FPL Energy
Seabrook Station

FPL Energy Seabrook Station
P.O. Box 300
Seabrook, NH 03874
(603) 773-7000

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Docket 50-443
SBK-L-07062

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Seabrook Station
10CFR50.59 Report, Revision 11 to the Seabrook Station Updated Final Safety Analysis Report, Revision 8 to Appendix R, "Fire Protection Safe Shutdown Capability," Revision 9 to Appendix A, "Evaluation and Comparison to BTP APCSB 9.5-1," and Revision 103 to the Technical Requirements Manual

FPL Energy Seabrook, LLC (FPL Energy Seabrook) encloses the 10CFR50.59 Report, Revision 11 to the Seabrook Station Updated Final Safety Analysis Report (UFSAR), Revision 8 to Appendix R, "Fire Protection Safe Shutdown Capability," Revision 9 to Appendix A, "Evaluation and Comparison to BTP APCSB 9.5-1," and Revision 103 to the Technical Requirements Manual. The 10CFR50.59 Report and the UFSAR are submitted pursuant to the requirements of 10CFR50.59(d)(2) and 10CFR50.71(e). The 10CFR50.59 report and the UFSAR report cover the period from July 1, 2005 through March 9, 2007. UFSAR Revision 11 incorporates approved and implemented design changes and UFSAR changes identified through March 9, 2007. The incorporated changes to the UFSAR have been reviewed in accordance with 10CFR50.59. The reviews determined that these changes did not constitute unreviewed safety questions or require prior NRC approval.

The UFSAR is provided in its entirety on CD-ROM in Portable Document Format (PDF). Changes from Revision 10 are indicated by a change in revision number and a vertical line (revision bar) in the margin next to the change. The List of Effective Pages contained within the UFSAR provides a listing of each page and its revision number with a revision bar indicating which pages contain changes. The controlled drawings referenced in the UFSAR are provided on a separate CD-ROM. Appendix R, Appendix A and the Technical Requirements Manual are also provided on CD-ROM. Summaries of the 10CFR50.59 evaluations for the changes incorporated in Revision 11 of the UFSAR are attached as Enclosure 1. Enclosure 2 provides a summary for changes to the UFSAR incorporated using the guidance of NEI 98-03, "Guidelines for Updating Final Safety Analysis Reports."

A053
A006

Enclosure 3 is a listing of UFSAR Change Requests (UFCRs) incorporated in UFSAR Revision 11 during the reporting period. The affected Sections, Tables and Figures are provided for each UFCR. Enclosure 4 contains UFCRs incorporated in Appendix R, Enclosure 5 provides the UFCRs incorporated in Appendix A and Enclosure 6 contains UFCRs incorporated in the Technical Requirements Manual. This UFSAR submittal, specifically Chapter 17 and Appendix 17A, addresses the reporting requirements of 10CFR50.54(a).

One copy of the UFSAR revision on CD-ROM is being submitted to the Document Control Desk, Washington, DC, along with a copy to the Regional Office, King of Prussia, PA and a copy to the Resident Inspector at Seabrook Station.

Should you have any questions regarding this matter, please contact Mr. James M. Peschel, Regulatory Programs Manager, at (603) 773-7194.

Very truly yours,

FPL Energy Seabrook, LLC

Gene St. Pierre
Site Vice President

cc: S. J. Collins, NRC Region I Administrator
G. E. Miller, NRC Project Manager, Project Directorate I-2
G. T. Dentel, NRC Senior Resident Inspector

OATH AND AFFIRMATION

I, Gene St. Pierre, Site Vice President of FPL Energy Seabrook, LLC, hereby affirm that the information and statements contained within this submittal are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Sworn and Subscribed
before me this

8th day of May, 2007

Gene St. Pierre
Site Vice President

Notary Public

Enclosure 1 to SBK-L-07062

Summary Report of Facility Changes, Tests, and Experiments
Completed in Accordance with the Requirements of 10CFR50.59
for Revision 11 of the Updated Final Safety Analysis Report

Design Change Records/Minor Modifications

Design changes documented in the following Design Change Records (DCR) and on their Design Change Notices (DCN) or Minor Modifications (MMOD) were installed during the period covered by the 10CFR50.59 Report. A 10CFR50.59 evaluation was performed for each MMOD, DCR or DCN. For each of the evaluations performed, no activities requiring prior NRC approval were identified.

