

December 31, 1999 RC-99-0234

Document Control Desk 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(b)(2) ANNUAL REPORT

**Gary J. Taylor** Vice President Nuclear Operations South Carolina Electric & Gas Company (SCE&G) is submitting the Sixteenth 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, 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 NCN numbers), procedure changes (identified by their procedure numbers), Modification Changes (identified by the MRF and MCN numbers) and Engineering Change Requests (identified by the ECR numbers) were completed during the time frame of one year prior to August 6, 1998, which ended the sixteenth year following the issuance of the VCSNS Operating License. There were no reportable changes to the quality assurance program during this period.

South Carolina Electric & Gas Co Virgil C. Summer Nuclear Station P. O. Box 88 Jenkinsville, South Carolina 29065

803.345.4344 803.345.5209 www.scana.com Should you have any questions, please call Mr. Donald L. Jones at (803) 345-4480.

Very truly yours,

Gary J. Taylor

DLJ/GJT/dr Enclosure

c: J. L. Skolds

J. J. Galan (w/o enclosure)

R. J. White

L. A. Reyes

K. R. Cotton

NRC Resident Inspector

J. B. Knotts, Jr.

B. C. Williams

K. W. Nettles

RTS (RR-8450/L-99-0298)

File (818.02-8)

DMS (RC-99-0234)

IE47

**NUCLEAR EXCELLENCE - A SUMMER TRADITION!** 

PDILADOCK 05000395

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 1 of 18

# SIXTEENTH ANNUAL 10CFR50.59 REPORT VIRGIL C. SUMMER NUCLEAR STATION

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 2 of 18

# SIXTEENTH ANNUAL 10CFR50.59 REPORT VIRGIL C. SUMMER NUCLEAR STATION

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

Identification No.	Description:
FSAR RN 93-50 Rev. 1	This change to the FSAR removes the description of containment isolation function from LCV-1003 to VXD-07170-WL. Other FSAR changes were previously made by MRF 22137. This change does not involve any unreviewed safety questions.
FSAR RN 96-17 Rev. 1	This change to the FSAR revised Figure 7.5-3 that was not previously included in FSAR RN 96-17 Rev. 0 and MRF 90004 (reported in the 13 <sup>th</sup> Annual report). This change does not involve any unreviewed safety questions.
FSAR RN 96-56 FPER RN 96-56	This change to the FSAR revised Sections 8.3.3, 9.5.1, and 13.5.9, and Tables 1.7-1 and 7.1-2. This change to the FPER revised Sections 3.2.2, 4.4, 5.0.B, and 5.0.C. These changes resulted from a general overview and Technical Specification Amendment #79. These changes do not involve any unreviewed safety questions.
FSAR RN 96-72	This change to the FSAR revised Section 8.2 and Figure 8.1-1 to reflect the transmission and generation stability study performed for 1998. This stability study considered the addition and deletion of generating plants on the SCE&G system as well as the VCSNS plant uprate. This change does not involve any unreviewed safety questions.
FSAR RN 97-04	This FSAR revision affected Sections 9.5.2.2.2 and 9.5.2.2.3. This change documented the upgraded communications equipment from microwave to fiber optics. This change does not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 3 of 18

lder	ntifica	ation	No.

## Description:

**FSAR RN 97-15** 

This FSAR revision affected Sections 11.3.3.2.2 and 11.3.3.2.3. This change reflects WG recombiner hydrogen and oxygen inlet analyzer control and alarm setpoint changes to 4% H2 by volume and 2% O2 by volume. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-30** 

This FSAR revision affected Section 9.1.3.2, Tables 6.3-6 and 9.1-1, and Figure 9.1-3. References to RWST water volume was eliminated or changed from 'usable' to 'contained' in order to provide consistency with the Technical Specification terminology. These changes do not involve any unreviewed safety questions.

