

June 5, 2001
NG-01-0738

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station 0-P1-17
Washington, DC 20555-0001

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Response to Request for Additional Information (RAI) to Technical
Specification Change Request TSCR-042 – Extended Power Uprate. (TAC
MB0543)
Reference: NG-01-0721, "Response to Request for Additional Information (RAI) to
Technical Specification Change Request TSCR-042 – Extended Power
Uprate. (TAC # MB0543)," dated May 29, 2001.
File: A-117, SPF-189

Dear Sir(s):

As discussed in the referenced letter, we agreed to provide the requested additional information in multiple submittals to allow the Staff and their contractor to begin their audit calculations as soon as possible. Consequently, the Attachment to this letter contains the last installment of Responses to that Request for Additional Information (RAI). Please note that we have not repeated our previous Responses (Reference) in this installment.

During the preparation of this Response, the General Electric Company (GE) informed its clients, via a Service Information Letter (SIL), of potential impacts on safety analyses that used GE's long-term decay heat curves based upon the ANSI/ANS 5.1-1979 standard. Calculations that used the May-Witt decay heat curves are unaffected. SIL No. 636, dated May 24, 2001 contains the details of this issue. As stated in the SIL, the impact of the change is most significant on longer term calculations ($>10^8$ seconds), but can have a noticeable impact on intermediate time frames ($10^3 < t < 10^6$ seconds) if the analysis is not done using 2σ uncertainties. While most of our Power Uprate analyses that used the GE ANSI/ANS 5.1 decay heat curves assumed 2σ uncertainties, some were done at nominal conditions, such as Appendix R and Station Blackout. GE is currently assessing the impact on the affected Power Uprate calculations for DAEC. While the preliminary assessment is that the impact is minor, we will notify the Staff of the final results as soon as they become available.

No new commitments are being made in this letter.

AD001

Please contact this office should you require additional information regarding this matter.

This letter is true and accurate to the best of my knowledge and belief.

NUCLEAR MANAGEMENT COMPANY, LLC

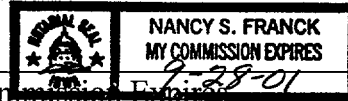
By *Gary Van Middlesworth*
Gary Van Middlesworth
DAEC Site Vice-President

State of Iowa
(County) of Linn

Signed and sworn to before me on this 5th day of June, 2001,

by Gary Van Middlesworth.

Nancy S. Franck
Notary Public in and for the State of Iowa



Attachment: DAEC Responses to NRC Containment Systems Branch Request for
Additional Information Regarding Proposed Amendment for Power
Uprate

cc: T. Browning
R. Anderson (NMC) (w/o Attachment)
B. Mozafari (NRC-NRR)
J. Dyer (Region III)
D. McGhee (State of Iowa)
NRC Resident Office
Docu

**DAEC Responses to NRC
Containment Systems Branch
Request for Additional Information
Regarding Proposed Amendment for Power Uprate**

1. Provide input to the computer calculation of short-term containment pressure and temperature. Details of the input and method of transmittal to the NRC will be decided mutually in a conference call with the licensee, NRC staff and NRC contractor¹. Preliminary list is given in Attachment 1 below.

DAEC Response:

See Attached Table 1 for the short-term “time-dependent” information requested, other than the decay heat values provided in an earlier submittal.

2. Provide input to computer calculation of long-term containment pressure and temperature calculations. Details of the input, method of transmittal to the NRC will be decided mutually in a conference call with the licensee, NRC staff and the NRC contractor. Preliminary list is given in Attachment 1 below.

DAEC Response:

See Attached Tables 2 – 5 for the long-term “time-dependent” information requested, other than the decay heat values provided in an earlier submittal.

¹ Information Systems Laboratories, Inc., Rockville, Maryland

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
0	17.00	135.0	95.00	17.00	95.00	10.46	27260	528.6
0.000977	16.84	126.9	95.00	17.00	95.00	10.46	27260	528.6
0.001465	16.76	122.9	95.00	17.00	95.00	10.46	27260	528.6
0.001709	16.72	120.9	95.00	17.00	95.00	10.46	27260	528.6
0.001953	16.68	118.9	95.00	17.00	95.00	10.46	32500	528.6
0.002197	16.63	116.6	95.00	17.00	95.00	10.46	32500	528.6
0.002686	16.54	111.8	95.00	17.00	95.00	10.46	32500	528.6
0.003662	16.35	102.5	95.00	17.00	95.00	10.46	32500	528.6
0.005615	16.28	96.5	95.00	17.00	95.00	10.46	32500	528.6
0.009522	16.55	101.4	95.00	17.00	95.00	10.46	32500	528.6
0.017334	17.07	109.9	95.00	17.00	95.00	10.46	32500	528.6
0.025147	17.54	116.9	95.00	17.00	95.00	10.46	32500	528.6
0.032959	18.00	123.0	95.00	17.00	95.00	10.46	32500	528.6
0.040772	18.43	128.3	95.00	17.00	95.00	10.46	32490	528.6
0.048584	18.85	133.1	95.00	17.00	95.00	10.46	32490	528.6
0.056397	19.27	137.5	95.00	17.00	95.00	10.46	32490	528.6
0.064209	19.67	141.4	95.00	17.00	95.00	10.47	32490	528.6
0.072022	20.06	145.1	95.00	17.00	95.00	10.47	32490	528.6
0.079834	20.44	148.4	95.00	17.00	95.00	10.47	32490	528.6
0.087647	20.82	151.6	95.00	17.00	95.00	10.47	32480	528.6
0.095459	21.20	154.6	95.00	17.00	95.00	10.47	32480	528.6
0.103272	21.57	157.4	95.00	17.00	95.00	10.47	32480	528.6
0.111084	21.93	160.0	95.00	17.00	95.00	10.47	32480	528.6
0.118897	22.29	162.5	95.00	17.00	95.00	10.47	32480	528.6
0.126709	22.65	164.9	95.00	17.00	95.00	10.47	32470	528.6
0.134522	23.00	167.2	95.00	17.00	95.00	10.47	32470	528.6
0.142334	23.35	169.3	95.00	17.00	95.00	10.47	32470	528.6
0.150147	23.70	171.4	95.00	17.00	95.00	10.47	32470	528.6
0.157959	24.06	173.5	95.00	17.00	95.00	10.47	32470	528.6
0.165772	24.40	175.4	95.00	17.00	95.00	10.47	32460	528.6
0.173584	24.75	177.3	95.00	17.00	95.00	10.48	32460	528.6
0.181397	25.09	179.1	95.00	17.00	95.00	10.48	32460	528.6
0.189209	25.42	180.8	95.00	17.00	95.00	10.48	32460	528.6
0.197022	25.76	182.5	95.00	17.00	95.00	10.48	32450	528.6
0.204834	26.09	184.2	95.00	17.00	95.00	10.48	32450	528.6
0.212647	26.43	185.7	95.00	17.00	95.00	10.49	32450	528.6
0.220459	26.76	187.3	95.00	17.00	95.00	10.49	32450	528.6
0.228272	27.09	188.8	95.00	17.00	95.00	10.49	32440	528.6
0.236084	27.42	190.2	95.00	17.00	95.00	10.50	32440	528.6
0.243897	27.74	191.6	95.00	17.00	95.00	10.50	32440	528.6
0.251709	28.07	193.0	95.00	17.00	95.00	10.50	32430	528.6
0.259522	28.39	194.4	95.00	17.00	95.00	10.51	32430	528.6
0.267334	28.72	195.7	95.00	17.00	95.00	10.51	32430	528.6

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
0.275147	29.04	196.9	95.00	17.00	95.00	10.52	32420	528.6
0.282959	29.36	198.2	95.00	17.00	95.00	10.52	32420	528.6
0.290772	29.68	199.4	95.00	17.00	95.00	10.53	32410	528.6
0.298584	30.00	200.6	95.00	17.00	95.00	10.54	32410	528.6
0.306397	30.31	201.8	95.00	17.00	95.00	10.54	32400	528.6
0.30835	30.39	202.1	95.00	17.00	95.00	10.55	32410	528.6
0.309326	30.43	202.2	95.00	17.00	95.00	10.55	32410	528.6
0.311279	30.51	202.5	95.00	17.00	95.00	10.55	32400	528.6
0.312256	30.55	202.6	95.00	17.00	95.00	10.55	32400	528.6
0.313232	30.58	202.8	95.00	17.01	95.00	10.55	32400	528.6
0.315186	30.63	203.0	95.00	17.02	95.00	10.55	32400	528.6
0.319092	30.74	203.5	95.00	17.05	95.00	10.55	32400	528.6
0.326904	30.96	204.4	95.01	17.11	95.01	10.55	32390	528.6
0.342529	31.39	206.3	95.02	17.24	95.02	10.55	32380	528.6
0.358154	31.82	208.1	95.03	17.36	95.03	10.55	32370	528.6
0.373779	32.24	209.8	95.03	17.47	95.03	10.55	32360	528.6
0.389404	32.66	211.5	95.04	17.59	95.04	10.55	32350	528.6
0.405029	33.07	213.1	95.05	17.71	95.05	10.55	32340	528.6
0.420654	33.47	214.6	95.06	17.83	95.06	10.55	32330	528.6
0.436279	33.87	216.1	95.07	17.94	95.07	10.55	32310	528.6
0.451904	34.26	217.5	95.08	18.06	95.08	10.55	32300	528.6
0.467529	34.65	218.9	95.09	18.17	95.09	10.55	32290	528.6
0.483154	35.03	220.3	95.10	18.29	95.10	10.55	32280	528.6
0.498779	35.41	221.6	95.11	18.40	95.11	10.55	32260	528.6
0.514404	35.79	222.9	95.12	18.52	95.12	10.55	32250	528.6
0.530029	36.16	224.1	95.13	18.63	95.13	10.55	32230	528.6
0.545654	36.53	225.4	95.14	18.74	95.14	10.55	32220	528.6
0.561279	36.89	226.5	95.16	18.85	95.16	10.55	32210	528.6
0.576904	37.25	227.7	95.17	18.96	95.17	10.55	32190	528.6
0.592529	37.60	228.8	95.18	19.07	95.18	10.55	32180	528.6
0.608154	37.95	229.9	95.19	19.18	95.19	10.55	32160	528.6
0.623779	38.30	231.0	95.21	19.29	95.21	10.56	32150	528.6
0.639404	38.64	232.0	95.22	19.40	95.22	10.56	32130	528.6
0.655029	38.98	233.0	95.23	19.51	95.23	10.56	32120	528.6
0.670654	39.31	234.0	95.25	19.61	95.25	10.56	32100	528.6
0.686279	39.65	235.0	95.26	19.72	95.26	10.56	32090	528.6
0.701904	39.97	235.9	95.27	19.83	95.27	10.56	32070	528.6
0.717529	40.30	236.8	95.29	19.93	95.29	10.56	32060	528.6
0.733154	40.62	237.8	95.30	20.04	95.30	10.56	32040	528.6
0.764404	41.26	239.5	95.34	20.25	95.34	10.56	32000	528.6
0.795654	41.88	241.2	95.37	20.45	95.37	10.56	31970	528.6
0.826904	42.49	242.8	95.40	20.65	95.40	10.56	31940	528.6
0.858154	43.09	244.4	95.44	20.85	95.44	10.56	31900	528.6

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
0.889404	43.68	245.9	95.47	21.05	95.47	10.56	31870	528.6
0.920654	44.26	247.3	95.51	21.25	95.51	10.56	31830	528.6
0.951904	44.82	248.7	95.54	21.44	95.54	10.56	31800	528.6
0.983154	45.38	250.1	95.58	21.63	95.58	10.56	31760	528.6
1.014404	45.93	251.4	95.62	21.82	95.62	10.56	31720	528.6
1.045654	46.46	252.6	95.65	22.01	95.65	10.57	31680	528.6
1.076904	46.99	253.9	95.69	22.19	95.69	10.57	31640	528.6
1.108154	47.50	255.0	95.73	22.37	95.73	10.57	31610	528.6
1.139404	48.01	256.2	95.77	22.55	95.77	10.57	31570	528.6
1.141357	48.04	256.2	95.76	22.56	95.76	10.57	31580	528.6
1.143311	48.07	256.3	95.76	22.57	95.76	10.57	21480	528.6
1.145264	48.08	256.3	95.76	22.59	95.76	10.57	21480	528.6
1.14917	48.10	256.4	95.77	22.61	95.77	10.57	21480	528.6
1.156982	48.14	256.5	95.78	22.65	95.78	10.57	21470	528.6
1.172607	48.22	256.8	95.81	22.74	95.81	10.57	21460	528.6
1.203857	48.38	257.4	95.86	22.92	95.86	10.57	21440	528.6
1.235107	48.53	257.9	95.91	23.10	95.91	10.57	21420	528.6
1.266357	48.69	258.4	95.95	23.27	95.95	10.57	21400	528.6
1.297607	48.84	258.9	95.99	23.44	95.99	10.57	21380	528.6
1.328857	48.99	259.4	96.04	23.61	96.04	10.58	21370	528.6
1.360107	49.14	259.9	96.08	23.78	96.08	10.58	21350	528.6
1.391357	49.29	260.3	96.13	23.94	96.13	10.58	21330	528.6
1.422607	49.43	260.8	96.17	24.10	96.17	10.58	21320	528.6
1.453857	49.58	261.3	96.22	24.27	96.22	10.58	21300	528.6
1.485107	49.72	261.7	96.26	24.42	96.26	10.58	21290	528.6
1.516357	49.86	262.2	96.31	24.58	96.31	10.58	21270	528.6
1.578857	50.14	263.0	96.42	24.89	96.42	10.58	21230	528.6
1.641357	50.41	263.9	96.51	25.20	96.51	10.59	21210	528.6
1.703857	50.68	264.7	96.61	25.50	96.61	10.59	21180	528.6
1.766357	50.95	265.5	96.70	25.79	96.70	10.59	21160	528.6
1.828857	51.20	266.2	96.80	26.07	96.80	10.59	21130	528.6
1.891357	51.46	267.0	96.90	26.34	96.90	10.60	21110	528.6
1.953857	51.71	267.7	96.99	26.62	96.99	10.60	21090	528.6
2.016357	51.95	268.4	97.09	26.88	97.09	10.60	21070	528.6
2.078857	52.19	269.1	97.19	27.14	97.19	10.60	21060	528.6
2.141357	52.43	269.7	97.29	27.39	97.29	10.61	21050	528.6
2.203857	52.66	270.4	97.39	27.64	97.39	10.61	21040	528.6
2.266357	52.89	271.0	97.50	27.88	97.50	10.61	21030	528.6
2.328857	53.11	271.6	97.60	28.12	97.60	10.61	21030	528.6
2.391357	53.34	272.2	97.70	28.35	97.70	10.62	21030	528.6
2.453857	53.56	272.8	97.81	28.58	97.81	10.62	21030	528.6
2.516357	53.78	273.3	97.91	28.80	97.91	10.62	21040	528.6
2.578857	53.99	273.9	98.02	29.02	98.02	10.62	21050	528.6

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
2.641357	54.21	274.4	98.13	29.23	98.13	10.63	21070	528.6
2.703857	54.42	275.0	98.23	29.44	98.23	10.63	21080	528.6
2.766357	54.63	275.5	98.34	29.65	98.34	10.63	21100	528.6
2.828857	54.84	276.0	98.45	29.85	98.45	10.63	21130	528.6
2.891357	55.05	276.5	98.56	30.05	98.56	10.64	21160	528.6
2.953857	55.26	277.0	98.67	30.24	98.67	10.64	21190	528.6
3.016357	55.46	277.5	98.78	30.43	98.78	10.64	21210	528.6
3.078857	55.67	278.0	98.89	30.61	98.89	10.64	21250	528.6
3.141357	55.88	278.4	99.00	30.80	99.00	10.65	21280	528.6
3.203857	56.08	278.9	99.12	30.98	99.12	10.65	21320	528.6
3.266357	56.28	279.3	99.23	31.15	99.23	10.65	21360	528.6
3.328857	56.49	279.8	99.34	31.32	99.34	10.66	21400	528.6
3.391357	56.69	280.2	99.46	31.49	99.46	10.66	21450	528.6
3.453857	56.90	280.6	99.57	31.66	99.57	10.66	21500	528.6
3.516357	57.10	281.1	99.69	31.82	99.69	10.67	21550	528.6
3.578857	57.30	281.5	99.81	31.98	99.81	10.67	21600	528.6
3.641357	57.51	281.9	99.92	32.14	99.92	10.67	21660	528.6
3.703857	57.71	282.3	100.00	32.30	100.00	10.67	21710	528.6
3.766357	57.92	282.7	100.20	32.45	100.20	10.68	21770	528.6
3.891357	58.33	283.5	100.50	32.76	100.50	10.68	21910	528.6
4.016357	58.74	284.3	100.70	33.05	100.70	10.69	22020	528.6
4.141357	59.16	285.1	100.90	33.33	100.90	10.70	22140	528.6
4.266357	59.58	285.8	101.20	33.60	101.20	10.70	22260	528.6
4.297607	59.68	286.0	101.20	33.65	101.20	10.70	22250	528.6
4.30542	59.71	286.1	101.10	33.67	101.10	10.70	22240	528.6
4.309326	59.72	286.1	101.20	33.67	101.20	10.70	13960	551.2
4.313232	59.71	286.1	101.20	33.68	101.20	10.70	13960	551.2
4.321045	59.68	286.1	101.20	33.70	101.20	10.70	13960	551.2
4.33667	59.63	286.0	101.20	33.73	101.20	10.70	13960	551.3
4.36792	59.52	286.0	101.30	33.80	101.30	10.71	13960	551.3
4.43042	59.30	285.8	101.50	33.93	101.50	10.71	13970	551.5
4.49292	59.09	285.7	101.60	34.06	101.60	10.71	13980	551.6
4.55542	58.89	285.6	101.70	34.18	101.70	10.72	13980	551.7
4.61792	58.70	285.5	101.80	34.30	101.80	10.72	13990	551.8
4.68042	58.52	285.4	101.90	34.42	101.90	10.72	14000	551.9
4.74292	58.34	285.3	102.10	34.54	102.10	10.73	14000	552
4.80542	58.17	285.2	102.20	34.65	102.20	10.73	14010	552.1
4.86792	58.01	285.1	102.30	34.77	102.30	10.73	14010	552.2
4.93042	57.86	285.0	102.40	34.88	102.40	10.73	14020	552.3
4.99292	57.71	284.9	102.50	34.98	102.50	10.74	14030	552.4
5.05542	57.57	284.9	102.70	35.09	102.70	10.74	14030	552.5
5.11792	57.44	284.8	102.80	35.20	102.80	10.74	14040	552.6
5.24292	57.18	284.7	103.10	35.41	103.10	10.75	14050	552.9

