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August 12, 2004

Docket No. 50-271
BVY 04-081
TAC No. MC0761

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: **Vermont Yankee Nuclear Power Station**
Technical Specification Proposed Change No. 263 – Supplement No. 11
Extended Power Uprate – Response to Request for Additional Information

Reference:
1) U.S. Nuclear Regulatory Commission (Richard B. Ennis) letter to Entergy Nuclear Operations, Inc. (Michael Kansler), "Request for Additional Information – Extended Power Uprate, Vermont Yankee Nuclear Power Station (TAC No. MC0761), NVY 04-057, July 6, 2004

2) Entergy Nuclear Operations, Inc. (Jay K. Thayer) letter to U.S. Nuclear Regulatory Commission, "Vermont Yankee Nuclear Power Station, Technical Specification Proposed Change No. 263 – Supplement 10, Extended Power Uprate – Response to Request for Additional Information, BVY 04-074, July 30, 2004

This letter responds to NRC's request for additional information (RAI) of July 6, 2004 regarding the application by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Entergy) for a license amendment to increase the maximum authorized power level of the Vermont Yankee Nuclear Power Station (VYNPS) from 1593 megawatts thermal (MWt) to 1912 MWt. By letter dated July 30, 2004 (Reference 2), Entergy had provided a partial response to the NRC's RAI. Attached are responses to the two RAIs (designated as SPSB-C-32 and SPSB-C-33) that were not addressed in Reference 2.

Attachment 1 to this letter provides Entergy's response to the two RAIs. Because each RAI response contains proprietary information as defined by 10CFR2.390, Attachment 1 has been designated in its entirety as proprietary information. A non-proprietary version, suitable for public disclosure, is provided as Attachment 2 to this letter with the proprietary information redacted. An affidavit that constitutes a request for withholding of the proprietary information in Attachment 1 from public disclosure in accordance with NRC regulations is provided by the owner of the proprietary information (General Electric Company (GE)) as Attachment 3. The proprietary information in Attachment 1 is designated by double underline within double square brackets. In each case, the superscript notation, "{3}", refers to paragraph (3) of the affidavit, which provides the basis for the proprietary determination. The proprietary information has

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been handled and classified as proprietary, customarily held in confidence, and withheld from public disclosure. The proprietary information contained in the responses to the RAIs was provided to Entergy in a GE transmittal that is referenced by the affidavit. The proprietary information has been faithfully reproduced in the enclosed RAI responses such that the affidavit remains applicable. GE requests that the enclosed proprietary information be withheld from public disclosure in accordance with the provisions of 10CFR2.390 and 10CFR9.17.

There are no new regulatory commitments contained in the responses to the RAIs.

This supplement to the license amendment request provides additional information to clarify Entergy's application for a license amendment and does not change the scope or conclusions in the original application, nor does it change Entergy's determination of no significant hazards consideration.

If you have any questions or require additional information, please contact Mr. James DeVincentis at (802) 258-4236.

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

Executed on August 12, 2004.

Sincerely,

Jay K. Thayer
Site Vice President
Vermont Yankee Nuclear Power Station

Attachments (3)

cc: (see next page)

cc: Mr. Richard B. Ennis, Project Manager
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BVY 04-081
Docket No. 50-271

Attachment 2

Vermont Yankee Nuclear Power Station

Proposed Technical Specification Change No. 263 – Supplement No. 11

Extended Power Uprate

Response to Request for Additional Information

REDACTED AND NON-PROPRIETARY INFORMATION

Total number of pages in Attachment 2 (excluding this cover sheet) is 123.

NON-PROPRIETARY INFORMATION

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION RELATED TO EXTENDED POWER UPRATE REQUEST VERMONT YANKEE NUCLEAR POWER STATION

PREFACE

The following information is provided in response to NRC's request for additional information (RAI) dated July 6, 2004, regarding the application by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Entergy) for a license amendment to increase the authorized thermal power level of the Vermont Yankee Nuclear Power Station. By letter dated July 30, 2004 (BVY 04-074), Entergy had provided a partial response to the NRC's RAI. This Attachment contains responses to the two RAIs (designated as SPSB-C-32 and SPSB-C-33) that were not addressed in the July 30, 2004 response.

The individual RAIs are repeated as provided in NRC's letter of July 6, 2004.

The subject RAIs have been discussed during conference calls held between the staffs of the NRC and Entergy to further clarify the information needs of the NRC staff. In certain instances the RAIs may have been modified based on clarifications and understandings reached during the telecons. The information provided herein is consistent with those understandings.

PROPRIETARY INFORMATION

This Attachment 2 is identical to Attachment 1 of Entergy letter BVY 04-081, except it has been edited to remove Proprietary Information. The removed information has been deemed to be proprietary to the General Electric Company. Instances where proprietary information was deleted from the text are identified by double square brackets. The basis for the proprietary information is contained within the affidavit provided as Attachment 3.

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Probabilistic Safety Assessment Branch (SPSB)
Containment and Accident Dose Assessment Section (SPSB-C)

RAI SPSB-C-32

Please provide input to the computer calculation (data in ASCII format) of the minimum containment accident pressure used for ECCS pump NPSH calculations for the double ended guillotine break of a recirculation line. Please verify that the input is consistent with the VYNPS emergency operating procedures. In addition, provide a schematic of containment with dimensions and ECCS schematic for this analysis. The input parameters needed are included in Attachment 1. [Attachment 1 is not repeated here.]

Response to RAI SPSB-C-32

Table SPSB-C-32-1 contains inputs used for the M3CPT/LAMB DBA-LOCA short-term analyses used to determine the peak DBA-LOCA drywell pressure. Table SPSB-C-32-1 also provides the inputs used for the DBA-LOCA short-term (600 second) and long-term (10 day) SHEX analyses used to calculate the containment response for NPSH evaluations. These inputs are consistent with the VYNPS emergency operating procedures.

Table SPSB-C-32-2A provides the core shutdown power used in the M3CPT/LAMB DBA-LOCA analyses for peak drywell pressure. Table SPSB-C-32-2B provides the core shutdown power used in the SHEX containment analyses. The values shown are normalized to the initial reactor power. The core shutdown power used in the M3CPT/LAMB calculation is that used for the LAMB break flow calculations which are performed in accordance with 10CRF50 Appendix K. The core shutdown power used in the LAMB break flow calculations includes fission power, fuel relaxation energy and decay heat based on the ANS 5-1971 decay heat model + 20 %. The shutdown power used in the SHEX analyses include fission power, fuel relaxation energy, metal-water reaction and decay heat based on ANS 5.1-1979 + 2 sigma with additional actinides and reactive products per SIL 636 Revision 1. The containment codes calculate the core shutdown power at each time step by multiplying the initial reactor power by the normalized core shutdown power obtained by interpolation of the tabular values. The initial core thermal power used in the analysis is assumed to be 2% higher than the rated core thermal power per Reg. Guide 1.49 (see response to RAI SPSB-C-4). For information, the core power calculated by the SHEX code at each time step (in Btu/sec) using Table SPSB-C-32-2B has been provided in Tables SPSB-C-32-5 and SPSB-C-32-6 (see Column labeled "Core Thermal Power").

Tables SPSB-C-32-3A and SPSB-C-32-3B provide ECCS and RHR pump heat vs. time for the SHEX short-term (600 second) and long-term (10 day runs) analyses.

Table SPSB-C-32-4 (M3CPT for peak drywell pressure), Table SPSB-C-32-5 (SHEX 600 second analysis for NPSH) and Table SPSB-C-32-6 (SHEX 10 day analysis for

NON-PROPRIETARY INFORMATION

NPSH) provide time depended data requested by the RAI and referred to in Table SPSB-C-32-1 except for the data in Tables SPSB-C-32-2A and SPSB-C-32-2B which provide the normalized core shutdown curves. The data provided in Tables SPSB-C-32-4, SPSB-C-32-5 and SPSB-C-32-6 are obtained from the computer run output.

Figure SPSB-C-32-1 shows a schematic of the SHEX containment model.

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
GE Computer Code used		M3CPT	SHEX	SHEX
Containment Geometry Parameters		See Note 3	See Note 3	See Note 3
Drywell (including free volume of vents at low suppression pool water level)	ft^3	128,370	128,370	128,370
Drywell hold up volume (i.e. pool volume prior to falling into the vents)	ft^3	Not Modeled	Not Modeled	Not Modeled
Wetwell Airspace	ft^3	103,932	105,900	105,900
Suppression Pool	ft^3	70,000	68,000	68,000
Initial Suppression pool depth	ft	T/S HWL 11.27	T/S LWL 11.03	T/S LWL 11.03
No. of Downcomers		96	96	96
Downcomer Diameter	ft	1.958	1.958	1.958
Loss coefficient for vent system including entrance and exit losses based on vent exit (total downcomer) flow area(5)		5.17	5.17	5.17
Downcomer Submergence (Vents)	ft	4.54 (TS-HWL)	4.05 (TS-LWL)	4.05 (TS-LWL)
Vent Lengths		See Note 5	See Note 5	See Note 5
Initial Conditions				
Initial Drywell Pressure	psig	1.92	1.7	1.7
Initial Wetwell Pressure	psig	0.0	0.0	0.0
Initial Drywell Temperature	°F	135	170	170
Initial Wetwell Temperature	°F	90	90	90
Initial Drywell Relative Humidity	%	20	100	100
Initial Relative Humidity	%	100	100	100

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
Heat Structure Properties				
Drywell Heat Sink for Internal Metal Structures and Vents (Steel)		Not Modeled		
Surface Area (facing drywell air)	ft^2	NA	19,405	19,405
Mass	lbm	NA	637,000	637,000
Thickness	ft	NA	0.067	0.067
Specific Heat	Btu/lbm-°F	NA	0.11	0.11
Thermal Conductivity	Btu/hr-ft-°F	NA	26	26
Drywell Heat Sink for Internal Concrete Structures		Not Modeled		
Surface Area (facing drywell airspace)	ft^2	NA	2068	2068
Mass	lbm	NA	1,004,995	1,004,995
Thickness	ft	NA	4	4
Specific Heat	Btu/lbm-°F	NA	0.2	0.2
Thermal Conductivity	Btu/hr-ft-°F	NA	0.54	0.54
Wetwell Airspace Heat Sink for Torus Steel Shell		Not Modeled		
Surface Area (facing wetwell airspace)	ft^2	NA	14,596	14,596
Mass	lbm	NA	479,176	479,176
Thickness	ft	NA	0.067	0.067
Specific Heat	Btu/lbm-°F	NA	0.11	0.11
Thermal Conductivity	Btu/hr-ft-°F	NA	26	26
Suppression Pool Heat Sink for Torus Steel Shell		Not Modeled		
Surface Area (facing suppression pool water)	ft^2	NA	12,136	12,136
Mass	lbm	NA	398,436	398,436

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
Thickness	ft	NA	0.067	0.067
Specific Heat	Btu/lbm-°F	NA	0.11	0.11
Thermal Conductivity	Btu/hr-ft-°F	NA	26	26
Wetwell-to-Drywell Vacuum Breakers		Not Modeled	Modeled	Modeled
Number (Number of multiple valve systems (M) with 2 valves per line, number of single valve systems (S) with 1 valve per line		NA	2 (M) 6 (S)	2 (M) 6 (S)
Flow Area (per Vacuum Breaker System)	ft^2	NA	2.95 (M) 1.62 (S)	2.95 (M) 1.62 (S)
Differential Pressure Setpoint	psid	NA	0.5	0.5
Opening Time	sec	NA	1	1
Loss Coefficient (per Vacuum Breaker System)		NA	1.67 (M) 2.69 (S)	1.67 (M) 2.69 (S)
RX Building-to-Wetwell Vacuum Breakers		Not Modeled	Not Modeled	Not Modeled
Number		NA	NA	NA
Flow Area (per Vacuum Breaker System)	ft^2	NA	NA	NA
Differential Pressure Setpoint	psid	NA	NA	NA
Opening Time	sec	NA	NA	NA
Loss Coefficient (per Vacuum Breaker)		NA	NA	NA

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
Containment Leakage	% by weight of initial containment mass per day	Not Modeled	1.5 See Response to RAI SPSB-C30 for description of containment leakage modeling	1.5 See Response to RAI SPSB-C30 for description of containment leakage modeling
Drywell to Reactor Building, Area and Loss Coefficient		Not Modeled	Not used. See Response to RAI SPSB-C30 for description of containment leakage modeling	Not used See Response to RAI SPSB-C30 for description of containment leakage modeling
Drywell to Reactor Building, Area and Loss Coefficient		Not Modeled	Not used. See Response to RAI SPSB-C30 for description of containment leakage modeling	Not used. See Response to RAI SPSB-C30 for description of containment leakage modeling
Containment Sprays				
Drywell Spray Flow rate	lbm/sec	Not Modeled	Not Modeled	924.35 (Constant value starting at 600 seconds)
Drywell Spray Enthalpy	Btu/lbm	Not Modeled	Not Modeled	See Table SPSB-C-32-6 Column Labeled "Drywell and Wetwell Spray Enthalpy" (See Note 10)

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
Initial Spray Droplet Size	ft	Not Modeled	Not Modeled	0.002625
Wetwell Spray Flow Rate (constant flow rate starting at 600 seconds)	lbm/sec	Not Modeled	Not Modeled	48.65 (constant flow rate starting at 600 seconds)
Wetwell Spray Enthalpy	Btu/lbm	Not Modeled	Not Modeled	See Table SPSB-C-32-6 Column Labeled "Drywell and Wetwell Spray Enthalpy' See Note 10
Initial Spray Droplet Size	ft	Not Modeled	Not Modeled	0.0039
Initial RPV Water Level	Inches Above Vessel Zero	504(2)	504(2)	504(2)
Break Area Data				
Break Size	ft^2	7.327(1)	4.16(1)	4.16(1)
Recirc Suction Pipe Inside Diameter at Break Location	in	25.917	See Note 1	See Note 1
Vessel Nozzle Inside Diameter	in	25.75	See Note 1	See Note 1
Jet Pump Nozzle Inside Diameter	in	3.115	See Note 1	See Note 1
Number of jet pumps per loop	in	10	See Note 1	See Note 1
Number of nozzles per jet pump	in	1	See Note 1	See Note 1
SRV Performance		Not Modeled	Not Modeled	Not Modeled
SRV Discharge flow mass and energy vs. time		NA	NA	NA
Number		NA	NA	NA

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Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
Diameter	In.	NA	NA	NA
Differential pressure setpoint	psid	NA	NA	NA
Opening time	sec	NA	NA	NA
Loss Coefficient		NA	NA	NA
Break Critical Flow Model[12]		Moody SLIP	HEM	HEM
Break Flow Rates		See Table SPSB-C-32-4[6]	See Table SPSB-C-32-5[7]	See Table SPSB-C-32-6[8]
Decay Heat vs. Time				
Initial Reactor Power	MWt	1950 (102% of EPU Reactor Thermal Power)	1950 (102% of EPU Reactor Thermal Power)	1950 (102% of EPU Reactor Thermal Power)
Normalized Core Shutdown Power vs. Time		See Table SPSB-C-32-2A	See Table SPSB-C-32-2B	See Table SPSB-C-32-2B
Pump Heat vs. Time	HP	Not Modeled	See Table SPSB-C-32-3A	See Table SPSB-C-32-3B
ECCS Injection Flow Rates and Enthalpy				
LPCI Pumps		Not Modeled		

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
Number of Operating LPCI Pumps		NA	4 pumps in LPCI vessel injection mode (See discussion in note 7 regarding LPCI injection modeling to intact and broken recirculation loops)	4 in LPCI vessel injection mode before 600 sec 2 pumps in LPCI mode. 1 LPCI pump turned off. Remaining LPCI pump aligned in RHR containment spray mode after 600 sec
Pump Heat (per LPCI Pump)	hp	NA	1001.6	1001.6
Core Spray (CS) Pumps		Not Modeled		
Number of Operating Pumps		NA	2	2
Pump Heat (per CS Pump)	hp	NA	562.2	562.2
ECCS Flow Rate and Enthalpy			See Note 9	See Note 9
Total ECCS - LPCI plus CS Pump Flow Rate to RPV from suppression pool	lbm/sec	Not Modeled	See Table SPSB-C-32-5 See Column labeled "ECCS flow to RPV"	See Table SPSB-C-32-6 See Column labeled "ECCS flow to RPV"
Enthalpy of ECCS (LPCI and CS) flow to RPV from suppression pool	Btu/lb	Not Modeled	See Table SPSB-C-32-5 See Column labeled "ECCS flow enthalpy from suppression pool"	See Table SPSB-C-32-6 See Column labeled "ECCS flow enthalpy from suppression pool"
RHR Heat Exchanger Performance				
Heat Exchanger K-factor (per HX) (See Note 11)	Btu/sec-°F	NA	NA	179.375
RHR Service Water Temperature	°F	NA	NA	85

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-1
Inputs to Containment Analyses for Peak Drywell Pressure and for Evaluation of NPSH

Parameter \ Case	Unit	Short-Term DBA-LOCA for Peak Drywell Pressure	Short-Term (600 s) DBA-LOCA for NPSH	Long-Term DBA-LOCA for NPSH
Number of RHR Loops (1 HX per loop)		Not Modeled	Not Modeled	1
Number of RHR pumps per RHR loop		NA	NA	1
Pump Heat per RHR pump	hp	NA	NA	1001.6

NON-PROPRIETARY INFORMATION

Notes for Table SPSB-C-32-1:

(1) The break area shown for the LAMB analysis corresponds to the sum of the two sides of the broken recirculation suction line pipe at the break location. Note that shortly after the DBA-LOCA occurs, the LAMB break flow is limited by the choked flow which exists at the locations with minimum flow area upstream of the break. The break area shown for the SHEX analysis is the sum of the minimum flow area upstream of the vessel side of the break (vessel safe end nozzle) and minimum flow area upstream of the pipe side of the break (jet pump nozzles).

(2) The RPV water level shown corresponds to the water level outside the core shroud. This value is used to calculate the liquid volumes within the LAMB vessel model and also to calculate the liquid volume in the VYNPS SHEX vessel model.

(3) The containment geometry parameters given for the M3CPT analyses correspond to conditions associated with the Technical Specification Suppression pool High Water Level (TS-HWL). The values given for the SHEX analyses correspond to conditions associated with the Technical Specification Suppression pool Low Water Level (TS-LWL).

(4) Not used.

(5) [[

]]

(6) The break flow rate shown for the M3CPT/LAMB analysis for peak drywell pressure is calculated by the LAMB code based on the Moody SLIP critical break flow model. The values to 20 seconds have been provided which covers the time period past the time of the peak drywell pressure.

(7) The break flow for the "short-term" (600 second) SHEX analyses for evaluating NPSH includes two components. These components include; 1) break flow to the drywell from the vessel 2) direct LPCI break flow to the drywell which originates at the suppression pool.

The first component is the vessel break flow. The vessel break flow to the drywell is calculated using conditions in the vessel and the break area. The break flow rate for this component has an enthalpy corresponding to enthalpy of the vessel liquid. See Table SPSB-C-32-5 for time varying vessel break flow data. The data in the columns labeled: "Vessel Liquid Break Flow Rate," "Vessel Liquid Break Enthalpy," "Vessel Vapor Break Flow Rate," and "Vessel Vapor Break Enthalpy" provide time histories of the vessel break flow and enthalpy.

The second component is the direct LPCI flow to the drywell. For this analysis it is assumed that 2 LPCI pumps inject into the broken recirculation loop. The LPCI

flow to the broken loop is assumed to flow directly to the drywell. This break flow has an enthalpy corresponding to the enthalpy of the suppression pool water (plus additional energy added by the LPCI pumps). The LPCI break flow rate equals the LPCI pump flow rate into the broken recirculation loop. Table SPSB-C-32-5 contains the LPCI break flow data. The LPCI break flow rate and break flow enthalpy is provided by the data in the columns labeled: "Direct LPCI Break Flow to Drywell" and "Enthalpy of Direct LPCI Break Flow to Drywell."

(8) The break flow for the "long-term" (10 day) SHEX analyses for evaluating NPSH includes only includes break flow to the drywell from the vessel. It is assumed for this analysis that all LPCI flow is injected to the vessel. See Table SPSB-C-32-6 for time varying vessel break flow data for this analysis. The data in the columns labeled: "Vessel Liquid Break Flow Rate," "Vessel Liquid Break Enthalpy," "Vessel Vapor Break Flow Rate," and "Vessel Vapor Break Enthalpy" provide time histories of the vessel break flow and enthalpy.

(9) Note, the ECCS flow rates shown in Tables SPSB-C-32-5 and SPSB-C-32-6 (column labeled "ECCS flow to RPV") are the combined LPCI plus CS flow to the vessel. The flow enthalpy (Column labeled "ECCS flow enthalpy from suppression pool") is the enthalpy of the flow from the suppression pool not including the energy added by the pump heat.

(10) Note the containment spray flow enthalpy in Table SPSB-C-32-6 (Column labeled "Drywell and Wetwell Spray Enthalpy") is the enthalpy of the flow into the drywell and wetwell airspace and includes the RHR pump heat.

(11) The heat removal rate is calculated in SHEX with the following relationship:

$$Q = K \times (T_{in} - T_{sw}) \qquad \text{Btu/sec}$$

Where:

Q = Rate of heat removal per heat exchanger (Btu/sec)
T_{in} = RHR shell side inlet temperature (= suppression pool temperature)
T_{sw} = Service water inlet temperature

(12) The Moody Slip critical break flow model is used for the LAMB break flow calculations which are subsequently input to M3CPT peak drywell pressure calculation. The Moody Slip critical break flow is the same as used in the Appendix K ECCS/LOCA analyses and is conservative relative to the HEM model. The SHEX analyses use the HEM critical break flow model which is consistent with the critical break flow model identified for use during the Mark I Long-term Containment Program (NEDO-21888, NUREG-0661). Additionally, the key parameters obtained from the long-term containment response analysis (e.g., peak suppression pool temperature) occur well after the end of the vessel blowdown.

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Table SPSB-C-32-2A
Normalized Core Shutdown Power for VYNPS Extended Power Uprate LAMB/M3CPT Peak Drywell Pressure (Sum of Fission Power, Decay Heat and Fuel Relaxation Energy) (Decay Heat based on ANS 5 –1971 decay heat + 20%)

Time (sec)	Normalized Shutdown Power
0.0	1.000
1.0	0.938
2.0	0.826
3.2	0.711
4.0	0.647
5.2	0.551
6.0	0.500
7.2	0.440
8.0	0.402
9.2	0.353
10.0	0.322
11.2	0.284
12.0	0.260
14.0	0.212
16.0	0.172
25.0	0.131
50.0	0.049

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-2B
Normalized Core Shutdown Power for VYNPS
Extended Power Uprate SHEX – Short-term & Long-Term NPSH
(Sum of Fission Power, Decay Heat and Fuel Relaxation Energy)
(Decay Heat based on ANS 5.1 –1979 decay heat (incorporating the requirements of SIL 636 Revision 1) + 2 Sigma Uncertainty Adder)

Time (sec)	Normalized Shutdown Power
0	1.00823
2	0.5545
4	0.5796
10	0.3803
20	0.1201
60	0.04512
100	0.04144
120	0.04045
120	0.03222
200	0.02909
400	0.0255
1000	0.02079
2000	0.01707
4000	0.0137
6000	0.01209
8000	0.01114
10000	0.01047
15000	0.00986
20000	0.009184
40000	0.007752
60000	0.006989
100000	0.00608
200000	0.004916
400000	0.00384
1.00E+06	0.002649
3.46E+06	0.001545

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-3A
ECCS and RHR Pump Heat for VYNPS
Extended Power Uprate SHEX – Short-Term NPSH

Time (sec)	LPCI Pump Heat (HP)	LPCS Pump Heat (HP)	RHR Pump Heat (HP)
0-27.2*	0.	0.	0.
27.2*-600	4006.4	1124.4	0.

* Signal for LPCI and LPCS initiation.

Table SPSB-C-32-3B
ECCS and RHR Pump Heat for VYNPS Extended Power Uprate
SHEX – Long-Term NPSH

Time (sec)	LPCI Pump Heat (HP)	LPCS Pump Heat (HP)	RHR Pump Heat (HP)
0-27.2*	0.	0.	0.
27.2*-600.	4006.4	1124.4	0.
> 600**	2003.2	1124.4	1001.6

*Signal for LPCI and LPCS initiation.
**At 600 seconds 1 LPCI pump turned off and 1 LPCI pump aligned to RHR Containment Spray Mode

See discussion in Notes 7 and 8 for Table SPSB-C-32-1 regarding alignment of LPCI flow for the SHEX short-term and long-term analyses for NPSH.

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
0	0.00E+00	5.26E+02
0.000488	3.28E+04	5.26E+02
0.000977	6.30E+04	5.26E+02
0.001465	5.98E+04	5.25E+02
0.001709	5.58E+04	5.25E+02
0.001953	5.47E+04	5.25E+02
0.002197	5.47E+04	5.25E+02
0.002686	5.47E+04	5.25E+02
0.003662	5.46E+04	5.25E+02
0.005615	5.46E+04	5.25E+02
0.009522	5.46E+04	5.25E+02
0.013428	5.45E+04	5.25E+02
0.017334	5.45E+04	5.25E+02
0.02124	5.44E+04	5.25E+02
0.025147	5.44E+04	5.25E+02
0.029053	5.43E+04	5.25E+02
0.032959	5.43E+04	5.25E+02
0.036865	5.42E+04	5.25E+02
0.044678	5.42E+04	5.25E+02
0.05249	5.41E+04	5.25E+02
0.060303	5.40E+04	5.25E+02
0.068115	5.40E+04	5.25E+02
0.075928	5.39E+04	5.25E+02
0.08374	5.38E+04	5.25E+02
0.091553	5.38E+04	5.25E+02
0.099365	5.37E+04	5.25E+02
0.107178	5.36E+04	5.25E+02
0.11499	5.36E+04	5.25E+02
0.122803	5.35E+04	5.25E+02
0.130615	5.34E+04	5.25E+02
0.138428	5.34E+04	5.25E+02
0.14624	5.33E+04	5.25E+02
0.161865	5.32E+04	5.25E+02
0.17749	5.31E+04	5.25E+02
0.193115	5.29E+04	5.25E+02

* DBA-LOCA break flow data provided for 20 seconds. This extends the DBA-LOCA break flow data past the time of the peak drywell pressure which occurs at approximately 5 seconds.