FSAR RN 97-34 MRF 22594 This change to the facility revised Figure 9.2-7 to show Component Cooling Water to the Charging Pumps, and Table 3.9-8 to show XVG-09684 A, B, C –CC, are qualified by analysis, not testing. These changes do not involve any unreviewed safety questions.

FSAR RN 97-37 MRF 22393 This change to the facility revised Table 3.9-8 to include XVC-01067-EF (added per MRF 22393) to be tested as an active component. This change does not involve any unreviewed safety questions.

**FSAR RN 97-42** 

This change to the FSAR revised Figure 10.3-2 to reflect the closure signal for XVG 2811 from IPS 5635 when turbine load is less than 10%. This change does not involve any unreviewed safety questions.

**FSAR RN 97-43** 

This change to the FSAR revised Figure 10.4-11 to reflect the installation of a Leading Edge Flow Meter to provide monitoring of total Feedwater flow independent of presently installed venturies. This change does not involve any unreviewed safety questions. Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 4 of 18

Identification	ı No
idei illiloalioi	I I I V

## **Description:**

FSAR RN 97-48 STP-215.008 Rev. 2 This change to the FSAR revised the general description of accumulator check valve testing in Section 6.3.2.2.6.3.2 to be consistent with Technical Specification 4.0.5. This surveillance procedure (1) incorporated the requirements of SECL-91-283, (2) deleted Attachment I and (3) incorporated pressure readings into Attachments II and III. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-49** 

This change to the FSAR revised Table 6.2-3 to add passive heat sink information inadvertently omitted in a previous FSAR revision for MRF 90010. This change does not involve any unreviewed safety questions.

FSAR RN 97-51 CMP 700.001 Rev. 5 This change to the FSAR revised section 2.5.6.8.2 to clarify the description of piezometer monitoring and related inspection program. This change does not involve any unreviewed safety questions.

**FSAR RN 97-54** 

This FSAR revision affected Sections 5.2.2.5.3 and 6.3.3.2. The description of the ECCS actuation blocks and lockout of accumulator valves and non-operating charging pumps was revised in order to provide consistency with the Technical Specification and plant procedure terminology. This change does not involve any unreviewed safety questions.

**FSAR RN 97-55** 

This change to the FSAR revised Table 6.2-54 and Section 15.4.2.1.3 to reflect a 7-second stroke time for the Main Steam Isolation Valves. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-56** 

This FSAR revision affected Table 3.2-1. The construction code/standard for the Component Cooling Drain Tank (XTK-101) was corrected. This change does not involve any unreviewed safety questions.

**FSAR RN 97-57** 

This FSAR revision affected Section 3.7.2.5. The vertical floor response spectra generation – three-dimensional models, used in the Auxiliary, Intermediate, and Control Buildings, for horizontal and vertical inputs, were clarified to avoid future misinterpretations. These changes do not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 5 of 18

Ider	tifica	ation	No.

## Description:

**FSAR RN 97-63** 

This FSAR revision affected Section 6.2.1.3.7. These changes removed duplicate information and provided references to other appropriate FSAR sections regarding the functioning of the Reactor Building Ventilation System. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-64** 

This change to the FSAR revised Table 15.1-5 to add core gap activities that were inadvertently omitted in a previous FSAR revision for MRF 90010. This change does not involve any unreviewed safety questions.

**FSAR RN 97-65** 

This FSAR revision affected Section 15.4.1.1.3. References to several values as being setpoints were clarified to indicate that these are assumed values used in the transient analysis, and do not directly represent the actual setpoints as provided in the plant Technical Specifications. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-66** 

This FSAR revision affected Section 6.2.1.3.6. This change corrected the value listed in the FSAR for the RB initial pressure used in the RB negative pressure analysis. The design analyses document the value of –0.1 psig, consistent with the Technical Specification Section 3.6.1.4 value, which provides –0.1 psig as the minimum normal allowable RB pressure. This change does not involve any unreviewed safety questions.

