF-12  
10 CFR 50.54(a)(3) / 10 CFR 50.59(b)(2) ANNUAL REPORT

South Carolina Electric & Gas Co. is submitting the twelvth 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, 1994, which ended the twelvth 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,

  
Gary J. Taylor

MJZ/GJT/nkk  
Enclosure

c: John L. Skolds (w/o Enclosure)  
O. W. Dixon  
R. R. Mahan (w/o Enclosure)  
R. J. White  
S. D. Ebner  
S. Dembek  
NRC Resident Inspector  
J. B. Knotts Jr.  
Central File System  
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**TWELFTH ANNUAL 10CFR50.59 REPORT**

**VIRGIL C. SUMMER NUCLEAR STATION**

TWELFTH 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 93-12                 | This BAR installed a jumper in XPN6061 across terminals TBB-28 and TBB-29, to perform PTP-102.001, control valve testing of XVG2822B (CV-4). This jumper will act as the closed contact for the valve 90% closed limit switch which is only functional during valve testing and perform no other function. The operability of the control valve is not affected since this switch is only used during CV-4 valve test and will not prevent the control valve #4 from closing in the event of a turbine trip. This change does not involve any unreviewed safety questions. |
| BAR 93-13                 | This BAR defeats the high vibration alarms and fan trip for XFN-65B at XPN-7308 by setting relay fields for warning (relay 17), trip setpoint (relay 10), and fault (relay 18) to zero. A faulty vibration sensor, IYS09295D, caused numerous warning alarms and could cause the fan to trip unnecessarily. The component provides normal speed fan trip and MCB annunciator on high vibration. This change does not involve any unreviewed safety questions.  |
| BAR 94-03                 | This BAR places a jumper in valve XVX06524C-VU to provide for the utilization of the charging pumps with the chilled water to the oil cooler valve electrically failed open. This BAR does not involve any unreviewed safety questions.  |
| BAR 94-06                 | This BAR allows for blowdown system operation at an elevated temperature. The system will still perform its design function for steam generator cleanup. The only affect on system components due to the elevated temperature may be reduction of operating life of RML-10. This BAR allows blowdown to circulating water with the temperature greater than 135°F. The Blowdown System temperature switches (ITS-4702 A, B, C) provide overtemperature protection for blowdown heaters. This BAR does not involve any unreviewed safety questions.                         |
| FSAR Rev.<br>Notice 92-20 | This FSAR change to the PT curves reflects the results to the analysis performed on specimen X. The new PT curves continue to provide conservative administrative restrictions on the RCS pressure to minimize stresses on the RCS due to normal operating transients, thus minimizing the likelihood of brittle fracture due to pressure transients at low temperatures. This change does not involve any unreviewed safety questions.  |
| FSAR Rev.<br>Notice 93-18 | This FSAR change revises the pH control agent in Table 5.2-10 and updates the FSAR to current plant procedures as recommended by Westinghouse (NSS vendor). This change does not involve any unreviewed safety questions.  |