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
5.36792	56.95	284.6	103.30	35.61	103.30	10.76	14070	553.1
5.49292	56.74	284.5	103.50	35.81	103.50	10.76	14080	553.3
5.61792	56.56	284.5	103.80	35.99	103.80	10.77	14090	553.5
5.74292	56.39	284.4	104.00	36.17	104.00	10.77	14100	553.7
5.86792	56.25	284.4	104.20	36.35	104.20	10.78	14120	553.9
5.99292	56.12	284.4	104.40	36.52	104.40	10.79	14130	554.1
6.11792	56.01	284.4	104.70	36.68	104.70	10.79	14140	554.3
6.24292	55.92	284.4	104.90	36.84	104.90	10.80	14150	554.5
6.36792	55.84	284.5	105.10	37.00	105.10	10.80	14160	554.7
6.49292	55.78	284.5	105.30	37.14	105.30	10.81	14180	554.9
6.61792	55.73	284.6	105.50	37.29	105.50	10.81	14190	555.1
6.74292	55.69	284.7	105.70	37.43	105.70	10.82	14200	555.3
6.86792	55.66	284.7	106.00	37.57	106.00	10.82	14210	555.5
6.99292	55.64	284.8	106.20	37.70	106.20	10.83	14230	555.7
7.11792	55.63	284.9	106.40	37.83	106.40	10.84	14240	555.9
7.24292	55.63	285.0	106.60	37.95	106.60	10.84	14250	556.1
7.36792	55.64	285.1	106.80	38.08	106.80	10.85	14260	556.3
7.49292	55.65	285.2	107.00	38.19	107.00	10.85	14270	556.5
7.74292	55.69	285.5	107.50	38.44	107.50	10.86	14310	557.1
7.99292	55.77	285.7	108.00	38.67	108.00	10.87	14330	557.5
8.24292	55.88	286.0	108.40	38.88	108.40	10.89	14360	557.9
8.49292	55.99	286.3	108.80	39.09	108.80	10.90	14380	558.3
8.74292	56.12	286.5	109.20	39.28	109.20	10.91	14400	558.7
8.99292	56.26	286.8	109.60	39.47	109.60	10.92	14420	559.1
9.24292	56.41	287.1	110.10	39.65	110.10	10.93	14440	559.4
9.49292	56.56	287.4	110.50	39.82	110.50	10.94	14470	559.8
9.74292	56.71	287.7	110.90	39.99	110.90	10.95	14490	560.1
9.99292	56.87	287.9	111.30	40.15	111.30	10.96	14500	560.5
10.24292	57.02	288.2	111.70	40.30	111.70	10.97	14520	560.8
10.49292	57.18	288.5	112.10	40.46	112.10	10.98	14540	561.1
10.74292	57.34	288.7	112.60	40.60	112.60	10.99	14560	561.4
10.99292	57.49	288.9	113.00	40.74	113.00	11.01	14580	561.7
11.24292	57.64	289.2	113.40	40.88	113.40	11.02	14590	562
11.49292	57.79	289.4	113.80	41.02	113.80	11.03	14610	562.2
11.74292	57.94	289.6	114.20	41.15	114.20	11.04	14620	562.5
11.99292	58.08	289.8	114.70	41.27	114.70	11.05	14640	562.7
12.49292	58.36	290.3	115.70	41.56	115.70	11.07	14670	563.3
12.99292	58.68	290.7	116.60	41.81	116.60	11.10	14700	563.7
13.49292	58.98	291.1	117.40	42.04	117.40	11.12	14720	564.1
13.99292	59.25	291.5	118.30	42.26	118.30	11.14	14730	564.4
14.49292	59.49	291.8	119.10	42.48	119.10	11.16	14750	564.6
14.99292	59.70	292.1	120.00	42.69	120.00	11.19	14760	564.8
15.49292	59.90	292.3	120.80	42.90	120.80	11.21	14770	565

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
15.99292	60.09	292.6	121.70	43.10	121.70	11.23	14770	565
16.49292	60.25	292.8	122.50	43.30	122.50	11.25	14780	565.1
16.74292	60.33	292.9	122.70	43.36	122.70	11.26	14770	565
16.80542	60.34	292.9	122.70	43.35	122.70	11.27	14770	565
16.83667	60.35	292.9	122.70	43.36	122.70	11.27	14770	565
16.86792	60.35	292.9	122.70	43.37	122.70	11.27	14770	565
16.88355	60.36	292.9	122.80	43.37	122.80	11.27	14770	565
16.89136	60.36	292.9	122.80	43.37	122.80	11.27	14770	565
16.89917	60.36	292.9	122.80	43.38	122.80	11.27	6706	736.3
16.90698	60.36	292.9	122.80	43.38	122.80	11.27	6704	736.2
16.92261	60.36	292.9	122.80	43.39	122.80	11.27	6694	736.3
16.95386	60.35	292.9	122.90	43.40	122.90	11.27	6675	736.5
17.01636	60.34	292.9	123.00	43.43	123.00	11.28	6637	736.9
17.14136	60.32	292.9	123.30	43.49	123.30	11.28	6561	737.6
17.26636	60.30	292.9	123.50	43.54	123.50	11.29	6499	738.1
17.39136	60.25	292.8	123.70	43.58	123.70	11.29	6438	738.6
17.51636	60.18	292.7	123.90	43.63	123.90	11.30	6376	739.1
17.64136	60.10	292.7	124.10	43.68	124.10	11.31	6314	739.7
17.76636	60.00	292.6	124.30	43.72	124.30	11.31	6252	740.2
17.89136	59.89	292.4	124.50	43.77	124.50	11.32	6190	740.7
18.01636	59.76	292.3	124.80	43.82	124.80	11.32	6127	741.2
18.14136	59.62	292.2	125.00	43.86	125.00	11.33	6064	741.7
18.26636	59.47	292.0	125.20	43.91	125.20	11.33	6001	742.2
18.39136	59.31	291.8	125.40	43.95	125.40	11.34	5938	742.6
18.51636	59.14	291.6	125.60	44.00	125.60	11.34	5875	743.1
18.64136	58.96	291.4	125.80	44.04	125.80	11.35	5812	743.6
18.76636	58.77	291.2	126.00	44.08	126.00	11.35	5750	744
18.89136	58.58	291.0	126.20	44.13	126.20	11.36	5689	744.5
19.01636	58.39	290.8	126.40	44.17	126.40	11.36	5628	744.9
19.14136	58.19	290.6	126.60	44.21	126.60	11.37	5568	745.3
19.26636	57.92	290.3	126.80	44.25	126.80	11.37	5507	745.8
19.39136	57.72	290.1	127.00	44.30	127.00	11.38	5447	746.2
19.51636	57.52	289.9	127.10	44.34	127.10	11.38	5388	746.6
19.64136	57.33	289.7	127.30	44.38	127.30	11.39	5328	747
19.76636	57.13	289.4	127.50	44.42	127.50	11.39	5269	747.5
19.89136	56.93	289.2	127.70	44.46	127.70	11.40	5210	747.9
20.01636	56.74	289.0	127.90	44.49	127.90	11.40	5152	748.3
20.14136	56.54	288.8	128.10	44.53	128.10	11.41	5094	748.7
20.26636	56.34	288.5	128.20	44.57	128.20	11.41	5036	749.1
20.39136	56.15	288.3	128.40	44.61	128.40	11.42	4978	749.5
20.51636	55.96	288.1	128.60	44.65	128.60	11.42	4921	749.9
20.64136	55.77	287.9	128.80	44.68	128.80	11.42	4864	750.3
20.76636	55.58	287.7	128.90	44.72	128.90	11.43	4808	750.7

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
20.89136	55.40	287.5	129.10	44.75	129.10	11.43	4752	751.1
21.01636	55.22	287.3	129.30	44.79	129.30	11.44	4696	751.6
21.14136	55.04	287.1	129.40	44.82	129.40	11.44	4641	752
21.26636	54.87	286.9	129.60	44.86	129.60	11.44	4586	752.4
21.39136	54.70	286.7	129.80	44.89	129.80	11.45	4531	752.8
21.51636	54.53	286.5	129.90	44.93	129.90	11.45	4477	753.3
21.64136	54.37	286.3	130.10	44.96	130.10	11.46	4423	753.7
21.76636	54.21	286.1	130.20	44.99	130.20	11.46	4369	754.1
21.89136	54.06	285.9	130.40	45.02	130.40	11.46	4316	754.6
22.01636	53.91	285.7	130.60	45.05	130.60	11.47	4263	755
22.14136	53.76	285.6	130.70	45.09	130.70	11.47	4211	755.5
22.26636	53.62	285.4	130.90	45.12	130.90	11.47	4159	755.9
22.39136	53.49	285.2	131.00	45.15	131.00	11.48	4108	756.4
22.51636	53.35	285.1	131.10	45.18	131.10	11.48	4058	756.8
22.64136	53.23	284.9	131.30	45.21	131.30	11.48	4008	757.3
22.76636	53.10	284.8	131.40	45.24	131.40	11.49	3958	757.7
22.89136	52.98	284.6	131.60	45.27	131.60	11.49	3909	758.2
23.01636	52.86	284.5	131.70	45.29	131.70	11.49	3860	758.7
23.14136	52.75	284.4	131.80	45.32	131.80	11.50	3812	759.1
23.26636	52.64	284.2	132.00	45.35	132.00	11.50	3764	759.6
23.39136	52.54	284.1	132.10	45.38	132.10	11.50	3716	760.1
23.51636	52.44	284.0	132.20	45.41	132.20	11.51	3668	760.6
23.64136	52.34	283.9	132.40	45.43	132.40	11.51	3621	761.1
23.76636	52.24	283.8	132.50	45.46	132.50	11.51	3574	761.5
23.89136	52.15	283.6	132.60	45.48	132.60	11.51	3528	762
24.01636	52.06	283.5	132.70	45.51	132.70	11.52	3482	762.5
24.14136	51.97	283.4	132.90	45.54	132.90	11.52	3437	763
24.26636	51.89	283.3	133.00	45.56	133.00	11.52	3391	763.5
24.39136	51.81	283.2	133.10	45.59	133.10	11.53	3347	764
24.51636	51.73	283.1	133.20	45.61	133.20	11.53	3302	764.6
24.64136	51.65	283.0	133.30	45.64	133.30	11.53	3258	765.1
24.76636	51.58	282.9	133.50	45.66	133.50	11.53	3214	765.6
24.89136	51.50	282.9	133.60	45.68	133.60	11.54	3171	766.1
25.01636	51.43	282.8	133.70	45.71	133.70	11.54	3128	766.6
25.14136	51.37	282.7	133.80	45.73	133.80	11.54	3086	767.2
25.26636	51.30	282.6	133.90	45.75	133.90	11.54	3043	767.7
25.39136	51.24	282.5	134.00	45.78	134.00	11.55	3001	768.3
25.51636	51.17	282.5	134.10	45.80	134.10	11.55	2960	768.8
25.64136	51.11	282.4	134.20	45.82	134.20	11.55	2919	769.3
25.76636	51.06	282.3	134.30	45.84	134.30	11.55	2878	769.9
25.89136	51.00	282.2	134.50	45.86	134.50	11.56	2838	770.5
26.01636	50.94	282.2	134.60	45.89	134.60	11.56	2798	771
26.14136	50.89	282.1	134.70	45.91	134.70	11.56	2759	771.6

Table 1
M3CPT05 Short-Term Results

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow mass lbm/sec	Break Flow Enthalpy Btu/lbm
26.26636	50.84	282.0	134.80	45.93	134.80	11.56	2721	772.2
26.39136	50.79	282.0	134.90	45.95	134.90	11.57	2683	772.7
26.51636	50.74	281.9	135.00	45.97	135.00	11.57	2645	773.3
26.64136	50.69	281.9	135.10	45.99	135.10	11.57	2607	773.9
26.76636	50.65	281.8	135.10	46.01	135.10	11.57	2570	774.5
26.89136	50.60	281.8	135.20	46.03	135.20	11.57	2533	775.1
27.01636	50.56	281.7	135.30	46.05	135.30	11.58	2497	775.7
27.14136	50.52	281.6	135.40	46.07	135.40	11.58	2461	776.3
27.26636	50.48	281.6	135.50	46.09	135.50	11.58	2425	776.9
27.39136	50.44	281.5	135.60	46.10	135.60	11.58	2389	777.5
27.51636	50.40	281.5	135.70	46.12	135.70	11.58	2354	778.2
27.64136	50.36	281.5	135.80	46.14	135.80	11.59	2320	778.8
27.76636	50.33	281.4	135.90	46.16	135.90	11.59	2285	779.4
27.89136	50.29	281.4	136.00	46.18	136.00	11.59	2251	780
28.01636	50.26	281.3	136.00	46.20	136.00	11.59	2218	780.7
28.14136	50.22	281.3	136.10	46.21	136.10	11.59	2184	781.3
28.26636	50.19	281.2	136.20	46.23	136.20	11.60	2151	782
28.39136	50.16	281.2	136.30	46.25	136.30	11.60	2119	782.6
28.51636	50.13	281.2	136.40	46.26	136.40	11.60	2086	783.3
28.64136	50.10	281.1	136.50	46.28	136.50	11.60	2054	784
28.76636	50.07	281.1	136.50	46.30	136.50	11.60	2023	784.7
28.89136	50.04	281.1	136.60	46.31	136.60	11.60	1992	785.4
29.01636	49.95	280.9	136.70	46.33	136.70	11.61	1961	786
29.14136	49.93	280.9	136.80	46.35	136.80	11.61	1930	786.7
29.26636	49.92	280.9	136.80	46.36	136.80	11.61	1900	787.4
29.39136	49.91	280.9	136.90	46.38	136.90	11.61	1870	788.1
29.51636	49.90	280.9	137.00	46.39	137.00	11.61	1841	788.9

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
0	17.00	135.0	95.0	17.00	95.0	7.449	14450	7.959E+06	0
25.66	52.31	283.8	127.0	48.97	228.8	7.929	2634	3.174E+06	0
42.09	51.20	282.5	134.2	49.49	230.9	8.012	1007	1.206E+06	0
59.00	51.53	282.9	137.9	49.90	232.5	8.08	3286	1.068E+06	0
76.78	51.84	283.3	140.5	50.25	233.8	8.135	3017	915659.5	0
88.53	52.11	283.6	141.8	50.45	234.4	8.169	2962	855721.8	0
97.66	52.23	283.8	142.6	50.60	234.8	8.194	3002	830653.4	0
106.88	52.40	284.0	143.5	50.76	235.3	8.222	3161	844935.3	0
117.34	52.60	284.2	144.6	50.97	235.9	8.256	3385	877392	0
129.23	52.72	284.4	145.6	51.15	236.5	8.281	0	0	0
144.61	52.47	284.1	146.2	50.88	235.2	8.238	0	0	0
158.95	52.20	283.7	146.6	50.72	234.5	8.207	1470	362061	0
174.33	52.04	283.5	147.1	50.48	233.4	8.168	0	0	0
189.95	51.70	283.1	147.3	50.15	232.0	8.112	0	0	0
205.42	51.38	282.7	147.5	49.83	230.6	8.056	0	0	0
221.05	51.02	282.3	147.6	49.51	229.2	7.997	0	0	0
236.67	50.69	281.9	147.7	49.19	227.9	7.94	0	0	0
252.36	50.34	281.4	147.7	48.87	226.5	7.882	0	0	0
268.11	50.01	281.0	147.8	48.56	225.2	7.824	0	0	0
283.80	49.66	280.6	147.8	48.25	223.8	7.765	0	0	0
299.16	49.45	280.3	147.8	48.05	222.9	7.726	0	0	0
314.78	49.45	280.3	147.8	48.06	222.9	7.726	0	0	0
330.41	49.45	280.3	147.9	48.08	222.9	7.725	0	0	0
345.25	49.45	280.3	147.9	48.09	222.8	7.725	556.6	126125.56	0
353.59	49.07	279.8	147.9	48.18	223.1	7.72	1853	423039.9	0
361.41	48.49	279.1	147.9	48.37	223.8	7.719	2508	576338.4	0
373.63	47.83	277.8	148.4	48.16	222.8	7.766	2975	690795	0

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
389.25	47.30	276.3	149.6	47.64	220.6	7.866	3164	742907.2	0
404.88	47.07	275.3	151.0	47.38	219.5	7.972	3228	767295.6	0
420.13	46.91	274.7	152.4	47.25	219.0	8.056	2171	515395.4	0
435.59	46.80	274.4	153.2	47.03	217.8	8.041	0	0	0
451.13	46.76	274.4	153.8	46.74	216.3	7.999	0	0	0
466.75	46.73	274.4	154.2	46.44	214.8	7.955	0	0	0
482.31	46.69	274.3	154.5	46.14	213.3	7.909	0	0	0
497.94	46.65	274.2	154.7	45.84	211.8	7.863	0	0	0
513.56	46.61	274.2	154.8	45.54	210.4	7.816	0	0	0
529.19	46.57	274.1	154.9	45.25	208.9	7.77	0	0	0
544.81	46.49	274.0	154.9	45.10	208.0	7.741	0	0	0
560.44	46.49	274.0	154.9	45.11	207.8	7.741	0	0	0
576.06	46.49	274.0	155.0	45.12	207.6	7.741	0	0	0
591.69	46.49	274.0	155.0	45.13	207.4	7.74	0	0	0
644.67	44.95	271.8	155.0	45.27	207.5	7.686	1746	385516.8	8103
662.08	44.32	270.3	155.6	44.66	204.9	7.728	1738	384098	8182
679.14	43.82	269.0	156.2	44.15	202.7	7.766	1442	318249.4	8269
698.98	43.35	267.8	156.9	43.70	200.6	7.795	1091	240238.2	8357
727.77	42.92	266.6	157.6	43.26	198.5	7.814	730	160235	8453
757.45	42.56	265.7	158.2	42.90	196.8	7.816	622.4	136118.88	8527
781.67	42.25	264.9	158.6	42.59	195.4	7.817	696.9	151924.2	8586
811.14	41.92	264.1	159.1	42.26	193.9	7.813	524.3	113877.96	8653
837.27	41.63	263.4	159.5	41.97	192.5	7.811	625.8	135485.7	8713
864.64	41.33	262.6	160.0	41.68	191.2	7.807	624.8	134769.36	8772
891.64	41.09	261.9	160.4	41.38	189.8	7.805	481	103415	8834
927.14	40.69	260.9	161.0	41.04	188.2	7.8	589.3	126110.2	8909
953.55	40.41	260.2	161.4	40.74	186.7	7.798	600.5	128086.65	8967

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
980.73	40.11	259.4	161.9	40.45	185.3	7.796	609.8	129582.5	9024
1093.14	38.87	255.9	163.7	39.21	179.1	7.792	647.8	135714.1	9271
1301.17	36.71	249.3	167.0	37.03	168.4	7.8	629.4	128712.3	9723
1498.80	34.97	243.3	169.9	35.31	160.0	7.813	659.6	132249.8	10110
1679.45	33.74	238.5	172.3	34.06	155.2	7.823	645.3	127382.22	10430
1850.73	32.82	234.5	174.3	33.16	152.5	7.826	658.3	128236.84	10700
2038.80	32.04	230.8	176.3	32.36	150.6	7.827	632.4	121673.76	10970
2242.4	31.47	227.4	178.2	31.80	153.4	7.822	639.8	121689.96	11230
2447.4	31.06	224.6	179.9	31.40	156.3	7.817	649.1	122355.35	11460
2655.2	30.79	222.3	181.5	31.13	159.1	7.814	663.3	124236.09	11680
2844.6	30.70	220.8	182.9	31.03	161.7	7.818	661.5	123700.5	11870
3029.4	30.74	220.0	184.2	31.05	164.3	7.822	665.4	124496.34	12040
3219.9	30.86	219.7	185.4	31.19	166.9	7.825	652.3	122241.02	12200
3411.3	31.01	219.6	186.5	31.34	169.3	7.815	622.8	116525.88	12360
3608.5	31.09	219.2	187.6	31.42	171.4	7.799	617.9	115114.77	12500
3802.3	31.10	218.5	188.6	31.45	173.3	7.783	635.2	117639.04	12640
3997.3	31.07	217.7	189.6	31.41	175.0	7.77	632.5	116506.5	12770
4194.1	31.02	216.8	190.6	31.37	176.6	7.759	649.1	118980.03	12900
4391.0	30.99	216.0	191.5	31.32	178.0	7.753	641.1	117064.86	13030
4586.8	30.95	215.1	192.3	31.29	179.4	7.745	650.6	118344.14	13140
4776.7	30.95	214.5	193.1	31.28	180.8	7.741	641.5	116432.25	13240
4965.8	30.98	214.0	193.8	31.29	182.0	7.737	656.9	119030.28	13340
5163.6	31.05	213.7	194.5	31.39	183.4	7.738	667	120993.8	13440
5354.5	31.18	213.7	195.2	31.51	184.7	7.74	645.2	117361.88	13530
5549.0	31.35	214.0	195.9	31.69	186.0	7.742	672.4	122713	13620
5744.3	31.54	214.4	196.5	31.87	187.3	7.741	655.1	119817.79	13700
5934.6	31.72	214.7	197.1	32.03	188.4	7.737	626.4	114693.84	13790

