



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

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December 14, 2000  
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U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

South Texas Project  
Units 1 and 2  
Docket Nos. STN 50-498, STN 50-499  
Updated Final Safety Analysis Report, Revision 7

Pursuant to 10CFR50.71, the South Texas Project (STP) submits Revision 7 to the South Texas Project Updated Final Safety Analysis Report (UFSAR) as Attachment 3.

This revision to the UFSAR is an electronic conversion to the Word program. Therefore, every page of the submittal is annotated with "Revision 7." Only the figures that were not reprinted still retain their existing revision number. Attachment 2 includes a summary of changes in UFSAR Revision 7.

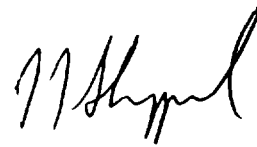
There are two increases in dose represented in Revision 7, the offsite dose due to a fuel handling accident in the Fuel Handling Building and the offsite dose due to a large break LOCA. Both of these are minimal increases from the previous analysis and the results can be adopted without prior NRC approval by the application of the recently revised 10CFR50.59. STP Nuclear Operating Company (STPNOC) is tracking this action in its Corrective Action Program and will complete the 10CFR50.59 evaluation as STPNOC implements the rule change.

The remaining changes to the UFSAR were made under the provisions of 10CFR50.59, as a result of other licensing actions, or in accordance with the guidance of NEI 98-03.

Copies of the Updated Final Safety Analysis Report, Revision 7 and the STP Controlled Drawing Manual are provided under separate cover. A copy of this transmittal is attached to each Updated Final Safety Analysis Report copy.

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If there are any questions on this submittal, please contact Mr. S. M. Head at (361)-972-7136 or me at (361)- 972-8757.

A handwritten signature in black ink, appearing to read 'J. J. Sheppard', is positioned above the printed name.

J. J. Sheppard  
Vice President,  
Engineering and Technical Services

AWH/

Attachments

1. Affidavit Attachment
2. Summary of Changes Made in Updated Final Safety Analysis Report Revision 7
3. Updated Final Safety Analysis Report, Revision 7 Attachment
4. STP Controlled Drawing Manual

cc:

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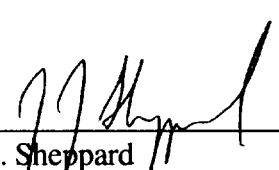
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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
STP Nuclear Operating Company,	)	Docket Nos. 50-498
et al.,	)	50-499
	)	
South Texas Project	)	
Units 1 and 2	)	

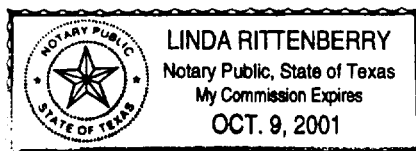
AFFIDAVIT


I, J. J. Sheppard, being duly sworn, hereby depose and say that I am Vice President, Engineering and Technical Services, of STP Nuclear Operating Company; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached Revision 7 to the Updated Final Safety Analysis Report; that I am familiar with the content thereof; and that the matters set forth therein are true and correct to the best of my knowledge and belief.

  
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J. J. Sheppard  
Vice President,  
Engineering and Technical Services

STATE OF TEXAS                   )  
  )  
COUNTY OF MATAGORDA       )

Subscribed and sworn to before me, a Notary Public in and for the State of Texas,  
this 14<sup>th</sup> day of December, 2000.



  
\_\_\_\_\_  
Notary Public in and for the  
State of Texas

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

#### **Chapter 1, "Introduction and General Description of Plant"**

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2431) [1.1.1, 1.2.2.2.1]

Added acronym for Refueling Equipment Building. (CN-2361) [Table 1.1-1]

Replaced references to RHR system initiation pressure with a more generic description. (CN-2145) [1.2.2.4]

Updated reference to WCAP-11273 to Revision 3. (CN-2404) [Table 1.6-2]

#### **Chapter 2, "Site Characteristics"**

Updated population distribution and information regarding land use within ten miles of the plant. (CN-2152) [2.1.3]

Removed unnecessary details regarding chemical treatment for biological growth control. (CN-2150) [2.2.3.1]

Deleted requirement to monitor horizontal benchmarks and reduce monitoring frequency for site piezometers except main cooling reservoir, structural benchmarks, and external benchmarks. Eliminated updates of UFSAR geotechnical data. (CN-2410) [Table 2.5.C-1]

