

V. C. Summer

Updated Final Safety Analysis Report



Docket Number 50-395
License Number NPF-12

**UFSAR Updated through
July, 2023
Revision 23**

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Revision Summary

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
23 - Chapter 4	4/27/23	VCS-UCR-2023-003	Sections 4.1, 4.2, and Figure 4.2-2	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. Westinghouse Integral Nozzle (WIN) top nozzle fuel component EVAL-ENG-RSE-V1C28
23 - Chapter 18	3/30/23	VCS-UCR-2023-004	Section 18.2.31	FSAR Chapter 18 CA11417519
23 - Chapter 7	3/30/23	VCS-UCR-2022-013	Sections 7.1.2.11.1 and 7.1.3	Bases to Eliminate Pressure Sensor Response Time Testing for Rosemount 3150 Series Transmitters from Technical Specification Requirements ECR72857
23 - Chapter 9	2/23/23	VCS-UCR-2022-005	Section 9.1.3.5.3	Spent Fuel Purification Demineralizer Resin Level Probe Removal VC-22-00018
23	2/23/23	CHAPTER 17		N/A -POSTED FRAMEMAKER VERSION
23	2/23/23	CHAPTER 16		N/A -POSTED FRAMEMAKER VERSION
23	1/26/23	VCS-UCR-2022-011	Chapter 00, Revision summary table	Modifying Change to Identify 50.59 Changes in Chapter 00, Revision Summary Table Header PA11333039
23 - Chapter 3 Chapter 5	1/26/23	VCS-UCR-2022-010	Sections 3.1.2.5, 3.8.1.3.1.2, 3.8.1.4.1.2.1, 3.8.1.6.3.3, 3.8.1.7.2, 3A.35, & 3A.35.1 (new), and Section 5.7.1.4	FSAR Chapters 3 and 5 ECR72151, ECR70876
23	1/26/23	CHAPTER 14		N/A -POSTED FRAMEMAKER VERSION

Revision Summary (continued)

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23 - Chapter 13	12/12/22	VCS-UCR-2022-012	Section 13.2.2.3	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. Remove reference to ANSI 18.1-1971 in Chapter 13.2.2.3 and replace with "as stated in the Quality Assurance Program Description". QAPD Change Request 2022-004
23	12/09/22	CHAPTER 5		N/A -POSTED FRAMEMAKER VERSION (CORRECTED FOR MISSING SYMBOLS)
23 - Chapters 9 and 8	12/07/22	VCS-UCR-2020-020	Section 9.1.3.3, Table 8.3-3	Update of Table 8.3-3 and Chapter 9.1.3.3 for ECR 50940 - Spent Fuel Pool Cooling Alternate Power ECR 50940
23 - Chapter 15	12/07/22	VCS-UCR-2022-007	Section 15.4.3.2.2	ERG Revision Level Removal from 15.4.3.2.2 EOP-4.0 Revision
23	12/07/22	CHAPTER 5		N/A -POSTED FRAMEMAKER VERSION
23	12/07/22	CHAPTER 11		N/A -POSTED FRAMEMAKER VERSION
23 - Chapter 3	7/21/22	VCS-UCR-2022-002	Section 3.11, Table 3.11-0	Update Section 3.11 regarding EQDB location. NRC identified. Information Technology retired VAX machine and EQDB (database) is now accessed on site Intranet system.
23 - Chapter 8	8/25/22	VCS-UCR-2021-018	Tables 8.3-3, 8.3-3a, 8.3-3b	FSAR TABLE 8.3-3 Part A1, A2, B1, and B3 Revision. CR-20-03674 Action (6)

Revision Summary (continued)

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22	11/22/21	VCS-UCR-2021-019	Table 8.3-1	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>Revision of Main Transformer Rating in FSAR Table 8.3-1 for ECR50522A ECR50522A, Main Transformer Contingency Replacement</p>

Revision Summary (continued)

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22	9/21/21	VCS-UCR-2021-013	<p>Section 1.6 (pages 1.6-7 through 1.6-12)</p> <p>Table 1.8-1 (page 1.8-4)</p> <p>Section 6.2.1.3.11 (page 6.2-45)</p> <p>Table 6.2-60 (page 6.2-295)</p> <p>Section 6.3.3.13 (page 6.3-41)</p> <p>Section 7.2.1.2.4 (page 7.2-15)</p> <p>Table 8F-1 (page 8F-3)</p> <p>Sections 15.1.8, 15.1.9, 15.1.10 (pages 15.1-8 through 15.1-11, 15.1-13, and 15.1-14)</p> <p>Table 15.1-4 (pages 15.1-19 and 15.1-20)</p> <p>Figure 15.1-6 (no page number)</p> <p>Section 15.3 (page 15.3-1)</p> <p>Section 15.4.1.2.1 (page 15.4-16)</p> <p>Section 15.3.1 – Complete Replacement, except Sections 15.3.1.1, 15.3.1.2.4, and 15.3.1.2.5</p> <p>Section 15.4.1 – Complete Replacement, except Sections 15.4.1.1.6 and 15.4.1.1.7 and Sections 15.4.1.2-15.4.1.4</p>	V. C. Summer Full Spectrum LOCA FSAR Changes ETE-NAF-2021-0085

Revision Summary (continued)

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22	11/2021	VCS-UCR-2021-011	<p>Sections: 1.6, 4.2, 4.3, 4.4, 6.2, 15.1, 15.2, 15.3, 15.4</p> <p>Tables: 4.1-1, 4.1-2, 4.4-1, 15.1-2, 15.1-4, 15.2-1, 15.3-3, 15.4-34, 15.4-42</p> <p>Figures: 4.4-3, 15.2-1, 15.2-2, 15.2-12, 15.2-13, 15.2-14, 15.2-19, 15.2-26, 15.2-27, 15.2-31, 15.2-32, 15.3-27, 15.3-28, 15.4-85, 15.4-89, 15.4-96B, 15.4-100, 15.4-101, 15.4-102, 15.4-103</p>	Implementation of PAD5 for V.C. Summer ETE-NAF-2021-0082
22	3/31/22	VCS-UCR-2021-009	<p>FSAR Chapter 18 Table of Contents, Table 18.1-1, Sections 18.1, 2.3, 2.5, 2.10, 2.12, 2.13, 2.15.1, 2.17, 2.18, 2.21, 2.28, 2.30, 2.31, 2.34, 2.36, 2.39, 2.40, 2.42, 2.43, 2.44, 2.45, 2.46 (new) and 18.3.2.2</p>	<p>FSAR Chapter 18 Update of Aging Management Activities and Descriptions</p> <p>VCS License Renewal (LR) Plant Life Extension (PLEX) Program Assessment Report DMNVCS00001-REPT-001 Revision 1 and the associated actions in CR-19-03752</p>
22	06/2021	VCS-UCR-2021-007	Chapter 17, Section 2	Add words "incorporated by reference" into Section 17.2 of the VCS U FSAR to align with Fleet. CR-20-03022
22	6/2021	VCS-UCR-2021-004	Chapter 1/Section 1.6	Correction of RN # associated with Section 1.6 Note CR-20-03020

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
22	1/14/21	VCS-UCR-2021-002	Section 10.4.7.1.2	Replace the Condensate to DA Flow Control Valves VC-20-00001 Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
22	9/2021	VCS-UCR-2020-026	Sections 6.2.1.3.10.1.2 and 6.2.7	The changes include the following: Reference to PWROG-17034-P-A in the mass and energy release for LOCAs section (6.2.1.3.10.1.2). The addition of Reference 49 (PWROG-17034-P-A) into the references section (6.2.7). ETE-NAF-2020-0113, Rev. 0
22	5/25/21	VCS-UCR-2020-017	Section 9.2	Rated horsepower change for the CCW Booster Pumps in FSAR Table 9.2-12 ECR 72669
22	4/29/21	VCS-UCR-2020-002	Section 1.8 of Appendix 3A	Update VC Summer Commitment Reg 1.8 to a newer revision Section 13.1.3.1.12 LBDCR-21-VCSI-001

Revision Summary (continued)

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22	3/31/21	RN 2020-01	Sections 1.6, TOC, LOF, 15.2.2.2, 15.2.2.2.1, 15.2.2.2.2, 15.2.4.2, 15.2.4.3, 15.2.7.2.1, 15.2.7.2.2, 15.2.8.2.1, 15.2.10.1, 15.2.10.2.1, 15.2.10.2.2, 15.2.10.3, 15.2.13, 15.2.16, 15.4.2.2.1, 15.4.2.2.2.1, 15.4.2.2.2.2, 15.4.6.2.2, 15.4.6.2.6, 15.4.6.2.8, 15.4.6.2.11, 15.4.7, Tables 15.1-2, 15.2-1, 15.4-19, 15.4-34, 15.4-42, Figures 15.2-3, 15.2-4, 15.2-5, 15.2-6, 15.2-7, 15.2-8, 15.2-9, 15.2-19, 15.2-20, 15.2-21, 15.2-25, 15.2-26, 15.2-27, 15.2-33, 15.2-34, 15.4-83, 15.4-84, 15.4-85, 15.4-86, 15.4-87, 15.4-88, 15.4-89, 15.4-90, 15.4-95, 25.4-96A, 15.4-96B, 15.4-100, 15.4-101, 15.4-102 (new), 15.4-103 (new)	Chapter 15 Non-LOCA Analyses With Updated RCE Initial Condition Uncertainties ECR-72616
22	11/5/21	RN 19-020	Figures 12.1-19 and 12A.4-7	Update of FSAR Figures Associated with ECR50928, Conduit Installation for Mansell System F ECR50928

Revision Summary (continued)

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22	9/29/21	RN 18-037	Section 9.4.7.2.4	FSAR Changes per ECR50585W "Replacement of Chiller B" ECR50585W
22	6/10/21	VCS-UCR-18-032	Table 8.3-3B	Update of Table 8.3-3b per ETBT 72319 ETBT 72319
21	04/2021	VCS-UCR-2021-005	Section 8.2.2	The FSAR is being updated to reflect the most recent Transmission Stability Study done for 2020. Though the conclusions of the study are in the end the same for the previous study and the FSAR, some portions need to be updated. For example, the year studied, the change from SCE&G to DESC, and some of the wording is being modified for readability and understanding.
21	04/2021	RN 09-013	Table 1.7-1, Section 10.4.7.2.3	Table 1.7-1 and Section 10.4.7.2.3 of the FSAR are being updated to address plant changes implemented per MRF 90004. Table 1.7-1 is being updated to remove reference to the elementary wiring drawings associated with the FWIV "B" train solenoids and alternate MCB FWIV switch. References to the "B" train solenoids and alternate MCB FWIV switch are being removed from Section 10.4.7.2.3. CR-08-01410, ECR 71280, MRF 90004

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
21	03/2021	VCS-UCR-2021-001	Sections 5.2.2.4, 6.3.4.3	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
21	03/2021	VCS-UCR-2020-027	Section 8.2	Revision of FSAR Sections 5.2.2.4 and 6.3.4.3 to revise the frequency for testing Pressure Isolation Valves from “every refueling outage” to “during refueling outages on a performance-based frequency” IST Program Relief Requests RR-4-19 and RR-4-21
21	02/28/21	UCR-2020-0021	Chapters 15.4.2 and 15.4.7 Tables 15.4-23 – 15.4-27, 15.4-34d, 15.4-41, 15.4-47, and 15.4-50	Adding a description of the Open Phase Isolation System (OPIS) to Chapter 8 per industry guidance. ECR50884 ETE-NAF-2020-0062 The FSAR description of the Main Steam Line Break (MSLB) dose analysis has been updated based on ETE-NAF-2020-0062. The changes include the following: <ul style="list-style-type: none"> • Update tables to reflect new MSLB analysis inputs and results. • Updates to descriptions to correct inconsistencies between sections, add clarification to improve reader understanding. • Update to description of non-design basis events.
	10/06/20	UCR-2020-025	Section 8.3, Section 8B	ECR 72707 – Section B This change updated FSAR Chapter 8 to reference SP-834 for construction guidance on electrical circuit physical separation.
	10/08/20	UCR-2020-022	Section 8.3	CR-20-00060 – Section 8.3 This change administratively corrected the when the Diesel Generator loads are verified from every refueling outage to periodically.

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	09/17/20	RN 19-042	Section 3A	LAR-03-01931-20 – APPENDIX 3A This change added Reg Guide 1.196 Revision 0 to the FSAR
	08/24/20	RN 19-030	Section 12.3 Section 13.4 Section 17.2	DOM-QA-1 REVISION 28 This change revised section 13.4.2 and 17.2 to reflect incorporation of VCS into the Dominion Energy nuclear Facility Quality Assurance Program Description. Section 12.3.1.1 was revised to replace PSRC and NSRC with FSRC and MSRC, respectively.
	07/02/20	RN 19-034	Section 9.4	ECR 72587 – Section 9 This change corrected the description of the Penetration Access Areas Ventilation System.
	06/18/20	RN 19-023	Section 7.5 Section 7.7 Section 7.3 Section 14.1	ECR 72535 – Section 7, 9 and 14 These sections are being revised to remove the terminology referring to specific types of recorders.
	01/27/20	RN 19-037	FSAR Drawing removal	FSAR DRAWING REMOVAL This change removed the FSAR drawings in order to obtain alignment with Dominion Fleet.
	01/22/20	RN 14-015	Figure 1.2-5, Figure 1.2-6, Figure 9.3-1	ECR 50790B – Fuel Handling Building Upgrade This change upgraded the Fuel Handling Building for Used Fuel Storage, which includes the addition of dry cask storage equipment.

Revision Summary (continued)

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	01/06/20	RN 19-033	Section 12.3, Section 13.4, Section 17.2	ECR72598 – Repair of Leaking Buried Pipe This change revised Drawing D-302-201 to show a cured-in-place liner was installed under WO 1104685 to repair leaking buried pipe from Steam Generator Blowdown return to circulating water return.
	01/06/20	RN 19-012	Section 2.2, Section 6.4, Table 6.4-3, Section 9.2, Figure 9.2-8, Section 9.4	ECR 72460 – Chlorine No Longer Stored On-Site This change updated the FSAR Figure 9.2-8 to reflect chlorine is no longer stored on-site.
	01/02/20	RN 18-008	Figure 1.2-5, Section 7.7, Figure 8.3-4, Section 9.3, Figure 9.3-16, Sheet 2	ECR 50905 – Elimination of Boron Concentration Monitoring System These changes eliminated the Boron Concentration Monitoring System (BCMS).
	12/18/19	RN 19-026	Section 13.1	QAPD REVISION 7 – Section 13.1 This change revised Sections 13.1.2 and 13.1.3 to address organizational changes made by QAPD Revision 7 to support integration into the Dominion Energy Nuclear Fleet.
	12/12/19	RN 15-013	Figure 1.2-1, Figure 2.4-1, Figure 2.4-6, Figure 8.2-2a, Figure 8.2-2b, Figure 8.3-5a	ECR 50882- installation of new Critical Infrastructure Protection Building in Switchyard This change installed new Critical Infrastructure Protection Building in the Switchyard to meet North America Electric Reliability Corporation version 5 Critical Infrastructure Protection Reliability Standards.
	12/04/19	RN 10-032	Figure 1.2-6	ECR 50765 – Installed FME Equipment at Spent Fuel Pool This change installed portable handrails and nylon FME canvas covers at 463 elevation and on the mezzanine area above the Spent Fuel Pool.

Revision Summary (continued)

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	11/25/19	RN 19-015	Section 18.2.22, Section Appendix 3A	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. FSAR Appendix 3A and Chapter 18.2.22 Update This change revised FSAR Appendix 3A and Chapter 18.2.22 to update the references to NUMARC 93-01 revision form Revision 2 to Revision 4F and Regulatory Guide 1.160 Rev. 3 to Rev. 4.
	11/20/19	RN 19-005	Figure 9.3-14	ECR 72280 - Section 9 Figure Update This change added 2 new valves and associated piping there were added per NC-13-02056 Disposition #1
	11/05/19	RN 16-021	Figure 1.2-5, Section 2.4, Section 3.4, Section 9.3	ECR 50890 – External Flooding Protection This change revised FSAR drawings to include the modifications generated in TR02060-003 flooding re-evaluations post-Fukushima.
	10/17/19	RN 19-019	Figure 8.2-2, Figure 8.2-3	ECR 72530 This change revised Figure 8.2-2 and Figure 8.2-3 to include a sheet 1 for each drawing
	10/08/19	RN 18-035	Figure 9.3-18	ECR 72432 – Boron Recycle System Drawing, Database, and DBD Corrections This change revised FSAR Section 9.3, Figure 9.3-16. The changes made reflect the as-built and approved configuration of the plant.
	09/30/19	RN 16-022	Section 1.2, Section 9.2	ECR 50891 – Potable Water Connections This change updates section 1.2.3.8.4 with the alternate source of potable water from the Off Site Water Treatment System.

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	09/19/19	RN 19-021	Section 7.1, Table 7.1-2 Figure 9.3-18	ECR 72221 This change revised FSAR Table 7.1-2 and Figure 9.3-18 to correct administrative errors. FSAR Section 9.3, Figure 9.3-18 had a valve incorrectly labeled as PVC-251 instead of PCV-251. FSAR Table 7.1-2 had a typographical error where number "13" was listed twice in the number sequence
	08/22/19	RN 15-005	Figure 10.4-17	ECR 50837 – Replacement of LW Piping at Penstock This change revised FSAR Figure 10.4-17 to include a check valve in between XVG6904D and XVG06903D, added a guard pipe around he 3” process pipe, added a level switch, and enlarged the valve box around valves XVC06903 and XVC6903E.
	08/16/19	RN 19-013	Section 9.5	CR-17-04053 This change revised FSAR Section 9.5.7.4 to read “Lube oil is replaced when it no longer satisfies site standards.”
	08/12/19	RN 19-004	Figure 9.4-28	ECR 72464 – Section 9 Figure Update This change revised FSAR Section 9.4 Figure 9.4-28 to correct the sample header (at coordinate E-7) from D-806-001 A-5 to D-806-001 C-5
	07/11/19	RN 19-014	Section 8.3, Table 8.3-3b	MRF 21307 230 KV & 115 KV System Digital VM Installation This change revised the Indicator Type in FSAR Table 8.3-3b to Electro Industries DTVA120, A-C Voltmeter.

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	06-24-19	RN 14-010	Figure 8.3-4a	ECR 50737 – Replacement of Alterrex Rectified Diode Assemblies This change revised FSAR Figure 8.3-4a to show spare DPN1HX3 breaker 07 is no longer used to power the Alterrex Rectified alarm circuitry.
	06-13-19	RN 19-009	Figure 10.4-10	ECR 72513 – CR-19-00592 This change revised FSAR Figure 10.4-10 to correct the equipment ID for the Main Feedwater Warm-up Header Isolation Valve.
	06-03-19	RN 19-006	Figure 9.2-2, S1 Figure 9.2-2, S3 Figure 10.4-4a Figure 10.4-4b	ECR 72463 – Drawing and Database Corrections for XVG03105A/B-SW Solenoid Valves This change revised FSAR figures in Section 9.2 and 10.4 to include current information and remove historical references.
	06-03-19	RN 18-056	Figure 9.5-1, S3	ECR 72486 – RB Hose Reel Supply Valve Equipment ID Change This change revised FSAR figures 9.5-1 to reflect the as-built configuration of the plant. Valve 06779-FS which is shown as an angle valve but a gate valve is installed at this location was corrected.
	2019-05	RN 16-008	Figure 5.2-8A	ECR 72141- Revision to Figure 5.2-8A This change revised FSAR section 5.2 to include the as-built configuration of the Nitrogen System.

