



June 26, 2015

NND-15-0393

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

Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3  
Combined License Nos. NPF-93 and NPF-94  
Docket Nos. 52-027 & 52-028

Subject: June 2015 Submittal of the Updated Final Safety Analysis Report (UFSAR), Revision 3, Tier 1, Revision 3, and Technical Specification (TS) Bases, Rev. 1 and Technical Requirements Manual (TRM), Rev. 0 for V.C. Summer Nuclear Station Units 2 and 3

Enclosure 1: List of UFSAR, Tier 1 and TS Bases Revision Notices Incorporated in June 2015 update

Enclosure 2: DVD-ROM Electronic Copy of the UFSAR, Revision 3, Tier 1, Revision 3

Enclosure 3: DVD-ROM Electronic Copy of the Technical Specifications Bases, Revision 1, and Technical Requirements Manual, Revision 0

South Carolina Electric & Gas Company (SCE&G), acting for itself and as agent for the South Carolina Public Service Authority, is submitting the following reports in accordance with the provisions of 10 CFR 50.71(e) and 10 CFR Appendix D Section X.B.2.

An electronic revision to the V.C. Summer Nuclear Station (VCSNS) Units 2 and 3 Updated Final Safety Analysis Report (UFSAR) which contains the Plant-Specific Design Control Document (PS-DCD) Tier 2 and Tier 2\* information (Enclosure 2). This revision utilizes colored text to indicate the source material of the information as a user aid. A formatting legend is provided at the bottom of the Cover Page for each chapter.

An electronic revision of the Tier 1 document (Enclosure 2). All changes incorporated were approved during this reporting period.

An initial electronic submittal of the VCSNS Units 2 and 3 Technical Requirements Manual (TRM), one submittal for each unit (Enclosure 3).

Technical Requirements relocated from the UFSAR to the TRM remain Tier 2 information by virtue of being incorporated-by-reference (IBR) and are being submitted as part of the annual UFSAR update (Enclosure 3).

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An electronic revision of the VCSNS Units 2 And 3 Technical Specifications Bases one submittal for each unit (Enclosure 3). The "Technical Specifications (TS) Bases Control Program", provides for changes to the Bases without prior NRC approval and require they be provided to the NRC consistent with 10 CFR 50.71 (e). NRC approved changes granted in Amendment 20 have been Incorporated into the TS Bases during this reporting period.

Enclosure 2 and the Technical Specifications Bases, Rev. 1 in Enclosure 3 incorporates The changes listed in Enclosure 1. These changes are identified in the affected document by the use of a vertical revision bar and the Revision Notice Number. All Affected Table of Contents, List of Tables, and List of Figures are updated to reflect the current information contained in the UFSAR.

**Enclosure 2 to this letter contains Security-Related Information, and accordingly, SCE&G requests that the enclosure be withheld from public disclosure under 10 CFR 2.390(d). Sections containing 2.390(d) material have been identified on the applicable pages.**

Should you have any questions, please contact me by telephone at (803) 941-9858, or by email at ARICE@scana.com.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 26<sup>th</sup> day of June, 2015.

Sincerely,

April R. Rice  
Manager, Nuclear Licensing  
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**South Carolina Electric & Gas**