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
0.20874	5.28E+04	5.25E+02
0.224365	5.26E+04	5.26E+02
0.23999	5.25E+04	5.26E+02
0.255615	5.23E+04	5.26E+02
0.27124	5.22E+04	5.26E+02
0.286865	5.20E+04	5.26E+02
0.30249	5.19E+04	5.26E+02
0.318115	5.17E+04	5.26E+02
0.33374	5.16E+04	5.26E+02
0.36499	5.14E+04	5.26E+02
0.39624	5.11E+04	5.26E+02
0.411865	5.07E+04	5.26E+02
0.419678	5.06E+04	5.26E+02
0.42749	5.05E+04	5.26E+02
0.435303	5.04E+04	5.26E+02
0.443115	5.03E+04	5.26E+02
0.450928	5.02E+04	5.26E+02
0.45874	5.01E+04	5.26E+02
0.466553	5.00E+04	5.26E+02
0.474365	5.00E+04	5.26E+02
0.482178	4.99E+04	5.26E+02
0.48999	4.98E+04	5.26E+02
0.497803	4.97E+04	5.27E+02
0.505615	4.96E+04	5.27E+02
0.513428	4.95E+04	5.27E+02
0.52124	4.94E+04	5.27E+02
0.536865	4.93E+04	5.27E+02
0.55249	4.91E+04	5.27E+02
0.568115	4.89E+04	5.27E+02
0.58374	4.87E+04	5.27E+02
0.599365	4.85E+04	5.27E+02
0.61499	4.83E+04	5.27E+02
0.64624	4.81E+04	5.27E+02
0.67749	4.77E+04	5.28E+02
0.70874	4.72E+04	5.28E+02
0.73999	4.68E+04	5.28E+02
0.77124	4.63E+04	5.28E+02
0.80249	4.59E+04	5.28E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
0.83374	4.54E+04	5.28E+02
0.86499	4.50E+04	5.29E+02
0.89624	4.45E+04	5.29E+02
0.92749	4.41E+04	5.29E+02
0.95874	4.36E+04	5.29E+02
0.98999	4.31E+04	5.29E+02
1.02124	4.26E+04	5.30E+02
1.05249	4.21E+04	5.30E+02
1.08374	4.16E+04	5.30E+02
1.11499	4.11E+04	5.30E+02
1.14624	4.07E+04	5.31E+02
1.17749	4.02E+04	5.31E+02
1.20874	3.98E+04	5.31E+02
1.23999	3.93E+04	5.31E+02
1.27124	3.89E+04	5.31E+02
1.30249	3.85E+04	5.32E+02
1.33374	3.81E+04	5.32E+02
1.36499	3.77E+04	5.32E+02
1.380615	3.74E+04	5.32E+02
1.39624	3.72E+04	5.32E+02
1.411865	3.71E+04	5.32E+02
1.42749	3.69E+04	5.32E+02
1.443115	3.67E+04	5.32E+02
1.45874	3.66E+04	5.32E+02
1.474365	3.64E+04	5.33E+02
1.48999	3.63E+04	5.33E+02
1.505615	3.62E+04	5.33E+02
1.52124	3.60E+04	5.33E+02
1.536865	3.59E+04	5.33E+02
1.55249	3.57E+04	5.33E+02
1.568115	3.56E+04	5.33E+02
1.58374	3.55E+04	5.33E+02
1.599365	3.54E+04	5.33E+02
1.61499	3.52E+04	5.33E+02
1.630615	3.51E+04	5.33E+02
1.64624	3.50E+04	5.33E+02
1.661865	3.49E+04	5.34E+02
1.67749	3.48E+04	5.34E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
1.693115	3.47E+04	5.34E+02
1.70874	3.46E+04	5.34E+02
1.724365	3.45E+04	5.34E+02
1.73999	3.44E+04	5.34E+02
1.755615	3.43E+04	5.34E+02
1.77124	3.43E+04	5.34E+02
1.779053	3.42E+04	5.34E+02
1.786865	3.41E+04	5.34E+02
1.794678	3.41E+04	5.34E+02
1.80249	3.41E+04	5.34E+02
1.810303	3.40E+04	5.34E+02
1.818115	3.40E+04	5.34E+02
1.825928	3.39E+04	5.34E+02
1.83374	3.39E+04	5.34E+02
1.841553	3.39E+04	5.34E+02
1.849365	3.38E+04	5.34E+02
1.857178	3.38E+04	5.34E+02
1.86499	3.38E+04	5.34E+02
1.872803	3.37E+04	5.34E+02
1.880615	3.37E+04	5.34E+02
1.888428	3.37E+04	5.34E+02
1.89624	3.37E+04	5.35E+02
1.904053	3.36E+04	5.35E+02
1.911865	3.36E+04	5.35E+02
1.919678	3.36E+04	5.35E+02
1.92749	3.35E+04	5.35E+02
1.935303	3.35E+04	5.35E+02
1.943115	3.35E+04	5.35E+02
1.950928	3.34E+04	5.35E+02
1.95874	3.34E+04	5.35E+02
1.966553	3.34E+04	5.35E+02
1.974365	3.34E+04	5.35E+02
1.982178	3.33E+04	5.35E+02
1.98999	3.33E+04	5.35E+02
1.997803	3.33E+04	5.35E+02
2.005615	3.33E+04	5.35E+02
2.013428	3.32E+04	5.35E+02
2.02124	3.32E+04	5.35E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
2.025147	3.32E+04	5.35E+02
2.029053	3.32E+04	5.35E+02
2.032959	3.32E+04	5.35E+02
2.036865	3.32E+04	5.35E+02
2.040772	3.32E+04	5.35E+02
2.044678	3.31E+04	5.35E+02
2.048584	3.31E+04	5.35E+02
2.05249	3.31E+04	5.35E+02
2.056397	3.31E+04	5.35E+02
2.056519	3.31E+04	5.35E+02
2.056641	3.31E+04	5.35E+02
2.056885	3.31E+04	5.35E+02
2.057373	3.31E+04	5.35E+02
2.05835	3.31E+04	5.35E+02
2.060303	3.31E+04	5.35E+02
2.064209	3.31E+04	5.35E+02
2.072022	3.31E+04	5.35E+02
2.087647	3.30E+04	5.35E+02
2.118897	3.30E+04	5.35E+02
2.150147	3.29E+04	5.36E+02
2.181397	3.28E+04	5.36E+02
2.212647	3.28E+04	5.36E+02
2.243897	3.27E+04	5.36E+02
2.275147	3.26E+04	5.36E+02
2.337647	3.26E+04	5.36E+02
2.400147	3.25E+04	5.35E+02
2.462647	3.24E+04	5.35E+02
2.525147	3.23E+04	5.35E+02
2.587647	3.23E+04	5.35E+02
2.650147	3.22E+04	5.35E+02
2.712647	3.22E+04	5.34E+02
2.775147	3.22E+04	5.34E+02
2.837647	3.21E+04	5.34E+02
2.900147	3.21E+04	5.34E+02
2.962647	3.21E+04	5.34E+02
3.025147	3.21E+04	5.34E+02
3.087647	3.20E+04	5.33E+02
3.118897	3.20E+04	5.33E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
3.134522	3.20E+04	5.33E+02
3.142334	3.20E+04	5.33E+02
3.150147	3.20E+04	5.33E+02
3.157959	3.20E+04	5.33E+02
3.165772	3.20E+04	5.34E+02
3.173584	3.20E+04	5.34E+02
3.181397	3.20E+04	5.34E+02
3.189209	3.20E+04	5.34E+02
3.204834	3.19E+04	5.35E+02
3.20874	3.20E+04	5.35E+02
3.212647	3.20E+04	5.35E+02
3.220459	3.19E+04	5.35E+02
3.228272	3.19E+04	5.36E+02
3.236084	3.19E+04	5.36E+02
3.23999	3.19E+04	5.36E+02
3.243897	3.19E+04	5.36E+02
3.251709	3.19E+04	5.36E+02
3.259522	3.19E+04	5.36E+02
3.267334	3.19E+04	5.37E+02
3.275147	3.19E+04	5.37E+02
3.282959	3.18E+04	5.37E+02
3.286865	3.18E+04	5.37E+02
3.290772	3.18E+04	5.37E+02
3.294678	3.18E+04	5.37E+02
3.298584	3.18E+04	5.37E+02
3.30249	3.18E+04	5.37E+02
3.306397	3.18E+04	5.37E+02
3.310303	3.18E+04	5.37E+02
3.314209	3.18E+04	5.37E+02
3.318115	3.18E+04	5.37E+02
3.322022	3.18E+04	5.37E+02
3.325928	3.18E+04	5.37E+02
3.329834	3.17E+04	5.37E+02
3.33374	3.17E+04	5.37E+02
3.337647	3.17E+04	5.37E+02
3.341553	3.17E+04	5.37E+02
3.345459	3.17E+04	5.37E+02
3.349365	3.17E+04	5.37E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
3.353272	3.17E+04	5.37E+02
3.357178	3.17E+04	5.37E+02
3.361084	3.17E+04	5.37E+02
3.36499	3.17E+04	5.38E+02
3.368897	3.17E+04	5.38E+02
3.372803	3.16E+04	5.38E+02
3.376709	3.16E+04	5.38E+02
3.380615	3.16E+04	5.38E+02
3.384522	3.16E+04	5.38E+02
3.388428	3.16E+04	5.38E+02
3.392334	3.16E+04	5.38E+02
3.39624	3.16E+04	5.38E+02
3.400147	3.16E+04	5.38E+02
3.404053	3.16E+04	5.38E+02
3.407959	3.16E+04	5.38E+02
3.411865	3.16E+04	5.38E+02
3.415772	3.16E+04	5.38E+02
3.419678	3.15E+04	5.38E+02
3.42749	3.15E+04	5.38E+02
3.431397	3.15E+04	5.38E+02
3.435303	3.15E+04	5.38E+02
3.443115	3.15E+04	5.38E+02
3.450928	3.15E+04	5.38E+02
3.45874	3.15E+04	5.38E+02
3.466553	3.15E+04	5.38E+02
3.474365	3.14E+04	5.38E+02
3.482178	3.14E+04	5.38E+02
3.48999	3.14E+04	5.38E+02
3.497803	3.14E+04	5.38E+02
3.513428	3.14E+04	5.38E+02
3.517334	3.14E+04	5.38E+02
3.52124	3.14E+04	5.38E+02
3.529053	3.14E+04	5.38E+02
3.536865	3.13E+04	5.38E+02
3.544678	3.13E+04	5.38E+02
3.55249	3.13E+04	5.38E+02
3.560303	3.13E+04	5.38E+02
3.568115	3.13E+04	5.38E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
3.575928	3.13E+04	5.38E+02
3.58374	3.13E+04	5.38E+02
3.591553	3.13E+04	5.38E+02
3.599365	3.13E+04	5.38E+02
3.607178	3.12E+04	5.38E+02
3.61499	3.12E+04	5.38E+02
3.622803	3.12E+04	5.38E+02
3.630615	3.12E+04	5.38E+02
3.638428	3.12E+04	5.38E+02
3.64624	3.12E+04	5.38E+02
3.654053	3.12E+04	5.38E+02
3.661865	3.12E+04	5.38E+02
3.669678	3.12E+04	5.38E+02
3.67749	3.12E+04	5.38E+02
3.685303	3.11E+04	5.38E+02
3.693115	3.11E+04	5.38E+02
3.700928	3.11E+04	5.38E+02
3.70874	3.11E+04	5.38E+02
3.716553	3.11E+04	5.38E+02
3.724365	3.11E+04	5.38E+02
3.732178	3.11E+04	5.38E+02
3.73999	3.11E+04	5.39E+02
3.747803	3.11E+04	5.39E+02
3.755615	3.11E+04	5.39E+02
3.763428	3.11E+04	5.39E+02
3.77124	3.10E+04	5.39E+02
3.779053	3.10E+04	5.39E+02
3.794678	3.10E+04	5.39E+02
3.80249	3.10E+04	5.39E+02
3.810303	3.10E+04	5.39E+02
3.818115	3.10E+04	5.39E+02
3.825928	3.10E+04	5.39E+02
3.83374	3.10E+04	5.39E+02
3.849365	3.10E+04	5.39E+02
3.86499	3.10E+04	5.39E+02
3.872803	3.09E+04	5.39E+02
3.880615	3.09E+04	5.39E+02
3.888428	3.09E+04	5.39E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
3.89624	3.09E+04	5.39E+02
3.904053	3.09E+04	5.39E+02
3.911865	3.09E+04	5.39E+02
3.919678	3.09E+04	5.39E+02
3.92749	3.09E+04	5.39E+02
3.935303	3.09E+04	5.39E+02
3.943115	3.09E+04	5.39E+02
3.950928	3.09E+04	5.39E+02
3.95874	3.09E+04	5.39E+02
3.966553	3.09E+04	5.39E+02
3.974365	3.09E+04	5.39E+02
3.982178	3.09E+04	5.39E+02
3.98999	3.08E+04	5.39E+02
3.997803	3.08E+04	5.39E+02
4.005615	3.08E+04	5.39E+02
4.013428	3.08E+04	5.39E+02
4.02124	3.08E+04	5.39E+02
4.029053	3.08E+04	5.39E+02
4.036865	3.08E+04	5.39E+02
4.044678	3.08E+04	5.39E+02
4.05249	3.08E+04	5.39E+02
4.060303	3.08E+04	5.39E+02
4.068115	3.08E+04	5.39E+02
4.075928	3.08E+04	5.39E+02
4.08374	3.08E+04	5.39E+02
4.091553	3.08E+04	5.39E+02
4.099365	3.08E+04	5.39E+02
4.107178	3.08E+04	5.39E+02
4.11499	3.08E+04	5.39E+02
4.122803	3.08E+04	5.39E+02
4.130615	3.08E+04	5.39E+02
4.138428	3.08E+04	5.39E+02
4.14624	3.07E+04	5.39E+02
4.154053	3.07E+04	5.39E+02
4.161865	3.07E+04	5.39E+02
4.169678	3.07E+04	5.39E+02
4.17749	3.07E+04	5.39E+02
4.193115	3.07E+04	5.39E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
4.20874	3.07E+04	5.39E+02
4.216553	3.07E+04	5.39E+02
4.224365	3.07E+04	5.39E+02
4.232178	3.07E+04	5.39E+02
4.23999	3.07E+04	5.39E+02
4.247803	3.07E+04	5.39E+02
4.255615	3.07E+04	5.39E+02
4.263428	3.07E+04	5.39E+02
4.27124	3.07E+04	5.39E+02
4.279053	3.07E+04	5.39E+02
4.286865	3.07E+04	5.39E+02
4.294678	3.07E+04	5.39E+02
4.30249	3.07E+04	5.39E+02
4.310303	3.07E+04	5.39E+02
4.318115	3.07E+04	5.39E+02
4.325928	3.06E+04	5.39E+02
4.33374	3.06E+04	5.39E+02
4.341553	3.06E+04	5.39E+02
4.349365	3.06E+04	5.39E+02
4.357178	3.06E+04	5.39E+02
4.36499	3.06E+04	5.39E+02
4.372803	3.06E+04	5.39E+02
4.380615	3.06E+04	5.39E+02
4.388428	3.06E+04	5.39E+02
4.39624	3.06E+04	5.39E+02
4.404053	3.06E+04	5.39E+02
4.411865	3.06E+04	5.39E+02
4.419678	3.06E+04	5.39E+02
4.42749	3.06E+04	5.39E+02
4.435303	3.06E+04	5.39E+02
4.443115	3.06E+04	5.39E+02
4.450928	3.06E+04	5.39E+02
4.45874	3.06E+04	5.39E+02
4.466553	3.06E+04	5.39E+02
4.474365	3.06E+04	5.39E+02
4.482178	3.06E+04	5.39E+02
4.48999	3.06E+04	5.39E+02
4.497803	3.06E+04	5.39E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
4.505615	3.06E+04	5.39E+02
4.513428	3.06E+04	5.39E+02
4.52124	3.06E+04	5.39E+02
4.529053	3.06E+04	5.39E+02
4.536865	3.06E+04	5.39E+02
4.544678	3.05E+04	5.39E+02
4.55249	3.05E+04	5.39E+02
4.560303	3.05E+04	5.39E+02
4.568115	3.05E+04	5.39E+02
4.575928	3.05E+04	5.39E+02
4.58374	3.05E+04	5.39E+02
4.591553	3.05E+04	5.39E+02
4.599365	3.05E+04	5.39E+02
4.607178	3.05E+04	5.39E+02
4.61499	3.05E+04	5.39E+02
4.622803	3.05E+04	5.39E+02
4.630615	3.05E+04	5.39E+02
4.638428	3.05E+04	5.39E+02
4.64624	3.05E+04	5.38E+02
4.654053	3.05E+04	5.38E+02
4.661865	3.05E+04	5.38E+02
4.669678	3.05E+04	5.38E+02
4.67749	3.05E+04	5.38E+02
4.685303	3.05E+04	5.38E+02
4.693115	3.05E+04	5.38E+02
4.700928	3.05E+04	5.38E+02
4.70874	3.05E+04	5.38E+02
4.716553	3.05E+04	5.38E+02
4.724365	3.05E+04	5.38E+02
4.732178	3.05E+04	5.38E+02
4.73999	3.05E+04	5.38E+02
4.747803	3.05E+04	5.38E+02
4.755615	3.05E+04	5.38E+02
4.763428	3.05E+04	5.38E+02
4.77124	3.05E+04	5.38E+02
4.779053	3.05E+04	5.38E+02
4.786865	3.05E+04	5.39E+02
4.794678	3.05E+04	5.39E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
4.80249	3.05E+04	5.39E+02
4.810303	3.05E+04	5.39E+02
4.818115	3.05E+04	5.39E+02
4.825928	3.05E+04	5.39E+02
4.83374	3.05E+04	5.39E+02
4.841553	3.05E+04	5.39E+02
4.849365	3.05E+04	5.39E+02
4.857178	3.05E+04	5.39E+02
4.86499	3.05E+04	5.39E+02
4.872803	3.05E+04	5.39E+02
4.880615	3.05E+04	5.39E+02
4.888428	3.05E+04	5.39E+02
4.89624	3.05E+04	5.39E+02
4.904053	3.05E+04	5.39E+02
4.911865	3.05E+04	5.39E+02
4.919678	3.05E+04	5.39E+02
4.92749	3.05E+04	5.39E+02
4.935303	3.05E+04	5.39E+02
4.943115	3.05E+04	5.39E+02
4.950928	3.05E+04	5.39E+02
4.95874	3.05E+04	5.39E+02
4.966553	3.05E+04	5.39E+02
4.974365	3.05E+04	5.39E+02
4.982178	3.05E+04	5.39E+02
4.98999	3.05E+04	5.39E+02
4.997803	3.05E+04	5.39E+02
5.005615	3.05E+04	5.39E+02
5.013428	3.05E+04	5.39E+02
5.02124	3.05E+04	5.39E+02
5.025147	3.05E+04	5.39E+02
5.0271	3.05E+04	5.39E+02
5.029053	3.05E+04	5.39E+02
5.031006	3.05E+04	5.40E+02
5.032959	3.05E+04	5.40E+02
5.034912	3.05E+04	5.41E+02
5.036865	3.05E+04	5.41E+02
5.038818	3.04E+04	5.42E+02
5.040772	3.04E+04	5.43E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
5.042725	3.04E+04	5.44E+02
5.044678	3.04E+04	5.45E+02
5.046631	3.03E+04	5.46E+02
5.048584	3.03E+04	5.47E+02
5.050537	3.03E+04	5.49E+02
5.05249	3.02E+04	5.50E+02
5.054443	3.02E+04	5.52E+02
5.056397	3.01E+04	5.54E+02
5.05835	3.01E+04	5.56E+02
5.060303	3.00E+04	5.57E+02
5.062256	2.99E+04	5.59E+02
5.064209	2.99E+04	5.61E+02
5.066162	2.98E+04	5.63E+02
5.068115	2.97E+04	5.65E+02
5.070068	2.96E+04	5.67E+02
5.072022	2.95E+04	5.69E+02
5.075928	2.91E+04	5.74E+02
5.079834	2.89E+04	5.78E+02
5.087647	2.82E+04	5.88E+02
5.095459	2.79E+04	5.96E+02
5.103272	2.75E+04	6.05E+02
5.111084	2.70E+04	6.13E+02
5.118897	2.66E+04	6.21E+02
5.126709	2.62E+04	6.29E+02
5.134522	2.58E+04	6.37E+02
5.142334	2.53E+04	6.44E+02
5.150147	2.48E+04	6.52E+02
5.157959	2.43E+04	6.59E+02
5.165772	2.38E+04	6.67E+02
5.173584	2.34E+04	6.74E+02
5.181397	2.29E+04	6.81E+02
5.189209	2.24E+04	6.87E+02
5.197022	2.19E+04	6.94E+02
5.204834	2.15E+04	7.01E+02
5.212647	2.11E+04	7.07E+02
5.220459	2.06E+04	7.13E+02
5.228272	2.02E+04	7.19E+02
5.236084	1.98E+04	7.25E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
5.243897	1.94E+04	7.31E+02
5.251709	1.90E+04	7.37E+02
5.259522	1.87E+04	7.42E+02
5.267334	1.83E+04	7.47E+02
5.275147	1.80E+04	7.52E+02
5.282959	1.77E+04	7.57E+02
5.290772	1.73E+04	7.62E+02
5.298584	1.71E+04	7.66E+02
5.306397	1.68E+04	7.70E+02
5.314209	1.66E+04	7.74E+02
5.322022	1.63E+04	7.77E+02
5.329834	1.61E+04	7.81E+02
5.337647	1.59E+04	7.84E+02
5.345459	1.57E+04	7.87E+02
5.353272	1.55E+04	7.90E+02
5.361084	1.53E+04	7.92E+02
5.368897	1.51E+04	7.94E+02
5.376709	1.50E+04	7.96E+02
5.384522	1.49E+04	7.98E+02
5.392334	1.47E+04	8.00E+02
5.400147	1.46E+04	8.02E+02
5.407959	1.45E+04	8.03E+02
5.415772	1.44E+04	8.04E+02
5.423584	1.43E+04	8.05E+02
5.431397	1.42E+04	8.06E+02
5.439209	1.41E+04	8.07E+02
5.447022	1.41E+04	8.08E+02
5.454834	1.40E+04	8.08E+02
5.462647	1.39E+04	8.08E+02
5.470459	1.39E+04	8.09E+02
5.478272	1.38E+04	8.09E+02
5.486084	1.38E+04	8.09E+02
5.493897	1.37E+04	8.09E+02
5.501709	1.37E+04	8.09E+02
5.509522	1.37E+04	8.09E+02
5.517334	1.36E+04	8.09E+02
5.525147	1.36E+04	8.09E+02
5.532959	1.36E+04	8.08E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
5.540772	1.36E+04	8.08E+02
5.548584	1.35E+04	8.08E+02
5.556397	1.35E+04	8.07E+02
5.564209	1.35E+04	8.07E+02
5.579834	1.35E+04	8.06E+02
5.595459	1.35E+04	8.04E+02
5.611084	1.35E+04	8.03E+02
5.626709	1.35E+04	8.01E+02
5.642334	1.35E+04	8.00E+02
5.657959	1.35E+04	7.98E+02
5.673584	1.35E+04	7.96E+02
5.689209	1.35E+04	7.95E+02
5.704834	1.35E+04	7.93E+02
5.720459	1.35E+04	7.91E+02
5.736084	1.35E+04	7.90E+02
5.751709	1.36E+04	7.88E+02
5.767334	1.36E+04	7.86E+02
5.782959	1.36E+04	7.84E+02
5.798584	1.37E+04	7.82E+02
5.814209	1.37E+04	7.81E+02
5.829834	1.37E+04	7.79E+02
5.845459	1.38E+04	7.77E+02
5.861084	1.38E+04	7.75E+02
5.876709	1.38E+04	7.73E+02
5.892334	1.39E+04	7.71E+02
5.907959	1.39E+04	7.70E+02
5.923584	1.39E+04	7.68E+02
5.939209	1.40E+04	7.66E+02
5.954834	1.40E+04	7.64E+02
5.970459	1.41E+04	7.62E+02
5.986084	1.41E+04	7.60E+02
6.001709	1.41E+04	7.59E+02
6.017334	1.42E+04	7.57E+02
6.032959	1.42E+04	7.55E+02
6.048584	1.42E+04	7.53E+02
6.064209	1.43E+04	7.51E+02
6.079834	1.43E+04	7.50E+02
6.095459	1.44E+04	7.48E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
6.111084	1.44E+04	7.46E+02
6.126709	1.45E+04	7.44E+02
6.142334	1.45E+04	7.43E+02
6.157959	1.45E+04	7.41E+02
6.173584	1.46E+04	7.39E+02
6.189209	1.46E+04	7.37E+02
6.204834	1.47E+04	7.36E+02
6.220459	1.47E+04	7.34E+02
6.236084	1.48E+04	7.32E+02
6.251709	1.48E+04	7.31E+02
6.267334	1.49E+04	7.29E+02
6.282959	1.49E+04	7.27E+02
6.298584	1.49E+04	7.26E+02
6.314209	1.50E+04	7.24E+02
6.329834	1.50E+04	7.23E+02
6.345459	1.51E+04	7.21E+02
6.361084	1.51E+04	7.20E+02
6.376709	1.52E+04	7.18E+02
6.392334	1.52E+04	7.16E+02
6.407959	1.52E+04	7.15E+02
6.423584	1.53E+04	7.13E+02
6.439209	1.53E+04	7.12E+02
6.454834	1.54E+04	7.11E+02
6.470459	1.54E+04	7.09E+02
6.486084	1.54E+04	7.08E+02
6.501709	1.55E+04	7.06E+02
6.517334	1.55E+04	7.05E+02
6.532959	1.56E+04	7.03E+02
6.548584	1.56E+04	7.02E+02
6.564209	1.57E+04	7.01E+02
6.579834	1.57E+04	6.99E+02
6.595459	1.58E+04	6.98E+02
6.611084	1.58E+04	6.97E+02
6.626709	1.58E+04	6.95E+02
6.642334	1.59E+04	6.94E+02
6.657959	1.59E+04	6.93E+02
6.673584	1.60E+04	6.92E+02
6.689209	1.60E+04	6.90E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
6.704834	1.60E+04	6.89E+02
6.712647	1.60E+04	6.89E+02
6.720459	1.61E+04	6.88E+02
6.728272	1.61E+04	6.88E+02
6.743897	1.61E+04	6.86E+02
6.759522	1.62E+04	6.85E+02
6.790772	1.63E+04	6.82E+02
6.822022	1.63E+04	6.80E+02
6.853272	1.64E+04	6.78E+02
6.884522	1.64E+04	6.76E+02
6.915772	1.65E+04	6.74E+02
6.947022	1.65E+04	6.73E+02
6.978272	1.66E+04	6.71E+02
7.009522	1.66E+04	6.70E+02
7.040772	1.67E+04	6.68E+02
7.072022	1.68E+04	6.67E+02
7.103272	1.68E+04	6.65E+02
7.134522	1.69E+04	6.64E+02
7.165772	1.69E+04	6.62E+02
7.197022	1.69E+04	6.61E+02
7.228272	1.70E+04	6.60E+02
7.259522	1.70E+04	6.58E+02
7.290772	1.71E+04	6.57E+02
7.322022	1.71E+04	6.56E+02
7.353272	1.71E+04	6.55E+02
7.384522	1.71E+04	6.53E+02
7.415772	1.72E+04	6.52E+02
7.447022	1.72E+04	6.51E+02
7.478272	1.72E+04	6.50E+02
7.509522	1.73E+04	6.49E+02
7.540772	1.73E+04	6.48E+02
7.572022	1.73E+04	6.46E+02
7.603272	1.74E+04	6.45E+02
7.634522	1.74E+04	6.44E+02
7.665772	1.74E+04	6.43E+02
7.697022	1.74E+04	6.42E+02
7.728272	1.74E+04	6.42E+02
7.759522	1.74E+04	6.41E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
7.790772	1.75E+04	6.40E+02
7.822022	1.75E+04	6.39E+02
7.853272	1.75E+04	6.38E+02
7.884522	1.75E+04	6.37E+02
7.947022	1.75E+04	6.35E+02
7.978272	1.75E+04	6.35E+02
8.009522	1.75E+04	6.34E+02
8.040772	1.75E+04	6.34E+02
8.103272	1.75E+04	6.32E+02
8.165772	1.75E+04	6.31E+02
8.228272	1.75E+04	6.30E+02
8.290772	1.75E+04	6.29E+02
8.353272	1.74E+04	6.28E+02
8.415772	1.74E+04	6.27E+02
8.478272	1.74E+04	6.26E+02
8.540772	1.73E+04	6.25E+02
8.603272	1.73E+04	6.25E+02
8.665772	1.72E+04	6.24E+02
8.728272	1.72E+04	6.23E+02
8.790772	1.71E+04	6.23E+02
8.915772	1.71E+04	6.21E+02
8.947022	1.69E+04	6.21E+02
8.978272	1.69E+04	6.21E+02
9.009522	1.69E+04	6.21E+02
9.040772	1.68E+04	6.21E+02
9.103272	1.68E+04	6.20E+02
9.165772	1.68E+04	6.19E+02
9.228272	1.67E+04	6.19E+02
9.353272	1.67E+04	6.17E+02
9.384522	1.64E+04	6.17E+02
9.415772	1.64E+04	6.17E+02
9.447022	1.64E+04	6.17E+02
9.478272	1.64E+04	6.17E+02
9.540772	1.64E+04	6.16E+02
9.603272	1.63E+04	6.16E+02
9.665772	1.63E+04	6.15E+02
9.728272	1.62E+04	6.15E+02
9.790772	1.61E+04	6.14E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
9.853272	1.61E+04	6.14E+02
9.978272	1.61E+04	6.13E+02
10.00952	1.58E+04	6.13E+02
10.04077	1.58E+04	6.13E+02
10.07202	1.58E+04	6.13E+02
10.10327	1.57E+04	6.13E+02
10.13452	1.57E+04	6.12E+02
10.19702	1.57E+04	6.12E+02
10.25952	1.56E+04	6.12E+02
10.32202	1.56E+04	6.11E+02
10.44702	1.55E+04	6.10E+02
10.50952	1.53E+04	6.10E+02
10.57202	1.53E+04	6.10E+02
10.63452	1.52E+04	6.10E+02
10.69702	1.51E+04	6.09E+02
10.75952	1.50E+04	6.09E+02
10.82202	1.50E+04	6.09E+02
10.88452	1.49E+04	6.09E+02
10.94702	1.48E+04	6.08E+02
11.00952	1.47E+04	6.08E+02
11.07202	1.46E+04	6.08E+02
11.13452	1.46E+04	6.07E+02
11.19702	1.45E+04	6.07E+02
11.25952	1.44E+04	6.07E+02
11.32202	1.43E+04	6.07E+02
11.38452	1.42E+04	6.07E+02
11.44702	1.42E+04	6.06E+02
11.50952	1.41E+04	6.06E+02
11.57202	1.40E+04	6.06E+02
11.63452	1.39E+04	6.06E+02
11.69702	1.38E+04	6.05E+02
11.75952	1.37E+04	6.05E+02
11.82202	1.37E+04	6.05E+02
11.88452	1.36E+04	6.05E+02
11.94702	1.35E+04	6.05E+02
12.00952	1.34E+04	6.05E+02
12.07202	1.33E+04	6.04E+02
12.13452	1.32E+04	6.04E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
12.19702	1.32E+04	6.04E+02
12.25952	1.31E+04	6.04E+02
12.32202	1.30E+04	6.04E+02
12.38452	1.29E+04	6.04E+02
12.44702	1.28E+04	6.03E+02
12.50952	1.27E+04	6.03E+02
12.57202	1.26E+04	6.03E+02
12.63452	1.25E+04	6.03E+02
12.69702	1.25E+04	6.03E+02
12.75952	1.24E+04	6.03E+02
12.82202	1.23E+04	6.03E+02
12.88452	1.22E+04	6.03E+02
12.94702	1.21E+04	6.02E+02
13.00952	1.20E+04	6.02E+02
13.07202	1.19E+04	6.02E+02
13.13452	1.18E+04	6.02E+02
13.19702	1.18E+04	6.02E+02
13.25952	1.17E+04	6.02E+02
13.32202	1.16E+04	6.02E+02
13.38452	1.15E+04	6.02E+02
13.44702	1.14E+04	6.02E+02
13.50952	1.13E+04	6.02E+02
13.57202	1.12E+04	6.02E+02
13.63452	1.11E+04	6.01E+02
13.69702	1.11E+04	6.01E+02
13.75952	1.10E+04	6.01E+02
13.82202	1.09E+04	6.01E+02
13.88452	1.08E+04	6.01E+02
13.94702	1.07E+04	6.01E+02
14.00952	1.06E+04	6.01E+02
14.07202	1.05E+04	6.01E+02
14.13452	1.05E+04	6.01E+02
14.19702	1.04E+04	6.01E+02
14.25952	1.03E+04	6.01E+02
14.32202	1.02E+04	6.01E+02
14.38452	1.01E+04	6.01E+02
14.44702	1.00E+04	6.01E+02
14.50952	9.92E+03	6.01E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
14.57202	9.83E+03	6.01E+02
14.63452	9.75E+03	6.01E+02
14.69702	9.66E+03	6.01E+02
14.75952	9.57E+03	6.01E+02
14.82202	9.48E+03	6.00E+02
14.88452	9.40E+03	6.01E+02
14.94702	9.31E+03	6.00E+02
15.00952	9.22E+03	6.00E+02
15.07202	9.14E+03	6.00E+02
15.13452	9.05E+03	6.00E+02
15.19702	8.96E+03	6.00E+02
15.25952	8.88E+03	6.00E+02
15.32202	8.79E+03	6.00E+02
15.38452	8.71E+03	6.00E+02
15.44702	8.63E+03	6.00E+02
15.50952	8.55E+03	6.01E+02
15.57202	8.47E+03	6.00E+02
15.63452	8.39E+03	6.01E+02
15.69702	8.31E+03	6.01E+02
15.75952	8.23E+03	6.01E+02
15.82202	8.15E+03	6.01E+02
15.88452	8.07E+03	6.01E+02
15.94702	7.99E+03	6.01E+02
16.00952	7.91E+03	6.01E+02
16.07202	7.84E+03	6.01E+02
16.13452	7.76E+03	6.01E+02
16.19702	7.69E+03	6.01E+02
16.25952	7.61E+03	6.01E+02
16.32202	7.53E+03	6.01E+02
16.38452	7.45E+03	6.01E+02
16.44702	7.38E+03	6.01E+02
16.50952	7.31E+03	6.01E+02
16.57202	7.23E+03	6.01E+02
16.63452	7.16E+03	6.01E+02
16.69702	7.08E+03	6.01E+02
16.75952	7.01E+03	6.02E+02
16.82202	6.93E+03	6.02E+02
16.88452	6.86E+03	6.02E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
16.94702	6.79E+03	6.02E+02
17.00952	6.71E+03	6.02E+02
17.07202	6.64E+03	6.02E+02
17.13452	6.57E+03	6.02E+02
17.19702	6.50E+03	6.02E+02
17.25952	6.43E+03	6.02E+02
17.32202	6.35E+03	6.03E+02
17.38452	6.28E+03	6.03E+02
17.41577	6.22E+03	6.03E+02
17.44702	6.18E+03	6.03E+02
17.47827	6.15E+03	6.03E+02
17.50952	6.11E+03	6.03E+02
17.54077	6.08E+03	6.03E+02
17.57202	6.04E+03	6.03E+02
17.60327	6.01E+03	6.03E+02
17.63452	5.97E+03	6.03E+02
17.66577	5.94E+03	6.03E+02
17.69702	5.91E+03	6.03E+02
17.72827	5.87E+03	6.04E+02
17.75952	5.84E+03	6.04E+02
17.79077	5.80E+03	6.04E+02
17.82202	5.77E+03	6.04E+02
17.85327	5.74E+03	6.04E+02
17.88452	5.70E+03	6.04E+02
17.91577	5.67E+03	6.04E+02
17.94702	5.64E+03	6.04E+02
17.97827	5.60E+03	6.04E+02
18.00952	5.57E+03	6.04E+02
18.04077	5.54E+03	6.04E+02
18.07202	5.50E+03	6.04E+02
18.13452	5.47E+03	6.04E+02
18.19702	5.40E+03	6.05E+02
18.25952	5.33E+03	6.05E+02
18.32202	5.27E+03	6.05E+02
18.35327	5.21E+03	6.05E+02
18.38452	5.18E+03	6.05E+02
18.40015	5.15E+03	6.05E+02
18.41577	5.13E+03	6.05E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
18.4314	5.12E+03	6.05E+02
18.46265	5.10E+03	6.06E+02
18.4939	5.07E+03	6.06E+02
18.52515	5.04E+03	6.06E+02
18.5564	5.01E+03	6.06E+02
18.58765	4.98E+03	6.06E+02
18.6189	4.95E+03	6.06E+02
18.65015	4.92E+03	6.06E+02
18.6814	4.90E+03	6.06E+02
18.71265	4.87E+03	6.06E+02
18.7439	4.84E+03	6.06E+02
18.77515	4.81E+03	6.06E+02
18.8064	4.78E+03	6.06E+02
18.83765	4.76E+03	6.06E+02
18.8689	4.73E+03	6.06E+02
18.90015	4.70E+03	6.06E+02
18.9314	4.67E+03	6.06E+02
18.96265	4.64E+03	6.06E+02
18.9939	4.62E+03	6.06E+02
19.00952	4.59E+03	6.06E+02
19.02515	4.57E+03	6.06E+02
19.04077	4.56E+03	6.06E+02
19.04858	4.54E+03	6.06E+02
19.0564	4.54E+03	6.06E+02
19.06421	4.53E+03	6.06E+02
19.07202	4.52E+03	6.06E+02
19.08765	4.51E+03	6.06E+02
19.10327	4.50E+03	6.06E+02
19.1189	4.49E+03	6.07E+02
19.13452	4.47E+03	6.07E+02
19.15015	4.46E+03	6.07E+02
19.16577	4.44E+03	6.07E+02
19.1814	4.43E+03	6.07E+02
19.19702	4.41E+03	6.07E+02
19.21265	4.40E+03	6.07E+02
19.22827	4.39E+03	6.07E+02
19.2439	4.37E+03	6.07E+02
19.25952	4.36E+03	6.07E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
19.27515	4.34E+03	6.07E+02
19.29077	4.33E+03	6.07E+02
19.3064	4.32E+03	6.07E+02
19.32202	4.30E+03	6.07E+02
19.33765	4.29E+03	6.07E+02
19.35327	4.28E+03	6.07E+02
19.3689	4.26E+03	6.07E+02
19.38452	4.25E+03	6.07E+02
19.40015	4.23E+03	6.07E+02
19.41577	4.22E+03	6.07E+02
19.4314	4.21E+03	6.07E+02
19.44702	4.19E+03	6.07E+02
19.46265	4.18E+03	6.07E+02
19.47827	4.17E+03	6.07E+02
19.4939	4.15E+03	6.07E+02
19.50952	4.14E+03	6.07E+02
19.52515	4.13E+03	6.07E+02
19.54077	4.11E+03	6.07E+02
19.5564	4.10E+03	6.07E+02
19.57202	4.09E+03	6.07E+02
19.58765	4.07E+03	6.07E+02
19.60327	4.06E+03	6.07E+02
19.6189	4.05E+03	6.07E+02
19.63452	4.03E+03	6.07E+02
19.65015	4.02E+03	6.07E+02
19.66577	4.01E+03	6.07E+02
19.6814	3.99E+03	6.07E+02
19.69702	3.98E+03	6.07E+02
19.71265	3.97E+03	6.07E+02
19.72827	3.96E+03	6.07E+02
19.7439	3.94E+03	6.07E+02
19.75952	3.93E+03	6.07E+02
19.77515	3.92E+03	6.07E+02
19.78296	3.91E+03	6.07E+02
19.79077	3.90E+03	6.07E+02
19.79858	3.89E+03	6.07E+02
19.8064	3.89E+03	6.07E+02
19.81421	3.88E+03	6.07E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-4
M3CPT/LAMB DBA-LOCA Break Mass Flow Rate and Enthalpy for Peak Drywell Pressure Calculation (0-20 seconds)*

Time (sec)	Break Flow (lbm/s)	Break Flow Enthalpy (Btu/lbm)
19.82202	3.87E+03	6.07E+02
19.82983	3.87E+03	6.07E+02
19.84546	3.86E+03	6.07E+02
19.86108	3.85E+03	6.07E+02
19.8689	3.83E+03	6.07E+02
19.87671	3.83E+03	6.07E+02
19.88452	3.82E+03	6.07E+02
19.89233	3.81E+03	6.07E+02
19.90015	3.81E+03	6.07E+02
19.90796	3.80E+03	6.07E+02
19.91577	3.80E+03	6.07E+02
19.92358	3.79E+03	6.07E+02
19.9314	3.78E+03	6.07E+02
19.93921	3.78E+03	6.07E+02
19.94702	3.77E+03	6.07E+02
19.95483	3.76E+03	6.07E+02
19.96265	3.76E+03	6.07E+02
19.97046	3.75E+03	6.07E+02
19.97827	3.74E+03	6.07E+02
19.98608	3.74E+03	6.07E+02
19.9939	3.73E+03	6.07E+02
20.00171	3.73E+03	6.07E+02