10CFR50.59 Evaluation 05-003 — DCR 05-015, Inadvertent ECCS Initiation at Power (UFCR 05-040)

Summary Description and Purpose: DCR 05-015, Inadvertent ECCS Initiation at Power, implemented the changes required by the revised analysis of the inadvertent ECCS initiation at power event. The revised analysis is based on mitigating the event by crediting revised operator actions within Emergency Operating Procedure (EOP) EOP-E-0, Reactor Trip or Safety Injection, that stop all charging flow prior to the pressurizer becoming water-solid. DCR 05-015 revised EOPs E-0, ES-1.1, SI Termination, F.0.6, Inventory, FR-I.1, Response to High Pressurizer Level and operating procedures OS1001.05, Reactor Coolant Pump Operations, and OS1201.01, RCP Malfunction. The UFCR revised UFSAR Section 15.5 to include the revised analysis.

Evaluation Summary: The evaluation addressed the consequential loss of seal injection to the Reactor Coolant Pumps (RCPs) and the revised Emergency Operating Procedure (EOP) operator actions to terminate an inadvertent ECCS actuation prior to pressurizer fill. The revised inadvertent ECCS actuation at power analysis demonstrates that water-solid conditions in the pressurizer are prevented if operators secure all but one charging pump at 9 minutes and terminate all charging flow at 13 minutes. Seabrook Administrative Procedure SM 7.20, "Control of Time Critical Tasks," provides guidance for evaluating Operator response for time critical tasks. In accordance with these guidelines, operating crews have demonstrated that they can terminate charging flow in accordance with these assumptions. Westinghouse evaluated the loss of seal injection for this event and determined that the RCP seal temperature would not exceed the RCP shutdown temperature within the time period required for operators to reestablish seal injection flow. Therefore, the actions necessary to mitigate the inadvertent ECCS initiation at power will not result in an extended loss of seal injection that results in a loss of seal integrity. Additionally, the analysis changes do not affect the frequency of inadvertent ECCS actuation.

The 10 CFR 50.59 evaluation concluded that the reanalysis does not compromise the safety or licensing bases of the plant, or require a change to the Technical Specifications. Therefore, prior NRC approval was not required for this activity.

Miscellaneous Evaluations

The following 10CFR50.59 evaluation was associated with a plant activity conducted during the reporting period covered by this 10CFR50.59 Report. The evaluation concluded that the activity did not require prior NRC approval.

10CFR50.59 Evaluation 07-001 — UFSAR Methodology Change for the Use of an Additional RG 1.92 Combination of Modal Response Method, the Double Sum Method (UFCR 07-009)

Summary Description and Purpose: As part of the Cask Handling Crane single failure proof upgrade, a new analytical model of the crane and supporting structure was created for seismic response spectrum modal dynamic analysis. A new analysis was required to account for a heavier trolley, heavier load design, and the NUREG-0554, "Single-Failure Proof Cranes for Nuclear Power Plants," requirement to evaluate the crane for a seismic event with a load on the hook. During development of the new seismic analysis, it was determined that the Double Sum Method of combining closely spaced modes would provide more accurate results. UFCR 07-009 revised UFSAR sections 3.7(B).2.7 and 9.1.4.3.a.5(d)(1) to add that the reanalysis performed to support the upgrade of the cask handling crane to meet the single failure proof requirements of NUREG-0554 utilized the methods specified in NRC Regulatory Guide 1.92, Rev. 1, "Combining Modal Responses and Spatial Components in Seismic Response Analysis," Positions C.1.1 and C.1.2.3 to combine modal responses.

Evaluation Summary: The evaluation performed for the activity was for a change to an UFSAR-described evaluation methodology. The method to be added to the UFSAR is contained in NRC Regulatory Guide 1.92, Rev.1. In Section C 1.2, it is stated, "In a response spectrum modal dynamic analysis, if some or all of the modes are closely spaced, any of the following regulatory positions (i.e., C.1.2.1, C.1.2.2 or C.1.2.3) may be used as a method acceptable to the NRC staff to combine the modal responses." Regulatory position C.1.2.1, Grouping Method, is included in UFSAR Section 3.7(B).2.7. The addition of regulatory position C.1.2.3, Double Sum Method, has been previously approved by the NRC staff in RG 1.92, Rev. 1 for the intended application and as such is not considered a departure from a method of evaluation described in the UFSAR. There are no restrictions for use of this method listed in the Regulatory Guide. This NRC approved methodology is therefore appropriate for the intended application. The evaluation concluded that prior NRC approval was not required for this activity.

Enclosure 2 to SBK-L-07062

Summary of Changes to the Updated Final Safety Analysis Report
Incorporated Using the Guidance of NEI 98-03,
"Guidelines for Updating Final Safety Analysis Reports"

The following pages provide a summary of changes incorporated in Revision 11 of the Updated Final Safety Analysis Report using the guidance contained in NEI 98-03, "Guidelines for Updating Final Safety Analysis Reports." The summaries provide the UFSAR Change Request (UFCR) number, affected UFSAR, Sections, Tables, or Figures and a description of the change.