Revision Summary (continued)

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	2019-05	RN 18-040	Figure 9.2-4	ECR 72444 - Corrections to FSAR Figure 9.2-4 This change revised FSAR Figure 9.2-4 to reflect the as-built configuration of the plant. The location of the plugged recirculation line, valve symbol used for XVA09614-CC, added IFX7081, and flanges on either side of the CC Chem Inj Pump Oil Trap were added to the figure.
	2019-05	RN 18-046	Figure 10.4-7A	ECR 71630 – Correction to FSAR Section 10 Figure 10.4-7A, Drawing D-302-165, Revision 30 This change revised FSAR Figure 10.4-7A to include Pressure indicator (IPI16631) and the associated HR valve (IPI16631-HR-WI). These changes were made to reflect the as-built configuration of the plant.

Revision Summary (continued)

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	2019-05	RN 18-050	Figures 9.5-1 SH 1, 3, 4 & 5	<p>ECR 50628 – Fire Protection Program Transition to NFPA 805</p> <p>This change revised FSAR Section 9.5.1 Figure 9.5-1, S1, S3, S4, and S5 to correct errors identified during ECR 50628 implementation. Figure 9.5-1 S1 was revised to add a reducer downstream of XVT06017-FS and to Shift border for AFSPH back to proper location. Figure 9.5-1 S3 & S4 was revised to remove safety classification flags to show fire hose stations that are listed in SAP-131A and Figure 9.5-1 S3 & S4. Since these Hose stations are Quality Related (QR) Note 3 was which states "Valve is QR, Hose Station is Non-Safety Related." Figure 9.5-1 S5 was revised to remove the safety classification flag upstream of XVM041 05-FS.</p>
	2019-05	RN 19-001	Figure 9.3-2	<p>ECR 72491 - Renaming XVA72670 to XVN72670</p> <p>This change revised FSAR Figure 9.3-2 to correct the valve symbol to show a needle valve for VN72670.</p>
	2019-04	RN 18-039	Figure 9.4-25, SH2	<p>ECR 50874AD - Reactor Building Cooling Upgrade Major Revision</p> <p>This change revised FSAR Figure 9.4-25 to include the installation of oil coolers to XHX0010B and XHX0010C.</p>

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	2019-03	RN 11-024	Figure 2.4-6, Figure 9.3-15	Engineering Change Request (ECR) 50809 and ECR 50809F - Site Drainage Piping Improvements This change revised FSAR Figure 2.4-6 and 9.3-15 to show the modification of drain lines and relocated drainage outlets to comply with 10CFR73.55 and 10CFR73.58.
	2019-03	RN 16-010	Section 8.1 Section 8.2 Figure 8.2-1, Figure 8.2-2 Figure 8.2-2a, Figure 8.2-2b Figure 8.2-2c	ECR 50855 – Replacement of Fairfield Breakers 8942 and 8912 This changed revised FSAR Figures in Section 8.2 to incorporate the replacement of Fairfield Breakers 8942 and 8912. The previous oil circuit breakers 8942 and 8912 were replaced with SF6 circuit breakers, new coupling capacitors, voltage transformers, and new foundations for each line.
	2019-03	RN 17-008	Figure 9.5-1, SH2 Figure 1.2-1	ECR 50913 – South Protected Area Blast & Ballistic Rates Enclosures (BBRE) Installation This changed revised FSAR Figures 1.2-1 and 9.5-1 to reflect the removal of the ‘C’ Warehouse south overhang sprinkler system and addition of three new security BBREs.
	2019-03	RN 18-047	Figure 5.2-8A	ECR 50931, Incore Detector System Ten Path Vent Removal This change revised FSAR Section 5.2, Figure 5.2-8A to incorporate the incore detector system ten path vent removal. This revision consisted of removing portion of the CO2 Purge System tubing and installing an overflow drain line to ILS50402.

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	2019-03	RN 18-053	Figure 9.2-9, Figure 9.3-2	ECR 72479 - Airflow/Flow Path Corrections to FSAR Figure 9.2-9 and FSAR Figure 9.3-2 This change revised FSAR Figure 9.2-9 and 9.3-2 to correctly show the instrument air flow requirements for the DW Demineralizers. These changes were made to reflect the approved, as-built configuration of the plant.
	2019-02	RN 14-041	Figure 7.4-1, Figure 7.4-2 Figure 8.3-2aa, Figure 8.3-2ab Figure 8.3-4	ECR 50810 - Hazards Protection for NFPA 805 Transition This FSAR change revised plant drawings to achieve compliance with NFPA 805 requirements. Specifically, FSAR figures 7.4.1 and 7.4.2 were revised to include the addition of the new transfer switches for the EFW valves and charging vale to allow isolation of the control building circuits for control room evacuation panel operations in case of a fire. FSAR Figures 8.3-2aa, 8.3-2aB, and 8.3-4 were revised to show the addition of the new fuses in the shunt circuit for Control Room Battery Charger remote ammeter circuits.
	2019-02	RN 15-010	Figure 1.2-1, Figure 2.4-6	ECR 50888 – Combined Maintenance Shop Utility Tie-Ins and Site Preparation This change revised FSAR Figure 1.2-1 and 2.4 to show the new utility tie-ins for a Combined Maintenance Shop in the yard area.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2019-02	RN 18-004	Section 8.3, Figure 8.3-4b	<p>ECR 50615 - Elimination of XIT5905 for Digital Control Systems (DCS) Cabinets XPN6035 thru XPN6038</p> <p>This change revised FSAR Figure 8.3-4b to reflect the configuration changes of adding a redundant power supply to the DCS Cabinets. FSAR Section 8.3.2.1.1 and 8.3.2.1.5.5 were also revised to include the Independent Spent Fuel Storage Installation Electrical Building as an uninterruptible power supply to the secondary plant digital control system.</p> <p style="text-align: center;">13</p>
	2019-01	RN 17-029	Section 3.2, Section 3.9 Section 6.2, Figure 6.2-52 Figure 7.5-1, SH5, Figure 9.2-9A, Section 9.4 Figure 9.4-32	<p>ECR 50917 – Control Rod Drive Mechanism Cooling System Demolition</p> <p>This change revised the FSAR description of the CRDM Cooling Water System to denote equipment removed during RF-24 and its status of being abandoned in place to ECR 50917. These changes were incorporated to FSAR Sections 3.2, 3.9, 6.2, 7.5, 9.2, and 9.4.</p>
	2019-01	RN 18-028	Figure 5.2-8a	<p>ECR 72404 – Low Pressure Nitrogen Missing Needle Valves Document & Database Changes</p> <p>This change revised FSAR Figure 5.2-SA to include two missing needle valves (XVN06300-NN and XVN06301-NN) in the Low Pressure Nitrogen System.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2019-01	RN 18-030	Figure 9.2-9	ECR 72406 – Addition of XVG15522-DW to FSAR Figure 9.2-9 This change revised FSAR Figure 9.2-9, Demineralizer Water System Flow Diagram to include XVG15522-DW.
	2019-01	RN 18-044	Figure 10.4-17	ECR 72207 NC/CR-11-03747 Accept-As-Is/ Current Penstocks Operation Acceptable This change revised FSAR Figure 10.4-17 to permanently accept the current condition/operation of the Liquid Waste System at the Penstocks, with section of piping removed & valve XVG06904A-LW out of service.
	2019-01	RN 18-045	Figure 9.2-2, SH1 Figure 9.2-2, SH3	ECR 50933 – Repair Service Water (SW) Pipe Leaks Using PM Caps This change revised FSAR Figure 9.2-2 to move the design flags from the outlet of the XVB03121A(B)-SW to the outlet of the orifice XPS0245A(B). These changes were a result of cavitation damage at the outlet of XVB03121A(B)SW, EDG Cooler A and B Service Water Return Valves, the material downstream is changed to stainless and an orifice is installed to lessen the throttling duty of the valves.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2019-01	RN 18-048	Figure 9.2-7	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR 72474 . Piping and Valve Corrections to FSAR Figure 9.2.7</p> <p>This change revised FSAR Section 9., Figure 9.2.7 to reconnect ITI07003B to the Charging/SI Pump cooling water return line and redraw valve symbols for XVT09530A/B/C/CC and XVT09686A/B/CCC.</p>
	2019-01	RN 18-052	Section 11.3 SH 1	<p>ECR 72478 – Piping Correction to FSAR Figure 11.3-4</p> <p>This change revised FSAR Section 11.3, Figure 11.3-4 to remove a cross-connection at a coordinate (F-8) that does not exist.</p>
	2019-01	RN 18-054	Section 3A	<p>FSAR Appendix 3A Division 1 NRC Regulatory Guides applicable to the VCSNS. (CR-16-01194)</p> <p>This change revised the specific revisions listed for Regulatory Guides 1.84 and 1.192 in FSAR Appendix 3A. FSAR Appendix 3A was also revised to show that Regulatory Guide 1.85 was withdrawn and eliminated.</p>
	2018-12	RN 17-022	Section 3.10, Section 8.3 Figure 8.3-1	<p>ECR 50883 – Safety Related Inverter Replacement</p> <p>This change revised FSAR Sections 3.10 and 8.3 to include the increased efficiency of the replacement inverters XIT5901, XIT5902, XIT5903, and XIT5904 on the automatic and manual loading and unloading of the Diesel Generator.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2018-12	RN 18-033	Figure 9.3-2	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR 72429 – Misaligned Instrument Air Valve This change revised FSAR Section 9.3 Drawing D-302-271 to correct the valve XVA76670-IA to XVA72670-IA.</p>
	2018-12	RN 18-036	Section 6.2	<p>ECR 72425 – Reactor Building Spray Operation Basis Reconciliation This change to the FSAR clarifies the operating time of the Reactor Building Spray System following a design basis Loss of Coolant Accident from 2 hours to 4 hours.</p>
	2018-12	RN 18-017	Figure 1.2-11, Figure 12.1-4 Figure 12.1-13, Figure 12A.4-8	<p>ECR 50920 – Emergency Feedwater Mezzanine Walk Platform This change revised FSAR Figures 1.2-11, 12.1-4, 12.1-13, and 12A.4-8 to include the addition of an emergency feedwater mezzanine walk platform.</p>
	2018-10	RN 18-018	Figure 4.2-6	<p>ECR 50923 – Cycle 25 Core Reload Design This change revised FSAR Section 4.2 Figure 4.2-6 to be consistent with the fuel built for VCSNS Unit 1 Cycle 25. Specifically, this change incorporated the Westinghouse design change of the Fuel Top Grid bulge tool.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-10	RN 18-026	Figure 9.2-1, SH1 Figure 9.2-9A, Figure 10.4-7A Figure 11.3-4, SH3	ECR 72395 – Corrections to FSAR Figure 302 Drawings This change revised FSAR Section 9 Figure 9.2-1, Drawing 302-221 Sheet 1, Revision 32 and Figure 9.2-9A, Drawing 302-162, Revision 14; Section 10 Figure 10.4-7A, Drawing 302-165, Revision 29 and Section 11, Figure 11.3-4, Sheet 3, and Drawing E-302-742, Revision 17. These changes were completed to ensure that the drawings reflected the as-built configuration of the systems.
	2018-10	RN 18-034	Figure 6.2-59	ECR 72431 – Correction to FSAR Section 6.2, Figure 6.2-59 This change corrected Equipment IDs for valves associated with IFI07304, IFI07305, and IFI07313 on the Reactor Containment Leak Rate Test Panel.
	2018-10	RN 18-042	Section 6.2, Section 10.4	CR-14-01490 – Revise Reactor Building Spray System and Feedwater System Design Information This change revised FSAR Sections 6.2 and 10.4 to include a description of relief valves installed to prevent pressure locking of the Reactor Building Spray System and Feedwater System Valves.
	2018-10	RN 18-043	Section 13.2	ACAD 17-001 Training Program This change revised FSAR Section 13.2.1, Item 9 to remove the reference to Mechanical Maintenance Supervisor Training Program as an INPO Accredited Training Program.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-09	RN 18-024	Figure 9.3-3	<p>ECR 72186 – Correction to FSAR Section 9 Figure 9.3-3</p> <p>This change corrected piping configuration upstream of the Reactor Building (RB) Instrument Air (IA) Compressors to reflect the as-built configuration of plant. Equipment IDs IPI08364 and IPI08374 High Root Valves were corrected. The electrical connection to the ‘A’ RB IA Compressor Motor will be drawn to show it cross over the 6-inch header to the ‘A’ Compressor.</p>
	2018-08	RN 17-012	Figure 9.3-14	<p>ECR 50910 – Turbine Building Sump Radiation Monitor RM-L8 Sample Line Suction Strainer</p> <p>This change added a Wye strainer, strainer blow-off isolation valve, and strainer isolation valve to drawing D-302-352. The strainer and associated valves were installed to intercept and remove debris upstream of the Turbine Building Sump Liquid Radiation Monitor (RML0008).</p>
	2018-08	RN 17-028	Section 6.2 Figure 6.2-1-6.2-3 Figure 6.2-7	<p>ECR 72296 – TS 6.8.4.g Containment Leak Rate Testing Program – LAR-14-01541</p> <p>The change revises the peak loss of cooling accident containment pressure to a value which reflects an updated mass an energy (M&E) analysis. The peak pressure is also used as a criterion for containment leak rate testing. The updated M&E analysis address Westinghouse Nuclear Safety Advisory Letters NSAL-06-06, 11-2, and 14-1.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-08	RN 18-007	Figure 9.5-1, SH1 Figure 9.2-4, Figure 9.2-6	ECR 72366 – Correction to FSAR Figure 302 Drawings This change corrected component symbols in FSAR Section 9.2 and 9.5 302 Drawings.
	2018-08	RN 18-011	Figure 5.2-8 Figure 9.2-2, SH4 Figure 9.3-4, Figure 10.4-6 Figure 10.4-7A	ECR 72367 – Corrections to Drawing Errors Generated During CADD Process This change revises FSAR Drawings – Section 5 Figure 5.2-8, Drawing 302-812, Revision 21; Section 9 Figure 9.3-4, Drawing 302-771, Revision 40 and Figure 9.2-2, Drawing 302-222, Sheet 4, Revision 4; Section 10 Figure 10.4-6, Drawing 302-204, Revision 4, and Figure 10.4-7A, Drawing 302-165, Revision 29.
	2018-08	RN 18-012	Figure 9.5-7	ECR 72375 – FSAR Figure Enhancement This change enhanced FSAR Figure 9.5-7 to make the equipment identifications (IDs) associated with IMS-32-005-3 legible.
	2018-08	RN 18-021	Figure 9.2-2, SH 2 Figure 9.2-2, SH 4	ECR 71580 – Revision to Drawing D-302-222, S2 and S4 This change corrected FSAR Section 9.2 Drawing 302-222 Sheet 2 and 4 to reflect as-built conditions for their respective systems. 21