FSAR RN 97-67 FPER RN 97-67 MRF 22726 This change to the facility revised FSAR Figures 9.5-1, sheets 1 through 5, and FPER Figure E-023-001 to include an 8" isolation valve (added per MRF 22726) to increase fire protection capabilities in other buildings. This change does not involve any unreviewed safety questions.

**FSAR RN 97-68** 

This FSAR revision affected Section 12.3.1.1.2. This change allows independent reviews of the ALARA program to be conducted by a Health Physics representative, as well as a Health Physics Technician and degreed Health Physicist. This change does not involve any unreviewed safety questions.

**Enclosure to Document Control Desk Letter** BR-8450/L-99-0298 RC-99-0234 Page 6 of 18

<u>Identification No.</u>
---------------------------

#### Description:

**FSAR RN 97-70** 

This FSAR revision affected Section 17.2.1.2. This change revises the experience requirements for Manager, Quality Systems and Manager, Material and Procurement. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-71** 

This FSAR revision affected Section 9.5.1.2.5. This change updated the alarm setpoints for high and high-high charcoal filter bed temperatures. This change does not involve any unreviewed safety questions.

**FSAR RN 97-72** 

This FSAR revision updated the RB purge and alternate RB purge system discussions as described in the plant Technical Specification limitations. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-74** 

This FSAR revision affected Sections 9.5.1.1 and 9.5.1.2.1. This change updates design parameters for the fire protection system. This revision updates fire ratings for stairways and elevators, as well as as-built system pressure and fire protection system classification. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-80** 

This FSAR revision affected Section 9.5.1.1. This change allows for the use of elastomer or caulk fire stops. This change does not involve any unreviewed safety questions.

**FSAR RN 97-82** 

This FSAR revision affected Figure 6.2-46. This change corrects Figure 6.2-46 to read 'Reactor Building Spray Pumps, 2-100%' instead of 'Reactor Building Spray Pumps, 2-50%'. This information is described in Section 6.2.2.2.1 as part of a redundant and independent subsystem. This change does not involve any unreviewed

safety questions.

**FSAR RN 97-86** 

This change to the FSAR revised Section 6.5.1.5.3 and Appendix 3A to be consistent with Technical Specification 3.9.11 by specifying that the ESF functions of the Fuel Handling Building Charcoal Exhaust System only apply during fuel movement or operation of the FHB crane over the SFP. This change does not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 7 of 18

## **Description:**

FSAR RN 97-87 FSAR RN 97-92 MCN 20951E This change to the facility installed portions of the new fire protection and control system in the Nuclear Operations Building, the Warehouses, the Craft Training Building, the Radwaste Laundry Room, the Compactor area, the Mechanical Maintenance Building, the Turbine Generator Exciter Housing and the Circulating Water Intake Structure. This MCN installed new local control panels, conduit and cable, manual alarm stations and audible appliances, and pressure switches. The FSAR revision affected Section 9.5.1.2.5 and Table 9.5-1. These changes correct references to 'Fire' and 'Trouble' alarms. These changes do not involve any unreviewed safety questions.

FSAR RN 97-88

This FSAR revision affected Figure 9.5-1, Sheet 5. This change deleted 1MS-55-059-1 and replaced it with 1MS-55-085-28 to correctly reflect the drawing for the Control Building charcoal filter plenum. This change does not involve any unreviewed safety questions.

**FSAR RN 97-89** 

This FSAR revision affected Section 9.5.1.2.5. This change deleted reference to column lines and room numbers. The change references Section 4.11.2 of the FPER to maintain consistency between the FSAR and FPER. This change does not involve any unreviewed safety questions.

**FSAR RN 97-90** 

This FSAR revision affected Section 9.5.1.2.5. This change reflects the existence of a total flooding Halon 1301 suppression system in rooms CB 36-06A, B, and C. This system is in addition to the manual wet pipe sprinkler system. This change does not involve any unreviewed safety questions.

**FSAR RN 97-91** 

This FSAR revision affected Section 9.5.1.2.5. This change corrected a reference to column line locations when referring to the wet pipe sprinkler system. This change does not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 8 of 18

Ider	ntificatio	n No.

