RCIC PUMP ROOM TEMPERATURE TRANSIENT
FOLLOWING STATION BLACKOUT

Commonwealth Edison Company
LaSalle Station Units 1&2
Project File No.: 35.2
System Code : SBO

CALCULATION

REVISION SUMMARY SHEET

REVISION NO.	PREPARED BY/DATE	REVIEWED BY/DATE	APPROVED BY/DATE	REVISED PAGE NOS.
0	Tamer Umar 4/12/1990	Rashad Cossy 5-18-90	John W. Ahrens May 21, 1990	N/A
1	David J. Bihy 5/11/92	Tarek Lahi 5.11.92	Robert J. Peterson 5-12-92	1-20 N-21

Prepared by _____ Date 5/11/92

Reviewed by _Tarik Zali_____ Date 5.11.92

Approved by _____ Date 5-12-92

RCIC PUMP ROOM TEMPERATURE TRANSIENT
FOLLOWING STATION BLACKOUT

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1.0   Exceptions to Verified Data

Information used in this calculation was obtained from HVACD and
approved Calculations and is, therefore, considered to be verified data
except as follows:

None

2.0 Purpose and Scope

In order to demonstrate compliance with 10 CFR 50 Section 50.63 requirements relative to Station Blackout (SBO), specific plant parameters have been examined for a 4-hour station blackout scenario. These parameters are directly related to plant capability of maintaining core cooling and appropriate containment integrity. This report examines the LaSalle Station Units 1&2 RCIC room temperature response to station blackout (SBO).

The purpose of this revision is to:
1. Adjust heat loads in the RCIC room.
2. Modify initial temperatures of all nodes.
3. Modify final temperatures of all nodes.

3.0   Computer Programs

The heat transfer calculations reported herein were performed by using
S&L Computer Program RATT (09.8.077-2.01) and the resulting temperature
plotted using another S&L Computer Program, PPP (09.8.099-1.31). These
programs are described in References 1 and 2, respectively. The
documentation for these programs is maintained in the S&L Computer
Software Library.

4.0   Information and Assumptions

The analytical model for this calculation consists of one dependent
temperature node (1), four independent temperature nodes (2 through
5), and five heat structures. These elements are thermally connected
as shown in Figure 2. A brief description of each node (summarized
in Table 1) follows: 1) Node 1: the RCIC cubicle at elevation 673'-
4" of the reactor building, shown in Figure 1; 2) Node 2: soil next
to the east side wall of the RCIC room; 3) Node 3: the RHR heat
exchanger room located at the north side of Node 1, shown in Figure
1; 4) Node 4" the equipment cubicles and containment annulus
located at the west and southwest side of node 1 and off-gas filter
building, shown in Figure 1; elevation 694'-6" of the reactor
building.

The initial temperature of the subject room (node) was 124.0°F. The
temperatures of nodes 2 through 5 were assumed to be constant
throughout the transient event at the final temperature and are
listed in Table 1. Table 2 identifies each of the five heat
structures modeled, presents their physical dimensions, and the
initial temperature and heat transfer coefficient for each Left Hand
Face (LHF) and Right Hand Face (RHF). The heat load during the
station blackout test to the RCIC turbine heat and other equipment is
tabulated in Table 3.

5.0   Information and Assumptions

The S&L computer code RATT was used to model the physical system of interest. General assumptions relevant to RATT are discussed in detail in the users' manual for this code (Reference 1). Modeling assumptions used in this calculation are discussed below.

1.   The entirety of the model used in this calculation was taken from Reference 4 with the exception of air node temperatures and the heat loads. In addition, the RCIC east wall is represented by two separate heat structures instead of one.

2.   The temperatures of node 2 (soil temperature) and the wall surface facing it were assumed to be 52°F (Reference 5) and 67.2°F respectively (see below). The projected SBO temperatures of node 3 and node 5 were 129.2°F and 229.6°F, respectively (Reference 3), and the projected temperature of node 4 was taken to be 252.0°F (Reference 3).

The outer surface temperature for Wall #5 is calculated as follows:

$$Q'' = U \times (T_i - T_{soil}) = h \times (T_o - T_{soil})$$

where

U = 0.2 Btu/Hr - sq. ft-°F (overall heat transfer coefficient across the wall per Page B6 of Ref. 4)

h = 0.95 Btu/hr-sq. ft-°F (Heat transfer coefficient for the wall outer surface per Page B7 of Ref. 4)

T_i = 124.0°F (Initial air temperature for the RCIC Pump room, Ref. 3)

T_{soil} = 52°F (Soil temperature, Ref. 5)

T_o = Outer surface temperature to be calculated.

q" = Constant heat flux per unit area.

3. The boundary node 2 (soil node) was thermally insulated from the connected heat structure (no. 2) during the transient.

4. No HVAC systems are operating during the SBO transient. In addition, air flow was assumed to be negligible between the RCIC room and neighboring rooms.

5. The thermal properties of air within the subject room were assumed to be constant throughout the transient event.

6. Heat loss through the floor was neglected for conservatism.

7. The RCIC turbine was actuated immediately upon receiving the station blackout signal and kept at full load throughout the transient event.

8. The SBO heat loads for the RCIC room were obtained from Reference 7 and are given in Table 3. Since SBO heat loads are greater in the Unit 1 RCIC room and the Unit 2 RCIC room north wall is exposed to earth at 52°F rather than 123°F, as is the case in the Unit 1 RCIC room, the Unit 1 results present an upperbound temperature which is applicable to both units.

9.   Per Reference 4, the height of the RCIC room is 18.83 feet, and
     per Reference 6, the length of the east wall is 46.3 feet. The
     21.3 foot portion of this wall is exposed to the air in the
     off-gas filter building. Since this area is containe within
     node 4, the highest initial and final temperatures of all the
     rooms comprising node 4 were used for conservatism. Therefore,
     the initial air temperature of this adjacent area was assumed
     to be at 118.0°F per Reference 3. The 25 foot portion of the
     east wall is exposed to earth.

10. To be conservative, the nodes are stepped up to the final
     temperature at time zero.

6.0   Results and Discussion

Figure 3 shows the RCIC cubicle temperature profile following SBO.
The room temperature was at 124.0°F prior to the station blackout and
reached 153.7°F in 30 min. Subsequently, the room temperature rose
at a slower rate and reached 164.7°F at 4 hours after the transient
started.   S&L computer program PPP (Reference 2) was used to plot the
results

Two items to note are:

a)   The RCIC turbine pump was assumed to be manually initiated
      immediately after the station blackout to obtain a conservative
      room temperature transient profile. However, it should be
      noted that there is a certain time delay between the station
      blackout and the initiation of the RCIC system.

b)   Single active failures were not postulated in this analysis.

7.0   References

1.   User's Manual for RATT (S&L Program No. 09.8.077-2.01), "Room
      Air Temperature Transient." This computer code is stored in
      the S&L Computer Software Library.

2.   S&L Program PPP, No. 09.8.099-1.3I, "Post Processing Program".
      This computer code is stored in the S&L Computer Software
      Library.

3.   "Temperature in the area adjacent to the Control Room and AEER
      for SBO," DIT LS-HVAC-0033-04, May 11, 1992.

4.   "Station Blackout: RCIC Room Temperature Transient Study,"
      LaSalle Station NSLD Calc. No. 3C7-1082-003, Rev. 0, approved
      February 7, 1983.

5.   "Research Report on Methods for Disposing of Excess Shelter
      Heat," John D. Hummell, et al, Battellle Memorial Institute,
      August 1964, Contract No. OCD-OS-62-191, Subtask 1422A.