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
6108.4	31.83	214.8	197.7	32.17	189.4	7.732	663.7	121523.47	13860
6291.5	31.95	215.0	198.2	32.29	190.3	7.727	661.9	121193.89	13940
6467.3	32.04	215.0	198.8	32.38	191.2	7.723	684.8	125386.88	14010
6659.5	32.13	215.0	199.3	32.46	192.0	7.715	646.8	118364.4	14080
6859.7	32.19	215.0	199.9	32.53	192.8	7.707	656.2	119953.36	14160
7044.5	32.27	215.0	200.4	32.59	193.6	7.7	619.1	113109.57	14230
7223.7	32.32	214.9	200.8	32.63	194.2	7.695	624.1	113960.66	14290
7419.6	32.36	214.7	201.3	32.68	194.9	7.689	641.5	117073.75	14360
7617.9	32.40	214.6	201.8	32.73	195.6	7.683	654.1	119307.84	14420
7815.3	32.44	214.5	202.3	32.78	196.2	7.678	648.3	118185.09	14480
8017.9	32.49	214.4	202.7	32.81	196.8	7.673	644.7	117464.34	14540
8213.7	32.53	214.2	203.1	32.87	197.4	7.667	666.4	121351.44	14600
8412.2	32.58	214.2	203.6	32.90	198.0	7.664	636.5	115843	14660
8610.2	32.62	214.1	203.9	32.97	198.6	7.658	665	121030	14710
8812.7	32.68	214.0	204.3	33.00	199.1	7.655	645.1	117343.69	14760
9009.6	32.72	214.0	204.7	33.06	199.7	7.65	661.8	120381.42	14810
9207.2	32.77	213.9	205.0	33.11	200.2	7.646	658.7	119817.53	14850
9406.9	32.82	213.9	205.4	33.16	200.7	7.642	657.8	119588.04	14900
9603.8	32.86	213.8	205.7	33.21	201.2	7.638	664.5	120806.1	14940
9804.6	32.92	213.8	206.0	33.24	201.6	7.635	645.1	117279.18	14980
10005.0	32.96	213.8	206.3	33.29	202.1	7.63	662.5	120442.5	15020
10200.7	33.00	213.8	206.6	33.34	202.5	7.628	656.7	119388.06	15060
10399.8	33.05	213.7	206.8	33.39	202.9	7.624	664	120715.2	15100
10600.2	33.09	213.7	207.1	33.43	203.3	7.621	661.6	120278.88	15130
10793.3	33.14	213.7	207.4	33.48	203.7	7.619	662.6	120460.68	15170
10992.0	33.18	213.8	207.6	33.53	204.1	7.617	665	120897	15200
11190.4	33.24	213.8	207.8	33.57	204.4	7.614	661.6	120345.04	15230

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
11391.2	33.29	213.8	208.1	33.62	204.8	7.611	658	119690.2	15260
11588.4	33.33	213.9	208.3	33.67	205.1	7.609	664.4	120920.8	15300
11788.3	33.39	213.9	208.5	33.71	205.5	7.608	651.8	118627.6	15320
11986.7	33.43	213.9	208.7	33.77	205.8	7.605	669.9	121988.79	15350
12184.6	33.48	214.0	208.9	33.82	206.1	7.602	664.6	121023.66	15380
12380.8	33.53	214.1	209.1	33.85	206.4	7.601	655.1	119359.22	15410
12577.9	33.56	214.1	209.3	33.91	206.7	7.598	664.2	121083.66	15430
12781.0	33.61	214.1	209.5	33.96	207.0	7.596	666.6	121521.18	15460
12975.9	33.65	214.2	209.7	33.99	207.2	7.595	669.1	122043.84	15490
13179.4	33.70	214.3	209.9	34.03	207.5	7.594	654	119289.6	15510
13379.6	33.74	214.3	210.1	34.08	207.8	7.591	663.4	121070.5	15530
13586.3	33.78	214.4	210.3	34.12	208.0	7.59	665.6	121472	15560
13788.0	33.82	214.4	210.4	34.15	208.2	7.589	647.8	118288.28	15580
13989.8	33.86	214.5	210.6	34.18	208.4	7.587	640.1	116882.26	15600
14190.2	33.89	214.5	210.8	34.24	208.7	7.585	666.8	121824.36	15630
14392.4	33.93	214.5	210.9	34.27	208.9	7.583	666.5	121769.55	15650
14599.5	33.97	214.6	211.1	34.30	209.1	7.582	669.3	122348.04	15670
14805.4	34.00	214.6	211.2	34.35	209.4	7.58	671.8	122805.04	15690
15011.4	34.04	214.7	211.4	34.36	209.5	7.579	650.4	118893.12	15710
15216.0	34.07	214.7	211.5	34.41	209.8	7.577	664.9	121610.21	15730
15419.9	34.10	214.8	211.7	34.43	209.9	7.576	662	121079.8	15750
15622.0	34.13	214.8	211.8	34.46	210.1	7.575	662.6	121189.54	15770
15825.2	34.16	214.8	211.9	34.49	210.3	7.574	662.7	121274.1	15780
16026.7	34.19	214.8	212.1	34.53	210.5	7.571	669.2	122463.6	15800
16233.9	34.21	214.9	212.2	34.56	210.6	7.57	667.8	122207.4	15820
16438.5	34.25	214.9	212.3	34.57	210.8	7.57	648.1	118667.11	15840
16640.8	34.26	214.9	212.4	34.61	211.0	7.568	666.7	122072.77	15850

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
16840.7	34.29	214.9	212.5	34.63	211.1	7.567	654.6	119857.26	15870
17046.3	34.31	215.0	212.6	34.66	211.3	7.565	667.6	122237.56	15880
17246.7	34.34	215.0	212.8	34.68	211.4	7.564	669.3	122548.83	15900
17449.8	34.36	215.0	212.9	34.70	211.6	7.563	664.6	121754.72	15910
17652.8	34.38	215.0	213.0	34.72	211.7	7.562	665.5	121919.6	15930
17853.6	34.40	215.0	213.1	34.74	211.8	7.561	668.7	122505.84	15940
18057.0	34.42	215.0	213.2	34.76	211.9	7.56	669.8	122707.36	15950
18261.1	34.44	215.1	213.3	34.78	212.1	7.559	666	122011.2	15960
18460.6	34.46	215.1	213.3	34.78	212.2	7.558	662.5	121370	15980
18662.2	34.47	215.1	213.4	34.80	212.3	7.558	655.4	120069.28	15990
18863.0	34.49	215.1	213.5	34.82	212.4	7.556	654.8	119959.36	16000
19068.5	34.50	215.1	213.6	34.83	212.5	7.555	670.6	122853.92	16010
19266.2	34.51	215.1	213.7	34.85	212.6	7.553	667.3	122249.36	16020
19467.6	34.52	215.1	213.7	34.87	212.7	7.553	668.4	122450.88	16030
19672.3	34.54	215.1	213.8	34.88	212.8	7.552	662.8	121424.96	16040
19874.4	34.55	215.1	213.9	34.89	212.9	7.551	671.1	122945.52	16050
20073.3	34.56	215.1	214.0	34.90	213.0	7.55	666.1	122029.52	16060
20276.2	34.58	215.1	214.0	34.90	213.0	7.55	660.5	121003.6	16070
20480.1	34.58	215.1	214.1	34.93	213.2	7.548	664.9	121809.68	16080
20683.0	34.59	215.1	214.1	34.94	213.2	7.547	666.6	122121.12	16080
20888.5	34.61	215.1	214.2	34.95	213.3	7.546	668.1	122395.92	16090
21089.1	34.62	215.1	214.3	34.95	213.4	7.546	665.6	121937.92	16100
21290.9	34.62	215.1	214.3	34.97	213.5	7.545	667.3	122249.36	16110
21495.6	34.64	215.1	214.4	34.98	213.6	7.544	669	122560.8	16110
21698.7	34.65	215.1	214.4	34.99	213.6	7.544	666	122011.2	16120
21901.5	34.67	215.1	214.5	34.98	213.7	7.544	660.6	121021.92	16130
22106.8	34.67	215.1	214.5	35.00	213.8	7.543	668.6	122487.52	16130

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
22306.5	34.68	215.1	214.6	35.01	213.8	7.542	659.5	120820.4	16140
22509.0	34.68	215.1	214.6	35.02	213.9	7.541	668.7	122505.84	16150
22707.0	34.69	215.1	214.6	35.04	214.0	7.541	665.5	121919.6	16150
22909.3	34.71	215.1	214.7	35.03	214.0	7.541	653.6	119739.52	16160
23111.4	34.71	215.1	214.7	35.05	214.1	7.54	664.5	121736.4	16160
23307.5	34.71	215.1	214.8	35.06	214.1	7.539	667.6	122304.32	16170
23509.9	34.72	215.1	214.8	35.07	214.2	7.538	664.5	121736.4	16170
23717.5	34.74	215.1	214.8	35.06	214.2	7.538	659.1	120747.12	16180
23918.5	34.74	215.1	214.9	35.08	214.3	7.537	667.9	122359.28	16180
24120.0	34.75	215.1	214.9	35.09	214.4	7.537	667.9	122359.28	16190
24320.4	34.75	215.1	214.9	35.10	214.4	7.536	671.4	123000.48	16190
24523.9	34.76	215.1	214.9	35.09	214.5	7.536	669.9	122725.68	16190
24728.0	34.77	215.1	215.0	35.10	214.5	7.535	668.1	122395.92	16200
24929.5	34.77	215.0	215.0	35.11	214.6	7.535	665.8	121974.56	16200
25134.1	34.77	215.0	215.0	35.11	214.6	7.534	668.2	122414.24	16200
25336.0	34.78	215.0	215.1	35.12	214.6	7.533	665.5	121919.6	16210
25537.3	34.79	215.0	215.1	35.11	214.7	7.533	663	121461.6	16210
25741.2	34.79	215.0	215.1	35.11	214.7	7.533	668.8	122524.16	16210
25944.0	34.79	215.0	215.1	35.13	214.7	7.532	668.8	122524.16	16220
26148.2	34.79	215.0	215.1	35.12	214.8	7.531	667.8	122274.18	16220
26349.5	34.79	215.0	215.2	35.12	214.8	7.531	667.5	122219.25	16220
26552.7	34.80	215.0	215.2	35.12	214.8	7.531	669.2	122530.52	16220
26754.1	34.79	214.9	215.2	35.14	214.9	7.53	667.1	122146.01	16230
26955.4	34.79	214.9	215.2	35.13	214.9	7.529	667.9	122292.49	16230
27158.3	34.79	214.9	215.2	35.14	214.9	7.529	666.6	122054.46	16230
27358.4	34.79	214.9	215.2	35.14	214.9	7.529	667.1	122079.3	16230
27554.7	34.80	214.9	215.3	35.13	215.0	7.529	657.1	120249.3	16230

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
27754.7	34.79	214.9	215.3	35.14	215.0	7.528	666.5	121969.5	16240
27953.0	34.80	214.9	215.3	35.12	215.0	7.528	660	120780	16240
28151.2	34.79	214.8	215.3	35.14	215.0	7.527	665.4	121768.2	16240
28353.5	34.79	214.8	215.3	35.11	215.0	7.528	669.3	122481.9	16240
28557.4	34.79	214.8	215.3	35.13	215.1	7.527	665.4	121701.66	16240
28752.1	34.79	214.8	215.3	35.11	215.0	7.527	667.1	122012.59	16240
28950.0	34.83	214.8	215.3	35.00	214.9	7.528	672.3	122963.67	16240
29155.0	34.83	214.8	215.3	35.15	217.5	7.522	670.1	122561.29	16240
29355.6	34.82	214.7	215.3	35.16	218.0	7.521	664.7	121507.16	16240
29555.0	34.82	214.7	215.3	35.17	218.6	7.521	666.8	121891.04	16240
29755.3	34.82	214.7	215.3	35.17	219.0	7.52	670	122476	16240
29959.7	34.83	214.7	215.3	35.16	219.5	7.519	667.3	121982.44	16240
30326.4	34.83	214.6	215.3	35.16	220.4	7.518	658.8	120362.76	16240
30728.4	34.83	214.6	215.3	35.17	221.4	7.516	667.4	121933.98	16240
31128.4	34.83	214.5	215.3	35.17	222.3	7.515	668.1	121995.06	16240
31529.1	34.83	214.5	215.3	35.17	223.1	7.513	656.4	119858.64	16240
31927.7	34.83	214.4	215.3	35.17	223.8	7.513	665.8	121508.5	16240
32327.7	34.82	214.3	215.3	35.16	224.5	7.511	667.2	121764	16240
32734.0	34.81	214.3	215.3	35.16	224.9	7.51	666.2	121514.88	16230
33134.5	34.80	214.2	215.2	35.14	225.1	7.51	665.7	121357.11	16230
33540.4	34.79	214.1	215.2	35.13	225.4	7.508	670.3	122195.69	16230
33942.4	34.77	214.1	215.2	35.12	225.5	7.508	666.7	121472.74	16220
34349.5	34.76	214.0	215.1	35.10	225.5	7.508	663.7	120859.77	16220
34753.3	34.74	213.9	215.1	35.08	225.5	7.507	667.4	121533.54	16220
35153.4	34.73	213.9	215.1	35.06	225.5	7.507	662.3	120538.6	16210
35550.0	34.70	213.8	215.0	35.05	225.5	7.506	667.3	121381.87	16200
35947.5	34.68	213.7	215.0	35.03	225.4	7.506	666.4	121151.52	16200

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
36347.4	34.66	213.6	214.9	35.00	225.3	7.505	666.7	121139.39	16190
36753.2	34.64	213.5	214.9	34.97	225.1	7.504	668.4	121381.44	16190
37157.9	34.60	213.4	214.8	34.95	224.8	7.504	666.3	120933.45	16180
37553.5	34.58	213.3	214.8	34.91	224.4	7.504	664.6	120558.44	16170
37951.5	34.54	213.2	214.7	34.89	224.1	7.503	668.7	121235.31	16160
38349.8	34.51	213.1	214.7	34.84	223.5	7.503	671.6	121693.92	16160
38751.8	34.47	212.9	214.6	34.81	222.8	7.504	665.9	120527.9	16150
39157.9	34.42	212.8	214.5	34.76	222.0	7.504	671.8	121528.62	16140
39559.8	34.38	212.7	214.5	34.72	221.1	7.504	670.8	121280.64	16130
39968.1	34.34	212.6	214.4	34.68	220.3	7.504	665.3	120153.18	16110
40366.5	34.29	212.4	214.3	34.63	219.3	7.504	666.7	120339.35	16100
40768.0	34.25	212.3	214.2	34.57	218.3	7.505	665.5	120056.2	16090
41165.9	34.21	212.2	214.1	34.52	217.3	7.506	668.8	120584.64	16080
41564.1	34.17	212.0	214.0	34.46	216.2	7.507	667.2	120162.72	16070
41963.9	34.13	211.9	213.9	34.35	214.0	7.511	663.9	119502	16050
42367.5	34.10	211.8	213.8	34.35	214.0	7.509	666.3	119867.37	16040
42769.4	34.06	211.7	213.7	34.34	213.9	7.507	667.4	119998.52	16030
43171.5	34.02	211.6	213.6	34.32	213.9	7.506	666.4	119752.08	16010
43580.8	33.99	211.5	213.5	34.29	213.8	7.506	663.5	119098.25	16000
43984.4	33.95	211.3	213.4	34.26	213.7	7.505	662.8	118906.32	15990
44392.7	33.91	211.2	213.3	34.23	213.6	7.505	662.6	118804.18	15970
44798.3	33.87	211.1	213.2	34.20	213.5	7.506	665.4	119239.68	15960
45204.0	33.83	211.0	213.1	34.16	213.4	7.505	666.5	119303.5	15940
45603.8	33.79	210.8	213.0	34.13	213.3	7.505	667.2	119362.08	15930
46005.8	33.75	210.7	212.9	34.10	213.2	7.504	669.3	119670.84	15920
46405.4	33.72	210.6	212.8	34.04	213.1	7.504	671.1	119925.57	15900
46805.0	33.68	210.5	212.7	34.01	213.0	7.504	667.6	119166.6	15890

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
47204.4	33.64	210.3	212.6	33.98	212.9	7.504	668.8	119313.92	15870
47604.2	33.60	210.2	212.4	33.95	212.8	7.504	670.4	119532.32	15860
48007.2	33.57	210.1	212.3	33.89	212.6	7.504	667.9	118952.99	15840
48408.8	33.53	209.9	212.2	33.86	212.5	7.504	671.7	119562.6	15820
48821.7	33.49	209.8	212.1	33.83	212.4	7.503	669	119015.1	15810
49227.5	33.44	209.7	212.0	33.79	212.3	7.503	667.8	118668.06	15790
49630.4	33.41	209.6	211.9	33.74	212.2	7.503	667.3	118512.48	15780
50033.4	33.37	209.4	211.7	33.70	212.1	7.503	670.2	118960.5	15760
50435.4	33.33	209.3	211.6	33.67	212.0	7.503	667.1	118276.83	15740
50840.2	33.29	209.1	211.5	33.61	211.8	7.503	672.2	119113.84	15730
51244.8	33.25	209.0	211.4	33.58	211.7	7.503	664.3	117647.53	15710
51654.3	33.20	208.9	211.2	33.54	211.6	7.502	666.2	117850.78	15690
52059.7	33.16	208.7	211.1	33.51	211.5	7.501	667	117925.6	15680
52470.1	33.13	208.6	211.0	33.46	211.4	7.502	667.9	117951.14	15660
52870.7	33.08	208.4	210.9	33.42	211.2	7.501	668.1	117919.65	15640
53274.5	33.04	208.3	210.7	33.38	211.1	7.501	669.7	118068.11	15620
53674.9	33.00	208.2	210.6	33.34	211.0	7.502	667.2	117560.64	15610
54080.0	32.96	208.0	210.5	33.30	210.9	7.502	669.4	117881.34	15590
54476.9	32.92	207.9	210.4	33.25	210.7	7.501	667	117325.3	15570
54888.2	32.87	207.7	210.2	33.21	210.6	7.501	671.5	118049.7	15550
55301.3	32.83	207.6	210.1	33.17	210.5	7.501	670.8	117792.48	15540
55710.3	32.79	207.4	209.9	33.13	210.3	7.5	668.2	117269.1	15520
56114.2	32.74	207.3	209.8	33.09	210.2	7.5	670.5	117538.65	15500
56518.4	32.71	207.1	209.7	33.05	210.1	7.5	668.4	117103.68	15480
56926.0	32.67	207.0	209.5	32.99	210.0	7.501	668.5	116987.5	15460
57334.1	32.62	206.8	209.4	32.95	209.8	7.501	666.2	116518.38	15440
57743.1	32.57	206.7	209.3	32.90	209.7	7.5	666.1	116367.67	15420