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-5
Mass and Energy Data from SHEX Short-Term (600 sec)
DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Direct LPCI Break Flow to Drywell (lbm/s)	Enthalpy of Direct LPCI Break flow to Drywell (Btu/lbm)	ECCS flow from suppression pool (lbm/s)	ECCS flow enthalpy from Suppression Pool (Btu/lbm)	Core Thermal Power (Btu/s)
0	2.491E+04	5.531E+02	0.000E+00	1.190E+03	0.000E+00	0.000E+00	0.000E+00	5.805E+01	1.863E+06
0.674805	2.473E+04	5.513E+02	0.000E+00	1.191E+03	0.000E+00	0.000E+00	0.000E+00	5.873E+01	1.580E+06
3.487305	2.407E+04	5.452E+02	0.000E+00	1.192E+03	0.000E+00	0.000E+00	0.000E+00	6.503E+01	1.059E+06
12.11231	2.142E+04	5.338E+02	0.000E+00	1.195E+03	0.000E+00	0.000E+00	0.000E+00	8.561E+01	6.013E+05
20.98731	0.000E+00	4.132E+02	3.014E+03	1.204E+03	0.000E+00	0.000E+00	0.000E+00	9.809E+01	2.185E+05
28.75293	0.000E+00	3.491E+02	1.569E+03	1.197E+03	1.974E+03	1.031E+02	1.822E+03	1.024E+02	1.916E+05
32.12793	5.603E+03	3.314E+02	0.000E+00	1.194E+03	1.974E+03	1.041E+02	2.224E+03	1.034E+02	1.800E+05
35.40918	5.368E+03	3.264E+02	0.000E+00	1.193E+03	1.974E+03	1.048E+02	2.309E+03	1.041E+02	1.686E+05
39.65918	5.120E+03	3.201E+02	0.000E+00	1.192E+03	1.974E+03	1.056E+02	2.413E+03	1.049E+02	1.539E+05
56.22168	4.663E+03	2.975E+02	0.000E+00	1.187E+03	1.974E+03	1.081E+02	2.708E+03	1.074E+02	9.648E+04
72.56543	4.690E+03	2.724E+02	0.000E+00	1.180E+03	1.974E+03	1.091E+02	2.943E+03	1.084E+02	8.125E+04
95.09668	6.701E+03	2.485E+02	0.000E+00	1.174E+03	1.974E+03	1.109E+02	3.096E+03	1.102E+02	7.742E+04
106.1592	6.809E+03	2.353E+02	0.000E+00	1.169E+03	1.974E+03	1.128E+02	3.162E+03	1.121E+02	7.603E+04
116.7217	6.871E+03	2.255E+02	0.000E+00	1.166E+03	1.974E+03	1.147E+02	3.204E+03	1.140E+02	7.506E+04
127.2842	6.054E+03	2.164E+02	0.000E+00	1.163E+03	1.974E+03	1.165E+02	3.238E+03	1.158E+02	5.902E+04
136.8467	5.298E+03	2.074E+02	0.000E+00	1.160E+03	1.974E+03	1.180E+02	3.268E+03	1.172E+02	5.833E+04
147.7529	5.690E+03	1.998E+02	0.000E+00	1.158E+03	1.974E+03	1.195E+02	3.291E+03	1.188E+02	5.754E+04
161.2842	3.889E+03	1.929E+02	0.000E+00	1.155E+03	1.974E+03	1.213E+02	3.309E+03	1.205E+02	5.656E+04
176.5654	3.027E+03	1.864E+02	0.000E+00	1.153E+03	1.974E+03	1.227E+02	3.325E+03	1.220E+02	5.546E+04
190.3154	3.060E+03	1.816E+02	0.000E+00	1.151E+03	1.974E+03	1.237E+02	3.335E+03	1.230E+02	5.446E+04
207.1279	3.094E+03	1.767E+02	0.000E+00	1.149E+03	1.974E+03	1.248E+02	3.336E+03	1.241E+02	5.353E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-5
Mass and Energy Data from SHEX Short-Term (600 sec)
DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Direct LPCI Break Flow to Drywell (lbm/s)	Enthalpy of Direct LPCI Break flow to Drywell (Btu/lbm)	ECCS flow from suppression pool (lbm/s)	ECCS flow enthalpy from Suppression Pool (Btu/lbm)	Core Thermal Power (Btu/s)
226.4717	3.141E+03	1.722E+02	0.000E+00	1.148E+03	1.974E+03	1.258E+02	3.336E+03	1.250E+02	5.289E+04
246.3154	3.139E+03	1.685E+02	0.000E+00	1.146E+03	1.974E+03	1.266E+02	3.336E+03	1.259E+02	5.223E+04
273.8467	3.187E+03	1.646E+02	0.000E+00	1.145E+03	1.974E+03	1.275E+02	3.336E+03	1.268E+02	5.131E+04
301.4092	3.207E+03	1.618E+02	0.000E+00	1.144E+03	1.974E+03	1.283E+02	3.336E+03	1.276E+02	5.040E+04
332.7217	3.217E+03	1.594E+02	0.000E+00	1.143E+03	1.974E+03	1.292E+02	3.336E+03	1.284E+02	4.936E+04
367.6279	3.249E+03	1.575E+02	0.000E+00	1.142E+03	1.974E+03	1.299E+02	3.336E+03	1.292E+02	4.820E+04
398.2529	3.278E+03	1.562E+02	0.000E+00	1.141E+03	1.974E+03	1.306E+02	3.336E+03	1.298E+02	4.719E+04
429.1904	3.297E+03	1.553E+02	0.000E+00	1.141E+03	1.974E+03	1.311E+02	3.336E+03	1.304E+02	4.671E+04
460.6904	3.302E+03	1.546E+02	0.000E+00	1.141E+03	1.974E+03	1.317E+02	3.336E+03	1.310E+02	4.625E+04
491.6904	3.301E+03	1.541E+02	0.000E+00	1.141E+03	1.974E+03	1.322E+02	3.336E+03	1.315E+02	4.580E+04
522.6904	3.309E+03	1.538E+02	0.000E+00	1.140E+03	1.974E+03	1.327E+02	3.336E+03	1.320E+02	4.535E+04
553.7529	3.315E+03	1.535E+02	0.000E+00	1.140E+03	1.974E+03	1.332E+02	3.336E+03	1.325E+02	4.490E+04
585.0029	3.322E+03	1.533E+02	0.000E+00	1.140E+03	1.974E+03	1.336E+02	3.336E+03	1.329E+02	4.445E+04
600.0654	3.318E+03	1.532E+02	0.000E+00	1.140E+03	0.000E+00	1.331E+02	3.336E+03	1.331E+02	4.423E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
0	2.443E+04	5.531E+02	0.000E+00	1.190E+03	0.000E+00	5.805E+01		1.863E+06
0.674805	2.424E+04	5.513E+02	0.000E+00	1.191E+03	0.000E+00	5.878E+01		1.580E+06
3.518555	2.355E+04	5.453E+02	0.000E+00	1.192E+03	0.000E+00	6.519E+01		1.060E+06
12.14356	2.145E+04	5.341E+02	0.000E+00	1.195E+03	0.000E+00	8.560E+01		5.998E+05
20.26856	0.000E+00	4.235E+02	3.310E+03	1.205E+03	0.000E+00	9.773E+01		2.210E+05
29.75293	0.000E+00	3.392E+02	1.404E+03	1.196E+03	3.408E+03	1.029E+02		1.882E+05
32.30762	5.395E+03	3.257E+02	0.000E+00	1.193E+03	3.790E+03	1.032E+02		1.793E+05
35.71387	5.082E+03	3.163E+02	0.000E+00	1.191E+03	4.025E+03	1.039E+02		1.675E+05
39.24512	4.888E+03	3.071E+02	0.000E+00	1.189E+03	4.229E+03	1.046E+02		1.553E+05
60.55762	7.195E+03	2.645E+02	0.000E+00	1.178E+03	4.862E+03	1.084E+02		8.330E+04
76.71387	8.864E+03	2.376E+02	0.000E+00	1.170E+03	5.100E+03	1.114E+02		8.055E+04
95.02637	5.345E+03	2.189E+02	0.000E+00	1.164E+03	5.224E+03	1.130E+02		7.744E+04
114.8545	8.002E+03	2.135E+02	0.000E+00	1.162E+03	5.254E+03	1.143E+02		7.523E+04
133.2295	6.415E+03	1.995E+02	0.000E+00	1.157E+03	5.323E+03	1.166E+02		5.859E+04
146.8545	6.580E+03	1.910E+02	0.000E+00	1.154E+03	5.358E+03	1.182E+02		5.761E+04
157.8545	6.091E+03	1.856E+02	0.000E+00	1.152E+03	5.377E+03	1.195E+02		5.681E+04
174.1357	5.022E+03	1.786E+02	0.000E+00	1.150E+03	5.393E+03	1.211E+02		5.563E+04
189.917	4.664E+03	1.731E+02	0.000E+00	1.148E+03	5.393E+03	1.224E+02		5.449E+04
206.167	4.760E+03	1.686E+02	0.000E+00	1.146E+03	5.393E+03	1.235E+02		5.356E+04
222.7295	5.054E+03	1.649E+02	0.000E+00	1.145E+03	5.393E+03	1.246E+02		5.301E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
236.792	5.313E+03	1.623E+02	0.000E+00	1.144E+03	5.393E+03	1.254E+02		5.254E+04
251.167	5.550E+03	1.601E+02	0.000E+00	1.143E+03	5.393E+03	1.262E+02		5.207E+04
267.0107	5.736E+03	1.580E+02	0.000E+00	1.142E+03	5.393E+03	1.270E+02		5.154E+04
284.3857	5.887E+03	1.562E+02	0.000E+00	1.141E+03	5.393E+03	1.278E+02		5.096E+04
302.792	5.973E+03	1.546E+02	0.000E+00	1.141E+03	5.393E+03	1.286E+02		5.035E+04
321.167	5.990E+03	1.533E+02	0.000E+00	1.140E+03	5.393E+03	1.293E+02		4.974E+04
340.042	5.932E+03	1.523E+02	0.000E+00	1.140E+03	5.393E+03	1.300E+02		4.912E+04
360.3545	5.657E+03	1.514E+02	0.000E+00	1.140E+03	5.393E+03	1.307E+02		4.844E+04
384.292	5.543E+03	1.507E+02	0.000E+00	1.139E+03	5.393E+03	1.314E+02		4.765E+04
410.1045	5.527E+03	1.501E+02	0.000E+00	1.139E+03	5.393E+03	1.321E+02		4.698E+04
433.9482	5.495E+03	1.498E+02	0.000E+00	1.139E+03	5.393E+03	1.327E+02		4.664E+04
459.9482	5.472E+03	1.495E+02	0.000E+00	1.139E+03	5.393E+03	1.333E+02		4.626E+04
490.4482	5.455E+03	1.493E+02	0.000E+00	1.139E+03	5.393E+03	1.339E+02		4.582E+04
520.9795	5.436E+03	1.493E+02	0.000E+00	1.139E+03	5.393E+03	1.345E+02		4.537E+04
552.7295	5.424E+03	1.493E+02	0.000E+00	1.139E+03	5.393E+03	1.351E+02		4.491E+04
584.042	5.406E+03	1.493E+02	0.000E+00	1.139E+03	5.393E+03	1.356E+02		4.446E+04
600.0107	5.412E+03	1.493E+02	0.000E+00	1.139E+03	3.336E+03	1.359E+02	1.212E+02	4.423E+04
785.6045	3.341E+03	1.527E+02	0.000E+00	1.140E+03	3.336E+03	1.377E+02	1.227E+02	4.153E+04
1097.855	3.334E+03	1.536E+02	0.000E+00	1.140E+03	3.336E+03	1.398E+02	1.244E+02	3.775E+04
1410.355	3.336E+03	1.543E+02	0.000E+00	1.141E+03	3.336E+03	1.417E+02	1.259E+02	3.560E+04
1722.073	3.332E+03	1.551E+02	0.000E+00	1.141E+03	3.336E+03	1.433E+02	1.272E+02	3.346E+04
2033.355	3.333E+03	1.557E+02	0.000E+00	1.141E+03	3.336E+03	1.447E+02	1.283E+02	3.145E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
2343.417	3.335E+03	1.565E+02	0.000E+00	1.141E+03	3.336E+03	1.459E+02	1.293E+02	3.048E+04
2653.073	3.332E+03	1.572E+02	0.000E+00	1.142E+03	3.336E+03	1.470E+02	1.303E+02	2.952E+04
2962.323	3.335E+03	1.579E+02	0.000E+00	1.142E+03	3.336E+03	1.481E+02	1.311E+02	2.855E+04
3270.355	3.333E+03	1.585E+02	0.000E+00	1.142E+03	3.336E+03	1.490E+02	1.319E+02	2.759E+04
3578.792	3.334E+03	1.590E+02	0.000E+00	1.142E+03	3.336E+03	1.499E+02	1.326E+02	2.663E+04
3887.23	3.333E+03	1.595E+02	0.000E+00	1.143E+03	3.336E+03	1.507E+02	1.332E+02	2.567E+04
4196.48	3.334E+03	1.599E+02	0.000E+00	1.143E+03	3.336E+03	1.514E+02	1.338E+02	2.503E+04
4506.136	3.331E+03	1.604E+02	0.000E+00	1.143E+03	3.336E+03	1.520E+02	1.343E+02	2.457E+04
4815.792	3.335E+03	1.609E+02	0.000E+00	1.143E+03	3.336E+03	1.527E+02	1.348E+02	2.411E+04
5125.042	3.335E+03	1.613E+02	0.000E+00	1.143E+03	3.336E+03	1.532E+02	1.353E+02	2.365E+04
5434.23	3.334E+03	1.617E+02	0.000E+00	1.144E+03	3.336E+03	1.538E+02	1.358E+02	2.319E+04
5736.948	3.337E+03	1.620E+02	0.000E+00	1.144E+03	3.336E+03	1.543E+02	1.362E+02	2.274E+04
6031.792	3.319E+03	1.623E+02	0.000E+00	1.144E+03	3.336E+03	1.547E+02	1.365E+02	2.232E+04
6275.292	3.336E+03	1.626E+02	0.000E+00	1.144E+03	3.336E+03	1.551E+02	1.368E+02	2.210E+04
6534.73	3.336E+03	1.629E+02	0.000E+00	1.144E+03	3.336E+03	1.554E+02	1.371E+02	2.188E+04
6814.355	3.321E+03	1.632E+02	0.000E+00	1.144E+03	3.336E+03	1.558E+02	1.374E+02	2.163E+04
7115.386	3.334E+03	1.634E+02	0.000E+00	1.144E+03	3.336E+03	1.562E+02	1.377E+02	2.137E+04
7420.605	3.331E+03	1.637E+02	0.000E+00	1.144E+03	3.336E+03	1.565E+02	1.380E+02	2.110E+04
7724.355	3.334E+03	1.640E+02	0.000E+00	1.144E+03	3.336E+03	1.569E+02	1.383E+02	2.083E+04
8035.636	3.336E+03	1.642E+02	0.000E+00	1.144E+03	3.336E+03	1.572E+02	1.385E+02	2.057E+04
8346.917	3.338E+03	1.645E+02	0.000E+00	1.145E+03	3.336E+03	1.575E+02	1.388E+02	2.037E+04
8659.011	3.337E+03	1.647E+02	0.000E+00	1.145E+03	3.336E+03	1.578E+02	1.390E+02	2.018E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
8971.105	3.338E+03	1.650E+02	0.000E+00	1.145E+03	3.336E+03	1.581E+02	1.393E+02	1.999E+04
9282.792	3.338E+03	1.652E+02	0.000E+00	1.145E+03	3.336E+03	1.584E+02	1.395E+02	1.979E+04
9595.292	3.336E+03	1.654E+02	0.000E+00	1.145E+03	3.336E+03	1.586E+02	1.397E+02	1.960E+04
9907.386	3.337E+03	1.655E+02	0.000E+00	1.145E+03	3.336E+03	1.589E+02	1.399E+02	1.941E+04
10219.89	3.337E+03	1.657E+02	0.000E+00	1.145E+03	3.336E+03	1.591E+02	1.401E+02	1.930E+04
10531.98	3.337E+03	1.659E+02	0.000E+00	1.145E+03	3.336E+03	1.593E+02	1.402E+02	1.923E+04
10844.48	3.337E+03	1.661E+02	0.000E+00	1.145E+03	3.336E+03	1.595E+02	1.404E+02	1.916E+04
11469.07	3.337E+03	1.664E+02	0.000E+00	1.145E+03	3.336E+03	1.599E+02	1.407E+02	1.902E+04
12093.67	3.337E+03	1.668E+02	0.000E+00	1.145E+03	3.336E+03	1.603E+02	1.410E+02	1.888E+04
12718.67	3.337E+03	1.671E+02	0.000E+00	1.146E+03	3.336E+03	1.606E+02	1.413E+02	1.874E+04
13343.26	3.338E+03	1.673E+02	0.000E+00	1.146E+03	3.336E+03	1.609E+02	1.416E+02	1.860E+04
13968.26	3.337E+03	1.676E+02	0.000E+00	1.146E+03	3.336E+03	1.612E+02	1.418E+02	1.846E+04
14592.01	3.329E+03	1.678E+02	0.000E+00	1.146E+03	3.336E+03	1.615E+02	1.420E+02	1.832E+04
15169.6	3.334E+03	1.680E+02	0.000E+00	1.146E+03	3.336E+03	1.617E+02	1.422E+02	1.818E+04
15794.6	3.334E+03	1.681E+02	0.000E+00	1.146E+03	3.336E+03	1.619E+02	1.424E+02	1.802E+04
16419.61	3.333E+03	1.682E+02	0.000E+00	1.146E+03	3.336E+03	1.621E+02	1.425E+02	1.787E+04
17044.2	3.333E+03	1.684E+02	0.000E+00	1.146E+03	3.336E+03	1.622E+02	1.426E+02	1.771E+04
17669.2	3.335E+03	1.684E+02	0.000E+00	1.146E+03	3.336E+03	1.624E+02	1.427E+02	1.756E+04
18293.79	3.334E+03	1.685E+02	0.000E+00	1.146E+03	3.336E+03	1.625E+02	1.428E+02	1.740E+04
18906.76	3.335E+03	1.685E+02	0.000E+00	1.146E+03	3.336E+03	1.626E+02	1.429E+02	1.725E+04
19531.76	3.335E+03	1.686E+02	0.000E+00	1.146E+03	3.336E+03	1.626E+02	1.430E+02	1.709E+04
20156.36	3.336E+03	1.686E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.695E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
20781.36	3.334E+03	1.686E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.687E+04
21406.36	3.335E+03	1.686E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.679E+04
22030.95	3.335E+03	1.686E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.671E+04
22655.95	3.335E+03	1.685E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.662E+04
23244.98	3.336E+03	1.685E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.654E+04
23869.98	3.337E+03	1.685E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.646E+04
24494.98	3.337E+03	1.685E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.638E+04
25119.98	3.338E+03	1.685E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.630E+04
25744.98	3.338E+03	1.684E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.621E+04
26369.98	3.337E+03	1.684E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.613E+04
26994.98	3.336E+03	1.683E+02	0.000E+00	1.146E+03	3.336E+03	1.627E+02	1.430E+02	1.605E+04
27595.76	3.336E+03	1.683E+02	0.000E+00	1.146E+03	3.336E+03	1.626E+02	1.429E+02	1.597E+04
28220.36	3.335E+03	1.682E+02	0.000E+00	1.146E+03	3.336E+03	1.626E+02	1.429E+02	1.589E+04
28844.95	3.335E+03	1.681E+02	0.000E+00	1.146E+03	3.336E+03	1.625E+02	1.429E+02	1.580E+04
29469.95	3.332E+03	1.681E+02	0.000E+00	1.146E+03	3.336E+03	1.625E+02	1.428E+02	1.572E+04
30094.54	3.336E+03	1.680E+02	0.000E+00	1.146E+03	3.336E+03	1.624E+02	1.428E+02	1.564E+04
30719.14	3.336E+03	1.679E+02	0.000E+00	1.146E+03	3.336E+03	1.624E+02	1.427E+02	1.556E+04
31343.73	3.336E+03	1.678E+02	0.000E+00	1.146E+03	3.336E+03	1.623E+02	1.427E+02	1.547E+04
31968.73	3.333E+03	1.677E+02	0.000E+00	1.146E+03	3.336E+03	1.622E+02	1.426E+02	1.539E+04
32592.92	3.334E+03	1.676E+02	0.000E+00	1.146E+03	3.336E+03	1.622E+02	1.426E+02	1.531E+04
33191.54	3.336E+03	1.675E+02	0.000E+00	1.146E+03	3.336E+03	1.621E+02	1.425E+02	1.523E+04
33815.73	3.337E+03	1.674E+02	0.000E+00	1.146E+03	3.336E+03	1.620E+02	1.424E+02	1.515E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
34440.32	3.338E+03	1.673E+02	0.000E+00	1.146E+03	3.336E+03	1.619E+02	1.424E+02	1.506E+04
35064.51	3.338E+03	1.672E+02	0.000E+00	1.146E+03	3.336E+03	1.618E+02	1.423E+02	1.498E+04
35688.7	3.337E+03	1.671E+02	0.000E+00	1.146E+03	3.336E+03	1.617E+02	1.422E+02	1.490E+04
36312.89	3.338E+03	1.669E+02	0.000E+00	1.146E+03	3.336E+03	1.616E+02	1.421E+02	1.482E+04
36937.07	3.336E+03	1.668E+02	0.000E+00	1.145E+03	3.336E+03	1.615E+02	1.420E+02	1.473E+04
37561.26	3.337E+03	1.667E+02	0.000E+00	1.145E+03	3.336E+03	1.614E+02	1.419E+02	1.465E+04
38185.45	3.336E+03	1.665E+02	0.000E+00	1.145E+03	3.336E+03	1.613E+02	1.418E+02	1.457E+04
38809.64	3.337E+03	1.664E+02	0.000E+00	1.145E+03	3.336E+03	1.611E+02	1.417E+02	1.448E+04
39423.29	3.334E+03	1.662E+02	0.000E+00	1.145E+03	3.336E+03	1.610E+02	1.416E+02	1.440E+04
40020.36	3.335E+03	1.661E+02	0.000E+00	1.145E+03	3.336E+03	1.609E+02	1.415E+02	1.433E+04
40644.14	3.336E+03	1.659E+02	0.000E+00	1.145E+03	3.336E+03	1.607E+02	1.414E+02	1.428E+04
41267.92	3.334E+03	1.658E+02	0.000E+00	1.145E+03	3.336E+03	1.606E+02	1.413E+02	1.424E+04
41891.7	3.336E+03	1.656E+02	0.000E+00	1.145E+03	3.336E+03	1.604E+02	1.412E+02	1.419E+04
42515.48	3.334E+03	1.655E+02	0.000E+00	1.145E+03	3.336E+03	1.603E+02	1.410E+02	1.415E+04
43139.26	3.336E+03	1.653E+02	0.000E+00	1.145E+03	3.336E+03	1.601E+02	1.409E+02	1.411E+04
43763.45	3.334E+03	1.651E+02	0.000E+00	1.145E+03	3.336E+03	1.600E+02	1.408E+02	1.406E+04
44387.64	3.334E+03	1.650E+02	0.000E+00	1.145E+03	3.336E+03	1.598E+02	1.407E+02	1.402E+04
45012.23	3.335E+03	1.648E+02	0.000E+00	1.145E+03	3.336E+03	1.597E+02	1.406E+02	1.397E+04
45637.23	3.334E+03	1.647E+02	0.000E+00	1.145E+03	3.336E+03	1.595E+02	1.404E+02	1.393E+04
46189.45	3.335E+03	1.645E+02	0.000E+00	1.145E+03	3.336E+03	1.594E+02	1.403E+02	1.389E+04
46724.76	3.337E+03	1.643E+02	0.000E+00	1.145E+03	3.336E+03	1.593E+02	1.402E+02	1.385E+04
47260.45	3.336E+03	1.641E+02	0.000E+00	1.144E+03	3.336E+03	1.591E+02	1.401E+02	1.382E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
47796.32	3.336E+03	1.640E+02	0.000E+00	1.144E+03	3.336E+03	1.589E+02	1.399E+02	1.378E+04
48331.95	3.334E+03	1.638E+02	0.000E+00	1.144E+03	3.336E+03	1.588E+02	1.398E+02	1.374E+04
48867.57	3.335E+03	1.636E+02	0.000E+00	1.144E+03	3.336E+03	1.586E+02	1.397E+02	1.370E+04
49406.11	3.336E+03	1.635E+02	0.000E+00	1.144E+03	3.336E+03	1.585E+02	1.396E+02	1.366E+04
50656.11	3.333E+03	1.631E+02	0.000E+00	1.144E+03	3.336E+03	1.581E+02	1.393E+02	1.358E+04
51906.11	3.333E+03	1.627E+02	0.000E+00	1.144E+03	3.336E+03	1.578E+02	1.390E+02	1.349E+04
53156.11	3.336E+03	1.624E+02	0.000E+00	1.144E+03	3.336E+03	1.574E+02	1.387E+02	1.340E+04
54406.11	3.333E+03	1.620E+02	0.000E+00	1.144E+03	3.336E+03	1.571E+02	1.384E+02	1.331E+04
55555.17	3.332E+03	1.616E+02	0.000E+00	1.143E+03	3.336E+03	1.567E+02	1.382E+02	1.323E+04
56805.17	3.335E+03	1.612E+02	0.000E+00	1.143E+03	3.336E+03	1.564E+02	1.379E+02	1.314E+04
58055.17	3.334E+03	1.608E+02	0.000E+00	1.143E+03	3.336E+03	1.560E+02	1.376E+02	1.305E+04
59300.54	3.332E+03	1.605E+02	0.000E+00	1.143E+03	3.336E+03	1.556E+02	1.373E+02	1.297E+04
60550.54	3.334E+03	1.601E+02	0.000E+00	1.143E+03	3.336E+03	1.553E+02	1.370E+02	1.289E+04
61800.54	3.335E+03	1.597E+02	0.000E+00	1.143E+03	3.336E+03	1.549E+02	1.367E+02	1.284E+04
63050.54	3.333E+03	1.593E+02	0.000E+00	1.143E+03	3.336E+03	1.546E+02	1.364E+02	1.279E+04
64300.54	3.335E+03	1.590E+02	0.000E+00	1.142E+03	3.336E+03	1.542E+02	1.361E+02	1.274E+04
65550.54	3.336E+03	1.586E+02	0.000E+00	1.142E+03	3.336E+03	1.539E+02	1.358E+02	1.268E+04
66776.29	3.333E+03	1.582E+02	0.000E+00	1.142E+03	3.336E+03	1.535E+02	1.355E+02	1.263E+04
67847.79	3.336E+03	1.579E+02	0.000E+00	1.142E+03	3.336E+03	1.532E+02	1.353E+02	1.259E+04
69092.29	3.332E+03	1.575E+02	0.000E+00	1.142E+03	3.336E+03	1.528E+02	1.350E+02	1.254E+04
70342.29	3.334E+03	1.572E+02	0.000E+00	1.142E+03	3.336E+03	1.525E+02	1.347E+02	1.248E+04
71592.29	3.334E+03	1.568E+02	0.000E+00	1.142E+03	3.336E+03	1.521E+02	1.344E+02	1.243E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
72842.29	3.335E+03	1.565E+02	0.000E+00	1.141E+03	3.336E+03	1.518E+02	1.342E+02	1.238E+04
74092.29	3.334E+03	1.561E+02	0.000E+00	1.141E+03	3.336E+03	1.515E+02	1.339E+02	1.233E+04
75342.29	3.334E+03	1.558E+02	0.000E+00	1.141E+03	3.336E+03	1.511E+02	1.336E+02	1.227E+04
76592.29	3.335E+03	1.554E+02	0.000E+00	1.141E+03	3.336E+03	1.508E+02	1.333E+02	1.222E+04
77842.29	3.335E+03	1.551E+02	0.000E+00	1.141E+03	3.336E+03	1.505E+02	1.331E+02	1.217E+04
79092.29	3.334E+03	1.547E+02	0.000E+00	1.141E+03	3.336E+03	1.502E+02	1.328E+02	1.212E+04
80342.29	3.335E+03	1.544E+02	0.000E+00	1.141E+03	3.336E+03	1.498E+02	1.325E+02	1.206E+04
81592.29	3.336E+03	1.541E+02	0.000E+00	1.141E+03	3.336E+03	1.495E+02	1.323E+02	1.201E+04
82842.29	3.332E+03	1.537E+02	0.000E+00	1.140E+03	3.336E+03	1.492E+02	1.320E+02	1.196E+04
84089.91	3.336E+03	1.534E+02	0.000E+00	1.140E+03	3.336E+03	1.489E+02	1.318E+02	1.191E+04
85339.91	3.335E+03	1.531E+02	0.000E+00	1.140E+03	3.336E+03	1.486E+02	1.315E+02	1.185E+04
86589.91	3.335E+03	1.527E+02	0.000E+00	1.140E+03	3.336E+03	1.482E+02	1.312E+02	1.180E+04
87839.91	3.335E+03	1.524E+02	0.000E+00	1.140E+03	3.336E+03	1.479E+02	1.310E+02	1.175E+04
89089.91	3.335E+03	1.521E+02	0.000E+00	1.140E+03	3.336E+03	1.476E+02	1.307E+02	1.170E+04
90339.91	3.335E+03	1.517E+02	0.000E+00	1.140E+03	3.336E+03	1.473E+02	1.305E+02	1.164E+04
91589.91	3.336E+03	1.514E+02	0.000E+00	1.140E+03	3.336E+03	1.470E+02	1.302E+02	1.159E+04
92839.91	3.335E+03	1.511E+02	0.000E+00	1.139E+03	3.336E+03	1.467E+02	1.300E+02	1.154E+04
94089.91	3.335E+03	1.508E+02	0.000E+00	1.139E+03	3.336E+03	1.464E+02	1.297E+02	1.149E+04
95339.91	3.334E+03	1.504E+02	0.000E+00	1.139E+03	3.336E+03	1.461E+02	1.295E+02	1.143E+04
96589.91	3.336E+03	1.501E+02	0.000E+00	1.139E+03	3.336E+03	1.457E+02	1.292E+02	1.138E+04
97839.91	3.333E+03	1.498E+02	0.000E+00	1.139E+03	3.336E+03	1.454E+02	1.290E+02	1.133E+04
99089.91	3.336E+03	1.495E+02	0.000E+00	1.139E+03	3.336E+03	1.451E+02	1.287E+02	1.128E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
100339.9	3.333E+03	1.491E+02	0.000E+00	1.139E+03	3.336E+03	1.448E+02	1.285E+02	1.123E+04
101589.9	3.335E+03	1.488E+02	0.000E+00	1.139E+03	3.336E+03	1.445E+02	1.282E+02	1.120E+04
102839.9	3.334E+03	1.485E+02	0.000E+00	1.138E+03	3.336E+03	1.442E+02	1.280E+02	1.118E+04
104089.7	3.337E+03	1.483E+02	0.000E+00	1.138E+03	3.336E+03	1.440E+02	1.278E+02	1.115E+04
105339.7	3.338E+03	1.480E+02	0.000E+00	1.138E+03	3.336E+03	1.437E+02	1.276E+02	1.112E+04
106589.7	3.337E+03	1.477E+02	0.000E+00	1.138E+03	3.336E+03	1.434E+02	1.274E+02	1.110E+04
107839.7	3.336E+03	1.475E+02	0.000E+00	1.138E+03	3.336E+03	1.432E+02	1.272E+02	1.107E+04
109089.7	3.338E+03	1.472E+02	0.000E+00	1.138E+03	3.336E+03	1.430E+02	1.270E+02	1.104E+04
110339.7	3.338E+03	1.470E+02	0.000E+00	1.138E+03	3.336E+03	1.428E+02	1.268E+02	1.101E+04
111589.7	3.337E+03	1.468E+02	0.000E+00	1.138E+03	3.336E+03	1.426E+02	1.266E+02	1.099E+04
112839.7	3.338E+03	1.466E+02	0.000E+00	1.138E+03	3.336E+03	1.424E+02	1.265E+02	1.096E+04
114089.7	3.338E+03	1.464E+02	0.000E+00	1.138E+03	3.336E+03	1.422E+02	1.263E+02	1.093E+04
115339.7	3.331E+03	1.462E+02	0.000E+00	1.137E+03	3.336E+03	1.420E+02	1.262E+02	1.091E+04
116589.7	3.336E+03	1.460E+02	0.000E+00	1.137E+03	3.336E+03	1.418E+02	1.260E+02	1.088E+04
117839.7	3.337E+03	1.458E+02	0.000E+00	1.137E+03	3.336E+03	1.416E+02	1.258E+02	1.085E+04
119055.5	3.337E+03	1.456E+02	0.000E+00	1.137E+03	3.336E+03	1.414E+02	1.257E+02	1.083E+04
120305.5	3.337E+03	1.454E+02	0.000E+00	1.137E+03	3.336E+03	1.412E+02	1.255E+02	1.080E+04
121555.5	3.336E+03	1.452E+02	0.000E+00	1.137E+03	3.336E+03	1.410E+02	1.254E+02	1.077E+04
122802	3.336E+03	1.450E+02	0.000E+00	1.137E+03	3.336E+03	1.408E+02	1.252E+02	1.075E+04
124052	3.336E+03	1.448E+02	0.000E+00	1.137E+03	3.336E+03	1.407E+02	1.251E+02	1.072E+04
125302	3.334E+03	1.446E+02	0.000E+00	1.137E+03	3.336E+03	1.405E+02	1.249E+02	1.069E+04
126552	3.336E+03	1.444E+02	0.000E+00	1.137E+03	3.336E+03	1.403E+02	1.248E+02	1.067E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
127802	3.333E+03	1.443E+02	0.000E+00	1.137E+03	3.336E+03	1.401E+02	1.247E+02	1.064E+04
129052	3.334E+03	1.441E+02	0.000E+00	1.137E+03	3.336E+03	1.400E+02	1.245E+02	1.061E+04
130302	3.334E+03	1.439E+02	0.000E+00	1.137E+03	3.336E+03	1.398E+02	1.244E+02	1.059E+04
131552	3.336E+03	1.437E+02	0.000E+00	1.136E+03	3.336E+03	1.396E+02	1.242E+02	1.056E+04
132802	3.335E+03	1.435E+02	0.000E+00	1.136E+03	3.336E+03	1.394E+02	1.241E+02	1.053E+04
134052	3.336E+03	1.433E+02	0.000E+00	1.136E+03	3.336E+03	1.393E+02	1.239E+02	1.050E+04
135302	3.336E+03	1.432E+02	0.000E+00	1.136E+03	3.336E+03	1.391E+02	1.238E+02	1.048E+04
136552	3.339E+03	1.430E+02	0.000E+00	1.136E+03	3.336E+03	1.389E+02	1.237E+02	1.045E+04
137802	3.333E+03	1.428E+02	0.000E+00	1.136E+03	3.336E+03	1.388E+02	1.235E+02	1.042E+04
139052	3.333E+03	1.426E+02	0.000E+00	1.136E+03	3.336E+03	1.386E+02	1.234E+02	1.040E+04
140302	3.336E+03	1.425E+02	0.000E+00	1.136E+03	3.336E+03	1.384E+02	1.233E+02	1.037E+04
141552	3.336E+03	1.423E+02	0.000E+00	1.136E+03	3.336E+03	1.382E+02	1.231E+02	1.034E+04
142802	3.335E+03	1.421E+02	0.000E+00	1.136E+03	3.336E+03	1.381E+02	1.230E+02	1.032E+04
144052	3.335E+03	1.419E+02	0.000E+00	1.136E+03	3.336E+03	1.379E+02	1.229E+02	1.029E+04
145302	3.336E+03	1.418E+02	0.000E+00	1.136E+03	3.336E+03	1.378E+02	1.227E+02	1.026E+04
146552	3.336E+03	1.416E+02	0.000E+00	1.136E+03	3.336E+03	1.376E+02	1.226E+02	1.024E+04
147802	3.336E+03	1.414E+02	0.000E+00	1.136E+03	3.336E+03	1.374E+02	1.225E+02	1.021E+04
149052	3.335E+03	1.413E+02	0.000E+00	1.136E+03	3.336E+03	1.373E+02	1.223E+02	1.018E+04
150302	3.336E+03	1.411E+02	0.000E+00	1.135E+03	3.336E+03	1.371E+02	1.222E+02	1.015E+04
151552	3.335E+03	1.409E+02	0.000E+00	1.135E+03	3.336E+03	1.369E+02	1.221E+02	1.013E+04
152802	3.337E+03	1.408E+02	0.000E+00	1.135E+03	3.336E+03	1.368E+02	1.219E+02	1.010E+04
154052	3.335E+03	1.406E+02	0.000E+00	1.135E+03	3.336E+03	1.366E+02	1.218E+02	1.007E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
155302	3.336E+03	1.404E+02	0.000E+00	1.135E+03	3.336E+03	1.365E+02	1.217E+02	1.005E+04
156552	3.335E+03	1.402E+02	0.000E+00	1.135E+03	3.336E+03	1.363E+02	1.215E+02	1.002E+04
157802	3.335E+03	1.401E+02	0.000E+00	1.135E+03	3.336E+03	1.361E+02	1.214E+02	9.994E+03
159052	3.334E+03	1.399E+02	0.000E+00	1.135E+03	3.336E+03	1.360E+02	1.213E+02	9.967E+03
160302	3.334E+03	1.397E+02	0.000E+00	1.135E+03	3.336E+03	1.358E+02	1.212E+02	9.940E+03
161552	3.334E+03	1.396E+02	0.000E+00	1.135E+03	3.336E+03	1.357E+02	1.210E+02	9.913E+03
162802	3.335E+03	1.394E+02	0.000E+00	1.135E+03	3.336E+03	1.355E+02	1.209E+02	9.886E+03
164052	3.333E+03	1.392E+02	0.000E+00	1.135E+03	3.336E+03	1.354E+02	1.208E+02	9.859E+03
165302	3.334E+03	1.391E+02	0.000E+00	1.135E+03	3.336E+03	1.352E+02	1.206E+02	9.832E+03
166552	3.330E+03	1.389E+02	0.000E+00	1.135E+03	3.336E+03	1.350E+02	1.205E+02	9.805E+03
167802	3.333E+03	1.387E+02	0.000E+00	1.135E+03	3.336E+03	1.349E+02	1.204E+02	9.778E+03
169052	3.336E+03	1.386E+02	0.000E+00	1.134E+03	3.336E+03	1.347E+02	1.203E+02	9.752E+03
170302	3.336E+03	1.384E+02	0.000E+00	1.134E+03	3.336E+03	1.346E+02	1.201E+02	9.725E+03
171552	3.336E+03	1.383E+02	0.000E+00	1.134E+03	3.336E+03	1.344E+02	1.200E+02	9.698E+03
172802	3.333E+03	1.381E+02	0.000E+00	1.134E+03	3.336E+03	1.343E+02	1.199E+02	9.671E+03
174052	3.333E+03	1.379E+02	0.000E+00	1.134E+03	3.336E+03	1.341E+02	1.197E+02	9.644E+03
175302	3.336E+03	1.378E+02	0.000E+00	1.134E+03	3.336E+03	1.340E+02	1.196E+02	9.617E+03
176552	3.335E+03	1.376E+02	0.000E+00	1.134E+03	3.336E+03	1.338E+02	1.195E+02	9.590E+03
177802	3.336E+03	1.374E+02	0.000E+00	1.134E+03	3.336E+03	1.336E+02	1.194E+02	9.563E+03
179052	3.335E+03	1.373E+02	0.000E+00	1.134E+03	3.336E+03	1.335E+02	1.192E+02	9.536E+03
180302	3.331E+03	1.371E+02	0.000E+00	1.134E+03	3.336E+03	1.333E+02	1.191E+02	9.510E+03
181552	3.335E+03	1.370E+02	0.000E+00	1.134E+03	3.336E+03	1.332E+02	1.190E+02	9.483E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
182802	3.336E+03	1.368E+02	0.000E+00	1.134E+03	3.336E+03	1.330E+02	1.189E+02	9.456E+03
184052	3.336E+03	1.366E+02	0.000E+00	1.134E+03	3.336E+03	1.329E+02	1.187E+02	9.429E+03
185302	3.336E+03	1.365E+02	0.000E+00	1.134E+03	3.336E+03	1.327E+02	1.186E+02	9.402E+03
186552	3.334E+03	1.363E+02	0.000E+00	1.134E+03	3.336E+03	1.326E+02	1.185E+02	9.375E+03
187802	3.332E+03	1.361E+02	0.000E+00	1.133E+03	3.336E+03	1.324E+02	1.184E+02	9.348E+03
189052	3.335E+03	1.360E+02	0.000E+00	1.133E+03	3.336E+03	1.323E+02	1.182E+02	9.321E+03
190302	3.336E+03	1.358E+02	0.000E+00	1.133E+03	3.336E+03	1.321E+02	1.181E+02	9.294E+03
191552	3.335E+03	1.357E+02	0.000E+00	1.133E+03	3.336E+03	1.319E+02	1.180E+02	9.268E+03
192802	3.336E+03	1.355E+02	0.000E+00	1.133E+03	3.336E+03	1.318E+02	1.179E+02	9.241E+03
194052	3.333E+03	1.353E+02	0.000E+00	1.133E+03	3.336E+03	1.316E+02	1.177E+02	9.214E+03
195302	3.335E+03	1.352E+02	0.000E+00	1.133E+03	3.336E+03	1.315E+02	1.176E+02	9.187E+03
196552	3.333E+03	1.350E+02	0.000E+00	1.133E+03	3.336E+03	1.313E+02	1.175E+02	9.160E+03
197802	3.332E+03	1.348E+02	0.000E+00	1.133E+03	3.336E+03	1.312E+02	1.174E+02	9.133E+03
199052	3.336E+03	1.347E+02	0.000E+00	1.133E+03	3.336E+03	1.310E+02	1.172E+02	9.106E+03
200302	3.338E+03	1.345E+02	0.000E+00	1.133E+03	3.336E+03	1.309E+02	1.171E+02	9.083E+03
201552	3.336E+03	1.344E+02	0.000E+00	1.133E+03	3.336E+03	1.307E+02	1.170E+02	9.070E+03
202802	3.335E+03	1.342E+02	0.000E+00	1.133E+03	3.336E+03	1.306E+02	1.169E+02	9.058E+03
204052	3.337E+03	1.341E+02	0.000E+00	1.133E+03	3.336E+03	1.304E+02	1.167E+02	9.046E+03
205302	3.333E+03	1.339E+02	0.000E+00	1.133E+03	3.336E+03	1.303E+02	1.166E+02	9.033E+03
206552	3.333E+03	1.338E+02	0.000E+00	1.133E+03	3.336E+03	1.301E+02	1.165E+02	9.021E+03
207802	3.336E+03	1.336E+02	0.000E+00	1.132E+03	3.336E+03	1.300E+02	1.164E+02	9.008E+03
209052	3.336E+03	1.335E+02	0.000E+00	1.132E+03	3.336E+03	1.299E+02	1.163E+02	8.996E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
210302	3.334E+03	1.334E+02	0.000E+00	1.132E+03	3.336E+03	1.297E+02	1.162E+02	8.983E+03
211552	3.334E+03	1.332E+02	0.000E+00	1.132E+03	3.336E+03	1.296E+02	1.161E+02	8.971E+03
212802	3.337E+03	1.331E+02	0.000E+00	1.132E+03	3.336E+03	1.295E+02	1.160E+02	8.959E+03
214052	3.336E+03	1.330E+02	0.000E+00	1.132E+03	3.336E+03	1.294E+02	1.159E+02	8.946E+03
215302	3.336E+03	1.328E+02	0.000E+00	1.132E+03	3.336E+03	1.292E+02	1.158E+02	8.934E+03
216552	3.335E+03	1.327E+02	0.000E+00	1.132E+03	3.336E+03	1.291E+02	1.157E+02	8.921E+03
217802	3.335E+03	1.326E+02	0.000E+00	1.132E+03	3.336E+03	1.290E+02	1.156E+02	8.909E+03
219052	3.333E+03	1.325E+02	0.000E+00	1.132E+03	3.336E+03	1.289E+02	1.155E+02	8.896E+03
220302	3.336E+03	1.324E+02	0.000E+00	1.132E+03	3.336E+03	1.288E+02	1.154E+02	8.884E+03
221552	3.336E+03	1.323E+02	0.000E+00	1.132E+03	3.336E+03	1.287E+02	1.153E+02	8.872E+03
222802	3.337E+03	1.321E+02	0.000E+00	1.132E+03	3.336E+03	1.286E+02	1.152E+02	8.859E+03
224052	3.334E+03	1.320E+02	0.000E+00	1.132E+03	3.336E+03	1.284E+02	1.151E+02	8.847E+03
225302	3.334E+03	1.319E+02	0.000E+00	1.132E+03	3.336E+03	1.283E+02	1.151E+02	8.834E+03
226552	3.335E+03	1.318E+02	0.000E+00	1.132E+03	3.336E+03	1.282E+02	1.150E+02	8.822E+03
227802	3.335E+03	1.317E+02	0.000E+00	1.132E+03	3.336E+03	1.281E+02	1.149E+02	8.809E+03
229052	3.340E+03	1.316E+02	0.000E+00	1.132E+03	3.336E+03	1.280E+02	1.148E+02	8.797E+03
230302	3.333E+03	1.315E+02	0.000E+00	1.132E+03	3.336E+03	1.279E+02	1.147E+02	8.784E+03
231552	3.333E+03	1.314E+02	0.000E+00	1.132E+03	3.336E+03	1.278E+02	1.146E+02	8.772E+03
232802	3.336E+03	1.313E+02	0.000E+00	1.132E+03	3.336E+03	1.277E+02	1.146E+02	8.760E+03
234047.9	3.337E+03	1.312E+02	0.000E+00	1.131E+03	3.336E+03	1.276E+02	1.145E+02	8.747E+03
235297.9	3.337E+03	1.311E+02	0.000E+00	1.131E+03	3.336E+03	1.275E+02	1.144E+02	8.735E+03
236547.9	3.338E+03	1.310E+02	0.000E+00	1.131E+03	3.336E+03	1.274E+02	1.143E+02	8.722E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
237797.9	3.338E+03	1.309E+02	0.000E+00	1.131E+03	3.336E+03	1.273E+02	1.142E+02	8.710E+03
239047.9	3.337E+03	1.308E+02	0.000E+00	1.131E+03	3.336E+03	1.272E+02	1.142E+02	8.698E+03
240297.9	3.338E+03	1.307E+02	0.000E+00	1.131E+03	3.336E+03	1.272E+02	1.141E+02	8.685E+03
241547.9	3.336E+03	1.306E+02	0.000E+00	1.131E+03	3.336E+03	1.271E+02	1.140E+02	8.673E+03
242797.9	3.338E+03	1.305E+02	0.000E+00	1.131E+03	3.336E+03	1.270E+02	1.139E+02	8.660E+03
244047.9	3.337E+03	1.304E+02	0.000E+00	1.131E+03	3.336E+03	1.269E+02	1.139E+02	8.648E+03
245297.9	3.336E+03	1.303E+02	0.000E+00	1.131E+03	3.336E+03	1.268E+02	1.138E+02	8.635E+03
246547.9	3.336E+03	1.302E+02	0.000E+00	1.131E+03	3.336E+03	1.267E+02	1.137E+02	8.623E+03
247797.9	3.335E+03	1.301E+02	0.000E+00	1.131E+03	3.336E+03	1.266E+02	1.137E+02	8.611E+03
249047.9	3.336E+03	1.300E+02	0.000E+00	1.131E+03	3.336E+03	1.265E+02	1.136E+02	8.598E+03
250297.9	3.336E+03	1.300E+02	0.000E+00	1.131E+03	3.336E+03	1.265E+02	1.135E+02	8.586E+03
251547.9	3.336E+03	1.299E+02	0.000E+00	1.131E+03	3.336E+03	1.264E+02	1.134E+02	8.573E+03
252797.9	3.338E+03	1.298E+02	0.000E+00	1.131E+03	3.336E+03	1.263E+02	1.134E+02	8.561E+03
254047.9	3.337E+03	1.297E+02	0.000E+00	1.131E+03	3.336E+03	1.262E+02	1.133E+02	8.548E+03
255297.9	3.341E+03	1.296E+02	0.000E+00	1.131E+03	3.336E+03	1.261E+02	1.132E+02	8.536E+03
256547.9	3.336E+03	1.295E+02	0.000E+00	1.131E+03	3.336E+03	1.260E+02	1.132E+02	8.524E+03
257797.9	3.336E+03	1.294E+02	0.000E+00	1.131E+03	3.336E+03	1.260E+02	1.131E+02	8.511E+03
259047.9	3.334E+03	1.293E+02	0.000E+00	1.131E+03	3.336E+03	1.258E+02	1.130E+02	8.499E+03
260297.9	3.337E+03	1.291E+02	0.000E+00	1.131E+03	3.336E+03	1.256E+02	1.129E+02	8.486E+03
261547.9	3.338E+03	1.290E+02	0.000E+00	1.131E+03	3.336E+03	1.255E+02	1.127E+02	8.474E+03
262797.8	3.333E+03	1.288E+02	0.000E+00	1.131E+03	3.336E+03	1.253E+02	1.126E+02	8.461E+03
264047.8	3.340E+03	1.287E+02	0.000E+00	1.130E+03	3.336E+03	1.252E+02	1.125E+02	8.449E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
265297.8	3.335E+03	1.285E+02	0.000E+00	1.130E+03	3.336E+03	1.251E+02	1.124E+02	8.437E+03
266547.8	3.338E+03	1.284E+02	0.000E+00	1.130E+03	3.336E+03	1.249E+02	1.123E+02	8.424E+03
267797.8	3.336E+03	1.282E+02	0.000E+00	1.130E+03	3.336E+03	1.248E+02	1.122E+02	8.412E+03
269047.8	3.337E+03	1.281E+02	0.000E+00	1.130E+03	3.336E+03	1.247E+02	1.121E+02	8.399E+03
270297.8	3.338E+03	1.280E+02	0.000E+00	1.130E+03	3.336E+03	1.245E+02	1.120E+02	8.387E+03
271547.8	3.340E+03	1.278E+02	0.000E+00	1.130E+03	3.336E+03	1.244E+02	1.118E+02	8.374E+03
272797.8	3.337E+03	1.277E+02	0.000E+00	1.130E+03	3.336E+03	1.243E+02	1.117E+02	8.362E+03
274047.8	3.338E+03	1.276E+02	0.000E+00	1.130E+03	3.336E+03	1.242E+02	1.117E+02	8.350E+03
275297.8	3.337E+03	1.275E+02	0.000E+00	1.130E+03	3.336E+03	1.240E+02	1.116E+02	8.337E+03
276547.8	3.336E+03	1.274E+02	0.000E+00	1.130E+03	3.336E+03	1.239E+02	1.115E+02	8.325E+03
277797.8	3.335E+03	1.272E+02	0.000E+00	1.130E+03	3.336E+03	1.238E+02	1.114E+02	8.312E+03
279047.8	3.337E+03	1.271E+02	0.000E+00	1.130E+03	3.336E+03	1.237E+02	1.113E+02	8.300E+03
280297.8	3.334E+03	1.270E+02	0.000E+00	1.130E+03	3.336E+03	1.236E+02	1.112E+02	8.287E+03
281547.8	3.336E+03	1.269E+02	0.000E+00	1.130E+03	3.336E+03	1.235E+02	1.111E+02	8.275E+03
282797.8	3.337E+03	1.268E+02	0.000E+00	1.130E+03	3.336E+03	1.234E+02	1.110E+02	8.263E+03
284047.8	3.339E+03	1.267E+02	0.000E+00	1.130E+03	3.336E+03	1.233E+02	1.109E+02	8.250E+03
285297.8	3.337E+03	1.266E+02	0.000E+00	1.130E+03	3.336E+03	1.232E+02	1.108E+02	8.238E+03
286547.8	3.337E+03	1.265E+02	0.000E+00	1.130E+03	3.336E+03	1.231E+02	1.108E+02	8.225E+03
287797.8	3.338E+03	1.263E+02	0.000E+00	1.130E+03	3.336E+03	1.230E+02	1.107E+02	8.213E+03
289047.8	3.336E+03	1.262E+02	0.000E+00	1.129E+03	3.336E+03	1.229E+02	1.106E+02	8.200E+03
290297.8	3.338E+03	1.261E+02	0.000E+00	1.129E+03	3.336E+03	1.228E+02	1.105E+02	8.188E+03
291547.8	3.336E+03	1.260E+02	0.000E+00	1.129E+03	3.336E+03	1.227E+02	1.104E+02	8.176E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
292797.8	3.337E+03	1.259E+02	0.000E+00	1.129E+03	3.336E+03	1.226E+02	1.104E+02	8.163E+03
294047.8	3.338E+03	1.258E+02	0.000E+00	1.129E+03	3.336E+03	1.225E+02	1.103E+02	8.151E+03
295297.8	3.340E+03	1.257E+02	0.000E+00	1.129E+03	3.336E+03	1.224E+02	1.102E+02	8.138E+03
296547.8	3.336E+03	1.256E+02	0.000E+00	1.129E+03	3.336E+03	1.223E+02	1.101E+02	8.126E+03
297797.8	3.337E+03	1.256E+02	0.000E+00	1.129E+03	3.336E+03	1.222E+02	1.100E+02	8.113E+03
299047.8	3.338E+03	1.255E+02	0.000E+00	1.129E+03	3.336E+03	1.221E+02	1.100E+02	8.101E+03
300297.8	3.337E+03	1.254E+02	0.000E+00	1.129E+03	3.336E+03	1.220E+02	1.099E+02	8.089E+03
301547.8	3.336E+03	1.253E+02	0.000E+00	1.129E+03	3.336E+03	1.219E+02	1.098E+02	8.076E+03
302797.8	3.339E+03	1.252E+02	0.000E+00	1.129E+03	3.336E+03	1.218E+02	1.098E+02	8.064E+03
304047.8	3.337E+03	1.251E+02	0.000E+00	1.129E+03	3.336E+03	1.217E+02	1.097E+02	8.051E+03
305297.8	3.337E+03	1.250E+02	0.000E+00	1.129E+03	3.336E+03	1.216E+02	1.096E+02	8.039E+03
306547.8	3.336E+03	1.249E+02	0.000E+00	1.129E+03	3.336E+03	1.216E+02	1.095E+02	8.026E+03
307797.8	3.335E+03	1.248E+02	0.000E+00	1.129E+03	3.336E+03	1.215E+02	1.095E+02	8.014E+03
309047.8	3.337E+03	1.247E+02	0.000E+00	1.129E+03	3.336E+03	1.214E+02	1.094E+02	8.001E+03
310297.8	3.337E+03	1.246E+02	0.000E+00	1.129E+03	3.336E+03	1.213E+02	1.093E+02	7.989E+03
311547.8	3.338E+03	1.246E+02	0.000E+00	1.129E+03	3.336E+03	1.212E+02	1.093E+02	7.977E+03
312797.8	3.337E+03	1.245E+02	0.000E+00	1.129E+03	3.336E+03	1.211E+02	1.092E+02	7.964E+03
314047.8	3.335E+03	1.244E+02	0.000E+00	1.129E+03	3.336E+03	1.211E+02	1.091E+02	7.952E+03
315297.8	3.338E+03	1.243E+02	0.000E+00	1.129E+03	3.336E+03	1.210E+02	1.091E+02	7.939E+03
316547.8	3.337E+03	1.242E+02	0.000E+00	1.129E+03	3.336E+03	1.209E+02	1.090E+02	7.927E+03
317797.8	3.340E+03	1.241E+02	0.000E+00	1.129E+03	3.336E+03	1.208E+02	1.089E+02	7.914E+03
319047.8	3.338E+03	1.240E+02	0.000E+00	1.129E+03	3.336E+03	1.207E+02	1.089E+02	7.902E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
320297.8	3.337E+03	1.240E+02	0.000E+00	1.129E+03	3.336E+03	1.207E+02	1.088E+02	7.890E+03
321547.8	3.337E+03	1.239E+02	0.000E+00	1.129E+03	3.336E+03	1.206E+02	1.087E+02	7.877E+03
322797.8	3.336E+03	1.238E+02	0.000E+00	1.128E+03	3.336E+03	1.205E+02	1.087E+02	7.865E+03
324047.8	3.337E+03	1.237E+02	0.000E+00	1.128E+03	3.336E+03	1.204E+02	1.086E+02	7.852E+03
325297.8	3.337E+03	1.236E+02	0.000E+00	1.128E+03	3.336E+03	1.203E+02	1.085E+02	7.840E+03
326547.8	3.337E+03	1.235E+02	0.000E+00	1.128E+03	3.336E+03	1.203E+02	1.085E+02	7.827E+03
327797.8	3.337E+03	1.235E+02	0.000E+00	1.128E+03	3.336E+03	1.202E+02	1.084E+02	7.815E+03
329047.8	3.336E+03	1.234E+02	0.000E+00	1.128E+03	3.336E+03	1.201E+02	1.083E+02	7.803E+03
330297.8	3.336E+03	1.233E+02	0.000E+00	1.128E+03	3.336E+03	1.200E+02	1.083E+02	7.790E+03
331547.8	3.337E+03	1.232E+02	0.000E+00	1.128E+03	3.336E+03	1.200E+02	1.082E+02	7.778E+03
332797.8	3.336E+03	1.231E+02	0.000E+00	1.128E+03	3.336E+03	1.199E+02	1.082E+02	7.765E+03
334047.8	3.337E+03	1.231E+02	0.000E+00	1.128E+03	3.336E+03	1.198E+02	1.081E+02	7.753E+03
335297.8	3.337E+03	1.230E+02	0.000E+00	1.128E+03	3.336E+03	1.197E+02	1.080E+02	7.740E+03
336547.8	3.337E+03	1.229E+02	0.000E+00	1.128E+03	3.336E+03	1.196E+02	1.080E+02	7.728E+03
337797.8	3.336E+03	1.228E+02	0.000E+00	1.128E+03	3.336E+03	1.196E+02	1.079E+02	7.716E+03
339047.8	3.337E+03	1.227E+02	0.000E+00	1.128E+03	3.336E+03	1.195E+02	1.078E+02	7.703E+03
340297.8	3.336E+03	1.227E+02	0.000E+00	1.128E+03	3.336E+03	1.194E+02	1.078E+02	7.691E+03
341547.8	3.336E+03	1.226E+02	0.000E+00	1.128E+03	3.336E+03	1.193E+02	1.077E+02	7.678E+03
342797.8	3.334E+03	1.225E+02	0.000E+00	1.128E+03	3.336E+03	1.193E+02	1.077E+02	7.666E+03
344047.8	3.337E+03	1.224E+02	0.000E+00	1.128E+03	3.336E+03	1.192E+02	1.076E+02	7.653E+03
345297.8	3.338E+03	1.223E+02	0.000E+00	1.128E+03	3.336E+03	1.191E+02	1.075E+02	7.641E+03
346547.8	3.336E+03	1.223E+02	0.000E+00	1.128E+03	3.336E+03	1.190E+02	1.075E+02	7.629E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
347797.8	3.340E+03	1.222E+02	0.000E+00	1.128E+03	3.336E+03	1.190E+02	1.074E+02	7.616E+03
349047.8	3.336E+03	1.221E+02	0.000E+00	1.128E+03	3.336E+03	1.189E+02	1.073E+02	7.604E+03
350297.8	3.338E+03	1.220E+02	0.000E+00	1.128E+03	3.336E+03	1.188E+02	1.073E+02	7.591E+03
351547.8	3.337E+03	1.219E+02	0.000E+00	1.128E+03	3.336E+03	1.187E+02	1.072E+02	7.579E+03
352797.8	3.336E+03	1.219E+02	0.000E+00	1.128E+03	3.336E+03	1.187E+02	1.072E+02	7.566E+03
354047.8	3.337E+03	1.218E+02	0.000E+00	1.128E+03	3.336E+03	1.186E+02	1.071E+02	7.554E+03
355297.8	3.337E+03	1.217E+02	0.000E+00	1.128E+03	3.336E+03	1.185E+02	1.070E+02	7.542E+03
356547.8	3.337E+03	1.216E+02	0.000E+00	1.128E+03	3.336E+03	1.184E+02	1.070E+02	7.529E+03
357797.8	3.337E+03	1.215E+02	0.000E+00	1.128E+03	3.336E+03	1.184E+02	1.069E+02	7.517E+03
359047.8	3.337E+03	1.215E+02	0.000E+00	1.128E+03	3.336E+03	1.183E+02	1.069E+02	7.504E+03
360297.8	3.337E+03	1.214E+02	0.000E+00	1.128E+03	3.336E+03	1.182E+02	1.068E+02	7.492E+03
361547.8	3.338E+03	1.213E+02	0.000E+00	1.127E+03	3.336E+03	1.181E+02	1.067E+02	7.479E+03
362797.8	3.336E+03	1.212E+02	0.000E+00	1.127E+03	3.336E+03	1.181E+02	1.067E+02	7.467E+03
364047.8	3.337E+03	1.211E+02	0.000E+00	1.127E+03	3.336E+03	1.180E+02	1.066E+02	7.455E+03
365297.8	3.338E+03	1.211E+02	0.000E+00	1.127E+03	3.336E+03	1.179E+02	1.066E+02	7.442E+03
366547.8	3.337E+03	1.210E+02	0.000E+00	1.127E+03	3.336E+03	1.178E+02	1.065E+02	7.430E+03
367797.8	3.338E+03	1.209E+02	0.000E+00	1.127E+03	3.336E+03	1.178E+02	1.064E+02	7.417E+03
369047.8	3.336E+03	1.208E+02	0.000E+00	1.127E+03	3.336E+03	1.177E+02	1.064E+02	7.405E+03
370297.8	3.336E+03	1.208E+02	0.000E+00	1.127E+03	3.336E+03	1.176E+02	1.063E+02	7.392E+03
371547.8	3.337E+03	1.207E+02	0.000E+00	1.127E+03	3.336E+03	1.175E+02	1.063E+02	7.380E+03
372797.8	3.337E+03	1.206E+02	0.000E+00	1.127E+03	3.336E+03	1.175E+02	1.062E+02	7.368E+03
374047.8	3.339E+03	1.205E+02	0.000E+00	1.127E+03	3.336E+03	1.174E+02	1.061E+02	7.355E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
375297.8	3.337E+03	1.205E+02	0.000E+00	1.127E+03	3.336E+03	1.173E+02	1.061E+02	7.343E+03
376547.8	3.338E+03	1.204E+02	0.000E+00	1.127E+03	3.336E+03	1.173E+02	1.060E+02	7.330E+03
377797.8	3.338E+03	1.203E+02	0.000E+00	1.127E+03	3.336E+03	1.172E+02	1.060E+02	7.318E+03
379047.8	3.337E+03	1.202E+02	0.000E+00	1.127E+03	3.336E+03	1.171E+02	1.059E+02	7.305E+03
380297.8	3.334E+03	1.202E+02	0.000E+00	1.127E+03	3.336E+03	1.170E+02	1.058E+02	7.293E+03
381547.8	3.337E+03	1.201E+02	0.000E+00	1.127E+03	3.336E+03	1.170E+02	1.058E+02	7.281E+03
382797.8	3.337E+03	1.200E+02	0.000E+00	1.127E+03	3.336E+03	1.169E+02	1.057E+02	7.268E+03
384047.8	3.337E+03	1.199E+02	0.000E+00	1.127E+03	3.336E+03	1.168E+02	1.057E+02	7.256E+03
385297.8	3.336E+03	1.198E+02	0.000E+00	1.127E+03	3.336E+03	1.167E+02	1.056E+02	7.243E+03
386547.8	3.336E+03	1.198E+02	0.000E+00	1.127E+03	3.336E+03	1.167E+02	1.055E+02	7.231E+03
387797.8	3.337E+03	1.197E+02	0.000E+00	1.127E+03	3.336E+03	1.166E+02	1.055E+02	7.218E+03
389047.8	3.337E+03	1.196E+02	0.000E+00	1.127E+03	3.336E+03	1.165E+02	1.054E+02	7.206E+03
390297.8	3.337E+03	1.195E+02	0.000E+00	1.127E+03	3.336E+03	1.165E+02	1.054E+02	7.194E+03
391547.8	3.337E+03	1.195E+02	0.000E+00	1.127E+03	3.336E+03	1.164E+02	1.053E+02	7.181E+03
392797.8	3.337E+03	1.194E+02	0.000E+00	1.127E+03	3.336E+03	1.163E+02	1.053E+02	7.169E+03
394047.8	3.338E+03	1.193E+02	0.000E+00	1.127E+03	3.336E+03	1.162E+02	1.052E+02	7.156E+03
395297.8	3.337E+03	1.192E+02	0.000E+00	1.127E+03	3.336E+03	1.162E+02	1.051E+02	7.144E+03
396547.8	3.337E+03	1.192E+02	0.000E+00	1.127E+03	3.336E+03	1.161E+02	1.051E+02	7.131E+03
397797.8	3.338E+03	1.191E+02	0.000E+00	1.127E+03	3.336E+03	1.160E+02	1.050E+02	7.119E+03
399047.8	3.337E+03	1.190E+02	0.000E+00	1.127E+03	3.336E+03	1.160E+02	1.050E+02	7.107E+03
400297.8	3.337E+03	1.189E+02	0.000E+00	1.127E+03	3.336E+03	1.159E+02	1.049E+02	7.096E+03
401547.8	3.337E+03	1.189E+02	0.000E+00	1.126E+03	3.336E+03	1.158E+02	1.048E+02	7.091E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
402797.8	3.337E+03	1.188E+02	0.000E+00	1.126E+03	3.336E+03	1.158E+02	1.048E+02	7.087E+03
404047.8	3.337E+03	1.187E+02	0.000E+00	1.126E+03	3.336E+03	1.157E+02	1.047E+02	7.082E+03
405297.8	3.337E+03	1.187E+02	0.000E+00	1.126E+03	3.336E+03	1.156E+02	1.047E+02	7.078E+03
406547.8	3.338E+03	1.186E+02	0.000E+00	1.126E+03	3.336E+03	1.156E+02	1.046E+02	7.073E+03
407797.8	3.337E+03	1.185E+02	0.000E+00	1.126E+03	3.336E+03	1.155E+02	1.046E+02	7.069E+03
409047.8	3.337E+03	1.185E+02	0.000E+00	1.126E+03	3.336E+03	1.154E+02	1.045E+02	7.064E+03
410297.8	3.337E+03	1.184E+02	0.000E+00	1.126E+03	3.336E+03	1.154E+02	1.045E+02	7.059E+03
411547.8	3.337E+03	1.184E+02	0.000E+00	1.126E+03	3.336E+03	1.153E+02	1.044E+02	7.055E+03
412797.8	3.337E+03	1.183E+02	0.000E+00	1.126E+03	3.336E+03	1.153E+02	1.044E+02	7.050E+03
414047.8	3.337E+03	1.182E+02	0.000E+00	1.126E+03	3.336E+03	1.152E+02	1.044E+02	7.046E+03
415297.8	3.337E+03	1.182E+02	0.000E+00	1.126E+03	3.336E+03	1.152E+02	1.043E+02	7.041E+03
416547.8	3.338E+03	1.181E+02	0.000E+00	1.126E+03	3.336E+03	1.151E+02	1.043E+02	7.036E+03
417797.8	3.337E+03	1.181E+02	0.000E+00	1.126E+03	3.336E+03	1.151E+02	1.042E+02	7.032E+03
419047.8	3.337E+03	1.180E+02	0.000E+00	1.126E+03	3.336E+03	1.150E+02	1.042E+02	7.027E+03
420297.8	3.337E+03	1.180E+02	0.000E+00	1.126E+03	3.336E+03	1.150E+02	1.041E+02	7.023E+03
421547.8	3.337E+03	1.179E+02	0.000E+00	1.126E+03	3.336E+03	1.149E+02	1.041E+02	7.018E+03
422797.8	3.338E+03	1.179E+02	0.000E+00	1.126E+03	3.336E+03	1.149E+02	1.041E+02	7.013E+03
424047.8	3.337E+03	1.178E+02	0.000E+00	1.126E+03	3.336E+03	1.148E+02	1.040E+02	7.009E+03
425297.8	3.337E+03	1.178E+02	0.000E+00	1.126E+03	3.336E+03	1.148E+02	1.040E+02	7.004E+03
426547.8	3.336E+03	1.178E+02	0.000E+00	1.126E+03	3.336E+03	1.147E+02	1.040E+02	7.000E+03
427797.8	3.338E+03	1.177E+02	0.000E+00	1.126E+03	3.336E+03	1.147E+02	1.039E+02	6.995E+03
429047.8	3.337E+03	1.177E+02	0.000E+00	1.126E+03	3.336E+03	1.146E+02	1.039E+02	6.991E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
430297.8	3.337E+03	1.176E+02	0.000E+00	1.126E+03	3.336E+03	1.146E+02	1.039E+02	6.986E+03
431547.8	3.337E+03	1.176E+02	0.000E+00	1.126E+03	3.336E+03	1.146E+02	1.038E+02	6.981E+03
432797.8	3.338E+03	1.175E+02	0.000E+00	1.126E+03	3.336E+03	1.145E+02	1.038E+02	6.977E+03
434047.8	3.337E+03	1.175E+02	0.000E+00	1.126E+03	3.336E+03	1.145E+02	1.038E+02	6.972E+03
435297.8	3.337E+03	1.174E+02	0.000E+00	1.126E+03	3.336E+03	1.144E+02	1.037E+02	6.968E+03
436547.8	3.337E+03	1.174E+02	0.000E+00	1.126E+03	3.336E+03	1.144E+02	1.037E+02	6.963E+03
437797.8	3.337E+03	1.174E+02	0.000E+00	1.126E+03	3.336E+03	1.144E+02	1.037E+02	6.958E+03
439047.8	3.337E+03	1.173E+02	0.000E+00	1.126E+03	3.336E+03	1.143E+02	1.036E+02	6.954E+03
440294.2	3.337E+03	1.173E+02	0.000E+00	1.126E+03	3.336E+03	1.143E+02	1.036E+02	6.949E+03
441544.2	3.336E+03	1.172E+02	0.000E+00	1.126E+03	3.336E+03	1.142E+02	1.036E+02	6.945E+03
442794.2	3.337E+03	1.172E+02	0.000E+00	1.126E+03	3.336E+03	1.142E+02	1.035E+02	6.940E+03
444044.2	3.337E+03	1.172E+02	0.000E+00	1.126E+03	3.336E+03	1.142E+02	1.035E+02	6.936E+03
445294.2	3.337E+03	1.171E+02	0.000E+00	1.126E+03	3.336E+03	1.141E+02	1.035E+02	6.931E+03
446544.2	3.336E+03	1.171E+02	0.000E+00	1.126E+03	3.336E+03	1.141E+02	1.034E+02	6.926E+03
447794.2	3.337E+03	1.171E+02	0.000E+00	1.126E+03	3.336E+03	1.141E+02	1.034E+02	6.922E+03
449044.2	3.337E+03	1.170E+02	0.000E+00	1.126E+03	3.336E+03	1.140E+02	1.034E+02	6.917E+03
450295.5	3.336E+03	1.170E+02	0.000E+00	1.126E+03	3.336E+03	1.140E+02	1.034E+02	6.913E+03
451545.5	3.333E+03	1.170E+02	0.000E+00	1.126E+03	3.336E+03	1.140E+02	1.033E+02	6.908E+03
452795.5	3.335E+03	1.169E+02	0.000E+00	1.126E+03	3.336E+03	1.139E+02	1.033E+02	6.903E+03
454045.5	3.335E+03	1.169E+02	0.000E+00	1.126E+03	3.336E+03	1.139E+02	1.033E+02	6.899E+03
455295.5	3.334E+03	1.168E+02	0.000E+00	1.126E+03	3.336E+03	1.139E+02	1.032E+02	6.894E+03
456545.5	3.333E+03	1.168E+02	0.000E+00	1.126E+03	3.336E+03	1.138E+02	1.032E+02	6.890E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
457795.5	3.335E+03	1.168E+02	0.000E+00	1.126E+03	3.336E+03	1.138E+02	1.032E+02	6.885E+03
459045.5	3.333E+03	1.168E+02	0.000E+00	1.126E+03	3.336E+03	1.138E+02	1.032E+02	6.881E+03
460295.5	3.336E+03	1.167E+02	0.000E+00	1.126E+03	3.336E+03	1.137E+02	1.031E+02	6.876E+03
461545.5	3.333E+03	1.167E+02	0.000E+00	1.126E+03	3.336E+03	1.137E+02	1.031E+02	6.871E+03
462795.5	3.335E+03	1.167E+02	0.000E+00	1.126E+03	3.336E+03	1.137E+02	1.031E+02	6.867E+03
464045.5	3.336E+03	1.166E+02	0.000E+00	1.126E+03	3.336E+03	1.136E+02	1.031E+02	6.862E+03
465295.5	3.335E+03	1.166E+02	0.000E+00	1.126E+03	3.336E+03	1.136E+02	1.030E+02	6.858E+03
466545.5	3.335E+03	1.166E+02	0.000E+00	1.126E+03	3.336E+03	1.136E+02	1.030E+02	6.853E+03
467795.5	3.334E+03	1.165E+02	0.000E+00	1.126E+03	3.336E+03	1.136E+02	1.030E+02	6.848E+03
469045.5	3.333E+03	1.165E+02	0.000E+00	1.126E+03	3.336E+03	1.135E+02	1.030E+02	6.844E+03
470295.5	3.335E+03	1.165E+02	0.000E+00	1.125E+03	3.336E+03	1.135E+02	1.030E+02	6.839E+03
471545.5	3.335E+03	1.164E+02	0.000E+00	1.125E+03	3.336E+03	1.135E+02	1.029E+02	6.835E+03
472795.5	3.335E+03	1.164E+02	0.000E+00	1.125E+03	3.336E+03	1.134E+02	1.029E+02	6.830E+03
474045.5	3.335E+03	1.164E+02	0.000E+00	1.125E+03	3.336E+03	1.134E+02	1.029E+02	6.825E+03
475295.5	3.335E+03	1.164E+02	0.000E+00	1.125E+03	3.336E+03	1.134E+02	1.029E+02	6.821E+03
476545.5	3.333E+03	1.163E+02	0.000E+00	1.125E+03	3.336E+03	1.134E+02	1.028E+02	6.816E+03
477795.5	3.335E+03	1.163E+02	0.000E+00	1.125E+03	3.336E+03	1.133E+02	1.028E+02	6.812E+03
479045.5	3.334E+03	1.163E+02	0.000E+00	1.125E+03	3.336E+03	1.133E+02	1.028E+02	6.807E+03
480295.5	3.336E+03	1.162E+02	0.000E+00	1.125E+03	3.336E+03	1.133E+02	1.028E+02	6.803E+03
481545.5	3.335E+03	1.162E+02	0.000E+00	1.125E+03	3.336E+03	1.133E+02	1.028E+02	6.798E+03
482795.5	3.335E+03	1.162E+02	0.000E+00	1.125E+03	3.336E+03	1.133E+02	1.028E+02	6.793E+03
484045.5	3.335E+03	1.162E+02	0.000E+00	1.125E+03	3.336E+03	1.132E+02	1.028E+02	6.789E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
485295.5	3.336E+03	1.162E+02	0.000E+00	1.125E+03	3.336E+03	1.132E+02	1.027E+02	6.784E+03
486545.3	3.337E+03	1.161E+02	0.000E+00	1.125E+03	3.336E+03	1.132E+02	1.027E+02	6.780E+03
487795.3	3.337E+03	1.161E+02	0.000E+00	1.125E+03	3.336E+03	1.132E+02	1.027E+02	6.775E+03
489045.3	3.337E+03	1.161E+02	0.000E+00	1.125E+03	3.336E+03	1.132E+02	1.027E+02	6.770E+03
490295.3	3.337E+03	1.161E+02	0.000E+00	1.125E+03	3.336E+03	1.131E+02	1.027E+02	6.766E+03
491545.3	3.337E+03	1.161E+02	0.000E+00	1.125E+03	3.336E+03	1.131E+02	1.027E+02	6.761E+03
492795.3	3.337E+03	1.161E+02	0.000E+00	1.125E+03	3.336E+03	1.131E+02	1.026E+02	6.757E+03
494045.3	3.337E+03	1.160E+02	0.000E+00	1.125E+03	3.336E+03	1.131E+02	1.026E+02	6.752E+03
495295.3	3.335E+03	1.160E+02	0.000E+00	1.125E+03	3.336E+03	1.131E+02	1.026E+02	6.748E+03
496545.3	3.335E+03	1.160E+02	0.000E+00	1.125E+03	3.336E+03	1.131E+02	1.026E+02	6.743E+03
497795.3	3.337E+03	1.160E+02	0.000E+00	1.125E+03	3.336E+03	1.131E+02	1.026E+02	6.738E+03
499045.3	3.338E+03	1.160E+02	0.000E+00	1.125E+03	3.336E+03	1.130E+02	1.026E+02	6.734E+03
500295.3	3.337E+03	1.160E+02	0.000E+00	1.125E+03	3.336E+03	1.130E+02	1.026E+02	6.729E+03
501545.3	3.335E+03	1.159E+02	0.000E+00	1.125E+03	3.336E+03	1.130E+02	1.025E+02	6.725E+03
502795.3	3.335E+03	1.159E+02	0.000E+00	1.125E+03	3.336E+03	1.130E+02	1.025E+02	6.720E+03
504045.3	3.337E+03	1.159E+02	0.000E+00	1.125E+03	3.336E+03	1.130E+02	1.025E+02	6.715E+03
505295.3	3.337E+03	1.159E+02	0.000E+00	1.125E+03	3.336E+03	1.130E+02	1.025E+02	6.711E+03
506545.3	3.338E+03	1.158E+02	0.000E+00	1.125E+03	3.336E+03	1.129E+02	1.025E+02	6.706E+03
507795.3	3.337E+03	1.158E+02	0.000E+00	1.125E+03	3.336E+03	1.129E+02	1.025E+02	6.702E+03
509045.3	3.337E+03	1.158E+02	0.000E+00	1.125E+03	3.336E+03	1.128E+02	1.024E+02	6.697E+03
510295.3	3.337E+03	1.158E+02	0.000E+00	1.125E+03	3.336E+03	1.128E+02	1.024E+02	6.692E+03
511545.3	3.337E+03	1.157E+02	0.000E+00	1.125E+03	3.336E+03	1.128E+02	1.024E+02	6.688E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
512795.3	3.337E+03	1.157E+02	0.000E+00	1.125E+03	3.336E+03	1.128E+02	1.024E+02	6.683E+03
514045.3	3.337E+03	1.157E+02	0.000E+00	1.125E+03	3.336E+03	1.127E+02	1.023E+02	6.679E+03
515295.3	3.335E+03	1.156E+02	0.000E+00	1.125E+03	3.336E+03	1.127E+02	1.023E+02	6.674E+03
516545.3	3.338E+03	1.156E+02	0.000E+00	1.125E+03	3.336E+03	1.127E+02	1.023E+02	6.670E+03
517795.3	3.337E+03	1.156E+02	0.000E+00	1.125E+03	3.336E+03	1.126E+02	1.023E+02	6.665E+03
519045.3	3.338E+03	1.155E+02	0.000E+00	1.125E+03	3.336E+03	1.126E+02	1.022E+02	6.660E+03
520295.3	3.337E+03	1.155E+02	0.000E+00	1.125E+03	3.336E+03	1.126E+02	1.022E+02	6.656E+03
521545.3	3.335E+03	1.155E+02	0.000E+00	1.125E+03	3.336E+03	1.126E+02	1.022E+02	6.651E+03
522795.3	3.337E+03	1.155E+02	0.000E+00	1.125E+03	3.336E+03	1.126E+02	1.022E+02	6.647E+03
524045.3	3.336E+03	1.155E+02	0.000E+00	1.125E+03	3.336E+03	1.125E+02	1.022E+02	6.642E+03
525295.4	3.337E+03	1.154E+02	0.000E+00	1.125E+03	3.336E+03	1.125E+02	1.022E+02	6.637E+03
526545.4	3.337E+03	1.154E+02	0.000E+00	1.125E+03	3.336E+03	1.125E+02	1.021E+02	6.633E+03
527795.4	3.337E+03	1.154E+02	0.000E+00	1.125E+03	3.336E+03	1.125E+02	1.021E+02	6.628E+03
529045.4	3.337E+03	1.153E+02	0.000E+00	1.125E+03	3.336E+03	1.124E+02	1.021E+02	6.624E+03
530295.4	3.335E+03	1.153E+02	0.000E+00	1.125E+03	3.336E+03	1.124E+02	1.021E+02	6.619E+03
531545.4	3.335E+03	1.153E+02	0.000E+00	1.125E+03	3.336E+03	1.124E+02	1.021E+02	6.615E+03
532795.4	3.337E+03	1.153E+02	0.000E+00	1.125E+03	3.336E+03	1.124E+02	1.021E+02	6.610E+03
534045.4	3.337E+03	1.153E+02	0.000E+00	1.125E+03	3.336E+03	1.124E+02	1.020E+02	6.605E+03
535295.4	3.336E+03	1.153E+02	0.000E+00	1.125E+03	3.336E+03	1.124E+02	1.020E+02	6.601E+03
536545.4	3.335E+03	1.152E+02	0.000E+00	1.125E+03	3.336E+03	1.123E+02	1.020E+02	6.596E+03
537795.4	3.339E+03	1.152E+02	0.000E+00	1.125E+03	3.336E+03	1.123E+02	1.020E+02	6.592E+03
539045.4	3.337E+03	1.151E+02	0.000E+00	1.125E+03	3.336E+03	1.123E+02	1.019E+02	6.587E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
540295.4	3.337E+03	1.151E+02	0.000E+00	1.125E+03	3.336E+03	1.122E+02	1.019E+02	6.582E+03
541545.4	3.337E+03	1.151E+02	0.000E+00	1.125E+03	3.336E+03	1.122E+02	1.019E+02	6.578E+03
542795.4	3.337E+03	1.150E+02	0.000E+00	1.125E+03	3.336E+03	1.122E+02	1.019E+02	6.573E+03
544045.4	3.335E+03	1.150E+02	0.000E+00	1.125E+03	3.336E+03	1.121E+02	1.018E+02	6.569E+03
545295.4	3.337E+03	1.150E+02	0.000E+00	1.125E+03	3.336E+03	1.121E+02	1.018E+02	6.564E+03
546545.4	3.335E+03	1.150E+02	0.000E+00	1.125E+03	3.336E+03	1.121E+02	1.018E+02	6.559E+03
547795.4	3.337E+03	1.150E+02	0.000E+00	1.125E+03	3.336E+03	1.121E+02	1.018E+02	6.555E+03
549045.4	3.338E+03	1.149E+02	0.000E+00	1.125E+03	3.336E+03	1.120E+02	1.018E+02	6.550E+03
550295.4	3.337E+03	1.149E+02	0.000E+00	1.125E+03	3.336E+03	1.120E+02	1.017E+02	6.546E+03
551545.4	3.335E+03	1.149E+02	0.000E+00	1.125E+03	3.336E+03	1.120E+02	1.017E+02	6.541E+03
552795.4	3.334E+03	1.148E+02	0.000E+00	1.125E+03	3.336E+03	1.120E+02	1.017E+02	6.537E+03
554045.4	3.337E+03	1.148E+02	0.000E+00	1.125E+03	3.336E+03	1.120E+02	1.017E+02	6.532E+03
555295.4	3.337E+03	1.148E+02	0.000E+00	1.125E+03	3.336E+03	1.119E+02	1.017E+02	6.527E+03
556545.4	3.338E+03	1.148E+02	0.000E+00	1.125E+03	3.336E+03	1.119E+02	1.017E+02	6.523E+03
557795.4	3.323E+03	1.148E+02	0.000E+00	1.125E+03	3.336E+03	1.119E+02	1.016E+02	6.518E+03
559045.4	3.337E+03	1.147E+02	0.000E+00	1.125E+03	3.336E+03	1.118E+02	1.016E+02	6.514E+03
560295.4	3.337E+03	1.147E+02	0.000E+00	1.125E+03	3.336E+03	1.118E+02	1.016E+02	6.509E+03
561545.4	3.337E+03	1.147E+02	0.000E+00	1.125E+03	3.336E+03	1.118E+02	1.016E+02	6.504E+03
562795.4	3.335E+03	1.146E+02	0.000E+00	1.125E+03	3.336E+03	1.118E+02	1.015E+02	6.500E+03
564045.4	3.335E+03	1.146E+02	0.000E+00	1.125E+03	3.336E+03	1.118E+02	1.015E+02	6.495E+03
565295.4	3.335E+03	1.146E+02	0.000E+00	1.125E+03	3.336E+03	1.118E+02	1.015E+02	6.491E+03
566545.4	3.337E+03	1.146E+02	0.000E+00	1.125E+03	3.336E+03	1.118E+02	1.015E+02	6.486E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
567795.4	3.337E+03	1.146E+02	0.000E+00	1.125E+03	3.336E+03	1.117E+02	1.015E+02	6.482E+03
569045.4	3.337E+03	1.146E+02	0.000E+00	1.125E+03	3.336E+03	1.117E+02	1.015E+02	6.477E+03
570295.4	3.337E+03	1.145E+02	0.000E+00	1.125E+03	3.336E+03	1.117E+02	1.014E+02	6.472E+03
571545.4	3.338E+03	1.145E+02	0.000E+00	1.125E+03	3.336E+03	1.116E+02	1.014E+02	6.468E+03
572795.4	3.337E+03	1.145E+02	0.000E+00	1.125E+03	3.336E+03	1.116E+02	1.014E+02	6.463E+03
574045.4	3.338E+03	1.145E+02	0.000E+00	1.125E+03	3.336E+03	1.116E+02	1.014E+02	6.459E+03
575295.4	3.337E+03	1.144E+02	0.000E+00	1.125E+03	3.336E+03	1.116E+02	1.014E+02	6.454E+03
576545.4	3.336E+03	1.144E+02	0.000E+00	1.125E+03	3.336E+03	1.115E+02	1.014E+02	6.449E+03
577795.4	3.337E+03	1.144E+02	0.000E+00	1.125E+03	3.336E+03	1.115E+02	1.013E+02	6.445E+03
579045.4	3.337E+03	1.143E+02	0.000E+00	1.125E+03	3.336E+03	1.115E+02	1.013E+02	6.440E+03
580295.4	3.336E+03	1.143E+02	0.000E+00	1.125E+03	3.336E+03	1.114E+02	1.013E+02	6.436E+03
581545.4	3.335E+03	1.143E+02	0.000E+00	1.125E+03	3.336E+03	1.114E+02	1.013E+02	6.431E+03
582795.4	3.337E+03	1.142E+02	0.000E+00	1.125E+03	3.336E+03	1.114E+02	1.012E+02	6.427E+03
584045.4	3.337E+03	1.142E+02	0.000E+00	1.125E+03	3.336E+03	1.113E+02	1.012E+02	6.422E+03
585295.4	3.338E+03	1.142E+02	0.000E+00	1.125E+03	3.336E+03	1.113E+02	1.012E+02	6.417E+03
586545.4	3.340E+03	1.141E+02	0.000E+00	1.125E+03	3.336E+03	1.113E+02	1.011E+02	6.413E+03
587795.4	3.337E+03	1.141E+02	0.000E+00	1.125E+03	3.336E+03	1.112E+02	1.011E+02	6.408E+03
589045.4	3.337E+03	1.141E+02	0.000E+00	1.124E+03	3.336E+03	1.112E+02	1.011E+02	6.404E+03
590295.4	3.337E+03	1.140E+02	0.000E+00	1.124E+03	3.336E+03	1.112E+02	1.011E+02	6.399E+03
591545.4	3.338E+03	1.140E+02	0.000E+00	1.124E+03	3.336E+03	1.112E+02	1.011E+02	6.394E+03
592795.4	3.335E+03	1.140E+02	0.000E+00	1.124E+03	3.336E+03	1.112E+02	1.011E+02	6.390E+03
594045.4	3.338E+03	1.140E+02	0.000E+00	1.124E+03	3.336E+03	1.112E+02	1.010E+02	6.385E+03

