



Attachment 3 (CD-ROM) Contains
~~Sensitive Non-Publicly Available~~
~~Information, Withhold in~~
~~Accordance with 10 CFR 2.390~~

Thomas D. Gatlin
Vice President, Nuclear Operations
803.345.4342

June 1, 2015
RC-15-0084

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

Dear Sir / Madam:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS) UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12
FINAL SAFETY ANALYSIS REPORT (FSAR) /
FIRE PROTECTION EVALUATION REPORT (FPER)
UPDATED THROUGH MAY 31, 2015

In accordance with 10CFR50.71(e), South Carolina Electric & Gas Company, acting for itself and as agent for South Carolina Public Service Authority, submits one (1) CD-ROM electronic copy of the Final Safety Analysis Report (FSAR) and the Fire Protection Evaluation Report (FPER) for the Virgil C. Summer Nuclear Station updated through May 31, 2015. The V. C. Summer Updated FSAR CD-ROM is a complete copy in Adobe PDF format generated from the original native master files and scanned hard copy documents.

This FSAR/FPER Update includes:

- Changes to the FSAR and FPER that were made under the provisions of 10CFR50.59, but not previously submitted to the Commission.
- All affected chapter Table of Contents, List of Tables, List of Figures, and List of Effective Pages updated to reflect the current information contained in the FSAR and/or FPER.

Technical changes are annotated by a vertical revision bar and the Revision Notice number. Unaffected vertical revision bars and the amendment number changes from prior updates remain unchanged.

Attachment 3 (CD-ROM) Contains ~~Sensitive Non-Publicly Available Information,~~
~~Withhold in Accordance with 10 CFR 2.390~~

If there are any questions, please contact Donna Railey at (803) 345-4107.

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

6/1/2015
Executed On

Thomas D. Gatlin
Thomas D. Gatlin

DWR/TDG/sr
Attachments

- 1) FSAR/FPER Revision Notices Incorporated Since the June 6, 2014 Update
- 2) VCSNS FSAR/FPER CD-ROM (2.390)

c: (Without CD unless noted below)

K. B. Marsh
S. A. Byrne
J. B. Archie
N. S. Carns
J. H. Hamilton
J. W. Williams
W. M. Cherry
V. M. McCree (w/CD, **2.390**)
S. A. Williams (w/CD, **2.390**)
NRC Resident Inspector
K. M. Sutton (w/CD, **2.390**)
NSRC
RTS (LTD 325, RR 6500)
File (813.12)
PRSF (RC-15-0084 w/CD, **2.390**)

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
11-003	2015-01	FSAR Figure 9.4-26	<p>ECR-50748D - Changed Drawing 9.4-26.</p> <p>A new self-contained wall mounted eyewash station was installed inside the existing Relay House. The existing outdoor safety shower located on the north side of the existing Relay House is no longer required and is being deactivated and removed. Removal of the existing outdoor safety shower will also help facilitate the installation of a new cable trench, from the new Unit 1 Relay House to the existing Relay House (EMH0011).</p>
11-036	2015-04	FSAR Figure 1.2-1 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.3-5 FSAR Figure 8.3-5a	<p>ECR-50772 and ECR-50772A – Electrical upgrades to Bus 2.</p> <p>These ECRs changed FSAR figures to show the installation of an SF6 breaker (XCB9392) for the new metered terminal for Duke/Newport, to the immediate west of the terminal for SCP5A #2 (XCB8772). Additional equipment associated with the installation of the new metered terminal also included an extension of the Bus 2 portion of the switchyard, bus side and line side disconnect switches, lightning arrestors, current transformers and a line trap device.</p>
11-041	2015-04	FSAR Figure 1.2-6 FSAR Figure 1.2-9 FSAR Section 3.5 FSAR Section 3.12 FSAR Section 3A RG #1.104 FSAR Section 9.1	<p>ECR-50717 and 50717A – Fuel Handling Building (FHB) Crane Upgrade - (ISFSI Dry Cask Storage Modification).</p> <p>This ECR removed the existing FHB Crane trolley and installed a new, pre-fabricated trolley with a single-failure-proof 125 ton main hoist and non single-failure-proof 15 ton and 3 ton auxiliary hoists on the existing FHB Crane girders. The ECR also upgraded the control system with variable frequency drives (VFDs), a radio controller, and a scoreboard load read-out mounted on the west bridge girder. FHB Crane upgrade work meets the single-failure-proof crane criteria and guidelines of NUREG-0554 and NUREG-0612 and meets the single-failure-proof crane requirements of the NRC-accepted Ederer Topical Licensing Report EDR-1 (P)-A.</p>
12-001	2015-02	FSAR Section 3.2 FSAR Section 8.2 FSAR Section 8.3 FSAR Figure 8.3-5a FSAR Section 9.4 FSAR Figure 9.4-26d	<p>ECR-50748E, VCS Switchyard - New Switchyard Relay House and Cable Trench Additions.</p> <p>This ECR installed fire dampers in the Unit 1 Relay House between the relay room and each battery room. In association with this ECR, FSAR Sections 3, 8 and 9 were revised. Existing drawings E-912-191 and E-229-152 were labeled and added to the FSAR as Figures 9.4-26d and 8.3-5a.</p>