FSAR Rev. Notice #93-22	Revised FSAR Figure 10.4-9 to illustrate correct valve positions. This FSAR change does not involve any unreviewed safety questions.
FSAR Rev. Notice 93-23	This FSAR change revised Drawing D-302-011 to illustrate correct valve position for XVT02803B-MS. This FSAR change does not involve an unreviewed safety question.
FSAR Rev. Notice #93-24	This FSAR change revised Drawing D-302-101 to illustrate the correct valve positions and system alignment. This FSAR change does not involve an unreviewed safety question.
FSAR Rev. Notice #93-26	This FSAR change revised Drawing D-302-717 to illustrate the correct valve positions and system alignment. This FSAR change does not involve an unreviewed safety question.
FSAR Rev. Notice #93-33	This FSAR change revised FSAR Drawing D-302-821 to illustrate the correct valve position and system alignment. This FSAR change does not involve an unreviewed safety question.
FSAR Rev. Notice #93-34	This FSAR change revised Drawings D-302-841 and D-302-843 to illustrate the correct valve positions and system alignment. This FSAR change does not involve an unreviewed safety question.
FSAR Rev. Notice 93-37 ODCM Rev. 7 Chg. 0	This FSAR change added Section 11.7 to include controls for onsite incineration of slightly contaminated waste lubricating oil. Clarification concerning offsite dose calculations were added. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-38	Implementation of optimal organization. Section 12.3, 12.1, and 13.1 were revised to show Health Physics Program changes. This implementation does not involve an unreviewed safety question.
FSAR Rev. Notice 93-39 MRF-21455	This MRF added 3/4" test connections to facilitate ASME Section XI Inservice testing of the Emergency Feedwater Pump Inlet Check Valves. This change revised Drawing D-302-085 in the FSAR. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-40 MRF-22516	This MRF changed the setpoint of the Emergency Diesel Generator Air Start Compressor Switch Setting from 425 psig increasing to 415 psig increasing. This change was made to prevent the spurious operation of relief valves. FSAR Section 9.5.6.2 was revised to reflect these changes. These changes do not involve an unreviewed safety question.
FSAR Rev. Notice 93-41 MRF-22422	This MRF incorporated the 18% tube plugging criteria, reflects the allowed use of ZIRLO fuel, changed out the pressurizer pressure transmitters, and revised the LBLOCA hot leg safety injection switchover time. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-44 MCN-21432-D	This MCN reflects changes in HVAC load due to the replacement of the 7.5 kVA inverters. This MCN revises FSAR Drawing D-912-136. This change does not involve any unreviewed safety questions.



FSAR Rev. Notice 93-46 MRF-21538	This MRF removed Reactor Coolant Pump's motor primary protective device's control power DC source from the substation DC distribution system. This change reconnected a DC source from the plant Class 1-E DC distribution system. This change revised FSAR Drawing E-206-062. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-47 MRF-22407	This MRF reflects control system changes to the steam dump system and incorporated changes resulting a review of steam dump references. This change revised the steam dump references in the FSAR and Drawing E-302-031. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-48 NCN-4164	This FSAR changes Drawing D-302-101 to show the removal of the Condensate Storage Tank Diaphragm per NCN-4164. This change does not involve any unreviewed safety questions.
FSAR Rev. Notice 93-50 MRF-22137	This MRF installed a new containment isolation valve, XVD07170-WL, to the Waste Processing System. This valve replaced LCV-1003 as the active inside containment isolation valve. This MRF provides a containment isolation valve with improved seat leakage performance. This change also allows LCV-1003 to be dedicated for RCDT level control. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-52 MRF-22251	This MRF changed the reference leg for ILT00470 from a seal capillary system to a water filled sensing line. This change revised FSAR Drawing E-302-602. This change does not involve any unreviewed safety questions.
FSAR Rev. Notice 93-54 (50.54a)	This FSAR change is made under 10CFR50.54a to reflect the fact that Quality Engineers will no longer perform an inline review function of modification packages. This change revised FSAR Section 17.2. This change does not involve an unreviewed safety question.
FSAR Rev. Notice 93-55 MRF-20724	This MRF replaced the pneumatic/hydraulic actuators of the FWIVs (XVG1611A, B, and C) with pneumatic only actuators. This change revised FSAR Drawing D-302-038 and Sections 3.9 and 6.2 to reflect the as-built configuration of the feedwater system. This change does not involve an unreviewed safety question.
FSAR Rev. Notice 93-56 MRF-21162	This MRF added a Jib Crane, XCR0063 to the Turbine Building west wall. This change revised FSAR Drawing E-001-023. This change does not involve an unreviewed safety question.
FSAR Rev. Notice 93-57 MRF-22316	This MRF brought outputs from instruments PT950, LT991, and LT993 into the IPCS for use in the Instrument Calibration and Monitoring Program. These changes revised FSAR Drawings D-302-651 and D-302-861. These changes do not involve any unreviewed safety questions.