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Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
595295.4	3.337E+03	1.140E+02	0.000E+00	1.124E+03	3.336E+03	1.111E+02	1.010E+02	6.381E+03
596545.4	3.336E+03	1.139E+02	0.000E+00	1.124E+03	3.336E+03	1.111E+02	1.010E+02	6.376E+03
597795.4	3.338E+03	1.139E+02	0.000E+00	1.124E+03	3.336E+03	1.110E+02	1.010E+02	6.371E+03
599045.4	3.337E+03	1.138E+02	0.000E+00	1.124E+03	3.336E+03	1.110E+02	1.009E+02	6.367E+03
600295.4	3.337E+03	1.138E+02	0.000E+00	1.124E+03	3.336E+03	1.110E+02	1.009E+02	6.362E+03
601545.4	3.337E+03	1.138E+02	0.000E+00	1.124E+03	3.336E+03	1.109E+02	1.009E+02	6.358E+03
602795.4	3.337E+03	1.138E+02	0.000E+00	1.124E+03	3.336E+03	1.109E+02	1.009E+02	6.353E+03
604045.4	3.335E+03	1.138E+02	0.000E+00	1.124E+03	3.336E+03	1.109E+02	1.009E+02	6.349E+03
605295.4	3.335E+03	1.138E+02	0.000E+00	1.124E+03	3.336E+03	1.109E+02	1.009E+02	6.344E+03
606545.4	3.340E+03	1.138E+02	0.000E+00	1.124E+03	3.336E+03	1.109E+02	1.009E+02	6.339E+03
607795.4	3.336E+03	1.137E+02	0.000E+00	1.124E+03	3.336E+03	1.109E+02	1.008E+02	6.335E+03
609045.4	3.338E+03	1.137E+02	0.000E+00	1.124E+03	3.336E+03	1.109E+02	1.008E+02	6.330E+03
610295.4	3.337E+03	1.136E+02	0.000E+00	1.124E+03	3.336E+03	1.108E+02	1.008E+02	6.326E+03
611545.4	3.337E+03	1.136E+02	0.000E+00	1.124E+03	3.336E+03	1.108E+02	1.007E+02	6.321E+03
612795.4	3.335E+03	1.136E+02	0.000E+00	1.124E+03	3.336E+03	1.108E+02	1.007E+02	6.316E+03
614045.4	3.335E+03	1.136E+02	0.000E+00	1.124E+03	3.336E+03	1.108E+02	1.007E+02	6.312E+03
615295.4	3.337E+03	1.136E+02	0.000E+00	1.124E+03	3.336E+03	1.107E+02	1.007E+02	6.307E+03
616545.4	3.337E+03	1.135E+02	0.000E+00	1.124E+03	3.336E+03	1.107E+02	1.007E+02	6.303E+03
617795.4	3.337E+03	1.135E+02	0.000E+00	1.124E+03	3.336E+03	1.107E+02	1.007E+02	6.298E+03
619045.4	3.337E+03	1.135E+02	0.000E+00	1.124E+03	3.336E+03	1.107E+02	1.006E+02	6.294E+03
620295.4	3.335E+03	1.135E+02	0.000E+00	1.124E+03	3.336E+03	1.106E+02	1.006E+02	6.289E+03
621545.4	3.337E+03	1.134E+02	0.000E+00	1.124E+03	3.336E+03	1.106E+02	1.006E+02	6.284E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
622795.4	3.337E+03	1.134E+02	0.000E+00	1.124E+03	3.336E+03	1.106E+02	1.006E+02	6.280E+03
624045.4	3.337E+03	1.134E+02	0.000E+00	1.124E+03	3.336E+03	1.106E+02	1.006E+02	6.275E+03
625295.4	3.339E+03	1.133E+02	0.000E+00	1.124E+03	3.336E+03	1.105E+02	1.005E+02	6.271E+03
626545.4	3.337E+03	1.133E+02	0.000E+00	1.124E+03	3.336E+03	1.105E+02	1.005E+02	6.266E+03
627795.4	3.335E+03	1.133E+02	0.000E+00	1.124E+03	3.336E+03	1.105E+02	1.005E+02	6.261E+03
629045.4	3.335E+03	1.133E+02	0.000E+00	1.124E+03	3.336E+03	1.105E+02	1.005E+02	6.257E+03
630295.4	3.338E+03	1.133E+02	0.000E+00	1.124E+03	3.336E+03	1.105E+02	1.005E+02	6.252E+03
631545.4	3.337E+03	1.132E+02	0.000E+00	1.124E+03	3.336E+03	1.104E+02	1.004E+02	6.248E+03
632795.4	3.337E+03	1.132E+02	0.000E+00	1.124E+03	3.336E+03	1.104E+02	1.004E+02	6.243E+03
634045.4	3.336E+03	1.131E+02	0.000E+00	1.124E+03	3.336E+03	1.103E+02	1.004E+02	6.238E+03
635295.4	3.338E+03	1.131E+02	0.000E+00	1.124E+03	3.336E+03	1.103E+02	1.004E+02	6.234E+03
636545.4	3.336E+03	1.131E+02	0.000E+00	1.124E+03	3.336E+03	1.103E+02	1.003E+02	6.229E+03
637795.4	3.337E+03	1.130E+02	0.000E+00	1.124E+03	3.336E+03	1.102E+02	1.003E+02	6.225E+03
639045.4	3.337E+03	1.130E+02	0.000E+00	1.124E+03	3.336E+03	1.102E+02	1.003E+02	6.220E+03
640295.4	3.337E+03	1.130E+02	0.000E+00	1.124E+03	3.336E+03	1.102E+02	1.002E+02	6.216E+03
641545.4	3.338E+03	1.129E+02	0.000E+00	1.124E+03	3.336E+03	1.101E+02	1.002E+02	6.211E+03
642795.4	3.340E+03	1.129E+02	0.000E+00	1.124E+03	3.336E+03	1.101E+02	1.002E+02	6.206E+03
644045.4	3.337E+03	1.129E+02	0.000E+00	1.124E+03	3.336E+03	1.101E+02	1.002E+02	6.202E+03
645295.4	3.337E+03	1.128E+02	0.000E+00	1.124E+03	3.336E+03	1.100E+02	1.001E+02	6.197E+03
646545.4	3.337E+03	1.128E+02	0.000E+00	1.124E+03	3.336E+03	1.100E+02	1.001E+02	6.193E+03
647795.4	3.337E+03	1.128E+02	0.000E+00	1.124E+03	3.336E+03	1.100E+02	1.001E+02	6.188E+03
649045.4	3.337E+03	1.127E+02	0.000E+00	1.124E+03	3.336E+03	1.099E+02	1.001E+02	6.183E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
650295.4	3.337E+03	1.127E+02	0.000E+00	1.124E+03	3.336E+03	1.099E+02	1.000E+02	6.179E+03
651545.4	3.335E+03	1.127E+02	0.000E+00	1.124E+03	3.336E+03	1.099E+02	1.000E+02	6.174E+03
652795.4	3.337E+03	1.127E+02	0.000E+00	1.124E+03	3.336E+03	1.099E+02	1.000E+02	6.170E+03
654045.4	3.337E+03	1.127E+02	0.000E+00	1.124E+03	3.336E+03	1.099E+02	1.000E+02	6.165E+03
655295.4	3.335E+03	1.126E+02	0.000E+00	1.124E+03	3.336E+03	1.099E+02	1.000E+02	6.161E+03
656545.4	3.335E+03	1.126E+02	0.000E+00	1.124E+03	3.336E+03	1.098E+02	9.997E+01	6.156E+03
657795.4	3.337E+03	1.126E+02	0.000E+00	1.124E+03	3.336E+03	1.098E+02	9.994E+01	6.151E+03
659045.4	3.338E+03	1.125E+02	0.000E+00	1.124E+03	3.336E+03	1.098E+02	9.991E+01	6.147E+03
660295.4	3.337E+03	1.125E+02	0.000E+00	1.124E+03	3.336E+03	1.098E+02	9.991E+01	6.142E+03
661545.4	3.337E+03	1.125E+02	0.000E+00	1.124E+03	3.336E+03	1.097E+02	9.989E+01	6.138E+03
662795.4	3.337E+03	1.125E+02	0.000E+00	1.124E+03	3.336E+03	1.097E+02	9.986E+01	6.133E+03
664045.4	3.336E+03	1.124E+02	0.000E+00	1.124E+03	3.336E+03	1.097E+02	9.983E+01	6.128E+03
665295.4	3.337E+03	1.124E+02	0.000E+00	1.124E+03	3.336E+03	1.096E+02	9.981E+01	6.124E+03
666545.4	3.337E+03	1.124E+02	0.000E+00	1.124E+03	3.336E+03	1.096E+02	9.978E+01	6.119E+03
667795.4	3.337E+03	1.123E+02	0.000E+00	1.124E+03	3.336E+03	1.096E+02	9.975E+01	6.115E+03
669045.4	3.338E+03	1.123E+02	0.000E+00	1.124E+03	3.336E+03	1.095E+02	9.972E+01	6.110E+03
670295.4	3.337E+03	1.123E+02	0.000E+00	1.124E+03	3.336E+03	1.095E+02	9.970E+01	6.105E+03
671545.4	3.337E+03	1.122E+02	0.000E+00	1.124E+03	3.336E+03	1.095E+02	9.967E+01	6.101E+03
672795.4	3.337E+03	1.122E+02	0.000E+00	1.124E+03	3.336E+03	1.095E+02	9.966E+01	6.096E+03
674045.4	3.337E+03	1.122E+02	0.000E+00	1.124E+03	3.336E+03	1.094E+02	9.963E+01	6.092E+03
675295.4	3.337E+03	1.121E+02	0.000E+00	1.124E+03	3.336E+03	1.094E+02	9.961E+01	6.087E+03
676545.4	3.335E+03	1.121E+02	0.000E+00	1.124E+03	3.336E+03	1.094E+02	9.960E+01	6.083E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
677795.4	3.337E+03	1.121E+02	0.000E+00	1.124E+03	3.336E+03	1.094E+02	9.957E+01	6.078E+03
679045.4	3.337E+03	1.121E+02	0.000E+00	1.124E+03	3.336E+03	1.094E+02	9.957E+01	6.073E+03
680295.4	3.338E+03	1.121E+02	0.000E+00	1.124E+03	3.336E+03	1.093E+02	9.956E+01	6.069E+03
681545.5	3.336E+03	1.120E+02	0.000E+00	1.124E+03	3.336E+03	1.093E+02	9.954E+01	6.064E+03
682795.5	3.336E+03	1.120E+02	0.000E+00	1.124E+03	3.336E+03	1.093E+02	9.951E+01	6.060E+03
684045.5	3.335E+03	1.120E+02	0.000E+00	1.124E+03	3.336E+03	1.092E+02	9.948E+01	6.055E+03
685295.6	3.334E+03	1.119E+02	0.000E+00	1.124E+03	3.336E+03	1.092E+02	9.946E+01	6.050E+03
686545.6	3.336E+03	1.119E+02	0.000E+00	1.124E+03	3.336E+03	1.092E+02	9.943E+01	6.046E+03
687795.6	3.333E+03	1.119E+02	0.000E+00	1.124E+03	3.336E+03	1.091E+02	9.941E+01	6.041E+03
689045.6	3.335E+03	1.118E+02	0.000E+00	1.124E+03	3.336E+03	1.091E+02	9.938E+01	6.037E+03
690295.6	3.335E+03	1.118E+02	0.000E+00	1.124E+03	3.336E+03	1.091E+02	9.938E+01	6.032E+03
691545.9	3.338E+03	1.118E+02	0.000E+00	1.124E+03	3.336E+03	1.091E+02	9.937E+01	6.028E+03
692795.9	3.338E+03	1.118E+02	0.000E+00	1.124E+03	3.336E+03	1.091E+02	9.936E+01	6.023E+03
694045.9	3.337E+03	1.118E+02	0.000E+00	1.124E+03	3.336E+03	1.091E+02	9.933E+01	6.018E+03
695295.9	3.337E+03	1.118E+02	0.000E+00	1.124E+03	3.336E+03	1.090E+02	9.932E+01	6.014E+03
696545.9	3.337E+03	1.117E+02	0.000E+00	1.124E+03	3.336E+03	1.090E+02	9.931E+01	6.009E+03
697795.9	3.336E+03	1.117E+02	0.000E+00	1.124E+03	3.336E+03	1.090E+02	9.928E+01	6.005E+03
699045.9	3.337E+03	1.117E+02	0.000E+00	1.124E+03	3.336E+03	1.090E+02	9.925E+01	6.000E+03
700295.9	3.337E+03	1.117E+02	0.000E+00	1.124E+03	3.336E+03	1.089E+02	9.923E+01	5.995E+03
701545.9	3.337E+03	1.116E+02	0.000E+00	1.124E+03	3.336E+03	1.089E+02	9.923E+01	5.991E+03
702795.9	3.337E+03	1.116E+02	0.000E+00	1.123E+03	3.336E+03	1.089E+02	9.920E+01	5.986E+03
704045.9	3.337E+03	1.116E+02	0.000E+00	1.123E+03	3.336E+03	1.089E+02	9.917E+01	5.982E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
705295.9	3.337E+03	1.115E+02	0.000E+00	1.123E+03	3.336E+03	1.088E+02	9.914E+01	5.977E+03
706545.9	3.337E+03	1.115E+02	0.000E+00	1.123E+03	3.336E+03	1.088E+02	9.914E+01	5.973E+03
707795.9	3.335E+03	1.115E+02	0.000E+00	1.123E+03	3.336E+03	1.088E+02	9.913E+01	5.968E+03
709045.9	3.337E+03	1.115E+02	0.000E+00	1.123E+03	3.336E+03	1.088E+02	9.911E+01	5.963E+03
710295.9	3.337E+03	1.115E+02	0.000E+00	1.123E+03	3.336E+03	1.088E+02	9.909E+01	5.959E+03
711545.9	3.337E+03	1.114E+02	0.000E+00	1.123E+03	3.336E+03	1.087E+02	9.906E+01	5.954E+03
712795.9	3.337E+03	1.114E+02	0.000E+00	1.123E+03	3.336E+03	1.087E+02	9.904E+01	5.950E+03
714045.9	3.338E+03	1.114E+02	0.000E+00	1.123E+03	3.336E+03	1.087E+02	9.903E+01	5.945E+03
715295.9	3.335E+03	1.113E+02	0.000E+00	1.123E+03	3.336E+03	1.086E+02	9.900E+01	5.940E+03
716545.9	3.337E+03	1.113E+02	0.000E+00	1.123E+03	3.336E+03	1.086E+02	9.897E+01	5.936E+03
717795.9	3.335E+03	1.113E+02	0.000E+00	1.123E+03	3.336E+03	1.086E+02	9.895E+01	5.931E+03
719045.9	3.337E+03	1.113E+02	0.000E+00	1.123E+03	3.336E+03	1.086E+02	9.893E+01	5.927E+03
720295.9	3.337E+03	1.112E+02	0.000E+00	1.123E+03	3.336E+03	1.085E+02	9.890E+01	5.922E+03
721545.9	3.335E+03	1.112E+02	0.000E+00	1.123E+03	3.336E+03	1.085E+02	9.889E+01	5.917E+03
722795.9	3.336E+03	1.112E+02	0.000E+00	1.123E+03	3.336E+03	1.085E+02	9.885E+01	5.913E+03
724045.9	3.337E+03	1.111E+02	0.000E+00	1.123E+03	3.336E+03	1.084E+02	9.883E+01	5.908E+03
725295.9	3.336E+03	1.111E+02	0.000E+00	1.123E+03	3.336E+03	1.084E+02	9.880E+01	5.904E+03
726545.9	3.337E+03	1.111E+02	0.000E+00	1.123E+03	3.336E+03	1.084E+02	9.878E+01	5.899E+03
727795.9	3.337E+03	1.110E+02	0.000E+00	1.123E+03	3.336E+03	1.083E+02	9.875E+01	5.895E+03
729045.9	3.336E+03	1.110E+02	0.000E+00	1.123E+03	3.336E+03	1.083E+02	9.874E+01	5.890E+03
730295.9	3.338E+03	1.110E+02	0.000E+00	1.123E+03	3.336E+03	1.083E+02	9.872E+01	5.885E+03
731545.9	3.337E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.083E+02	9.869E+01	5.881E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
732795.9	3.337E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.082E+02	9.865E+01	5.876E+03
734045.9	3.337E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.082E+02	9.864E+01	5.872E+03
735295.9	3.337E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.082E+02	9.861E+01	5.867E+03
736545.9	3.337E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.858E+01	5.862E+03
737795.9	3.337E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.859E+01	5.858E+03
739045.9	3.336E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.858E+01	5.853E+03
740295.9	3.336E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.858E+01	5.849E+03
741545.9	3.336E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.858E+01	5.844E+03
742795.9	3.336E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.858E+01	5.840E+03
744045.9	3.335E+03	1.109E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.858E+01	5.835E+03
745295.9	3.337E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.857E+01	5.830E+03
746545.9	3.339E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.856E+01	5.826E+03
747795.9	3.336E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.856E+01	5.821E+03
749045.9	3.336E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.857E+01	5.817E+03
750295.9	3.340E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.857E+01	5.812E+03
751545.9	3.338E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.857E+01	5.807E+03
752795.9	3.338E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.856E+01	5.803E+03
754045.9	3.338E+03	1.108E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.855E+01	5.798E+03
755295.9	3.337E+03	1.107E+02	0.000E+00	1.123E+03	3.336E+03	1.081E+02	9.851E+01	5.794E+03
756545.9	3.336E+03	1.107E+02	0.000E+00	1.123E+03	3.336E+03	1.080E+02	9.848E+01	5.789E+03
757795.9	3.339E+03	1.106E+02	0.000E+00	1.123E+03	3.336E+03	1.080E+02	9.845E+01	5.784E+03
759045.9	3.337E+03	1.106E+02	0.000E+00	1.123E+03	3.336E+03	1.079E+02	9.841E+01	5.780E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
760295.9	3.338E+03	1.105E+02	0.000E+00	1.123E+03	3.336E+03	1.079E+02	9.838E+01	5.775E+03
761545.9	3.337E+03	1.105E+02	0.000E+00	1.123E+03	3.336E+03	1.078E+02	9.835E+01	5.771E+03
762795.9	3.337E+03	1.105E+02	0.000E+00	1.123E+03	3.336E+03	1.078E+02	9.831E+01	5.766E+03
764045.9	3.337E+03	1.104E+02	0.000E+00	1.123E+03	3.336E+03	1.078E+02	9.828E+01	5.762E+03
765295.9	3.337E+03	1.104E+02	0.000E+00	1.123E+03	3.336E+03	1.077E+02	9.826E+01	5.757E+03
766545.9	3.337E+03	1.103E+02	0.000E+00	1.123E+03	3.336E+03	1.077E+02	9.822E+01	5.752E+03
767795.9	3.336E+03	1.103E+02	0.000E+00	1.123E+03	3.336E+03	1.077E+02	9.819E+01	5.748E+03
769045.9	3.338E+03	1.103E+02	0.000E+00	1.123E+03	3.336E+03	1.076E+02	9.817E+01	5.743E+03
770295.9	3.337E+03	1.102E+02	0.000E+00	1.123E+03	3.336E+03	1.076E+02	9.813E+01	5.739E+03
771545.9	3.338E+03	1.102E+02	0.000E+00	1.123E+03	3.336E+03	1.076E+02	9.812E+01	5.734E+03
772795.9	3.337E+03	1.102E+02	0.000E+00	1.123E+03	3.336E+03	1.076E+02	9.811E+01	5.729E+03
774045.9	3.337E+03	1.102E+02	0.000E+00	1.123E+03	3.336E+03	1.075E+02	9.808E+01	5.725E+03
775295.9	3.338E+03	1.102E+02	0.000E+00	1.123E+03	3.336E+03	1.075E+02	9.807E+01	5.720E+03
776545.9	3.337E+03	1.101E+02	0.000E+00	1.123E+03	3.336E+03	1.075E+02	9.805E+01	5.716E+03
777795.9	3.337E+03	1.101E+02	0.000E+00	1.123E+03	3.336E+03	1.075E+02	9.802E+01	5.711E+03
779045.9	3.335E+03	1.101E+02	0.000E+00	1.123E+03	3.336E+03	1.074E+02	9.799E+01	5.707E+03
780295.9	3.337E+03	1.100E+02	0.000E+00	1.123E+03	3.336E+03	1.074E+02	9.797E+01	5.702E+03
781545.9	3.337E+03	1.100E+02	0.000E+00	1.123E+03	3.336E+03	1.073E+02	9.793E+01	5.697E+03
782795.9	3.337E+03	1.100E+02	0.000E+00	1.123E+03	3.336E+03	1.073E+02	9.792E+01	5.693E+03
784045.9	3.338E+03	1.099E+02	0.000E+00	1.123E+03	3.336E+03	1.073E+02	9.792E+01	5.688E+03
785295.9	3.337E+03	1.099E+02	0.000E+00	1.123E+03	3.336E+03	1.073E+02	9.788E+01	5.684E+03
786545.9	3.337E+03	1.099E+02	0.000E+00	1.123E+03	3.336E+03	1.073E+02	9.787E+01	5.679E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
787795.9	3.338E+03	1.098E+02	0.000E+00	1.123E+03	3.336E+03	1.072E+02	9.784E+01	5.674E+03
789045.9	3.337E+03	1.098E+02	0.000E+00	1.123E+03	3.336E+03	1.072E+02	9.781E+01	5.670E+03
790295.9	3.334E+03	1.098E+02	0.000E+00	1.123E+03	3.336E+03	1.072E+02	9.778E+01	5.665E+03
791545.9	3.338E+03	1.098E+02	0.000E+00	1.123E+03	3.336E+03	1.071E+02	9.778E+01	5.661E+03
792795.9	3.336E+03	1.097E+02	0.000E+00	1.123E+03	3.336E+03	1.071E+02	9.775E+01	5.656E+03
794045.9	3.335E+03	1.097E+02	0.000E+00	1.123E+03	3.336E+03	1.071E+02	9.772E+01	5.651E+03
795295.9	3.337E+03	1.097E+02	0.000E+00	1.123E+03	3.336E+03	1.070E+02	9.769E+01	5.647E+03
796545.9	3.338E+03	1.096E+02	0.000E+00	1.123E+03	3.336E+03	1.070E+02	9.767E+01	5.642E+03
797795.9	3.337E+03	1.096E+02	0.000E+00	1.123E+03	3.336E+03	1.070E+02	9.764E+01	5.638E+03
799045.9	3.337E+03	1.096E+02	0.000E+00	1.123E+03	3.336E+03	1.070E+02	9.763E+01	5.633E+03
800295.9	3.337E+03	1.095E+02	0.000E+00	1.123E+03	3.336E+03	1.069E+02	9.759E+01	5.629E+03
801545.9	3.337E+03	1.095E+02	0.000E+00	1.123E+03	3.336E+03	1.069E+02	9.757E+01	5.624E+03
802795.9	3.337E+03	1.095E+02	0.000E+00	1.123E+03	3.336E+03	1.069E+02	9.754E+01	5.619E+03
804045.9	3.338E+03	1.095E+02	0.000E+00	1.123E+03	3.336E+03	1.069E+02	9.754E+01	5.615E+03
805295.9	3.338E+03	1.095E+02	0.000E+00	1.123E+03	3.336E+03	1.069E+02	9.754E+01	5.610E+03
806545.9	3.335E+03	1.095E+02	0.000E+00	1.123E+03	3.336E+03	1.069E+02	9.754E+01	5.606E+03
807795.9	3.337E+03	1.094E+02	0.000E+00	1.123E+03	3.336E+03	1.068E+02	9.752E+01	5.601E+03
809045.9	3.338E+03	1.094E+02	0.000E+00	1.123E+03	3.336E+03	1.068E+02	9.749E+01	5.596E+03
810295.9	3.335E+03	1.094E+02	0.000E+00	1.123E+03	3.336E+03	1.068E+02	9.745E+01	5.592E+03
811545.9	3.338E+03	1.093E+02	0.000E+00	1.123E+03	3.336E+03	1.067E+02	9.743E+01	5.587E+03
812795.9	3.340E+03	1.093E+02	0.000E+00	1.123E+03	3.336E+03	1.067E+02	9.740E+01	5.583E+03
814045.9	3.340E+03	1.093E+02	0.000E+00	1.123E+03	3.336E+03	1.067E+02	9.740E+01	5.578E+03

NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
815295.9	3.340E+03	1.093E+02	0.000E+00	1.123E+03	3.336E+03	1.067E+02	9.740E+01	5.574E+03
816545.9	3.340E+03	1.093E+02	0.000E+00	1.123E+03	3.336E+03	1.067E+02	9.740E+01	5.569E+03
817795.9	3.337E+03	1.093E+02	0.000E+00	1.123E+03	3.336E+03	1.067E+02	9.739E+01	5.564E+03
819045.9	3.337E+03	1.092E+02	0.000E+00	1.123E+03	3.336E+03	1.066E+02	9.736E+01	5.560E+03
820295.9	3.337E+03	1.092E+02	0.000E+00	1.122E+03	3.336E+03	1.066E+02	9.733E+01	5.555E+03
821545.9	3.337E+03	1.091E+02	0.000E+00	1.122E+03	3.336E+03	1.066E+02	9.730E+01	5.551E+03
822795.9	3.337E+03	1.091E+02	0.000E+00	1.122E+03	3.336E+03	1.065E+02	9.727E+01	5.546E+03
824045.9	3.338E+03	1.091E+02	0.000E+00	1.122E+03	3.336E+03	1.065E+02	9.725E+01	5.541E+03
825295.9	3.337E+03	1.091E+02	0.000E+00	1.122E+03	3.336E+03	1.065E+02	9.724E+01	5.537E+03
826545.9	3.337E+03	1.090E+02	0.000E+00	1.122E+03	3.336E+03	1.065E+02	9.721E+01	5.532E+03
827795.9	3.336E+03	1.090E+02	0.000E+00	1.122E+03	3.336E+03	1.064E+02	9.718E+01	5.528E+03
829045.9	3.337E+03	1.090E+02	0.000E+00	1.122E+03	3.336E+03	1.064E+02	9.715E+01	5.523E+03
830295.9	3.337E+03	1.089E+02	0.000E+00	1.122E+03	3.336E+03	1.063E+02	9.712E+01	5.519E+03
831545.9	3.337E+03	1.089E+02	0.000E+00	1.122E+03	3.336E+03	1.063E+02	9.710E+01	5.514E+03
832795.9	3.337E+03	1.088E+02	0.000E+00	1.122E+03	3.336E+03	1.063E+02	9.706E+01	5.509E+03
834045.9	3.338E+03	1.088E+02	0.000E+00	1.122E+03	3.336E+03	1.063E+02	9.706E+01	5.505E+03
835295.9	3.337E+03	1.088E+02	0.000E+00	1.122E+03	3.336E+03	1.063E+02	9.705E+01	5.500E+03
836545.9	3.336E+03	1.088E+02	0.000E+00	1.122E+03	3.336E+03	1.062E+02	9.702E+01	5.496E+03
837795.9	3.337E+03	1.088E+02	0.000E+00	1.122E+03	3.336E+03	1.062E+02	9.701E+01	5.491E+03
839045.9	3.337E+03	1.087E+02	0.000E+00	1.122E+03	3.336E+03	1.062E+02	9.698E+01	5.486E+03
840295.9	3.338E+03	1.087E+02	0.000E+00	1.122E+03	3.336E+03	1.061E+02	9.696E+01	5.482E+03
841545.9	3.338E+03	1.087E+02	0.000E+00	1.122E+03	3.336E+03	1.061E+02	9.696E+01	5.477E+03