## Description:

**FSAR RN 97-93** 

This FSAR revision affected Section 9.5.1.2.5. This change deleted the word 'all' when referring to the NFPA sprinkler system occupancy hazard piping schedule, since other system designs exist in the plant. This change does not involve any unreviewed safety questions.

FSAR RN 97-97 ECR 50069 This change raised the top elevation of several yard catch basins and paved an area of the yard for material storage. This work was Phase 1 of improvements to the yard area. See ECR 50076 for Phase 2. The FSAR revision affected Figure 2.4-6. This change identifies site drainage catch basin elevations, which have been changed due to backfill and grading of the radwaste storage yard. This change does not involve any unreviewed safety questions.

**FSAR RN 97-103** 

This change to the FSAR revised section 3.6.2.4 to reflect the use of guard pipes as shields against wetting and spray at the source of postulated cracks in moderate energy piping. This change does not involve any unreviewed safety questions.

**FSAR RN 97-104** 

This change to the FSAR revised Figure 8G-4 to correct the fuse size for the pressurizer heater switchgear protection devices. This change does not involve any unreviewed safety questions.

**FSAR RN 97-105** 

This change to the FSAR revised Section 2.4.8.1.2 to reflect that the SW pumps are locked in the high speed setting, as changed under MFR 31738 (reported in the 6<sup>th</sup> annual report). This change does not involve any unreviewed safety questions.

FSAR RN 97-106 MCN 21274A This change to the FSAR revised Figures 1.2-25 and 12.1-5, Sheet 2 to indicate the installation of a radiation gate in the radwaste area of the Auxiliary Building as part of MCN 21274A. These changes do not involve any unreviewed safety questions.

FSAR RN 97-107 MRF 21345 This change to the FSAR revised Figures 1.2-6, 12.1-7, 12.1-16, and 12A.4-6 to add handrail protection to improve personnel safety per MRF 21345. These changes do not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 9 of 18

	le	$\mathbf{r}$		•	1/	$\sim$	*	$\sim$	r	 NI	$\sim$	
11			ш							 u	• 1	
	•					_		•		 	•	•

## **Description:**

**FSAR RN 97-108** 

This change to the FSAR revised Figure 2.5-108 to show the elevation of the Circulating Water Discharge Canal after dredging. This change was performed under MRF 22555 (reported in the 12<sup>th</sup> Annual report) to allow sufficient cool water to flow to keep fish alive. This change does not involve any unreviewed safety questions.

**FSAR RN 97-109** 

This change to the FSAR revised Section 17.2 to reflect current organizational structure and methods of conducting business to meet Quality Assurance program requirements. This change does not involve any unreviewed safety questions.

**FSAR RN 97-111** 

This change to the FSAR revised Section 9.5.1.2.5 to more accurately describe the as installed configuration of the fire protection systems. This change does not involve any unreviewed safety questions.

**FSAR RN 97-112** 

This change to the FSAR revised Figure 10.3-1 to state that the safety class of the TDEFP exhaust piping is Class 2B, consistent with FSAR Section 10.3.1.1. This change does not involve any unreviewed safety questions.

FSAR RN 97-113 ECR 50048 This change to the facility upgraded the Re-fueling Machine control and drive systems to increase the machine's operating speed, reliability and to eliminate obsolete parts. This change to the FSAR revised Sections 9.1.4.2, 9.1.4.3 and Table 3.2-1, as well as Figure 9.1-4. These changes do not involve any unreviewed safety questions.

FSAR RN 97-114 MRF 22771 This change to the facility replaced a temporary PVC system from the PRT and the RCDT to the RB Purge Exhaust Manifold, installed each refueling outage, with a permanent system. This change to the FSAR revised Figures 5.1-1 and 11.2-2, sheet 1. These changes do not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 10 of 18

1400	けけいへ	ヘキュヘト	$\sim 10$
11.16-31	11111163	анся	n No.
		~	

## **Description:**

FSAR RN 97-115 ECR 50025 This change to the facility installed test connections to the Emergency Feedwater System Piping to allow measurement of leakage across the Emergency Feedwater Flow Control Valves. This change to the FSAR revised Figure 10.4-16. This change does not involve any unreviewed safety questions.