6.   S&L Drawing A-217, Rev. R

7.   "Heat Generated from Electrical Equipment & Cables in RCIC Room
      (Units 1 & 2) During a SBO," DIT LS-EPED-0091, March 6, 1990.

TABLE 1. NODE PARAMETERS

Node Number	Description	Volume ft^3	Temperature (°F) Initial	Final
1	RCIC Cubicle	19,000	124.0	Calculated
2	Soil next to the RCIC eastside wall	--	52.0	52.0
3	Northside neighboring room of node 1 (unit 2 RHR Hx Room)	--	123.0	129.2
4	Westside neighboring rooms of node 1 (containment annulus & equipment cubicle) & off-gas filter building	--	118.0	252.0
5	Equipment room above the RCIC cubicle	--	114.0	229.6

TABLE 2, HEAT STRUCTURE PARAMETERS

Heat Structure No.	Description	Area (sq. ft.)	Thickness (ft)	Nodes Connected LHF	Nodes Connected RHF	LHF Heat Transfer Coefficient (BTU/sq. ft./F/hr)	RHF Heat Transfer Coefficient (BTU/sq. ft.F/hr)
1	RCIC Cubicle Ceiling	1190.	2.33	1	5	1.63	Natural Convection
2	RCIC eastside wall (portion exposed to soil)	470.	3.00	1	2	Natural Convection	Insulated Boundary Condition
3	RCIC Cubicle northside wall	725.	3.00	1	3	Natural Convection	Natural Convection
4	RCIC Cubicle westside wall	1110.	2.00	1	4	Natural Convection	Natural Convection
5	RCIC eastside wall (portion exposed to the off-gas filter building)	401.	3.00	1	5	Natural Convection	Natural Convection

Note: LHF = Left Hand Face, RHF = Right Hand Face

TABLE 3

T LOAD IN THE RCIC ROOM

Source	...ion	Heat Load (Btu/h)	Reference
Mechanical	0-4 Hours	70,000	3
Electrical	0-1 Minute	106,247	7
	1 Minute - 4 Hours	29,284	7

	HEAT LOAD (Btu/hr)
Total load for the first minute	175,247
Total load after the first minute up to 4.0 hours	99,284
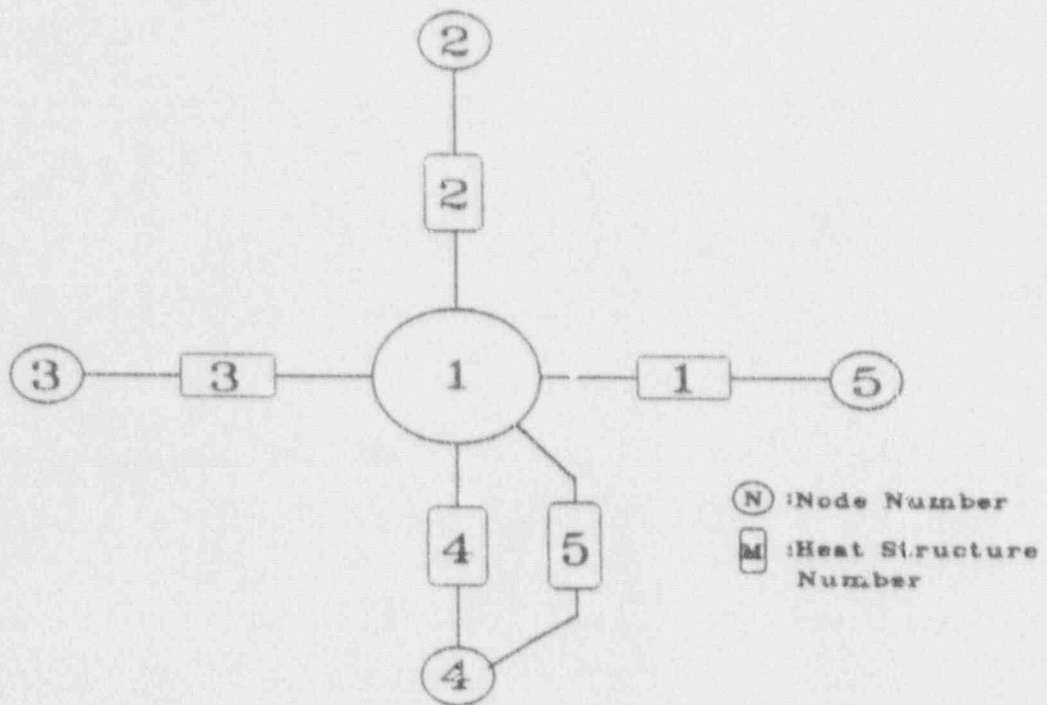
FIGURE 2: Node-Heat Structures Model
of the System Analyzed
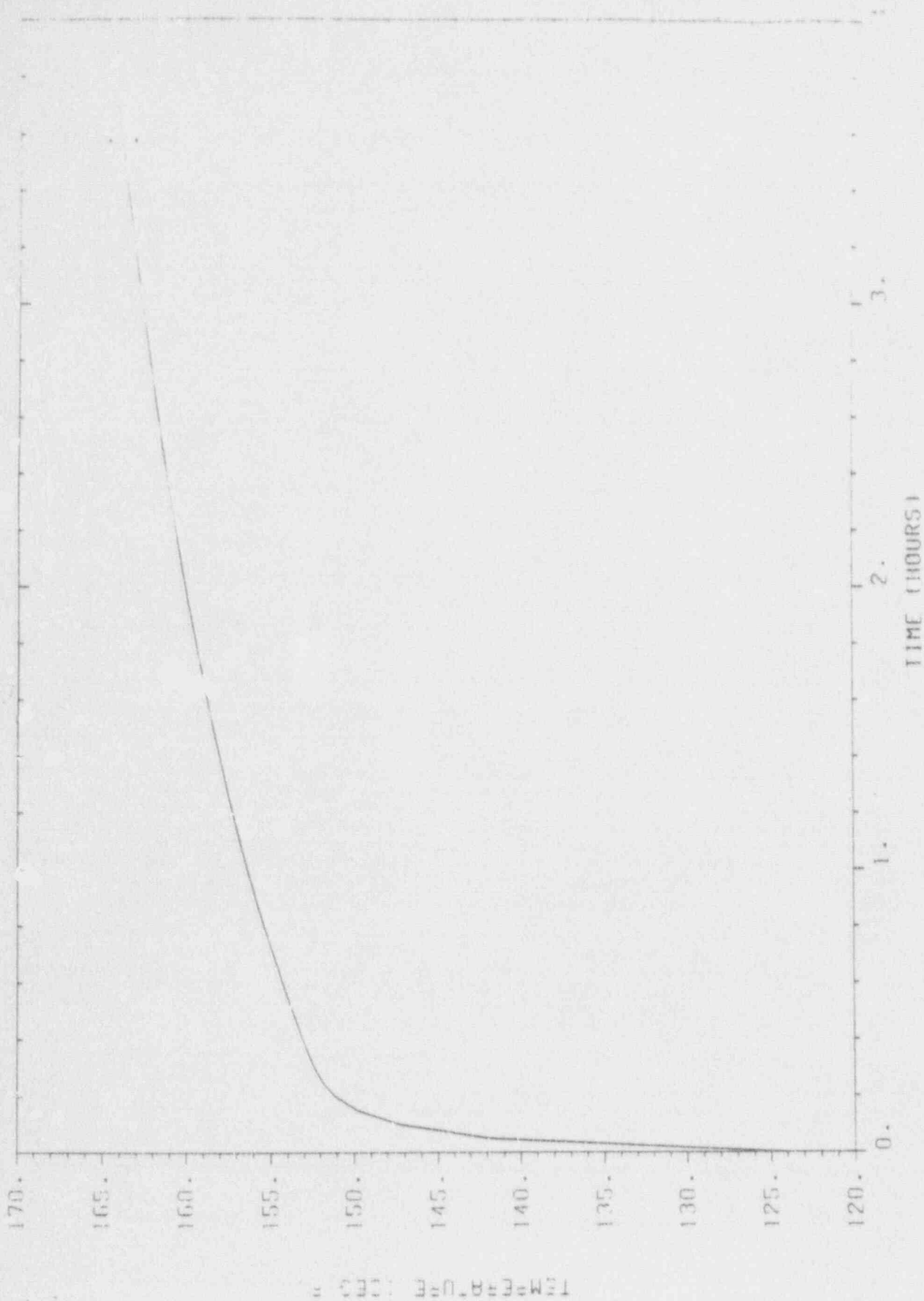
FIGURE 3 : RCIC ROOM (SBO) TRANSIENT TEMPERATURE