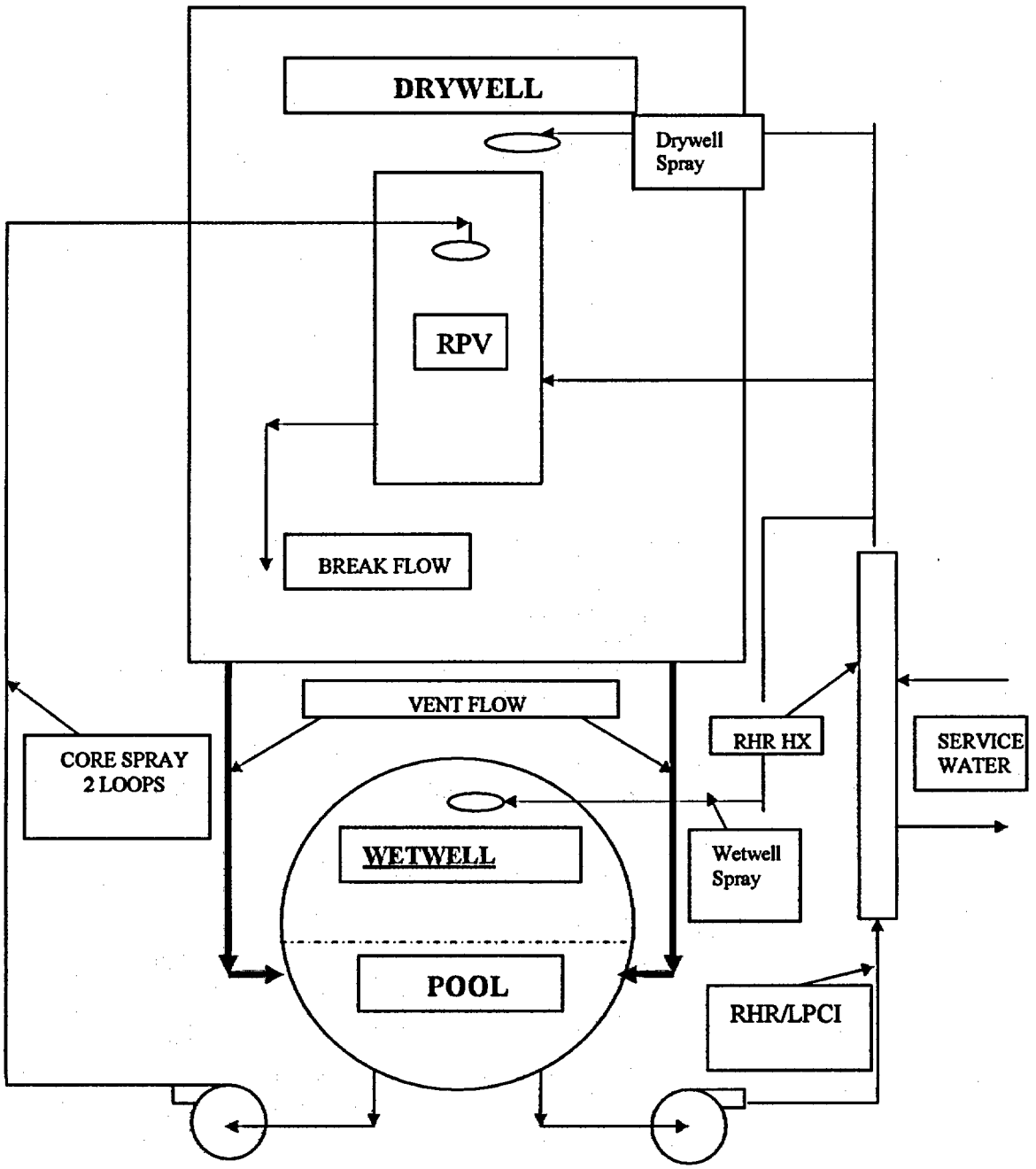
NON-PROPRIETARY INFORMATION

Table SPSB-C-32-6
Mass and Energy Data from SHEX Long-Term DBA-LOCA Containment Analysis for Evaluation of NPSH

Time (s)	Vessel Liquid Break Flow Rate (lbm/s)	Vessel Liquid Break Enthalpy (Btu/lbm)	Vessel Vapor Break Flow Rate (lbm/s)	Vessel Vapor Break Enthalpy (Btu/lbm)	Total ECCS Flow to RPV (lbm/s)	ECCS flow enthalpy from suppression pool (Btu/lbm)	Drywell and Wetwell Spray Enthalpy (Btu/lbm)	Core Thermal Power (Btu/s)
842795.9	3.334E+03	1.087E+02	0.000E+00	1.122E+03	3.336E+03	1.061E+02	9.694E+01	5.473E+03
844045.9	3.337E+03	1.087E+02	0.000E+00	1.122E+03	3.336E+03	1.061E+02	9.691E+01	5.468E+03
845295.9	3.337E+03	1.086E+02	0.000E+00	1.122E+03	3.336E+03	1.061E+02	9.690E+01	5.463E+03
846545.9	3.337E+03	1.086E+02	0.000E+00	1.122E+03	3.336E+03	1.060E+02	9.687E+01	5.459E+03
847795.9	3.337E+03	1.086E+02	0.000E+00	1.122E+03	3.336E+03	1.060E+02	9.684E+01	5.454E+03
849045.9	3.336E+03	1.085E+02	0.000E+00	1.122E+03	3.336E+03	1.060E+02	9.682E+01	5.450E+03
850295.9	3.337E+03	1.085E+02	0.000E+00	1.122E+03	3.336E+03	1.059E+02	9.679E+01	5.445E+03
851545.9	3.339E+03	1.085E+02	0.000E+00	1.122E+03	3.336E+03	1.059E+02	9.677E+01	5.441E+03
852795.9	3.337E+03	1.085E+02	0.000E+00	1.122E+03	3.336E+03	1.059E+02	9.676E+01	5.436E+03
854045.9	3.337E+03	1.084E+02	0.000E+00	1.122E+03	3.336E+03	1.059E+02	9.672E+01	5.431E+03
855295.9	3.337E+03	1.084E+02	0.000E+00	1.122E+03	3.336E+03	1.058E+02	9.670E+01	5.427E+03
856545.9	3.337E+03	1.083E+02	0.000E+00	1.122E+03	3.336E+03	1.058E+02	9.667E+01	5.422E+03
857795.9	3.339E+03	1.083E+02	0.000E+00	1.122E+03	3.336E+03	1.058E+02	9.666E+01	5.418E+03
859045.9	3.338E+03	1.083E+02	0.000E+00	1.122E+03	3.336E+03	1.057E+02	9.663E+01	5.413E+03
860295.9	3.337E+03	1.083E+02	0.000E+00	1.122E+03	3.336E+03	1.057E+02	9.661E+01	5.408E+03
861545.9	3.339E+03	1.082E+02	0.000E+00	1.122E+03	3.336E+03	1.057E+02	9.658E+01	5.404E+03
862795.9	3.338E+03	1.082E+02	0.000E+00	1.122E+03	3.336E+03	1.057E+02	9.656E+01	5.399E+03
864000	3.336E+03	1.082E+02	0.000E+00	1.122E+03	3.336E+03	1.056E+02	9.653E+01	5.395E+03

NON-PROPRIETARY INFORMATION

FIGURE SPSB-C-32-1
VYNPS DBA-LOCA SHEX ANALYSIS MODEL SCHEMATIC



NON-PROPRIETARY INFORMATION

RAI SPSB-C-33

Please provide the results of the containment accident pressure calculation used for ECCS pump NPSH calculations. Include:

a) drywell pressure vs. time
b) drywell temperature vs. time
c) wetwell pressure vs. time
d) wetwell air temperature vs. time
e) suppression pool temperature vs. time
f) suppression pool level vs. time

Response to RAI SPSB-C-33

Figures SPSB-C-33-1 and SPSB-C-33-2 provide the containment response histories for the short-term (600 second) SHEX containment analysis used for ECCS pump NPSH calculations. Figures SPSB-C-33-3 and SPSB-C-33-4 provide the containment response histories for the long-term short-term (10 day) SHEX containment analysis used for ECCS pump NPSH calculations.

Tables SPSB-C-33-1 and SPSB-C-33-2 contain tabular data with time varying containment response parameters requested in NRC RAI SPSB-C-33.

Table SPSB-C-33-1 provides drywell pressure (without leakage effects accounted for) and temperature, wetwell airspace pressure (with and without leakage effects) and temperature, suppression pool temperature and suppression pool volume vs. time from the short-term (600 second) SHEX containment analysis used for ECCS pump NPSH calculations.

Table SPSB-C-33-2 provides drywell pressure (with leakage effects not accounted for) and temperature, wetwell airspace pressure (with and without leakage effects) and temperature, suppression pool temperature and suppression pool volume vs. time from the long-term (10 day) SHEX containment analysis used for ECCS pump NPSH calculations. [[

]] The suppression pool temperature at the time the long-term wetwell pressure falls to 14.7 psia is 143.5°F.

Figures SPSB-C-33-5 and SPSB-C-33-6 show suppression pool water level response for the short-term and long-term post-LOCA, respectively. The SHEX suppression pool volume was converted to an equivalent level using VYNPS suppression pool geometric data. The NPSH calculation was not based on a time-dependent level. Short-term NPSH was determined at 600 seconds using a level of 11.93 ft. The SHEX equivalent

level is 12.24 ft. Long-term NPSH was determined using a level of 12.03 ft. The SHEX equivalent at the peak suppression pool temperature was 12.27 ft. The levels used for the NPSH calculation are based on the current licensing basis.