FSAR Rev. Notice 93-58 MRF-21274	This MRF added high radiation gates in the Auxiliary Building Room 36-39 and the Reactor Building 36-02. These changes revised FSAR Drawings E-001-021, E-015-001, and E-001-031. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-59 MRF-21265 FSAR Rev. Notice 93-61 MRF-21022 MRF-21349 MRF-21659	This MRF added an access platform to the feedwater regulation valves for the A, B, and C loops. This change revises Drawing E-001-022. This change does not involve an unreviewed safety question. This FSAR change reflects revisions to Drawing C-203-010 inadvertently omitted from FSAR Rev. Notice 92-04 which reflected changes due to MRFs 21022, 21349, and 21659. This change does not involve any unreviewed safety questions.
FSAR Rev. Notice 93-62 MRF-22135 MCN-22135-A	This MRF added connections on the discharge of the demineralizers and at the Aux. Boiler feedwater transfer pumps to give an alternate CST fill path in the event that the DWST becomes chemically contaminated. MCN-A is a document change only MCN to show the connections installed by this MRF as a permanent change on the 302 drawing. Engineering provided direction to the field on a TWR MCN to ensure proper materials were used for permanent plant use. This change does not involve an unreviewed safety question.
FSAR Rev. Notice 93-63 MCN-21794A	This MCN provides for the removal of the Guard Tower and the relocation of the fence around the Service Water Pump House. This change revised FSAR Drawing E-036-001. This change does not involve an unreviewed safety question.
FSAR Rev. Notice 93-64	Correct the applicable code addenda for the surge line pipe in Table 5.2-1. Error in referenced applicable code addenda for the surge line piping. This change does not involve any unreviewed safety questions.
FSAR Rev. Notice 93-65 MRF-34359	This change incorporates MRF 34359 as-built configuration to the Condenser Air Removal System. This change revised FSAR Drawing D-302-131 and Sections 10.2 and 10.4. This change does not involve an unreviewed safety question.
FSAR Rev. Notice 93-66 MRF-21653 MRF-21658	This MRF 21653 replaced the sulfuric acid tank and installed an additional breather. MRF 21658 installed additional controls for "recycle" of beds when not in use. This change revised FSAR Drawing E-302-163. These changes do not involve any unreviewed safety questions.
FSAR Rev. Notice 93-69 MRF-21352	This MRF changed the location of the ECCS Check Valve test manifold. This change revised FSAR Drawing D-302-812. This change does not involve any unreviewed safety questions.
FSAR Rev. Notice 93-70 MRF-33475	This change revises FSAR Drawing B-804-660 due to modifications performed under MRF 33475. This change adds ESF monitor lights on the MCB for PRT sample header isolation valves XVX09339-SS and XVX09341-SS. This change does not involve any unreviewed safety questions.

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| FSAR Rev.<br>Notice 94-02<br>MRF-33409 | This MRF provides for a second sampling apparatus that may be left in place when frequent sampling is required in the Waste Gas System. This change revised FSAR Drawing E-302-741. This change does not involve any unreviewed safety questions.   |
| FSAR Rev.<br>Notice 94-05<br>MRF-21550 | This MRF provided for the installation of test connections XVT00041-SI and XVT00042-SI to facilitate testing of XVC08926-SI. This change revised FSAR Drawing E-302-675 and E-302-693. This change does not involve any unreviewed safety questions.  |
| FSAR Rev.<br>Notice 94-08<br>MRF-20482 | This change to FSAR Section 17.2 removes references to the Boron Injection Tank, deleting alternate methods of borating, makeup, and depressurization. Various editorial changes were also made. The boron injection tank was removed under MRF-20482. This change does not involve any unreviewed safety questions.  |
| FSAR Rev.<br>Notice 94-09              | This change allowed the use of an appropriate amine or combination of amines for Secondary Side Water Chemistry pH control. In accordance with EPRI recommendations, a change from morpholine to ethanolamine (ETA) for pH control of secondary side water chemistry is desirable. EPRI testing and industry operation experience have shown ETA to be a superior pH control additive when compared to morpholine. Additionally, EPRI and industry testing of other advanced amines and combinations of amines is ongoing. Should more advantageous methods of pH control be recommended in the future, this change will facilitate their implementation. This change does not involve any unreviewed safety questions. |
| FSAR Rev.<br>Notice 94-10<br>MRF-22142 | This MRF involves the extension of an existing Maintenance Building and the relocation not an existing Storage Building. Both of these buildings are depicted on the plot plan in the FSAR. This change required a revision to the FSAR Drawings E-036-001, E-726-403, and E-744-052 to show the new locations of the Storage Building and the extension to the existing Maintenance Building. This change does not involve any unreviewed safety questions.  |
| FSAR Rev.<br>Notice 94-13<br>MRF-22297 | This modification installed a continuous turbidity monitoring system for the effluent from the gravity filters (XFL0042D) to satisfy the requirements of the "Surface Water Treatment Rule, Federal Register 54FR227486. This rule took effect June 29, 1993 and a turbidity sample, a grab sample, must be taken every four hours until the new equipment is operational. This activity required a drawing E-302-162 in the FSAR, be changed to show the new turbidimeter. This change does not involve an unreviewed safety question.   |
| FSAR Rev.<br>Notice 94-14<br>MRF-20904 | This MRF changed the CCW pump motor speed change switch from a motor operated type switch to a manually operated type switch. It also provided a Kirk Key Interlock system. This change revised FSAR Section 8.3. This change does not involve an unreviewed safety question.   |