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2018-07	RN 18-003	Section 18.3.2	<p>ECR 72340 – Environmentally Assisted Fatigue Methodology</p> <p>This change revised FSAR Section 18.3.2.1 to include the use of NUREG/CR-6909 as an acceptable NRC approved methodology for computing fatigue cumulative usage factors, which account for the effects of environmentally assisted fatigue for the period of extended operation.</p>
	2018-07	RN 18-015	Figure 9.3-16, SH 3	<p>ECR 72379 – Revision to FSAR Section 9.3, and Figure 9.3-16 Sheet 3.</p> <p>This change revised FSAR Figure 9.3-16 Sheet 3, Drawing E-302-675, Revision 37 to add a missing ‘B’ match mark flag that was inadvertently removed under ECR 51007.</p>
	2018-07	RN 18-023	Figure 9.2-5	<p>Equal To or Better Than (ETBT)-458 – Replacement Check Valves for XVC09591A/B/C-CC</p> <p>This change removed the Bill of Materials number ‘ROI-5’ and replaced it with ‘ETBT-458’ on FSAR Figure 9.2-5 (Drawing D-302-612, R28) to reflect the replacement of Check Valves XVC09591A/B/C-CC.</p>
	2018-07	RN 18-029	Section 3A	<p>CR-17-00717 – Correction to FSAR Section 3A</p> <p>This change revised the VCSNS regulatory position on quality requirements associated with Reg. Guide 1.189</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-06	RN 18-014	Section 2.5.4	CR-12-00400 – Added the use of Controlled Low-Strength Material This FSAR change adds the use of Controlled Low-Strength Material flowable cementitious backfill as an acceptable safety related backfill to FSAR section 2.5.4.5.2.
	2018-06	RN 18-022	Section 6.2	CR-18-01009 – Correction to FSAR Table 6.2-54a This change makes a correction to FSAR Table 6.2-54a. This correction adds a spare electrical penetration, Penetration 807 to the table.
	2018-06	RN 18-025	Figure 9.3-7	ECR 71289 – Correction to FSAR Section 9 Figure 9.3-7 This change corrected two labels (J-6 and J-9) at location F-11 and added a label to location H-12 for FD-23 on E-911-103.
	2018-05	RN 17-021	Figure 5.5-4	ECR 50914 – Revise FSAR Figure 5.5-4 – RHR Vent Quick Connects This change revised an error in a safety-class marker at vent RH-10.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-05	RN 17-030	Section 12.1, Section 12.3 Table 12.3-2, Table 12.3-3 Table 12.3-4	CR-17-02776 and CR-17-04650 – Correct Errors in Chapter 12.1 and Chapter 12.3 This change corrected a typo in FSAR Chapter 12.1 and implemented changes in FSAR Chapter 12.3 as a result of the 2017 Calibration Lab self-assessment. FSAR Chapter 12.3 added additional clarification to contamination monitoring practices and oversight structure
	2018-05	RN 17-033	Section 8.3, Table 8.3-3	ECR 50752 – Project, Security 10 CFR 73.55 Upgraded This change revised FSAR Chapter 8, Table 8.3-3 to incorporate a new redundant Protected Area (PA) Intrusion detection and video surveillance and assessment system called the Integrated Video Management System (IVMS).
	2018-05	RN 18-010	Figure 10.4-9	ECR 50065 – Section 10 Figure 10.4-9, Drawing D-302-102, Revision 28. This change moved design flags on the system flow diagram drawing for the Condensate inlet and outlet of the Blowdown Heat Exchangers back to their correct location.
	2018-05	RN 18-013	Figure 6.2-50, S4	ECR 50897 – Replacement Reactor Service Structure-Integrated Head Assembly (IHA) This change revised FSAR Section 6, Figure 6.2-50, Drawing 922-104, Revision 7 to include the addition of the Integrated Head Assembly (IHA) and instrumentation added by ECR 50897.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-05	RN 18-016	Section 12.2, Section 12.3 Table 12.3-3, Index 13-iv Section 13.1, Figure 13.1-4 Section 13.2, Section 13.4 Section 13.5, Section 13.6	CMP-17-04632 – Organizational Changes required due to the closure of Units 2 and 3. This change was performed due to the closure of the Unit 2/3 project requiring a new organizational structure. Changes to programs owned by department was needed due to the Emergency Response Unit assuming responsibility for non-radiological respiratory program while Radiological Protection retained ownership of radiological respiratory program.
	2018-05	RN 18-019	Section 3A, Section 7.1 Section 7.4, Section 8.3 Section 13.5, Section 18.2 Section 18.4	CR-18-00530 – FPER Removal This change removed references to the Fire Protection Evaluation Report (FPER). FPER is labeled Historical and is no longer a reference source to the FSAR.
	2018-04	RN 18-005	Figure 9.5-1, S1	ECR 72329 – Revised Section 9, Figure 9.5-1, S1, D-302-231, R38 This change revised valve symbols on Section 9 Figure 9.5-1 Sheet 1, Drawing 302-231 Sheet 1, Revision 38 for XVT04115-FS and XVT14000-FS. These valve symbols were changed from gate valves to the standard globe valve symbol.
	2018-04	RN 18-006	Section 2.3	ECR 50518 – Section 2.3.3.2 Page # 2.3-26 This change revised FSAR section 2.3.3.2 to delete “TSC” from the IPCS Control Building location description.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2018-04	RN 18-009	Section 3A	<p>Section 3A License Amendment 183 Alternate Source Term updated FSAR 3A Section 1.13 This change revised the spent fuel pool ventilation requirements in FSAR 3A Section 1.13 to align with License Amendment Request 183- Alternate Source Term.</p>
	2018-04	RN 12-035	Figure 10.3-2	<p>ECR 71780 – Revision of FSAR Figure 10.3-2, D-302-012 This change revised Figure 10.3-2, D-302-012 to correctly show the design configuration of the sensing lines IPT05673 and IPX05673 including valves XVT22818-MS and IPT05673-HR-TB. The sensing line from steam chest to XVT22818-MS was revised from 3/4" to 1". Valves XVT22818-MS and IPT05673-HR-TB were revised from 3/4" to 1". Sensing line IPT05673 was changed from 3/4" to 1". The sensing line to IPX05673 was revised to be 3/4" 902X piping and 3/8" 2505X tubing.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-04	RN 13-012	Section 8.2.1, Figure 8.2-2 Figure 8.2-2a, Figure 8.2-2b Figure 8.2-2c, Figure 8.3-5 Figure 8.3-5a	ECR 50836 and ECR 50867 – Replacement of VCS 230kV Off-site Supply Breaker 8892 This change replaced the existing Oil Circuit Breaker XCB8892 with a new Sulfur Hexafluoride (SF6) gas circuit breaker. This change also included an additional bushing current transformer (CT), installed a capacitance coupled Voltage Transformer (CCVT) and other supporting hardware. Additionally, 63kA circuit breaker XCB8932 was replaced with a new SF6 gas circuit breaker and supporting hardware.
	2018-04	RN 15-006	Figure 1.2-3, Figure 9.5-1, S5	ECR 50810A and ECR 50810I – Hazards Protection for NFPA-805 Transition This change addressed the following scope items related to the Hazards Protection for NFPA 805 Transition: 1) Modification of IB 436'. 2) Modification of AB 400' Fire Detection System. 3) Hydraulic Analysis of IB 436' and 412' Control Complex Fire Protection Sprinkler Systems. 4) Installation of overpressure protection for wet pipe sprinkler systems. 5) Replacement of Sprinkler System Heads in Turbine Driven Emergency Feedwater Pump Room.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-04	RN 16-028	Section 8.2	ECR 71872 – Updated for Review Transmission Stability Study Updated FSAR to reflect 2017 Transmission Stability Study. No design or operational plant parameters were changed. This ECR also developed a calculation to formalize the review of the Stability Study. Refer to CR-15-04773 and CR-13-03074 for additional information regarding why this ECR was needed
	2018-04	RN 17-010	Figure 1.2-28a, Figure 8.2-3 Section 9.4, Figure 9.4-25, S1 Figure 9.4-25, S2	ECR 50874 – Reactor Building Cooling Upgrade This change installed new Chiller Loop to act as a new heat sink for Industrial Cooling Water system. To support this new system, four (4) 400-ton chillers, two (2) chilled water pumps, and frame heat exchangers were installed in parallel with the existing Industrial Cooling Towers.
	2018-04	RN 17-023	Figure 9.3-14	ECR 71365 – Correct error in Figure 9.4-14 This change corrected an administrative error on FSAR Figure 9.3-14 drawing D-302-352. In section E-9, a line appeared to show a connection coming off of a 6" header which implied it goes to drawing 302-207 at location D-4. This error was introduced during a CADD enhancement of the drawing per ECR 50239.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2018-04	RN 18-001	Figure 10.3-2	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR 72324, CR-17-04302 – Revised Figure 10.3-2, Drawing D-302-012, R36</p> <p>This change modified Drawing D-302-012 at G3. A section of the reheat steam drain line, was changed from a 1” pipe to a 2” pipe to reflect the as-built configuration.</p>
	2018-03	RN 17-034	Figure 9.2-9b	<p>ECR 72323, CR-17-05919 – Typo Correction for Figure 9.2-9b</p> <p>This change corrected a typographical error on FSAR Figure 9.2-9b, D-302-164, R24. At location H-8 on the figure, XA3-29-DW was corrected to read XAJ-29-DW.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2018-02	RN 16-003	<p>Figure 1.2-9, Figure 1.2-10, Section 3.2 Table 3.2-1, Table 3.2-3 Section 3.5, Table 3.5-3 Section 3.7, Table 3.7-3 Section 3.8, Section 3.12 Section 3A, Section 4.2 Figure 4.2-22, Figure 4.2-23 Index 5-ix, Section 5.1 Figure 5.1-1, S1 Section 5.2, Table 5.2-8 Table 5.2-11, Table 5.2-13 Section 5.4, Section 5.5 Table 5.5-13, Table 5.5-14 Table 5.5-15, Section 5.6 Section 6.2, Table 6.2-7 Figure 8G-2, Section 9.1 Section 9.4, Figure 9.4-31 Figure 12.1-8, Figure 12.1-9 Figure 12.1-17, Figure 12.1-18 Section 15.4</p>	<p>ECR 50868 and ECR 50897 – Replacement of Reactor Vessel Head This change incorporates the changes made by ECR 50868 and ECR 50897 that replaced the reactor vessel head and service structure.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2018-02	RN 17-004	Section 6.3	<p>ECR 72012 – RWST Empty Level Alarm Setpoint Change</p> <p>This change revised the Caution prior to Step 1, EOP-2.2 Revision 16, from stopping all pumps taking suction on the RWST on the 6% empty alarm to a 10% control board indication. This was done to provide protection to the critical vortex level of 5% consistent with Tech Report TR09650-001. This change significantly reduced the indicated level available to complete swapper from RWST injection to containment sump recirculation, and the existing operator timeline calculation no longer supports this scenario.</p>
	2017-12	RN 17-025	Section 13.4	<p>CR-16-02179 – FSAR CHAPTER 13, SECTION 13.4.2.1</p> <p>This change removed the word “audit” based on guidance in ANSI N18.7-1976 Section 4.4 describing the review activities of the Onsite Operating Organization.</p>
	2017-11	RN 17-016	Figure 9.3-16, S4	<p>ECR 72275 – Thermal Regeneration Demineralizer Drawing Correction</p> <p>This change corrected drawing 302-676 for the Chemical Volume Control System piping associated with the Thermal Regeneration Demineralizers. There was an erroneous connection point depicted on the drawing.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-11	RN 12-030	Section 3.9, Table 3.9-8 Table 3.10-3, Section 3.10 Section 9.2, Figure 9.2-2, S1 Section 10.4, Table 10.4-8 Figure 10.4-8, Figure 10.4-16 Section 15.4	ECR 50695 B/C/E/G – Installation of Cured-In-Place Pipe-Liner This change installed a Cured-In-Place Pipe-liner (CIPP) in the Service Water (SW)-to- Emergency Feedwater (EF) cross connect lines for Train A. This change also installed EF Cavitating Venturis (XPS5040A/B/C), EF Automatic Recirculation Control Valves (XVM01072A/B) on the Motor-Driven EF Pumps, and a new by-pass test line for the Turbine-Driven EF Pump. Note 13 was added to drawing 302-101 regarding TRP-13 for Quality Related EF Recirculation line.
	2017-10	RN 17-015	Section 8.3, Figure 8.3-0 Figure 8.3-0d, Figure 8.3-0e Figure 8.3-0f, Figure 8.3-0g	ECR 50919 and ECR 50919A – Cable Bus Conductor Replacement This change replaced cables in cable duct for the normal feed from XTF31 to XSW1DB U16. During RF23, corona damage was witnessed in several locations on several of the cables for the normal feed from XTF31 to XSW1DB U16. This cable replacement required several drawing changes related to cable run.
	2017-09	RN 16-011	Figure 1.2-6, Figure 1.2-7 Table 6.2-7, Figure 8G-3	ECR 50869 – B Loop Auxiliary Crane This change replaced the existing B Loop Auxiliary Crane (XCR0064) with a new, permanently installed, crane. The new crane was installed on the existing Auxiliary Crane Support Tower (MK-180ST1) in the Reactor Building

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-09	RN 17-006	Figure 9.2-2, S1, Figure 9.4-22	ECR 50585U – A-Chiller Replacement This change replaced the A-Chiller with new chiller designed to resolve numerous designed challenges and improve reliability.
	2017-09	RN 17-013	Figure 8.2-4	ECR 50915 – Modification to Allow Emergency Diesel Generator to Parallel with Alternate AC This change allowed the station to transfer the 7.2 kV ESF Buses XSW1DA and XSW1DB from the normal or alternate feed to Alternate AC (AAC) source using XTF5052.
	2017-09	RN 17-014	Section 5.5, Figure 9.3-5 Figure 9.3-16, SIC	ECR 50799H – RCP #3 Seal Leakoff Overflow Piping Installation This change added a description of Reactor Coolant Pump seal leakoff alternate overflow path to section 5.5.1.3.12, and updated the station drainage flow diagram and administrative change to Chemical Volume Control System Flow diagram.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-08	RN 17-019	Figure 1.2-5	ECR 50614 – Reactor Building Safety Modification This change upgraded personnel safety features associated with the Reactor Building. Existing ladders have been modified with the addition of ladder extensions, safety gates, cages and vertical ladder cage bars to the top of adjacent handrail. Existing platforms have been modified with the addition/modification of handrails, toeplate, chains and grab bars. The Loop B platform at elevation 435'-11¼" has been modified by adding additional walking surfaces to facilitate access around existing piping and supports.
	2017-08	RN 15-001	Figure 10.3-1	ECR 50828 – Revision of Figure 10.3-1 This change revised the control logic for manually operating Main Steam Isolation Valves (MSIV) XVM2801A/B/C by interlocking with the Main Steam Isolation Bypass Valves XVM2869A/B/C to ensure the bypass valves are fully open prior to the MSIV valves opening.
	2017-08	RN 16-027	Figure 9.3-10	CR-16-04716 – Revision of Figure 9.3-10 This Revision corrected FSAR Figure 9.3-10 for the proper location of orifices installed as isolation boundaries for the chillers and chilled water pumps.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-08	RN 17-003	Section 9.2.7.4	CR-16-03524 Revised FSAR Section 9.2.7.4, "Inspection and Testing Requirements" This change revised FSAR Section 9.2.7.4 to remove the statement specifying 10CFR50.55a requires the Reactor Makeup Water System ANSI N18.2 Safety Class 2b/NNS isolation valves be closure tested under 10CFR50.55a. The valves are passive and do not perform a specific safety function that would require testing under 10CFR50.55a. This change removed the statement that Class 2, Category A valves in this system require periodic closure and Type C leakage tests under 10CFR50.55a. This FSAR change also deleted the statement that periodic tests of the XVD01920A/B-MU valves and Control Isolation Valves are required (CIV's are part of RC System).
	2017-07	RN 16-031	Figure 1.2-20	ECR 72202 – Change to FSAR Figure 1.2-20 As-built Configuration of door DRWT/204 This change corrected a drawing discrepancy related to the location of door DRWT/204.
	2017-07	RN 17-011	Section 3.11.1.1.1 Section 9.3.3.1 Section 9.4.6.1, Figure 9.4-14	ECR 50585 – Adds Steam Propagation Barriers to the FSAR This change corrected the design functions of the steam propagation barrier equipment and floor drain system.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-07	RN 15-020	Figure 1.2-24, Figure 9.2-1	<p>ECR 510038B – FLEX Alternate Emergency Feedwater (EFW) Suction Source</p> <p>This change provided a 4" connection to the Service Water discharge cross-tie header ("C" train) at the 24" tee between valves XVB03118D-SW and XVB03118C-SW in the Service Water Pump House above floor elevation 425'-0". This 4" connection will be used as the discharge connection for the FLEX Alternate EFW Suction Pumps (XPP0248A/B) located in the SW pump house.</p>
	2017-06	RN 16-002	<p>Figure 1.2-3, Figure 1.2-5</p> <p>Figure 1.2-6, Figure 1.2-11</p> <p>Figure 1.2-12, Figure 1.2-15</p> <p>Figure 1.2-16, Figure 1.2-18</p> <p>Figure 1.2-19, Figure 1.2-20</p>	<p>ECR 51013 and ECR 51008C – FLEX In-Plant Equipment Storage</p> <p>This change added permanent storage locations for FLEX and B.5.b equipment to plant layout drawings. The equipment is required to support station FLEX strategies. Locations of FLEX and B.5.b equipment storage is required to be placed onto plant layout drawings.</p>
	2017-04	RN 16-025	Section 9.4 Figure 9.4-25, Sheet 2	<p>ECR 50874 – Increase the heat removal capacity of the Reactor Building Cooling Units.</p> <p>This change installed a new Chiller Loop to act as a new heat sink for Industrial Cooling Water system. An interfacing plate heat exchanger is used to transfer heat to the new chiller loop.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-04	RN 17-002	Figure 5.2-8A	<p>ECR 72212 – Revised FSAR Figure 5.2-8A to Show Correct Valve Lineup</p> <p>This change updated drawing D-302-717 (FSAR Figure 5.2-8A) to correct a discrepancy in the valve lineup. D-302-717 was revised to show XVT16302A-NN as normally open and XVT16304B-NN as normally closed. A note was added to explain that either header may be in service during normal operation while the other is in standby</p>
	2017-04	RN 17-007	Section 13.1	<p>CMP-15-04298 – Organization Change to Merge Unit 1/2/3 OD&P Departments</p> <p>This change merges the Unit 1 and Unit 2/3 OD&P groups under one manager reporting to the existing General Manager Organizational / Development and Effectiveness for Unit 1. The change also provides updates to FSAR Section 13.1.2.2.1.</p>
	2017-03	RN 17-001	Section 12.3, Section 13.1 Figure 13.1-4, Section 13.2	<p>CMP-15-04298 – To Align Units 1/2/3 for Commercial Operation</p> <p>This change is a re-organization to change VPNSS title to VPNO 2/3. Additionally, the Director Nuclear Training and new managers of Chemistry and Radiation Protection are now under the VPNO 2/3 position.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-03	RN 17-009	Section 13.2	CR-16-05895 – Changed Plant Access Training (PAT) and Radiological Worker Training (RWT) Required Frequencies This change revises FSAR Section 13.2.3.1 to require PAT and RWT from annually to biennial.
	2017-03	RN 11-008	Figure 2.4-6	ECR 50753G – Owner Controlled Area (OCA) Perimeter Corridor Grading and Drainage This change revises FSAR Figure 2.4-6 (E-744-052) to show the final as-built location of the OCA perimeter, following installation of ECR-50753G. This major revision provides excavation, backfill and grading for a 20 foot wide monitoring corridor in support of a future security modification inside the rock barrier.
	2017-03	RN 13-019	Section 2.4, Figure 2.4-9	ECR 71793 - VCS Response to Seismic/Flooding Recommendations of March 12, 2012 NRC 50.54(f) Information Request This change modifies the site flooding event descriptions that were revised based upon current data and inputs.
	2017-03	RN 16-029	Appendix 3A, RG 1.147	CR-16-01194 – FSAR Appendix 3A Update Regulatory Guide 1.147 Update This change updates Regulatory Guide 1.147, from Rev. 13 to Rev. 17. Rev. 17 endorses Code Cases that are beneficial to VCSNS for the ASME Section XI Inservice Inspection Program.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2017-03	RN 16-030	Figure 9.4-17	ECR72198 - Corrected Mislabeled Fire Damper This change corrected a typographical error on FSAR Figure 9.4-17 IB Ventilation Flow Diagram. Damper labeled XMD-189-AH should be labeled XFD-189-AH.
	2017-01	RN 16-020	Figure 1.2-1, Figure 2.4-6	ECR 51012 – FLEX Diesel Generator Building This change updated FSAR Figures 1.2-1, and 2.4-6 to show the location of the new FLEX Diesel Generator Building.
	2017-01	RN 16-026	Section 13.1, Figure 13.1-4	CR-16-05196 – Changes to the Organizational Chart This change updates FSAR Chapter 13 to include the new manager position for Nuclear Fuels and Analysis. The Nuclear Fuels and Analysis group for Units 1, 2 and 3 includes previous functions of Fuel Management Reactor Engineering and Probabilistic Risk Assessment.
	2017-01	RN 15-018	Figure 9.4-3	ECR 50886 – Control Building Elevator Modernization Project This change updated FSAR Figure 9.4-3 with the new control building elevator machine room fan.
	2017-01	RN 16-014	Section 15.1, Table 15.1-4 Section 15.2, Table 15.2-1 Section 15.3	ECR 72147 – Removal of the term Station Blackout from the FSAR This change replaces “Station Blackout” with the correct language of “Loss of Offsite Power.”