Table 2
SHEX DBA-LOCA RESULTS

Time seconds	Drywell Pressure psia	Drywell Temp deg F	Suppression Pool Temp deg F	Wetwell Pressure psia	Wetwell Temp deg F	Suppression Pool Depth ft	Break Flow Mass lbm/sec	Break Flow Energy Btu/sec	RHR HX Performance Btu/sec
58151.0	32.53	206.5	209.1	32.86	209.5	7.501	666	116283.6	15410
58558.6	32.49	206.4	209.0	32.82	209.4	7.5	666.3	116202.72	15390
58971.2	32.44	206.2	208.8	32.77	209.3	7.5	667.8	116330.76	15370
59378.1	32.39	206.1	208.7	32.73	209.1	7.5	667.4	116194.34	15350
59775.0	32.35	205.9	208.5	32.69	209.0	7.5	664.9	115626.11	15330
60184.2	32.30	205.8	208.4	32.65	208.8	7.499	667.2	115959.36	15310
60598.5	32.26	205.6	208.3	32.60	208.7	7.5	668	115964.8	15290
61001.9	32.22	205.4	208.1	32.56	208.6	7.5	665.4	115446.9	15270
61413.6	32.17	205.3	208.0	32.52	208.4	7.499	667.1	115608.43	15250

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
0	15.20	135.0	95.0	15.20	14.38	95.0	7.449	0	0		14450	7.959E+06	0
20.66	47.03	277.2	121.7	39.35	37.79	216.5	7.863	0	0		13010	6.950E+06	0
41.14	41.51	269.5	134.2	39.80	38.38	218.0	8.013	0	0		4269	1.521E+06	0
57.95	41.49	269.5	137.8	39.90	38.57	218.0	8.073	0	0		3208	1.025E+06	0
76.33	41.49	269.5	140.2	39.90	38.65	217.6	8.103	0	0		3070	8.866E+05	0
87.95	41.51	269.5	141.3	39.92	38.71	217.4	8.124	0	0		3285	8.968E+05	0
97.33	41.56	269.6	142.1	39.97	38.78	217.5	8.145	0	0		3588	9.332E+05	0
107.55	41.65	269.7	143.1	40.06	38.90	217.9	8.174	0	0		4079	1.021E+06	0
119.31	41.66	269.7	144.4	40.22	39.10	218.5	8.214	0	0		4067	9.858E+05	0
132.88	40.92	268.6	145.4	40.21	39.11	217.8	8.201	0	0		0	0.000E+00	0
145.31	40.18	267.5	145.8	39.94	38.86	215.7	8.143	0	0		4012	9.416E+05	0
161.22	39.30	265.9	146.9	39.62	38.58	213.3	8.147	0	0		1900	4.330E+05	0
176.50	38.70	264.7	147.7	39.00	37.99	209.2	8.098	0	0		0	0.000E+00	0
192.00	38.20	263.9	148.2	38.48	37.47	204.4	8.024	0	0		0	0.000E+00	0
207.63	37.76	263.2	148.5	37.99	36.96	199.9	7.948	0	0		0	0.000E+00	0
223.22	37.38	262.6	148.7	37.51	36.47	195.5	7.874	0	0		0	0.000E+00	0
238.84	37.05	262.1	148.9	37.05	36.00	191.4	7.801	0	0		0	0.000E+00	0
254.47	36.75	261.6	149.0	36.61	35.56	187.6	7.729	0	0		0	0.000E+00	0
269.86	36.50	261.2	149.1	36.29	35.23	184.6	7.677	0	0		0	0.000E+00	0
284.27	35.55	259.2	149.2	35.90	34.84	181.5	7.681	0	0		2218	4.478E+05	0
296.33	34.64	256.5	149.6	34.98	33.92	175.4	7.742	0	0		2797	5.723E+05	0
309.20	33.86	254.1	150.2	34.20	33.14	170.2	7.819	0	0		3040	6.299E+05	0
324.27	33.21	251.8	151.3	33.54	32.47	165.3	7.919	0	0		3175	6.677E+05	0
339.92	32.85	250.3	152.4	33.17	32.10	162.5	8.026	0	0		3156	6.751E+05	0
356.58	32.52	249.3	153.5	32.86	31.78	160.2	8.053	0	0		1319	2.754E+05	0
372.11	32.31	248.8	154.1	32.56	31.47	157.9	8.006	0	0		0	0.000E+00	0
387.67	32.20	248.6	154.5	32.24	31.15	155.4	7.938	0	0		0	0.000E+00	0

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
403.23	31.96	248.1	154.9	31.94	30.84	153.2	7.869	0	0		751.6	1.478E+05	0
418.86	31.30	246.7	155.1	31.65	30.54	151.1	7.805	0	0		1372	2.656E+05	0
433.64	30.69	244.9	155.6	31.03	29.93	147.3	7.776	0	0		1659	3.169E+05	0
449.27	29.95	242.5	156.1	30.27	29.16	142.5	7.755	0	0		1961	3.698E+05	0
464.89	29.14	239.8	156.7	29.47	28.37	137.3	7.746	0	0		2204	4.108E+05	0
480.52	28.30	236.8	157.5	28.65	27.54	132.0	7.742	0	0		2407	4.439E+05	0
496.14	27.46	233.6	158.2	27.81	26.70	126.8	7.746	0	0		2572	4.694E+05	0
511.77	26.66	230.3	159.0	27.02	25.91	122.0	7.753	0	0		2687	4.858E+05	0
527.02	25.97	227.3	159.7	26.30	25.19	117.8	7.765	0	0		2739	4.911E+05	0
542.64	25.31	224.2	160.5	25.63	24.52	113.9	7.777	0	0		2780	4.943E+05	0
558.27	24.71	221.4	161.3	25.05	23.94	110.8	7.792	0	0		2782	4.907E+05	0
574.58	24.19	218.7	162.0	24.49	23.37	107.7	7.805	0	0		2751	4.820E+05	0
591.33	23.71	216.1	162.7	24.05	22.92	105.9	7.818	0	0		2724	4.740E+05	0
606.86	23.11	212.3	163.4	23.44	22.31	106.0	7.857	633.8	33.36	149.4	2694	4.693E+05	9727.4
625.20	22.36	206.7	164.1	22.72	21.57	108.9	7.942	633.8	33.36	150.0	2556	4.506E+05	9835.8
639.98	21.86	202.4	164.7	22.17	21.02	111.7	8.008	633.8	33.36	150.5	2383	4.242E+05	9913.7
654.73	21.56	199.5	165.2	21.90	20.73	115.7	8.068	633.8	33.36	150.9	2141	3.850E+05	9987.4
670.36	21.39	197.4	165.6	21.72	20.52	119.7	8.12	633.8	33.36	151.2	1769	3.209E+05	10050.5
685.98	21.23	195.5	166.0	21.58	20.36	122.9	8.162	633.8	33.36	151.5	1512	2.765E+05	10104.2
708.05	21.09	193.5	166.5	21.41	20.15	126.5	8.21	633.8	33.36	151.9	1349	2.496E+05	10168.4
726.36	21.03	192.4	166.8	21.36	20.07	129.4	8.245	633.8	33.36	152.1	1271	2.377E+05	10215.8
741.98	21.03	191.8	167.1	21.35	20.04	131.3	8.272	633.8	33.36	152.4	1236	2.331E+05	10253.7
757.61	21.04	191.6	167.3	21.39	20.05	133.1	8.299	633.8	33.36	152.6	1218	2.318E+05	10289.4
773.23	21.09	191.5	167.6	21.43	20.07	134.8	8.325	633.8	33.36	152.7	1193	2.291E+05	10323.2
788.86	21.16	191.7	167.8	21.50	20.12	136.1	8.35	633.8	33.36	152.9	1186	2.296E+05	10356.8
805.92	21.26	192.0	168.1	21.56	20.16	137.0	8.379	633.8	33.36	153.1	1164	2.274E+05	10392.6
834.48	21.58	193.4	168.5	21.74	20.30	138.6	8.434	633.8	33.36	153.5	1321	2.618E+05	10454.8

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
865.73	22.12	195.7	169.1	21.95	20.46	140.0	8.51	633.8	33.36	153.9	1399	2.819E+05	10526.5
895.55	22.53	197.5	169.6	22.13	20.60	140.9	8.579	633.8	33.36	154.3	971.7	1.989E+05	10600.1
911.23	22.84	198.8	169.8	22.16	20.61	140.7	8.601	633.8	33.36	154.5	37.98	4.402E+04	10631.6
927.17	22.92	199.1	169.9	22.18	20.61	140.7	8.604	633.8	33.36	154.6	835.4	1.707E+05	10652.6
947.17	22.92	199.1	170.1	22.21	20.61	140.8	8.603	633.8	33.36	154.7	29.37	3.404E+04	10673.7
968.98	22.93	199.1	170.2	22.24	20.62	140.9	8.603	633.8	33.36	154.8	28.68	3.324E+04	10695
991.05	22.92	199.1	170.4	22.28	20.63	141.2	8.601	633.8	33.36	155.0	29.16	3.380E+04	10726.2
1056.5	22.90	199.0	170.9	22.39	20.67	142.1	8.597	633.8	33.36	155.4	841.9	1.719E+05	10789.7
1156.5	22.87	198.8	171.7	22.54	20.70	143.0	8.592	633.8	33.36	156.0	841.8	1.718E+05	10895
1306.0	22.80	198.5	172.7	22.77	20.76	144.5	8.583	633.8	33.36	156.8	26.67	3.091E+04	11052.4
1462.2	22.72	198.2	173.8	23.02	20.83	146.4	8.571	633.8	33.36	157.6	25.45	2.950E+04	11199.8
1609.5	22.72	197.6	174.7	23.07	20.71	148.0	8.571	633.8	33.36	158.4	24.29	2.815E+04	11336.6
1760.9	22.75	197.1	175.7	23.07	20.55	149.3	8.575	633.8	33.36	159.1	786.1	1.601E+05	11463.4
1914.0	22.77	196.6	176.6	23.11	20.42	150.9	8.577	633.8	33.36	159.9	757.6	1.543E+05	11599.9
2067.0	22.81	196.1	177.5	23.14	20.28	152.7	8.58	633.8	33.36	160.6	739.1	1.506E+05	11716
2221.0	22.88	196.0	178.3	23.21	20.15	153.3	8.582	633.8	33.36	161.2	734	1.497E+05	11841.9
2378.4	22.99	195.9	179.1	23.32	20.06	155.1	8.585	633.8	33.36	161.9	695.8	1.421E+05	11947.6
2533.6	23.08	195.9	179.9	23.42	19.96	156.4	8.587	633.8	33.36	162.5	20.89	2.421E+04	12063
2693.6	23.19	195.9	180.7	23.53	19.87	157.9	8.589	633.8	33.36	163.1	619.9	1.268E+05	12168.4
2852.2	23.29	195.8	181.4	23.63	19.76	159.3	8.592	633.8	33.36	163.6	20.42	2.367E+04	12273.5
3010.1	23.40	195.8	182.1	23.74	19.65	160.7	8.594	633.8	33.36	164.2	20.21	2.342E+04	12368.4
3170.7	23.49	195.7	182.8	23.84	19.53	161.3	8.595	633.8	33.36	164.7	19.68	2.283E+04	12463.3
3333.0	23.59	195.7	183.4	23.92	19.40	162.3	8.598	633.8	33.36	165.3	649.6	1.335E+05	12558
3491.0	23.67	195.6	184.1	24.00	19.29	163.2	8.6	633.8	33.36	165.7	614.1	1.263E+05	12652.4
3647.6	23.75	195.5	184.7	24.08	19.18	164.1	8.602	633.8	33.36	166.2	18.56	2.153E+04	12736.6
3806.9	23.82	195.4	185.3	24.15	19.07	165.0	8.604	633.8	33.36	166.7	600.6	1.237E+05	12810.8
3963.2	23.88	195.2	185.8	24.21	18.96	165.8	8.605	633.8	33.36	167.1	551.2	1.137E+05	12894.6

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
4116.5	23.96	195.1	186.3	24.28	18.85	166.9	8.607	633.8	33.36	167.5	547.8	1.130E+05	12968.3
4267.0	24.04	195.2	186.8	24.39	18.81	168.2	8.608	633.8	33.36	167.9	564.2	1.165E+05	13031.8
4416.8	24.14	195.2	187.3	24.41	18.68	168.1	8.613	633.8	33.36	168.3	16.4	1.902E+04	13105.2
4569.9	24.23	195.3	187.8	24.56	18.64	169.5	8.611	633.8	33.36	168.7	549.9	1.138E+05	13168.4
4725.7	24.32	195.4	188.2	24.65	18.58	170.6	8.613	633.8	33.36	169.0	538.9	1.117E+05	13231.7
4880.9	24.40	195.5	188.7	24.73	18.52	171.6	8.614	633.8	33.36	169.4	16.94	1.965E+04	13294.9
5036.5	24.48	195.6	189.1	24.82	18.47	172.5	8.616	633.8	33.36	169.7	514.3	1.067E+05	13358
5192.8	24.56	195.7	189.6	24.89	18.41	173.4	8.617	633.8	33.36	170.1	522.3	1.085E+05	13421.1
5347.7	24.64	195.7	190.0	24.98	18.36	174.3	8.618	633.8	33.36	170.4	505.6	1.051E+05	13484
5504.2	24.71	195.8	190.4	25.04	18.30	175.2	8.62	633.8	33.36	170.7	505.2	1.051E+05	13537
5660.1	24.77	195.9	190.8	25.13	18.26	176.0	8.62	633.8	33.36	171.0	16.5	1.914E+04	13599.8
5815.2	24.84	195.9	191.2	25.18	18.20	176.7	8.622	633.8	33.36	171.3	524.2	1.092E+05	13652.5
5971.3	24.90	195.9	191.5	25.24	18.16	177.3	8.622	633.8	33.36	171.6	518.6	1.081E+05	13705.2
6127.9	24.96	196.0	191.9	25.27	18.11	177.9	8.626	633.8	33.36	171.9	16.09	1.868E+04	13757.8
6284.8	25.02	196.1	192.3	25.33	18.07	178.4	8.627	633.8	33.36	172.2	16.17	1.877E+04	13810.3
6441.7	25.08	196.2	192.6	25.41	18.07	179.0	8.626	633.8	33.36	172.5	481.5	1.005E+05	13852.7
6597.2	25.14	196.4	193.0	25.47	18.05	179.5	8.627	633.8	33.36	172.8	508	1.062E+05	13905.1
6754.2	25.19	196.5	193.3	25.53	18.02	179.9	8.628	633.8	33.36	173.0	491	1.027E+05	13947.5
6909.9	25.25	196.7	193.6	25.57	18.00	180.4	8.63	633.8	33.36	173.3	467.7	9.784E+04	13999.8
7067.4	25.30	196.8	193.9	25.64	17.99	180.8	8.63	633.8	33.36	173.5	16.12	1.872E+04	14042
7226.0	25.35	196.9	194.3	25.70	17.98	181.2	8.63	633.8	33.36	173.8	480	1.005E+05	14084.2
7384.8	25.40	197.0	194.6	25.73	17.96	181.6	8.632	633.8	33.36	174.0	487.2	1.021E+05	14126.4
7542.3	25.45	197.1	194.9	25.78	17.95	181.9	8.632	633.8	33.36	174.3	490.4	1.028E+05	14168.5
7698.5	25.50	197.2	195.2	25.83	17.92	182.3	8.634	633.8	33.36	174.5	15.68	1.820E+04	14210.6
7855.4	25.54	197.3	195.4	25.87	17.91	182.6	8.635	633.8	33.36	174.7	475.4	9.979E+04	14252.6
8012.5	25.58	197.4	195.7	25.91	17.90	183.0	8.635	633.8	33.36	174.9	470.1	9.867E+04	14294.5
8169.4	25.62	197.5	196.0	25.96	17.88	183.3	8.636	633.8	33.36	175.1	479.1	1.006E+05	14326.5

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
8325.7	25.67	197.6	196.3	26.00	17.87	183.6	8.637	633.8	33.36	175.4	478.9	1.006E+05	14368.3
8484.4	25.71	197.8	196.5	26.05	17.87	183.9	8.637	633.8	33.36	175.6	15.72	1.825E+04	14400.2
8641.5	25.75	197.9	196.8	26.09	17.86	184.2	8.639	633.8	33.36	175.8	461.9	9.714E+04	14442
8798.6	25.80	198.0	197.0	26.12	17.84	184.4	8.64	633.8	33.36	176.0	454.3	9.558E+04	14473.7
8957.9	25.83	198.1	197.3	26.18	17.84	184.7	8.639	633.8	33.36	176.2	481.6	1.014E+05	14505.5
9114.9	25.88	198.2	197.5	26.22	17.83	185.0	8.64	633.8	33.36	176.3	472.9	9.959E+04	14547.2
9271.3	25.92	198.3	197.7	26.25	17.82	185.2	8.642	633.8	33.36	176.5	459.4	9.680E+04	14578.8
9427.5	25.95	198.4	198.0	26.29	17.81	185.5	8.641	633.8	33.36	176.7	454.6	9.578E+04	14610.4
9584.1	25.99	198.5	198.2	26.32	17.80	185.7	8.643	633.8	33.36	176.9	468.1	9.868E+04	14642
9740.9	26.02	198.6	198.4	26.37	17.80	186.0	8.643	633.8	33.36	177.1	473.3	9.982E+04	14673.5
9898.9	26.06	198.7	198.6	26.39	17.78	186.2	8.644	633.8	33.36	177.2	463.6	9.782E+04	14705.1
10057.1	26.09	198.8	198.8	26.42	17.77	186.4	8.645	633.8	33.36	177.4	466.6	9.850E+04	14726.5
10214.5	26.13	198.9	199.0	26.47	17.77	186.7	8.645	633.8	33.36	177.6	457	9.647E+04	14758
10372.3	26.17	199.0	199.2	26.52	17.76	187.0	8.645	633.8	33.36	177.7	456.9	9.650E+04	14789.4
10529.5	26.22	199.2	199.4	26.56	17.76	187.2	8.646	633.8	33.36	177.9	465.7	9.840E+04	14820.8
10686.5	26.26	199.3	199.6	26.59	17.76	187.4	8.647	633.8	33.36	178.0	441.4	9.331E+04	14842.2
10844.0	26.30	199.4	199.8	26.63	17.75	187.6	8.648	633.8	33.36	178.2	15.48	1.799E+04	14873.6
11001.5	26.33	199.6	200.0	26.68	17.76	187.9	8.648	633.8	33.36	178.3	467.2	9.886E+04	14894.9
11157.9	26.38	199.7	200.2	26.72	17.76	188.1	8.648	633.8	33.36	178.5	457.7	9.690E+04	14926.2
11316.1	26.42	199.9	200.4	26.75	17.75	188.2	8.649	633.8	33.36	178.6	462.2	9.789E+04	14947.5
11473.3	26.45	200.0	200.6	26.80	17.76	188.5	8.649	633.8	33.36	178.8	473.1	1.002E+05	14978.8
11630.0	26.49	200.1	200.8	26.82	17.75	188.6	8.651	633.8	33.36	178.9	15.63	1.816E+04	15000.1
11787.5	26.53	200.2	200.9	26.87	17.75	188.8	8.65	633.8	33.36	179.0	467.1	9.903E+04	15031.3
11945.0	26.57	200.4	201.1	26.89	17.75	189.0	8.651	633.8	33.36	179.2	448.2	9.506E+04	15052.6
12102.6	26.60	200.5	201.3	26.94	17.76	189.2	8.651	633.8	33.36	179.3	469.8	9.964E+04	15073.8
12259.1	26.63	200.6	201.5	26.96	17.75	189.3	8.652	633.8	33.36	179.5	458.4	9.727E+04	15095
12416.2	26.66	200.7	201.6	27.01	17.76	189.5	8.652	633.8	33.36	179.6	463.9	9.849E+04	15126.2