- FSAR Rev.  
Notice 94-15      This FSAR revision changed Table 5.2-10 for the RCS Water Chemistry Specification Solution pH, removing the words "value will be 5.0 or greater at normal operating temperature." This specification was based on outdated chemistry control practices, when lithium concentration was being controlled between 0.7 ppm and 2.2 ppm. This control band no longer exists. Lithium concentration is now fully coordinated with boron concentration. pH is dependent upon these concentrations. This change incorporates recommended boration to acidic conditions and reduction of lithium concentration prior to cooldown below 400°F. Following these guidelines RCS pH may fall below 5.0 measured at 25°C at normal operating temperatures. This change does not involve any unreviewed safety questions.
- FSAR Rev.  
Notice 94-18  
(50.54a)      This FSAR change is made under 10CFR50.54a to reflect organizational changes, correct typographical errors, to recognize the full spectrum of Quality Systems' overview of the design control program, and to more accurately reflect ANSI commitments. This change revised FSAR Section 17.2. These changes do not involve an unreviewed safety question.
- FSAR Rev.  
Notice 94-19  
MRF-34006      This FSAR change reflects modifications performed under MRF-34006. This MRF modified supports to the RHR relief header. This change corrected Section 5.2.2.5 and changed FSAR Drawings E-302-602, E-302-641, and E-302-673. This change does not involve any unreviewed safety questions.
- MCN-20285-H  
MCN-20285-J      MCN-20285-H revised previous flex hose installation under MCN to invoke the requirement of snubber reduction for CCW piping. MCN-20285-J revised the post-modification testing requirements of MRF-20285. These changes do not involve any unreviewed safety questions.
- MRF-20724  
MCN-20724-F  
MCN-20724-G      This MRF replaced the FW isolation valve actuators with a simpler design, requiring less maintenance and proven operability (i.e., have been in use at other plants successfully). MCN-20724-F provided clarification for Design Basis function capabilities of the FWIV in regards to moving from Mode 5 to Mode 3 and higher (ORS is revised). In addition, PM testing is revised to provide a more meaningful accumulator bleed down test. MCN-20724-G deleted informational PM testing. These changes do not involve any unreviewed safety questions.
- MCN-20752-N      This MCN provided normal operation flow path/essential drawing revision, equipment tag hanging, and discharge line check valve installation. As a result of discharge line check valve installation, an additional operability/return to service form has been included in the MCN package. These changes do not involve any unreviewed safety questions.