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-10	RN 16-018	Section 3.9, Table 3.9-7 Section 9.3	ECR50780C – Updated Information Related to Alternate Seal Injection (ASI) System This change updated chapters 3 and 9 to describe the ASI a system that is not credited in station analysis.
	2016-10	RN 14-031	Figure 8.2-2, Figure 8.2-2a Figure 8.2-2c, Figure 8.3-5 Figure 8.3-5a	ECR 50864 – Replaced Breaker 8902 (Main Transformer Feed) and Associated Equipment This ECR replaces the existing XCB8902, associated bus control and monitoring equipment, protection equipment, conduits, wiring and grounding.
	2016-10	RN 15-022	Section 1.6, Section 4.1 Table 4.1-2, Section 4.2 Section 4.3, Section 15.3	ECR72020 – Cycle 23 Core Reload Design This change provides technology updates and methods related to the cycle 23 core design.
	2016-10	RN 16-012	Figure 9.3-16 SH 1A Figure 9.3-16 SH 1B Figure 9.3-16 SH 1C	ECR 50799J – Document Updates for Reinstallation of Fuse Pairs FU-CS75/76/77 This change removed notes associated with fuses for XVT08141A/B/C-CS as shown in Figures 9.3-16 Sh 1A, Sh 1B and Sh 1C.
	2016-10	RN 16-015	Section 9.4	ECR 50587B – Replacement of Turbine Building Switchgear Room Chiller XHX0005 This change updates the chiller's instrumentation and control devices described in the FSAR.
	2016-09	RN 16-009	Section 13.1, Figure 13.1-4	Change to Organization Chart This change added the newly created position of the Vice President of Nuclear Support Services (VPNSS). The org chart was also changed to show that Quality Services now reports to the VPNSS.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-09	RN 16-019	Section 15.4, Figure 15.4-91 Table 15.4-28, Table 15.4-29 Table 15.4-31, Table 15.4-32 Table 15.4-33	ECR 70290 – Steam Generator Tube Rupture (SGTR) Enhancements This change describes an NRC-approved supplementary SGTR analysis License Amendment 205 that demonstrate the effectiveness of Emergency Operating Procedure guidance incorporating realistic operator action times, and demonstrates the prevention of Steam Generator overflow.
	2016-08	RN 13-027	Figure 1.2-1, Figure 1.2-28 Figure 9.3-1	ECR 50790 – Upgrade Fuel Handling Building for Used Fuel Storage This change added plant service connections for 120VAC & 480VAC Non-1E electrical power, service air, helium and cask venting to the Fuel Handling Building. These upgrades support activities required for loading spent fuel in dry casks.
	2016-07	RN 16-004	Figure 9.2-9b, Figure 10.4-16	ECR 51002 – Flex Water Transfer Connections This change implemented water transfer piping connections between Condensate Storage Tank, Filtered Water Tank and Demineralized Storage Tank to support FLEX Strategies.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2016-07	RN 14-043	Figure 1.2-27, Table 3.2-1 Index 5.0, Figure 5.1-1, Sh 2 Table 5.2-1, Section 5.3.2 Section 5.5, Table 5.5-1 Figure 5.5-1, Figure 5.5-16 Figure 5.5-17, Figure 5.5-18 Section 9.2, Figure 9.2-24 Section 9.3, Table 9.3-4 Table 9.3-5, Figure 9.3-16, Sh 1A Figure 9.3-16, Sh 1B Figure 9.3-16, Sh 1C Section 11.2.3.1.3.1	<p>ECR50799 Base and ECR50799C – Reactor Coolant Pump Seal Replacement</p> <p>The change replaced the reactor coolant pump seals with Flowserve N-9000 seals.</p>
	2016-07	RN 15-004	Figure 9.4-11, Figure 9.4-34	<p>ECR 50790 – Upgrade Fuel Handling Building Air Handling Unit and Support Platform</p> <p>This change provided additional cooling required for cask loading operations. A permanent air handling unit and supporting systems were installed.</p>
	2016-06	RN 14-044	Section 9.2, Figure 9.2-2, Sh2 Figure 9.2-2, Sh4	<p>ECR50567S – Change Interlock Settings</p> <p>ECR50567S Added a 10+1 second time limit to the Reactor Building Cooling Unit Service Water Valves interlock with the Service Water Pump Start Permissive.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-06	RN 16-007	Figure 9.3-14	ECR 72140 – Revises Drawings to Correct Valve System Designator Discrepancies This change corrected valve labeling for XVG02422-MD and XVG02436-MD on FSAR FSAR Figure 9.3-14.
	2016-05	RN 12-025	FSAR Figure 1.2-1, FSAR Figure 2.4-6 FPER E-023-001	ECR50794, Constructed ISFSI Haul Path. This change constructed the Haul Path that connects the ISFSI, Fuel Handling Building (FHB) and the HI-STORM cask fabrication pad. The haul path is for transporting empty HI-STORM storage casks from the HI-STORM cask fabrication pad to the FHB, and loaded HI-STORM storage casks from the FHB to the ISFSI.
	2016-05	RN 14-022	FSAR Figure 1.2-3 FSAR Figure 1.2-5 FSAR Figure 6.3-1 FSAR Figure 9.1-3 FSAR Figure 9.3-16, S3 FSAR Figure 9.3-16, S5	ECR51007, Reactor Coolant System (RCS) Make-up and Boration Piping Modifications. This change modified the Refuel Water Storage Tankvcr5 and Boric Acid Tank piping to add new piping with a hose connection for a suction source for a Regional Response Center pump or the FLEX RCS Make-up pump. This arrangement will provide a diverse source of borated water to the Reactor Coolant System for both inventory and reactivity control during an ELAP.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-05	RN 14-039	FSAR Figure 8.3-2aa FSAR Figure 8.3-2ab	<p>ECR 51006, FLEX Backup Power from Electrical Building.</p> <p>This change implemented the FLEX alternate power scheme strategies which mitigate an ELAP. These include: 1) Alternate Power Source of Alternate Seal Injection; 2) Alternate Battery Charging for 125VDC Class 1 E Batteries XBA1A-ED and XBA1B-ED; 3) Alternate Power for the Backup Technical Support center; and 4) Alternate power to Electrical Building 480 VAC Distribution Panel APN04071.</p>
	2016-05	RN 15-007	FSAR Table 3.9-8 FSAR Figure 9.1-3 FSAR Section 9.1.3.2	<p>ECR 50879B and ECR50879, Modifications to the Refuel Water Storage Tank (RWST).</p> <p>This change added a riser loop seal to isolate any potential break in the non-safety related section of the Spent Fuel Purification loop. The safety-related riser loop seal prevents drainage of the RWST by only allowing drawdown of tank to the low level height equal to the riser height.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-05	RN 15-015	FSAR Figure 8.2-2 FSAR Figure 8.2-2a	ECR50864B, Replace Main Transformer Feed Breaker 8902 and Associated Equipment. This change modified the transient recovery voltage (TRV) capacitance for the new XCB8902 from the originally specified 30nF (per phase) to 15nF (per phase). The reduced TRV capacitance is to provide an interrupt rating of 63kA. This rating is the same as the existing XCB8902 and is the interim vendor recommended configuration for XCB8902, until an acceptable long term design rated for 90kA. This design change is an interim configuration that de-rates the new breaker from a fault rating of 90kA to 63kA. The final configuration implemented by the overall modification will restore the 90kA interrupt rating of the breaker to support VCS3.
	2016-05	RN 15-021	FSAR Section 3A FSAR Table 5.2-8 FSAR Section 9.1.4.2.2.8 FSAR Section 9.1.4.2.2.11	ECR70905 Rev. 1, Replacement of Reactor Vessel HvdraNuts with Standard Nuts and Washers. This changed replaced the HydraNuts used for the Reactor Vessel Closure Head with conventional nuts and washers. The replacement, conventional nuts and washers, are equal to or better than the original design nuts and washers.
	2016-05	RN 16-005	FSAR Figure 8.2-2	ECR50777, Upgrades to Switchyard Bus 3. This administrative change is to correct a drawing that was not captured as part of a previous revision notice.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-03	RN 13-029	<p>FSAR Figure 1.2-1 FSAR Figure 2.4-6 FSAR Section 9.4.7 FSAR Figure 9.4-35, Sh1 FSAR Figure 9.4-35, Sh2 FSAR Figure 9.4-36 FPER Figure E-023-001</p>	<p>ECR50793B and ECR50870, ISFSI Electrical Building (EB) and Auxiliary Electrical Equipment Building (AEB). This change added an ISFSI EB, which houses equipment used for monitoring the temperature/ventilation of the spent fuel storage casks. This change also added an ISFSI AEB, which houses a portable diesel generator to supply backup power to the ISFSI EB.</p>
	2016-03	RN 14-004	<p>FSAR Figure 1.2-12</p>	<p>ECR 51004, Changed Orientation of Two Main Steam Power Operator Valves (MS PORV). This change rotated the actuator assembly for IPV02000-MS and IPV02010-MS to have its hand-wheel ergonomically positioned to improve accessibility for local control at the valve. Additionally, this change installed permanent moveable platforms adjacent to the MS PORVs IPV02010-MS and IPV02020-MS to facilitate accessibility for manual valve control during a FLEX event, if needed.</p>
	2016-03	RN 14-042	<p>FSAR Figure 9.4-25, S1 FSAR Figure 9.4-25, S2</p>	<p>ECR 50874, Reactor Building Cooling Upgrade (RBCU). This change installed new connections to support a new heat sink for the RBCUs. The new Industrial Cooling Water system will increase the heat removal capacity of the RBCUs and will allow for isolation of the existing Industrial Cooling Towers at a later date</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-03	RN 12-020	FSAR Figure 1.2-16 FSAR Section 9.5 FPER Whole Document	ECR-50628, Update FSAR and FPER This revision notice updated the FSAR and made the FPER historical in accordance with transition from Appendix R to NFPA 805.
	2016-03	RN 12-024	FSAR Figure 1.2-1 FSAR Figure 2.4-6 FSAR Figure 9.5-1, Sh 2 FPER Figure E-023-001	ECR-50792, Relocation of Underground Utilities to Support ISFSI The change relocated and modified underground utilities to accommodate ISFSI: 1) Fire Service piping and hydrant modifications, and a new B.5.b firewater line to the Monticello Reservoir for a fire pump truck connection; and 2) Storm Water drain piping and catch basin.
	2016-02	RN 12-023	FSAR Section 1.2 FSAR Section 3.5.1.1.3 FPER Section 4.11.3.2 4.11.3.1 FPER Section 4.11.3.2 FPER Section 4.11.7.1 FPER Section 4.11.7.2 FPER Figure E-023-001 FSAR Figure 1.2-1	ECR-50791, Relocation of Hydrogen System to Support Independent Spent Fuel Storage Installation (ISFSI). This change relocated the Hydrogen Supply systems to mitigate a hazard to Spent Fuel Storage Casks travel path.
	2016-02	RN 12-036	FSAR Figure 1.2-1 FSAR Figure 2.4-6 FPER Figure E-023-001	ECR-50793A and ECR-50793I, Provides Design Instructions for the ISFSI Pad This change provided construction details for the ISFSI Storage Pad, Approach Slab, and Protected Area fences and gates. The FSAR/FPER revision notice revises applicable FSAR/FPER figures that depict the plant layout to show these major ISFSI features.

Revision Summary (continued)