UFCR Number	**Affected Sections, Tables, and Figures**
02-019	Appendix A, Section F.3, Page 71

Description of Change: The description for a 2 1/2" pressure reducer on a hose reel was changed to read 2 1/2" x 1 1/2" reducer. There has always been a reducing fitting installed on the hose reels to covert the connection from 2 1/2" to 1 1/2" to connect the 1 1/2" fire hose size. This change provided clarification for the description of the reducer.

05-027 13.1.3.1

Description of Change: Change made to Section 13.1.3.1 consistent with Section 1.8 (and Section 12.5.1 relative to Health Physics Qualifications) by removing the inconsistent specific revision references from Section 13.1.3.1 and referring the reader to Section 1.8 which contains the specific commitments.

05-029 UFSAR 9.5.4, Appendix A Section F3, Section F2 Tab 7

Description of Change: This change removed redundant information that described the fire protection systems in the diesel building from Section 9.5.4. The description is provided in Section 9.5.1. In Appendix A the description of the preaction sprinklers above the diesels was corrected from automatic to manual to match the SER, the generic term "thermal" was added for the type of fire detectors installed in oil piping trenches, and a typographical error in a referenced calculation was corrected. The changes removed redundancy and corrected information.

05-030 13.1, 17.2, Figure 17.2-1

Description of Change: This change revised the discussion of the station organization to add the Assistant Plant Manager and eliminate the Outage Manager. Some responsibilities previously discussed in the UFSAR are reassigned to different positions but are otherwise unchanged. This UFCR made no changes to the substance or meaning of the information contained in the UFSAR.

05-035 13.1, 17.2, Figure 17.2-1

Description of Change: This UFCR revised the UFSAR to reflect the change in reporting relationship for the Performance Improvement Manager. This UFCR made no changes to the substance or meaning of information contained in the UFSAR.

05-041 13.1, 16.3, 17.2, Figure 17.2-1

UFCR Number **Affected Sections, Tables, and Figures**

Description of Change: The UFCR revised the UFSAR to reflect the approved organizational structure to include the position of Vice President Nuclear Operations. The change also clarified in Section 16.3 that the COLR was relocated to the Technical Requirements Manual and changes to the COLR are processed using the UFSAR change process. The UFCR made no changes to the substance or meaning of information contained in the UFSAR.

06-004 9.4.8.1

Description of Change: This change corrected a typographical error. The safety classification of fans and dampers were incorrectly listed as ANSI safety class 3. Table 3.2-2 of the UFSAR lists these fans and dampers as ANS safety class 3. This UFCR corrected the error.

06-005 13.1, 17.2

Description of Change: This UFCR revised Sections 13.1 and 17.2 to reflect the transfer of the Records Management Department to the Assistant Station Director. There was no change to the functions performed by the Records Management Department and there was no change to the substance or meaning of information contained in the UFSAR.

06-008 1.8, 1.9, 8.1, 13.4, 13.5, 17.2, 17A, 17C, 17.D, Figure 17.2-1

Description of Change: This UFCR updated the UFSAR to reflect NRC approved changes to the Quality Assurance Program. The Quality Assurance Topical Report is now a standalone document and no longer contained in the UFSAR.

06-010 Figure 4.2-3B

Description of Change: This UFCR corrected notation errors in Figure 4.2-3B, Fuel Rod Schematic – Reload Fuel. The notation had been incorporated in error in previously approved changes to reload fuel attributes.

06-013 13.1, 17.2, Figure 17.2-1

Description of Change: This change revised the UFSAR to reflect the organization changes in the Engineering Department outlined in an approved Change Management Plan. The change made no changes to the substance or meaning of the information contained in the UFSAR.

06-029 10.4.7.2

Description of Change: This change provided clarification to improve understanding of condenser hotwell makeup operation. The change clarified that makeup is provided from either of two storage tanks upon receipt of a hotwell low level signal.

UFCR Number	Affected Sections, Tables, and Figures
06-032	1.1.2

Description of Change: This change removed a statement in the UFSAR that the page headers in the living UFSAR would be designated as "Draft" until submitted to the NRC. Draft is no longer used. This change was an administrative change to update the UFSAR to reflect current administrative practice.

06-033	13.1, Figure 17.2-1

Description of Change: This UFCR was an administrative change to correct position titles. There were no changes made to the substance or meaning of the information contained in the UFSAR.

07-006	12.5.1

Description of Change: This UFCR was an administrative change to clarify the minimum qualifications for Health Physics Technicians required to fulfill the Operating Shift Crew function. The clarification improved reader understanding without changing the scope or modifying the meaning of the information contained in the UFSAR.