**---**-

FSAR RN 97-116 FSAR RN 97-116, Rev. 1 MRF 22742 This change to the facility modified the CRDM cooling ductwork to eliminate one section and to provide the remaining sections with quick disconnect clamps to expedite disassembly during plant outages. This change to the FSAR revised Table 6.2-7, and Figures 1.2-5 and 9.4-31. These changes do not involve any unreviewed safety questions.

FSAR RN 97-120 ECR 50010 This change replaced the existing Johnson Controls design with a single Dwyer Controls instrument to ensure reliable instrumentation for the FHB differential pressure monitoring and alarm. This change affected FSAR Figure 9.4.11. This change does not involve any unreviewed safety questions.

FSAR RN 97-126 ETBT-430 This change to the FSAR revised Table 6.2-54 and Figure 9.3-4 to incorporate as-built information from replacement of containment isolation valves for both the Pressurizer and the RCS Loop B and Loop C Sampling Lines. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-127** 

This change to the FSAR revised Section 6.2.1.3.4.2 and Table 6.2-47b to reflect the updated basis to the RB Spray time initiation assumptions. This change does not involve any unreviewed safety questions.

FSAR RN 97-129 MRF 22177 This change to the facility replaced the existing Turbine Room liquid radiation monitor and associated piping with a different design to minimize monitor clogging. This change affected FSAR Figure 9.3-14. These changes do not involve any unreviewed safety questions.

**FSAR RN 97-130** 

This change to the FSAR revised Section 9.2.1.4 to clarify the closure signals for the Industrial Cooler Isolation Valves in response to ESF signals. This change does not involve any unreviewed safety questions. Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 11 of 18

Identification I	No.
------------------	-----

## **Description:**

FSAR RN 97-132 ECR 50004 This change to the facility brought the charging/high head safety injection (HHSI) pump cross-connect motor operated valves into compliance with NRC Branch Technical Position EICSB-18 by providing power lockout capabilities for the valves and by preventing a single failure from compromising the HHSI capability during an accident. This change to the FSAR revised Sections 5.5.7.1.1.3 and 6.3.2.20. This change does not involve any unreviewed safety questions.

FSAR RN 97-133 ECR 50060 This change to the facility replaced the existing Feedwater Regulator Valve (FRV) quick exhaust solenoid valves with new, air operated control valves to alleviate past operational problems encountered with these valves. This change to the FSAR revised Figure 10.4-12. This change does not involve any unreviewed safety questions.

**FSAR RN 98-01** 

This change to the FSAR revised Figure 2.4-6 to reflect security fencing installed under ECR 50044 (reported in the 15<sup>th</sup> annual report). This change does not involve any unreviewed safety questions.

FSAR RN 98-04 ETBT-409 This change to the FSAR revised Figure 9.3-16, Sheet 3 to reflect the new RCP Seal Injection Isolation Valve type and clarify various flow indicators. These changes do not involve any unreviewed safety questions.

**FSAR RN 98-06** 

This change to the FSAR revised Section 9.3.1.1 to delete non-critical information concerning piping component material. This change does not involve any unreviewed safety questions.

FSAR RN 98-08 MRF 21902B This change transfers the >1GPM Unidentified Reactor Building (RB) Leakage from instruments associated with the RB Leak Detection Sump to instruments associated with the RB Sump. Additionally, this change reconfigured the associated Main Control Board alarms. This change to the FSAR revised Figure 9.3-12. This change does not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 12 of 18

	Iden	ıtificati	on No.
--	------	-----------	--------

## Description:

**FSAR RN 98-11** 

This change to the FSAR revised Figures 1.2-15, 12.1-19, and 12A.4-7 to correct discrepancies between the relevant building general arrangement drawings and the as-built configuration of the facility. These changes do not involve any unreviewed safety questions.