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	2016-02	RN 14-020	FSAR Figure 1.2-5 FSAR Figure 1.2-12 FSAR Figure 1.2-28 FSAR Figure 9.1-3 FSAR Figure 9.2-2, S2 FSAR Figure 9.2-2, S4	ECR 51003, FLEX Feed Connections. This change installed a FLEX hose manifold as a diverse means to accomplish several key safety functions (core cooling & heat removal, spent fuel cooling and containment integrity) during an Extend Loss of AC Power (ELAP). Storage containers for hoses were also placed at strategic locations in the Intermediate and Auxiliary Buildings.
	2016-02	RN 15-025	FSAR Table 8.3-3 Part A1 FSAR Table 8.3-3 Part A2 FSAR Table 8.3-3 Part B1 FSAR Table 8.3-3 Part B2 FSAR Section 9.2.1.3	ECR-50899, Service Water (SW) Traveling Screen Operation after an Engineered Safety Feature (ESF) Signal. This change removed the function of the SW Traveling Screen to rotate after an ESF demand. The rotating function of the SW Traveling Screen is not required for SW System operability could create a failure mode of debris intrusion after the ESF demand.
	2016-02	RN 15-028	FSAR Figure 9.3-16, SH 1C	ECR72120, Reactor Coolant Drain Tank (RCDT) Heat Exchanger (HX) Champs/Q-List Revision. This change corrected the Safety Class of the Shell Side of XHE0009 (Excess Letdown Heat Exchanger) as 2B.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2016-01	RN 14-018	FSAR Section 5.5.7.2.2.4	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>CR-12-04658, Administrative Correction. This change corrected FSAR Section 5.5.7.2.2.4, which incorrectly states that the Reactor Pressure Vessel Head (RPVH) “is gradually raised as the water level in the refueling cavity increases.” Analysis supports the current VCSNS practice of performing a “dry” lift in which the RPVH is raised in a single movement disregarding water level in the refueling cavity.</p>
	2016-01	RN 14-029	FSAR Table 3.9-8 FSAR Figure 9.2-9b FSAR Figure 10.4-16	<p>ECR51002, FLEX Water Transfer Connections. This change provided multiple connections and piping between the Condensate Storage Tank, Demineralized Water Storage Tank and Filtered Water Storage Tank as part of the NRC Order EA-12-049 Mitigation Strategies for Beyond-Design-Basis External Events.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2016-01	RN 15-024	FSAR Figure 10.4-8 FSAR Figure 10.4-16	<p>ECR-50157A, Upgraded the Emergency Feedwater (EFW) Mini-flow Lines to Condensate Storage Tank (CST) from Non-nuclear Saftey (NNS) to Quality Related (QR).</p> <p>This change upgraded the 2 inch, 3 inch and 4 inch mini-flow/recirculation lines for the Motor Driven Emergency Feedwater, Turbine Driven Emergency Feedwater pumps and 10 inch condensate return line from the EF tie in point to the CST from NNS to QR. The upgrade of the lines also addressed concerns of potential flooding problems of the Diesel Generator Building and the potential crimping of the line during a seismic event.</p>
	2015-12	RN 15-023	FSAR Section 4.2.2.2.2 FSAR Section 4.2.4 FSAR, Section 5.4.2 FSAR Section 5.4.5	<p>ECR-50846D and ECR-72103, Weld Repair Contingency for RV Head Inspection During Refuel 21.</p> <p>This change updated the FSAR to include Relief Request RR-4-05, "Alternative Weld Repair for Reactor Vessel Upper Head Penetrations" (approved April 30, 2014) and the weld repairs performed on the reactor vessel head, during RF-21.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2015-11	RN 13-018	FSAR Section 1.2.3.2, FSAR Section 1.2.3.7, FSAR Section 3.8.4.1.6, FSAR Section 3.8.4.4.10, FSAR Section 9.1.2, FSAR Section 9.1.4.2, FSAR Section 9.1.4.3.5, FSAR Section 9.1.5, FSAR Section 9.1.6, FSAR Section 13.1.2.2.1, FSAR Section 13.4.2.1, FSAR Table 3.2-1	<p>ECR-50797, Upgrades for Used Fuel Storage. This change described the onsite ISFSI system description and updated the design functions of the FHB and the FHB crane.</p>
	2015-10	RN 11-032	FSAR Figure 1.2-13	<p>ECR-50798B, Safety Improvements to the Diesel Generating Building. This change revised FSAR Figure 1.2-13 to remove “air tight” note for hatch DRDB 404/405.</p>
	2015-10	RN 13-006	FSAR Figure 1.2-1, FSAR Figure 9.5-1, S2	<p>ECR-50853, Installation of Utility Tie-ins for Emergency Response Building (ERB). This change provided connections to the existing fire service water line, potable water line and waste water line. A separate Simplex fire control panel was also installed and networked with the Combined Nuclear Operations Building and Nuclear Learning Center panels.</p>
	2015-08	RN 15-016	FSAR Figure 8.3-4	<p>ECR-50811 and ECR-50811A, NFPA 805 Incipient Detection Implementation. This change added the Incipient Detection fire detection equipment to Figure 8.3-4.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2015-08	RN 15-017	FSAR Section 9.3.1.1, FSAR Section 9.3.1.2	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR-72076, Administrative Correction to Voltages in FSAR.</p> <p>This change corrects the FSAR Section 9.3.1.1 and 9.3.1.2 voltage from 460 to 480 volts for air compressors.</p>
	2015-08	RN 15-012	FSAR Table 3.2-1, FSAR Section 13.1.2.2.4	<p>Correct QAPD title.</p> <p>This change corrects the QAPD title in Section 13 and Table 3.2-1 Notes.</p>
	2015-08	RN 15-014	FSAR Section 9.3, FSAR Figure 9.4-32	<p>ECR-50682C, Control Rod Drive Mechanism (CRDM) Cooling Tower XCI0004 Drawing Change.</p> <p>This change added the vent lines on the spray pumps casings shown in FSAR Figure 9.4-32 (Essential Drawing D-302-852).</p>
	2015-07	RN 15-011	FSAR Table 6.4-1, FSAR Section 6.4.1.2.1 FSAR Section 13.1.2.2.1 FSAR Section 13.1.2.3 FSAR Section 13.1.3.1.5 FSAR Section 13.2.1 FSAR Section 13.5.1.3 FSAR Section 13.5.1.3.1	<p>CR-14-02981, VCS Unit 1 “Shift Supervisor” Position Title Change to “Shift Manager”.</p> <p>This title change was recommended by INPO SOER 96-1, Recommendation 6.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2015-06	RN 06-044	FSAR Figure 1.2-4	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR-50579, Reactor Building Sump Debris Collection. Modifications were made to meet requirements of NRC Generic Letter 2004-02 and certify that the sump screens can accommodate the debris quantities following a LOCA.</p>
	2015-06	RN 12-006	<p>FSAR Table 8.3-3 Part A1 FSAR Table 8.3-3 Part A2 FSAR Table 8.3-3 Part B1 FSAR Table 8.3-3 Part B2</p>	<p>ECR-50537G, Replace Heat Trace Control Panels. This change added heat tracing circuits to panels XPN2022 and XPN2023. This affects information and loading for XMCIDA2Y and XMC1DB2, which is contained in FSAR Table 8.3-3.</p>
	2015-06	RN 13-022	<p>FSAR Figure 3.8-17 FSAR Section 3A FSAR Section 6.2.1.6 FSAR Section 6.2.2.2.1.1 FSAR Section 6.2.2.3.1.1 FSAR Section 6.3.2.6 FSAR Section 6.3.2.14 FSAR Section 6.3.6 FSAR Figure 6.2-48</p>	<p>ECR-50579A, GL 2004-02, RB Sump Debris Collection (RB Sump Strainers). This change updated Chapters 3 and 6 to include updated text and figures for the new recirculation sump design.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2014-04	RN 13-011	FSAR Section 5.2.7.1.1 FSAR Section 12.2.4.2.2 FSAR Section 12.2.4.4 FSAR Figure 12.2-3 FSAR Figure 12.2-4	ECR-71781 - Technical Specification Bases changes (Amendment # 186) made in accordance with TSTF-513 (Rev 3) and allow removal of TSR-1 069. FSAR Sections relating to use of RMA2 for RCS leak detection were revised to (1) state how the alarm setpoints are typically set, (2) to identify recognized limitation (per TSTF-513, Rev. 3, TS Amendment #186) on meeting the 1 hour response time for RC leak detection and (3) to reflect the use of new limits on maximum alarm setpoint(s) to ensure operability.
	2014-03	RN 05-043	FSAR Figure 10.2-5	ECR-70502 Base and Revision A (CR-12-01355) - Corrected a duplicate valve number. Valve number 12227 -HY was changed to XVT12195-HY in FSAR Figure 10.2-5. This purge valve and vent operations are not described in the FSAR.
	2014-03	RN 13-028	FSAR Section 9.1	ECR-71903 (CR-12-01303) - Added clarification to FSAR Section 9.1.1.3. This change included a reference to assumptions necessary for the 10 CFR 70.24 exemption previously received by the NRC.
	2014-03	RN 14-006	FSAR Section 4.3.2.7.1 FSAR Section 9.1.1.1	ECR-71953 - Provided technical background for the removal of the k-infinity from the two sections in the FSAR. Two k-infinity sentences within the FSAR were not removed after TS Amendment 144. This ECR corrects this discrepancy.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	N/A	RN 14-014	FSAR Section 13.2.1	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>CR-14-00887 - Removed the accreditation renewal dates from Section 13.2.1.</p> <p>The accreditation renewal dates are information that is anecdotal and excessive detail that is not important to providing an understanding of the plant's design and operation.</p>
	N/A	RN 14-023	FSAR Section 4.4.2.3.4.3	<p>ECR-71888 - Cycle 22 Core Reload Design.</p> <p>Increased Rod Bow DNBR penalty from "<1.3%" to "<2%" per vendor recommendation .</p>
	2014-02	RN 13-032	FSAR Table 3.9-8	<p>ECR-50567, ECR-50567B and ECR-50567F</p> <p>- Service Water Vacuum Relief Valves and Replacement of XVG031 07 AIB-SW. Added service water vacuum relief valves XW13143A and XW13143B to Table 3.9-8 Active Code Class 1, 2, and 3 valves.</p>
	2014-02	RN 06-039	<p>FSAR Figure 1.2-1</p> <p>FSAR Figure 1.2-16</p> <p>FSAR Figure 1.2-26</p> <p>FSAR Figure 2.4-6</p> <p>FSAR Figure 8.3-2a</p> <p>FSAR Figure 8.3-2d</p>	<p>ECR-50557 - Changed several figures detailing the physical barriers installed outside the protected area. Modifications were made to the Vehicle Barrier System, Delay Fencing, and some roadways. New access provisions inside the Protected Area include stair towers, and access between the Control Building and Auxiliary Building roofs were also developed.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2014-02	RN 13-013	FSAR Section 13.1.1.2 FSAR Section 13.1.2.2 FSAR Table 13.1-4	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>CR-13-00603 - Organizational changes. Organizational changes were made that affected FSAR Chapter 13. The changes resulted in an adjustment of the Manager Business and Financial Services duties and the deletion of the Nuclear Strategic Business Unit Projects Coordinator. In addition, other minor discrepancies were corrected .</p>
	2014-01	RN 13-030	FSAR Figure 8.3-8	<p>ECR-50495D - Main Power Transformer Replacement. This ECR replaced existing 1052 MVA Main Power Transformer with a new 1232 MVA Transformer. Extended Isophase Cooling Bus was also reconfigured in conjunction with the Fire Detection and Suppression system.</p>
	2014-01	RN 13-034	FSAR Figure 2.4-6	<p>ECR-50583A - Replaced feedwater control valve positioned and feedwater control valve operator copper tubing. The existing Bailey positioners on IFV00478, IFV00488, and IFV00498 were replaced with redundant digital valve controllers because the positioners do not provide adequate stability in valve operation resulting in wear and tear on the valve. The existing positioners are also prone to malfunctions/ failures due to very small internal contaminants.</p>
	2014-01	RN 08-018	FSAR Figure 2.4-6	<p>ECR-50713 - Improved selected security fences and barriers. Additional security fencing near the Turbine Building, Closed Cycle Cooling Tower, Access Portal and Fitness Center were added to enhance the current configuration.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2014-01	RN 13-020	FSAR Section 5.2.2.4	ECR-50650 - Added a back pressure regulator around the Accumulator Fill Header Inlet Vent Valve (XVTOO037-SI). Back Pressure Regulator installed around XVTO0037 -SI. This ECR was performed to allow controlled leakage to the Pressurizer Relief Tank and to reduce the potential for leakage into and pressurization of interfacing systems.
	2014-01	RN 13-021	FSAR Section 5.2.7.1.3	ECR-50677 - Modified reactor coolant system leak detection. This ECR modified the existing drain piping for XCE0021-AH and installed new CADM Condensate Drain Line Flow Transmitter 11F175025-LDI to provide enhanced ACS leakage detection.
	2013-12	RN 12-010	FSAR Figure 10.2-5	ECR-50823 - Hydrogen Storage Unit Temp Unit Tie-In. The change installed a temporary connection to the existing Hydrogen Storage System in order to repair/replace the existing Hydrogen Storage Unit. This allowed the replacement/repair of the Hydrogen Storage Unit while the turbine/plant is online.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2013-11	RN 13-004	FSAR Figure 9.3-2	ECR-50538 - Upgraded the reliability and efficiency of the instrument and service air (LAISA) systems. The drawing was revised to capture the current plant configuration after the implementation of the ECR. Revisions included the installation of two new LAISA compressors, two new dryers, and corrected the piping configuration from the condensate drain traps associated with mist eliminator XMS05008 and dryers XDR0004A1B to the Turbine Building 412' elevation floor drains.
	2013-10	RN 13-025	FPER Drawing E-023-011	ECR-50567 - Installed new vacuum relief valves and replaced motor-operated gate valves with fast-closing, air-operated butterfly valves. This ECR alleviated the effects of water hammer within the Service Water System downstream of the Reactor Building Cooling Units imposed by certain scenarios that were not identified as part of Generic Letter 96-06.
	2013-09	RN 11-033	FSAR Figure 5.2-8	ECR-71545 - Essential drawing discrepancies. An administrative document only change revised an essential drawing to match marks next to XVT00016B-RH and corrected a typo in the equipment number drawing for XVM18811-SI.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2013-09	RN 12-002	FSAR Figure 9.2-9b	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR-71655 - Essential drawing discrepancy. An administrative document only change package revised an essential drawing to provide an equipment number for XVB05568B-DW. This drawing did not have the "B" Demin Water Pump discharge Valve labeled. The equipment number was added to the drawing.</p>
	2013-09	RN 13-007	FSAR Figure 10.4-16	<p>ECR-71820 - Essential drawing discrepancy. An administrative document only change package revises an essential drawing to correctly show the 1" pipe cap installed downstream of XVT01 033-EF. This reflects the as-built condition in the field and the configuration shown on the original design drawing.</p>
	2013-06	RN 13-016	<p>FSAR Section 6.2.2.5.2.5 FSAR Section 9.4.8.2.4.3.b FSAR Section 9.4.8.2.5.4.a FSAR Section 9.4.8.2.6.2.a FSAR Section 9.4.8.2.8.5.b FSAR Section 9.5.1.2.2</p>	<p>ECR-71849 - Revised the FSAR for Reactor Building (RB) HVAC Smoke Detectors. This change to the FSAR clarified the fact that the RB HVAC smoke detectors are no longer to be credited as the sole means for determining the existence of a fire in the RB and deployment of the fire brigade. These detectors are for information only to assist the operators in making decisions about the presence of a fire in the RB.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2013-05	RN 08-013	FSAR Figure 9.4-32	ECR-50682, Replacement of Control Rod Drive Mechanism Cooling Tower XCI0004. The new cooling tower is manufactured by the same original equipment manufacturer as the existing tower. This ECR also addresses minor changes in configuration of the new tower compared to the old tower. Figure 9.4-32 was revised to add valves and another level switch.
	2013-05	RN 12-015	FSAR Figure 10.4-16	ECR 71718 - Corrected Typographical Error with IFT03561A. When this figure was enhanced per ECR-50239 (Rev. 43), IFT3561A was typed as IFT3531A (coordinate B11). The instrument in the plant is not affected and remains as IFT3561A.
	2013-05	RN 12-018	FSAR Section 9.3.1.2 FSAR Section 9.3.1.5 FSAR Table 9.3-1 FSAR Figure 9.3-2	ECR-50577 - Diesel Air Compressor Auto-Start Addition. This ECR eliminated an Operator Recovery Action by providing the diesel driven air compressor, XAC0014, with an Auto-Start signal. Figure 9.3-2 was updated to reflect the electronic signal from IPS08395 to XAC0014. Section 9.3.1 was revised to include discussion of the diesel air compressor.
	2013-05	RN 12-005	FSAR Figure 1.2-1 FSAR Figure 2.4-6 FSAR Index 11-iii FSAR Section 11.7 (removed)	ECR 71498 - Waste Oil Incinerator Demolition. Removed the Incinerator Building from site drawings and Section 11.7. ECR was written to remove the incinerator from service and any related buildings or materials.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2013-05	RN 12-042	FSAR Section 4.2.2.2.2 FSAR Section 5.4.2	ECR-50846, Relief Request RR-III-09, Reactor Vessel Head. The FSAR was updated to reflect the Reactor Vessel Head weld repairs and installation of Flow Restrictor on Upper Internals.
	2013-05	RN 13-001	FSAR Figure 5.1-1, Sh 3A FSAR Figure 5.1-1, Sh 3B FSAR Figure 5.1-1, Sh 3C FSAR Section 5.5.1.2	ECR-50683 - RCP/RB Fan Vibration System Replacement. The existing Reactor Coolant Pump (RCP) Vibration System, a Bentley Nevada (BN) 7000 Series Vibration Monitoring System, (XCP6090) and existing Reactor Building (RB) Fan Vibration System (IYM9295) were removed and replaced with a BN 3500 Series Machinery Protection System.
	2013-05	RN 11-016	FSAR Section 9.4.7.2.3 FSAR Figure 9.4-20 FPER Section 4.11.2.1 FPER Section 4.11.2.3 FPER Section 5.0	ECR-50763A, First Floor SB HVAC Replacement. FSAR Figure 9.4-20 was updated to reflect the current Service Building first floor layout. This figure was also updated to reflect changes made to refrigeration components and piping of XRC0002 and the change in controls from pneumatic to digital for the first floor HVAC system per ECR-50763A. FSAR Section 9.4.7.2.3 and FPER Sections 4.11.2.1, 4.11.2.3 and 5.0 were updated to reflect the as-built configuration and use of the former permanent records vault and the HVAC changes made in ECR-50763A. The current permanent records vault is now housed in the Nuclear Operations Building.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2013-05	RN 10-012	FSAR Figure 9.2.2, Sht 1 FSAR Figure 9.2.2, Sht 3 FSAR Figure 10.4-16	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR-50695, Emergency Feedwater System Flow Control Enhancements.</p> <p>Added three notes to Figure 9.2.2, Sheets 1 and 3 to indicate the installation of Cured-In-Place Piping [B16.5 150# TEE 316 SST to eliminate and resist corrosion and the use of Plastocor to prevent corrosion and microbologically induced corrosion build up].</p> <p>Added a note to Figure 10.4-16 to indicate valve inlet nozzle and upstream face of disk is covered with Plastocor.</p>
	2013-05	RN 10-028	FSAR Figure 9.4-21	<p>ECR-50763, Service Building First and Second Floor HVAC Replacement.</p> <p>Figure 9.4-21 was updated to reflect the current Service Building second floor layout. This figure was also updated to reflect changes made to refrigeration components and piping of XRCC0003, and the change in control system from pneumatic to digital.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2013-05	RN 11-027	FSAR Figure 1.2-1 FSAR Figure 1.2-3 FSAR Figure 1.2-10 FSAR Figure 1.2-27 FSAR Figure 1.2-28A FSAR Table 3.2-1 FSAR Table 3.2-1 Notes FSAR Figure 3.8-73 FSAR Table 3.9-7 FSAR Section 5.5.7 FSAR Section 9.3.4.1.5 FSAR Section 9.3.4.2.1 FSAR Table 9.3-4 FSAR Table 9.3-5 FSAR Figure 9.3-16 SH 3 FSAR Figure 12A.4-	ECR-50780C - Alternate Seal Injection. ECR-50780C installed an Alternate Seal Injection (ASI) system to provide an alternate means for Reactor Coolant Pump (RCP) seal injection to reduce the probability of RCP seal LOCA. The ASI takes suction from the Refueling Water Storage Tank via the 20 inch discharge header and discharge to the 2" seal injection line upstream of the filters. A check valve is provided (under ECR 50780) in the seal injection line to prevent back flow to the charging pump header and normal injection line through FCV-122.
	2013-05	RN 13-009	FSAR 7.7.3.1	CR-12-03645 - Safety Parameter Display System (SPDS). Added language to the SPDS description to illustrate that SPDS provides a continuous indication of plant parameters except in the case that a seismic event results in the loss of IPCS.
	2013-05	RN 13-010	FSAR 6.2.3.2.1	ECR-71830 (MRF-20168; CR-12-05293) - NaOH Tank Recirculation Loop from MRF-20168. Updated Section 6.2.3.2.1 to add description of NaOH tank recirculation loop installed under MRF-20168.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2013-04	RN 12-021	FSAR Figure 9.1-3 FSAR Figure 9.5-1, SH 3 FSAR Figure 9.5-1, SH 5	Six different changes were made to Drawing 302-231, Sheet 3, covering Revisions 5 through 10 - ECR-50205 (Kaowool) and ECR-50692 (B5b).
	2013-04	RN 13-002	FSAR Figure 8.2-3	ECR-50851 - Determinated Circuit ESM361X and Recalibrated Overcurrent Relay of XSW1B-12.
	2013-04	RN 13-005	FSAR Section 12.3.1.1.1 FSAR Section 12.3.1.1.2	CR-12-02077 and CR-12-02078 - FSAR Section 12 was revised due to organizational changes identified during a QA Audit - Station Radiation Control Audit.
	2013-02	RN 07-006	FSAR Figure 8G-6 FSAR Figure 8G-7 FSAR Figure 8G-8	ECR-50625 - Rod Control System Blocking Diode Replacement/Removal. Westinghouse identified the Rod Control system blocking diodes as a single failure component. Additionally, Westinghouse identified the blocking diode fuses and all TI-600 trigger indicating fuses as a reliability issue. The blocking diodes were replaced with a jumper wire and the fuses were replaced with more reliable fuses.
	2013-02	RN 12-009	FSAR Figure 5.1-1, SH 2	ECR-71669 - Valve Shown in Wrong Position. Isolation valve XVT00100-WG was changed from “normally open” to “normally closed” on drawing 302-602. Valve was installed by MRF-21256 as normally closed.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2013-01	RN 12-033	FSAR Section 12 FSAR Table 12.3-3	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. CR-12-02080 - FSAR Table 12.3-3, "Portable Health Physics Instruments", was revised to change Location Column for all portable survey instruments from "412' Control Building" to "Refer to Section 12.3.2.1.2". Also changed location for air samplers to "various".
	2012-12	RN 12-027	FSAR Section 4.3.4 FSAR Section 7.7.7 FSAR Section 15.3.8	CR-10-03107, Technical Specification Amendment 190, BEACON. TS Amendment 190 adopted the revised BEACON power distribution methodology that incorporated the use of the three-dimensional advance nodal code neutronic model into SPNOVA/BEACON. This revision notice updated references to the WCAP-12472-P-A Addendum 1-A.
	2012-12	RN 11-020	FSAR Section 5.7.1.4 FSAR Section 17.2.1.2.4 FSAR Section 17.2.10.3	Change Management Plan (CMP-10-02766). Revised the FSAR to show change of control for the Inservice Inspection Program from Quality Control to Design Engineering and revised information for the Containment Inservice Inspection Program.
	2012-12	RN 06-024	FSAR Figure 10.4-1 FSAR Figure 10.4-8 FSAR Figure 10.4-9	ECR-50065 – ECR changed the design data upset pressure for various design flag sections of the process piping. Drawings were revised to reflect the boundaries and design conditions.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2012-11	RN 10-024	<p>FSAR Figure 1.2-3 FSAR Figure 1.2-4 FSAR Figure 1.2-5 FSAR Figure 1.2-6 FSAR Figure 1.2-8 FPER Figure E-023-003 FPER Figure E-023-005 FPER Figure E-023-008 FPER Figure E-023-014</p>	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR-50685 - In the Auxiliary Building, existing hoist (XCR0019) was replaced with a new equipment lift (XCR0075). As part of the ECR, fire extinguishers were added to the FPER drawings. The new lift was added to the FSAR drawings.</p>
	2012-11	RN 11-038	<p>FPER Figure 023-007 FPER Figure 023-008 FPER Figure 023-010 FPER Figure 023-019 FPER Figure 023-022</p>	<p>ECR-71012 - Proper location of portable fire extinguishers. FPER drawings were revised to show the proper locations of portable fire extinguishers.</p>
	2012-11	RN 12-011	<p>FSAR Figure 10.4-14</p>	<p>ECR-71665 (CR-12-00337) - Valves Shown in Wrong Position. Valves XVD06102B and XVD06103B were changed from “normally closed” to “normally open” on drawing 302-782.</p>
	2012-11	RN 12-014	<p>FSAR Figure 9.2-1 FSAR Figure 9.2-4 FSAR Figure 9.3-5 FSAR Figure 9.3-10 FSAR Figure 9.4-22 FSAR Figure 9.4-25 FSAR Figure 9.5-1, SH 3 FSAR Figure 10.4-16</p>	<p>ECR-71215 - Editorial change. Drawing 302-222 was converted from 1 sheet to 4 sheets to make the document easier to read and follow. Match Marks on 8 drawings were revised to show the new 302-222 sheet numbers.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2012-09	RN 11-034	FSAR Table 6.2-53a	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>TS Amendment 191 deleted five High Head Safety Injection Containment Isolation Valves from the Local Leak Rate Test Program.</p> <p>FSAR Table 6.2-53a was revised to reflect this NRC approved deletion.</p>
	2012-09	RN 12-004	FSAR Table 3.9-8	<p>ECR-50780 - Alternate Seal Injection.</p> <p>Added active code valve XVC18529-CS to FSAR Table 3.9-8. This change was required due to implementation of the ECR-50780 base package. This change was not included in the previous FSAR RN 11-009 approved November 2011.</p>
	2012-08	RN 07-034	FSAR Figure 9.3-15, SH 1	<p>ECR-50474 - Added a match mark on drawing 302-361 sheet 1 which shows a continuation on new drawing 302-361 sheet 2. New drawing 302-361 sheet 2 was created to show the lift stations outside the protected area.</p>
	2012-08	RN 07-035	FPER 5.0.E.2(c)	<p>ECR-70830A - Replaced Electric Fire Pump Controller.</p>
	2012-08	RN 10-021	FSAR Figure 9.2-5	<p>ECR-50239 - Editorial Change - Revised drawing 302-612 to change valve "XVT09363B-CC" to "XVT09563B-CC".</p>
	2012-08	RN 11-022	FSAR Section 10.4.9.4	<p>CR-11-01651 - Revised FSAR to correctly describe how the Service Water-to-Emergency Feedwater pump suction valves are tested.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2012-07	RN 05-015	FPER Section 2.2.2.3 FPER Section 2.2.2.4 FPER Section 4.4	ETBT-70690, ETBT-71259 - Removed the words “magnesium oxychloride” from three sections of the FPER. The plant’s original structural steel fire coating Albi Duraspray is no longer manufactured or available. Replacement products Albi Clad Thin Film and Pyrocrete 241 do not contain magnesium oxychloride.
	2012-07	RN 06-08	FSAR Figure 10.4-14	ECR-70756 - Revised drawing to clarify piping configuration represented as Detail “A” and Detail “B”. A Corrective Action identified that valves contained in Detail “A” of this drawing could be missed when preparing a tagout boundary due to the method chosen to show these valves on the drawing. The same problem existed for valves shown in Detail “B”.
	2012-07	RN 06-043	FSAR Figure 10.4-8	ECR-70967 - Add component IDs for 3” condensate pump vent valves to Detail A of Drawing D-302-101. This was done to be consistent with the level of details provided in the drawing for other valves associated with the condensate pumps.
	2012-07	RN 07-038	FSAR Figure 2.4-6	ECR-70883 - Yard drainage system was changed to improve legibility and to make minor editorial changes that did not involve design information.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2012-07	RN 10-023	FSAR Figure 1.2-12 FPER Section 4.4.22.1	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR-50764 - Safety Improvements to DRIB/324 Hatch and Ladder; Health Risk BS-08-01.</p> <p>FSAR Figure 1.2-12 notes the hatch as a 2'6" x 3'0" removable opening. This note is being changed to reflect the dimension of the new hatch opening which is 2'6"x 4'6". The new hatch was installed under ECR-50764.</p>
	2012-07	RN 10-031	FSAR Figure 9.2-8	<p>ECR-50728 - Replaced Clay Feeder Mixing Tank and Associated Equipment.</p> <p>FSAR Figure 9.2-8 is the piping and instrument diagram for the Water Treatment System. The FSAR Figure was updated to capture permanent plant changes resulting from the implementation of ECR-50728. The changes include the replacement of the clay feeder (XTK0068), mixing tank (XTK0071), solution pump (XPP0062), and associated equipment, piping, and valves.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2012-07	RN 11-018	FSAR Table 1.7-1 FSAR Table 3.9-0 FSAR Table 3.10-3 FSAR Figure 9.2 -2, Sh. 1 FSAR Figure 9.3-10 FSAR Section 9.4.7.2.4 FSAR Figure 9.4-22 FPER Section 4.4.20.2 FPER Section 4.4.21.2 FPER Section 4.4.23.1 FPER Section 4.4.23.4 FPER Section 4.4.23.5 FPER Section 4.5.2.2 FPER Figure E-023-007	ECR-50585A - Safety Related Chiller Replacement. Revised FSAR Chapters 1, 3, and 9 and FPER Chapter 4 to reflect the new safety related chiller "A" (XHX0001A), which has recently been replaced with a new, state-of-the-art chiller. Design features of the new chiller and associated piping, valves and electrical circuits have been updated in the FSAR and FPER.
	2012-07	RN 11-025	FSAR Figure 10.4-10	ECR-71598 - Drawing enhancement to aid with work or tagging.
	2012-07	RN 11-028	FSAR Figure 1.2-1	ECR-71558 (CR-10-03242) - Parr Hydro Project Boundary Line (PBL). The PBL was added to a plant layout drawing.
	2012-07	RN 11-030	FPER 3.6	ECR-50556 - 8-Hour Emergency Battery Light Upgrades. ECR installed additional emergency lighting units at various locations in the plant to enhance lighting required for the performance of local manual actions needed to accommodate Appendix R safe shutdown.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2012-07	RN 11-039	FSAR Section 5.5.7.1.1.3.3.i	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. CR-12-00713 - Wording was changed to say, "Normal Charging Isolation Valve 8146 - If the normally open valve closes spuriously, alternate charging valve 8147, which fails open, can be used." This will eliminate any confusion caused by the current wording of "...which fails to open..."
	2012-07	RN 12-019	FSAR Section 2.4.12.2	CR-12-02022 - Correct numerical errors on page 2.4-26. Updated Section 2.4.12.2, pg 2.4-26, to provide correct information concerning spatially-averaged Cs-137 peak concentration across the effective width of the contaminated local aquifer (3.7 x 10-3.5). The discharge from the uncontaminated portion of the local ground water system was changed to 0.52 cfs.
	2012-06	RN 03-037	FSAR Figure 9.5-1, SH 2	ECR-50510C - This change converted the cafeteria on the first floor of the Auxiliary Service Building to a central planning area for outage activities. The ECR added Sprinkler System Strainer Flushing Valve XVG34037-FS to drawing D-302-231, Sheet 2. The sprinkler system was also changed from manual to an automatically operated system upon detection of fire.
	2012-06	RN 12-022	FPER Figure 3.2-1	CR-12-02035 - Reassigned the operator actions for emergency feedwater during control room evacuation from the Shift Technical Advisor (STA) to the Fire Emergency Procedure (FEP) Operator.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2012-05	RN 11-040	FSAR Section 3A FSAR Section 13.1 FSAR Section 13.4 FSAR Section 13.5 FSAR Section 13.6 FSAR Section 17.2 FSAR Figure 17.2-1	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>CR-10-03108 (TS Amendment 188) - License Amendment Request for the new Quality Assurance Program Description (QAPD) to change the program to comply with the requirements of ANSI/ASME NQA-1-1994.</p> <p>Removed the Quality Assurance Program information from Chapter 17, Section 17.2, and identified that the information is found in the QAPD. Revised Regulatory Guide commitments in Chapter 3, Appendix 3A, related to the application of the new QA program. Revised Chapter 13 to reference new requirements in the QAPD.</p>
	2010/6	RN 05-038	FSAR Section 10.2.2.1, Table 8.3-1, Figures 1.2-19 and 8.2-3	The main generator was rewound due to leaks (ECR 50574). Consistent with this work the single point temperature sensors were replaced with dual sensor heads for improved reliability. This RN updates the FSAR to reflect these changes.
	2010/6	RN 06-040	FSAR Sections 6.2.1.3.11, 6.2.7, 15.4.1 and 15.4.7; Tables 6.2-56 thru 60, 15.4-1, -1a, -2, -2a, and -5; Figures 6.2-62 to 64, 15.4-1-67, and 15.4.105-122	This RN updates Chapters 6 and 15 to reflect the new Best-Estimate large Break LOCA analysis approved by the NRC via issuance of Tech Spec Amendment 176. The Best Estimate Large Break LOCA Analysis was performed to regain peak clad temperature margin via application of an improved Evaluation Model.
	2010/6	RN 07-003	FSAR Figures 9.3-16 SH. 1A, 9.3-16 SH. 1B, & 9.3-16 SH. 1C	ECR70818 incorporates the guidance provided in Westinghouse TB-04-22 in order to support the RCP seal leakage rate assumed within the FPER safe shutdown analysis