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
12-003	2014-09	FPER Section 4.1 FPER Section 4.2 FPER Section 4.4 FPER Section 4.5	<p>ECR-71198F - Made changes to the Appendix R safe shutdown evaluation to correct minor discrepancies identified during the NFPA 805 transition evaluation. It documents a change to the operator actions for fire areas CB-1, 2, 4, 6, 15, 17 and IB-25.</p> <p>The NFPA transition evaluation identified various discrepancies in the Appendix R evaluation. In addition, the resolution of several CRs identified the need for changes in operator actions for various fire areas.</p>
12-007	2014-10	FSAR Figure 1.2-20 FSAR Figure 8.2-4 FSAR Figure 8.2-4 FSAR Figure 8.3-0c FSAR Figure 8.3-0d FSAR Figure 8.3-0k FSAR Figure 8.3-0l FSAR Section 8D.2 FSAR Section 8E.2 FSAR Section 8E.3 FSAR Section 8E.4 FPER Section 4.8	<p>ECR-50800 - Modified existing safeguards power configuration as a result of NFPA 805.</p> <p>Existing cable bus XBD-15C-ES (from XSW-1DX-ES) that currently feeds XSW-1DA-ES and XSW-1DB-ES will be maintained as built but will be reconfigured to only feed XSW-1DB-ES. A new cable bus (XDB-15D) was installed from XSW-1DX-ES to XSW-1DAES to eliminate a single point failure due to a fire in the turbine building or a room in the intermediate building. An additional switchgear unit was added to XSW-1DX to accommodate the new cable bus.</p>
12-013	2015-05	FSAR Figure 7.2-1, Sheet 15 FSAR Figure 10.2-2 FSAR Figure 10.2-3a FSAR Figure 10.2-3b	<p>ECR-72033 - EHC System Digital Control Upgrade.</p> <p>This ECR corrected three drawings that did not include the 0.109 inch orifice installed in the inlet of the fast acting solenoid valves during the installation of ECR-50592B.</p>
12-016	2015-04	FSAR Figure 2.4-6 FSAR Figure 8.2-2c FSAR Figure 8.3-5 FSAR Figure 8.3-5a	<p>ECR-50803 provided several upgrades to the switchyard.</p> <p>Upgrades consisted of replacing oil circuit breaker XCB8772 and disconnect switch XDS8771. Other equipment was upgraded to facilitate connection to Unit 2/3 switchyards. A new Man Gate was also added to the Switchyard fence. FSAR figures were updated to reflect the changes.</p>