#### **Chapter 3, "Design of Structures, Components, Equipment and Systems"**

Replaced references to RHR system initiation pressure with a more generic description. (CN-2145) [3.1.2.4.5.1]

Revised spent fuel pool criticality analysis and rack utilization schemes to allow credit for soluble boron. (CN-2387) [3.1.2.6.3]

Branch line breaks eliminated by LBB criteria. (CN-2431) [Table 3.2.B-1, 3.6.1, 3.6.2, 3.6 References, 3.8.3, 3.9.1]

Revised values for Unit 1 high-energy pipe break stresses. Clarified control of welded attachments for stress impact. Added computer code used in sizing the steam generator blowdown flow control valve. (CN-2312) [3.6.2.1, Table 3.6.2-1, 3.9.1.2.2.32]

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators: HELB stresses and computer codes. (CN-2248, CN-2369) [Table 3.6.2-1, 3.9.1.2, 3.9 References, Tables 3.9-8, 3.9-13, 3.9-18]

## Updated Final Safety Analysis Report, Revision 7

### Summary of Changes (Continued)

Removed obsolete information: reference to valves that were not actually installed. (CN-2353) [Table 3.6.B-1]

Editorial change to correct table headings. (CN-2346) [Table 3.6.A-6]

Incorporated changes required by 10 CFR 50.55a. (CN-2419) [3.8.2.7.1]

A portion of the "1D" bioshield wall was made removable in support of replacement steam generator project. Added CE217 to reflect current version of BSAP POST. (CN-2306) [3.8.3.1.2, 3.8.A.26]

Added descriptions of RELAP5 (MOD1 and MOD3), REPIPE, and R5FORCE. (CN-2369) [3.9.2]

Deleted reference to Tech Spec requirements for snubber operability because that information was moved from Tech Specs to the Technical Reference Manual. (CN-2329) [3.9.3.4.2.6]

Added information on environmental qualification. (CN-2368) [Table 3.11-4]

Editorial: deleted references to Q121.18 and Q121.19 because they were deleted from the FSAR. (CN-2321) [Table 3.12-1]

Clarified that HEPA filters in the RCB supplemental purge exhaust and the radioactive vent header are not required to meet RG 1.140 or ANSI N-509/N-510. Credit for these filters is not taken in dose calculations. (CN-2367) [Table 3.12-1, Table 9.4-4, Q321.4N]

Described the revised surveillance for RCP flywheel examination. (CN-2386) [Table 3.12-1]

Transferred conformance with RG 1.88 to the Operations Quality Assurance Plan. (CN-2453) [Table 3.12-1]

#### Chapter 4, "Reactor"

Changes to reload fuel assemblies. (CN-2210) [4.1, Table 4.1-1, 4.2, 4.3.2, Table 4.3-1]

Described new design for annular fuel pellets. (CN-2406) [4.1, Table 4.1-1, 4.2.2.1, 4.3.2.1, Table 4.3-1]

Editorial: revised format of reactor design information table. (CN-2454) [Table 4.1-1]

Described new Rod Control Cluster Assemblies. (CN-2356) [Table 4.1-1, 4.2.2.3.1]

Updated non-LOCA safety evaluation using Delta 94 steam generator design. (CN-2396) [Table 4.1-1, 4.4.1, Table 4.4-1, Table 4.4-3]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

Revised spent fuel pool criticality analysis and rack utilization schemes to allow credit for soluble boron. (CN-2387) [4.3.2.6.2, 4.3.2.6.3, 4.3 References]

Described fuel design changes associated with the Robust Fuel Assembly. (CN-2325) [4.4.1, 4.4.2, 4.4.4, Table 4.1-1, Table 4.4-1]

Incorporated alternate RCS flow rate option due to steam generator tube plugging. (CN-2334) [4.4.1.1, Table 4.1-1, Table 4.4-1]

Incorporated methods used to account for DNBR penalty associated with loop temperature asymmetry. (CN-2407) [4.4.2.2.6, Ref. 4.4-87]

#### **Chapter 5, "Reactor Coolant System and Connected Systems"**

Changes resulted from the Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2431) [Table 5.1-1, Table 5.1-5, Table 5.4-3]

Incorporated alternate RCS flow rate option due to steam generator tube plugging. (CN-2334) [Table 5.5-1]

Differentiated between the initial pressurizer relief tank temperature assumed for analyses with Model E and Delta 94 steam generators. (CN-2380) [5.4.11]

Deleted tradename "PROTEUS" from plant computer description and clarified printout capability. (CN-2195) [5.2.5.2, 7.7.1.3, 11.5.2.5]