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2010/6	RN 07-024	FSAR Section 3.9.3.8	Revises the FSAR to reflect the use of Maxi-Bolts as equipment anchors which can be considered an acceptable replacement for Hilti Kwik Bolts, with proper design considerations. Reference Design Guide ST-01, Calculations DC0395E-001 and DC0395E-002.
	2010/6	RN 08-001	FSAR Section 10.4.5.1 Item 3, Table 10.4-3 and Figure 10.4-5	This RN updates the FSAR to reflect the re-routing of a Filtered Water cooling line header for the three Circulating Water pumps and motors, installation of pressure instrumentation for the FI motor cooling water supply lines, installation of throttle valves for flow control through the motor cooling coils, closing valves 8844A, B, C and installation of drains (ECRs 50706, 50706A, and 50706H).
	2010/6	RN 08-011	FSAR Section 7.7.1.7	Added description of the Instrument Air System for each main feedwater control valve and its associated hardware to allow for local and manual control and locking of the main feedwater control valves in position with air pressure (air-gag), while maintaining the trip closed feature of the feedwater control valves (ECR 50708).
	2010/6	RN 08-021	FSAR Figure 9.2-24	ECR 71187 revised drawing 302-791 to show the appropriate ASME Code breaks for valves XVD01928A-MU and XVD01928B-MU.
	2010/6	RN 08-022	FSAR Sections 5.5.3.3.4, 5.5.10.2.2, 5.5.10.4	Updated Chapter 5 to reflect the incorporation of the pressurizer structural weld overlays applied during RF-17 (ECR 50636).

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2010/6	RN 08-028	FSAR Figure 10.3-2	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2010/6	RN 08-029	FSAR Section 5.4.2	ECR 71003 corrected drawing 302-012 to change the 'gate' valve symbols to 'globe' valve symbols for valves XVT02818A-MS and XVT02818B-MS.
	2010/6	RN 08-030	FSAR Section 9.1.4.2.2.8 and 9.1.4.2.2.11, Appendix 3A, Table 5.2-8, and Figure 9.1-12	Updates Chapter 5 to reflect the installation of Canopy Seal Clamp Assemblies at the lower canopy seal weld on some CRDMs. These clamps prevent and/or arrest any non-pressure boundary RCS leakage.
	2010/6	RN 09-001	FSAR Figures 1.2-15 and 10.4-12	Amends the FSAR to describe the replacement of the reactor vessel stud tenstomers with Closure Studs, Inserts and Adaptors, HydraNuts, and Washers (ECR 70905A).
	2010/6	RN 09-002	FSAR Tables 3.9-8, 7.3-7 and 7.4-2 Sections 5.5.7.1.1.3 a. & b., 9.2.1.2 and 9.2.1.5, Figure 9.2-2 Sheets 1 - 4	ECR 50583 replaced the feedwater control valve positioner with a digital valve controller to provide for stable valve operation. Drawings E-005-001 and 302-083 were updated to reflect this change.
	2010/6	RN 09-004	FSAR Section 9.2.7.1	ECR 71215 converted Service Water system drawing 302-222 into four sheets from 1 sheet for legibility purposes and to replace breaks with direct connections for clarity.
	2010/6	RN 09-005	FSAR Figure 9.4-32	Deleted the non-safety related flow performance capability from the design function list for the Reactor Makeup System to the Chemical and Volume Control System (ECR 71130).
	2010/6			ECR 50327 revised drawing 302-852 to reflect the revised setpoints for XVR07510A, B, C, & D

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2010/6	RN 09-006	FSAR Figures 5.2-8A, 9.2-5, 9.2-6, and 10.4-16	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2010/6	RN 09-008	FSAR 18.3.1.1, 18.3.1.2, and 18.3.1.3	ECR 50239 converts the 302 series drawings from a Raster file to Vector file system. No design information shown on the drawings has been affected.
	2010/6	RN 09-009	FSAR Figures 1.2-15 and 1.2-17 FPER Figures E-023-018 and E-023-020	CR-08-03647 identified the need to update the FSAR to reflect the information from the most recently removed reactor vessel surveillance capsule. ECR 50481 modified the Control Building elevation 412 dress-out and RCA access control rooms to provide adequate facilities to address the radiological and facility inadequacies of the previous design layout.
	2010/6	RN 09-010	FSAR Figure 9.2-5	ECR 71263 revised drawing 302-612 to change valve ID 9606-cc to XVG09606-CC
	2010/6	RN 09-011	FSAR Figure 11.3-4, Sheet 3	ECR 71261 revised drawing 302-742 to correct typographical error of pressure transmitter IDs. PT1065A is changed to PT1065 and PT1065A is changed to PT1065B.
	2010/6	RN 09-012	FSAR Figure 10.4-1	ECR 71185 revised drawing 302-131 to reflect the line spec as 151X
	2010/6	RN 09-014	FPER Section 4.11.6.1, FSAR Table 8.3-1, FSAR Figures 1.2-1 1.2-21; 8.2-2a, c & d; 9.2-9b and 9.5-1 SH 5	ECR 50495D replaced the main station transformer and updates the FSAR / FPER to reflect the new ratings and changes in physical configuration.
	2010/6	RN 09-016	FSAR Figure 9.2-7	ECR 71297 revised System Data table Item 3 to reflect actual system conditions and specifies the maximum and minimum flow rates.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2010/6	RN 09-017	FSAR Table 15.4-34 and Figure 15.4-96B	CR-09-01895 / Westinghouse NSAL-09-02 noted a non-conservative assumption in initial pressurizer level required a re-analysis of the Locked Rotor overpressurization accident. As a result, the new peak pressure has been added to Table 15.4-34 and Figure 15.4-96B.
	2010/6	RN 09-018	FSAR Figure 1.2-12	ECR 71277 revised drawing E-001-022 to show the actual field configuration for XPPI57A&B.
	2010/6	RN 09-019	FSAR 13.1.2.2.1	SAP-131 Revision 6, Change D: SAP-131 was updated to reflect the Fire Protection Group realignment as recommended by the GMES to QA / GMNPO. This RN updates the FSAR to reflect this change.
	2010/6	RN 09-020	FSAR Section 2.5.4.10.3.2	This RN revised the FSAR to specifically identify that the ground settling inspection is performed in the area of the DG Fuel Oil Storage Tanks. (CR-09-01266)
	2010/6	RN 09-021	FSAR Sections 15.2.2.1, 15.2.2.2, and 15.2.16	This RN updates Chapter 15.2 to include the results of the plant specific Rod Withdrawal at Power event analysis. CR-09-00701 / Westinghouse NSAL-09-01 identified an overpressure concern for the Rod Withdrawal at Power event. Plant specific analysis demonstrated that the RCS overpressure limit would not be exceeded provided the reactivity insertion rate is .60 pcm/second

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2010/6	RN 09-023	Section 6.2.2.5.2.4, Table 1.7-1, Figures 1.2-15, 6.2-49, 9.4-29, & 9.4-31	ECR 50693 replace the vibration systems on the RBCU fans, CRDM fans, and the Reactor Compartment Cooling Fans. This RN updates the FSAR to reflect these changes.
	2010/6	RN 09-025	FSAR Table 3.2-1	ECR 71329 added clarifying information and new Note 38 to state the isolation valves were purchased as Code Class 3 but are being used as safety related non-code dampers.
	2010/6	RN 09-026	FSAR Figure 1.2-6	ECR revised drawing E-001-031 to reflect the as-built condition showing the correct system and name for the PORV accumulator tanks.
	2010/6	RN 09-031	FSAR Section 6.3.3.2	ECR 71341 eliminated the option to place both trains of RHR in service during Mode 4 when the temperature is less than 250 °aF in order to ensure one train of RHR is able to fulfill the Mode 4 ECCS safety function.
	2010/6	RN 10-002	FSAR Sections 2.4.13.1.2., 2.4.13.2.7, 2.4.13.5	ECR 50560 - Installation of the dewatering system, including well vaults, wells, pumps, and associated control/monitoring equipment. This RN updates the FSAR to incorporate the description of the non-safety dewatering system installed.
	2010/6	RN 10-003	FSAR Section 5.3.2.11.3 & Figure 9.3-16 SHT. 3	ECR 50613A phase I installed new valves XVT38100A-CS and XVT38202A and updates the FSAR accordingly.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2010/6	RN 10-004	FSAR Figure 9.3-14	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2010/6	RN 10-009	FSAR Figures 1.2-4 and 9.5-1A	ECR 71250 revised drawing 302-352 to show the correct Equipment ID for IAP07896
	2010/6	RN 10-011	FSAR Figures 7.7.1.3.2, 7.7.1.3.4, and 7.7.1.3.5	ECR 71269 revised drawing E-001-011 to show the correct location of two electrical penetrations XRP0043 and XRP-0044.
	2009/09	RN 05-038	FSAR Section 10.2.2.1, Table 8.3-1, Figures 1.2-19 and 8.2-3	ECR 50686 upgraded the existing DRPI system to remove some single point vulnerabilities and provide a more reliable system. This RN updates the portion of the DRPI system located in the Main Control Board.
	2009/09	RN 06-040	FSAR Sections 6.2.1.3, 6.2.7, 15.4.1 and 15.4.7; Tables 6.2-56 thru 60, 15.4-1, -1a, -2, -2a, and -5; Figures 6.2-62 to 64, 15.4-1 to -67, and 15.4.105 to -122	The main generator was rewound due to leaks (ECR 50574). Consistent with this work the single point temperature sensors were replaced with dual sensor heads for improved reliability. This RN updates the FSAR to reflect these changes.
	2009/09	RN 07-024	FSAR Section 3.9.3.8	This RN updates Chapters 6 and 15 to reflect the new Best-Estimate large Break LOCA analysis approved by the NRC via issuance of Tech Spec Amendment 176. The Best Estimate Large Break LOCA Analysis was performed to regain peak clad temperature margin via application of an improved Evaluation Model.
				Revises the FSAR to reflect the use of Maxi-Bolts as equipment anchors which can be considered an acceptable replacement for Hilti Kwik Bolts, with proper design considerations. Reference Design Guide ST-01, Calculations DC0395E-001 and DC0395E-002.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2009/09	RN 08-001	FSAR Section 10.4.5.1 Item 3, Table 10.4-3 and Figure 10.4-5	This RN updates the FSAR to reflect the re-routing of a Filtered Water cooling line header for the three Circulating Water pumps and motors, installation of pressure instrumentation for the FI motor cooling water supply lines, installation of throttle valves for flow control through the motor cooling coils, closing valves 8844A, B, C and installation of drains (ECRs 50706, 50706A, and 50706H).
	2009/09	RN 08-011	FSAR Section 7.7.1.7	Added description of the Instrument Air System for each main feedwater control valve and its associated hardware to allow for local and manual control and locking of the main feedwater control valves in position with air pressure (air-gag), while maintaining the trip closed feature of the feedwater control valves (ECR 50708).
	2009/09	RN 08-022	FSAR Sections 5.5.3.3.4, 5.5.10.2.2, 5.5.10.4	Updated Chapter 5 to reflect the incorporation of the pressurizer structural weld overlays applied during RF-17 (ECR 50636).
	2009/09	RN 08-028	FSAR Figure 10.3-2	ECR 71003 corrected drawing 302-012 to change the 'gate' valve symbols to 'globe' valve symbols for valves XVT02818A-MS and XVT02818B-MS.
	2009/09	RN 08-029	FSAR Section 5.4.2	Updates Chapter 5 to reflect the installation of Canopy Seal Clamp Assemblies at the lower canopy seal weld on some CRDMs. These clamps prevent and/or arrest any non-pressure boundary RCS leakage.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2009/09	RN 08-030	FSAR Section 9.1.4.2.2.8 and 9.1.4.2.2.11, Appendix 3A, Table 5.2-8, and Figure 9.1-12	Amends the FSAR to describe the replacement of the reactor vessel stud tensioners with Closure Studs, Inserts and Adaptors, HydraNuts, and Washers (ECR 70905A).
	2009/09	RN 09-004	FSAR Section 9.2.7.1	Deleted the non-safety related flow performance capability from the design function list for the Reactor Makeup System to the Chemical and Volume Control System (ECR 71130).
	2009/09	RN 09-005	FSAR Figure 9.4-32	ECR 50327 revised drawing 302-852 to reflect the revised setpoints for XVR07510A, B, C, & D
	2009/09	RN 09-006	FSAR Figures 5.2-8A, 9.2-5, 9.2-6, and 10.4-16	ECR 50239 converts the 302 series drawings from a Raster file to Vector file system. No design information shown on the drawings has been affected.
	2009/09	RN 09-008	FSAR 18.3.1.1, 18.3.1.2, and 18.3.1.3	CR-08-03647 identified the need to update the FSAR to reflect the information from the most recently removed reactor vessel surveillance capsule.
	2009/09	RN 09-009	FSAR Figures 1.2-15 and 1.2-17, FPER Figures E-023-018 and E-023-020	ECR 50481 modified the Control Building elevation 412 dress-out and RCA access control rooms to provide adequate facilities to address the radiological and facility inadequacies of the previous design layout.
	2009/09	RN 09-010	FSAR Figure 9.2-5	ECR 71263 revised drawing 302-612 to change valve ID 9606-cc to XVG09606-CC