- MRF-20951  
AOP-509.6  
Rev. 1, Chg C  
AOP-509.08  
Rev. 0, Chg A  
AOP-509.12  
Rev. 0, Chg B,C  
AOP-509.13  
Rev. 0, Chg B  
AOP-509.15  
Rev. 0, Chg D  
AOP-509.16  
Rev. 0  
Chg A, B, C, D
- This MRF reflects changes to the Fire Detection System for components and detectors that have become obsolete or unrepairable. This change requires new operating procedures for the modifications which are completed. Various procedure changes and procedures were affected. Delete rooms in zones QQ and CCC. MRF 20951 moved these rooms to the Simplex System. MRF-20951 moved zone L to the Simplex System with zones M, VV. Added zones TTT and I to Simplex System. These changes do not involve any unreviewed safety questions.
- MRF-21073  
MCN-20992-D  
ARP-001-XCP  
-603 Rev. 4  
Chg A, C  
STP-125.017  
Rev. 0, Chg G  
STP-125.018  
Rev. 0, Chg E
- This MRF completes the removal of the SW Screen Wash Pumps. This change completes the modifications initiated in MRF-20992. The design basis function of the SW System/SWP Screen Wash System is not affected by the change. This change does not involve an unreviewed safety question.
- MRF-21274  
MCN-21274-A
- This MRF installed a radiation gate on the Excess Letdown Heat Exchanger in the Reactor Building. MCN-21274-A installed a radiation fence and gate in a radwaste area room due to the presence of high radiation from stored materials. These changes do not involve any unreviewed safety questions.
- MRF-21335
- This MRF provided HVAC modifications to the Water Treatment Building EL 463'0" and Oil Lab. This change revised FSAR Drawing D-912-153 and Section 9.4.7.2.9. This change also revised FPER Section 4.11.1. These changes do not involve any unreviewed safety questions.
- MRF-21352  
MCN-21352-C
- This MRF relocates the ECCS check valve test manifold to elevation 436' and approximately 20 feet south of its current location. The ECCS check valve test manifold is used each refueling startup to perform STP-115.008. This STP must be conducted at 557°F/2235 psi. This area will provide a more convenient access point for performing the required STP. MCN-21352-C was issued to add a drain valve to the ECCS check valve leak testing manifold. These changes do not involve any unreviewed safety questions.
- MRF-21506
- This MRF provided piping connections required for the testing of check valve pairs XVC-8348A-CS & XVC-8367A-CS, XVC-8348B-CS & XVC-8367B-CS, and XVC-8348C-CS & XVC-8367C-CS. This change also removed snubbers. Since the affected lines required re-analysis for the added test connections, the analysis was performed in accordance with the criteria used for the Snubber Reduction Program. These changes do not involve any unreviewed safety questions.

- MCN-21511-K 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 due to the isolation of the Boron disabled TCV-318A, B Thermal Regeneration System reheat heat exchanger. This change does not involve an unreviewed safety question.
- MCN-21515-F These MCNs permanently installed 3" PVC piping to supply the  
MCN-21515-G Auxiliary Boiler with "clean" feedwater. Normally the Condensate Storage Tank supplies feedwater to the Auxiliary Boiler, however, upon contamination of the CST, an alternate supply of feedwater is desired. These changes do not involve any unreviewed safety questions.
- MRF-21544 This MRF provided piping connections required for the testing of check valves XVC-1013A-EF, XVC-1013B-EF, and XVC-1014-EF. Valves XVC-1013A and XVC-1013B are located in the suction lines of motor-driven Emergency Feedwater pumps "A" and "B" respectively. Valve XVC-1014 is located in the suction line of the turbine-driven EF pump. This modification adds a branch stub with an isolation valve (similar to a vent detail) upstream of each check valve in the vicinity of the Emergency Feedwater pumps. In addition, an existing piping stub located downstream of each check valve, between the check valve and the EF pump, is being modified to provide a test connection. The 3/8" tubing on the downstream NNS-side of the isolation valve is being replaced with 3/4" pipe. This change does not involve an unreviewed safety question.
- MRF-21611 This MRF installed a test connection and valve to the pressurizer sample line between the containment penetration and containment isolation valve XVX-9357-SS. This change does not involve an unreviewed safety question.
- MCN-21654-B This MCN provides the engineering instructions to remove the annunciator (and associated wiring) on the Water Treatment Panel that provides indication of low pressure in the chlorine bottle(s). The pressure switches (one for each chlorine bottle) which activate this annunciator are wired in series. The Chemistry Department always maintains the off-line chlorine bottle is always isolated from the pressure switch, and thus the pressure switch is always open. Since the pressure switch for the off-line chlorine bottle is always open, the annunciator always indicates that the chlorine pressure is low regardless of the actual bottle pressure. This renders the pressure switches and annunciator meaningless, and therefore, this MCN removed the annunciator and wiring. This change does not involve an unreviewed safety question.