**NND-15-0393**

**Enclosure 1**

**V.C. Summer Nuclear Station Units 2 and 3**

**List of UFSAR, Tier 1 and TS Bases**

**Revision Notices Incorporated in June 2015 Update**

**Revision Notices Incorporated in June 2015 Update**

	RN No.	Brief Description
1.	RN-12-017	Fire Area Boundary Changes – Egress (Amendment 17)
2.	RN-12-053	Change of Sensor Type for Containment Flood-Up Level (PXS-050, -51, -052)
3.	RN-12-055	Modifications to the RNS ME1C Heat Exchangers
4.	RN-12-067	Containment Spray Inconsistencies in seismic requirements between Tier 1 and Tier 2* (Amendment 15)
5.	RN 12-077	Turbine Building Battery Room and Electrical Changes (Amendment 19)
6.	RN-13-010	AP1000 Human Factors Engineering Task Support Verification Plan (Amendment 16)
7.	RN-13-011	AP1000 Human Factors Engineering Design Verification Plan (Amendment 16)
8.	RN-13-015	Passive Containment Cooling System Piping & Instrument Diagram Update
9.	RN-13-019	AP1000 Plant Startup Human Factors Engineering Design Verification Plan (Amendment 16)
10.	RN-13-031	AP1000 Human Factors Engineering Integrated System Validation Plan (Amendment 16)
11.	RN-13-032	AP1000 Human Factors Engineering Discrepancy Resolution Process (Amendment 16)
12.	RN-13-039	Turbine Bypass Valve Actuator Type
13.	RN-13-040	Equipment Hatch Hoist Update
14.	RN-13-043	Core Makeup Tank Vent Line Orifice Safety Class Change
15.	RN-13-049	Condenser Air Removal System Design Update
16.	RN-13-052	Clarifying notes added to the five HF V&V planning documents to show which sections are Tier 2 and which are Tier 2* (Amendment 18)
17.	RN-13-053	Revise Heater Drain System Sample Point Locations
18.	RN-13-057	Turbine Building drawings Restroom and Egress Changes
19.	RN-13-061	Licensing Procurement Plan - CMT Licensing Changes, Change Adds a Small Drain Hole in the Bottom Cap of the CMT Diffuser
20.	RN-13-068	SFS Piping Requirement Discrepancy
21.	RN-13-070	Changes to Steam Generator and Pressurizer Support Drawings
22.	RN-13-071	ACI Code Compliance with Critical Sections at Higher Elevations, Floor Structural Issues (Amendment 14)
23.	RN-13-078	Incorrect Hole in Floor shown for Room 40341 on Figure 3.7.2-19 Sh.1
24.	RN-13-079	Table 3.11-1 and Table 3I.6-2 Revised to Add a Line Item for the Solenoids for the Primary Sampling System Hot Leg Sample Isolation Valves PSS-PL-V001A and PSS-PL-V001B
25.	RN-13-083	Primary Sampling System Containment Atmosphere Sample Supply Line Size and Inlet Location
26.	RN-13-084	Turbine Building Ventilation System (VTS) Changes
27.	RN-13-089	Change Valve Type for Datasheet 112 of PV14 from a Globe Valve to a Ball Valve
28.	RN-13-098	Passive Containment Cooling System Modification for Added Flow Control Capability
29.	RN-14-009	Steam Generator Blowdown System EDI Demineralizer Package (MS22) Design Update
30.	RN-14-015	Condensate and Feedwater System Design Changes

	RN No.	Brief Description
31.	RN-14-019	Passive Containment Cooling System isolation Valves V060A and V060B Added to the Lines to Leakage Level Sensors LS034 and LS035
32.	RN-14-021	Installation of a 1 inch Class D Relief Valve to the Passive Containment Cooling System To comply with the ASME Section VIII Requirements
33.	RN-14-027	Changes to Secondary Sampling System and Associated Shielding within the Turbine Building
34.	RN-14-030	Addition of Automatic Depressurization System 1, 2, 3 Leakage Collection Drain Check Valve
35.	RN-14-033	Removal of Hatches and Openings from General Arrangement Figures
36.	RN-14-034	Use of Reinforced Concrete Masonry Walls in the Annex Building
37.	RN-14-040	Modifications to UFSAR Section 3.8.2.1.5, the Addition of Details C and D to Figure 3.8.2-4 Sh. 4, and Changes to the Main Steam and Feedwater Insert Plate Dimensions on Figure 3.8.2-4 Sh. 7
38.	RN-14-041	Reduction of Interface Points Raw Water System to Fire Protection System
39.	RN-14-048	Airlock Insert Plate Changes
40.	RN-14-050	Double Isolation Valves and Other Changes to Health Physics Air Subsystem for Personnel Protection
41.	RN-14-051	Section 2.5.4.2.2 & Table 2.5.4.217 Updated To Reflect Nuclear Island Foundation Is At 360.5 ft to be Consistent With the Design and Construction Drawings.
42.	RN-14-052	Turbine Building Structures & Layout Changes (Amendment 12)
43.	RN-14-055	Component Description Swing Check Valves Change
44.	RN-14-058	Main Control Room Emergency Habitability System Emergency Air Storage Tank Consistency Change
45.	RN-14-064	Addition of Cable Bridge Information
46.	RN-14-075	Waste Holdup Tank Rooms Design Changes
47.	RN-14-077	Design Changes to Address SFS Check Valve In-service Testing
48.	RN-14-087	Changes to Refueling Machine and Fuel Handling Machine Terminology
49.	RN-14-097	Changes to the Gaseous Radwaste System
50.	RN-14-098	Update of Reactor Internal and Core Support Materials Specifications
51.	RN-14-100	Modification of Support Configuration for Containment Isolation Valve CVS-PL-V090
52.	RN-14-106	Removal of Below Grade Foam Filler Between Nuclear Island and Adjacent Buildings
53.	RN-14-108	This Activity Altered the Design to Utilize Site-Specific Groundwater Levels in Determining and Evaluating Lateral Earth Pressure Loads.
54.	RN-14-114	Delete Figure 18.11-1 and Associated Text from UFSAR to be Consistent with APP-OCS-GEH-320 Figure 1.1-1.
55.	RN-12-065	Cooling System for Main Generator Isophase Bus Ducts Added to the General Arrangement Drawings
56.	RN-12-072	Steam Vent Configuration Changes Auxiliary Building Roof
57.	RN-13-027	Changes to Connections Between the Steel Plate Concrete Composite Construction (SC) Used for the Shield Building and the Standard Reinforced Concrete (RC) Used for a Portion of the Shield Building and the Walls (Amendment 21)
58.	RN-13-029	Design Changes to the West Wall Structural Module (CA03) of the In-Containment Refueling Water Storage Tank (Amendment 25)