TIME (HOURS)

TEMPERATURE (C)

REVIEW METHOD SHEET

This calculation has been reviewed by me according to the method(s) checked below.

1. Computer Aided Calculations

a	Review to determine that the computer program(s) has been validated and documented, is suitable to the problem being analyzed, and that the calculation contains all necessary information for reconstruction at a later date.
b	Review to determine that the input data as specified for program execution is consistent with the design input, correctly defines the problem for the computer algorithm and is sufficiently accurate to produce results within any numerical limitations of the program.
c ✓	Review to verify that the results obtained from the program are correct and within stated assumptions and limitations of the program and are consistent with the input.
d	Review validation documentation for temporary changes to listed, or developmental, or unique single application programs, to assure that methods used adequately validate the program for the intended application.
e ✓	Review of code input only, since the computer program has sufficient history of use at Sargent & Lundy, in similar calculations.
f ✓	Review arithmetic necessary to prepare code input data.
g	Other:

2. Hand Prepared Design Calculations

a	Detailed review of the original calculations.
b	Review by an alternate, simplified, or approximate method of calculation.
c	Review of a representative sample of repetitive calculations.
d	Review of the calculation against a similar calculation previously performed.

3. Revisions

a ✓	Editorial changes only
b	Elimination of unapproved input data without altering calculated results.
c	Other:

4. Other

Reviewer: Tarek Zah   Date 5.11.92

APPENDIX A1

COMPUTER INPUT AND OUTPUT LISTINGS

#OPS$*O98ABSOLUTES.PPP09809913I/LOGO   SYM,TOC

PAGE   1

SARGENT & LUNDY / Engineers

Nuclear Safeguards & Licensing Division   Computer Output for

Safeguards Systems Section   PART 1

```
+---------------------------------------------+  +----------------------------+
[Program       RAT09807720I                   ]  [                            ]
[                                             ]  [                            ]
[---------------------------------------------]  [                            ]
[ CECo LASALLE STATION UNITS 1&2              ]  [Calc No           Rev       ]
[ RCIC ROOM TEMP. TRANSIENT STUDY             ]  [                            ]
[ DURING SBO, 0 TO 6 HOURS                    ]  [   3C7-0290-002   1         ]
[                                             ]  [                            ]
[                                             ]  [----------------------------]
[---------------------------------------------]  [Date            Time        ]
[ XX ] SAFETY-RELATED       [   ] NON-SAFETY-RELATED ][                        ]
[ XX ]                      [   ]              ]  [   12 MAY 92    11:11       ]
+---------------------------------------------+  +----------------------------+
```

```
+-------------------------------------+  +--------------------------+  +-----------------+
[Client   COMMONWEALTH EDISON COMPANY ]  [Prepared by              ]  [Date             ]
[                                     ]  [                         ]  [                  ]
[-------------------------------------]  [-------------------------]  [------------------]
[Project  LASALLE 1&2                 ]  [Reviewed by              ]  [Date              ]
[                                     ]  [    Tarek Zaki           ]  [                  ]
[-------------------------------------]  [-------------------------]  [------------------]
[Proj No  8726-17                     ]  [Approved by              ]  [Date  5-12-92     ]
[                                     ]  [   Robert J Peterson     ]  [                  ]
+-------------------------------------+  +--------------------------+  +-----------------+
```

Sym File TXY-LAS-SBO*SYM(15).   RUN ID TJS   01J6

TOC Entry in Temp File TOC
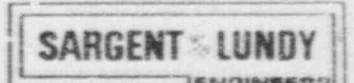
Calc. No. 3C7-0290-002
Revision: 1
Page: A2
Project No. 8726-17

PAGE

DATE 051292

TJB

PART 1

PROJECT 8726-17

REV 1

CALC 3C7-0290-002

NELD

S&L

TXY-LAS-SBO-RCIC.RUPRAT1
(880511 1229:45) 1992 May 12 Tue 1131:27

«PRT S RUN
FURPUR 2992E-01

3306

PAGE 1   DATE 051292   PART 1   TJB   PROJECT 8726-17   REV 1   CALC 3C7-0290-002   NSLD   S&L

```
@DELETE,C TXY-LAS-SBO*RCIC-PLOT1.

@ASG,UP  TXY-LAS-SBO*RCIC-PLOT1.
I:OO2333 ASG complete.

@FREE 12.
W:120433 filename not known to this run.

@USE 12.,TXY-LAS-SBO*RCIC-PLOT1.
I:OO2333 USE complete.

@XQT   OPS$*098ABSOLUTES.RATO98077201
```

5

```
LAS901226-TPF$(O).RUN(24)
   1      @OPS$-098ABSOLUTES.PPP098099131/LOGO    SYM.TOC
   2      RATO98077201
   3      CECo LASALLE STATION UNITS 1&2
   4      RCIC ROOM TEMP. TRANSIENT STUDY
   5      DURING SBO, O TO 6 HOURS
   6
   7      3C7-0290-002   1
   8      PART 1
   9      COMMONWEALTH EDISON COMPANY
  10      LASALLE 1&2
  11      8726-17
  12      @PRT.S RUN           .TXY-LAS-SBO-RCIC.RUNRAT1
  13      @DELETE.C TXY-LAS-SBO-RCIC-PLOT1.
  14      @ASG.UP   TXY-LAS-SBO-RCIC-PLOT1.
  15      -FREE 12.
  16      @USE 12.,TXY-LAS-SBO-RCIC-PLOT1.
  17      @XQT    OPS$-098ABSOLUTES.RATO98077201
  18      STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT
  19       $DATA
  20         NW=5,
  21         AW=1190.,470.,725.,1110.,401.,
  22         XW=2.33,3.,3.,2.,3.,
  23         KW=5+0.92,
  24         CW=5-0.156,
  25         DW=5 145.,
  26         NX=5 6,6,4,6,
  27         H(1, )=1.63,-1.,-1.,-1.,-1.,
  28         IAW( ,1)=1,1,1,1,1,
  29         H(1,2 =-1.0.,-1.,-1.,-1.,
  30         IAW(1,2)=5,2,3,4,4,
  31         NA=5
  32         ITA(1)=-1,0,1,2,3,
  33        TAI(1)=124.,67.2,123.0,118.,124.,
  34         DA(1)=0.068,
  35         VA(1)=19000.,
  36         CV(1)=0.171,
  37         CP(1)=0.24,
  38         Q(1)=1.,
  39         ITQ(1)=1,
  40         NIT=4,
  41         NTT=7,
  42          TIN=0.,
  43         TMAX=6.,
  44         DT=0.005,
  45         DTF=0.05,
  46         DTO=0.05,
  47         CRITER=T,
  48         STEADY=T,
  49         RFILE=12,
  50         TIME=0.0, 0.0001, 0.0167, 0.0168, 1.7, 1.7001, 6.0,
  51         CT=176247., 176247., 176247., 99284., 99284., 99284., 99284.,
  52        TEMP=123.,129.2,129.2,129.2,129.2,129.2,129.2,129.2,
  53             118., 252.,252.,252.,252.,252.,252.,252.,
  54             124., 229.6,229.6,229.6,229.6,229.6,229.6,229.6
  55       $END
  56      @EOF
```

SARGENT & LUNDY

7

S&L   CALC 3C7-0290-002   REV 1   PROJECT 8726-17   PART 1   TJB   DATE 05/..

STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

FINITE INCREMENT LIMITS FOR STABILITY (* VIOLATED BY SPEC):

IW	IA	SPEC DX	MAX DT	SPEC DT	MIN DX	M	N
1	1	4660	2.670	.5000-002	.2017-001	1068.	8256
	1		1.462		.2053-001		.5065
	5		1.772		.2039-001		
2		.5000	3.073	.5000-002	.2017-001	1229.	.5435
	1		1.991		.2039-001		.0000
	2		3.073		.2017-001		
3		.5000	3.073	.5000-002	.2017-001	1229.	.5435
	1		1.991		.2039-001		.5435
	3		1.991		.2039-001		
4		.5000	3.073	.5000-002	.2017-001	1229.	.5435
	1		1.991		.2039-001		.5435
	4		1.991		.2039-001		
5		.5000	3.073	.5000-002	.2017-001	1229.	.5435
	1		1.991		.2039-001		.5435
	4		1.991		.2039-001		

TEMPERATURE TRANSIENT:

t	(IA1)	TA	(IW)	TW	TW	(IW)	TW	TA	(IA2)	QW(IW,1)	QW(IW,2)	QA(IA1)	QA(IA2)
.000	(1)	124.00	(1)	124.00	124.00	(1)	124.00	124.00	(5)	.000	.000	1.762+005	.000
.000	(1)	124.00	(2)	99.05	67.20	(2)	67.20	67.20	(2)	4.591+003	.000	1.762+005	.000
.000	(1)	124.00	(3)	123.57	123.34	(3)	123.44	123.00	(3)	2.973+001	2.973+001	1.762+005	.000
.000	(1)	124.00	(4)	121.50	120.49	(4)	120.49	118.00	(4)	5.160+002	5.160+002	1.762+005	.000
.000	(1)	124.00	(5)	121.65	120.33	(5)	120.33	118.00	(4)	1.620+002	1.620+002	1.762+005	.000
.050	(1)	141.79	(1)	124.24	124.68	(1)	124.68	229.60	(5)	3.405+004	-3.935+004	9.928+004	.000
.050	(1)	141.79	(2)	99.17	67.31	(2)	67.31	67.20	(2)	1.135+004	.000	9.928+004	.000
.050	(1)	141.79	(3)	123.62	123.45	(3)	123.45	129.20	(3)	5.540+003	-1.224+003	9.928+004	.000
.050	(1)	141.79	(4)	121.56	121.41	(4)	121.41	252.00	(4)	9.809+003	-1.098+005	9.928+004	.000
.050	(1)	141.79	(5)	121.71	121.26	(5)	121.26	252.00	(4)	3.507+003	-3.975+004	9.928+004	.000
.100	(1)	147.26	(1)	124.65	125.59	(1)	125.59	229.60	(5)	4.386+004	-8.829+004	9.928+004	.000
.100	(1)	147.26	(2)	99.36	67.42	(2)	67.42	67.20	(2)	1.356+004	.000	9.928+004	.000
.100	(1)	147.26	(3)	123.73	123.47	(3)	123.47	129.20	(3)	7.059+003	-1.218+003	9.928+004	.000
.100	(1)	147.26	(4)	121.68	122.54	(4)	122.54	252.00	(4)	1.746+004	-1.065+005	9.928+004	.000
.100	(1)	147.26	(5)	121.83	122.39	(5)	122.39	252.00	(4)	1.825+003	-3.928+004	9.928+004	.000
.150	(1)	149.80	(1)	125.11	126.47	(1)	126.47	229.60	(5)	4.769+004	-8.728+004	9.928+004	.000
.150	(1)	149.80	(2)	99.58	67.53	(2)	67.53	57.20	(2)	1.411+004	.000	9.928+004	.000
.150	(1)	149.80	(3)	123.86	123.49	(3)	123.49	129.20	(3)	8.953+003	-1.213+003	9.928+004	.000
.150	(1)	149.80	(4)	121.82	123.63	(4)	123.63	252.00	(4)	1.518+004	-1.073+005	9.928+004	.000
.150	(1)	149.80	(5)	121.97	123.48	(5)	123.48	252.00	(4)	5.445+003	-3.883+004	9.928+004	.000

HEAT RATES: (re t-dt or t-dt/2)