- MRF-21655 This MRF permanently installed equipment required for the addition of zinc sulfate, pyro phosphate, and Betz Polymer 1190 into the Water Treatment System. MRF 21655 removes equipment associated with Soda Ash and Slum Feed systems; and soda ash, alum, and clay dust collectors. Drawing E-302-161 in the FSAR was revised to show piping and components being added and deleted by this modification. This change does not involve any unreviewed safety questions.
- MRF-21657 This MRF upgraded the existing Primary Water Treatment Instrumentation Panel. New up to date transmitters replace the existing transmitters. This change allows control of the TWTIP from either the supervisor's office display or from the new workstation located adjacent to the PWTIP figures 9.2-8 and 9.2-9 of the FSAR required revision to plant drawing showing this non-safety related system. This change does not involve any unreviewed safety questions.
- MCN-21658-B This MCN revised regeneration start push buttons, recycle valve electrical controls, and post-modification testing for relays installed. This change revised FSAR Drawing E-302-163. This change does not involve an unreviewed safety question.
- MCN-21659-A This package was developed to implement the undervoltage relay replacement modification. This change does not involve any unreviewed safety questions.
- MRF-21714 This MRF changed the position of XVT06604-NG, 'WI System HI Press. N2 Supply Hdr. Isolation Valve,' on FSAR Drawing D-302-311 from NO to NC to reflect present system valve alignment. XVT06604-NG controls 100 psig nitrogen to conductivity sampling rack XSR0008. This change does not involve an unreviewed safety question.
- MRF-21737 This MRF adds vent and drain valves and associated piping to the Spent Resin process supply and discharge piping headers. FSAR Drawings D-302-736 and D-302-737 were revised to show the new vent and drain piping added to the system. This change does not involve any unreviewed safety questions.
- MCN-22009-B MCN-22009-B provides instructions for the installation of the  
MCN-22009-E supplemental air cooling systems, mechanical and control components, as well as final conduit/cable installation and terminations. MCN-22009-E provides instructions to delete local control panels XPN-5562 and XPN-5563 and associated selector switches and status lights. The local temperature switch (TS-9968) for the Control building high temperature alarm status light is also deleted since this area is for personnel comfort only. The Post Modification Test Requirements are revised to incorporate these changes. MCB wiring changes to XPN-7174, XPN-7173, and XCP-6210 are also included. These changes do not involve any unreviewed safety questions.

- MRF-22074  
MCN-22074-A This MRF provided an increase reliability of the Pressurizer Heater Switchgear protective devices and reduced the cost and manhours associated with their maintenance. Fusible disconnects were installed to replace the heater circuit breakers, and the heater loads distribution panels, APN4101-RC, and APN4106-RC respectively. MCN-22074-A reclassified the base MRF as quality related. This MCN collects baseline data on the pressurizer heaters and expands post mod testing to include local indication of blown fuses. These changes do not involve any unreviewed safety questions.
- MRF-22308 This MRF documents the Cycle 8 reload core design, RCCA repositioning, and enters the 10CFR50.59 safety evaluations and supporting documentation into the plant records system. Cycle 8 reload core design satisfies the requirements specified in the FSAR Accident Analyses and Technical Specifications. The RCCA Wear Management Strategy, Ref. 1 and 2 requires that the fully withdrawn position be changed from 230 steps to 225 steps at the end of Cycle 7. The goal of the strategy is to minimize the possibility of developing RCCA through wall wear holes. These holes could adversely effect the free travel of the RCCA, possibly leading to hangup of an RCCA. The COLR is a product of the reload core design and reload safety evaluation. The COLR was updated with the Cycle 8 specific parameters prior to Cycle 8 specific parameters prior to Cycle 8 startup. These changes do not involve any unreviewed safety questions.
- MRF-22385  
MCN-22385-B This MRF modified the configuration of the sewage treatment facilities for outfalls 005, 010, and 011. A new treatment facility was constructed, using the existing lagoon 005, in the Industrial and Biological Waste Treatment area. The sewage treatment facilities modification required a change to FSAR Drawings E-036-011 and D-302-361. These changes do not involve any unreviewed safety questions.
- MRF-22555 This MRF dredged the circulating water discharge canal to increase the cool water counter flow sufficient to keep fish alive when the Monticello Reservoir is at low level. This change does not involve an unreviewed safety question.
- MRF-22629 This MRF removed one 12 inch section of 3/8 inch tubing prior to the check valve XVC-09334-SS and terminating after the valve at the Sampling Header. The Sampling Header is the common header for all the Accumulators, the Mix Bed Demineralizers and the Letdown Heat exchanger sampling systems. Isolating the Accumulator sample line prevents the inadvertent over-pressurization of XVR-09396-SS, therefore removing any flow path into the Volume Control Tank. Drawing D-302-771 in the FSAR required revision as a result of this change. Sampling of the Safety Injection Accumulators resulted in the inadvertent Boration of the Volume Control Tank. Allowing Boration of the VCT will cause a reduction in Tavg and power, this action could have an adverse effect on plant operability as the fuel nears the EOL (End of Life). This change does not involve any unreviewed safety questions.