**FSAR RN 98-13** 

This change to the FSAR revised Section 9.4.7.2.5 to correct discrepancies between the relevant flow diagrams and the as-built configuration of the facility. This change does not involve any unreviewed safety questions.

FSAR RN 98-15 MRF 21745 MCN 21745 A – Q This change to the facility revised thrust values, replaced overload elements and position indicating appurtenances and changed other operational attributes on various valve operators. This change to the FSAR revised Section 6.2 and Table 6.2-54. These changes do not involve any unreviewed safety questions.

FSAR RN 98-16 ECR 50061 This change to the facility installed lightning arrestors on busses 1 and 2 of the 230kv switchyard. Installation of lightning arrestors on bus #3 will be completed at a later date. This change to the FSAR affected Figures 8.2-2, 8.2-2A, 8.2-2B, and 8.2-2C. These changes do not involve any unreviewed safety questions.

FSAR RN 98-18 ECR 50021 This change to the facility changed design data and deleted a pressure control valve associated with the Post Accident Sampling System. The change to the FSAR affected Figure 9.3-20. This change does not involve any unreviewed safety questions.

**FSAR RN 98-19** 

This change to the FSAR revised Figure 9.3-18 to remove a valve that was never installed and revised the symbol for valve XVD0002-CS from a gate valve to a diaphragm valve. This change does not involve any unreviewed safety questions.

**FSAR RN 98-23** 

This change to the FSAR revised Figure 10.4-5 to reflect the replacement of the Auxiliary Condenser Outlet Header Pressure Gauge Isolation Valves with ball valves per ETBT 440. This change does not involve any unreviewed safety questions. Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 13 of 18

Identification No.	Description:
FSAR RN 98-25 MCN 90003H	This change to the facility deleted valves XVC 1039 A, B, C-EF. The change was originally completed under MRF 90003 (reported in the 13 <sup>th</sup> Annual report). The change to the FSAR revised Table 3.9-8 to reflect the deletions. This change does not involve any unreviewed safety questions.
FSAR RN 98-26	This change to the FSAR revised Sections 13.1.2.2.1.3 and 13.1.2.2.3 to reflect a change in organizational title for Plant Support Engineering. This change does not involve any unreviewed safety questions.
FSAR RN 98-34	This change to the FSAR revised Figures 1.2-5 and 1.2-25 to reflect the removal of doors DRAB/402, DRAB/405, DRAB/417, and DRRM/101 performed under ECR 50047 (reported in the 15 <sup>th</sup> annual report). This change does not involve any unreviewed safety questions.
FPER RN 98-66 MCN 22594A	This change to the facility revised FPER Figure E-023-007. This change was performed under MRF 22594A (reported in the 13 <sup>th</sup> annual report) to remove Chilled Water isolation valves XVT06362 A, B-VU and XVT06378 A, B-VU to Component Cooling Water Pumps. This change does not involve any unreviewed safety questions.
MCN 34428A NCN 5304 NCN 5304A	This change deleted 3 capacitance probes and replaced 5 capacitance probes with Flood Level Switches in the Auxiliary Building Leak Detection System as part of MRF 34428 (reported in the 15 <sup>th</sup> Annual report). These changes do not involve any unreviewed safety questions.
MCN 90105I	This change to the facility corrected instrumentation and control deficiencies in the Turbine Closed Cycle Cooling System installed under MRF 90105 (reported in the 14 <sup>th</sup> annual report). These changes do not involve any unreviewed safety questions.
MRF 22640	This change to the facility painted penetration tag numbers on the RB liner plate for easier identification. This change does not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 14 of 18