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
12572.5	26.70	200.8	201.8	27.03	17.75	189.7	8.653	633.8	33.36	179.7	463.2	9.838E+04	15147.3
12731.6	26.73	200.9	202.0	27.08	17.76	189.9	8.653	633.8	33.36	179.9	15.77	1.832E+04	15168.5
12889.0	26.77	201.0	202.1	27.10	17.75	190.0	8.654	633.8	33.36	180.0	456.8	9.707E+04	15189.6
13046.2	26.79	201.1	202.3	27.13	17.76	190.2	8.654	633.8	33.36	180.1	468.8	9.967E+04	15210.7
13202.6	26.83	201.2	202.4	27.15	17.75	190.3	8.656	633.8	33.36	180.2	448.6	9.537E+04	15231.8
13362.0	26.86	201.3	202.6	27.18	17.75	190.4	8.656	633.8	33.36	180.3	472.9	1.006E+05	15262.9
13519.9	26.88	201.4	202.7	27.22	17.75	190.6	8.655	633.8	33.36	180.5	479.6	1.021E+05	15284
13677.6	26.91	201.5	202.9	27.26	17.76	190.8	8.655	633.8	33.36	180.6	466.7	9.931E+04	15305.1
13834.1	26.95	201.6	203.0	27.27	17.75	190.9	8.656	633.8	33.36	180.7	467.3	9.949E+04	15326.1
13991.6	26.97	201.7	203.2	27.31	17.76	191.0	8.656	633.8	33.36	180.8	475.8	1.013E+05	15347.1
14149.0	27.00	201.8	203.3	27.33	17.75	191.1	8.657	633.8	33.36	180.9	462.3	9.847E+04	15358.1
14305.9	27.02	201.9	203.5	27.37	17.75	191.3	8.657	633.8	33.36	181.0	457.9	9.753E+04	15379.1
14463.8	27.05	202.0	203.6	27.39	17.75	191.4	8.658	633.8	33.36	181.1	452.7	9.647E+04	15400.1
14621.2	27.08	202.1	203.7	27.41	17.75	191.5	8.658	633.8	33.36	181.3	461.7	9.843E+04	15421
14778.7	27.10	202.1	203.9	27.45	17.75	191.7	8.658	633.8	33.36	181.4	450.8	9.611E+04	15442
14935.7	27.13	202.2	204.0	27.46	17.75	191.8	8.659	633.8	33.36	181.5	453.9	9.682E+04	15462.9
15093.2	27.15	202.3	204.1	27.49	17.75	191.9	8.659	633.8	33.36	181.6	453.4	9.671E+04	15473.8
15249.5	27.17	202.4	204.3	27.51	17.75	192.1	8.659	633.8	33.36	181.7	467.2	9.970E+04	15494.7
15405.9	27.19	202.4	204.4	27.54	17.75	192.2	8.659	633.8	33.36	181.8	461	9.838E+04	15515.6
15562.9	27.22	202.5	204.5	27.55	17.74	192.3	8.66	633.8	33.36	181.9	451.2	9.629E+04	15526.5
15719.9	27.24	202.6	204.6	27.58	17.74	192.4	8.66	633.8	33.36	182.0	462.5	9.874E+04	15547.3
15876.7	27.26	202.6	204.7	27.60	17.74	192.5	8.66	633.8	33.36	182.1	475.1	1.014E+05	15558.2
16033.8	27.28	202.7	204.9	27.62	17.74	192.6	8.66	633.8	33.36	182.1	471.5	1.007E+05	15579
16191.2	27.29	202.7	205.0	27.64	17.74	192.7	8.661	633.8	33.36	182.2	453.2	9.680E+04	15599.8
16349.0	27.32	202.8	205.1	27.66	17.73	192.8	8.661	633.8	33.36	182.3	448.1	9.571E+04	15610.6
16505.4	27.34	202.8	205.2	27.66	17.72	192.9	8.662	633.8	33.36	182.4	471.1	1.007E+05	15631.3
16662.9	27.35	202.9	205.3	27.69	17.73	193.0	8.662	633.8	33.36	182.5	456.3	9.751E+04	15642.1

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
16821.4	27.37	202.9	205.4	27.72	17.72	193.1	8.662	633.8	33.36	182.6	452.7	9.679E+04	15652.8
16978.4	27.39	203.0	205.5	27.73	17.72	193.2	8.663	633.8	33.36	182.7	462.3	9.884E+04	15673.6
17135.1	27.41	203.0	205.6	27.75	17.72	193.3	8.663	633.8	33.36	182.7	448.2	9.583E+04	15684.3
17292.1	27.43	203.1	205.7	27.76	17.71	193.4	8.663	633.8	33.36	182.8	436	9.326E+04	15695
17451.2	27.44	203.1	205.8	27.78	17.71	193.5	8.664	633.8	33.36	182.9	433.1	9.264E+04	15715.7
17610.4	27.45	203.2	205.9	27.80	17.71	193.6	8.663	633.8	33.36	183.0	449.8	9.621E+04	15726.4
17768.0	27.47	203.2	206.0	27.81	17.70	193.7	8.664	633.8	33.36	183.0	455.8	9.754E+04	15737
17925.1	27.48	203.2	206.1	27.82	17.70	193.7	8.664	633.8	33.36	183.1	449	9.609E+04	15757.7
18082.1	27.49	203.3	206.2	27.84	17.69	193.8	8.664	633.8	33.36	183.2	451.7	9.666E+04	15768.3
18239.1	27.51	203.3	206.3	27.84	17.69	193.9	8.664	633.8	33.36	183.3	472.7	1.012E+05	15778.9
18396.0	27.52	203.3	206.3	27.86	17.69	194.0	8.664	633.8	33.36	183.3	448.4	9.600E+04	15789.5
18555.0	27.54	203.4	206.4	27.87	17.68	194.0	8.665	633.8	33.36	183.4	450.6	9.647E+04	15800.1
18713.1	27.54	203.4	206.5	27.88	17.68	194.1	8.665	633.8	33.36	183.4	15.49	1.801E+04	15810.7
18870.5	27.55	203.4	206.6	27.90	17.68	194.2	8.665	633.8	33.36	183.5	440.3	9.427E+04	15821.2
19029.0	27.57	203.4	206.7	27.90	17.67	194.2	8.666	633.8	33.36	183.6	427.8	9.163E+04	15831.8
19186.3	27.58	203.5	206.7	27.90	17.66	194.3	8.666	633.8	33.36	183.6	443.7	9.504E+04	15842.3
19344.2	27.58	203.5	206.8	27.93	17.67	194.4	8.665	633.8	33.36	183.7	465.5	9.971E+04	15852.8
19501.5	27.59	203.5	206.9	27.94	17.66	194.4	8.665	633.8	33.36	183.7	458	9.810E+04	15863.3
19659.8	27.60	203.5	207.0	27.94	17.66	194.5	8.666	633.8	33.36	183.8	450.7	9.654E+04	15873.8
19816.6	27.61	203.5	207.0	27.95	17.66	194.5	8.666	633.8	33.36	183.9	449.9	9.641E+04	15884.3
19972.7	27.63	203.6	207.1	27.96	17.64	194.6	8.666	633.8	33.36	183.9	429.9	9.213E+04	15894.7
20130.0	27.64	203.6	207.2	27.98	17.63	194.8	8.666	633.8	33.36	184.0	434.5	9.311E+04	15905.2
20287.3	27.67	203.6	207.2	28.00	17.61	194.9	8.667	633.8	33.36	184.0	434.6	9.318E+04	15915.6
20444.0	27.69	203.6	207.3	28.04	17.60	195.2	8.666	633.8	33.36	184.0	436.9	9.367E+04	15916
20597.9	27.72	203.7	207.3	28.07	17.57	195.4	8.666	633.8	33.36	184.1	428	9.181E+04	15926.4
20751.6	27.75	203.7	207.4	28.09	17.54	195.7	8.666	633.8	33.36	184.1	428	9.181E+04	15936.7
20905.5	27.79	203.7	207.4	28.11	17.50	195.9	8.667	633.8	33.36	184.2	421.4	9.043E+04	15937.1

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
21062.8	27.82	203.7	207.5	28.17	17.47	196.3	8.666	633.8	33.36	184.2	424.1	9.105E+04	15947.5
21215.1	27.86	203.7	207.5	28.20	17.43	196.7	8.666	633.8	33.36	184.2	442.1	9.496E+04	15957.8
21368.5	27.90	203.7	207.6	28.24	17.39	197.0	8.666	633.8	33.36	184.3	443.5	9.531E+04	15958.1
21521.5	27.93	203.7	207.6	28.26	17.36	197.3	8.667	633.8	33.36	184.3	434.3	9.333E+04	15968.5
21676.6	27.94	203.7	207.7	28.28	17.34	197.4	8.666	633.8	33.36	184.4	443.1	9.522E+04	15978.8
21833.0	27.95	203.7	207.7	28.29	17.33	197.5	8.667	633.8	33.36	184.4	442.4	9.512E+04	15979.2
21990.0	27.96	203.7	207.8	28.30	17.32	197.6	8.666	633.8	33.36	184.4	445.9	9.587E+04	15989.5
22147.3	27.96	203.7	207.8	28.29	17.32	197.5	8.667	633.8	33.36	184.5	422.8	9.090E+04	15999.9
22306.0	27.97	203.8	207.9	28.27	17.32	197.5	8.668	633.8	33.36	184.5	443.2	9.529E+04	16000.3
22463.3	27.97	203.8	207.9	28.26	17.32	197.4	8.67	633.8	33.36	184.6	436.6	9.387E+04	16010.6
22621.7	27.97	203.8	208.0	28.24	17.32	197.3	8.67	633.8	33.36	184.6	420.3	9.036E+04	16021
22780.1	27.98	203.8	208.0	28.23	17.31	197.3	8.671	633.8	33.36	184.6	431.6	9.279E+04	16031.3
22937.5	27.99	203.9	208.1	28.23	17.31	197.3	8.672	633.8	33.36	184.7	438.4	9.426E+04	16031.7
23094.1	27.99	203.9	208.1	28.23	17.31	197.3	8.672	633.8	33.36	184.7	439	9.439E+04	16042
23252.3	28.00	203.9	208.2	28.23	17.31	197.3	8.672	633.8	33.36	184.8	426	9.159E+04	16042.3
23410.3	28.00	203.9	208.2	28.23	17.31	197.3	8.672	633.8	33.36	184.8	422.5	9.088E+04	16052.6
23567.8	28.01	203.9	208.3	28.23	17.31	197.3	8.672	633.8	33.36	184.8	438.5	9.432E+04	16062.9
23725.8	28.01	204.0	208.3	28.23	17.31	197.3	8.672	633.8	33.36	184.9	437	9.400E+04	16063.2
23883.0	28.02	204.0	208.3	28.23	17.31	197.3	8.672	633.8	33.36	184.9	426.9	9.183E+04	16073.5
24040.5	28.02	204.0	208.4	28.24	17.32	197.3	8.673	633.8	33.36	184.9	439.4	9.451E+04	16073.8
24198.3	28.02	204.0	208.4	28.24	17.32	197.3	8.672	633.8	33.36	185.0	436.3	9.385E+04	16084.1
24355.8	28.03	204.0	208.5	28.24	17.32	197.3	8.673	633.8	33.36	185.0	426.5	9.174E+04	16084.3
24512.2	28.03	204.0	208.5	28.25	17.32	197.4	8.672	633.8	33.36	185.0	426.6	9.176E+04	16094.6
24670.2	28.03	204.0	208.5	28.25	17.32	197.4	8.672	633.8	33.36	185.0	435.2	9.361E+04	16094.9
24828.7	28.04	204.1	208.6	28.25	17.32	197.4	8.672	633.8	33.36	185.1	436.7	9.393E+04	16105.1
24986.7	28.04	204.1	208.6	28.25	17.32	197.4	8.672	633.8	33.36	185.1	435.7	9.372E+04	16105.4
25144.5	28.04	204.1	208.6	28.26	17.32	197.4	8.673	633.8	33.36	185.1	433.4	9.322E+04	16115.6

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
25302.6	28.04	204.1	208.7	28.26	17.32	197.4	8.672	633.8	33.36	185.1	436.2	9.383E+04	16115.8
25459.7	28.05	204.1	208.7	28.26	17.32	197.4	8.673	633.8	33.36	185.2	429.8	9.249E+04	16116
25616.5	28.05	204.1	208.7	28.26	17.32	197.4	8.673	633.8	33.36	185.2	429.7	9.243E+04	16126.3
25773.7	28.05	204.1	208.8	28.26	17.32	197.4	8.673	633.8	33.36	185.2	430.5	9.264E+04	16126.5
25930.7	28.05	204.1	208.8	28.26	17.32	197.4	8.672	633.8	33.36	185.2	432.4	9.301E+04	16136.7
26087.7	28.05	204.1	208.8	28.27	17.32	197.4	8.672	633.8	33.36	185.3	427.9	9.208E+04	16136.9
26246.5	28.05	204.1	208.8	28.27	17.32	197.4	8.672	633.8	33.36	185.3	430.4	9.258E+04	16137
26404.3	28.05	204.1	208.9	28.27	17.32	197.5	8.671	633.8	33.36	185.3	429.9	9.247E+04	16147.2
26561.5	28.05	204.1	208.9	28.28	17.32	197.5	8.67	633.8	33.36	185.3	428.1	9.208E+04	16147.4
26719.0	28.05	204.1	208.9	28.28	17.32	197.5	8.669	633.8	33.36	185.3	430.1	9.251E+04	16147.5
26876.6	28.04	204.1	208.9	28.28	17.31	197.5	8.669	633.8	33.36	185.4	428.5	9.217E+04	16157.7
27033.8	28.04	204.1	209.0	28.28	17.31	197.5	8.668	633.8	33.36	185.4	427.2	9.189E+04	16157.8
27192.3	28.04	204.1	209.0	28.28	17.31	197.5	8.667	633.8	33.36	185.4	429.5	9.234E+04	16158
27349.7	28.04	204.1	209.0	28.28	17.31	197.5	8.666	633.8	33.36	185.4	428.6	9.215E+04	16158.1
27507.1	28.04	204.1	209.0	28.28	17.31	197.5	8.665	633.8	33.36	185.4	425.7	9.153E+04	16168.2
27665.7	28.04	204.0	209.0	28.28	17.31	197.5	8.663	633.8	33.36	185.4	429.5	9.234E+04	16168.3
27824.7	28.04	204.0	209.0	28.28	17.31	197.5	8.662	633.8	33.36	185.4	426.7	9.170E+04	16168.4
27984.0	28.04	204.0	209.0	28.28	17.31	197.5	8.661	633.8	33.36	185.4	426.3	9.161E+04	16168.5
28140.7	28.04	204.0	209.1	28.28	17.30	197.6	8.659	633.8	33.36	185.5	429.1	9.221E+04	16168.6
28298.0	28.04	204.0	209.1	28.28	17.30	197.6	8.658	633.8	33.36	185.5	429.7	9.234E+04	16178.7
28455.7	28.03	204.0	209.1	28.28	17.30	197.6	8.657	633.8	33.36	185.5	428.3	9.200E+04	16178.8
28612.1	28.03	204.0	209.1	28.28	17.30	197.6	8.656	633.8	33.36	185.5	430.1	9.239E+04	16178.9
28770.5	28.03	204.0	209.1	28.28	17.30	197.6	8.654	633.8	33.36	185.5	427	9.172E+04	16178.9
28927.7	28.03	204.0	209.1	28.28	17.29	197.6	8.653	633.8	33.36	185.5	424.4	9.112E+04	16179
29085.2	28.03	204.0	209.1	28.28	17.29	197.6	8.652	633.8	33.36	185.5	427.3	9.174E+04	16179
29242.0	28.03	204.0	209.1	28.28	17.29	197.6	8.65	633.8	33.36	185.5	428.9	9.208E+04	16179.1
29400.5	28.02	204.0	209.1	28.28	17.29	197.6	8.649	633.8	33.36	185.5	425.2	9.125E+04	16179.1

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
29557.6	28.02	204.0	209.1	28.29	17.29	197.6	8.647	633.8	33.36	185.5	424.9	9.118E+04	16179.2
29715.2	28.02	204.0	209.1	28.29	17.28	197.6	8.645	633.8	33.36	185.5	425.9	9.140E+04	16189.2
29872.2	28.02	204.0	209.2	28.28	17.28	197.6	8.644	633.8	33.36	185.5	424.8	9.112E+04	16189.3
30062.4	28.01	204.0	209.2	28.29	17.28	197.7	8.642	633.8	33.36	185.5	424.2	9.099E+04	16189.3
30378.1	28.01	203.9	209.2	28.28	17.28	197.7	8.638	633.8	33.36	185.5	427.9	9.174E+04	16189.3
30692.9	28.00	203.9	209.2	28.28	17.27	197.7	8.635	633.8	33.36	185.5	427.4	9.159E+04	16189.3
31007.6	28.00	203.9	209.2	28.28	17.27	197.7	8.632	633.8	33.36	185.5	427.4	9.159E+04	16189.3
31322.4	27.99	203.9	209.2	28.27	17.26	197.7	8.628	633.8	33.36	185.5	426.7	9.140E+04	16189.3
31636.4	27.98	203.8	209.2	28.27	17.25	197.7	8.625	633.8	33.36	185.5	426.4	9.129E+04	16189.3
31951.0	27.97	203.8	209.1	28.26	17.25	197.7	8.622	633.8	33.36	185.5	425.7	9.110E+04	16189.2
32265.4	27.96	203.8	209.1	28.26	17.24	197.7	8.618	633.8	33.36	185.5	426.3	9.119E+04	16179.1
32580.8	27.95	203.7	209.1	28.25	17.24	197.7	8.615	633.8	33.36	185.5	427.5	9.140E+04	16179
32896.5	27.94	203.7	209.1	28.24	17.23	197.7	8.611	633.8	33.36	185.5	423.8	9.057E+04	16178.9
33212.5	27.93	203.7	209.1	28.24	17.23	197.7	8.607	633.8	33.36	185.5	424	9.057E+04	16178.8
33528.1	27.92	203.6	209.1	28.24	17.22	197.7	8.603	633.8	33.36	185.5	427.7	9.131E+04	16168.7
33842.6	27.91	203.6	209.0	28.23	17.22	197.7	8.599	633.8	33.36	185.4	425.1	9.072E+04	16168.5
34158.6	27.90	203.5	209.0	28.22	17.21	197.7	8.595	633.8	33.36	185.4	424.4	9.052E+04	16168.3
34473.9	27.89	203.5	209.0	28.22	17.20	197.7	8.591	633.8	33.36	185.4	424.3	9.046E+04	16158.1
34788.6	27.87	203.4	209.0	28.21	17.20	197.7	8.587	633.8	33.36	185.4	426.5	9.089E+04	16157.9
35106.3	27.86	203.4	208.9	28.20	17.19	197.7	8.583	633.8	33.36	185.4	426.4	9.082E+04	16157.7
35422.4	27.85	203.3	208.9	28.18	17.18	197.6	8.579	633.8	33.36	185.3	425.1	9.050E+04	16147.4
35737.9	27.84	203.3	208.9	28.18	17.17	197.6	8.575	633.8	33.36	185.3	426.7	9.080E+04	16147.2
36053.1	27.83	203.2	208.8	28.16	17.16	197.6	8.571	633.8	33.36	185.3	422.3	8.982E+04	16136.9
36367.0	27.81	203.2	208.8	28.15	17.15	197.6	8.566	633.8	33.36	185.2	423.7	9.004E+04	16136.6
36682.8	27.80	203.1	208.7	28.13	17.14	197.6	8.562	633.8	33.36	185.2	424.9	9.025E+04	16126.3
36998.5	27.74	202.9	208.7	28.08	17.11	197.5	8.555	633.8	33.36	185.2	424.3	9.004E+04	16116
37314.5	27.77	203.0	208.6	28.10	17.11	197.6	8.55	633.8	33.36	185.1	425.9	9.033E+04	16115.6