	RN No.	Brief Description
59.	RN-13-036	Corrects Inconsistencies in the Description of Liquid Radwaste System Design Capabilities Between UFSAR Figure 11.2-2 and Section 11.2.2.1.2
60.	RN-13-065	Nuclear Island Standpipe Flow Detection, Orifice Type Flow Element FPS-PL-FE-103 Design Replaced with Alarm Check Valve V833
61.	RN-13-081	Updated Table 3.2-3 "AP1000 Classification of Mechanical and Fluid Systems, Components, and Equipment" and Figure 1.7-2 P&ID Legend to Reflect Current Classification of Pipes used in AP1000 Design
62.	RN-13-090	Changes to Align Secondary Sampling System, Heater Drain System & Condensate System Designs with Layouts
63.	RN-13-091	Standby Diesel and Auxiliary Boiler Fuel Oil System P&ID Change to Support Repair Replacement Automation Services Calculation
64.	RN-14-004	Addition of Another Standpipe Downspout Screen in the Passive Core Cooling Water Storage Tank to Accommodate a Relocated Standpipe
65.	RN-14-008	Figure 9.2.1-1 Updated to Reflect Raw Water System Originates in the Yard Outside the Turbine Building.
66.	RN-14-020	Component Cooling Water System (CCS) Pumps Horsepower Requirements Increase
67.	RN-14-022	Enclosures for Class 1E Electrical Penetrations in Middle Annulus (Amendment 22)
68.	RN-14-036	Update to Reactor Pressure Vessel Vent Valve Description in UFSAR Appendix 19D
69.	RN-14-042	Editorial Corrections to Tier 1 Information (Amendment 23)
70.	RN-14-047	Chemical Treatment of Startup Feedwater Pump Source Water
71.	RN-14-049	Clarification of Leak-Before-Break (LBB) and Break Exclusion Zone (BEZ) Piping Boundaries
72.	RN-14-054	Gland Seal System Changes, Re-routing the Discharge of Relief Valves to Condenser A Instead of Condenser C, Removing One Gland Seal condenser Drain Line, Replacing the Orifices of Each Combined Reheat Valve with Globe Valves, and Adding a Check Valve
73.	RN-14-057	Pressurizer Support Changes
74.	RN-14-060	Turbine Building Ventilation System Connections
75.	RN-14-065	Containment Internal Structural Module Design Details (Amendment 24)
76.	RN-14-068	Pressurizer Venting During Normal Operations
77.	RN-RN-14-070	Resolution of Spent Fuel System (SFS) Figure and Table Inconsistencies
78.	RN-14-072	Demineralizer Design Change, Replaces Inflow Screen with a Flow Diverter
79.	RN-14-073	Resolution of Passive Core Cooling System Discrepancies and Core Makeup Tank Instrumentation Changes
80.	RN-14-076	Component Cooling Water System Radiation Monitor, Bypass Valve, and Class Designation Changes
81.	RN-14-079	Correct Inconsistencies with Regard to Welds in Section 6.1.1.1, Alloy 690, 52, 52M and 152
82.	RN-14-081	Figure 11.2-2, Sh. 3 Changes to Depict Re-Routing of Chemical Volume System letdown Relief Valve Piping to Accommodate the Increased Piping Size Requirements of the Relief Valve
83.	RN-14-083	Consolidating the Health Physics Counting Room with an Adjoining Office in the Annex Building
84.	RN-14-084	Changes to the Steam Generator Blowdown System