Clarified control of lithium hydroxide concentration in the RCS. (CN-2355) [5.2.3.2.1]

Editorial corrections. (CN-2431) [5.2.3, 5.4.14.1]

Decreased allowable test pressure for leak testing RCPB isolation valves from 2255 psig to 2235 psig to reflect Tech Specs. (CN-2324) [5.2.5.1.2]

Corrected code addenda dates. (CN-2392) [Table 5.2-1]

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators: descriptions and materials. (CN-2248) [Tables 5.2-1, Table 5.2-2, 5.4.2, Table 5.4-4]

Revised material for RCP flywheel. (CN-2347) [Table 5.2-2, 5.4.1.5]

Removed Centrifugal Charging pumps from the emergency diesel generator auto-start sequencer. (CN-2432) [5.4.1.3.1, 5.4.1.3.3]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

Revised to allow a minimal amount of copper-bearing materials in the secondary system. (CN-2400) [5.4.2.1]

Clarified scope of 1-volt Alternate Repair Criteria for steam generator tubing. (CN-2383) [5.4.2.2]

Replaced references to RHR system initiation pressure with a more generic description. (CN-2145) [5.4.7.1, 5.4.7.2.3, Appendix 5.4.A]

Added operator action to normal RHR system operation. (CN-2366) [5.4.7.1, 5.4.7.2.6]

Removed pressurizer backup heater automatic actuation on high level deviation and changed the high level alarm from 70% to 10% above the full power programmed level. (CN-2402) [5.4.10.2.2]

#### Chapter 6, "Engineered Safety Features"

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2434) [Text, tables, and figures in 6.2.1 and 6.2A.1]

Added two jib cranes in each RCB. (CN-2109) [6.1.2.1, Table 6.1-4, 9.1.4.3]

Revised discussion and values for hydrogen created by aluminum and zinc-based materials during a LOCA. (CN-2399) [6.2.1.1, 6.2.3.2.1, 6.2.5.3.3, Tables 6.2.5-4 through Table 6.2.5-8]

Incorporated results of containment initial pressure uncertainty to the calculated minimum containment pressure. (CN-2350) [6.2.1.1.3.6, Table 6.2.1.1-2]

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2313) [6.2.1.2]

Incorporated alternate RCS flow rate option due to steam generator tube plugging. (CN-2334) [Table 6.2.1.1-3]

Deleted obsolete information: valves PO-203 and PO-204 were deleted because RCP oil supply subsystem is abandoned in place and penetration is capped. (CN-2389) [Figure 6.2.4-1 Sheet 84]

Added notes for ILRT penetrations. (CN-2394) [Fig. 6.2.4-1 Sheet 1A]

Changed accumulator operating pressure to values used in Technical Specifications. (CN-2381) [6.3.3, Table 6.3-1, Table 7.5-1]

Reflected new hot leg switchover time. (CN-2332, CN-2414) [6.3.2.5, 6.3.2.6, 6.3.2.8, 6.5.2.3]



## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

Deleted duplicate information included in another table. (CN-2381) [Table 6.3-9]

Revised chemistry input parameters to reflect increased available water volume and change in boron concentration. (CN-2385) [Tables 6.5-3 and 6.5-4]

#### Chapter 7, "Instrumentation and Controls"

Updated reference to WCAP-11273 to Revision 3. (CN-2404) [7.3]

Clarified that steam generator PORV controls meet those portions of IEEE 279-1971 applicable to automatic controls as well as manual controls. (CN-2435) [7.4.1.2.10]

Implemented ERFDADS portion of the Integrated Computer System. (CN-2333) [7.5.7]

Changed accumulator operating pressure to values used in Technical Specifications. (CN-2381) [Table 7.5-1]

Replaced references to RHR system initiation pressure with a more generic description. (CN-2145) [7.6.2]

Reflected new hot leg switchover time. (CN-2332) [7.6.4.1]

Changed range of boron concentration from 0 - 1800 ppm to 0 - 3500 ppm during plant operation. (CN-2423) [7.7.1.10.3]

Changed AMSAC actuation signal from feedwater flow to steam generator water level for Unit 1. (CN-2409) [7.8A]

Removed reference to Independent Safety Engineering Group. (CN-2397) [7A.I.B.1.2]

Updated non-LOCA safety evaluation using Delta 94 steam generator design. (CN-2396) [7A.II.E.1.1]

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2426) [Table 7A.II.E.1.1-2a]