Table 3
SHEX LONG-TERM NPSH RESULTS

Time	Drywell Pressure	Drywell Temp	Suppress Pool Temp	Wetwell Press	Wetwell Press w/Leak	Wetwell Temp	Suppress Pool Depth	Drywell Spray Flow	Wetwell Spray Flow	DW/WW Spray Temp	Break Flow Mass	Break Flow Energy	RHR HX Performance
seconds	psia	deg F	deg F	psia	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	Btu/sec
37629.0	27.76	203.0	208.6	28.10	17.10	197.6	8.547	633.8	33.36	185.1	427.6	9.065E+04	16105.3
37944.3	27.75	202.9	208.5	28.09	17.09	197.6	8.543	633.8	33.36	185.0	422.5	8.953E+04	16095
38258.8	27.74	202.8	208.5	28.06	17.08	197.5	8.539	633.8	33.36	185.0	424.2	8.985E+04	16094.6
38575.4	27.72	202.8	208.4	28.06	17.07	197.6	8.534	633.8	33.36	185.0	427.6	9.052E+04	16084.2
38890.1	27.70	202.7	208.4	28.05	17.06	197.6	8.53	633.8	33.36	184.9	424.5	8.978E+04	16073.9
39207.5	27.69	202.6	208.3	28.03	17.04	197.5	8.525	633.8	33.36	184.9	423.3	8.949E+04	16073.5
39521.6	27.67	202.5	208.3	28.02	17.03	197.5	8.52	633.8	33.36	184.8	422.5	8.927E+04	16063.1
39837.6	27.66	202.5	208.2	27.99	17.01	197.5	8.515	633.8	33.36	184.8	425.7	8.987E+04	16052.6
40000.0	27.65	202.4	208.2	27.98	17.00	197.5	8.514	633.8	33.36	184.8	423.7	8.944E+04	16052.4

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
0	17.00	135.0	95.0	17.00	95.0	7.449	0	0		0	0	21.26	25320.7	0
20.09	18.68	161.4	96.5	17.37	98.4	7.516	0	0		481.1	570585	23.84	28274.2	0
41.20	19.69	178.2	99.5	18.35	106.9	7.542	0	0		448.6	533385	22.16	26348.2	0
59.23	20.33	188.4	102.0	18.98	111.9	7.551	0	0		395.9	472705	19.48	23259.1	0
76.52	20.76	195.2	102.6	19.43	115.2	7.54	0	0		0	0	18.19	21755.2	0
92.14	21.09	200.1	102.7	19.75	117.1	7.528	0	0		0	0	17.54	20995.4	0
107.77	21.36	204.0	102.8	20.02	118.5	7.516	0	0		0	0	16.91	20258.2	0
123.39	21.59	207.3	103.0	20.26	119.9	7.503	0	0		0	0	16.3	19543.7	0
139.02	21.79	209.8	103.1	20.48	121.6	7.49	0	0		0	0	15.69	18828.0	0
154.64	21.97	211.9	103.3	20.66	122.7	7.478	0	0		0	0	15.12	18159.1	0
170.27	22.11	213.5	103.4	20.81	123.5	7.466	0	0		0	0	14.58	17510.6	0
185.89	22.24	214.8	103.5	20.94	124.1	7.453	0	0		0	0	14.07	16912.1	0
201.52	22.35	215.8	103.6	21.05	124.5	7.441	0	0		0	0	13.59	16335.2	0
217.14	22.45	216.8	103.8	21.17	124.9	7.428	0	0		0	0	13.14	15807.4	0
232.77	22.56	217.8	103.9	21.27	125.3	7.416	0	0		0	0	12.7	15278.1	0
248.39	22.65	218.6	104.0	21.37	125.6	7.404	0	0		0	0	12.29	14784.9	0
264.02	22.73	219.2	104.2	21.45	125.7	7.391	0	0		0	0	11.89	14315.6	0
279.64	22.83	219.9	104.2	21.54	126.1	7.39	0	0		0	0	12.05	14508.2	0
295.27	22.92	220.7	104.2	21.65	126.5	7.39	0	0		0	0	12.23	14712.7	0
310.89	23.03	221.5	104.2	21.75	126.8	7.39	0	0		0	0	12.41	14929.2	0
326.52	23.14	222.4	104.2	21.85	127.1	7.39	0	0		0	0	12.58	15133.7	0
342.14	23.24	223.2	104.2	21.96	127.4	7.39	0	0		0	0	12.75	15338.3	0
357.77	23.36	224.1	104.2	22.08	127.7	7.39	0	0		0	0	12.92	15542.8	0
373.39	23.47	225.0	104.2	22.20	128.1	7.39	0	0		0	0	13.08	15735.2	0
389.02	23.60	226.1	104.3	22.31	128.5	7.391	0	0		25.45	29649	0.4661	543.0	0
404.64	23.72	227.1	104.3	22.44	128.9	7.391	0	0		0	0	13.24	15927.7	0
420.27	23.84	228.1	104.3	22.57	129.3	7.39	0	0		0	0	13.39	16094.8	0
435.89	23.96	229.0	104.3	22.70	129.7	7.391	0	0		0	0	13.55	16287.1	0
451.52	24.10	230.0	104.3	22.82	130.0	7.391	0	0		0	0	13.7	16467.4	0
467.14	24.22	231.0	104.3	22.95	130.4	7.391	0	0		0	0	13.84	16635.7	0
482.77	24.35	232.0	104.3	23.08	130.7	7.391	0	0		0	0	13.99	16816.0	0

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
498.39	24.48	233.0	104.4	23.20	131.0	7.391	0	0		0	0	14.13	16984.3	0
514.02	24.61	233.9	104.4	23.33	131.3	7.391	0	0		0	0	14.27	17152.5	0
529.64	24.73	234.7	104.4	23.47	131.6	7.39	0	0		0	0	14.41	17306.4	0
545.27	24.88	235.8	104.4	23.60	131.9	7.391	0	0		0	0	14.55	17474.6	0
560.89	25.01	236.7	104.4	23.75	132.3	7.391	0	0		0	0	14.69	17642.7	0
576.52	25.19	238.3	104.4	23.92	132.9	7.391	0	0		0	0	14.82	17798.8	0
592.14	25.37	239.7	104.5	24.09	133.4	7.392	0	0		0	0	14.95	17955.0	0
644.08	25.36	240.8	104.6	24.21	116.9	7.392	0	33.36	103.1	0	0	15.08	18111.1	68.83
741.77	26.16	247.5	104.7	24.88	107.3	7.393	0	33.36	103.3	0	0	15.5	18600.0	69.84
842.39	27.13	254.2	104.9	25.85	106.4	7.395	0	33.36	103.4	0	0	16.24	19471.8	70.97
939.08	27.94	259.0	105.1	26.85	107.0	7.397	0	33.36	103.5	0	0	16.96	20318.1	72.23
1173.77	30.46	275.8	106.0	29.36	108.3	7.404	0	33.36	104.3	0	0	17.61	21079.2	78.28
1568.83	33.64	290.8	111.3	32.57	109.9	7.448	0	33.36	108.5	0	0	18.95	22645.3	114.1
1990.27	24.87	216.0	115.9	25.05	97.5	7.215	633.8	33.36	112.2	0	0	18.89	22573.6	2911.6
2209.39	25.34	217.0	119.1	25.63	109.3	7.233	633.8	33.36	114.7	0	0	18.88	22561.6	3341.1
2415.64	25.48	217.3	122.1	25.83	112.3	7.255	633.8	33.36	117.1	0	0	18.92	22609.4	3745.3
2633.20	25.65	217.6	126.3	25.98	114.5	7.291	633.8	33.36	120.5	0	0	18.88	22561.6	4313.7
2847.02	25.81	217.9	129.1	26.14	117.1	7.316	633.8	33.36	122.7	0	0	17.4	20827.8	4693.7
3071.27	25.97	218.2	131.9	26.30	119.3	7.342	633.8	33.36	124.9	0	0	16.93	20282.1	5064.2
3286.02	26.15	218.6	135.0	26.45	121.4	7.373	633.8	33.36	127.4	0	0	16.56	19855.4	5476.9
3504.58	26.31	218.8	138.8	26.64	124.0	7.407	633.8	33.36	130.5	644.5	773400	15.79	18948.0	6001
3717.52	26.47	219.1	141.1	26.80	126.1	7.429	633.8	33.36	132.3	0	0	14.33	17210.3	6309.5
3937.64	26.62	219.4	143.4	26.97	127.9	7.452	633.8	33.36	134.1	0	0	13.96	16779.9	6615.8
4151.20	26.82	219.8	147.3	27.15	130.0	7.491	633.8	33.36	137.2	0	0	13.61	16359.2	7148.4
4367.45	27.00	220.1	149.4	27.34	132.3	7.512	633.8	33.36	138.9	0	0	11.97	14411.9	7431.6
4585.45	27.18	220.5	151.4	27.52	134.3	7.534	633.8	33.36	140.5	0	0	11.68	14062.7	7701
4793.70	27.39	220.8	155.1	27.71	136.4	7.573	633.8	33.36	143.5	0	0	11.43	13761.7	8202.1
5009.64	27.58	221.2	156.9	27.91	138.7	7.593	633.8	33.36	144.9	0	0	9.949	11988.5	8447.4
5229.77	27.77	221.5	158.8	28.11	140.8	7.613	633.8	33.36	146.4	0	0	9.751	11750.0	8696.9
5444.58	27.97	221.9	161.3	28.31	142.5	7.641	633.8	33.36	148.4	0	0	9.516	11466.8	9034.7
5658.9	28.10	221.9	163.8	28.42	144.0	7.67	633.8	33.36	150.4	362.8	437174	8.88	10700.4	9367.4

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
5864.6	21.95	181.5	165.5	22.28	137.2	7.698	633.8	33.36	151.7	0	0	8.015	9658.1	9602.1
6079.4	21.23	171.9	167.4	21.57	146.1	7.717	633.8	33.36	153.3	0	0	7.734	9311.7	9862.1
6295.5	21.34	171.4	169.4	21.65	149.0	7.74	633.8	33.36	154.8	0	0	7.525	9060.1	10124.2
6508.8	21.52	171.8	172.3	21.86	151.5	7.771	633.8	33.36	157.2	293.6	353494	7.201	8670.0	10526.3
6721.5	21.70	172.3	173.8	22.05	153.3	7.79	633.8	33.36	158.4	0	0	6.264	7535.6	10726.3
6938.5	21.91	173.0	175.2	22.24	155.2	7.809	633.8	33.36	159.5	0	0	6.056	7285.4	10915.8
7156.6	22.11	173.6	177.0	22.46	157.3	7.831	633.8	33.36	161.0	0	0	5.865	7055.6	11158.1
7373.3	22.33	174.2	179.6	22.66	159.2	7.862	633.8	33.36	163.0	224	269248	5.517	6631.4	11505.1
7587.3	22.52	174.7	180.8	22.85	160.9	7.88	633.8	33.36	163.9	0	0	4.81	5776.8	11663.4
7797.3	22.70	175.2	182.0	23.04	162.6	7.896	633.8	33.36	164.9	0	0	4.627	5552.4	11831.5
8011.8	22.90	175.7	183.3	23.22	163.8	7.915	633.8	33.36	165.9	0	0	4.429	5314.8	12000.1
8225.3	23.09	176.2	184.6	23.42	165.4	7.934	633.8	33.36	167.0	0	0	4.23	5071.8	12189.3
8438.5	23.31	176.8	187.0	23.63	167.1	7.965	633.8	33.36	168.9	161.2	193118	3.997	4788.4	12505.5
8655.5	23.52	177.4	188.7	23.85	169.0	7.988	633.8	33.36	170.3	139.3	166603	3.462	4140.6	12736.8
8865.4	23.75	178.2	190.3	24.06	170.7	8.01	633.8	33.36	171.5	0	0	3.146	3759.5	12947.3
9079.8	23.98	178.9	191.8	24.31	172.3	8.032	633.8	33.36	172.7	0	0	2.955	3528.3	13147.5
9298.1	24.21	179.8	193.2	24.49	172.4	8.053	633.8	33.36	173.9	0	0	2.777	3310.2	13347.4
9519.0	24.51	180.6	194.6	24.69	174.4	8.076	633.8	33.36	175.0	0	0	2.603	3100.2	13536.9
9736.5	24.73	181.3	196.1	24.99	176.5	8.1	633.8	33.36	176.1	0	0	2.438	2901.2	13736.7
9957.3	24.96	182.1	197.6	25.30	178.5	8.12	633.8	33.36	177.4	0	0	2.261	2688.3	13937
10176.0	25.20	182.8	199.2	25.54	180.2	8.143	633.8	33.36	178.6	0	0	2.079	2467.8	14147.5
10391.7	25.44	183.6	200.8	25.77	181.8	8.168	633.8	33.36	179.9	0	0	1.876	2223.1	14358.1
10602.5	25.65	184.2	201.8	25.98	183.2	8.186	633.8	33.36	180.7	0	0	1.669	1974.4	14505.4
10811.3	25.86	184.8	202.6	26.19	184.7	8.2	633.8	33.36	181.3	61.6	72811	1.563	1847.5	14610.3
11025.6	26.09	185.5	203.7	26.43	186.2	8.219	633.8	33.36	182.2	60.18	71133	1.528	1806.1	14757.8
11242.9	26.26	186.0	205.0	26.56	187.5	8.187	633.8	33.36	183.2	0	0	1.422	1678.0	14926.6
11453.8	26.16	185.6	204.2	26.42	188.2	7.996	633.8	33.36	182.6	0	0	1.161	1365.3	14821.3
11664.0	26.02	184.9	203.4	26.34	188.8	7.835	633.8	33.36	182.0	0	0	1.066	1251.5	14726.2
11871.9	26.15	185.3	204.6	26.49	189.8	7.853	633.8	33.36	183.0	0	0	1.08	1269.0	14884.4
12079.5	26.39	186.1	206.1	26.72	190.9	7.875	633.8	33.36	184.1	41.01	48146	1.055	1238.6	15084.1
12292.5	26.63	187.0	207.3	26.96	192.1	7.896	633.8	33.36	185.1	37.98	44551	0.9782	1147.4	15252.7

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
12506.0	26.86	187.8	208.4	27.19	193.3	7.915	633.8	33.36	186.0	35.23	41254	0.909	1064.4	15400.1
12720.2	27.06	188.5	209.4	27.41	194.4	7.932	633.8	33.36	186.8	33.01	38622	0.8531	998.1	15536.6
12924.5	27.26	189.1	210.2	27.59	195.4	7.949	633.8	33.36	187.4	30.92	36145	0.8003	935.6	15642.1
13131.8	27.44	189.7	211.0	27.76	196.3	7.964	633.8	33.36	188.0	29.24	34152	0.7581	885.5	15737
13335.5	27.59	190.1	211.6	27.91	197.1	7.977	633.8	33.36	188.5	27.84	32489	0.7097	828.2	15831.4
13547.9	27.72	190.4	212.2	28.04	197.9	7.992	633.8	33.36	189.0	26.7	31132	0.6093	710.4	15905.4
13753.3	27.83	190.6	212.6	28.18	198.7	8.001	633.8	33.36	189.3	25.7	29941	0.5121	596.6	15968.2
13957.5	27.93	190.8	212.8	28.27	199.3	8.012	633.8	33.36	189.5	25.3	29475	0.4657	542.5	15989.7
14169.5	28.02	191.0	213.1	28.35	199.8	8.022	633.8	33.36	189.7	25.37	29556	0.4654	542.2	16021.2
14380.8	28.11	191.2	213.3	28.43	200.3	8.031	633.8	33.36	189.9	0	0	0.4667	543.7	16052.7
14588.0	28.18	191.3	213.5	28.51	200.7	8.039	633.8	33.36	190.0	25.58	29801	0.4681	545.3	16084.1
14793.7	28.25	191.5	213.7	28.58	201.1	8.049	633.8	33.36	190.2	0	0	0.4682	545.5	16105.4
14997.8	28.31	191.6	213.9	28.64	201.5	8.057	633.8	33.36	190.3	25.7	29941	0.4696	547.1	16136.6
15206.3	28.38	191.7	214.0	28.71	201.8	8.066	633.8	33.36	190.5	25.76	30010	0.4707	548.4	16157.8
15413.3	28.44	191.9	214.2	28.77	202.2	8.074	633.8	33.36	190.6	0	0	0.4713	549.1	16179
15620.7	28.50	192.0	214.4	28.83	202.5	8.083	633.8	33.36	190.7	0	0	0.472	549.9	16200.1
15826.0	28.56	192.1	214.5	28.89	202.8	8.092	633.8	33.36	190.9	25.91	30185	0.473	551.0	16221.1
16033.3	28.61	192.3	214.7	28.95	203.1	8.1	633.8	33.36	191.0	25.96	30243	0.4735	551.6	16242.1
16240.6	28.67	192.4	214.8	29.01	203.4	8.108	633.8	33.36	191.1	26.01	30302	0.4746	552.9	16263.1
16450.9	28.73	192.5	215.0	29.05	203.7	8.118	633.8	33.36	191.2	26.05	30348	0.4742	552.4	16284
16662.9	28.77	192.6	215.1	29.10	203.9	8.127	633.8	33.36	191.3	26.09	30395	0.4747	553.0	16295
16866.7	28.81	192.7	215.2	29.15	204.1	8.134	633.8	33.36	191.4	26.14	30453	0.4764	555.0	16315.8
17071.5	28.85	192.8	215.4	29.20	204.3	8.142	633.8	33.36	191.5	0	0	0.4772	555.9	16336.7
17273.7	28.89	192.9	215.5	29.23	204.5	8.15	633.8	33.36	191.6	26.21	30535	0.478	556.9	16347.5
17481.2	28.92	193.0	215.6	29.27	204.6	8.158	633.8	33.36	191.7	26.24	30570	0.4785	557.5	16368.3
17685.5	28.96	193.1	215.7	29.30	204.8	8.167	633.8	33.36	191.8	0	0	0.4775	556.3	16379.1
17891.0	28.99	193.1	215.8	29.34	204.9	8.175	633.8	33.36	191.9	26.3	30666	0.4791	558.6	16399.8
18097.3	29.03	193.3	215.9	29.36	205.0	8.183	633.8	33.36	192.0	26.32	30689	0.478	557.3	16410.6
18300.3	29.06	193.3	216.0	29.39	205.2	8.191	633.8	33.36	192.0	0	0	0.4785	557.9	16421.2
18508.4	29.09	193.4	216.1	29.42	205.3	8.199	633.8	33.36	192.1	26.38	30759	0.4793	558.9	16441.9
18716.5	29.12	193.5	216.2	29.45	205.4	8.207	633.8	33.36	192.2	0	0	0.4794	559.0	16452.6