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
12-017	2015-04	FSAR Figure 2.4-6 FSAR Table 8.2-1 FSAR Figure 8.2-2c FSAR Figure 8.3-5 FSAR Figure 8.3-5a	ECR-50803 provided several upgrades to the switchyard. Upgrades consisted of replacing circuit breaker XCB8772, disconnect switch XDS8771, a new coupling capacitor voltage transformer (CCVT) and associated equipment for the VCS #2 Bus Tie #3. FSAR figures were revised to show new SF6 breaker XCB9332, disconnect switch XDS9331, line terminal and associated equipment for Pineland #1.
12-026	2015-04	FSAR Figure 1.2-1 FSAR Table 8.1-1 FSAR Section 8.2 FSAR Table 8.2-1 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.2-2c FSAR Figure 8.3-5 FSAR Figure 8.3-5a	ECR-50806, Replacement of Line Terminal 8722 and Associated Equipment. This ECR package replaced existing Oil Circuit Breaker XCB8722 and installed new SF6 gas circuit breaker XCB8722. Other upgrades were made to disconnect switch XDS8721, lightning arrestors and CCVT were removed. Transmission also removed existing S.C.P.S.A #2 (Newberry) line from Terminal 8722 and relocated it to VCS Unit 2.
12-028	2015-04	FSAR Figure 1.2-1 FSAR Table 8.1-1 FSAR Section 8.2 FSAR Table 8.2-1 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.2-2c FSAR Figure 8.3-5a	ECR-50804, Installation of New Line Terminal 9322 (Santee Winnsboro) to VCS #1, Bus #1. A new line terminal was added to the Bus #1 portion of the VCS Unit 1 switchyard. All new equipment consisted of SF6 (90KA) breaker XCB9322, disconnect switch XDS9321 and new coupling capacitor voltage transformer was added. The associated line terminal and equipment was added onto Bus #1 for the transmission of power to SCPA #2 (Winnsboro). All new equipment have new foundations. FSAR figures were updated to reflect line changes.
12-029	2014-09	FPER Figure 8.2-1	ECR-50825 - Burial of the Parr 115kV ESF Line Segment. This ECR buried a segment of Parr 115KV ESF line to avoid line crossing issues and ensure transmission system stability.

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
12-032	2014-08	FSAR Figure 1.2-1 FSAR Figure 2.4-6 FSAR Figure 2.4-17 FSAR Figure 2.4-18 FSAR Figure 9.5-1, Sht. 2 FPER Figure E-023-001	ECR-50839 - Removal of the Nuclear Office Building and Containment Access Building, and disconnected, removed and rerouted all associated utilities. This project was implemented to develop the construction area needed to build the dry cask storage facility.
12-034	2014-07	FSAR Section 2.3 FSAR Table 2.3-117 FSAR Table 2.3-118 FSAR Table 2.3-121 FSAR Table 2.3-122 FSAR Table 2.3-123 FSAR Section 3.1 FSAR Section 3.5 FSAR Section 3.6 FSAR Section 3.7 FSAR Section 3.11 FSAR Appendix 3A FSAR Section 6.2 FSAR Section 6.3 FSAR Section 6.4 FSAR Table 6.4-3 FSAR Section 9.4 FSAR Section 12.1 FSAR Section 15.4 FSAR Table 15.4-11 FSAR Table 15.4-12 FSAR Table 15.4-13 FSAR Table 15.4-15 FSAR Table 15.4-16 FSAR Table 15.4-17 FSAR Table 15.4-18 FSAR Table 15.4-23 FSAR Table 15.4-24a	ECR-71072 and TS Amendment 183 – Alternative Source Term (AST). This change revised the current licensing basis accident source term (TID-14844) with the Alternative Source Term (AST) as allowed by 10 CFR 50.67. All six design basis accidents (loss of coolant, steam line break, steam generator tube rupture, reactor coolant pump locked rotor, fuel handling, and rod ejection accidents) were re-analyzed with full implementation of AST per RG 1.183. There were no hardware changes with this activity, only document changes (licensing bases, FSAR, Technical Specifications, calculations, procedures, etc.). FSAR Table 15.4-24b FSAR Table 15.4-25 FSAR Table 15.4-26 FSAR Table 15.4-27 FSAR Table 15.4-29 FSAR Table 15.4-30 FSAR Table 15.4-31 FSAR Table 15.4-32 FSAR Table 15.4-33 FSAR Table 15.4-34a FSAR Table 15.4-34b FSAR Table 15.4-34c FSAR Table 15.4-34d FSAR Table 15.4-36 FSAR Table 15.4-37 FSAR Table 15.4-38 FSAR Table 15.4-40 FSAR Table 15.4-41 FSAR Table 15.4-43 FSAR Table 15.4-44 FSAR Table 15.4-45 FSAR Table 15.4-46 FSAR Table 15.4-47 FSAR Table 15.4-50 FSAR Figure 15.4-74 FSAR Figure 15.4-74a FSAR Figure 15.4-143 FSAR Figure 15.4-144 FSAR Figure 15.4-145 FSAR Figure 15.4-146 FSAR Figure 15.4-147 FSAR Figure 15.4-148 FSAR Appendix 15A FSAR Appendix Table 15A-2