Two Unit 2 core exit thermocouples have been abandoned in place due to unsuccessful repair attempts. (CN-2415) [7A.II.F.2]

Annotated existing response as historical and confirmed that STPEGS meets the requirements of 10CFR50.61 for pressurized thermal shock. (CN-2391) [7A.II.K.2.13]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

Deleted redundant information regarding a natural circulation guideline. (CN-2451) [7A.II.K.2.17]

Editorial: added NRC closure information. (CN-2463) [7A.II.K.3.5]

Removed Centrifugal Charging pumps from the emergency diesel generator auto-start sequencer. (CN-2432) [7A.II.K.3.25]

Clarified information regarding emergency mode of EOF HVAC. (CN-2352) [7A.S.8.4.3]

Added information on seismic and environmental qualification. (CN-2368) [7B.3.2.2.2, Table 7B.3-2]

Added post-accident monitoring instruments. (CN-2316) [Tables 7B.5-1, 7B.6-1, 7B.7-1, and 7B.8-1]

#### Chapter 8, "Electric Power"

Clarified statement regarding switchyard battery test. (CN-2374) [8.2.1.7]

Removed Centrifugal Charging pumps from the emergency diesel generator auto-start sequencer. (CN-2432) [Table 8.3-3]

Added one circuit for a 480 V receptacle. Deleted duplicate information: protective device ratings are provided on the referenced drawings. (CN-2165, CN-2428) [Table 8.3-14]

#### Chapter 9, "Auxiliary Systems"

Provided actual locations and sequence for performing new fuel receipt and inspection. (CN-2242) [9.1.1]

Editorial change: "new fuel handling area" now reads "new fuel inspection laydown area." (CN-2241) [9.1.1.2]

Revised spent fuel pool criticality analysis and rack utilization schemes to allow credit for soluble boron. (CN-2387) [9.1.2.3]

Editorial change clarified that the maximum SFP temperature will not be exceeded regardless of fuel cycle length. (CN-2461) [9.1.3]

Upgraded the fueling machine. (CN-2339) [9.1.4.2.4, 9.1.4.3.1.2]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

Clarified when mechanical stops are installed to prevent jib crane movement over the reactor vessel. (CN-2357) [9.1.4.3.1.6]

Removed unnecessary detail regarding local indicators in the Auxiliary Cooling Water System and regarding chemical treatment to prevent biological fouling. (CN-2150) [9.2.1.1, 9.2.1.3]

Deleted unnecessary detail regarding how and where chemical addition occurs. (CN-2355) [9.2.1.1.2, 9.3.4.1.2, 9.4.1.2.1, 9.4.3.2.4]

To reflect actual conditions, deleted statement that the shell-side pressure of the CCW HX is maintained higher than that of the tube-side. (CN-2403) [9.2.2.2.2]

Added section about CCW maintenance that secures cooling water to the SFP HX. (CN-2408) [9.2.2.3]

Revised to allow onsite beneficial land application of sanitary waste sludge containing trace quantities of radioactivity. (CN-2417) [9.2.4.2, 9.2.4.3]

Revised alarm parameter from “low compressor cooling water pressure” to “low compressor cooling water flow.” (CN-2382) [9.3.1.5]

Clarified use of pressure and temperature conditions for selecting packless metal diaphragm valves. (CN-2447) [9.3.4.1.2.5]

Removed miscellaneous purchase specification data from the non-safety Fuel Handling Building supply air subsystem description. (CN-2425) [9.4.2.2.1, Table 9.4-2.2]

Split TSC chiller capacity into two separate units. (CN-2226) [Table 9.4-2.1]

Added description of centrifugal chiller control system. (CN-2411) [Tables 9.4-2.1, 9.4-2.3, and 9.4-2.5]

Removed duplicate information regarding cold chemistry lab HVAC. (CN-2320) [Table 9.4-2.4]

Clarified that HEPA filters in RCB supplemental purge exhaust and radioactive vent header are not required to meet RG 1.140 or ANSI N-509/N-510. Credit for filters is not taken in dose calculations. (CN-2367) [Table 9.4-4]

Added a pre-filter and a HEPA filter in RCB supplemental purge exhaust system. (CN-2235) [9.4.5.2.7]

Deleted Emergency DC lighting illumination test because it is no longer recommended by EPRI TR-100249. (CN-2418) [9.5.3.4]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

Editorial: deleted reference to Tech Specs. (CN-2330) [9.5.4.1.6]

Deleted DGFOST level indication and high level alarm on fuel oil filtration skid. (CN-2372, CN-2373) [9.5.4.5]