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SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
18924.9	29.15	193.6	216.3	29.47	205.5	8.215	633.8	33.36	192.3	26.43	30817	0.4801	559.8	16463.2
19133.0	29.18	193.6	216.4	29.51	205.6	8.223	633.8	33.36	192.4	0	0	0.4807	560.5	16473.9
19341.4	29.21	193.7	216.5	29.53	205.7	8.231	633.8	33.36	192.4	26.47	30864	0.4805	560.3	16484.5
19547.7	29.22	193.8	216.6	29.56	205.8	8.238	633.8	33.36	192.5	0	0	0.4819	561.9	16505
19760.2	29.24	193.8	216.7	29.59	205.9	8.246	633.8	33.36	192.6	0	0	0.4834	563.6	16515.6
19966.5	29.27	193.9	216.8	29.60	205.9	8.254	633.8	33.36	192.6	26.54	30946	0.4826	562.7	16526.1
20173.5	29.22	193.7	216.4	29.35	205.6	8.16	633.8	33.36	192.3	26.3	30666	0.4621	538.8	16473.5
20377.7	29.08	193.2	215.6	28.91	204.9	7.986	633.8	33.36	191.7	0	0	0.4293	500.1	16368.7
20580.7	28.96	192.7	215.3	28.74	204.9	7.876	633.8	33.36	191.5	0	0	0.4199	489.2	16326.4
20781.3	28.96	192.7	215.4	28.93	205.5	7.876	633.8	33.36	191.6	0	0	0.4363	508.3	16347.3
20989.3	28.99	192.8	215.5	29.12	206.1	7.876	633.8	33.36	191.7	26.03	30325	0.4511	525.5	16357.9
21194.2	29.02	192.9	215.6	29.28	206.7	7.877	633.8	33.36	191.7	26.15	30465	0.4624	538.7	16368.3
21401.9	29.07	193.0	215.6	29.41	207.1	7.882	633.8	33.36	191.7	0	0	0.4688	546.2	16368.7
21606.5	29.14	193.2	215.7	29.47	207.5	7.889	633.8	33.36	191.8	0	0	0.4692	547.1	16379
21807.8	29.17	193.2	215.8	29.52	207.7	7.896	633.8	33.36	191.9	0	0	0.4708	549.0	16389.6
22016.9	29.19	193.2	215.9	29.53	207.8	7.904	633.8	33.36	191.9	26.36	30736	0.4707	548.8	16400.1
22222.8	29.19	193.2	215.9	29.52	207.7	7.912	633.8	33.36	192.0	0	0	0.4699	547.9	16410.6
22426.8	29.20	193.2	216.0	29.49	207.6	7.921	633.8	33.36	192.0	26.34	30712	0.4678	545.5	16421.1
22634.2	29.21	193.3	216.1	29.43	207.4	7.931	633.8	33.36	192.1	26.3	30666	0.4625	539.3	16431.7
22841.0	29.21	193.3	216.2	29.36	207.1	7.943	633.8	33.36	192.2	0	0	0.4563	531.6	16442.3
23051.7	29.23	193.4	216.3	29.33	207.0	7.953	633.8	33.36	192.2	26.22	30546	0.453	527.7	16452.8
23258.3	29.24	193.4	216.3	29.30	206.8	7.962	633.8	33.36	192.3	26.2	30523	0.45	524.3	16463.2
23466.9	29.25	193.5	216.4	29.29	206.7	7.971	633.8	33.36	192.3	0	0	0.4478	521.7	16473.7
23666.5	29.26	193.5	216.5	29.28	206.7	7.978	633.8	33.36	192.4	0	0	0.447	520.8	16484.1
23870.5	29.27	193.6	216.5	29.29	206.6	7.986	633.8	33.36	192.4	26.19	30511	0.4468	520.5	16494.5
24075.8	29.28	193.6	216.6	29.29	206.6	7.994	633.8	33.36	192.5	26.2	30523	0.4467	520.4	16494.9
24277.7	29.29	193.7	216.6	29.30	206.6	8.001	633.8	33.36	192.5	0	0	0.447	520.8	16505.3
24483.4	29.30	193.7	216.7	29.32	206.7	8.008	633.8	33.36	192.6	26.23	30558	0.4477	521.6	16515.6
24686.3	29.31	193.8	216.7	29.34	206.7	8.015	633.8	33.36	192.6	0	0	0.4485	522.5	16515.9
24897.8	29.32	193.8	216.8	29.35	206.7	8.022	633.8	33.36	192.6	0	0	0.4496	523.8	16526.2
25103.9	29.33	193.8	216.8	29.37	206.7	8.029	633.8	33.36	192.7	26.28	30616	0.4511	525.5	16526.5

Table 4
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Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
25305.7	29.34	193.9	216.8	29.39	206.8	8.035	633.8	33.36	192.7	26.3	30666	0.4522	527.3	16536.8
25510.5	29.35	193.9	216.9	29.41	206.8	8.043	633.8	33.36	192.7	26.32	30689	0.4535	528.8	16537
25719.0	29.36	193.9	216.9	29.44	206.8	8.049	633.8	33.36	192.8	26.34	30712	0.455	530.5	16547.2
25926.9	29.36	194.0	217.0	29.46	206.9	8.056	633.8	33.36	192.8	0	0	0.4561	531.8	16547.5
26136.8	29.37	194.0	217.0	29.48	206.9	8.062	633.8	33.36	192.8	0	0	0.4575	533.4	16557.7
26343.3	29.38	194.0	217.0	29.49	206.9	8.069	633.8	33.36	192.8	26.39	30771	0.4591	535.3	16557.9
26549.0	29.39	194.0	217.0	29.51	207.0	8.075	633.8	33.36	192.9	0	0	0.46	536.4	16558.1
26758.7	29.39	194.1	217.1	29.53	207.0	8.082	633.8	33.36	192.9	26.43	30817	0.4619	538.6	16568.2
26958.7	29.40	194.1	217.1	29.56	207.1	8.088	633.8	33.36	192.9	0	0	0.4638	540.8	16568.4
27168.8	29.40	194.1	217.1	29.58	207.1	8.095	633.8	33.36	192.9	0	0	0.4648	542.0	16568.5
27374.9	29.41	194.1	217.1	29.60	207.1	8.101	633.8	33.36	192.9	0	0	0.4659	543.2	16568.7
27585.5	29.42	194.1	217.2	29.61	207.1	8.108	633.8	33.36	192.9	0	0	0.4671	544.6	16578.8
27792.2	29.42	194.2	217.2	29.63	207.1	8.114	633.8	33.36	193.0	26.51	30911	0.4682	545.9	16578.9
27999.8	29.43	194.2	217.2	29.64	207.2	8.121	633.8	33.36	193.0	26.53	30934	0.4695	547.4	16579
28206.5	29.43	194.2	217.2	29.66	207.2	8.127	633.8	33.36	193.0	26.54	30946	0.4705	548.6	16579.1
28416.9	29.44	194.2	217.2	29.67	207.2	8.134	633.8	33.36	193.0	26.56	30969	0.4718	550.1	16589.2
28625.5	29.44	194.2	217.2	29.69	207.2	8.14	633.8	33.36	193.0	0	0	0.4725	550.9	16589.3
28837.0	29.45	194.2	217.2	29.70	207.2	8.147	633.8	33.36	193.0	26.59	31004	0.474	552.7	16589.4
29046.9	29.45	194.3	217.2	29.71	207.2	8.153	633.8	33.36	193.0	26.6	31016	0.475	553.9	16589.4
29254.0	29.45	194.3	217.2	29.73	207.2	8.161	633.8	33.36	193.0	0	0	0.4757	554.7	16589.5
29461.9	29.45	194.3	217.3	29.74	207.3	8.167	633.8	33.36	193.0	0	0	0.477	556.2	16589.5
29671.0	29.46	194.3	217.3	29.75	207.3	8.173	633.8	33.36	193.0	26.64	31062	0.4784	557.8	16589.5
29879.9	29.46	194.3	217.3	29.77	207.3	8.179	633.8	33.36	193.0	26.65	31074	0.4797	559.3	16589.6
30217.4	29.46	194.3	217.3	29.78	207.3	8.19	633.8	33.36	193.0	26.67	31097	0.481	560.8	16589.6
30636.3	29.46	194.3	217.3	29.80	207.3	8.203	633.8	33.36	193.0	0	0	0.4828	562.9	16589.5
31055.2	29.47	194.3	217.3	29.81	207.2	8.217	633.8	33.36	193.0	0	0	0.483	563.2	16589.5
31470.0	29.47	194.3	217.2	29.82	207.2	8.23	633.8	33.36	193.0	0	0	0.4843	564.7	16589.4
31888.9	29.49	194.3	217.2	29.81	207.2	8.244	633.8	33.36	193.0	26.71	31144	0.4832	563.4	16589.3
32289.5	29.25	193.5	216.0	29.02	205.9	7.98	633.8	33.36	192.0	0	0	0.4238	493.7	16420.8
32694.5	29.08	192.8	215.5	28.75	205.4	7.876	633.8	33.36	191.7	0	0	0.4105	478.2	16357.9
33100.2	29.08	192.8	215.6	28.79	205.5	7.888	633.8	33.36	191.7	25.75	29999	0.4143	482.7	16358.1

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
33502.0	29.08	192.8	215.6	28.82	205.5	7.899	633.8	33.36	191.7	25.79	30045	0.4176	486.5	16358.1
33912.6	29.09	192.8	215.6	28.85	205.6	7.912	633.8	33.36	191.7	25.81	30069	0.42	489.3	16368.3
34319.7	29.10	192.9	215.6	28.87	205.6	7.924	633.8	33.36	191.7	0	0	0.4221	491.7	16368.3
34728.6	29.10	192.9	215.6	28.89	205.6	7.936	633.8	33.36	191.7	25.86	30127	0.4247	494.8	16368.2
35129.2	29.10	192.8	215.6	28.92	205.6	7.948	633.8	33.36	191.7	0	0	0.4268	497.2	16358.1
35532.4	29.09	192.8	215.5	28.93	205.6	7.96	633.8	33.36	191.7	25.9	30174	0.4292	500.0	16357.9
35931.6	29.09	192.8	215.5	28.94	205.6	7.972	633.8	33.36	191.6	25.91	30185	0.4309	502.0	16357.7
36331.2	29.08	192.8	215.5	28.95	205.6	7.983	633.8	33.36	191.6	25.92	30197	0.4327	504.1	16347.4
36741.5	29.08	192.8	215.4	28.96	205.5	7.995	633.8	33.36	191.6	0	0	0.4343	506.0	16347.1
37152.7	29.07	192.7	215.4	28.97	205.5	8.008	633.8	33.36	191.5	0	0	0.4359	507.8	16336.8
37564.6	29.06	192.7	215.3	28.98	205.5	8.02	633.8	33.36	191.5	0	0	0.4375	509.7	16326.5
37970.5	29.05	192.6	215.3	28.98	205.4	8.032	633.8	33.36	191.4	25.96	30243	0.4391	511.6	16326.1
38379.7	29.04	192.6	215.2	28.99	205.4	8.043	633.8	33.36	191.4	25.98	30267	0.4415	514.3	16315.7
38793.4	29.03	192.5	215.1	28.99	205.3	8.055	633.8	33.36	191.3	0	0	0.4424	515.4	16305.2
39197.9	29.02	192.5	215.1	28.99	205.2	8.067	633.8	33.36	191.3	0	0	0.4434	516.6	16294.8
39605.0	29.01	192.4	215.0	28.98	205.2	8.079	633.8	33.36	191.2	0	0	0.4447	518.1	16284.3
40020.7	28.99	192.4	214.9	28.98	205.1	8.091	633.8	33.36	191.2	0	0	0.4459	519.5	16273.7
40428.5	28.98	192.3	214.8	28.98	205.0	8.102	633.8	33.36	191.1	0	0	0.4471	520.9	16263.2
40838.1	28.97	192.3	214.7	28.97	204.9	8.114	633.8	33.36	191.0	25.98	30267	0.4484	522.4	16252.6
41247.2	28.95	192.2	214.7	28.97	204.9	8.126	633.8	33.36	191.0	0	0	0.4493	523.4	16242
41656.5	28.94	192.1	214.6	28.96	204.8	8.137	633.8	33.36	190.9	0	0	0.4504	524.7	16231.4
42065.6	28.92	192.1	214.5	28.95	204.7	8.149	633.8	33.36	190.8	0	0	0.4513	525.8	16220.8
42480.5	28.91	192.0	214.4	28.95	204.6	8.161	633.8	33.36	190.7	0	0	0.4524	527.0	16200.2
42901.9	28.89	191.9	214.3	28.94	204.5	8.173	633.8	33.36	190.7	0	0	0.4536	528.4	16189.6
43314.2	28.88	191.8	214.2	28.93	204.4	8.185	633.8	33.36	190.6	0	0	0.4546	529.6	16179
43720.4	28.86	191.8	214.1	28.92	204.3	8.196	633.8	33.36	190.5	25.97	30255	0.4557	530.9	16168.4
44133.5	28.84	191.7	214.0	28.91	204.2	8.207	633.8	33.36	190.4	25.97	30255	0.4567	532.1	16157.7
44554.7	28.83	191.6	213.9	28.91	204.1	8.219	633.8	33.36	190.4	25.96	30243	0.4578	533.3	16137
44976.2	28.81	191.5	213.8	28.90	204.0	8.231	633.8	33.36	190.3	25.96	30243	0.4588	534.5	16126.3
45379.7	28.55	190.6	212.4	28.07	202.7	7.935	633.8	33.36	189.1	0	0	0.3717	433.0	15926.5
45771.1	28.38	189.9	211.9	27.83	202.2	7.859	633.8	33.36	188.8	0	0	0.3855	448.7	15863.3

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
46167.1	28.37	189.8	211.8	27.83	202.1	7.871	633.8	33.36	188.7	24.97	29065	0.3864	449.8	15863
46562.5	28.36	189.8	211.8	27.82	202.0	7.882	633.8	33.36	188.7	0	0	0.3873	450.8	15852.6
46960.2	28.35	189.8	211.8	27.82	202.0	7.894	633.8	33.36	188.6	0	0	0.3882	452.3	15842.3
47356.6	28.34	189.7	211.7	27.82	201.9	7.904	633.8	33.36	188.6	24.97	29090	0.3898	454.1	15841.9
47765.7	28.33	189.7	211.6	27.82	201.8	7.916	633.8	33.36	188.5	24.98	29102	0.3912	455.7	15831.4
48163.7	28.32	189.6	211.5	27.82	201.8	7.927	633.8	33.36	188.5	24.98	29102	0.3925	457.3	15820.9
48567.1	28.31	189.5	211.5	27.82	201.7	7.938	633.8	33.36	188.4	24.98	29102	0.3936	458.5	15810.4
48975.7	28.29	189.5	211.4	27.81	201.6	7.949	633.8	33.36	188.3	0	0	0.3949	460.1	15799.8
49377.2	28.28	189.4	211.3	27.81	201.6	7.961	633.8	33.36	188.3	24.98	29102	0.3962	461.6	15789.3
49774.1	28.27	189.4	211.2	27.80	201.5	7.971	633.8	33.36	188.2	0	0	0.397	462.5	15778.7
50182.0	28.25	189.3	211.1	27.80	201.4	7.983	633.8	33.36	188.1	24.98	29102	0.3985	464.3	15758.1
50589.9	28.24	189.2	211.0	27.79	201.3	7.994	633.8	33.36	188.1	24.98	29102	0.3993	465.2	15747.6
50997.4	28.22	189.2	211.0	27.78	201.2	8.005	633.8	33.36	188.0	0	0	0.4003	466.3	15737
51400.2	28.21	189.1	210.9	27.78	201.1	8.016	633.8	33.36	187.9	24.98	29102	0.4014	467.6	15726.4
51805.4	28.20	189.0	210.8	27.77	201.1	8.027	633.8	33.36	187.9	0	0	0.4023	468.7	15715.8
52208.9	28.18	189.0	210.7	27.76	201.0	8.038	633.8	33.36	187.8	24.97	29090	0.4037	470.3	15705.1
52609.4	28.17	188.9	210.6	27.76	200.9	8.048	633.8	33.36	187.7	24.98	29102	0.4053	472.2	15694.5
53010.1	28.15	188.8	210.5	27.76	200.8	8.06	633.8	33.36	187.6	0	0	0.4063	473.3	15673.9
53418.0	28.14	188.8	210.4	27.75	200.8	8.07	633.8	33.36	187.6	0	0	0.4076	474.9	15663.2
53820.4	28.12	188.7	210.3	27.75	200.7	8.081	633.8	33.36	187.5	0	0	0.4084	475.8	15652.6
54221.6	28.11	188.6	210.2	27.74	200.6	8.092	633.8	33.36	187.4	24.97	29090	0.4098	477.4	15642
54620.9	28.09	188.5	210.1	27.73	200.5	8.103	633.8	33.36	187.3	0	0	0.4105	477.8	15621.3
55018.0	28.07	188.5	210.0	27.73	200.4	8.112	633.8	33.36	187.2	24.98	29102	0.4131	481.3	15610.6
55414.0	28.06	188.4	209.9	27.72	200.3	8.123	633.8	33.36	187.2	24.97	29090	0.4135	481.7	15600
55815.4	28.04	188.3	209.8	27.71	200.2	8.134	633.8	33.36	187.1	24.96	29053	0.4142	482.1	15589.3
56217.7	28.02	188.2	209.7	27.70	200.1	8.145	633.8	33.36	187.0	24.96	29053	0.4149	482.9	15568.6
56617.6	28.01	188.1	209.6	27.69	200.0	8.155	633.8	33.36	186.9	24.95	29042	0.416	484.2	15557.9
57020.9	27.99	188.1	209.5	27.68	199.9	8.166	633.8	33.36	186.8	24.95	29042	0.4171	485.5	15547.2
57422.5	27.97	188.0	209.4	27.67	199.8	8.177	633.8	33.36	186.8	24.94	29030	0.4176	486.1	15526.5
57825.5	27.95	187.9	209.3	27.65	199.7	8.187	633.8	33.36	186.7	24.94	29030	0.4186	487.3	15515.7
58232.9	27.93	187.8	209.2	27.64	199.6	8.198	633.8	33.36	186.6	24.93	29019	0.4196	488.4	15495