Identification No.	Description:
ECR 34498 ECR 34498A	This change to the facility removed Thermo-Lag Fire Barrier material from the plant and replaced it with appropriate barriers or specified appropriate alternate actions to maintain compliance with Appendix R. These changes do not involve any unreviewed safety questions.
ECR 50002	This change to the facility replaced the microwave communication system between the VCSNS and the SCE&G corporate headquarters with a fiber-optic system. This change does not involve any unreviewed safety questions.
ECR 50037	This change to the facility installed handrails and additions to the Steam Generator Access Platforms in the Reactor Building to correct industrial safety concerns. This change does not involve any unreviewed safety questions.
ECR 50042 ECR 50042C	This change to the facility provided the Cycle 11 core design. This change addressed the pellet to clad reopening issue and 17% cladding oxidation criterion associated with mechanical design of Westinghouse fuel. This change does not involve any unreviewed safety questions.
ECR 50049	This change to the facility rerouted the drain line from the Instrumentation and Control Shop sink and water cooler from the floor drain system to a sanitary sewer line in the Turbine Building. These changes do not involve any unreviewed safety questions.
ECR 50072 NCN 97-0906	These changes to the facility evaluate and accept vent valves and piping installed on the seal return lines for the "B" Main Feedwater Pump. Additionally, these changes specified revision of design documents to reflect the vent piping. These changes do not involve any unreviewed safety questions.
ECR 50076	This change specified additional catch basin work, and grading and paving of the yard area for material storage. This work was Phase 2 of improvements to the yard area. See ECR 50069 for Phase 1. These changes do not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 15 of 18

|--|

# **Description:**

ECR 50097 NCN 98-0259 OAG-103.4. Rev. 2D These changes to the facility allow the Turbine Driven Emergency Feedwater Pump (TDEFP) to be secured by the Operator from the Main Control Board while signals are present that open the steam supply flow control valve. These changes allow isolation of EFW in the event of an EFW line break outside of containment. Additionally, these changes installed alarms and guards to prevent inadvertent isolation of steam to the TDEFP. The NCN specified temporary measures until permanent modifications could be implemented by the ECR. These changes do not involve any unreviewed safety questions.

**ETBT-428** 

This change, performed as an 'equal to or better than' enhancement, was utilized for a neutron detector upgrade. This change does not involve any unreviewed safety questions.

**ETBT-434** 

This change, performed as an 'equal to or better than' enhancement, was utilized on the Feedwater Relief Valves. This change does not involve any unreviewed safety questions.

**ETBT-448** 

This change, performed as an 'equal to or better than' enhancement, was utilized for replacement of asbestos filled gaskets. The replacement gaskets have a proven success rate, having demonstrated no leakage. This change does not involve any unreviewed safety questions.

NCN 5457

This change to the facility allowed relay K613, which is installed in XPN7020, to remain in service until the end of the 10<sup>th</sup> Refueling Outage. This change does not involve any unreviewed safety questions.

NCN 5469

This change to the facility allowed the acceptance of a 1" hole in the ½" outer screen for the "B" RHR Sump until the end of the tenth refueling outage. The screen was repaired during the tenth refueling outage. This change does not involve any unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 16 of 18

Ider	ntific	ation	No.

#### Description:

NCN 98-0304

This change to the facility revised the design pressure for the Emergency Feedwater System. As a result of the design pressure change, various calculations and drawings, including several FSAR figures were changed. These changes do not involve any unreviewed safety questions.

ARP-016-XCP-6210-LCB3

Rev. 0-E

This change corrected the origin and CHAMPS description for IPS09688B on setpoint 4-21 of the annunciator

response procedure. This change does not involve any

unreviewed safety questions.

CP-920 Rev. 0-0 This procedure outlines the steps required to operate the Post Accident Sample System under accident conditions. This change does not involve any unreviewed safety

questions.

CP-921 Rev. 0-0 This procedure provides a method to compare the results from a sample obtained and analyzed using the Post Accident Sample System to a grab sample from the Reactor Coolant System using routine analysis methods. This change does not involve any unreviewed safety questions.