Corrected ECW supply temperature for SDG coolers and SDG jacket water heat load. (CN-2315) [9.5.5, 9.5.7, Table 9.5.5-1]

#### **Chapter 10, "Steam and Power Conversion System"**

Changed AFW pump design total dynamic head from 3,310 ft. to 3,600 ft. due to impeller replacement. (CN-2384) [Table 10.1-1]

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2431, CN-2476) [10.2.1, 10.4.9.2]

Added a reference to a Chapter 15 discussion of PORV automatic operation. (CN-2455) [10.3.2.4]

Expanded discussion of oxygen scavenging in condensate and feedwater systems. (CN-2355) [10.3.5.2.1]

Relaxed previous exception taken to RG 1.50 position 2, maintaining preheat for field erection welding. (CN-2460) [10.3.6.2, 3.12]

Added SA-217 WC9 to the list of construction materials for the secondary plant valves. (CN-2456) [Table 10.3-2]

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators: descriptions and materials. (CN-2248) [Table 10.3-2]

Clarified operation of the Condensate Polishing system during resin transfer and resin regeneration. (CN-2336) [10.4.6.2]

Described measures to prevent water hammer for Delta 94 steam generators. (CN-2388) [10.4.7]

Editorial change clarified the AFW cooldown capability for Model E and Delta 94 steam generators. (CN-2476) [10.4.9]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

#### **Chapter 11, "Radioactive Waste Management"**

Revised to reflect the plant design with either Model E or Delta 94 steam generators. (CN-2272) [11.1.7, 11.1.8, 11.2.1, 11.3.1]

Editorial: moved data from table into text. (CN-2478) [11.3.2.10.2, Table 11.3-4]

#### **Chapter 12, "Radiation Protection"**

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2431) [12.1.2.2]

Replaced references to RHR system initiation pressure with a more generic description. (CN-2145) [12.2.1.1.8]

Added description of storage facility for the old steam generators. (CN-2256) [12.2.1.2, 12.3.2.2.2.9, Table 12.3.2-1]

Added description of the Refueling Equipment Building. (CN-2361) [12.3.2.2.2.10]

Added description of mobile laundry facility. (CN-2319) [12.5.2.1]

#### **Chapter 13, "Conduct of Operations"**

Updated plant organization. (CN-2470) [13.1.1, 13.1.2, Ch. 13 figures]

Removed reference to Independent Safety Engineering Group. (CN-2397) [13.1.1.2.2, 13.4.2.2]

Reflected change in plant procedure from "off-site fire department shall participate in a drill annually" to read "shall be invited to participate..." (CN-2308) [13.2.2.6.1]

#### **Chapter 14, "Initial Test Program"**

Revised the test method for Automatic Steam Generator Level Control Test for automatic operation. (CN-2393) [14.2.12.3.32.d.1]

Added a description of the return-to-service tests performed following steam generator replacement. (CN-2422) [14.3]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

#### Chapter 15, "Accident Analyses"

Updated reference to WCAP-11273 to Revision 3. (CN-2404) [15.0]

Updated non-LOCA safety evaluation using Delta 94 steam generator design. (CN-2396)  
[15.0, 15.1.1 through 15.1.5]

Revised to show assumptions for control rods in LOCA and non-LOCA analyses. (CN-2458)  
[15.0.5]

Moved Q211.45 response into text. (CN-2449) [15.0.8]

Incorporated alternate RCS flow rate option due to steam generator tube plugging. (CN-2334)  
[Table 15.0-3b]

Editorial change to figure for V5H Fuel upgrade. (CN-2377) [Figure 15.0-4]

Revised to reflect the plant design with either Model E or Delta 94 steam generators. (CN-2272)  
[15.1.5, Tables 15.1-2 through 15.1-5, 15.3.3.3, Tables 15.3-3 and 15.3-4, 15.4.8, Tables 15.4-4  
and 15.4-5, 15.6.3, 15.6.5, 15.7.1, 15.7.2, 15.7.3, 15.A, 15.B, Table 15.B]

Moved Q440.64N response into text. (CN-2439) [15.2.8.2a, 15.2.8.2b]

Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam  
generators. (CN-2426) [15.2.8.2a]

Revised tables to include peak clad temperature penalty for ZIRLO fuel cladding. (CN-2378)  
[Table 15.3-2a, Table 15.4-3]

Added a description of a generic Westinghouse analysis of inadvertent loading of a fuel assembly  
into an improper position. (CN-2450) [15.4.7]