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2009/09	RN 09-011	FSAR Figure 11.3-4, Sheet 3	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. ECR 71261 revised drawing 302-742 to correct typographical error of pressure transmitter IDs. PT1065A is changed to PT1065 and PT1065A is changed to PT1065B.
	2009/09	RN 09-016	FSAR Figure 9.2-7	ECR 71297 revised System Data table Item 3 to reflect actual system conditions and specifies the maximum and minimum flow rates.
	2009/09	RN 09-017	FSAR Table 15.4-34 and Figure 15.4-96B	CR-09-01895 / Westinghouse NSAL-09-02 noted a non-conservative assumption in initial pressurizer level required a re-analysis of the Locked Rotor overpressurization accident. As a result, the new peak pressure has been added to Table 15.4-34 and Figure 15.4-96B.
	2009/09	RN 09-019	FSAR 13.1.2.2.1	SAP-131 Revision 6, Change D: SAP-131 was updated to reflect the Fire Protection Group realignment as recommended by the GMES to QA / GMNPO. This RN updates the FSAR to reflect this change.
	2009/09	RN 09-020	FSAR Section 2.5.4.10.3.2	This RN revised the FSAR to specifically identify that the ground settling inspection is performed in the area of the DG Fuel Oil Storage Tanks. (CR-09-01266)

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2009/09	RN 09-021	FSAR Sections 15.2.2.1, 15.2.2.2, and 15.2.16	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. This RN updates Chapter 15.2 to include the results of the plant specific Rod Withdrawal at Power event analysis. CR-09-00701 / Westinghouse NSAL-09-01 identified an overpressure concern for the Rod Withdrawal at Power event. Plant specific analysis demonstrated that the RCS overpressure limit would not be exceeded provided the reactivity insertion rate is .60 pcm/second
	2008/12	RN 04-005	FSAR 5.5.7.2.1, 9.3.4.2.5, 9.3.4.2.5.29	ECR 70465 updates design documents and the FSAR to add reference to the zero-leakage design requirement for ECCS recirculation system components.
	2008/12	RN 05-011	FSAR 12A.3.2.1, 12A.4.1, 12A.4.3, 12A.4.7, 12A.4.10, 12A.4.11, 12A.4.13-2, Tables 12.3-2, 12A.4-1 & 12A.4-2	ECR 50328 revised the sump volume documented in calculation DC01380-002, Revision 3, which ultimately changes the post-LOCA sump source terms used in FSAR Chapter 12, Appendix 12A that addresses NUREG-0578 shielding/access review.
	2008/12	RN 005-042	Figure 9.3-3	ECR 50479 upgraded the RB Instrument Air moisture removal system by installing an additional drain valve, moisture traps and a dew point monitor to the system
	2008/12	RN 06-011	FSAR 2.3.3.2 and Figure 8.3-4b	ECR 50518, "Integrated Plant Computer System (IPCS) Replacement", replaced the existing IPCS with a Windows PC based system. Section 2.3.3.2 and Figure 8.3-4b are revised to reflect these changes.
	2008/12	RN 06-017	FSAR 12.3.3.1 and Table 12.1-1	Deleted reference to quarterly dose and TLD processes to allow processing on a less frequent basis

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2008/12	RN 06-022	FSAR 15.2.9.4 and 15.4, and associated Tables	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>The reference density, used to convert primary to secondary leakage from volumetric to mass flow rates within the FSAR Chapter 15 dose calculations, is revised to 62.4 lb/ft³ (ECR 70843). The dose calculations for the LOOP, Locked Rotor, and Rod Ejections are also updated to use thyroid dose conversion factors based on ICRP-30. FSAR Chapter 15 is being updated to include the new offsite doses for affected accidents.</p>
	2008/12	RN 07-005	FSAR 17.2.1.2.1.9, 17.2.1.2.4.6, & 17.2.15.2	<p>Revised Chapter 17.2 to remove QC as the group responsible for administrative control and close-out inspection of the nonconformance (NC) program. The VCS Corrective Action Program delineates the requirements and controls of the NC program.</p>
	2008/12	RN 07-012	FSAR 5.5.3.2, 5.5.12.1 and Figure 5.1-1 Sht 2	<p>Westinghouse NSAL-00-006 recommended an upgrade of the Pressurizer Upper level Instrument Lines and Root Valves from ASME Class 2 to Class 1, since the failure of these lines could cause automatic operation of the ECCS systems. ECR 70100 upgrades 22 Pressurizer Upper Level Root Valves and associated piping/tubing from ASME Class 2 to Class 1. This RN revised those portions of the FSAR which stated that these Instrument Lines and Root Valves are Safety Class 2A.</p>

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2008/12	RN 07-013	FSAR Figures 9.2-8, 9.2-9A, & 9.2-0c	ECR 50509 upgraded the VCS Water Treatment Plant drinking water instrumentation to provide for continuous on-line turbidity monitoring and recording, and monitoring and recording peak hourly distribution flow rates to meet current SCDHEC requirements under the Long Term 1 Enhanced Surface Water Treatment Rule.
	2008/12	RN 07-014	FSAR 17.2.1.1, 17.2.1.2, 17.2.2.2, 17.2.2.3, 17.2.3.1, 17.2.10.3, 17.2.18.1	Organizational changes to align reporting groups to General Managers of Nuclear Support Services and Organizational Effectiveness. Quality Systems and Security now report to the GMOE not the GMNSS
	2008/12	RN 07-017	FSAR Figure 10.4-12	ECR 50678 installed pressure transducers in the Feedwater System piping at the inlet to each Steam Generator to provide additional monitoring instrumentation.
	2008/12	RN 07-019	FSAR Figure 9.2-9B	ECR 71007 revises drawing 302-164 to show the correct valve number as XVD05579A-DW.
	2008/12	RN 07-022	FSAR 6.2.4.2.2	Revise FSAR section 6.2.4.2.2 & Table 6.2-53 to state that the RB pressure transmitters have a fluid filled transmission system (as opposed to water filled). [CER 07-01796}
	2008/12	RN 07-023	FSAR 13.1.2.2.2 and 13.1.2.2.4	Revise FSAR Sections 13.1.2.2.2 and 13.1.2.2.4, and Figure 13.1-4 which delineate personnel functions, responsibilities, and authorities for the GMNSS and GMOE, to reflect the current operating organization configuration.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2008/12	RN 07-026	FSAR Figures 8.3-2a, -2b, -2c, -2e, and -2f	ECR 70674 - Champs IDs were assigned to all electrical manholes. FSAR Figures 8.3-2a, 8.3-2b, 8.3-2c, 8.3-2e, and 8.3-2f were revised to show the new IDs.
	2008/12	RN 07-027	FSAR Figures 9.3-5 and 9.4-32	CR-06-00305 identified the discovery of a funnel location that was erroneous on drawing 305-851 Sheet 4. The funnel was shown on the drawing as being located just above the floor elevation at 436'-0" within the Reactor Building. The piping is in fact directly connected to the drain line and the funnel does not exist. Walkdowns were completed that confirmed the correct as-built configuration. Drawings changed per ECR 70975.
	2008/12	RN 07-029	FSAR Figure 9.2-9c	ECR 50509 revised XVA04151-DO "STERILE WATER TANK DRAIN SYS OUTLET VLV", name description for clarity and update drawing E-302167 to reflect the valve position as normally open. (CR-07-02052)
	2008/12	RN 07-021	FSAR Figure 5.2-8	ECR 50650 added a back pressure regulator to the ECCS test header to bypass XVT00037-SI and keep the ECCS header pressure . 400 PSIG.
	2008/12	RN 07-032	FSAR 3.5.1.4, 3.5.3, and Table 3.5-6	ECR 71042 revises FSAR Sections 3.5.1.4 and 3.5.3 and Table 3.5-6 to update the list of safety related components that need to be considered for inclusion in the probability analysis for missiles generated by natural phenomena (tornados).

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2008/12	RN 07-033	FSAR Figure 9.2-4	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2008/12	RN 07-036	FSAR Figures 1.2-1 and 2.4-6	ECR 50239 revises the 302 series drawing format from a Raster file to a Vector file system. Changing from a Raster file to a Vector File system will allow the long range plan to make the flow drawing available to be viewed on individual computers for design purposes.
	2008/12	RN 08-002	FSAR Figure 9.3-3	ECR 50508A removed the existing Turnover structure, located just east of the Turbine Building and installed a non combustible structure onto the existing foundation with electricity and communications. FSAR drawings 036-001 and 744-052 were revised to show the new Security Turnover Station.
	2008/12	RN 08-006	FSAR Figure 10.4-10	ECR 71116 added a Reference Note 6 to link the air compressor skid on 302-273 with the details of the skid on vendor drawing IMS-20-220 Sheet 2.
	2008/12	RN 08-007	FSAR Figure 9.5-1 Sheet .5	ECR 50239 revises the 302 series drawing format from a Raster file to a Vector file system. Changing from a Raster file to a Vector File system will allow the long range plan to make the flow drawing available to be viewed on individual computers for design purposes.
	2008/12	RN 08-009	FSAR 6.5.1.6.1	ECR 71097 revised drawing 302-231 Sheet 5 to show the correct reference for the Main Transformer Deluge System as IMS-55-143-1. None of the design information shown on the drawing was affected. ECR 71092 HEPA Filters are manufactured without separators, use high temperature silicon adhesive, and silicon rubber closed cell sponge

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2008/12	RN 08-010	FSAR Figure 6.2-46	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. ECR 50239 revises the 302 series drawing format from a Raster file to a Vector file system. Changing from a Raster file to a Vector File system will allow the long range plan to make the flow drawing available to be viewed on individual computers for design purposes.
	2007/5	RN 06-019	FSAR Sections 6.3.2.2, 6.3.3.1, 15.3.1.2 Figures 6.3-1 Sh 1, 15.3-17, 15.3-18a thru 15.3-18f, & 15.3-19a thru 15.2-19c	Updates the FSAR to reflect the changes from replacing the twelve (12) High Head Safety Injection throttle valves and their associated branch line orifices during RF16 to support the RB Sump modification. (ECR 50579)
	2007/5	RN 06-038	FSAR Sections 15.3.1 with Tables, and 15.3.8 Figs 15.3-1a thru 15.3-2 & 15.3-4 thru 15.2-21	ECR 70304 updates the FSAR to reflect the new "analysis of record" for Small Break LOCA. The analysis was provided by Westinghouse using the latest version of the NOTRUMP Evaluation Model and to address NRC questions regarding the adequacy of standard Westinghouse SBLOCA break spectrum (i.e., 1, 2, 3, integer breaks) and the need to consider pre-transient oxidation when demonstrating conformance to 10CFR50.46 acceptance criteria for local oxidation (i.e., 17%).
	2007/5	RN 06-042	FSAR Section 8.2, Table 8.2-2 and Appendix 8D	ECR 70754 documented the effects of the 2005 V. C. Summer Transient Stability Study. Calculation DC08200-001 required a revision to incorporate new values for the allowable range of offsite system voltages.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2007/5	RN 07-001	FSAR Sections 8.1, 8.2.1.1, 8.2.1.2, 8.3.1.1.1 Figures 8.2-4 & 8.3-0c	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. Incorporation of the details of ECR 50555, Alternate AC Modification, and its impact on the IDX bus with capability to extend DG AOT to 14 days.
	2007/5	RN 07-010	FSAR Figure 11.3-6	ECR 70644 replaced the pressure gauges for the waste gas compressor moisture separators. The original pressure gauges (0 to 100 PSIG) were indicating in the upper end of their range, and have been replaced with 0 to 160 PSIG gauges to prevent over-ranging and comply with vendor recommendations.
	2006/12	RN 01-119	FSAR 12.1.5 & 12.2, Figure 12.2-2, and Tables 12.2-2 & 12.2-4	ECR 70048 updated various sections within Chapter 12 to correct several identified discrepancies related to the radiation monitoring information presented in the FSAR based on calculation DC00030-050
	2006/12	RN 03-011	FSAR 11.4.2 & 12.2.4.2 and Table 11.4-1	ECR 70064 revised plant drawings and documents to correct radiation monitor sensitivities. These discrepancies were identified in FSAR Assessment 7483.
	2006/12	RN 04-013	FSAR Figures 9.3-16 Sht 2 & 9.3-16 Sht 4	ECR 50506D restored the CVCS and BTRS systems to their original configuration. P&ID D-302-674 and P&ID D-302-676 are revised to reflect the valve positions with normal flow through the Cation Bed.
	2006/12	RN 04-016	FSAR Figure 9.1-3	ECR 50494 installs a new ball valve to provide isolation between the RMUWST and the SFP. XV/T06726 remains in service to act as a throttle valve. P&ID D-302-651 is revised to reflect the changes.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2006/12	RN 04-017	FSAR Figure 9.2-1	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. ECR 50456 replaced copper tubing and unions with flanged fitting and dielectric unions on the Service Water pump lube oil coolers. P&ID D-302-221 is revised to reflect the changes.
	2006/12	RN 04-021	FSAR Figures 1.2-1, 1.2-28, 2.4-6, 9.5-1 Sht 2 & 9.5-1 Sht 2 FPER Figure E--023-001.	FSAR and FPER figures are updated to reflect the addition of the new Nuclear Learning Center (NLC) and tie-in to the Fire Service Yard Loop for supply to the NLC sprinkles. ECR 50474 P&IDs E-036-001, D-302-001, E-744-052, D-302-231 Sht 2, D-302-231 Sht 6, E-023-001
	2006/12	RN 04-029	FSAR Figure 9.4-3	ECR 50437 upgraded the Health Physics Lab to include a briefing room and remote monitoring equipment room. Existing electrical and HVAC equipment was relocated and additional power circuits were installed. P&ID D-912-114 is revised to reflect these changes.
	2006/12	RN 05-007	FSAR Figure 10.2-1	ECR 70670 revised P&ID D-302-011 to correctly identify Turbine Driven EF Pump steam ring drain valves as XVT02804A and XVT02804B.
	2006/12	RN 05-017	FSAR 5.4.3.6 Figure 1.2-1	ECR 50571 installed Ex-Vessel Neutron Dosimetry to be used to measure damage associated with the fast neutron exposure (neutron fluence) of the Reactor Vessel
	2006/12	RN 05-023	FSAR Figure 9.2-9b	ECR 50550 added a suction strainer to the waste neutralization pumps to prevent clogging. P&ID D-302-164 is revised to reflect the changes.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2006/12	RN 05-025	FSAR 9.2, 9.3, & 12A and Tables 5.2-10, 12A.4-2 & 12A.4-4	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2006/12	RN 05-026	FSAR Figure 10.4-5	RN 05-025 updates the FSAR to reflect changes approved by Tech Spec Amendment 152, and corrects grammatical and editorial errors.
	2006/12	RN 05-029	FSAR Figure 6.3-1	ECR 70383 revised P&ID D-302-201 to correctly identify stainless steel components previously shown as carbon steel.
	2006/12	RN 05-031	FSAR Figure 10.4-8	ECR 70514 revised P&ID E-302-693 to show the RHR Heat Exchangers using phantom lines to reflect the actual field configuration.
	2006/12	RN 05-032	FSAR Figure 9.2-9	ECR 50488 changed the design and operational levels of condenser hotwell levels to optimize system thermal performance.
	2006/12	RN 05-040	FSAR Figure 10.4-7A	ECR 50586 removed the Caustic Pump Discharge Flow Transmitter IFT06249 and Flow Controlled IFC06249 which were bypassed and no longer used in the flow control loop.
	2006/12	RN 06-002	FSAR Figure 10.4-12	ECR 50239 changed P&ID D-302-165 from Raster to Vector file format. No technical information has been changed.
	2006/12	RN 06-003	FSAR Figure 9.4-6	ECR 70832 revised P&ID D-302-083 to correct design table Normal and Upset temperature that was changed as a result of MRF 90102
	2006/12	RN 06-003	FSAR Figure 9.4-6	ECR 70777 revised P&ID D-912-115 to correctly identify IPI09637B.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2006/12	RN 06-005	FSAR Figure 9.3-1	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. MRF 22412 (ECR 700601) updates this figure to correctly reflect the additions to the Radiological Maintenance Building.
	2006/12	RN 06-006	FSAR 10.4.7.2 and Figures 10.4-8, 10.4-10, & 10.4-12	ECR 50206 redesigned Feedwater components and flow path to minimize water hammer events during plant startup.
	2006/12	RN 06-007	FSAR Figure 9.3-2	ECR 50601 relocated XVC02698-IA to facilitate installation of a pressure sensing line.
	2006/12	RN 06-010	FSAR Table 3.2-1	ECR 50056 replaced all three "B" Train Diesel Generator heat Exchangers with ASME Section VIII Heat Exchangers.
	2006/12	RN 06-012	FSAR Figure 9.4-25	ECR 70848 revised P&ID D-302-851 to change XVG14236B-CI to XVG14236A-CI on Industrial Chiller "1A".
	2006/12	RN 06-018	FSAR Figure 9.3-4	ECR 70826 revised P&ID D-302-771 to uniquely identify each stage of XPP0162A and XPP0162B as XPP0612A-PP1 & -PP2, XPP0612B-PP1 & -PP2.
	2006/12	RN 06-025	FSAR Figure 10.4-13	ECR 70878 revised P&ID D-302-781 to move the pressure and temperature design flag and the pipe line spec 151X/902X from valve XVT00058-BD to the reducer downstream of relief valve XVR00509-BD.
	2006/12	RN 06-028	FSAR Figure 9.3-2	ECR 70829 added equipment identification number XAC0014 to the equipment database and P&ID D-302-271.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2006/12	RN 06-029	FSAR 6.3.2.6, Tables 6.3-3 & 6.3-10	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. ECR 50316 installed an auto closure of the RWST isolation valves when the sump isolation valves are fully open to the RHR and RB Spray pumps.
	2006/12	RN 06-031	FSAR 15.4.1.4.4	ECR 70892 revised LOCA calculation DC00040-035 to incorporate the limiting ventilation scenario where both trains of the Control Room emergency ventilation start, there is an assumed damper failure, and the operator shuts off the affected train within 30 minutes IAW the EOPs
	2006/12	RN 06-034	FSAR Figure 5.1-1 Sht 2	ECR 70902 revised P&ID D-302-602 to correct the symbol for valves XVD08030-RC and XVD08031-RC.
	2006/12	RN 06-035	FSAR App 3A & 17.2.18.1	These sections are updated to reflect the frequency time intervals and limits for audits performed by the Quality Assurance group.
	2006/12	RN 06-037	FSAR 2.3.3.2, Tables 2.3-85 & 2.3-85F	ECR 50521 installed the new meteorological tower and replaced the EA system instruments with and updated digital system that provides digital data to the plant for processing and display.
	2006/12	RN 04-029	FSAR Figure 9.4-3	ECR 50437 upgraded the Health Physics briefing and monitoring area by relocating equipment and upgrading HVAC supply to reduce area ambient temperature increases during routine briefing sessions.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2006/12	RN 05-019	FPER 4.71.4, 4.7.5.4 and 4.4.16	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. ECR 50205C re-routed safe shutdown cabling of 3-TW and 51-TW Kaowool items in Fire Areas IB-16, SWPH-1, and SWPH-5 to assure separation in accordance with 10CFR50 Appendix R, Section III.G.2.
	2006/12	RN 05-040	FSAR Figure 10.4-7A	ECR 50239 converted flow drawing 302-165 from a Raster to a Vector file system. No technical changes were made.
	2006/12	RN 06-025	FSAR Figure 10.4-13	ECR 70878 Changed the location of the pressure and temperature design flag (3/4) boundary and the pipe line spec 151X/920X boundary from valve XVT00508-BD to a reducer downstream of relief valve XVR00509-BD. This corrects the figure to reflect the actual system design and design upset pressure boundaries.
	2006/12	RN 06-031	FSAR 15.4.1.4.4	ECR 70892 revised the LOCA calculation DC00040-035 to allow for higher recirculation leakage and incorporate the more limiting ventilation scenario where both trains of Control Room Emergency ventilation start. This RN updates the radiological consequences presented in the UFSAR.
	2005/10	RN 02-037	17.2	Chapter 17 changes to remove the static QA in-line procedure review requirements and to remove the requirements for QA to issue releases to work to vendors/contractors performing special process activities on site.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2005/10	RN 03-032	Table 12.1-19	Correct typing error in RM-G8 Sensitivity range.
	2005/10	RN 03-036	Figure 10.4-11	Revise Figure 10.4-11 to change socket weld valves to flanged valves. ECR 70367
	2005/10	RN 03-040	Figures 9.3-16 Sht 3, 9.3-16 Sht 5, 9.5-1 Sht 3	ECR 50290: Revise figure to add spectacle flange upstream of XVG06772-FS to eliminate the potential of over pressurizing penetration XRP0404. ECR 50491: Revise figure to add vent valves in the CS system downstream of XVD08331-CS and the RH system downstream of XVG08706A-RH to eliminate air entrapment/void in the piping.
	2005/10	RN 03-047	5.5.7.2.1.1	ECR-50099: Added a high-point vent to RHR Heat Exchanger A Discharge Header upstream of XVC08716A-RH ('B' Train work scheduled for RF-15). ECR-50260 relocated the control of FCV00602A/B to the output of the RHR Heat Exchanger A/B Discharge Header. Update RHR system diagram & RHR pump miniflow control description accordingly.
	2005/10	RN 03-054	Figures 5.1-1 Sht 1, 6.3-1 Sht 1, 3, 9.3-14, 9.3-16 Sht 1A, 1B, 1C	ECR 50239: 302 drawings (P&IDs) conversion from a Raster file to a Vector file system only. No technical changes are being made.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2005/10	RN 03-055	Figures 11.3-4 Sht 2, 11.3-4 Sht 3	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2005/10	RN 04-001	9.5.4.4	ECR 70467, CER 0-C-03-0148: Revise figures to correctly show the ANS safety class information relative to WG components that provide CCW pressure boundary. Add specific exemptions to ASTM standards used to test Diesel Generator fuel oil, as required to comply with Tech Spec Amendment 164.
	2005/10	RN 04-004	Figures 9.3-2, 9.3-3, 9.3-3A	This change incorporates drawings 302-271 R33, 302-273 R14, and 302-274 R13 as a result of ECR-70483. These are drawing enhancements to clearly show components that are classified as Quality Related.
	2005/10	RN 04-012	5.2.2.4, 5.5.12.4, 5.7.1.3, 6.2.2.4.1, 6.3.4.4, 9.2.7.4, 10.4.4.4	Revise FSAR to conform with Tech Spec Amendment 166. This Amendment was a result of the recent changes to 10CFR50.55a which now references the performance of inservice testing per ASME OM code and inservice inspection activities per ASME B&PV codes.
	2005/10	RN 04-014	Figure 5.2-8A	ECR 50492: Revise figure to show allowed use of 16 PAK Nitrogen kits or an individual nitrogen bottle.
	2005/10	RN 04-018	10.3	Add the flow path "Main Steam to Turbine Stop Valve" to Table 10.3-2. Add an asterisk to 93,272 lb/hr of steam dump drains (Bypass) and remove the asterisk for the 144,300 lb/hr of the MS to FW Pump flow in Table 10.3-2. This flow is not an uncontrolled blowdown.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2005/10	RN 04-019	Chapter 18 3.9.3.1.1, 5.2.1.10.3, 6.2.4.5, 6.2.5.1.1	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2005/10	RN 04-020	6.2, 9.4, and 11.2	Create and issue new FSAR Chapter 18 "Aging Management programs and Activities". License Renewal requirement. Change wording in existing sections to correspond with new Chapter 18.
	2005/10	RN 04-022	3.2, 3.3, 4.2, 4.3, 4.4	302 drawings conversion from a Raster file to a Vector file system only. No technical being made.
	2005/10	RN 04-023	12.2.4.2, 12.2.4.2.10	Appendix R Analyses - Time critical actions. ECR 50371, CER 0-C-02-2707
	2005/10	RN 04-024	9.1.4.2.2.3	Revise section 9.1.4.2.2.3 of the FSAR for clarity to describe how the New Fuel Elevator is used with irradiated fuel.
	2005/10	RN 04-025	17.2.2.3.2	Revise section 9.1.4.2.2.3 of the FSAR for clarity to describe how the New Fuel Elevator is used with irradiated fuel.
	2005/10	RN 04-026	10.4.8.3 10.4.8.1.6	Revision to FSAR to reclassify certain piping within the Blowdown System as Quality Related Note Piping per TRP-13. RE: RG 87-11 guidance, ECR 70481.
	2005/10	RN 04-027	FPER 4.4.25, Fig E-023-007	Revision to FSAR to reclassify certain piping within the Blowdown System as Quality Related Note Piping per TRP-13. RE: RG 87-11 guidance, ECR 70481. Change FPER to indicate the presence smoke only detector(s) in IB-25.1 (4.4-79) should read "Fire detection for this zone consists of a smoke detector system, which . . ." ECR 70273