3306

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STATION BLACKOUT; RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
.200	(1)	151.08	125.59	(1)	127.31	229.60	(5)	4.943+004	-8.631+004	9.928+004	.000
.200	(1)	151.08	99.81	(2)	67.64	67.20	(2)	1.450+004	.000	9.928+004	.000
.200	(1)	151.08	124.00	(3)	123.51	129.20	(3)	9.485+003	-1.208+003	9.928+004	.000
.200	(1)	151.08	121.97	(4)	127.68	252.00	(4)	5.741+003	-3.839+004	9.928+004	.000
.200	(1)	151.08	122.12	(5)	124.53	252.00	(4)				
.250	(1)	151.81	126.07	(1)	128.12	229.60	(5)	4.993+004	-8.538+004	9.928+004	.000
.250	(1)	151.81	100.04	(2)	67.74	67.20	(2)	1.468+004	.000	9.928+004	.000
.250	(1)	151.81	124.15	(3)	123.53	129.20	(3)	9.760+003	-1.203+003	9.928+004	.000
.250	(1)	151.81	122.12	(4)	125.69	252.00	(4)	1.643+004	-1.049+005	9.928+004	.000
.250	(1)	151.81	122.28	(5)	125.55	252.00	(4)	5.894+003	-3.797+004	9.928+004	.000
.300	(1)	152.31	126.54	(1)	128.90	229.60	(5)	4.999+004	-8.449+004	9.928+004	.000
.300	(1)	152.31	100.27	(2)	67.84	67.20	(2)	1.478+004	.000	9.928+004	.000
.300	(1)	152.31	124.29	(3)	123.54	129.20	(3)	9.926+003	-1.198+003	9.928+004	.000
.300	(1)	152.31	122.28	(4)	126.67	252.00	(4)	1.668+004	-1.038+005	9.928+004	.000
.300	(1)	152.31	122.43	(5)	126.52	252.00	(4)	5.984+003	-3.757+004	9.928+004	.000
.350	(1)	152.71	127.00	(1)	129.65	229.60	(5)	4.988+004	-8.364+004	9.928+004	.000
.350	(1)	152.71	100.49	(2)	67.94	67.20	(2)	1.484+004	.000	9.928+004	.000
.350	(1)	152.71	124.43	(3)	123.56	129.20	(3)	1.004+004	-1.193+003	9.928+004	.000
.350	(1)	152.71	122.43	(4)	127.62	252.00	(4)	1.685+004	-1.028+005	9.928+004	.000
.350	(1)	152.71	122.58	(5)	127.47	252.00	(4)	6.048+003	-3.719+004	9.928+004	.000
.400	(1)	153.06	127.44	(1)	130.37	229.60	(5)	4.969+004	-8.282+004	9.928+004	.000
.400	(1)	153.06	100.71	(2)	68.04	67.20	(2)	1.488+004	.000	9.928+004	.000
.400	(1)	153.06	124.57	(3)	123.56	129.20	(3)	1.014+004	-1.188+003	9.928+004	.000
.400	(1)	153.06	122.58	(4)	128.53	252.00	(4)	1.700+004	-1.017+005	9.928+004	.000
.400	(1)	153.06	122.73	(5)	128.38	252.00	(4)	6.100+003	-3.681+004	9.928+004	.000
.450	(1)	153.38	127.87	(1)	131.07	229.60	(5)	4.949+004	-8.203+004	9.928+004	.000
.450	(1)	153.38	100.93	(2)	68.13	67.20	(2)	1.492+004	.000	9.928+004	.000
.450	(1)	153.38	124.71	(3)	123.59	129.20	(3)	1.022+004	-1.184+003	9.928+004	.000
.450	(1)	153.38	122.73	(4)	129.41	252.00	(4)	1.712+004	-1.008+005	9.928+004	.000
.450	(1)	153.38	122.88	(5)	129.27	252.00	(4)	6.145+003	-3.646+004	9.928+004	.000
.500	(1)	153.69	128.28	(1)	131.74	229.60	(5)	4.928+004	-8.127+004	9.928+004	.000
.500	(1)	153.69	101.14	(2)	68.23	67.20	(2)	1.495+004	.000	9.928+004	.000
.500	(1)	153.69	124.85	(3)	123.61	129.20	(3)	1.030+004	-1.179+003	9.928+004	.000
.500	(1)	153.69	122.88	(4)	130.26	252.00	(4)	1.724+004	-9.980+004	9.928+004	.000
.500	(1)	153.69	123.02	(5)	130.12	252.00	(4)	6.186+003	-3.611+004	9.928+004	.000
.550	(1)	153.96	128.68	(1)	132.38	229.60	(5)	4.907+004	-8.054+004	9.928+004	.000
.550	(1)	153.98	101.35	(2)	68.32	67.20	(2)	1.498+004	.000	9.928+004	.000
.550	(1)	153.98	124.99	(3)	123.63	129.20	(3)	1.037+004	-1.175+003	9.928+004	.000
.550	(1)	153.98	123.02	(4)	131.08	252.00	(4)	1.735+004	-9.887+004	9.928+004	.000
.550	(1)	153.98	123.17	(5)	130.94	252.00	(4)	6.226+003	-3.578+004	9.928+004	.000

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STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

T	(IA1)	TA	TW	(IW)	TW	TA	(IA2)	QW(IW,1)	QW(IW,2)	QA(IA1)	QA(IA2)
600	(1)	154.27	129.08	(1)	133.00	229.60	(5)	4.887+004	-7.984+004	9.928+004	.000
600	(1)	154.27	101.56	(2)	68.40	67.20	(2)	1.501+004	.000	9.928+004	.000
600	(1)	154.27	125.12	(3)	123.64	129.20	(3)	1.044+004	-1.171+003	9.928+004	.000
600	(1)	154.27	123.16	(4)	131.88	252.00	(4)	1.745+004	-9.799+004	9.928+004	.000
600	(1)	154.27	123.31	(5)	131.74	252.00	(4)	6.263+003	-3.546+004	9.928+004	.000
650	(1)	154.55	129.45	(1)	133.60	229.60	(5)	4.867+004	-7.917+004	9.928+004	.000
650	(1)	154.55	101.76	(2)	73.49	67.20	(2)	1.503+004	.000	9.928+004	.000
650	(1)	154.55	123.25	(3)	123.65	129.20	(3)	1.051+004	-1.166+003	9.928+004	.000
650	(1)	154.55	123.30	(4)	132.65	252.00	(4)	1.755+004	-9.713+004	9.928+004	.000
650	(1)	154.55	123.45	(5)	132.51	252.00	(4)	6.299+003	-3.515+004	9.928+004	.000
700	(1)	154.82	129.82	(1)	134.18	229.60	(5)	4.849+004	-7.852+004	9.928+004	.000
700	(1)	154.82	101.95	(2)	68.57	67.20	(2)	1.506+004	.000	9.928+004	.000
700	(1)	154.82	125.38	(3)	123.67	129.20	(3)	1.058+004	-1.163+003	9.928+004	.000
700	(1)	154.82	123.44	(4)	133.40	252.00	(4)	1.764+004	-9.630+004	9.928+004	.000
700	(1)	154.82	123.59	(5)	133.25	252.00	(4)	6.334+003	-3.485+004	9.927+004	.000
750	(1)	155.08	130.18	(1)	134.74	229.60	(5)	4.831+004	-7.790+004	9.928+004	.000
750	(1)	155.08	102.15	(2)	68.66	67.20	(2)	1.508+004	.000	9.928+004	.000
750	(1)	155.08	125.51	(3)	123.68	129.20	(3)	1.064+004	-1.159+003	9.928+004	.000
750	(1)	155.08	123.58	(4)	134.12	252.00	(4)	1.774+004	-9.550+004	9.928+004	.000
750	(1)	155.08	123.72	(5)	133.98	252.00	(4)	6.367+003	-3.456+004	9.928+004	.000
800	(1)	155.34	130.53	(1)	135.28	229.60	(5)	4.813+004	-7.729+004	9.928+004	.000
800	(1)	155.34	102.34	(2)	68.74	67.20	(2)	1.510+004	.000	9.928+004	.000
800	(1)	155.34	125.64	(3)	123.70	129.20	(3)	1.070+004	-1.155+003	9.928+004	.000
800	(1)	155.34	123.71	(4)	134.81	252.00	(4)	1.783+004	-9.473+004	9.928+004	.000
800	(1)	155.34	123.86	(5)	134.67	252.00	(4)	6.399+003	-3.428+004	9.928+004	.000
850	(1)	155.59	130.87	(1)	135.80	229.60	(5)	4.797+004	-7.671+004	9.928+004	.000
850	(1)	155.59	102.53	(2)	68.82	67.20	(2)	1.512+004	.000	9.928+004	.000
850	(1)	155.59	125.77	(3)	123.71	129.20	(3)	1.076+004	-1.151+003	9.928+004	.000
850	(1)	155.59	123.84	(4)	135.49	252.00	(4)	1.791+004	-9.399+004	9.928+004	.000
850	(1)	155.59	123.99	(5)	135.35	252.00	(4)	6.430+003	-3.401+004	9.928+004	.000
900	(1)	155.84	131.19	(1)	136.31	229.60	(5)	4.780+004	-7.616+004	9.928+004	.000
900	(1)	155.84	102.71	(2)	68.90	67.20	(2)	1.514+004	.000	9.928+004	.000
900	(1)	155.84	125.89	(3)	123.72	129.20	(3)	1.081+004	-1.148+003	9.928+004	.000
900	(1)	155.84	123.97	(4)	136.14	252.00	(4)	1.799+004	-9.327+004	9.928+004	.000
900	(1)	155.84	124.12	(5)	136.01	252.00	(4)	6.460+003	-3.375+004	9.928+004	.000
950	(1)	156.08	131.51	(1)	136.79	229.60	(5)	4.765+004	-7.562+004	9.928+004	.000
950	(1)	156.08	102.89	(2)	68.97	67.20	(2)	1.516+004	.000	9.928+004	.000
950	(1)	156.08	126.01	(3)	123.73	129.20	(3)	1.087+004	-1.144+003	9.928+004	.000
950	(1)	156.08	124.10	(4)	136.78	252.00	(4)	1.807+004	-9.257+004	9.928+004	.000
950	(1)	156.08	124.25	(5)	136.64	252.00	(4)	6.489+003	-3.350+004	9.928+004	.000