EMP-100.009 Rev. 0-0 This procedure provides instruction and documentation to provide temporary power to APN-5901 and APN-5902. This change does not involve any unreviewed safety questions.

ES-560.120 Rev 1-0 This change to the Feedwater Flow Rate and Temperature Normalization Surveillance procedure changed the method used to adjust temperature normalization constants and presented a new adjustment to constant K2002 for the purpose of normalizing feedwater flow rate. These corrections are entered into Fivcals as part of the LEFM modification. These changes do not involve any

unreviewed safety questions.

OAG-103.2 Rev. 4-0 This procedure change provides setpoints for Emergency Operating Procedures based on Westinghouse Emergency Response Guidelines and Technical Specifications. This change does not involve any

unreviewed safety questions.

Enclosure to Document Control Desk Letter RR-8450/L-99-0298 RC-99-0234 Page 17 of 18

Identification No.	Description:
PTP-117.001 Rev. 0-0	This procedure provides instruction for collecting Service Water Pond temperature data. This change does not involve any unreviewed safety questions.
PTP-125.016 Rev. 0-0	This procedure provides a method to reduce the differential pressure across the Feedwater Regulation Valves in order to determine the cause of spikes in the flow rate for the "A" Feedwater loop. This change does not involve any unreviewed safety questions.
PTP-230.001 Rev. 3-0	This procedure provides setup and verification instructions for optimization of MSR steam flow. This change does not involve any unreviewed safety questions.
SAP-142 Rev 12-0	This change to the Station Housekeeping Program is being reported to provide information only. Although no changes were made utilizing 10 CFR 50.59, this revision contains directions to assure that housekeeping items that do change the facility are processed under the appropriate procedure (SAP-133) so that a specific evaluation will be performed. This information does not involve a change under 10 CFR 50.59 or any unreviewed safety questions.
SAP-200 Rev. 7-D	This procedure added the Shift Test Specialist to the list of operators, allows either Reactor Operator to give permission for plant personnel to access the Main Control Board area, and changed the description of the carpet in the Control Room. These changes do not involve any unreviewed safety questions.
SAP-1142 Rev. 2-0	This procedure describes the station trend reporting system for VCSNS. This change does not involve any unreviewed safety questions.
STP-455.003 Rev. 1-A	This procedure was changed to provide qualified reviewer, cross-disciplinary and requested reviews when modifying the Reactor Building Exhaust HEPA and HECA filter test. These changes do not involve any unreviewed safety questions.

**Enclosure to Document Control Desk Letter** 

RR-8450/L-99-0298

RC-99-0234

Page 18 of 18

#### ABBREVIATIONS and ACRONYMS

ARP Annunciator Response Procedure

ASME American Society of Mechanical Engineers

न्यंपुर र र 😼 🥸

CCW Component Cooling Water ECR Engineering Change Request

EFW Emergency Feedwater

ES Engineering Services Procedure
ESF Engineered Safeguards Feature
ETBT Equal To or Better Than Evaluation

FEP Fire Emergency Procedure

FPER Fire Protection Evaluation Report FSAR Final Safety Analysis Report

GL Generic Letter

HPP Health Physics Procedure

HVAC Heating, Ventilation, and Air Conditioning

MCN Modification Change Notice MRF Modification Request Form

MWt Megawatts (thermal)
NCN Non-Conformance Notice

ODCM Offsite Dose Calculation Manual

OLER Operating License Environmental Report
OSRE Operational Safeguards Response Evaluation

PAP Primary Access Portal

PO Purchase Order

PSP Physical Security Plan

PTP Performance Test Procedure

RB Reactor Building

REP Radiation Emergency Plan RHR Residual Heat Removal

**Revision Notice** 

SFP Spent Fuel Pool S/G Steam Generator SI Safety Injection

RN

SOP System Operating Procedure

STP Surveillance Test Procedure

SW Service Water

TDEFP Turbine Driven Emergency Feedwater Pump

VCT Volume Control Tank

VCSNS Virgil C. Summer Nuclear Station