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
12-038	2015-03	FSAR Appendix 3A #1.160	CR-12-02287 – Added NRC Maintenance Rule Regulatory Guide 1.160, Revision 3, to FSAR Appendix 3A. RG 1.160, Revision 3, endorses NUMARC 93-01, Revision 4A, as an acceptable method to comply with the Maintenance Rule 10 CFR 50.65. The Maintenance Rule Program, described in SAP-0157, is based on NUMARC 93-01, Revision 4A.
12-039	2015-04	FSAR Figure 1.2-1 FSAR Section 8.2 FSAR Table 8.2-1 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.3-5	ECR-50831, Switchyard Modification. This ECR removed several breakers and transmission lines associated with terminals 8732, 8742 and 8752.
12-043	2014-11	FSAR Figure 1.2-15 FSAR Figure 1.2-16 FSAR Section 9.5 FPER Section 4.5 FPER Section 5.0.E FPER Figure E-023-001 FPER Figure E-023-018 FPER Figure E-023-019	ECR-50811A- NFPA 805 Incipient Detection. ECR-50811A installed a Very Early Warning Detection System to detect the byproducts of combustion (smoke) in the Electrical Relay Room and Upper Cable Spreader room.
13-003	2015-04	FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.2.2c	ECR-50747 - Bus 1 Upgrades. This ECR replaced existing Disconnect Switches 8901, 8833, 8843, 8863; Potential Transformers XTF0121-TS, XTF0122-TS, XTF0123-TS; Lightning Arrestors; and installed new capacitor bank for Bus 1 230 kV system.

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
13-008	2014-09	FSAR Table 8.2-2	<p>ECR-71731 - Revise Calculation DC08200-001 to Satisfy 2011 CDBI Inspection Observations.</p> <p>This ECR revised Calculation DC08200-001 to provide supplemental analysis required by the 2011 NRC Component Design Basis Inspection to incorporate additional dynamic modeling for all allowable plant electrical alignments. This ECR also allows the plant greater flexibility to operate on alternate power. Degraded voltage relay rest values are not affected, and no changes were made to any plant SSCs.</p>
13-015	2014-09	FSAR Section 8.2 FSAR Figure 1.2-1 FSAR Figure 2.4-6 FSAR Figure 8.2-2A	<p>ECR-50857 - Raise Existing (Parr) 115 kV ESF Transmission Line outside VCS Unit 1 Switchyard.</p> <p>The Parr 115 kV ESF Transmission Line was raised to allow the VCS1, Bus 1-VCS2 230 kV Tie to cross underneath Parr 115 kV ESF Transmission Line. The modification replaced the first three spans out of VCS1 which includes removing two lattice steel structures. The replaced line section consisted of three new steel monopoles configured vertically.</p>
13-026	2015-04	FSAR Figure 1.2-1 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.2.2c FSAR Figure 8.3-5 FSAR Figure 8.3-5a	<p>ECR-50832 - Removed Lake Murray from Terminal 8792, Replaced Breaker 8792.</p> <p>The VCS Unit 1 switchyard connection to Lake Murray was removed from line terminal 8792. A new SF6 circuit breaker, coupling capacitor voltage transformer, wave trap and line tuning equipment replaced the existing equipment on line terminal 8792. Line terminal 8792, with the new equipment, serves as a transmission line to Denny Terrace #2. All new equipment was secured on existing foundations.</p>
13-031	2014-09	FSAR Figure 8.3-4	<p>CR-12-05174 - DPN1HX Ammeter Switch Removal.</p> <p>The ammeter switch for the ammeter on DPN1HX was removed during Refuel 21 per nonconformance NC/CR-12-05174. An ammeter switch for this application is not a standard design. Removal of switch eliminated a potential failure mode.</p>