STATION BLACKOUT RCIC ROOM TEMPERATURE TRANSIENT

t	(IA1)	TA	TW	(IW)	TW	TA	(IA2)	QW(IW,1)	QW(IW,2)	QA(IA1)	QA(IA2)
1.000	(1)	156.31	131.82	(1)	137.26	229.60	(5)	4.7??+004	-7.510+004	9.928+004	000
1.000	(1)	156.31	103.07	(2)	69.05	67.20	(2)	1. 304	.000	9.928+004	000
1.000	(1)	156.31	126.1?	(3)	123.75	129.20	(3)	1.??+004	-1.141+003	9.928+004	000
1.000	(1)	156.31	124.23	(4)	137.39	252.00	(4)	1.815+004	-9.190+004	9.928+004	000
1.000	(1)	156.31	124.38	(5)	137.26	252.00	(4)	6.516+003	-3.325+004	9.928+004	000
1.050	(1)	156.54	132.12	(1)	137.72	229.60	(5)	4.736+004	-7.459+004	9.928+004	000
1.050	(1)	156.54	103.24	(2)	69.12	67.20	(2)	1.520+004	.000	9.928+004	000
1.050	(1)	156.54	126.25	(3)	123.76	129.20	(3)	1.097+004	-1.137+0_3	9.928+004	000
1.050	(1)	156.54	124.35	(4)	137.99	252.00	(4)	1.822+004	-9.125+004	9.928+004	000
1.050	(1)	156.54	124.50	(5)	137.85	252.00	(4)	6.543+003	-3.302+004	9.928+004	000
1.100	(1)	156.76	132.42	(1)	138.1?	229.60	(5)	4.722+004	-7.411+00?	9.928+004	000
1.100	(1)	156.76	103.41	(2)	69.19	67.20	(2)	1.521+004	.000	9.928+004	000
1.100	(1)	156.76	126.37	(3)	123.77	129.20	(3)	1.102+004	-1.134+003	9.928+004	000
1.100	(1)	156.76	124.48	(4)	138.57	252.00	(4)	1.829+004	-9.061+004	9.928+004	000
1.100	(1)	156.76	124.62	(5)	138.43	252.00	(4)	6.569+003	-3.279+004	9.928+004	000
1.150	(1)	156.98	132.71	(1)	138.59	229.60	(5)	4.708+004	-7.364+004	9.928+004	000
1.150	(1)	156.98	103.58	(2)	69.26	67.20	(2)	1.523+004	.000	9.928+004	000
1.150	(1)	156.98	126.48	(3)	123.78	129.20	(3)	1.107+004	-1.131+003	9.928+004	000
1.150	(1)	156.98	124.60	(4)	139.13	252.00	(4)	1.836+004	-9.000+004	9.928+004	000
1.150	(1)	156.98	124.74	(5)	138.99	252.00	(4)	6.594+003	-3.257+004	9.928+004	000
1.200	(1)	157.19	132.98	(1)	139.00	229.60	(5)	4.695+004	-7.318+004	9.928+004	000
1.200	(1)	157.19	103.74	(2)	69.33	67.20	(2)	1.524+004	.000	9.928+004	000
1.200	(1)	157.19	126.60	(3)	123.79	129.20	(3)	1.111+004	-1.128+003	9.928+004	000
1.200	(1)	157.19	124.72	(4)	139.67	252.00	(4)	1.843+004	-8.941+004	9.928+004	000
1.200	(1)	157.19	124.86	(5)	139.54	252.00	(4)	6.618+003	-3.235+004	9.928+004	000
1.250	(1)	157.40	133.25	(1)	139.40	229.60	(5)	4.683+004	-7.274+004	9.928+004	000
1.250	(1)	157.40	103.91	(2)	69.40	67.20	(2)	1.526+004	.000	9.928+004	000
1.250	(1)	157.40	126.71	(3)	123.80	129.20	(3)	1.116+004	-1.125+003	9.928+004	000
1.250	(1)	157.40	124.84	(4)	140.20	252.00	(4)	1.849+004	-8.884+004	9.928+004	000
1.250	(1)	157.40	124.98	(5)	140.07	252.00	(4)	6.641+003	-3.215+004	9.928+004	000
1.300	(1)	157.60	133.52	(1)	139.79	229.60	(5)	4.671+004	-7.232+004	9.928+004	000
1.300	(1)	157.60	104.07	(2)	69.47	67.20	(2)	1.527+004	.000	9.928+004	000
1.300	(1)	157.60	126.82	(3)	123.81	129.20	(3)	1.120+004	-1.122+003	9.928+004	000
1.300	(1)	157.60	124.95	(4)	140.72	252.00	(4)	1.856+004	-8.828+004	9.928+004	000
1.300	(1)	157.60	125.10	(5)	140.58	252.00	(4)	6.663+003	-3.195+0??	9.928+004	000
1.350	(1)	157.80	133.78	(1)	140.17	229.60	(5)	4.659+004	-7.191+004	9.928+004	000
1.350	(1)	157.80	104.22	(2)	69.5?	67.20	(2)	1.528+004	.000	9.928+004	000
1.350	(1)	157.80	126.93	(3)	123.82	129.20	(3)	1.124+004	-1.119+003	9.928+004	000
1.350	(1)	157.80	125.07	(4)	141.21	252.00	(4)	1.862+004	-8.774+004	9.928+004	000
1.350	(1)	157.80	125.21	(5)	141.08	252.00	(4)	6.685+003	-3.175+004	9.928+004	000
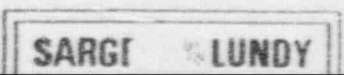
STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
1.400	(1)	158.00	134.03	(1)	140.53	229.60	(5)	4.648+004	-7.151+004	9.928+004	000
1.400	(1)	158.00	104.38	(2)	69.60	67.20	(2)	1.529+004	.000	9.928+004	000
1.400	(1)	158.00	127.04	(3)	123.83	129.20	(3)	1.128+004	-1.116+003	9.928+004	000
1.400	(1)	158.00	125.18	(4)	141.70	252.00	(4)	1.867+004	-8.722+004	9.928+004	000
1.400	(1)	158.00	125.33	(5)	141.57	252.00	(4)	6.706+003	-3.156+004	9.928+004	000
1.450	(1)	158.19	134.28	(1)	140.89	229.60	(5)	4.637+004	-7.112+004	9.928+004	000
1.450	(1)	158.19	104.53	(2)	69.66	67.20	(2)	1.531+004	.000	9.928+004	000
1.450	(1)	158.19	127.15	(3)	123.84	129.20	(3)	1.132+004	-1.114+003	9.928+004	000
1.450	(1)	158.19	125.29	(4)	142.17	252.00	(4)	1.873+004	-8.671+004	9.928+004	000
1.450	(1)	158.19	125.44	(5)	142.04	252.00	(4)	6.726+003	-3.138+004	9.928+004	000
1.500	(1)	158.37	124.52	(1)	141.23	229.60	(5)	4.626+004	-7.075+004	9.928+004	000
1.500	(1)	158.37	104.68	(2)	69.72	67.20	(2)	1.532+004	.000	9.928+004	000
1.500	(1)	158.37	127.25	(3)	123.85	129.20	(3)	1.136+004	-1.111+003	9.928+004	000
1.500	(1)	158.37	125.40	(4)	142.63	252.00	(4)	1.879+004	-8.622+004	9.928+004	000
1.500	(1)	158.37	125.55	(5)	142.50	252.00	(4)	6.746+003	-3.120+004	9.928+004	000
1.550	(1)	158.55	134.76	(1)	141.57	229.60	(5)	4.616+004	-7.038+004	9.928+004	000
1.550	(1)	158.55	104.83	(2)	69.78	67.20	(2)	1.533+004	.000	9.928+004	000
1.550	(1)	128.55	127.36	(3)	123.86	129.20	(3)	1.139+004	-1.108+003	9.928+004	000
1.550	(1)	158.55	125.51	(4)	143.07	252.00	(4)	1.884+004	-8.574+004	9.928+004	000
1.550	(1)	158.55	125.66	(5)	142.94	252.00	(4)	6.765+003	-3.103+004	9.928+004	000
1.600	(1)	158.73	134.99	(1)	141.89	229.60	(5)	4.606+004	-7.003+004	9.928+004	000
1.600	(1)	158.73	104.97	(2)	69.84	67.20	(2)	1.534+004	.000	9.928+004	000
1.600	(1)	158.73	127.46	(3)	123.87	129.20	(3)	1.143+004	-1.106+003	9.928+004	000
1.600	(1)	158.73	125.62	(4)	143.51	252.00	(4)	1.889+004	-8.528+004	9.928+004	000
1.600	(1)	158.73	125.77	(5)	143.38	252.00	(4)	6.784+003	-3.086+004	9.928+004	000
1.650	(1)	158.91	135.21	(1)	142.21	229.60	(5)	4.596+004	-6.969+004	9.928+004	000
1.650	(1)	158.91	105.11	(2)	69.90	67.20	(2)	1.535+004	.000	9.928+004	000
1.650	(1)	158.91	127.56	(3)	123.88	129.20	(3)	1.146+004	-1.103+003	9.928+004	000
1.650	(1)	158.91	125.73	(4)	143.93	252.00	(4)	1.894+004	-8.482+004	9.928+004	000
1.650	(1)	158.91	125.87	(5)	143.80	252.00	(4)	6.802+003	-3.069+004	9.928+004	000
1.700	(1)	159.08	135.43	(1)	142.52	229.60	(5)	4.587+004	-6.935+004	9.928+004	000
1.700	(1)	159.08	105.26	(2)	69.96	67.20	(2)	1.536+004	.000	9.928+004	000
1.700	(1)	159.08	127.66	(3)	123.89	129.20	(3)	1.150+004	-1.101+003	9.928+004	000
1.700	(1)	159.08	125.83	(4)	144.34	252.00	(4)	1.899+004	-8.438+004	9.928+004	000
1.700	(1)	159.08	125.98	(5)	144.21	252.00	(4)	6.810+003	-3.054+004	9.928+004	000
1.750	(1)	159.25	135.65	(1)	142.82	229.60	(5)	4.578+004	-6.903+004	9.928+004	000
1.750	(1)	159.25	105.39	(2)	70.01	67.20	(2)	1.537+004	.000	9.928+004	000
1.750	(1)	159.25	127.76	(3)	123.90	129.20	(3)	1.153+004	-1.098+003	9.928+004	000
1.750	(1)	159.25	125.94	(4)	144.74	252.00	(4)	1.903+004	-8.396+004	9.928+004	000
1.750	(1)	159.25	126.08	(5)	144.61	252.00	(4)	6.836+003	-3.038+004	9.928+004	000