Enclosure 3 to SBK-L-07062

Listing of UFSAR Change Requests (UFCRs) Incorporated in
Updated Final Safety Analysis Report, Revision 11

UFCR Number	Affected Sections	Affected Tables	Affected Figures
99-051	9.5.1.2		9.5-1, 9.5-4
99-057	9.2.3.2, 10.3.5, 10.4.1, 10.4.6, 10.4.7, 11.1.1	1.1-1, 10.4-4	8.3-7, 9.2-7, 9.3-2, 9.3-6, 9.3-8, 9.3-9, 9.3-15, 10.4-6, 10.4-7, 10.4-16, 10.4-18, 10.4-19
02-042	8.2.1.4.b.2		
03-039	11.1.5.2, 11.5.2.1	11.5-1, 11.5-2, 11.5-3, 11A-1	9.3-2, 11.2-5, 11.5-1
05-021	16.3		
05-022	1.1, 1.2, 10.1, 10.2, 10.4, 15.0, 15.1, 15.6, 15.8, 16.3		10.4-8
05-024	6.8.2		9.2-15
05-025	8.2.1.4, 8.2.4		8.1-1
05-027	13.1.3.1		
05-029	9.5.4		
05-030	13.1, 17.2		17.2-1
05-032	5.4.12.2, 6.3.2.2.f.1		
05-034	1.2, 8.2, 10.1, 10.2		8.3-1
05-034, Rev. 1	8.2	8.2-1	
05-035	13.1, 17.2.1.3		17.2-1
05-036	11.4.1.1, 11.4.2.3		
05-039	8.2.1.3		
05-040	5.4, 15.5	15.5-1	15.5-1
05-041	13.1, 16.3, 17.2		17.2-1
06-001	16.3		

UFCR Number	Affected Sections	Affected Tables	Affected Figures
06-004	9.4.8.1		
06-005	13.1, 17.2		
06-006	9.5.2.2.a.2		
06-007	1.2.9.2, 10.1, 10.2.1, 10.2.2, 10.4.1.2.c		10.1-1, 10.1-2
06-008	1.8, 1.9, 8.1, 13.4, 13.5, 17.2, 17A, 17C, 17D		17.2-1
06-009	16.3		
06-011	16.3		
06-012	9.3.4.2.e.17, 5.2.3.2.a		
06-013	13.1, 17.2.1.3		17.2-1
06-014	7.1.1.1, 10.4.8, 6.8		
06-015	7.2.2.3		
06-016	16.3		
06-017	10.4		
06-018	5.3.1.6.1	5.3-3, 5.3-5, 5.3-6	
06-020		8.3-1, 8.3-2	8.3-23
06-021	9.2.2.1		
06-022	9.3.2.2		
06-023	15.6.5, 16.3		
06-025	6.2.2.2	6.2-88	1.2-2
06-026	17.2.1.3		
06-027	16.3		
06-029	10.4.7.2		

UFCR Number	Affected Sections	Affected Tables	Affected Figures
06-030	16.3		
06-032	1.1.2		
06-033	13.1		17.2-1
06-035	16.3		
07-002	16.3		
07-003		10.4-1	
07-006	12.5.1		
07-009	3.7(B).2.7, 9.1.4.3.a.5		

Enclosure 4 to SBK-L-07062

Listing of UFSAR Change Requests (UFCRs) Incorporated in
Appendix R, Fire Protection Safe Shutdown Capability, Revision 8

UFCR Number	Affected Sections	Affected Tables	Affected Figures
05-038		MCR 3.1.3.2-19	
06-025	3.2, Tabulation 3.2.7.1		

Enclosure 5 to SBK-L-07062

Listing of UFSAR Change Requests (UFCRs) Incorporated in
Appendix A, Evaluation and Comparison to BTP APCSB 9.5-1, Revision 9

UFCR Number	Affected Sections	Affected Tables	Affected Figures
99-051	9.5-1		
02-019	F.3, Page 71		
05-029	F.3, Page 89 F.2, Tab 7, DG-F—2A-A F.2, Tab 7, DG-F-2B-A F.2, Tab 7, DG-F-3A-A F.2, Tab 7, DG-F-3B-Z		
05-031	Appendix D		
05-037	F.3		
05-039	Section B		

Enclosure 6 to SBK-L-07062

Listing of UFSAR Change Requests (UFCRs) Incorporated in
Revisions 97 through 103 of the Technical Requirements Manual

UFCR Number	Affected Sections	Affected Tables	Affected Figures
05-021	TR 13		
05-022	TR 33		
06-001	TR 7		
06-009	TR 14		
06-011	Chapter 6, COLR		
06-016	TR 29, TR 31		
06-023	Chapter 6, COLR		
06-027	TR 24-3.6.4.1		Figure 1
06-030	TR 13		
06-035	Chapter 6, COLR	Table 1	4.1, 4.2, 4.3, 4.4
07-002	TR 6		