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
14-002	2015-03	FSAR Section 5.7	<p>CR-14-06107 – Updated FSAR Section 5.7 to Account for the 4th Inservice Inspection (ISI) Interval.</p> <p>New Inservice ISI Interval started in accordance with 10 CFR 50.55a was added to Section 5.7 as new Section 5.7.1.5. 10 CFR 50.55a formatting change also required revision to Section 5.7.1.4 (editorial/information update).</p>
14-003	2015-01	FSAR Section 3A (RG 1.65) FSAR Table 5.2-8	<p>ECR-70905B – Installation of NOVA Revision 2 HydraNuts for RV Head.</p> <p>This ECR installed revision 2 of the NOVA HydraNuts which serves reactor vessel closure head studs. Revision 2 is an upgraded version of the initial design that is intended to reduce leakage during refueling activities.</p>
14-005	2015-01	FSAR Section 4.2	<p>CR-11-02428 – Modified Portions of FSAR 4.2.1 to incorporate changes to cladding stress/strain methodology.</p> <p>The change to the FSAR cladding stress/strain methodology description was performed to regain margin lost due to a code mathematics error correction which is applicable to VCS Unit 1 during Cycle 21 and beyond. The proposed limits and methods have been approved by the NRC in WCAP-10125-P-A, Addendum 1-A, Revision 1-A.</p>
14-009	2014-08	FSAR Table 6.2-53a	<p>ECR-71771 - Type C Testing. This change modifies Table 6.2-53a to reflect removal of several valves from the "type C testing required" category as evaluated per ECR-71771.</p> <p>ECR-71771 evaluated several valves for potential removal from the Type C testing scope as currently noted in the FSAR. Methodology of NEI 94-01, along with the basis of previous evaluations, was used to document the evaluation and conclusions.</p>

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
14-011	2015-04	FSAR Figure 1.2-1 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.2.2c FSAR Figure 8.3-5 FSAR Figure 8.3-5a	ECR-50777 – Upgrades to Bus 3. The changes to the FSAR Figures show the replacement of existing 230 kV Bus #1 and Bus #3 single tie oil circuit breaker XCB8822 with back-to-back Sulfur Hexafluoride tie-circuit breakers; the installation of new Bus #3 capacitors; the replacement of Bus #3 potential transformers and support structures; the replacement of new disconnect switches and under-hung lightning arresters.
14-012	2015-04	FSAR Figure 1.2-15 FSAR Figure 9.5-1f	ECR-50746, VCS Switchyard. ECR-50746 replaced all the analog meters on MCB XCP-6118 (XCP-6070) and installed two touch screen monitors. The Master Station Cabinet was installed in the TSC and processes the analog signal from the 230 kV switchyard to digital at the MCB.
14-013	2015-04	FSAR Figure 1.2-1 FSAR Figure 2.4-1 FSAR Figure 2.4-6 FSAR Section 8.2 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Section 8.3 FPER Figure E-023-001	ECR-50748 and ECR-50748A, VCS Switchyard - New Switchyard Relay House. This ECR installed a new prefabricated concrete Relay House to the west of the existing Relay House.
14-016	2015-01	FSAR Section 3.8	ECR-71963 - Revision to Documents Associated with Grout Procurement and Installation. This Document Only Change ECR increases the maximum allowed expansion ratio for hardened grout from 0.1% to 0.3% in accordance with applicable ASTM and CRD standards.
14-017	2015-01	FSAR Figure 9.4-12	ECR-71946 – CR-13-03588, Minor Drawing Change. This Document Only Change ECR updated the FSAR to reflect the change of Drawing D-912-160 (Figure 9.4-12). Equipment ID XA09796E corrected to read XA09769E (last two numbers were reversed).