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-1
SHEX Short-Term (600 sec) DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
0	16.40	170.0	14.70	90.0	14.70	90.0	6.800E+04
0.674805	29.33	231.0	19.14	125.8	19.14	90.7	6.814E+04
3.487305	37.50	261.5	27.14	135.8	27.14	97.3	6.918E+04
12.11231	37.24	262.9	28.79	120.2	28.79	118.1	7.264E+04
20.98731	33.36	298.5	30.34	129.8	30.34	130.5	7.406E+04
28.75293	33.30	256.4	30.99	134.0	30.99	134.4	7.437E+04
32.12793	33.10	256.0	31.04	134.2	31.04	135.4	7.439E+04
35.40918	33.12	256.1	31.05	134.3	31.05	136.1	7.449E+04
39.65918	33.16	256.1	31.07	134.3	31.07	136.9	7.461E+04
56.22168	33.23	256.2	31.15	134.2	31.15	139.4	7.507E+04
72.56543	32.94	255.7	31.21	134.1	31.21	140.4	7.547E+04
95.09668	31.01	252.2	31.48	135.0	31.48	142.2	7.639E+04
106.1592	29.69	248.0	30.18	127.6	30.18	144.1	7.684E+04
116.7217	28.17	242.4	28.65	124.2	28.65	146.0	7.733E+04
127.2842	26.62	236.1	27.12	120.7	27.12	147.8	7.785E+04
136.8467	25.08	229.4	25.55	116.8	25.55	149.3	7.822E+04
147.7529	23.56	222.1	24.05	113.1	24.05	150.8	7.864E+04
161.2842	22.06	213.9	22.55	109.2	22.54	152.5	7.914E+04
176.5654	20.57	205.0	21.08	105.2	21.08	154.0	7.934E+04
190.3154	19.55	198.0	20.03	102.4	20.03	155.0	7.945E+04
207.1279	18.62	190.9	19.09	100.0	19.09	156.1	7.951E+04
226.4717	17.91	184.8	18.41	98.8	18.41	157.1	7.956E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-1
SHEX Short-Term (600 sec) DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
246.3154	17.48	180.6	17.95	98.3	17.94	157.9	7.956E+04
273.8467	17.14	177.1	17.63	98.9	17.63	158.8	7.956E+04
301.4092	16.99	175.1	17.47	100.0	17.47	159.6	7.952E+04
332.7217	16.93	174.0	17.40	101.5	17.40	160.4	7.949E+04
367.6279	16.92	173.4	17.40	103.2	17.40	161.2	7.945E+04
398.2529	16.93	173.1	17.41	104.5	17.41	161.9	7.943E+04
429.1904	16.95	173.0	17.44	105.8	17.44	162.4	7.942E+04
460.6904	17.00	173.0	17.44	106.9	17.44	163.0	7.940E+04
491.6904	17.03	173.0	17.49	108.1	17.49	163.5	7.940E+04
522.6904	17.07	173.2	17.54	109.1	17.54	164.0	7.939E+04
553.7529	17.11	173.3	17.58	110.0	17.58	164.5	7.939E+04
585.0029	17.14	173.5	17.64	111.0	17.64	164.9	7.939E+04
600.0654	17.17	173.6	17.64	111.3	17.64	165.1	7.939E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
0	16.40	170.00	14.70	90.0	14.70	90.0	6.800E+04
138.1357	29.74	248.30	30.22	127.6	30.22	149.2	7.681E+04
236.792	24.38	227.40	24.87	114.0	24.87	157.4	7.677E+04
353.1982	19.86	201.10	20.35	105.0	20.34	162.5	7.769E+04
500.0107	18.16	186.20	18.65	106.8	18.65	166.1	7.818E+04
552.042	18.01	184.20	18.50	108.6	18.49	167.1	7.825E+04
785.6045	17.28	167.70	17.71	149.8	17.71	169.7	7.921E+04
1097.855	17.52	168.80	17.94	152.1	17.94	171.8	7.926E+04
1410.355	17.70	169.90	18.19	154.3	18.19	173.7	7.930E+04
1722.073	17.91	171.00	18.36	155.4	18.36	175.3	7.933E+04
2033.355	18.09	171.90	18.57	156.5	18.57	176.6	7.936E+04
2343.417	18.28	172.80	18.78	158.2	18.77	177.9	7.938E+04
2653.073	18.48	173.60	18.96	159.3	18.95	179.0	7.941E+04
2962.323	18.68	174.40	19.18	160.2	19.17	180.0	7.942E+04
3270.355	18.90	175.10	19.38	161.8	19.37	181.0	7.943E+04
3578.792	19.09	175.70	19.59	163.2	19.58	181.9	7.944E+04
3887.23	19.27	176.30	19.77	163.9	19.76	182.6	7.944E+04
4196.48	19.43	176.90	19.91	164.8	19.90	183.4	7.944E+04
4506.136	19.58	177.40	20.06	165.2	20.05	184.0	7.946E+04
4815.792	19.73	177.80	20.22	165.9	20.20	184.6	7.946E+04
5125.042	19.87	178.30	20.36	166.7	20.34	185.2	7.946E+04
5434.23	20.01	178.70	20.50	167.6	20.49	185.7	7.947E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
5736.948	20.15	179.10	20.63	167.9	20.61	186.2	7.947E+04
6031.792	20.30	179.40	20.77	168.5	20.76	186.7	7.947E+04
6275.292	20.42	179.70	20.83	168.3	20.82	187.0	7.947E+04
6534.73	20.51	180.00	21.00	169.6	20.98	187.4	7.946E+04
6814.355	20.63	180.30	21.10	170.7	21.08	187.7	7.947E+04
7115.386	20.73	180.60	21.23	171.9	21.21	188.1	7.947E+04
7420.605	20.86	180.90	21.34	173.1	21.32	188.5	7.947E+04
7724.355	20.96	181.10	21.44	174.0	21.42	188.8	7.947E+04
8035.636	21.03	181.40	21.52	174.7	21.50	189.1	7.947E+04
8346.917	21.10	181.70	21.58	175.2	21.56	189.5	7.948E+04
8659.011	21.16	181.90	21.65	175.6	21.63	189.8	7.949E+04
8971.105	21.21	182.10	21.70	176.0	21.68	190.0	7.950E+04
9282.792	21.26	182.30	21.74	176.3	21.72	190.3	7.950E+04
9595.292	21.30	182.50	21.80	176.6	21.78	190.6	7.951E+04
9907.386	21.35	182.70	21.84	176.9	21.81	190.8	7.951E+04
10219.89	21.38	182.90	21.88	177.1	21.86	191.0	7.953E+04
10531.98	21.43	183.10	21.91	177.3	21.88	191.2	7.953E+04
10844.48	21.46	183.30	21.95	177.5	21.93	191.4	7.954E+04
11469.07	21.53	183.60	22.02	177.9	21.99	191.8	7.956E+04
12093.67	21.60	183.90	22.09	178.3	22.06	192.2	7.957E+04
12718.67	21.66	184.20	22.15	178.7	22.12	192.5	7.957E+04
13343.26	21.72	184.40	22.20	179.0	22.17	192.8	7.959E+04
13968.26	21.76	184.70	22.26	179.3	22.23	193.1	7.960E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
14592.01	21.82	184.90	22.30	179.6	22.26	193.4	7.960E+04
15169.6	21.86	185.10	22.35	179.9	22.31	193.6	7.961E+04
15794.6	21.90	185.20	22.38	180.0	22.34	193.8	7.961E+04
16419.61	21.92	185.40	22.42	180.2	22.38	194.0	7.963E+04
17044.2	21.96	185.50	22.44	180.4	22.39	194.2	7.962E+04
17669.2	21.98	185.60	22.47	180.5	22.43	194.3	7.962E+04
18293.79	22.00	185.70	22.49	180.7	22.44	194.4	7.964E+04
18906.76	22.02	185.70	22.51	180.8	22.46	194.5	7.963E+04
19531.76	22.02	185.80	22.52	180.9	22.47	194.6	7.963E+04
20156.36	22.03	185.80	22.52	180.9	22.46	194.6	7.963E+04
20781.36	22.04	185.80	22.53	181.0	22.48	194.6	7.963E+04
21406.36	22.04	185.80	22.53	181.0	22.48	194.6	7.963E+04
22030.95	22.04	185.80	22.53	181.0	22.47	194.6	7.963E+04
22655.95	22.04	185.80	22.53	181.0	22.47	194.6	7.963E+04
23244.98	22.06	185.80	22.54	181.2	22.48	194.7	7.962E+04
23811.7	***22.06***	***185.80***	***22.54***	***181.2***	***22.48***	***194.7***	7.962E+04
23869.98	22.06	185.80	22.55	181.2	22.48	194.7	7.963E+04
24494.98	22.05	185.80	22.54	181.2	22.48	194.7	7.962E+04
25119.98	22.05	185.80	22.54	181.2	22.47	194.7	7.962E+04
25744.98	22.05	185.80	22.54	181.2	22.47	194.6	7.962E+04
26369.98	22.04	185.70	22.53	181.1	22.46	194.6	7.962E+04
26994.98	22.03	185.70	22.53	181.1	22.46	194.6	7.962E+04
27595.76	22.04	185.70	22.53	181.2	22.46	194.5	7.962E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
28220.36	22.03	185.60	22.52	181.2	22.45	194.5	7.961E+04
28844.95	22.02	185.60	22.51	181.2	22.44	194.5	7.961E+04
29469.95	22.01	185.50	22.51	181.2	22.43	194.4	7.961E+04
30094.54	22.00	185.40	22.50	181.2	22.42	194.3	7.961E+04
30719.14	22.00	185.40	22.48	181.1	22.41	194.3	7.960E+04
31343.73	21.99	185.30	22.47	181.1	22.39	194.2	7.959E+04
31968.73	21.97	185.30	22.47	181.1	22.39	194.2	7.959E+04
32592.92	21.97	185.20	22.45	181.1	22.37	194.1	7.959E+04
33191.54	21.97	185.10	22.46	181.2	22.37	194.0	7.958E+04
33815.73	21.96	185.00	22.45	181.2	22.36	193.9	7.958E+04
34440.32	21.94	184.90	22.44	181.2	22.35	193.8	7.956E+04
35064.51	21.93	184.80	22.42	181.1	22.33	193.7	7.956E+04
35688.7	21.92	184.70	22.41	181.1	22.32	193.6	7.956E+04
36312.89	21.90	184.60	22.39	181.1	22.29	193.5	7.955E+04
36937.07	21.89	184.50	22.37	181.0	22.28	193.4	7.954E+04
37561.26	21.87	184.40	22.36	181.0	22.26	193.3	7.954E+04
38185.45	21.86	184.30	22.35	181.0	22.25	193.2	7.953E+04
38809.64	21.84	184.20	22.33	181.0	22.23	193.0	7.953E+04
39423.29	21.82	184.10	22.31	181.0	22.21	192.9	7.951E+04
40020.36	21.80	183.90	22.30	180.9	22.20	192.8	7.951E+04
40644.14	21.78	183.80	22.28	180.9	22.18	192.6	7.951E+04
41267.92	21.77	183.70	22.26	180.9	22.15	192.5	7.949E+04
41891.7	21.75	183.50	22.24	180.8	22.13	192.4	7.949E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
42515.48	21.73	183.40	22.22	180.8	22.11	192.2	7.948E+04
43139.26	21.72	183.30	22.20	180.8	22.09	192.1	7.946E+04
43763.45	21.69	183.10	22.19	180.8	22.08	191.9	7.946E+04
44387.64	21.67	183.00	22.16	180.7	22.05	191.8	7.946E+04
45012.23	21.65	182.90	22.14	180.6	22.03	191.6	7.944E+04
45637.23	21.62	182.70	22.12	180.5	22.01	191.5	7.944E+04
46189.45	21.60	182.60	22.09	180.3	21.97	191.3	7.944E+04
46724.76	21.58	182.50	22.05	180.1	21.93	191.2	7.942E+04
47260.45	21.55	182.30	22.03	180.1	21.91	191.0	7.942E+04
47796.32	21.52	182.10	22.01	180.0	21.89	190.9	7.941E+04
48331.95	21.49	182.00	21.98	179.8	21.86	190.7	7.941E+04
48867.57	21.46	181.90	21.95	179.7	21.83	190.6	7.940E+04
49406.11	21.42	181.60	21.91	179.5	21.78	190.4	7.939E+04
50656.11	21.37	181.40	21.84	179.1	21.72	190.0	7.939E+04
51906.11	21.31	181.10	21.78	178.8	21.65	189.7	7.937E+04
53156.11	21.25	180.80	21.72	178.5	21.58	189.4	7.935E+04
54406.11	21.19	180.40	21.65	178.1	21.52	189.0	7.934E+04
55555.17	21.13	180.10	21.60	177.9	21.46	188.7	7.932E+04
56805.17	21.07	179.80	21.53	177.5	21.39	188.3	7.932E+04
58055.17	21.01	179.50	21.47	177.1	21.32	187.9	7.930E+04
59300.54	20.94	179.10	21.42	176.9	21.27	187.6	7.928E+04
60550.54	20.88	178.80	21.36	176.5	21.21	187.2	7.927E+04
61800.54	20.82	178.50	21.30	176.2	21.15	186.9	7.925E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
63050.54	20.76	178.10	21.24	175.9	21.09	186.5	7.923E+04
64300.54	20.71	177.80	21.18	175.6	21.02	186.1	7.923E+04
65550.54	20.65	177.50	21.12	175.2	20.96	185.8	7.921E+04
66776.29	20.59	177.20	21.07	174.9	20.91	185.5	7.920E+04
67847.79	20.54	176.90	21.01	174.6	20.84	185.1	7.918E+04
69092.29	20.48	176.60	20.95	174.3	20.78	184.8	7.918E+04
70342.29	20.43	176.30	20.90	173.9	20.72	184.4	7.916E+04
71592.29	20.37	176.00	20.84	173.6	20.66	184.1	7.915E+04
72842.29	20.32	175.70	20.79	173.3	20.61	183.8	7.913E+04
74092.29	20.26	175.40	20.73	173.0	20.55	183.4	7.912E+04
75342.29	20.21	175.10	20.68	172.7	20.49	183.1	7.911E+04
76592.29	20.16	174.80	20.63	172.4	20.44	182.8	7.910E+04
77842.29	20.11	174.50	20.58	172.1	20.38	182.4	7.908E+04
79092.29	20.06	174.20	20.53	171.8	20.33	182.1	7.908E+04
80342.29	20.01	173.90	20.48	171.4	20.28	181.8	7.906E+04
81592.29	19.96	173.60	20.43	171.1	20.22	181.5	7.905E+04
82842.29	19.91	173.30	20.38	170.8	20.17	181.2	7.903E+04
84089.91	19.86	173.00	20.34	170.6	20.13	180.8	7.903E+04
85339.91	19.81	172.70	20.28	170.2	20.07	180.5	7.901E+04
86589.91	19.77	172.40	20.23	169.9	20.02	180.2	7.900E+04
87839.91	19.72	172.10	20.20	169.7	19.98	179.9	7.900E+04
89089.91	19.67	171.80	20.16	169.5	19.94	179.6	7.898E+04
90339.91	19.63	171.60	20.11	169.2	19.89	179.3	7.897E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
91589.91	19.58	171.30	20.07	168.9	19.84	179.0	7.896E+04
92839.91	19.53	171.00	20.02	168.6	19.79	178.6	7.895E+04
94089.91	19.49	170.70	19.98	168.3	19.75	178.3	7.893E+04
95339.91	19.44	170.40	19.93	168.0	19.70	178.0	7.892E+04
96589.91	19.40	170.20	19.89	167.7	19.65	177.7	7.892E+04
97839.91	19.36	169.90	19.85	167.4	19.61	177.4	7.890E+04
99089.91	19.31	169.60	19.81	167.2	19.56	177.1	7.889E+04
100339.9	19.27	169.30	19.76	166.9	19.52	176.8	7.888E+04
101589.9	19.23	169.10	19.72	166.6	19.47	176.5	7.887E+04
102839.9	19.18	168.80	19.68	166.3	19.43	176.2	7.887E+04
104089.7	19.15	168.50	19.63	166.0	19.37	175.9	7.885E+04
105339.7	19.11	168.30	19.60	165.8	19.34	175.7	7.884E+04
106589.7	19.08	168.10	19.57	165.6	19.31	175.4	7.884E+04
107839.7	19.04	167.90	19.53	165.4	19.27	175.2	7.882E+04
109089.7	19.01	167.60	19.50	165.2	19.23	175.0	7.882E+04
110339.7	18.98	167.50	19.47	165.0	19.20	174.8	7.881E+04
111589.7	18.96	167.30	19.44	164.8	19.16	174.5	7.881E+04
112839.7	18.93	167.10	19.40	164.6	19.13	174.4	7.879E+04
114089.7	18.90	166.90	19.37	164.4	19.09	174.2	7.879E+04
115339.7	18.87	166.70	19.34	164.2	19.06	174.0	7.879E+04
116589.7	18.85	166.60	19.31	164.0	19.02	173.8	7.878E+04
117839.7	18.82	166.40	19.28	163.8	18.99	173.6	7.877E+04
119055.5	18.79	166.20	19.25	163.6	18.96	173.4	7.876E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
120305.5	18.77	166.00	19.22	163.5	18.93	173.2	7.876E+04
121555.5	18.74	165.90	19.19	163.3	18.90	173.0	7.876E+04
122802	18.72	165.70	19.17	163.1	18.87	172.8	7.874E+04
124052	18.69	165.50	19.14	163.0	18.84	172.7	7.874E+04
125302	18.67	165.40	19.11	162.8	18.81	172.5	7.873E+04
126552	18.64	165.20	19.08	162.6	18.77	172.3	7.873E+04
127802	18.62	165.10	19.05	162.4	18.75	172.1	7.873E+04
129052	18.60	164.90	19.03	162.3	18.72	171.9	7.871E+04
130302	18.57	164.70	19.00	162.1	18.69	171.8	7.871E+04
131552	18.55	164.60	18.98	162.0	18.66	171.6	7.871E+04
132802	18.53	164.40	18.95	161.8	18.63	171.4	7.870E+04
134052	18.50	164.30	18.93	161.7	18.61	171.3	7.870E+04
135302	18.48	164.10	18.91	161.5	18.58	171.1	7.868E+04
136552	18.46	164.00	18.88	161.4	18.56	170.9	7.868E+04
137802	18.44	163.80	18.86	161.2	18.53	170.7	7.868E+04
139052	18.42	163.70	18.84	161.1	18.50	170.6	7.867E+04
140302	18.39	163.50	18.81	160.9	18.47	170.4	7.867E+04
141552	18.37	163.40	18.79	160.8	18.45	170.2	7.867E+04
142802	18.35	163.20	18.76	160.6	18.42	170.1	7.865E+04
144052	18.33	163.10	18.74	160.5	18.39	169.9	7.865E+04
145302	18.31	162.90	18.72	160.3	18.37	169.8	7.865E+04
146552	18.29	162.80	18.70	160.2	18.34	169.6	7.864E+04
147802	18.26	162.60	18.67	160.0	18.32	169.4	7.864E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
149052	18.24	162.50	18.65	159.9	18.29	169.3	7.864E+04
150302	18.22	162.30	18.63	159.7	18.27	169.1	7.862E+04
151552	18.20	162.20	18.60	159.6	18.24	168.9	7.862E+04
152802	18.18	162.00	18.58	159.4	18.22	168.8	7.862E+04
154052	18.16	161.90	18.56	159.3	18.19	168.6	7.861E+04
155302	18.14	161.70	18.54	159.1	18.17	168.5	7.861E+04
156552	18.12	161.60	18.52	159.0	18.14	168.3	7.860E+04
157802	18.10	161.40	18.49	158.8	18.12	168.1	7.859E+04
159052	18.08	161.30	18.47	158.7	18.09	168.0	7.859E+04
160302	18.06	161.20	18.45	158.6	18.07	167.8	7.859E+04
161552	18.04	161.00	18.43	158.4	18.04	167.7	7.858E+04
162802	18.02	160.90	18.41	158.3	18.02	167.5	7.858E+04
164052	18.00	160.70	18.39	158.1	18.00	167.4	7.858E+04
165302	17.98	160.60	18.37	158.0	17.97	167.2	7.856E+04
166552	17.96	160.40	18.34	157.8	17.95	167.0	7.856E+04
167802	17.94	160.30	18.32	157.7	17.92	166.9	7.856E+04
169052	17.92	160.10	18.31	157.6	17.90	166.7	7.855E+04
170302	17.90	160.00	18.30	157.6	17.90	166.6	7.855E+04
171552	17.88	159.90	18.29	157.5	17.88	166.4	7.854E+04
172802	17.87	159.70	18.27	157.3	17.86	166.3	7.853E+04
174052	17.85	159.60	18.25	157.2	17.83	166.1	7.853E+04
175302	17.83	159.40	18.23	157.1	17.81	166.0	7.853E+04
176552	17.81	159.30	18.21	156.9	17.79	165.8	7.852E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
177802	17.79	159.20	18.19	156.8	17.76	165.6	7.852E+04
179052	17.77	159.00	18.17	156.6	17.74	165.5	7.851E+04
180302	17.75	158.90	18.15	156.5	17.72	165.3	7.850E+04
181552	17.73	158.70	18.13	156.4	17.70	165.2	7.850E+04
182802	17.71	158.60	18.11	156.2	17.67	165.0	7.850E+04
184052	17.70	158.40	18.09	156.1	17.65	164.9	7.849E+04
185302	17.68	158.30	18.07	156.0	17.63	164.7	7.849E+04
186552	17.66	158.20	18.05	155.8	17.61	164.6	7.849E+04
187802	17.64	158.00	18.03	155.7	17.58	164.4	7.847E+04
189052	17.62	157.90	18.01	155.5	17.56	164.3	7.847E+04
190302	17.60	157.70	17.99	155.4	17.54	164.1	7.847E+04
191552	17.59	157.60	17.97	155.3	17.52	164.0	7.846E+04
192802	17.57	157.50	17.95	155.1	17.50	163.8	7.846E+04
194052	17.55	157.30	17.93	155.0	17.47	163.6	7.846E+04
195302	17.53	157.20	17.91	154.9	17.45	163.5	7.846E+04
196552	17.51	157.00	17.90	154.7	17.43	163.3	7.844E+04
197802	17.49	156.90	17.88	154.6	17.41	163.2	7.844E+04
199052	17.48	156.80	17.86	154.4	17.39	163.0	7.844E+04
200302	17.46	156.60	17.84	154.3	17.37	162.9	7.843E+04
201552	17.44	156.50	17.82	154.2	17.34	162.7	7.843E+04
202802	17.42	156.30	17.80	154.0	17.32	162.6	7.843E+04
204052	17.41	156.20	17.78	153.9	17.30	162.4	7.841E+04
205302	17.39	156.10	17.77	153.8	17.28	162.3	7.841E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
206552	17.37	156.00	17.75	153.7	17.26	162.1	7.841E+04
207802	17.36	155.80	17.73	153.5	17.24	162.0	7.841E+04
209052	17.34	155.70	17.72	153.4	17.23	161.9	7.840E+04
210302	17.33	155.60	17.70	153.3	17.21	161.7	7.840E+04
211552	17.31	155.50	17.69	153.2	17.19	161.6	7.840E+04
212802	17.30	155.40	17.67	153.1	17.17	161.5	7.839E+04
214052	17.29	155.20	17.66	153.0	17.15	161.4	7.839E+04
215302	17.27	155.10	17.64	152.9	17.14	161.2	7.838E+04
216552	17.26	155.00	17.63	152.7	17.12	161.1	7.838E+04
217802	17.25	154.90	17.61	152.6	17.10	161.0	7.837E+04
219052	17.23	154.80	17.60	152.5	17.09	160.9	7.837E+04
220302	17.22	154.70	17.59	152.4	17.07	160.8	7.837E+04
221552	17.21	154.60	17.57	152.3	17.06	160.7	7.837E+04
222802	17.20	154.50	17.56	152.2	17.04	160.6	7.837E+04
224052	17.18	154.40	17.55	152.1	17.02	160.5	7.836E+04
225302	17.17	154.30	17.54	152.1	17.01	160.4	7.836E+04
226552	17.16	154.20	17.53	152.0	16.99	160.2	7.836E+04
227802	17.15	154.10	17.51	151.9	16.98	160.1	7.835E+04
229052	17.14	154.00	17.50	151.8	16.96	160.0	7.835E+04
230302	17.13	153.90	17.49	151.7	16.95	159.9	7.834E+04
231552	17.11	153.90	17.48	151.6	16.94	159.8	7.834E+04
232802	17.10	153.80	17.47	151.5	16.92	159.7	7.834E+04
234047.9	17.09	153.70	17.45	151.4	16.91	159.6	7.834E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
235297.9	17.08	153.60	17.44	151.3	16.89	159.5	7.834E+04
236547.9	17.07	153.50	17.43	151.3	16.88	159.4	7.833E+04
237797.9	17.06	153.40	17.42	151.2	16.87	159.3	7.833E+04
239047.9	17.05	153.30	17.41	151.1	16.85	159.3	7.833E+04
240297.9	17.04	153.30	17.40	151.0	16.84	159.2	7.833E+04
241547.9	17.03	153.20	17.39	150.9	16.83	159.1	7.833E+04
242797.9	17.02	153.10	17.38	150.8	16.81	159.0	7.831E+04
244047.9	17.01	153.00	17.37	150.8	16.80	158.9	7.831E+04
245297.9	17.00	152.90	17.36	150.7	16.79	158.8	7.831E+04
246547.9	16.99	152.80	17.35	150.6	16.77	158.7	7.831E+04
247797.9	16.98	152.80	17.34	150.5	16.76	158.6	7.831E+04
249047.9	16.97	152.70	17.33	150.5	16.75	158.6	7.831E+04
250297.9	16.97	152.60	17.32	150.4	16.74	158.5	7.830E+04
251547.9	16.96	152.50	17.31	150.3	16.72	158.4	7.830E+04
252797.9	16.95	152.50	17.30	150.2	16.71	158.3	7.830E+04
254047.9	16.94	152.40	17.29	150.2	16.70	158.2	7.830E+04
255297.9	16.93	152.30	17.28	150.1	16.69	158.1	7.830E+04
256547.9	16.92	152.20	17.27	150.0	16.68	158.0	7.830E+04
257797.9	16.91	152.20	17.27	149.9	16.66	158.0	7.829E+04
259047.9	16.87	151.80	17.25	149.8	16.65	157.8	7.829E+04
260297.9	16.85	151.70	17.23	149.7	16.63	157.7	7.829E+04
261547.9	16.84	151.50	17.22	149.5	16.61	157.5	7.828E+04
262797.8	16.83	151.40	17.20	149.4	16.59	157.4	7.828E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
264047.8	16.81	151.30	17.19	149.3	16.57	157.2	7.827E+04
265297.8	16.80	151.20	17.17	149.2	16.55	157.1	7.827E+04
266547.8	16.78	151.00	17.16	149.0	16.54	156.9	7.826E+04
267797.8	16.77	150.90	17.14	148.9	16.52	156.8	7.826E+04
269047.8	16.75	150.80	17.13	148.8	16.50	156.7	7.826E+04
270297.8	16.74	150.70	17.12	148.7	16.49	156.5	7.826E+04
271547.8	16.73	150.60	17.10	148.6	16.47	156.4	7.825E+04
272797.8	16.72	150.50	17.09	148.5	16.46	156.3	7.825E+04
274047.8	16.70	150.40	17.08	148.4	16.44	156.2	7.825E+04
275297.8	16.69	150.20	17.07	148.3	16.43	156.1	7.825E+04
276547.8	16.68	150.10	17.05	148.2	16.41	155.9	7.823E+04
277797.8	16.67	150.00	17.04	148.1	16.40	155.8	7.823E+04
279047.8	16.66	149.90	17.03	148.0	16.38	155.7	7.823E+04
280297.8	16.64	149.80	17.02	147.9	16.37	155.6	7.823E+04
281547.8	16.63	149.70	17.01	147.8	16.36	155.5	7.822E+04
282797.8	16.62	149.60	17.00	147.7	16.34	155.4	7.822E+04
284047.8	16.61	149.50	16.99	147.6	16.33	155.3	7.822E+04
285297.8	16.60	149.40	16.98	147.5	16.32	155.2	7.822E+04
286547.8	16.59	149.30	16.97	147.4	16.30	155.1	7.822E+04
287797.8	16.58	149.30	16.96	147.3	16.29	155.0	7.820E+04
289047.8	16.57	149.20	16.95	147.2	16.28	154.9	7.820E+04
290297.8	16.56	149.10	16.94	147.1	16.26	154.8	7.820E+04
291547.8	16.55	149.00	16.93	147.1	16.25	154.7	7.820E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
292797.8	16.54	148.90	16.92	147.0	16.24	154.6	7.820E+04
294047.8	16.53	148.80	16.91	146.9	16.23	154.5	7.819E+04
295297.8	16.52	148.70	16.90	146.8	16.21	154.4	7.819E+04
296547.8	16.51	148.60	16.89	146.7	16.20	154.3	7.819E+04
297797.8	16.50	148.60	16.88	146.6	16.19	154.2	7.819E+04
299047.8	16.49	148.50	16.87	146.6	16.18	154.1	7.819E+04
300297.8	16.48	148.40	16.86	146.5	16.17	154.0	7.819E+04
301547.8	16.47	148.30	16.85	146.4	16.16	153.9	7.818E+04
302797.8	16.47	148.20	16.85	146.3	16.15	153.9	7.818E+04
304047.8	16.46	148.10	16.84	146.2	16.13	153.8	7.818E+04
305297.8	16.45	148.10	16.83	146.2	16.12	153.7	7.818E+04
306547.8	16.44	148.00	16.82	146.1	16.11	153.6	7.818E+04
307797.8	16.43	147.90	16.81	146.0	16.10	153.5	7.818E+04
309047.8	16.42	147.80	16.80	145.9	16.09	153.4	7.816E+04
310297.8	16.41	147.80	16.80	145.9	16.08	153.3	7.816E+04
311547.8	16.41	147.70	16.79	145.8	16.07	153.3	7.816E+04
312797.8	16.40	147.60	16.78	145.7	16.06	153.2	7.816E+04
314047.8	16.39	147.50	16.77	145.6	16.05	153.1	7.816E+04
315297.8	16.38	147.50	16.76	145.6	16.04	153.0	7.816E+04
316547.8	16.37	147.40	16.76	145.5	16.03	152.9	7.815E+04
317797.8	16.36	147.30	16.75	145.4	16.02	152.8	7.815E+04
319047.8	16.36	147.20	16.74	145.4	16.01	152.8	7.815E+04
320297.8	16.35	147.20	16.73	145.3	16.00	152.7	7.815E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
321547.8	16.34	147.10	16.73	145.2	15.98	152.6	7.815E+04
322797.8	16.33	147.00	16.72	145.2	15.98	152.5	7.815E+04
324047.8	16.33	146.90	16.71	145.1	15.97	152.4	7.814E+04
325297.8	16.32	146.90	16.70	145.0	15.95	152.4	7.814E+04
326547.8	16.31	146.80	16.70	144.9	15.95	152.3	7.814E+04
327797.8	16.30	146.70	16.69	144.9	15.94	152.2	7.813E+04
329047.8	16.29	146.60	16.68	144.8	15.93	152.1	7.813E+04
330297.8	16.29	146.60	16.68	144.7	15.92	152.1	7.813E+04
331547.8	16.28	146.50	16.67	144.7	15.91	152.0	7.813E+04
332797.8	16.27	146.40	16.66	144.6	15.90	151.9	7.812E+04
334047.8	16.26	146.40	16.66	144.5	15.89	151.8	7.812E+04
335297.8	16.26	146.30	16.65	144.5	15.88	151.7	7.812E+04
336547.8	16.25	146.20	16.64	144.4	15.87	151.7	7.812E+04
337797.8	16.24	146.20	16.64	144.3	15.86	151.6	7.812E+04
339047.8	16.24	146.10	16.63	144.3	15.85	151.5	7.812E+04
340297.8	16.23	146.00	16.62	144.2	15.84	151.4	7.812E+04
341547.8	16.22	146.00	16.62	144.1	15.83	151.4	7.811E+04
342797.8	16.21	145.90	16.61	144.1	15.82	151.3	7.811E+04
344047.8	16.21	145.80	16.60	144.0	15.81	151.2	7.811E+04
345297.8	16.20	145.70	16.60	143.9	15.80	151.1	7.811E+04
346547.8	16.19	145.70	16.59	143.9	15.79	151.1	7.811E+04
347797.8	16.18	145.60	16.58	143.8	15.78	151.0	7.811E+04
349047.8	16.18	145.50	16.58	143.7	15.77	150.9	7.811E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
350297.8	16.17	145.50	16.57	143.7	15.76	150.8	7.809E+04
351547.8	16.16	145.40	16.56	143.6	15.75	150.8	7.809E+04
352797.8	16.15	145.30	16.56	143.5	15.74	150.7	7.809E+04
354047.8	16.15	145.30	16.55	143.5	15.74	150.6	7.809E+04
355297.8	16.14	145.20	16.54	143.4	15.73	150.5	7.809E+04
356547.8	16.13	145.10	16.54	143.3	15.72	150.5	7.809E+04
357797.8	16.13	145.10	16.53	143.3	15.71	150.4	7.808E+04
359047.8	16.12	145.00	16.52	143.2	15.70	150.3	7.808E+04
360297.8	16.11	144.90	16.52	143.2	15.69	150.2	7.808E+04
361547.8	16.11	144.90	16.51	143.1	15.68	150.2	7.808E+04
362797.8	16.10	144.80	16.50	143.0	15.67	150.1	7.808E+04
364047.8	16.09	144.70	16.50	143.0	15.66	150.0	7.808E+04
365297.8	16.08	144.60	16.49	142.9	15.65	149.9	7.808E+04
366547.8	16.08	144.60	16.49	142.8	15.65	149.9	7.808E+04
367797.8	16.07	144.50	16.48	142.8	15.64	149.8	7.807E+04
369047.8	16.06	144.40	16.47	142.7	15.63	149.7	7.807E+04
370297.8	16.06	144.40	16.47	142.6	15.62	149.6	7.807E+04
371547.8	16.05	144.30	16.46	142.6	15.61	149.6	7.807E+04
372797.8	16.04	144.20	16.46	142.5	15.60	149.5	7.807E+04
374047.8	16.04	144.20	16.45	142.5	15.59	149.4	7.807E+04
375297.8	16.03	144.10	16.44	142.4	15.58	149.3	7.807E+04
376547.8	16.02	144.00	16.44	142.3	15.58	149.3	7.805E+04
377797.8	16.02	144.00	16.43	142.3	15.57	149.2	7.805E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
379047.8	16.01	143.90	16.43	142.2	15.56	149.1	7.805E+04
380297.8	16.00	143.80	16.42	142.1	15.55	149.1	7.805E+04
381547.8	16.00	143.80	16.42	142.1	15.54	149.0	7.805E+04
382797.8	15.99	143.70	16.41	142.0	15.53	148.9	7.805E+04
384047.8	15.98	143.70	16.40	141.9	15.52	148.8	7.805E+04
385297.8	15.98	143.60	16.40	141.9	15.51	148.8	7.804E+04
386547.8	15.97	143.50	16.39	141.8	15.51	148.7	7.804E+04
387797.8	15.96	143.50	16.39	141.8	15.50	148.6	7.804E+04
389047.8	15.96	143.40	16.38	141.7	15.49	148.6	7.804E+04
390297.8	15.95	143.30	16.38	141.6	15.48	148.5	7.804E+04
391547.8	15.94	143.30	16.37	141.6	15.47	148.4	7.804E+04
392797.8	15.94	143.20	16.36	141.5	15.46	148.3	7.804E+04
394047.8	15.93	143.10	16.36	141.4	15.46	148.3	7.803E+04
395297.8	15.92	143.10	16.35	141.4	15.45	148.2	7.803E+04
396547.8	15.92	143.00	16.35	141.3	15.44	148.1	7.803E+04
397797.8	15.91	142.90	16.34	141.3	15.43	148.1	7.802E+04
399047.8	15.90	142.90	16.34	141.2	15.42	148.0	7.802E+04
400297.8	15.90	142.80	16.33	141.1	15.41	147.9	7.802E+04
401547.8	15.89	142.70	16.33	141.1	15.41	147.8	7.802E+04
402797.8	15.89	142.70	16.32	141.0	15.40	147.8	7.802E+04
404047.8	15.88	142.60	16.32	141.0	15.39	147.7	7.801E+04
405297.8	15.87	142.60	16.31	140.9	15.38	147.6	7.801E+04
406547.8	15.87	142.50	16.31	140.9	15.38	147.6	7.801E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
407797.8	15.86	142.40	16.30	140.8	15.37	147.5	7.801E+04
409047.8	15.86	142.40	16.30	140.7	15.36	147.5	7.801E+04
410297.8	15.85	142.30	16.29	140.7	15.35	147.4	7.801E+04
411547.8	15.85	142.30	16.29	140.6	15.35	147.3	7.801E+04
412797.8	15.84	142.20	16.28	140.6	15.34	147.3	7.801E+04
414047.8	15.84	142.20	16.28	140.5	15.33	147.2	7.801E+04
415297.8	15.83	142.10	16.28	140.5	15.33	147.2	7.800E+04
416547.8	15.83	142.10	16.27	140.5	15.32	147.1	7.800E+04
417797.8	15.82	142.00	16.27	140.4	15.31	147.1	7.800E+04
419047.8	15.82	142.00	16.27	140.4	15.31	147.0	7.800E+04
420297.8	15.81	142.00	16.26	140.3	15.30	147.0	7.800E+04
421547.8	15.81	141.90	16.26	140.3	15.30	146.9	7.800E+04
422797.8	15.81	141.90	16.26	140.2	15.29	146.9	7.800E+04
424047.8	15.80	141.80	16.25	140.2	15.28	146.8	7.800E+04
425297.8	15.80	141.80	16.25	140.2	15.28	146.8	7.800E+04
426547.8	15.79	141.70	16.25	140.1	15.27	146.8	7.800E+04
427797.8	15.79	141.70	16.24	140.1	15.27	146.7	7.800E+04
429047.8	15.79	141.70	16.24	140.1	15.26	146.7	7.798E+04
430297.8	15.78	141.60	16.24	140.0	15.26	146.6	7.798E+04
431547.8	15.78	141.60	16.24	140.0	15.25	146.6	7.798E+04
432797.8	15.78	141.60	16.23	139.9	15.24	146.5	7.798E+04
434047.8	15.77	141.50	16.23	139.9	15.24	146.5	7.798E+04
435297.8	15.77	141.50	16.23	139.9	15.23	146.5	7.798E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
436547.8	15.77	141.40	16.23	139.8	15.23	146.4	7.798E+04
437797.8	15.76	141.40	16.22	139.8	15.22	146.4	7.798E+04
439047.8	15.76	141.40	16.22	139.8	15.22	146.3	7.798E+04
440294.2	15.75	141.30	16.22	139.7	15.21	146.3	7.798E+04
441544.2	15.75	141.30	16.22	139.7	15.21	146.3	7.798E+04
442794.2	15.75	141.30	16.21	139.7	15.20	146.2	7.798E+04
444044.2	15.74	141.20	16.21	139.6	15.20	146.2	7.798E+04
445294.2	15.74	141.20	16.21	139.6	15.19	146.2	7.797E+04
446544.2	15.74	141.20	16.21	139.6	15.19	146.1	7.797E+04
447794.2	15.74	141.10	16.21	139.5	15.18	146.1	7.797E+04
449044.2	15.73	141.10	16.20	139.5	15.18	146.0	7.797E+04
450295.5	15.73	141.10	16.20	139.5	15.17	146.0	7.797E+04
451545.5	15.73	141.00	16.20	139.4	15.17	146.0	7.797E+04
452795.5	15.72	141.00	16.20	139.4	15.16	145.9	7.797E+04
454045.5	15.72	141.00	16.20	139.4	15.16	145.9	7.797E+04
455295.5	15.72	141.00	16.19	139.4	15.15	145.9	7.797E+04
456545.5	15.71	140.90	16.19	139.3	15.15	145.9	7.797E+04
457795.5	15.71	140.90	16.19	139.3	15.14	145.8	7.797E+04
459045.5	15.71	140.90	16.19	139.3	15.14	145.8	7.797E+04
460295.5	15.71	140.80	16.19	139.2	15.14	145.8	7.797E+04
461545.5	15.70	140.80	16.19	139.2	15.13	145.7	7.797E+04
462795.5	15.70	140.80	16.18	139.2	15.13	145.7	7.797E+04
464045.5	15.70	140.80	16.18	139.2	15.12	145.7	7.797E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
465295.5	15.70	140.70	16.18	139.1	15.12	145.6	7.797E+04
466545.5	15.69	140.70	16.18	139.1	15.11	145.6	7.796E+04
467795.5	15.69	140.70	16.18	139.1	15.11	145.6	7.796E+04
469045.5	15.69	140.60	16.18	139.1	15.11	145.6	7.796E+04
470295.5	15.69	140.60	16.18	139.0	15.10	145.5	7.796E+04
471545.5	15.68	140.60	16.18	139.0	15.10	145.5	7.796E+04
472795.5	15.68	140.60	16.17	139.0	15.09	145.5	7.796E+04
474045.5	15.68	140.50	16.17	139.0	15.09	145.4	7.796E+04
475295.5	15.68	140.50	16.17	138.9	15.08	145.4	7.796E+04
476545.5	15.68	140.50	16.17	138.9	15.08	145.4	7.796E+04
477795.5	15.67	140.50	16.17	138.9	15.08	145.4	7.796E+04
479045.5	15.67	140.50	16.16	138.8	15.06	145.3	7.796E+04
480295.5	15.67	140.40	16.16	138.8	15.06	145.3	7.796E+04
481545.5	15.67	140.40	16.16	138.8	15.06	145.3	7.796E+04
482795.5	15.67	140.40	16.16	138.8	15.06	145.3	7.796E+04
484045.5	15.67	140.40	16.16	138.8	15.06	145.3	7.796E+04
485295.5	15.66	140.40	16.16	138.8	15.06	145.2	7.796E+04
486545.3	15.66	140.30	16.16	138.8	15.04	145.2	7.796E+04
487795.3	15.66	140.30	16.16	138.8	15.04	145.2	7.796E+04
489045.3	15.66	140.30	16.16	138.8	15.04	145.2	7.796E+04
490295.3	15.66	140.30	16.16	138.8	15.04	145.2	7.796E+04
491545.3	15.66	140.30	16.16	138.8	15.03	145.2	7.796E+04
492795.3	15.66	140.30	16.15	138.7	15.02	145.1	7.796E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
494045.3	15.66	140.20	16.15	138.7	15.02	145.1	7.796E+04
495295.3	15.66	140.20	16.15	138.7	15.02	145.1	7.796E+04
496545.3	15.66	140.20	16.15	138.7	15.02	145.1	7.796E+04
497795.3	15.65	140.20	16.15	138.7	15.01	145.1	7.794E+04
499045.3	15.65	140.20	16.14	138.6	15.00	145.0	7.794E+04
500295.3	15.65	140.20	16.14	138.6	15.00	145.0	7.794E+04
501545.3	15.65	140.20	16.14	138.6	15.00	145.0	7.794E+04
502795.3	15.65	140.10	16.14	138.6	14.99	145.0	7.794E+04
504045.3	15.65	140.10	16.14	138.6	14.99	145.0	7.794E+04
505295.3	15.65	140.10	16.14	138.6	14.99	145.0	7.794E+04
506545.3	15.65	140.10	16.13	138.5	14.97	144.9	7.794E+04
507795.3	15.64	140.10	16.13	138.5	14.97	144.9	7.794E+04
509045.3	15.64	140.00	16.13	138.5	14.97	144.9	7.794E+04
510295.3	15.64	140.00	16.13	138.5	14.97	144.8	7.794E+04
511545.3	15.64	140.00	16.12	138.4	14.95	144.8	7.794E+04
512795.3	15.63	139.90	16.12	138.4	14.95	144.8	7.794E+04
514045.3	15.63	139.90	16.12	138.4	14.95	144.8	7.794E+04
515295.3	15.63	139.90	16.12	138.4	14.95	144.7	7.794E+04
516545.3	15.63	139.90	16.13	138.4	14.95	144.7	7.794E+04
517795.3	15.63	139.80	16.11	138.3	14.93	144.7	7.794E+04
519045.3	15.62	139.80	16.11	138.3	14.93	144.6	7.794E+04
520295.3	15.62	139.80	16.11	138.3	14.93	144.6	7.794E+04
521545.3	15.62	139.80	16.12	138.3	14.92	144.6	7.794E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
522795.3	15.62	139.80	16.12	138.3	14.92	144.6	7.794E+04
524045.3	15.62	139.80	16.10	138.2	14.91	144.6	7.794E+04
525295.4	15.62	139.70	16.10	138.2	14.90	144.6	7.794E+04
526545.4	15.61	139.70	16.11	138.2	14.90	144.5	7.793E+04
527795.4	15.61	139.70	16.11	138.2	14.90	144.5	7.793E+04
529045.4	15.61	139.60	16.11	138.2	14.90	144.5	7.793E+04
530295.4	15.61	139.60	16.11	138.2	14.90	144.5	7.793E+04
531545.4	15.61	139.60	16.11	138.2	14.89	144.4	7.793E+04
532795.4	15.61	139.60	16.09	138.1	14.88	144.4	7.793E+04
534045.4	15.61	139.60	16.10	138.1	14.88	144.4	7.793E+04
535295.4	15.60	139.60	16.10	138.1	14.87	144.4	7.793E+04
536545.4	15.60	139.50	16.10	138.1	14.87	144.3	7.793E+04
537795.4	15.61	139.60	16.08	138.0	14.85	144.3	7.792E+04
539045.4	15.60	139.50	16.09	138.0	14.85	144.3	7.793E+04
540295.4	15.59	139.40	16.09	138.0	14.85	144.2	7.793E+04
541545.4	15.59	139.40	16.09	138.0	14.85	144.2	7.793E+04
542795.4	15.59	139.40	16.09	138.0	14.85	144.2	7.793E+04
544045.4	15.59	139.40	16.07	137.9	14.83	144.1	7.793E+04
545295.4	15.59	139.30	16.08	137.9	14.83	144.1	7.793E+04
546545.4	15.58	139.30	16.08	137.9	14.83	144.1	7.793E+04
547795.4	15.58	139.30	16.08	137.9	14.83	144.1	7.793E+04
549045.4	15.58	139.30	16.08	137.9	14.82	144.0	7.793E+04
550295.4	15.58	139.30	16.08	137.9	14.82	144.0	7.793E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
551545.4	15.58	139.30	16.06	137.8	14.81	144.0	7.792E+04
552795.4	15.57	139.20	16.07	137.8	14.80	144.0	7.791E+04
554045.4	15.57	139.20	16.07	137.8	14.80	144.0	7.791E+04
555295.4	15.57	139.20	16.07	137.8	14.80	144.0	7.791E+04
556545.4	15.57	139.20	16.07	137.8	14.80	143.9	7.791E+04
557795.4	15.59	139.40	16.05	137.6	14.78	143.9	7.791E+04
559045.4	15.57	139.10	16.05	137.7	14.78	143.9	7.791E+04
560295.4	15.56	139.10	16.06	137.7	14.78	143.8	7.791E+04
561545.4	15.56	139.00	16.06	137.7	14.77	143.8	7.791E+04
562795.4	15.56	139.00	16.06	137.7	14.77	143.8	7.791E+04
564045.4	15.56	139.00	16.06	137.7	14.77	143.8	7.791E+04
565295.4	15.56	139.00	16.06	137.7	14.77	143.8	7.791E+04
566545.4	15.56	139.00	16.06	137.7	14.76	143.8	7.791E+04
567795.4	15.56	139.00	16.04	137.5	14.75	143.7	7.791E+04
569045.4	15.56	139.00	16.04	137.5	14.75	143.7	7.791E+04
570295.4	15.55	138.90	16.05	137.5	14.74	143.7	7.791E+04
571545.4	15.55	138.90	16.05	137.5	14.74	143.6	7.791E+04
572795.4	15.55	138.90	16.05	137.5	14.74	143.6	7.791E+04
574045.4	15.55	138.90	16.03	137.4	14.72	143.6	7.791E+04
575295.4	15.55	138.80	16.03	137.4	14.72	143.6	7.791E+04
576545.4	15.54	138.80	16.04	137.4	14.72	143.6	7.791E+04
577795.4	15.54	138.80	16.04	137.4	14.72	143.5	7.791E+04
579045.4	15.54	138.80	16.04	137.4	14.72	143.5	7.791E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
580295.4	15.54	138.70	16.02	137.3	14.70	143.5	7.790E+04
581545.4	15.54	138.70	16.02	137.3	14.70	143.4	7.790E+04
582795.4	15.53	138.70	16.03	137.3	14.70	143.4	7.790E+04
584045.4	15.53	138.70	16.03	137.3	14.70	143.4	7.790E+04
585295.4	15.53	138.60	16.01	137.2	14.70	143.3	7.790E+04
586545.4	15.53	138.60	16.01	137.2	14.70	143.3	7.790E+04
587795.4	15.52	138.50	16.02	137.2	14.70	143.3	7.790E+04
589045.4	15.52	138.50	16.02	137.2	14.70	143.2	7.790E+04
590295.4	15.52	138.50	16.02	137.2	14.70	143.2	7.790E+04
591545.4	15.52	138.50	16.00	137.1	14.70	143.2	7.790E+04
592795.4	15.52	138.50	16.00	137.1	14.70	143.2	7.790E+04
594045.4	15.52	138.50	16.00	137.1	14.70	143.2	7.790E+04
595295.4	15.51	138.40	16.01	137.1	14.70	143.1	7.790E+04
596545.4	15.51	138.40	16.01	137.1	14.70	143.1	7.790E+04
597795.4	15.52	138.50	15.99	136.9	14.70	143.1	7.790E+04
599045.4	15.51	138.30	16.00	137.0	14.70	143.0	7.790E+04
600295.4	15.50	138.30	16.00	137.0	14.70	143.0	7.790E+04
601545.4	15.50	138.30	16.00	137.0	14.70	143.0	7.790E+04
602795.4	15.50	138.30	16.00	137.0	14.70	143.0	7.790E+04
604045.4	15.50	138.30	16.00	137.0	14.70	143.0	7.790E+04
605295.4	15.50	138.30	16.00	137.0	14.70	143.0	7.790E+04
606545.4	15.50	138.30	16.00	137.0	14.70	143.0	7.790E+04
607795.4	15.50	138.20	15.99	136.8	14.70	142.9	7.788E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
609045.4	15.50	138.20	15.99	136.8	14.70	142.9	7.788E+04
610295.4	15.49	138.20	15.99	136.8	14.70	142.8	7.788E+04
611545.4	15.49	138.10	15.99	136.8	14.70	142.8	7.788E+04
612795.4	15.49	138.10	15.98	136.7	14.70	142.8	7.788E+04
614045.4	15.49	138.10	15.98	136.7	14.70	142.8	7.788E+04
615295.4	15.49	138.10	15.98	136.7	14.70	142.8	7.788E+04
616545.4	15.48	138.10	15.98	136.7	14.70	142.7	7.788E+04
617795.4	15.48	138.00	15.98	136.7	14.70	142.7	7.788E+04
619045.4	15.48	138.00	15.98	136.7	14.70	142.7	7.788E+04
620295.4	15.48	138.00	15.97	136.6	14.70	142.7	7.788E+04
621545.4	15.48	138.00	15.97	136.6	14.70	142.6	7.788E+04
622795.4	15.48	138.00	15.97	136.6	14.70	142.6	7.788E+04
624045.4	15.47	137.90	15.97	136.6	14.70	142.6	7.788E+04
625295.4	15.47	137.90	15.96	136.5	14.70	142.5	7.788E+04
626545.4	15.47	137.90	15.96	136.5	14.70	142.5	7.788E+04
627795.4	15.47	137.90	15.96	136.5	14.70	142.5	7.788E+04
629045.4	15.47	137.90	15.96	136.5	14.70	142.5	7.788E+04
630295.4	15.47	137.80	15.96	136.5	14.70	142.5	7.788E+04
631545.4	15.46	137.80	15.96	136.5	14.70	142.4	7.788E+04
632795.4	15.46	137.80	15.95	136.4	14.70	142.4	7.788E+04
634045.4	15.46	137.70	15.95	136.4	14.70	142.4	7.787E+04
635295.4	15.46	137.70	15.95	136.4	14.70	142.3	7.787E+04
636545.4	15.45	137.70	15.95	136.4	14.70	142.3	7.787E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
637795.4	15.45	137.60	15.94	136.3	14.70	142.3	7.787E+04
639045.4	15.45	137.60	15.94	136.3	14.70	142.2	7.787E+04
640295.4	15.45	137.60	15.94	136.3	14.70	142.2	7.787E+04
641545.4	15.45	137.60	15.94	136.3	14.70	142.2	7.787E+04
642795.4	15.44	137.50	15.93	136.2	14.70	142.1	7.787E+04
644045.4	15.44	137.50	15.93	136.2	14.70	142.1	7.787E+04
645295.4	15.44	137.50	15.93	136.2	14.70	142.1	7.787E+04
646545.4	15.44	137.40	15.92	136.1	14.70	142.0	7.787E+04
647795.4	15.43	137.40	15.92	136.1	14.70	142.0	7.787E+04
649045.4	15.43	137.40	15.92	136.1	14.70	142.0	7.787E+04
650295.4	15.43	137.30	15.93	136.1	14.70	141.9	7.787E+04
651545.4	15.43	137.30	15.93	136.1	14.70	141.9	7.787E+04
652795.4	15.43	137.30	15.91	136.0	14.70	141.9	7.787E+04
654045.4	15.43	137.30	15.91	136.0	14.70	141.9	7.787E+04
655295.4	15.43	137.30	15.92	136.0	14.70	141.9	7.787E+04
656545.4	15.42	137.30	15.92	136.0	14.70	141.9	7.787E+04
657795.4	15.42	137.20	15.92	136.0	14.70	141.8	7.785E+04
659045.4	15.42	137.20	15.91	135.9	14.70	141.8	7.785E+04
660295.4	15.42	137.20	15.91	135.9	14.70	141.8	7.785E+04
661545.4	15.42	137.20	15.91	135.9	14.70	141.8	7.785E+04
662795.4	15.41	137.10	15.91	135.9	14.70	141.7	7.785E+04
664045.4	15.41	137.10	15.91	135.9	14.70	141.7	7.785E+04
665295.4	15.41	137.10	15.90	135.8	14.70	141.7	7.785E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
666545.4	15.41	137.00	15.90	135.8	14.70	141.6	7.785E+04
667795.4	15.41	137.00	15.90	135.8	14.70	141.6	7.785E+04
669045.4	15.40	137.00	15.89	135.7	14.70	141.6	7.785E+04
670295.4	15.40	137.00	15.89	135.7	14.70	141.5	7.785E+04
671545.4	15.40	136.90	15.89	135.7	14.70	141.5	7.785E+04
672795.4	15.40	136.90	15.89	135.7	14.70	141.5	7.785E+04
674045.4	15.40	136.90	15.88	135.6	14.70	141.4	7.785E+04
675295.4	15.39	136.90	15.88	135.6	14.70	141.4	7.785E+04
676545.4	15.39	136.90	15.89	135.6	14.70	141.4	7.785E+04
677795.4	15.39	136.80	15.89	135.6	14.70	141.4	7.785E+04
679045.4	15.39	136.80	15.89	135.6	14.70	141.4	7.785E+04
680295.4	15.39	136.80	15.89	135.6	14.70	141.4	7.785E+04
681545.5	15.39	136.80	15.88	135.5	14.70	141.3	7.785E+04
682795.5	15.39	136.80	15.88	135.5	14.70	141.3	7.785E+04
684045.5	15.38	136.70	15.88	135.5	14.70	141.3	7.784E+04
685295.6	15.38	136.70	15.87	135.4	14.70	141.2	7.784E+04
686545.6	15.38	136.70	15.87	135.4	14.70	141.2	7.784E+04
687795.6	15.38	136.60	15.87	135.4	14.70	141.2	7.784E+04
689045.6	15.37	136.60	15.87	135.4	14.70	141.1	7.784E+04
690295.6	15.37	136.60	15.87	135.4	14.70	141.1	7.784E+04
691545.9	15.38	136.60	15.86	135.3	14.70	141.1	7.784E+04
692795.9	15.38	136.60	15.86	135.3	14.70	141.1	7.784E+04
694045.9	15.37	136.50	15.87	135.3	14.70	141.1	7.784E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
695295.9	15.37	136.50	15.87	135.3	14.70	141.1	7.784E+04
696545.9	15.37	136.50	15.87	135.3	14.70	141.0	7.784E+04
697795.9	15.37	136.50	15.86	135.2	14.70	141.0	7.784E+04
699045.9	15.37	136.50	15.86	135.2	14.70	141.0	7.784E+04
700295.9	15.36	136.40	15.86	135.2	14.70	141.0	7.784E+04
701545.9	15.36	136.40	15.86	135.2	14.70	140.9	7.784E+04
702795.9	15.36	136.40	15.85	135.1	14.70	140.9	7.784E+04
704045.9	15.36	136.40	15.85	135.2	14.70	140.9	7.784E+04
705295.9	15.36	136.30	15.85	135.2	14.70	140.8	7.784E+04
706545.9	15.36	136.30	15.85	135.2	14.70	140.8	7.784E+04
707795.9	15.36	136.30	15.85	135.2	14.70	140.8	7.784E+04
709045.9	15.35	136.30	15.84	135.1	14.70	140.8	7.784E+04
710295.9	15.35	136.30	15.85	135.1	14.70	140.8	7.784E+04
711545.9	15.35	136.20	15.85	135.1	14.70	140.7	7.784E+04
712795.9	15.35	136.20	15.84	135.0	14.70	140.7	7.782E+04
714045.9	15.35	136.20	15.84	135.0	14.70	140.7	7.782E+04
715295.9	15.35	136.20	15.84	135.0	14.70	140.7	7.782E+04
716545.9	15.34	136.10	15.84	135.0	14.70	140.6	7.782E+04
717795.9	15.34	136.10	15.83	134.9	14.70	140.6	7.782E+04
719045.9	15.34	136.10	15.83	134.9	14.70	140.6	7.782E+04
720295.9	15.34	136.10	15.83	134.9	14.70	140.5	7.782E+04
721545.9	15.34	136.10	15.83	134.8	14.70	140.5	7.782E+04
722795.9	15.33	136.00	15.83	134.8	14.70	140.5	7.782E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
724045.9	15.33	136.00	15.83	134.8	14.70	140.5	7.782E+04
725295.9	15.33	136.00	15.82	134.7	14.70	140.4	7.782E+04
726545.9	15.33	135.90	15.82	134.7	14.70	140.4	7.782E+04
727795.9	15.33	135.90	15.82	134.7	14.70	140.4	7.782E+04
729045.9	15.33	135.90	15.82	134.7	14.70	140.3	7.782E+04
730295.9	15.32	135.90	15.81	134.7	14.70	140.3	7.782E+04
731545.9	15.32	135.80	15.82	134.7	14.70	140.3	7.782E+04
732795.9	15.32	135.80	15.82	134.7	14.70	140.2	7.782E+04
734045.9	15.32	135.80	15.81	134.6	14.70	140.2	7.782E+04
735295.9	15.32	135.80	15.81	134.6	14.70	140.2	7.782E+04
736545.9	15.31	135.70	15.81	134.6	14.70	140.2	7.781E+04
737795.9	15.32	135.70	15.80	134.5	14.70	140.2	7.781E+04
739045.9	15.32	135.70	15.81	134.5	14.70	140.2	7.781E+04
740295.9	15.32	135.70	15.81	134.5	14.70	140.2	7.781E+04
741545.9	15.32	135.70	15.81	134.5	14.70	140.2	7.781E+04
742795.9	15.32	135.70	15.81	134.5	14.70	140.2	7.781E+04
744045.9	15.32	135.70	15.81	134.5	14.70	140.2	7.781E+04
745295.9	15.32	135.70	15.81	134.5	14.70	140.1	7.781E+04
746545.9	15.32	135.70	15.81	134.5	14.70	140.1	7.781E+04
747795.9	15.32	135.70	15.81	134.5	14.70	140.1	7.781E+04
749045.9	15.32	135.70	15.81	134.5	14.70	140.1	7.781E+04
750295.9	15.32	135.70	15.81	134.5	14.70	140.1	7.781E+04
751545.9	15.32	135.70	15.81	134.5	14.70	140.1	7.781E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
752795.9	15.32	135.70	15.81	134.4	14.70	140.1	7.781E+04
754045.9	15.32	135.70	15.81	134.5	14.70	140.1	7.781E+04
755295.9	15.31	135.60	15.81	134.5	14.70	140.1	7.781E+04
756545.9	15.31	135.60	15.80	134.3	14.70	140.0	7.781E+04
757795.9	15.31	135.60	15.80	134.4	14.70	140.0	7.781E+04
759045.9	15.31	135.50	15.79	134.3	14.70	139.9	7.781E+04
760295.9	15.30	135.50	15.80	134.3	14.70	139.9	7.781E+04
761545.9	15.30	135.40	15.80	134.3	14.70	139.9	7.781E+04
762795.9	15.30	135.40	15.79	134.3	14.70	139.8	7.781E+04
764045.9	15.30	135.40	15.79	134.3	14.70	139.8	7.781E+04
765295.9	15.29	135.30	15.78	134.2	14.70	139.8	7.781E+04
766545.9	15.29	135.30	15.79	134.2	14.70	139.7	7.781E+04
767795.9	15.29	135.30	15.79	134.2	14.70	139.7	7.781E+04
769045.9	15.29	135.20	15.78	134.1	14.70	139.6	7.781E+04
770295.9	15.28	135.20	15.78	134.1	14.70	139.6	7.779E+04
771545.9	15.28	135.20	15.78	134.1	14.70	139.6	7.779E+04
772795.9	15.28	135.20	15.78	134.1	14.70	139.6	7.779E+04
774045.9	15.28	135.20	15.77	134.0	14.70	139.5	7.779E+04
775295.9	15.28	135.10	15.77	134.0	14.70	139.5	7.779E+04
776545.9	15.28	135.10	15.77	134.0	14.70	139.5	7.779E+04
777795.9	15.28	135.10	15.77	134.0	14.70	139.5	7.779E+04
779045.9	15.27	135.10	15.77	133.9	14.70	139.4	7.779E+04
780295.9	15.27	135.00	15.77	133.9	14.70	139.4	7.779E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
781545.9	15.27	135.00	15.75	133.8	14.70	139.4	7.779E+04
782795.9	15.27	135.00	15.76	133.8	14.70	139.3	7.779E+04
784045.9	15.27	135.00	15.76	133.8	14.70	139.3	7.779E+04
785295.9	15.27	134.90	15.76	133.8	14.70	139.3	7.779E+04
786545.9	15.26	134.90	15.76	133.8	14.70	139.3	7.779E+04
787795.9	15.26	134.90	15.75	133.8	14.70	139.2	7.779E+04
789045.9	15.26	134.90	15.75	133.8	14.70	139.2	7.779E+04
790295.9	15.26	134.80	15.75	133.8	14.70	139.2	7.779E+04
791545.9	15.26	134.80	15.75	133.8	14.70	139.2	7.779E+04
792795.9	15.26	134.80	15.75	133.7	14.70	139.1	7.779E+04
794045.9	15.25	134.70	15.75	133.7	14.70	139.1	7.779E+04
795295.9	15.25	134.70	15.75	133.7	14.70	139.1	7.778E+04
796545.9	15.25	134.70	15.74	133.6	14.70	139.0	7.778E+04
797795.9	15.25	134.70	15.74	133.6	14.70	139.0	7.778E+04
799045.9	15.25	134.60	15.74	133.6	14.70	139.0	7.778E+04
800295.9	15.24	134.60	15.73	133.5	14.70	138.9	7.778E+04
801545.9	15.24	134.60	15.73	133.5	14.70	138.9	7.778E+04
802795.9	15.24	134.50	15.74	133.5	14.70	138.9	7.778E+04
804045.9	15.24	134.60	15.74	133.5	14.70	138.9	7.778E+04
805295.9	15.24	134.50	15.74	133.5	14.70	138.9	7.778E+04
806545.9	15.24	134.50	15.74	133.5	14.70	138.9	7.778E+04
807795.9	15.24	134.50	15.73	133.4	14.70	138.9	7.778E+04
809045.9	15.24	134.50	15.73	133.4	14.70	138.8	7.778E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
810295.9	15.23	134.50	15.73	133.4	14.70	138.8	7.778E+04
811545.9	15.23	134.40	15.72	133.3	14.70	138.7	7.778E+04
812795.9	15.23	134.40	15.72	133.3	14.70	138.7	7.778E+04
814045.9	15.23	134.40	15.72	133.3	14.70	138.7	7.778E+04
815295.9	15.23	134.40	15.72	133.3	14.70	138.7	7.777E+04
816545.9	15.23	134.40	15.72	133.3	14.70	138.7	7.777E+04
817795.9	15.23	134.40	15.72	133.3	14.70	138.7	7.778E+04
819045.9	15.23	134.30	15.72	133.3	14.70	138.7	7.778E+04
820295.9	15.22	134.30	15.72	133.3	14.70	138.6	7.778E+04
821545.9	15.22	134.30	15.72	133.3	14.70	138.6	7.777E+04
822795.9	15.22	134.20	15.71	133.2	14.70	138.5	7.777E+04
824045.9	15.22	134.20	15.71	133.2	14.70	138.5	7.777E+04
825295.9	15.22	134.20	15.71	133.2	14.70	138.5	7.777E+04
826545.9	15.22	134.20	15.70	133.1	14.70	138.5	7.776E+04
827795.9	15.21	134.10	15.70	133.1	14.70	138.4	7.776E+04
829045.9	15.21	134.10	15.71	133.1	14.70	138.4	7.776E+04
830295.9	15.21	134.10	15.70	133.0	14.70	138.4	7.776E+04
831545.9	15.21	134.00	15.70	133.0	14.70	138.3	7.776E+04
832795.9	15.20	134.00	15.70	133.0	14.70	138.3	7.776E+04
834045.9	15.20	134.00	15.70	133.0	14.70	138.3	7.776E+04
835295.9	15.20	134.00	15.69	132.9	14.70	138.3	7.776E+04
836545.9	15.20	134.00	15.69	132.9	14.70	138.2	7.776E+04
837795.9	15.20	133.90	15.69	132.9	14.70	138.2	7.776E+04