Revised analysis of record for CVCS malfunction increasing reactor coolant inventory.  
(CN-2354) [15.5.2, Table 15.5-1]

Changed sample line accident description to clarify sample line operation. (CN-2203)  
[15.6.2.1.1]

Revised description of large break LOCA. (CN-2331) [15.6.5, Tables 15.6-5, 15-6 and 15.7]

Reflected new hot leg switchover time. (CN-2332) [15.6.5.2]

Added section, references, and tables supporting small break LOCA analysis crediting operator  
action to reduce the steam generator PORV setpoint. (CN-2427) [15.6.6]

## Updated Final Safety Analysis Report, Revision 7 Summary of Changes

Documented SBLOCA and LBLOCA peak cladding assessments. (CN-2485) [Tables 15.6-7, 15.6-9, and 15.6-17]

Updated the offsite whole body dose due to a LBLOCA. (CN-2490) [Table 15.6-11]

Deleted sections because they were deleted from NUREG-0800. (CN-2462) [15.7.1, 15.7.2]

Updated offsite doses from a fuel handling accident in the fuel handling building. (CN-2138) [15.7.4.2, Tables 15.7-7, 15.7-9, and 15.7-10]

### Chapter 16, "Technical Specifications"

Obsolete information: valves PO-203 and PO-204 were deleted because RCP oil supply subsystem abandoned in place and penetration capped. (CN-2389) [Table 16.1-1]

Updated ESF response times to be consistent with DBA analyses. (CN-2433) [Table 16.1-4]

### Response to NRC Questions

Chapter 1 - Designated questions as historical. (CN-2305) [Q730.1N through Q730.13N]

Chapter 3 - Changes resulted from Unit 1 Model E steam generator replacement with Delta 94 steam generators. (CN-2431) [Q110.14, Q210.7N]

Chapter 6 - Moved information from the question response into the text. (CN-2313) [Q022.2, 6.2.1.2]

Chapter 6 - Added sample valve to RWST piping. (CN-2448) [Q440.44N]

Chapter 6 - Deleted question and response as obsolete information: control room HVAC no longer automatically isolates on toxic chemical detection. (CN-2464) [Q450.4N]

Chapter 6 - Incorporated RWST switchover time as a result of reanalysis by Westinghouse. (CN-2317) [Q480.28N]

Chapter 6 - Deleted questions and responses as unnecessarily detailed analytical information regarding SI and CSS pump NPSH. (CN-2437) [Q440.13N, Q440.46N, Q480.15N]

Chapter 15 - Moved question response into text. (CN-2449) [Q211.45, 15.0.8]

Chapter 15 - Moved question response into text. (CN-2468) [Q211.50]

## **Updated Final Safety Analysis Report, Revision 7**

### **Summary of Changes**

Chapter 15 - Revised section to reflect new hot leg switchover time. (CN-2332) [Q211.52, Table Q211.52-4]

Chapter 15 - Updated non-LOCA safety evaluation using Delta 94 steam generator design. (CN-2396) [Q211.52, Q312.9, Q312.10, Q440.40N, Q440.47N]

Chapter 15 - Deleted question and response as obsolete information: automatic actuation of backup heaters on high level deviation was removed. (CN-2402, CN-2443) [Q211.54]

Chapter 15 - Identified responses as being historical information. (CN-2440) [Q211.43, Q440.50N]

Chapter 15 - Identified response as being historical information. (CN-2441) [Q211.41]

Chapter 15 - Deleted question and response as detailed information regarding steam generator inventory used in an outdated analysis (CN-2444) [Q211.64]

Chapter 15 - Deleted question and response as detailed analytical information regarding DNBR as result of loss of feedwater flow. (CN-2445) [Q211.71]

Chapter 15 - Deleted question and response as detailed analytical information regarding a break not postulated to occur in a depressurized ECCS injection line. (CN-2446) [Q211.84]

Chapter 15 - Identified response as being historical information. (CN-2442) [Q440.48N]

Chapter 15 - Deleted question and response regarding the adequacy of Tech Specs, which were subsequently approved by the NRC. (CN-2457) [Q440.54N]

Chapter 15 - Moved question response into the text. (CN-2458) [Q440.53N]

Chapter 15 - Moved question response into the text. (CN-2439) [Q440.64N]

Chapter 15 - Deleted question and response regarding a CVCS malfunction resulting in a decrease in boron concentration as partially obsolete and partially incorporated in the text. (CN-2467) [Q440.67N]