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
14-019	2015-04	FSAR Figure 1.2-1 FSAR Section 8.2 FSAR Figure 8.2-2 FSAR Figure 8.2-2a FSAR Figure 8.2.2b FSAR Figure 8.2.2c FSAR Figure 8.3-5 FSAR Figure 8.3-5a	ECR-50834 -Switchyard Breakers and Disconnect Switch Replacements. Existing 230 kV oil circuit breaker 8832 and associated disconnect switch 8831 and CCVT, breaker 8842 and associated disconnect switch 8841 and CCVT, breaker 8852 and associated CCVT, in the VCSNS Unit 1 switchyard were replaced on their existing foundations and support structures. Replacement breakers are now SF6 breakers. In addition disconnect switch 8903 was replaced. Replacement disconnect switches are rated 3,500A. Once the equipment was returned to service, line terminals 8832, 8842 and 8852 now serve as transmission lines to VCS #2 Bus 1 tie, Killian (Bundled) and SCPSA #1 (Blythewood), respectively. This ECR also modified the grounding of the switchyard equipment and structures. This ECR also included functional testing of the 230 kV Terminal 9332 which was installed by ECR50803.
14-024	2014-11	FSAR Section 4.2 FSAR Section 5.4	ECR-50846D, ECR-50846H, and ECR-50846J – Reactor vessel head repair during Refuel-21. ECR-50846D addressed the weld repairs of the reactor vessel head embedded flaws identified during Refuel-21 and installed on three assembly guide tubes to retain flow characteristics through the upper internals. ECR-50846H and ECR-50846J installed a penetration housing cap onto two part-lengths to capture potential thermal sleeve remnants due to thermal sleeve degradation.
14-025	2015-05	FSAR Figure 10.4-5	ECR-50875, Circulating Water (CW) Pump Discharge Manhole Modification. This ECR installed a 24 inch gate valve, 36 inch expansion joint and a 24 inch pipe riser to the CW System 36 inch manhole to accommodate a Line Stop Plugging System to plug the 84 inch CW piping to allow isolation of the system in order to replace/repair the "B" CW Pump Can while the plant is on-line.

FSAR/FPER REVISION NOTICES INCORPORATED SINCE JUNE 2014 UPDATE – EFFECTIVE 05/31/15

<u>RN No.</u>	<u>APPROVAL DATE</u>	<u>SECTIONS</u>	<u>BRIEF DESCRIPTION</u>
14-026	2014-09	FSAR Section 15.2	CR-14-02912 - Incorporated updated PORV modeling for Loss of Offsite Power (LOOP) and Loss of Normal Feedwater (LNOF) accidents done by Westinghouse.
14-030	2015-02	FSAR Figure 1.2-23	ECR-50876, Circulating Water Intake Stop Log Design. Added Stop Log Guides to the Layout Drawing of the Circulating Water Pump House Drawing E-026-101. Stop Log Guides were installed during RF21 and the drawing needed to be updated to show the addition to the structure.
14-033	2014-12	FSAR Section 9.2	ECR-50808 – Modu-Flash Replacement. The existing Modu-Flash Recorder Units were old and outdated. This change replaced the existing Modu-Flash units with new Yokagawa digital recorders.
14-034	2015-03	FSAR Section 12.3 FSAR Table 12.3-2 FSAR Table 12.3-3	CR-14-04945 – This CR changed the calibration of Health Physics' portable instrument equipment from semi-annual to annual calibrations. This change also made an editorial change.
14-035	2015-01	FSAR Figure 5.1-1, Sheet 1	ECR-72002 - Revise Essential Drawing. Essential Drawing E-302-601 contained a NOTE stating that a strap on resistance temperature detector was attached to the reactor head vent system piping. This SSC does not exist and the note was deleted.
14-036	2015-01	FSAR Section 4.2 FSAR Section 4.4	CR-14-04958 - Fuel Cladding Corrosion Methodology Change. Updated methodology for Cycle 22 reload core design.
14-037	2015-02	FSAR Section 5.2 FSAR Section 5.5 FSAR Figure 5.5-13	CR-14-04522 – Removal of reference to Acoustic Leak Monitoring System. The Acoustic Leak Monitoring System was removed from the FSAR, per MRF-20206. This RN removes an old reference to the system that was overlooked by the MRF.