- MRF-22665  
STP-111.001      This MRF provided for a seismic monitor instrumentation upgrade. Section 3.7 of the FSAR discusses how the existing instrumentation is used to take data and then analyze it to determine the specific seismic response. The FSAR also discusses the details of the existing instrumentation. STP-111.001 was updated to reflect changes generated by this MRF. These changes do not involve any unreviewed safety questions.
- MCN-31436-D      This activity raised the setpoint of the Condenser B Hotwell Emergency Makeup level controller to preclude cavitation of the C Condensate Pump, relocated the flow square root extraction point from the transmitter to the recorder, and added computer points to the outputs of IFT03009 and IFT03019. This activity to add computer points revised Drawing D-302-101 in the FSAR. These changes do not involve any unreviewed safety questions.
- MRF-32131  
MCN-32131-H      This MRF installed modifications to the S/G snubber platforms. This provided a full upgrade of all platforms necessary for conformance to the Quality Related Plan. This change does not involve any unreviewed safety questions.
- MRF-33409  
NCN-3409      This MRF installed a sampling apparatus/tube to replace the Waste Gas Sample Bomb (AB-388). The sample bomb does not provide an efficient means of sampling the system thus increasing the risk of personal contamination/accidentally gas release. NCN-3409 was initiated to fabricate a sampling apparatus that could remain for the duration of 10CC sampling. A NNS sample tube that remains on the system will reduce exposure and time; therefore, meeting ALARA concerns. This change does not involve any unreviewed safety questions.
- MCN-90008-A  
MCN-90008-B      MCN 90008A involved the design and construction of a reinforced concrete building for interim storage of the three old steam generators upon their removal from containment, and the upgrade of the existing gravel roads and the old steam generator recycle facility (OSGRF) site as necessary to allow transportation of the old steam generators to the facility. MCN-90008-B tapped into an existing underground fire service header to provide service to the new Containment Access Building. FSAR and FPER drawing changes results due to this change. Drawing E-023-001 is changed in the FSAR and FPER. These changes do not involve any unreviewed safety questions.
- NCN-4851      This NCN dispositioned an inconsistency with protection afforded between column lines 13.6 and 13.8 of the Control Building, elevation 436 and 448. This condition was dispositioned as "accept as is." This change required revision to FPER Section 4.5. This change does not involve any unreviewed safety questions.
- EMP-115.023  
Rev. 2, Chg 0      This procedure provided temporary power to XVC1A/1B swing charger. Figure 8.3-2aa of the FSAR was changed by this temporary power supply source. This activity is only performed during refueling outages when only 1 charger is required to be operable. This change does not involve any unreviewed safety questions.