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STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
.800	(1)	159.42	135.86	(1)	143.11	229.60	(5)	4.569+004	-6.871+004	9.928+004	.000
1.800	(1)	159.42	105.53	(2)	70.07	67.20	(2)	1.538+004	.000	9.928+004	.000
1.800	(1)	159.42	127.96	(3)	123.91	129.20	(3)	1.156+004	-1.096+003	9.928+004	.000
1.800	(1)	159.42	126.04	(4)	145.13	252.00	(4)	1.908+004	-8.354+004	9.928+004	.000
1.800	(1)	159.42	126.18	(5)	145.00	252.00	(4)	6.852+003	-3.023+004	9.928+004	.000
1.850	(1)	159.58	136.07	(1)	143.40	229.60	(5)	4.561+004	-6.841+004	9.928+004	.000
1.850	(1)	159.58	105.66	(2)	70.13	67.20	(2)	1.538+004	.000	9.928+004	.000
1.850	(1)	159.58	127.95	(3)	123.92	129.20	(3)	1.159+004	-1.094+003	9.928+004	.000
1.850	(1)	159.58	126.14	(4)	145.51	252.00	(4)	1.912+004	-8.314+004	9.928+004	.000
1.850	(1)	159.58	126.28	(5)	145.38	252.00	(4)	6.868+003	-3.008+004	9.928+004	.000
1.900	(1)	159.74	136.27	(1)	143.67	229.60	(5)	4.552+004	-6.811+004	9.928+004	.000
1.900	(1)	159.74	105.80	(2)	70.18	67.20	(2)	1.539+004	.000	9.928+004	.000
1.900	(1)	159.74	128.05	(3)	123.92	129.20	(3)	1.162+004	-1.091+003	9.928+004	.000
1.900	(1)	159.74	126.24	(4)	145.88	252.00	(4)	1.917+004	-8.274+004	9.928+004	.000
1.900	(1)	159.74	126.38	(5)	145.75	252.00	(4)	6.884+003	-2.994+004	9.928+004	.000
1.950	(1)	159.90	136.47	(1)	143.94	229.60	(5)	4.544+004	-6.782+004	9.928+004	.000
1.950	(1)	159.90	105.93	(2)	70.23	67.20	(2)	1.540+004	.000	9.928+004	.000
1.950	(1)	159.90	128.14	(3)	123.93	129.20	(3)	1.165+004	-1.089+003	9.928+004	.000
1.950	(1)	159.90	126.34	(4)	146.25	252.00	(4)	1.921+004	-8.236+004	9.928+004	.000
1.950	(1)	159.90	126.48	(5)	146.12	252.00	(4)	6.899+003	-2.980+004	9.928+004	.000
2.000	(1)	160.05	136.66	(1)	144.21	229.60	(5)	4.537+004	-6.754+004	9.928+004	.000
2.000	(1)	160.05	106.05	(2)	70.29	67.20	(2)	1.541+004	.000	9.928+004	.000
2.000	(1)	160.05	128.24	(3)	123.94	129.20	(3)	1.168+004	-1.087+003	9.928+004	.000
2.000	(1)	160.05	126.44	(4)	146.60	252.00	(4)	1.925+003	-8.198+004	9.928+004	.000
2.000	(1)	160.05	126.58	(5)	146.47	252.00	(4)	6.913+003	-2.967+004	9.928+004	.000
2.050	(1)	160.20	136.85	(1)	144.46	229.60	(5)	4.529+004	-6.726+004	9.928+004	.000
2.050	(1)	160.20	106.18	(2)	70.34	67.20	(2)	1.541+004	.000	9.928+004	.000
2.050	(1)	160.20	128.33	(3)	123.95	129.20	(3)	1.170+004	-1.085+003	9.928+004	.000
2.050	(1)	160.20	126.53	(4)	146.94	252.00	(4)	1.929+004	-8.162+004	9.928+004	.000
2.050	(1)	160.20	126.68	(5)	146.81	252.00	(4)	6.927+003	-2.953+004	9.928+004	.000
2.100	(1)	160.35	137.04	(1)	144.71	229.60	(5)	4.521+004	-6.699+004	9.928+004	.000
2.100	(1)	160.35	106.31	(2)	70.39	67.20	(2)	1.542+004	.000	9.928+004	.000
2.100	(1)	160.35	128.42	(3)	123.96	129.20	(3)	1.173+004	-1.083+003	9.928+004	.000
2.100	(1)	160.35	126.63	(4)	147.28	252.00	(4)	1.933+004	-8.126+004	9.928+004	.000
2.100	(1)	160.35	126.77	(5)	147.15	252.00	(4)	6.941+003	-2.941+004	9.928+004	.000
2.150	(1)	160.50	137.22	(1)	144.96	229.60	(5)	4.514+004	-6.673+004	9.928+004	.000
2.150	(1)	160.50	106.43	(2)	70.44	67.20	(2)	1.543+004	.000	9.928+004	.000
2.150	(1)	160.50	128.51	(3)	123.96	129.20	(3)	1.175+004	-1.081+003	9.928+004	.000
2.150	(1)	160.50	126.72	(4)	147.61	252.00	(4)	1.936+004	-8.092+004	9.928+004	.000
2.150	(1)	160.50	126.87	(5)	147.48	252.00	(4)	6.955+003	-2.928+004	9.928+004	.000