	RN No.	Brief Description
85.	RN-14-089	Incorporation of WESTEMS Computer Program for ASME Section III Fatigue Analysis
86.	RN-14-090	Changes to Turbine Building Radiation Zones and Steam Generator Blowdown System Equipment Positions
87.	RN-14-092	Liquid Radwaste System Valve Direction and Positioning Changes
88.	RN-14-099	Modifications to the Diesel Fuel Oil System
89.	RN-14-105	Change in VFS Chilled Water Source from WWS to the VWS System
90.	RN-14-117	Addition of ASME Code Case N-405-1 for the AP1000 Pressurizer
91.	RN-14-120	Addition of Acceptable Means for Double Isolation
92.	RN-14-129	Allows for Exception to Reg. Guide 1.54 Regarding Delamination of Epoxy Coatings - CV Interior Surface
93.	RN-14-130	Changes to the Domestic Turbine Building South Bay HVAC
94.	RN-14-131	Redesign of the Filter Storage Area and Changes to Room 12374
95.	RN-14-132	Corrects Inconsistency Between UFSAR Sections and to Clarify Information to Improve the Reader's Understanding with Respect to Design Features of the AP1000 that Address NUREG-0737 Item II.F.2.
96.	RN-14-133	Corrects Differences Between Annex Building Design and DCD General Arrangement Figures
97.	RN-14-134	Allows a Constructive Technique Involving the Selective Use of Temporary Reinforced Soil Slopes in Structural Fill Surrounding the Nuclear Island
98.	RN-14-138	Additional Changes To Turbine Building General Arrangement Drawings, Fire Area Drawings, & Radiation Zones & Radiological Access
99.	RN-14-139	Relocation of Component Cooling Water System Flow Balancing Orifices and Other Changes in Reactor Coolant Pump Cooling Lines
100.	RN-14-143	Containment Vacuum Relief Design Change
101.	RN-14-144	Technical Specifications Upgrade Bases Changes Associated with LAR 13-37 (Amendment 20)
102.	RN-14-145	Table 3.8.4-6 Revised to Identify that Material Requirements for Alloy-Steel Bolting for Special Applications will be Used in Accordance with ASTM A540
103.	RN-14-152	UFSAR Changes in support of LAR 13-37, Technical Specifications Upgrade (TSU) (Amendment 20)
104.	RN-14-153	Changes to UFSAR Chapter 16.3, Investment Protection Short-Term Availability Controls (STAC) (Amendment 20)
105.	RN-14-154	Changes to Material Identified in Human Factors (HF) Verification and Validation (V&V) Planning Documents
106.	RN-14-155	Modification of Enclosure Around Entrance to Chemical Volume System Room
107.	RN-15-005	Modify the design basis of the AP1000 ASME Class D components to a later edition of the ASME Boiler and Pressure Code Section VIII, Division 1 and to add an exception to compliance with Regulatory Guide 1.143.
108.	RN-15-010	Chemical and Volume Control System (CVS) Design Parameter Clarification and Update
109.	RN-15-016	Normal Residual Heat Removal (RNS) Suction Bonnet Relief Assembly and Isolation Valve Leak Testing Addition
110.	RN-15-019	Issuance of Technical Requirements Manual Unit 2 (TRM)
111.	RN-15-020	Issuance of Technical Requirements Manual Unit 3 (TRM)
112.	RN-15-021	pH Adjustment Basket Volume Met by Two Pairs of Baskets



	RN No.	Brief Description
113.	RN-15-022	Preoperational TEDEV testing will be Performed in Accordance with ASME OM-S/G-2000, Parts 3 and 7, Versus the Currently Specified ANSI/ASME OM Code-1995 with 1996 Addenda
114.	RN-15-025	Component Cooling Water (CCS) Piping & Instrumentation Diagram (P&ID) Update
115.	RN-15-031	PXS valve gasket material change to Align with the design specification guide.
116.	RN-15-038	Updated to State that Module Trusses are Required to Contribute to Strength or Stiffness of Completed Modules
117.	RN-15-086	UFSAR Editorial Changes

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**Enclosure 2**

**V.C. Summer Nuclear Station Units 2 and 3**

**DVD containing the VCSNS Units 2 & 3**

**UFSAR Rev. 3 and Tier 1 Rev. 3**

**[Note: VCSNS Units 2&3 UFSAR and Tier 1 Contains Security-Related Information  
- Withhold Under 10 CFR 2.390(d)]**

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**Enclosure 3**

**V.C. Summer Nuclear Station Units 2 and 3**

**DVD containing the VCSNS Units 2 & 3 Technical  
Specification Bases, Rev. 1 and Technical  
Requirements Manual, Rev. 0**