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
58641.9	27.92	187.7	209.1	27.63	199.5	8.208	633.8	33.36	186.5	0	0	0.4203	489.2	15484.2
59047.5	27.90	187.6	208.9	27.62	199.4	8.219	633.8	33.36	186.4	0	0	0.4215	490.6	15473.4
59439.9	27.60	186.4	207.4	26.76	198.0	7.888	633.8	33.36	185.2	0	0	0.2498	290.5	15263.2
59819.5	27.46	185.8	206.9	26.60	197.6	7.841	633.8	33.36	184.7	0	0	0.3493	406.6	15189.3
60195.0	27.45	185.8	206.8	26.58	197.4	7.851	633.8	33.36	184.7	0	0	0.3489	406.1	15178.8
60579.4	27.43	185.7	206.7	26.56	197.3	7.861	633.8	33.36	184.6	23.93	27855	0.3489	406.1	15158.1
60960.9	27.42	185.6	206.6	26.54	197.2	7.872	633.8	33.36	184.5	0	0	0.3488	406.0	15157.7
61341.9	27.41	185.6	206.5	26.53	197.1	7.882	633.8	33.36	184.5	23.91	27831	0.3493	406.6	15137
61726.9	27.39	185.5	206.4	26.51	197.0	7.892	633.8	33.36	184.4	0	0	0.3499	407.3	15126.4
62111.4	27.37	185.4	206.3	26.50	196.9	7.902	633.8	33.36	184.3	0	0	0.3508	408.3	15115.7
62493.0	27.36	185.3	206.2	26.49	196.8	7.912	633.8	33.36	184.2	0	0	0.3516	409.3	15105.1
62875.5	27.34	185.2	206.1	26.48	196.7	7.922	633.8	33.36	184.1	0	0	0.3526	410.4	15084.3
63260.9	27.32	185.2	206.0	26.47	196.6	7.932	633.8	33.36	184.1	0	0	0.3535	411.5	15073.6
63645.2	27.31	185.1	205.9	26.46	196.5	7.941	633.8	33.36	184.0	23.88	27796	0.3549	413.1	15062.9
64029.9	27.29	185.0	205.8	26.45	196.4	7.951	633.8	33.36	183.9	0	0	0.3553	413.6	15042.2
64417.9	27.27	184.9	205.7	26.44	196.3	7.96	633.8	33.36	183.8	0	0	0.3562	414.6	15031.5
64803.6	27.26	184.8	205.6	26.43	196.2	7.97	633.8	33.36	183.7	23.86	27773	0.357	415.5	15020.8
65201.6	27.24	184.7	205.5	26.42	196.1	7.98	633.8	33.36	183.6	0	0	0.3579	416.6	15000.1
65596.1	27.22	184.7	205.4	26.40	196.0	7.991	633.8	33.36	183.6	0	0	0.3587	417.5	14989.4
65975.5	27.21	184.6	205.3	26.39	195.9	8	633.8	33.36	183.5	23.85	27761	0.3597	418.7	14968.7
66366.4	27.19	184.5	205.2	26.38	195.8	8.01	633.8	33.36	183.4	23.84	27750	0.3607	419.9	14958
66767.5	27.17	184.4	205.1	26.37	195.7	8.02	633.8	33.36	183.3	0	0	0.3615	420.8	14947.2
67161.6	27.16	184.3	205.0	26.36	195.5	8.03	633.8	33.36	183.2	23.83	27738	0.3624	421.8	14926.5
67560.2	27.14	184.3	204.8	26.36	195.5	8.039	633.8	33.36	183.1	23.83	27738	0.3642	423.9	14915.8
67960.0	27.12	184.2	204.7	26.34	195.4	8.049	633.8	33.36	183.0	0	0	0.3645	424.3	14905
68358.1	27.10	184.1	204.6	26.33	195.3	8.059	633.8	33.36	183.0	0	0	0.3654	425.3	14884.3
68752.9	27.09	184.0	204.5	26.32	195.1	8.069	633.8	33.36	182.9	0	0	0.3661	426.1	14873.6
69146.2	27.07	183.9	204.4	26.31	195.0	8.079	633.8	33.36	182.8	0	0	0.3665	426.6	14852.9
69546.4	27.05	183.8	204.3	26.30	194.9	8.089	633.8	33.36	182.7	23.8	27703	0.368	428.4	14842.2
69943.7	27.04	183.8	204.2	26.29	194.8	8.099	633.8	33.36	182.6	23.79	27692	0.3686	429.1	14831.4
70333.5	27.02	183.7	204.1	26.27	194.7	8.108	633.8	33.36	182.5	0	0	0.3693	429.9	14810.7

Table 4
SHEX STEAMLINE BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
70729.0	27.00	183.6	204.0	26.26	194.6	8.119	633.8	33.36	182.4	0	0	0.3702	430.9	14800
71128.9	26.99	183.5	203.9	26.25	194.5	8.128	633.8	33.36	182.4	23.78	27680	0.3712	432.1	14789.3
71530.1	26.97	183.4	203.8	26.24	194.4	8.138	633.8	33.36	182.3	23.77	27668	0.3723	433.4	14768.5
71928.2	26.95	183.3	203.7	26.23	194.3	8.148	633.8	33.36	182.2	23.76	27657	0.373	434.2	14757.8
72333.0	26.94	183.2	203.6	26.22	194.2	8.157	633.8	33.36	182.1	23.76	27657	0.374	435.3	14737.1
72732.4	26.92	183.2	203.4	26.21	194.1	8.167	633.8	33.36	182	23.75	27645	0.3748	436.3	14726.3
73137.4	26.90	183.1	203.3	26.20	194.0	8.178	633.8	33.36	181.9	23.75	27645	0.3757	437.3	14715.6
73537.9	26.89	183.0	203.2	26.19	193.9	8.187	633.8	33.36	181.8	23.74	27633	0.3767	438.5	14694.9
73930.0	26.87	182.9	203.1	26.18	193.8	8.196	633.8	33.36	181.8	23.74	27633	0.3782	440.2	14684.1
74334.2	26.85	182.8	202.9	26.14	193.7	8.189	633.8	33.36	181.6	0	0	0.3606	419.4	14662.9
74722.7	26.51	181.3	201.5	25.36	192.4	7.851	633.8	33.36	180.5	0	0	0	0.0	14463.2
75089.2	26.43	180.9	200.8	25.24	192.1	7.821	633.8	33.36	179.9	0	0	0.3096	360.1	14368.4
75452.0	26.42	180.8	200.7	25.20	191.8	7.831	633.8	33.36	179.8	0	0	0.3074	357.5	14357.9
75811.2	26.40	180.8	200.6	25.18	191.7	7.84	633.8	33.36	179.8	22.8	26516	0.307	357.0	14347.3
76172.3	26.39	180.7	200.6	25.16	191.5	7.85	633.8	33.36	179.7	0	0	0.3063	356.2	14337
76534.3	26.38	180.7	200.5	25.14	191.4	7.859	633.8	33.36	179.7	0	0	0.3062	356.1	14326.4
76894.0	26.37	180.6	200.4	25.13	191.3	7.868	633.8	33.36	179.6	22.77	26482	0.3071	357.2	14315.8
77258.0	26.35	180.5	200.3	25.12	191.2	7.877	633.8	33.36	179.5	22.77	26482	0.3079	358.1	14305.2
77621.5	26.34	180.5	200.2	25.12	191.2	7.885	633.8	33.36	179.5	0	0	0.3087	359.0	14294.7
77985.2	26.33	180.4	200.2	25.11	191.1	7.894	633.8	33.36	179.4	0	0	0.3096	360.1	14284.1
78347.0	26.32	180.3	200.1	25.10	191.0	7.903	633.8	33.36	179.3	22.76	26470	0.3107	361.3	14273.5
78713.8	26.30	180.3	200.0	25.09	190.9	7.912	633.8	33.36	179.2	0	0	0.3113	362.0	14252.8
79078.3	26.29	180.2	199.9	25.09	190.8	7.92	633.8	33.36	179.2	0	0	0.3122	363.1	14242.2
79443.2	26.27	180.1	199.8	25.08	190.7	7.929	633.8	33.36	179.1	22.75	26458	0.3133	364.4	14231.6
79811.8	26.26	180.0	199.7	25.07	190.6	7.938	633.8	33.36	179	22.75	26458	0.3142	365.4	14220.9
80177.0	26.25	180.0	199.6	25.06	190.5	7.946	633.8	33.36	178.9	22.74	26447	0.3153	366.7	14210.3
80545.5	26.23	179.9	199.5	25.05	190.4	7.955	633.8	33.36	178.9	0	0	0.3161	367.6	14189.7
80911.7	26.22	179.8	199.4	25.04	190.4	7.963	633.8	33.36	178.8	22.74	26447	0.3174	369.1	14179
81284.7	26.20	179.7	199.3	25.04	190.3	7.972	633.8	33.36	178.7	22.73	26435	0.3181	370.0	14168.4
81658.2	26.19	179.7	199.2	25.03	190.2	7.981	633.8	33.36	178.6	22.73	26435	0.3187	370.6	14157.8
82025.5	26.18	179.6	199.1	25.02	190.1	7.99	633.8	33.36	178.6	0	0	0.3195	371.6	14147.1

Table 4
SHEX STEAMLINER BREAK RESULTS

Time	DW Press	DW Temp	Supp. Pool Temp	WW Press	WW Temp	Supp. Pool Depth	DW Spray Flow	WW Spray Flow	DW/WW Spray Temp	SRV Disch Flow	SRV Disch Energy	Break Flow Mass	Break Flow Energy	RHR HX Performance
sec	psia	deg F	deg F	psia	deg F	ft	lbm/sec	lbm/sec	deg F	lbm/sec	Btu/sec	lbm/sec	Btu/sec	Btu/sec
82392.4	26.16	179.5	199.0	25.01	190.0	7.998	633.8	33.36	178.5	0	0	0.3203	372.5	14126.5
82762.7	26.15	179.5	198.9	25.00	189.9	8.007	633.8	33.36	178.4	22.72	26423	0.3215	373.9	14115.9
83134.3	26.14	179.4	198.8	25.00	189.8	8.015	633.8	33.36	178.3	22.72	26423	0.3228	375.4	14105.3
83507.9	26.12	179.3	198.8	25.00	189.8	8.024	633.8	33.36	178.3	0	0	0.3238	376.6	14094.6
83878.9	26.11	179.2	198.7	24.99	189.7	8.032	633.8	33.36	178.2	22.72	26423	0.325	378.0	14084
84251.4	26.10	179.2	198.6	24.98	189.6	8.041	633.8	33.36	178.1	0	0	0.3257	378.8	14063.3
84627.9	26.08	179.1	198.5	24.97	189.5	8.05	633.8	33.36	178	22.71	26412	0.3268	380.1	14052.7
85003.5	26.07	179.0	198.4	24.97	189.4	8.058	633.8	33.36	178	0	0	0.3274	380.8	14042.1
85379.9	26.06	178.9	198.3	24.97	189.4	8.067	633.8	33.36	177.9	22.71	26412	0.3294	383.1	14031.4
85753.3	26.04	178.9	198.2	24.96	189.2	8.075	633.8	33.36	177.8	0	0	0.33	383.8	14020.8
86131.0	26.03	178.8	198.1	24.95	189.1	8.084	633.8	33.36	177.7	0	0	0.3303	384.1	14000.2
86400.0	26.02	178.7	198.0	24.94	189.1	8.09	633.8	33.36	177.7	0	0	0.3308	384.7	13989.7

Table 5
EXTENDED STEAMLINE BREAK RESULTS

Time days	Time sec	Pool Temp deg F	DW Temp deg F	WW Temp deg F	DW Press psia	WW Press psia
1	86400	198.0	178.7	189.1	26.0	24.9
2	172800	174.8	159.6	159.1	21.5	21.5
3	259200	164.3	151.2	150.8	20.4	20.4
4	345600	158.1	146.2	145.8	19.8	19.8
5	432000	153.0	142.1	141.8	19.4	19.4
6	518400	149.8	139.5	139.2	19.1	19.1
7	604800	147.3	137.5	137.2	18.9	18.9
8	691200	144.9	135.6	135.3	18.7	18.7
9	777600	142.5	133.7	133.4	18.6	18.6
10	864000	140.1	131.7	131.5	18.4	18.4
11	950400	138.7	130.6	130.3	18.3	18.3
12	1036800	137.7	129.8	129.6	18.2	18.2
13	1123200	136.8	129.1	128.9	18.2	18.2
14	1209600	135.9	128.3	128.1	18.1	18.1
15	1296000	134.9	127.6	127.4	18.0	18.0
16	1382400	134.0	126.8	126.6	18.0	18.0
17	1468800	133.1	126.1	125.9	17.9	17.9
18	1555200	132.1	125.3	125.1	17.8	17.8
19	1641600	131.2	124.6	124.4	17.8	17.8
20	1728000	130.3	123.8	123.6	17.7	17.7
21	1814400	129.7	123.4	123.2	17.7	17.7
22	1900800	129.3	123.0	122.9	17.7	17.7
23	1987200	128.9	122.7	122.5	17.6	17.6
24	2073600	128.5	122.4	122.2	17.6	17.6
25	2160000	128.1	122.1	121.9	17.6	17.6
26	2246400	127.8	121.8	121.6	17.6	17.6
27	2332800	127.4	121.5	121.3	17.6	17.6
28	2419200	127.0	121.2	121.0	17.5	17.5
29	2505600	126.6	120.9	120.7	17.5	17.5
30	2592000	126.3	120.6	120.4	17.5	17.5
31	2678400	125.9	120.3	120.1	17.5	17.5
32	2764800	125.5	120.0	119.8	17.4	17.4
33	2851200	125.1	119.7	119.5	17.4	17.4
34	2937600	124.7	119.4	119.2	17.4	17.4
35	3024000	124.4	119.1	118.9	17.4	17.4
36	3110400	124.0	118.8	118.6	17.3	17.3
37	3196800	123.6	118.5	118.3	17.3	17.3
38	3283200	123.2	118.2	118.0	17.3	17.3
39	3369600	122.9	117.9	117.7	17.3	17.3
40	3456000	122.5	117.6	117.4	17.3	17.3
41	3542400	122.2	117.4	117.2	17.2	17.2
42	3628800	122.1	117.2	117.1	17.2	17.2
43	3715200	121.9	117.1	117.0	17.2	17.2

Table 5
EXTENDED STEAMLINE BREAK RESULTS

Time days	Time sec	Pool Temp deg F	DW Temp deg F	WW Temp deg F	DW Press psia	WW Press psia
44	3801600	121.8	117.0	116.8	17.2	17.2
45	3888000	121.6	116.8	116.7	17.2	17.2
46	3974400	121.4	116.7	116.6	17.2	17.2
47	4060800	121.3	116.6	116.5	17.2	17.2
48	4147200	121.1	116.5	116.3	17.2	17.2
49	4233600	120.9	116.3	116.2	17.2	17.2
50	4320000	120.8	116.2	116.1	17.2	17.2
51	4406400	120.6	116.1	115.9	17.2	17.2
52	4492800	120.4	115.9	115.8	17.1	17.1
53	4579200	120.3	115.8	115.7	17.1	17.1
54	4665600	120.1	115.7	115.5	17.1	17.1
55	4752000	120.0	115.5	115.4	17.1	17.1
56	4838400	119.8	115.4	115.3	17.1	17.1
57	4924800	119.6	115.3	115.2	17.1	17.1
58	5011200	119.5	115.1	115.0	17.1	17.1
59	5097600	119.3	115.0	114.9	17.1	17.1
60	5184000	119.1	114.9	114.8	17.1	17.1
61	5270400	119.0	114.7	114.6	17.1	17.1
62	5356800	118.8	114.6	114.5	17.1	17.1
63	5443200	118.6	114.5	114.4	17.0	17.0
64	5529600	118.5	114.3	114.2	17.0	17.0
65	5616000	118.3	114.2	114.1	17.0	17.0
66	5702400	118.2	114.1	114.0	17.0	17.0
67	5788800	118.0	114.0	113.8	17.0	17.0
68	5875200	117.8	113.8	113.7	17.0	17.0
69	5961600	117.7	113.7	113.6	17.0	17.0
70	6048000	117.5	113.6	113.5	17.0	17.0
71	6134400	117.4	113.5	113.4	17.0	17.0
72	6220800	117.4	113.5	113.4	17.0	17.0
73	6307200	117.3	113.4	113.3	17.0	17.0
74	6393600	117.2	113.3	113.2	17.0	17.0
75	6480000	117.1	113.3	113.2	17.0	17.0
76	6566400	117.1	113.2	113.1	17.0	17.0
77	6652800	117.0	113.1	113.0	17.0	17.0
78	6739200	116.9	113.1	113.0	17.0	17.0
79	6825600	116.8	113.0	112.9	16.9	16.9
80	6912000	116.7	113.0	112.9	16.9	16.9
81	6998400	116.7	112.9	112.8	16.9	16.9
82	7084800	116.6	112.8	112.7	16.9	16.9
83	7171200	116.5	112.8	112.7	16.9	16.9
84	7257600	116.4	112.7	112.6	16.9	16.9
85	7344000	116.4	112.6	112.5	16.9	16.9
86	7430400	116.3	112.6	112.5	16.9	16.9

Table 5
EXTENDED STEAMLINE BREAK RESULTS

Time days	Time sec	Pool Temp deg F	DW Temp deg F	WW Temp deg F	DW Press psia	WW Press psia
87	7516800	116.2	112.5	112.4	16.9	16.9
88	7603200	116.1	112.5	112.4	16.9	16.9
89	7689600	116.0	112.4	112.3	16.9	16.9
90	7776000	116.0	112.3	112.2	16.9	16.9
91	7862400	115.9	112.3	112.2	16.9	16.9
92	7948800	115.8	112.2	112.1	16.9	16.9
93	8035200	115.7	112.1	112.0	16.9	16.9
94	8121600	115.7	112.1	112.0	16.9	16.9
95	8208000	115.6	112.0	111.9	16.9	16.9
96	8294400	115.5	112.0	111.9	16.9	16.9
97	8380800	115.4	111.9	111.8	16.9	16.9
98	8467200	115.3	111.8	111.7	16.9	16.9
99	8553600	115.3	111.8	111.7	16.9	16.9
100	8640000	115.2	111.7	111.6	16.9	16.9
101	8726400	115.1	111.6	111.6	16.9	16.9
102	8812800	115.0	111.6	111.5	16.9	16.9
103	8899200	115.0	111.5	111.4	16.9	16.9
104	8985600	114.9	111.5	111.4	16.8	16.8
105	9072000	114.8	111.4	111.3	16.8	16.8
106	9158400	114.7	111.3	111.2	16.8	16.8
107	9244800	114.6	111.3	111.2	16.8	16.8
108	9331200	114.6	111.2	111.1	16.8	16.8
109	9417600	114.5	111.1	111.1	16.8	16.8
110	9504000	114.4	111.1	111.0	16.8	16.8
111	9590400	114.3	111.0	110.9	16.8	16.8
112	9676800	114.3	111.0	110.9	16.8	16.8
113	9763200	114.2	110.9	110.8	16.8	16.8
114	9849600	114.1	110.8	110.7	16.8	16.8
115	9936000	114.0	110.8	110.7	16.8	16.8
116	10022400	114.0	110.7	110.6	16.8	16.8
117	10108800	113.9	110.7	110.6	16.8	16.8
118	10195200	113.9	110.6	110.6	16.8	16.8
119	10281600	113.8	110.6	110.5	16.8	16.8
120	10368000	113.8	110.6	110.5	16.8	16.8
121	10454400	113.8	110.6	110.5	16.8	16.8
122	10540800	113.7	110.5	110.4	16.8	16.8
123	10627200	113.7	110.5	110.4	16.8	16.8
124	10713600	113.7	110.5	110.4	16.8	16.8
125	10800000	113.6	110.4	110.4	16.8	16.8
126	10886400	113.6	110.4	110.3	16.8	16.8
127	10972800	113.5	110.4	110.3	16.8	16.8
128	11059200	113.5	110.3	110.3	16.8	16.8
129	11145600	113.5	110.3	110.2	16.8	16.8

Table 5
EXTENDED STEAMLINE BREAK RESULTS

Time days	Time sec	Pool Temp deg F	DW Temp deg F	WW Temp deg F	DW Press psia	WW Press psia
130	11232000	113.4	110.3	110.2	16.8	16.8
131	11318400	113.4	110.3	110.2	16.8	16.8
132	11404800	113.4	110.2	110.2	16.8	16.8
133	11491200	113.3	110.2	110.1	16.8	16.8
134	11577600	113.3	110.2	110.1	16.8	16.8
135	11664000	113.3	110.1	110.1	16.8	16.8
136	11750400	113.2	110.1	110.0	16.8	16.8
137	11836800	113.2	110.1	110.0	16.8	16.8
138	11923200	113.2	110.1	110.0	16.8	16.8