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2005/10	RN 04-030	10.4	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. Change IPY0321I designator as an I/P converter to a mixing amp on FSAR figure 10.4-10.
	2005/10	RN 04-031	5.5.3.3.4, 5.5.3.4	Changes associated with the "A" Reactor Vessel Hot Leg Nozzle Repair and Implementation of the Mechanical Stress Improvement Process (MSIP) on the "B" and "C" Reactor Vessel Hot Leg Nozzle Welds.
	2005/10	RN 04-034	17.2	The Nonconformance Conformance Notice (NCN) Program has been integrated into the VCSNS electronic Corrective Action Program. Revised program description to reflect this change.
	2005/10	RN 04-036	17.2.2.3	Add a statement to the Administrative Controls section to state that administrative procedures envelope how an independent safety review is performed IAW NUREG-0373, Item 1.B.1.2.
	2005/10	RN 04-037	11.2	Correct the duplicate Equipment ID of LI4843 on FSAR figure 10.4-15 and Table 11.2-5 by changing LI4843, located on XPN-5436-WD, Solid Waste Disposal Panel, to LI4843A.
	2005/10	RN 04-038	Fig. 9.5-1	Drawing 302-231 sheet 1 references the location of pressure switches XPS04911 and XPS04909 as being in XPN7305B and XPN7305A respectively. The correct equipment numbers should be XPN7075A and XPN7075B.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2005/10	RN 04-040	Fig. 9.3-2	Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets. The station instrument air suction and bypass/unload valves are obsolete and require upgrade with replacement valves. Revise FSAR Figure to reflect that the bypass valve has been replaced with an improved ball valve.
	2005/10	RN 04-42	5.2 and 5.4	Pertinent reactor vessel structural integrity parameters are to be revised due to the results of the testing and analysis of surveillance capsule Z recently removed from the reactor vessel. These changes are implemented by ECR-70582.
	2005/10	RN 04-043	Fig. 9.5-11	Valves XVP20981A-DG and XVP20981B-DG require identification on FSAR Figure 9.5-11 (drawing D-302-353).
	2005/10	RN 04-044	Appendix 3A, 13.6 and 17.2	Change the requirements for electronic records storage to comply with the technical aspects of the NIRMA Technical Guidelines. Removes the specific requirement for electronic records to be stored on redundant servers located in remote, separate locations.
	2005/10	RN 04-045	Fig. 9.3-15	Revise FSAR Figure 9.3-15, drawing D-302-361, to add equipment number designation XPP-0203A and XPP-0203B to the sanitary lift pumps.
	2005/10	RN 05-003	Appendix 3A, and 17.2.18.3	Change time constraints and number of audits a prospective Lead Auditor must participate in. Provide clarification to Appendix 3A RG 1.146 position.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2005/10	RN 05-005	17.2.18.1	Change frequency of external audit, of activities under the control of MQS, by an independent agency from annual to not exceeding 24 months.
	2005/10	RN 05-006	FSAR Fig 1.2-15, FPER Fig E-023-018	The entrance door to the I&C shop needs to be relocated to support the remodeling that is being performed. The double door currently used for entrance will be removed and a sheetrock wall will be installed. A single door will be installed adjacent to the existing entrance door. ECR 50540
	2005/10	RN 05-008	10.4 Tbl 10.4-7	Revise to reflect the correct Nuclear Blowdown Demineralizer Inlet Filter particulate size retention, per BOM RGh-01.
	2005/10	RN 05-010	9.1.3.3	FSAR Section 9.1.3.3 of the FSAR is revised to describe how the design basis scenarios for spent fuel cooling are translated into operating procedures with respect to availability of redundant heat removal paths during full core offloads. This includes discussion on maintenance of multiple reliable sources of electrical power. Reference Tech Spec Amendment 160.
	2005/10	RN 05-013	Fig. 9.2-8	Change the name description of XTK-67-WT from 'Reactivator' to 'Clarifier' on FSAR Figure 9.2-8.

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.
	2005/10	RN 05-014	FPER Tbl 3.2-6	Revise Table 3.2-6 to identify XSW1DA1-ES, U4C as the equipment tag number for the tie-breaker to XW1B1. ECR 70649, CER 04-2013
	2005/10	RN 05-016	5.2.2.5.3	Revise Section 5.2.2.5.3 to allow HCV-142 to be throttled which achieves better RCS pressure control when RCS pumps are started. ECR 70715, CER 0-C-05-0590
	2005/10	RN 05-018	Fig. 10.4-1	ECR-50470 moved suction tap for RMA009 to the condenser side of XVB00104B-AR (Main Condenser Vac Pump B Isolation Valve) to allow RMA009 to stay in service when the Vac Pump is isolated.
	2005/10	RN 05-020	Fig. 9.2-4	Revise FSAR Figure 6.3-1 Sheet 2, drawing D-302-692 Rev. 12, to eliminate the flange and tailpipe at the discharge of XVR08857-SI.
	2005/10	RN 05-021	Fig 6.3-1 Sh 2	Revise FSAR Figure 6.3-1 Sheet 2, drawing D-302-692 Rev. 12, to eliminate the flange and tailpipe at the discharge of XVR08857-SI.
	2005/10	RN 05-022	5.4.3.6	Revision to reactor vessel surveillance capsule removal schedule contained in FSAR section 5.4.3.6.
	2005/10	RN 05-027	17.2.16.2	Revise FSAR 17.2 to clarify the QA department requirements for follow-up to issues identified during audits and surveillances. Self Assessment SA04-QS-02

Revision Summary (continued)

Revision	Revision Release Date	Change Activity	Document Elements Affected (Sections, Tables, Figures)	Summary Description of Changes
	2005/10	RN 05-041	6.2, 9.4, and 11.2	<p>Effective Revision 22.02, changes are made under the provisions of 10 CFR 50.59 except where indicated in brackets.</p> <p>ECR 50239: 302 drawings (P&IDs) conversion from a Raster file to a Vector file system only. No technical changes are being made.</p>

VC Summer FSAR Table of Contents

Section	Title	Page
VC SUMMER POWER STATION		
Introduction And General Description of Plant		
Chapter 1		
1.1	Introduction.	1.1-1
1.2	General Plant Description.	1.2-1
1.3	Comparison Tables	1.3-1
1.4	Identification of Agents and Contractors	1.4-1
1.5	Requirements For Further Technical Information	1.5-1
1.6	Material INCORPORATED BY rEFERENCE	1.6-1
1.7	Electrical, Instrumentation, and Control Drawings	1.7-1
1.8	TMI Action Plan Requirements	1.8-1
Site Characteristics		
Chapter 2		
2.1	Geography and Demography	2.1-1
2.2	Nearby Industrial, Transportation, and Military Facilities	2.2-1
2.3	Meteorology	2.3-1
2.4	Hydrologic Engineering	2.4-1
2.5	Geology and Seismology	2.5-1
Appendix 2A		2.A-i
Appendix 2B		2.B-i
Appendix 2C		2.C-i
Appendix 2D		2.D-i
Appendix 2E		2.E-i
Appendix 2F		2.F-i

**VC Summer FSAR
Table of Contents (Continued)**

Section	Title	Page
Design of Structures, Components, Equipment, and Systems		
Chapter 3		
3.1	Conformance With NRC General Design Criteria	3.1-1
3.2	Classification of Structures, Components, and Systems.	3.2-1
3.3	Wind and Tornado Loadings	3.3-1
3.4	Water Level (Flood) Design	3.4-1
3.5	Missile Protection	3.5-1
3.6	Protection Against Dynamic Effects Associated With the Postulated Rupture of Piping	3.6-1
3.7	Seismic Design	3.7-1
3.8	Design of Category I Structures	3.8-1
3.9	Mechanical Systems and Components	3.9-1
3.10	Seismic Qualification of Seismic Category 1 Instrumentation and Electrical Equipment	3.10-1
3.11	Environmental Qualification of Mechanical and Electrical Equipment	3.11-1
3.12	Control of Heavy Loads	3.12-1
Appendix 3A	. . . . .	3.A-i
Reactor		
Chapter 4		
4.1	Summary Description	4.1-1
4.2	Mechanical Design	4.2-1
4.3	Nuclear Design	4.3-1
4.4	Thermal and Hydraulic Design.	4.4-1
Reactor Coolant System		
Chapter 5		
5.1	SUMMARY DESCRIPTION.	5.1-1

**VC Summer FSAR
Table of Contents (Continued)**

Section	Title	Page
5.2	INTEGRITY OF REACTOR COOLANT PRESSURE BOUNDARY.....	5.2-1
5.3	THERMAL HYDRAULIC SYSTEM DESIGN	5.3-1
5.4	reactor vessel and appurtenances	5.4-1
5.5	Component and Subsystem Design	5.5-1
5.6	INSTRUMENTATION REQUIREMENTS	5.6-1
5.7	Inservice Inspection Program (Including Preservice Inspection)	5.7-1
Engineered Safety Features		
Chapter 6		
6.1	General	6.1-1
6.2	Containment Systems	6.2-1
6.3	Emergency Core Cooling System.....	6.3-1
6.4	Habitability Systems.....	6.4-1
6.5	Fission Product Removal and Control Systems	6.5-1
Instrumentation and Controls		
Chapter 7		
7.1	Introduction.....	7.1-1
7.2	Reactor Trip System	7.2-1
7.3	Engineered Safety Features Actuation System.....	7.3-1
7.4	Systems Required for Safe Shutdown	7.4-1
7.5	Safety Related Display Instrumentation	7.5-1
7.6	All Other Systems Required for Safety	7.6-1
7.7	Control Systems Not Required for Safety	7.7-1
7.8	ATWS Mitigation System Actuation Circuitry (AMSAC)	7.8-1
Electric Power		
Chapter 8		

**VC Summer FSAR
Table of Contents (Continued)**

Section	Title	Page
8.1	Introduction.	8.1-1
8.2	Offsite Power System	8.2-1
8.3	Onsite Power Systems	8.3-1
8.4	Station Blackout	8.4-1
Appendix 8A	. . . . .	8.A-i
Appendix 8B	. . . . .	8.B-i
Appendix 8C	. . . . .	8.C-i
Appendix 8D	. . . . .	8.D-i
Appendix 8E	. . . . .	8.E-i
Appendix 8F	. . . . .	8.F-i
Appendix 8G	. . . . .	8.G-i
Auxiliary Systems		
Chapter 9		
9.1	Fuel Storage and Handling	9.1-1
9.2	Water Systems	9.2-1
9.3	Process Auxiliaries	9.3-1
9.4	Air Conditioning, Heating, Cooling, and Ventilation Systems	9.4-1
9.5	Other Auxiliary Systems.	9.5-1
Steam and Power Conversion System		
Chapter 10		
10.1	Summary Description	10.1-1
10.2	Turbine Generator.	10.2-1
10.3	Main Steam Supply System	10.3-1
10.4	Other Features of Steam and Power Conversion System	10.4-1

**VC Summer FSAR
Table of Contents (Continued)**

Section	Title	Page
Radioactive Waste Management		
Chapter 11		
11.1	Source Terms	11.1-1
11.2	LIQUID WASTE SYSTEMS.....	11.2-1
11.3	Gaseous WASTE SYSTEM.....	11.3-1
11.4	Process and Effluent Radiological Monitoring SYSTEMs	11.4-1
11.5	Solid Waste System	11.5-1
11.6	OFFSITE RADIOLOGICAL MONITORING PROGRAM	11.6-1
Radiation Protection		
Chapter 12		
12.1	Radiation Shielding.....	12.1-4
12.2	Ventilation	12.2-1
12.3	Health Physics Program	12.3-1
Appendix 12A	.....	12.A-i
Conduct of Operations		
Chapter 13		
13.1	ORGANIZATIONAL STRUCTURE OF SOUTH CAROLINA ELECTRIC AND GAS COMPANY	13.1-1
13.2	Training Program	13.2-1
13.3	Emergency Planning.....	13.3-1
13.4	Review and Audit.....	13.4-1
13.5	Plant Procedures	13.5-1
13.6	Plant Records	13.6-1
13.7	Industrial Security.....	13.7-1
Initial Tests and Operation		
Chapter 14		
14.1	Test Program.....	14.1-1

VC Summer FSAR Table of Contents (Continued)

Section	Title	Page
14.2	AUGMENTATION OF STAFF FOR INITIAL TEST AND OPERATION	14.2-1
Accident Analysis		
Chapter 15		
15.0	Accident Analysis	15.0-1
15.1	Condition I - Normal Operation And Operational Transients	15.1-1
15.2	Condition II - Faults of Moderate Frequency	15.2-1
15.3	Condition III - Infrequent Faults	15.3-1
15.4	Condition IV - Limiting Faults	15.4-1
15.A	Dose Models Used to Evaluate the Environmental Consequences of Accidents	15.A-1
Technical Specifications		
Chapter 16		
16.1	Technical Specifications	16.1-1
Quality Assurance		
Chapter 17		
17.1	Introduction	17.1-1
17.2	Quality Assurance During the Operations Phase	17.2-1
Aging Management Programs and Activities		
Chapter 18		
18.1	Introduction	18.1-1
18.2	Aging Management Programs and Activities	18.2-1
18.3	Time-Limited Aging Analyses (TLAA) Evaluations	18.3-1
18.4	References	18.4-1