- FEP-1.0  
Rev. 8, Chg D  
NCN-4883
- This change created new parts 61-67 to prevent hot shorts from isolating XVX06524 A, B and C-VU on a running charging pump. This change also revised Part 15 to ensure the charging pump is not started prior to disconnecting the solenoid. This procedure also added steps to throttle seal injection when necessary. These changes were made as a requirement of NCN-4883, Disposition #6. These changes do not involve any unreviewed safety questions.
- OAP-106.1  
Rev. 3, Chg E
- This change added VCT and charging discharge pressures to OATC logs (Modes 1-4) and OATC Logs (Modes 5-6) and AB lower logs (Tech Spec Logs). The maximum pressure limit of the VCT was changed to 35 psig. The maximum discharge limit for charging was changed to 2840 psig. This procedure change also deleted VCT and charging pressures from Trend Logs. These changes were made to prevent overpressurization of charging pump discharge headers. These changes do not involve any unreviewed safety questions.
- PSP  
Rev. 32, Chg 0  
Rev. 33, Chg 0  
Safeguards  
Contingency  
Plan  
Rev. 7, Chg 0
- These changes to the Physical Security Plan and the Safeguards Contingency Plan resulted in changes to FSAR Drawings. Specific changes to the Physical Security Plan and Safeguards Contingency Plan are not included in this report. These changes do not involve any unreviewed safety questions.
- PTP-110.002
- This procedure created a method for testing all automatic valves in the BTRS System to ensure they stroke to their required positions, and to flush the system with letdown water to the RHT. Due to the long period the system has been idle, it was desired to test the operation of all valves prior to operation. The system contains RMUW which should be flushed out prior to use. This change does not involve an unreviewed safety question.
- PTP-230.002
- PTP-230.002 provided instructions for obtaining data required to calculate turbine generator output as accurately as possible. As strictly as possible, PTP-230.002 follows ASME PTC 6.1-1984, "Interim Test Code for an Alternative Procedure for Testing Steam Turbines." This change is described in FSAR Sections 10 and 14. This change does not involve an unreviewed safety question.
- Radiation  
Emergency  
Plan  
Rev. 33, Chg 0
- These changes to the Radiation Emergency Plan provide general administrative changes for the station functional organization. These changes do not decrease the effectiveness of the overall Radiation Emergency Plan. These changes do not involve any unreviewed safety questions.
- SAP-145  
Rev. 6, Chg 0
- This procedure was revised to incorporate the requirements of ASME Section XI, 1989 edition. Inservice testing is described in FSAR Sections 5, 9, and 15. This change updates the second inservice test interval to the 1989 edition of the ASME Section XI Code, and these changes were previously approved for use at VCSNS. These changes do not involve any unreviewed safety questions.

- SAP-205  
Rev. 7, Chg C      This procedure defines the method for controlling system status, locked valves, and removal and restoration of systems either required by Tech Specs or other Administrative programs. This change references FSAR Section 1.8. This procedure change does not involve any unreviewed safety questions.
- SAP-1141  
Rev. 3, Chg 0      This procedure was rewritten to provide procedure enhancement. FSAR Section 17.2.15 was revised to delete references to PADS. This change does not involve any unreviewed safety questions.
- SOP-117  
Rev. 15, Chg H  
SOP-501  
Rev. 12, Chg D  
NCN-3645      This change to SOP-117 deleted reference to Enclosure D of SOP-501 from the Enclosure B of SOP-117, Page 1 through 10 of 24. SOP-501 deleted Enclosure D (Operability Bands) and deleted various references to Enclosure D in the procedure. These changes were made per NCN-3645, disposition #34. These changes do not involve any unreviewed safety questions.

### ACRONYMS AND ABBREVIATIONS

BAR	Bypass Authorization Request	NSS	Nuclear Steam Systems
BTRs	Boron Thermal Regeneration System	OATC	Operator at the Controls
CCW	Component Cooling Water	ODCM	Offsite Dose Calculation Manual
COLR	Core Operating Limits Report	PM	Preventive Maintenance
CST	Condensate Storage Tank	PRT	Pressurizer Relief Tank
DC	Direct Current	PT	Pressure Temperature
DWST	Demineralized Water Storage Tank	PTP	Plant Test Procedure
ECCS	Emergency Core Cooling System	PWTIP	Primary Water Treatment Instrumentation Panel
EF	Emergency Feedwater	RCCA	Rod Control Cluster Assembly
ESF	Engineered Safety Features	RCDT	Reactor Coolant Drain Tank
FPER	Fire Protection Evaluation Report	RCS	Reactor Coolant System
FSAR	Final Safety Analysis Report	RHR	Residual Heat Removal
HVAC	Heating Ventilating and Air Conditioning	SAP	Station Administrative Procedure
LBLOCA	Large Break Loss of Cooling Accident	SOP	Station Operating Procedure
MCB	Main Control Board	STP	Surveillance Test Procedure
MCN	Modification Change Notice	SW	Service Water
MRF	Modification Request Form	TWR	Technical Work Record
NCN	Nonconformance Notice	VCT	Volume Control Tank
NNS	Non Nuclear Safety		