NON-PROPRIETARY INFORMATION

Table SPSB-C-33-2
SHEX Long-Term DBA-LOCA Containment Response for NPSH Evaluation

Time (sec)	Drywell Pressure without leakage (psia)	Drywell Temperature ((F)	Wetwell Pressure without leakage (psia)	Wetwell Temperature (F)	Wetwell Pressure with Leakage (psia)	Suppression Pool Temperature (F)	Suppression Pool Volume (ft^3) (Including Vent Liquid)
839045.9	15.20	133.90	15.70	132.9	14.70	138.2	7.776E+04
840295.9	15.20	133.90	15.69	132.9	14.70	138.2	7.776E+04
841545.9	15.20	133.90	15.69	132.9	14.70	138.2	7.776E+04
842795.9	15.20	133.90	15.69	132.9	14.70	138.1	7.776E+04
844045.9	15.19	133.80	15.69	132.9	14.70	138.1	7.776E+04
845295.9	15.19	133.80	15.69	132.9	14.70	138.1	7.776E+04
846545.9	15.19	133.80	15.68	132.8	14.70	138.1	7.776E+04
847795.9	15.19	133.80	15.68	132.8	14.70	138.0	7.776E+04
849045.9	15.19	133.70	15.67	132.7	14.70	138.0	7.776E+04
850295.9	15.18	133.70	15.68	132.7	14.70	138.0	7.776E+04
851545.9	15.18	133.70	15.68	132.7	14.70	137.9	7.775E+04
852795.9	15.18	133.70	15.68	132.7	14.70	137.9	7.775E+04
854045.9	15.18	133.60	15.67	132.6	14.70	137.9	7.775E+04
855295.9	15.18	133.60	15.67	132.6	14.70	137.9	7.775E+04
856545.9	15.18	133.60	15.67	132.6	14.70	137.8	7.775E+04
857795.9	15.18	133.60	15.66	132.5	14.70	137.8	7.775E+04
859045.9	15.17	133.50	15.67	132.6	14.70	137.8	7.775E+04
860295.9	15.17	133.50	15.67	132.6	14.70	137.7	7.775E+04
861545.9	15.17	133.50	15.66	132.5	14.70	137.7	7.775E+04
862795.9	15.17	133.40	15.66	132.5	14.70	137.7	7.774E+04
864000	15.16	133.40	15.66	132.5	14.70	137.6	7.775E+04

NON-PROPRIETARY INFORMATION

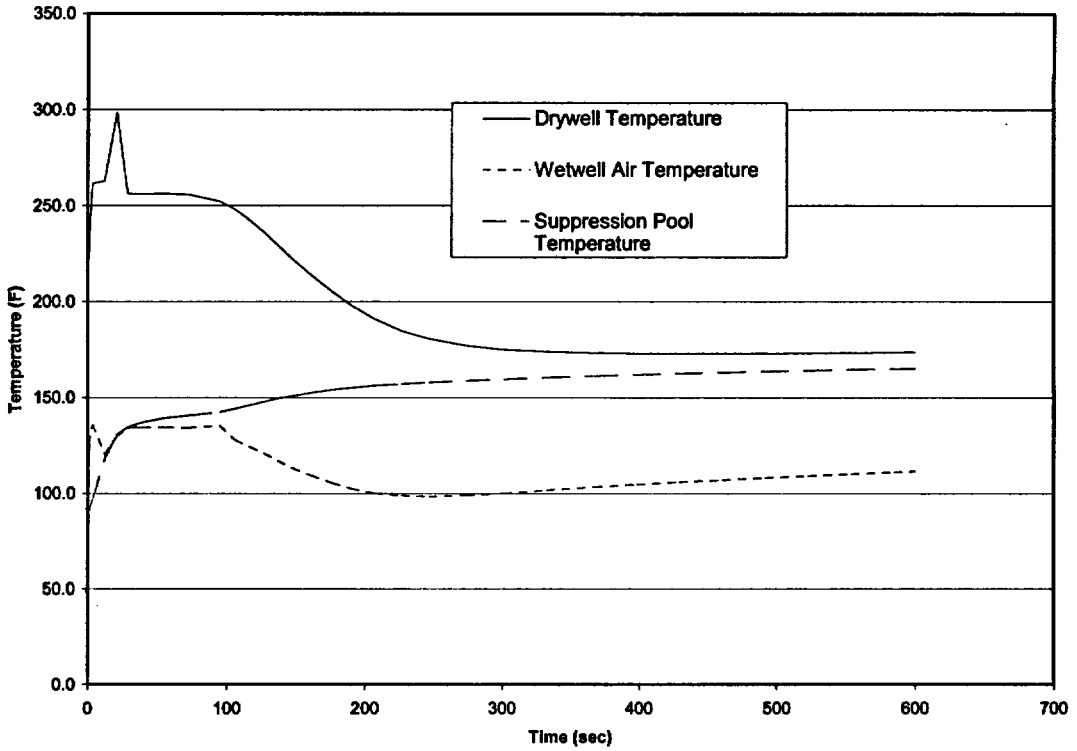
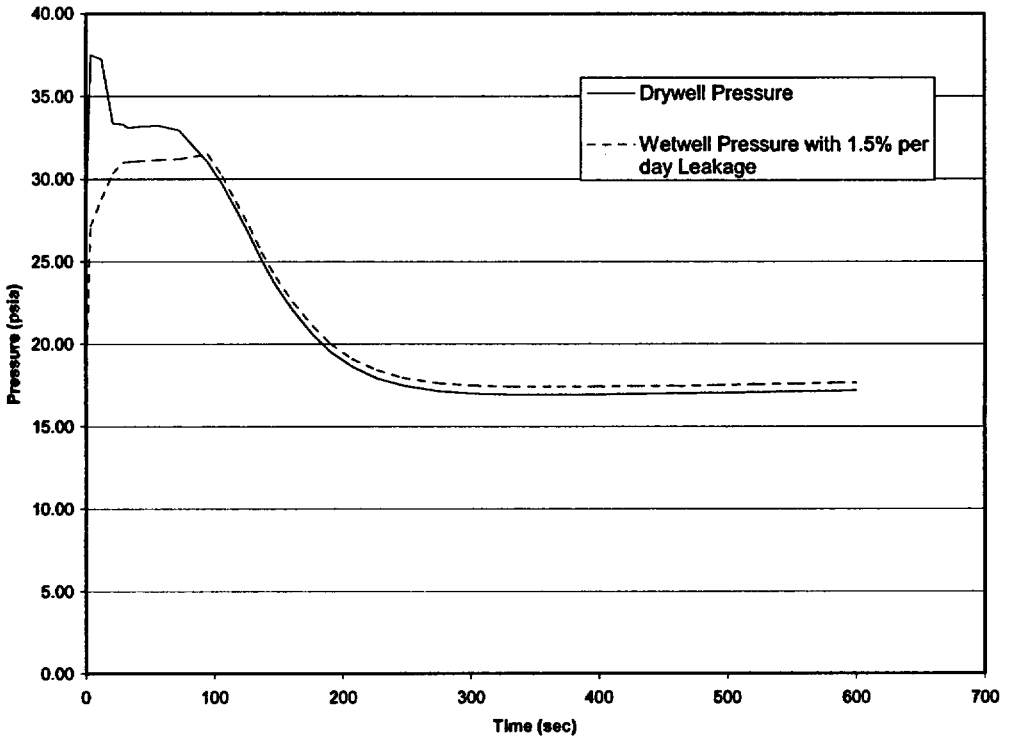


Figure SPSB-C-33-1
SHEX Short-Term (600 sec) Containment Temperature for NPSH

NON-PROPRIETARY INFORMATION

Figure SPSB-C-33-2



SHEX Short-Term (600 sec) Containment Pressure for NPSH

NON-PROPRIETARY INFORMATION

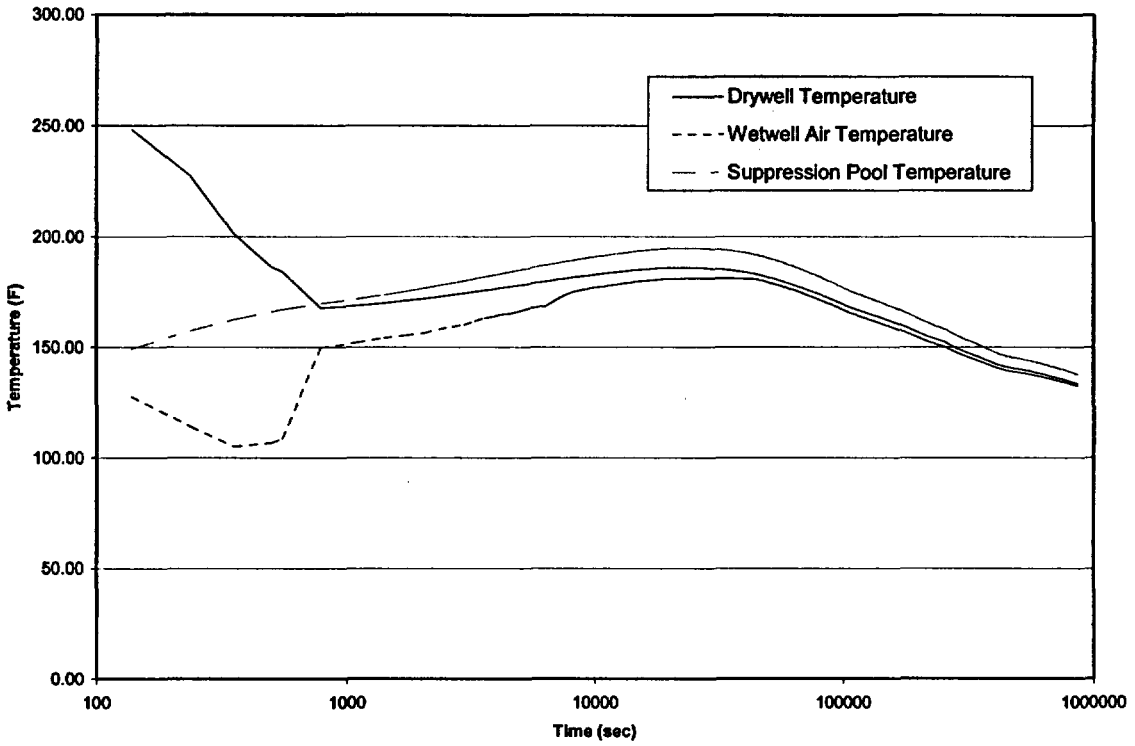


Figure SPSB-C-33-3
SHEX Long-Term (10 Day) Containment Temperature for NPSH

NON-PROPRIETARY INFORMATION

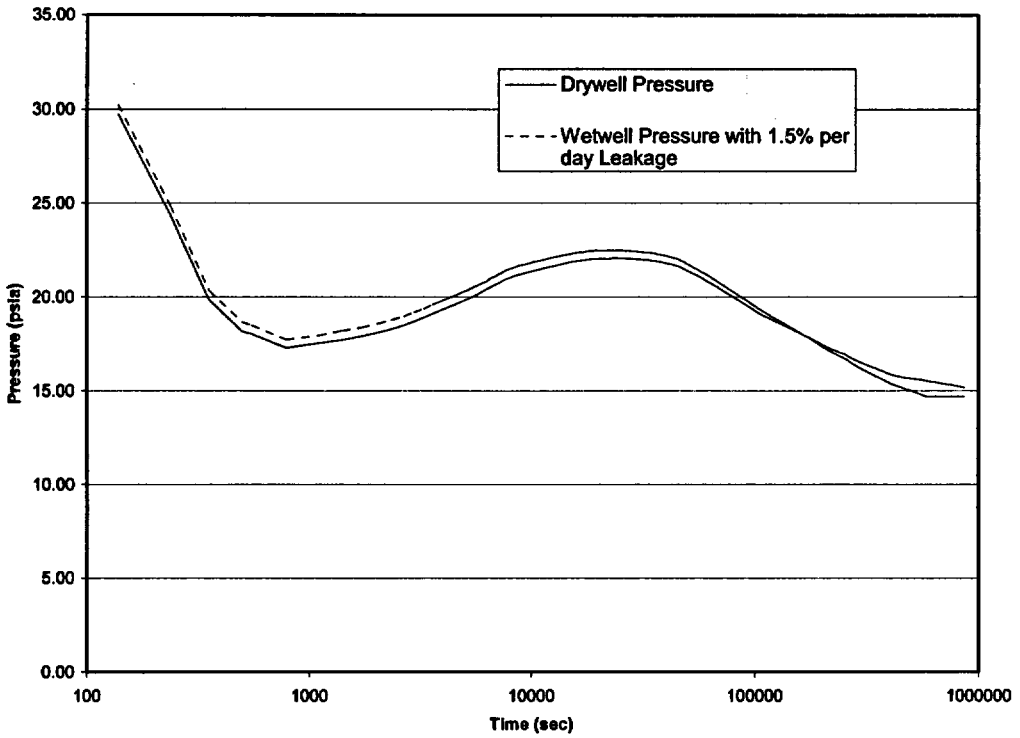


Figure SPSB-C-33-4
SHEX Long-Term (10 Day) Containment Pressure for NPSH

NON-PROPRIETARY INFORMATION

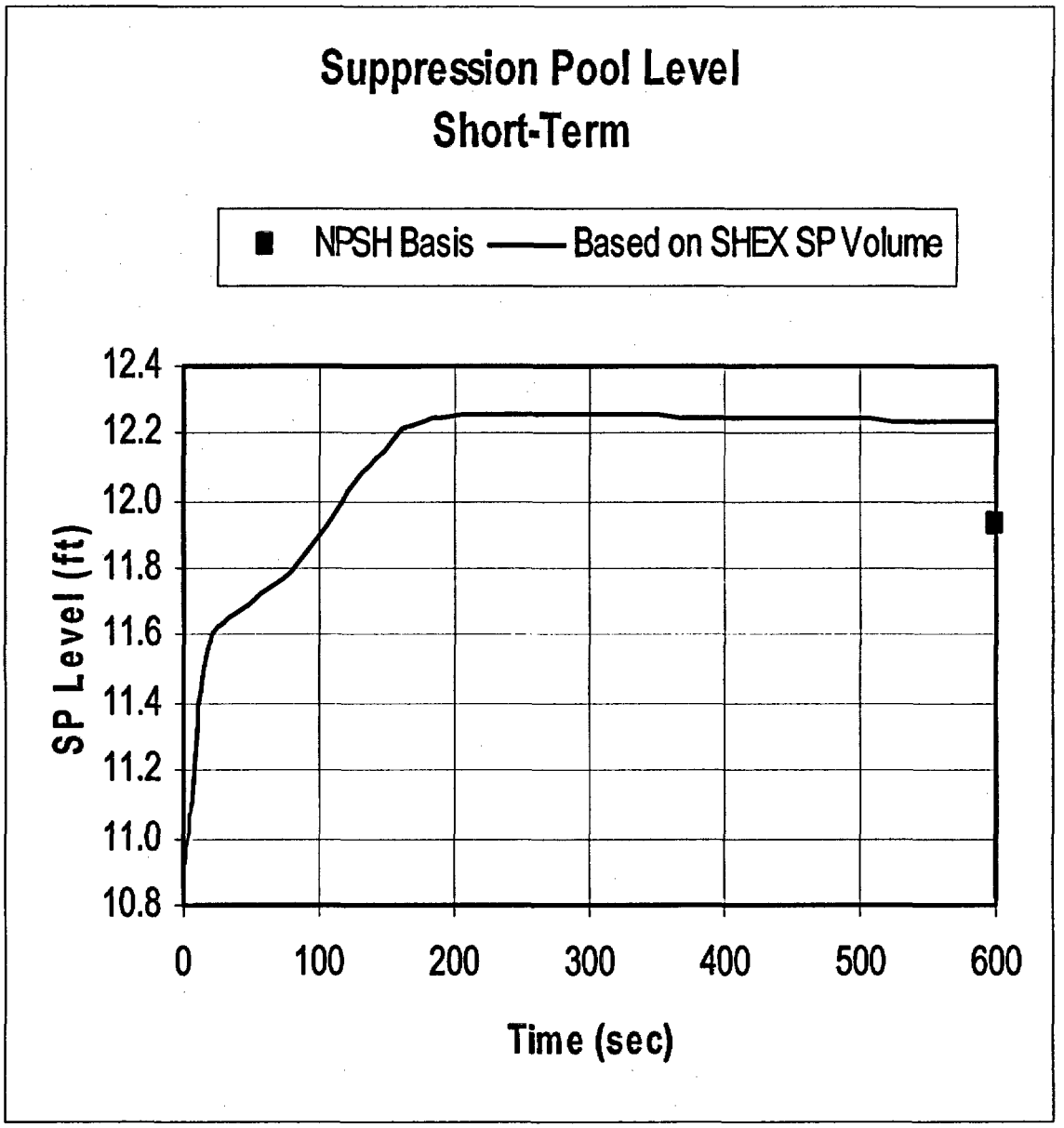


Figure SPSB-C-33-5
Suppression Pool Level Response – Short-Term

NON-PROPRIETARY INFORMATION

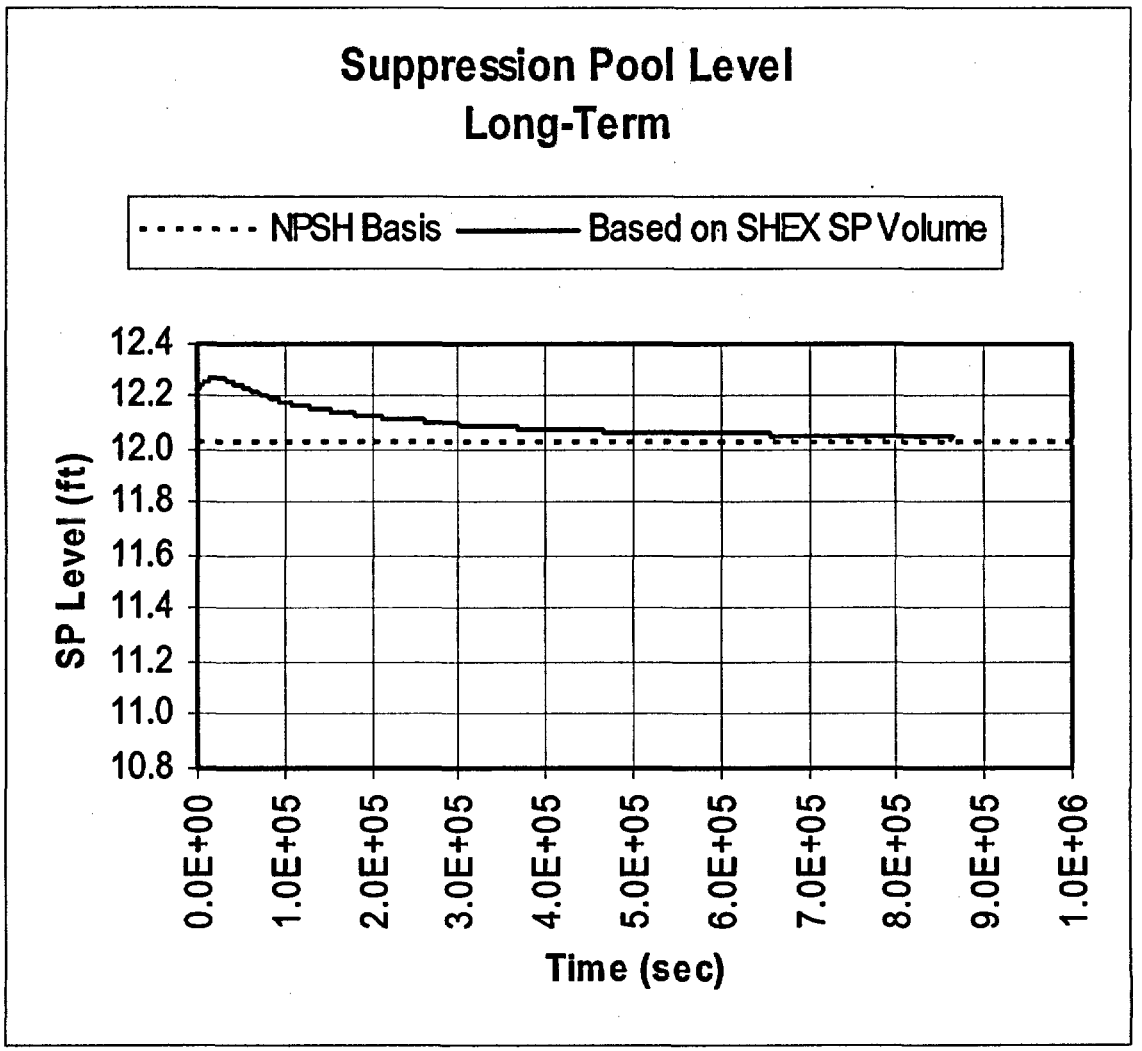


Figure SPSB-C-33-6
Suppression Pool Level Response – Long-Term

Attachment 3

Vermont Yankee Nuclear Power Station

Proposed Technical Specification Change No. 263 – Supplement No. 11

Extended Power Uprate

Response to Request for Additional Information

Affidavit – General Electric Company

Total number of pages in Attachment 3 (excluding this cover sheet) is 3.

General Electric Company

AFFIDAVIT

I, James F. Klapproth, state as follows:

(1) I am General Manager, Engineering and Technology, General Electric Company ("GE") and have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.

(2) The information sought to be withheld is contained in Attachment 2 to GE letter GE-VYNPS-AEP-355, Michael Dick (GE) to Craig Nichols (ENOI), *VYNPS Extended Power Uprate - Response to NRC Request for Additional Information, Proprietary and Non-Proprietary Versions,* dated August 6, 2004. The Attachment 2 proprietary information, *GE Responses to NRC RAIs (SPSB-C-32 and 33),* is delineated by a double underline inside double square brackets. In each case, the superscript notation{3} refers to Paragraph (3) of this affidavit, which provides the basis for the proprietary determination.

(3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.790(a)(4) for "trade secrets" (Exemption 4). The material for which exemption from disclosure is here sought also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).

(4) Some examples of categories of information which fit into the definition of proprietary information are:

a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;

b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;

c. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, resulting in potential products to General Electric;

d. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs (4)a., and (4)b, above.

(5) To address 10 CFR 2.790 (b) (4), the information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GE, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GE, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.

(6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.

(7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GE are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.

(8) The information identified in paragraph (2), above, is classified as proprietary because it contains detailed information in support of NEDC-33090P, *Safety Analysis Report for Vermont Yankee Nuclear Power Station Constant Pressure Power Uprate,* Class III (GE Proprietary Information), Revision 0, dated September 2003, which was submitted to the NRC. This power uprate report contains detailed results and conclusions from evaluations of the safety-significant changes necessary to demonstrate the regulatory acceptability for the power uprate of a GE BWR, utilizing analytical models, methods and processes, including computer codes, which GE has developed, obtained NRC approval of and applied to perform evaluations of the transient and accident events in the GE Boiling Water Reactor ("BWR"). The development and approval of these system, component, and thermal hydraulic models and computer codes was achieved at a significant cost to GE, on the order of several million dollars.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GE asset.

(9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GE's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GE's comprehensive BWR safety and technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply the

appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical and NRC review costs comprise a substantial investment of time and money by GE.

The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GE's competitive advantage will be lost if its competitors are able to use the results of the GE experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to GE would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.

Executed on this 6th day of August 2004.

James F. Klapproth
General Electric Company