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STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

t	(IA1)	TA	TW	(IW)	TW	TA	(IA2)	QW(IW,1)	QW(IW,2)	QA(IA1)	QA(IA2)
2.200	(1)	160.64	137.40	(1)	145.20	229.60	(5)	4.507+004	-6.647+004	9.928+004	.000
2.200	(1)	160.64	106.55	(2)	70.49	67.20	(2)	1.543+004	.000	9.928+004	.000
2.200	(1)	160.64	128.60	(3)	123.97	129.20	(3)	1.178+004	-1.079+003	9.928+004	.000
2.200	(1)	160.64	126.81	(4)	93	252.00	(4)	1.940+004	-8.058+004	9.928+004	.000
2.200	(1)	160.64	126.96	(5)	147.80	252.00	(4)	6.968+003	-2.916+004	9.928+004	.000
2.250	(1)	160.78	137.58	(1)	145.43	229.60	(5)	4.500+004	-6.622+004	9.928+004	.000
2.250	(1)	160.78	106.67	(2)	70.54	67.20	(2)	1.544+004	.000	9.928+004	.000
2.250	(1)	160.78	128.69	(3)	123.98	129.20	(3)	1.180+004	-1.077+003	9.928+004	.000
2.250	(1)	160.78	126.91	(4)	148.24	252.00	(4)	1.943+004	-8.025+004	9.928+004	.000
2.250	(1)	160.78	127.05	(5)	148.11	252.00	(4)	6.981+003	-2.904+004	9.928+004	.000
2.300	(1)	160.92	137.75	(1)	145.66	229.60	(5)	4.494+004	-6.598+004	9.928+004	.000
2.300	(1)	160.92	106.79	(2)	70.59	67.20	(2)	1.545+004	.000	9.928+004	.000
2.300	(1)	160.92	128.78	(3)	123.98	129.20	(3)	1.183+004	-1.075+003	9.928+004	.000
2.300	(1)	160.92	127.00	(4)	148.55	252.00	(4)	1.947+004	-7.992+004	9.928+004	.000
2.300	(1)	160.92	127.14	(5)	148.42	252.00	(4)	6.993+003	-2.892+004	9.928+004	.000
2.350	(1)	161.06	137.92	(1)	145.88	229.60	(5)	4.487+004	-6.574+004	9.928+004	.000
2.350	(1)	161.06	106.91	(2)	70.63	67.20	(2)	1.545+004	.000	9.928+004	.000
2.350	(1)	161.06	128.86	(3)	123.99	129.20	(3)	1.185+004	-1.073+003	9.928+004	.000
2.350	(1)	161.06	127.09	(4)	148.85	252.00	(4)	1.950+004	-7.961+004	9.928+004	.000
2.350	(1)	161.06	127.23	(5)	148.72	252.00	(4)	7.005+003	-2.881+004	9.928+004	.000
2.400	(1)	161.19	138.09	(1)	146.10	229.60	(5)	4.481+004	-6.551+004	9.928+004	.000
2.400	(1)	161.19	107.02	(2)	70.68	67.20	(2)	1.546+004	.000	9.928+004	.000
2.400	(1)	161.19	128.95	(3)	124.00	129.20	(3)	1.187+004	-1.071+003	9.928+004	.000
2.400	(1)	161.19	127.18	(4)	149.14	252.00	(4)	1.953+004	-7.930+004	9.928+004	.000
2.400	(1)	161.19	127.32	(5)	149.02	252.00	(4)	7.017+003	-2.870+004	9.928+004	.000
2.450	(1)	161.33	138.26	(1)	146.32	229.60	(5)	4.474+004	-6.528+004	9.928+004	.000
2.450	(1)	161.33	107.13	(2)	70.73	67.20	(2)	1.546+004	.000	9.928+004	.000
2.450	(1)	161.33	129.03	(3)	124.01	129.20	(3)	1.190+004	-1.069+003	9.928+004	.000
2.450	(1)	161.33	127.26	(4)	149.43	252.00	(4)	1.957+004	-7.900+004	9.928+004	.000
2.450	(1)	161.33	127.41	(5)	149.30	252.00	(4)	7.029+003	-2.859+004	9.928+004	.000
2.500	(1)	161.46	138.42	(1)	146.53	229.60	(5)	4.468+004	-6.506+004	9.928+004	.000
2.500	(1)	161.46	107.25	(2)	70.77	67.20	(2)	1.547+004	.000	9.928+004	.000
2.500	(1)	161.46	129.12	(3)	124.01	129.20	(3)	1.192+004	-1.067+003	9.928+004	.000
2.500	(1)	161.46	127.35	(4)	149.71	252.00	(4)	1.960+004	-7.870+004	9.928+004	.000
2.500	(1)	161.46	127.49	(5)	149.58	252.00	(4)	7.040+003	-2.848+004	9.928+004	.000
2.550	(1)	161.59	138.58	(1)	146.73	229.60	(5)	4.462+004	-6.484+004	9.928+004	.000
2.550	(1)	161.59	107.36	(2)	70.82	67.20	(2)	1.547+004	.000	9.928+004	.000
2.550	(1)	161.59	129.20	(3)	124.02	129.20	(3)	1.194+004	-1.066+003	9.928+004	.000
2.550	(1)	161.59	127.44	(4)	149.99	252.00	(4)	1.963+004	-7.842+004	9.928+004	.000
2.550	(1)	161.59	127.58	(5)	149.86	252.00	(4)	7.051+003	-2.838+004	9.928+004	.000

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t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
2.600	(1)	161.71	138.74	(1)	146.93	229.60	(5)	4.457+004	-6.463+004	9.928+004	000
2.600	(1)	161.71	107.47	(2)	70.86	67.20	(2)	1.548+004	.000	9.928+004	000
2.600	(1)	161.71	129.28	(3)	124.02	129.20	(3)	1.196+004	-1.064+003	9.928+004	000
2.600	(1)	161.71	127.52	(4)	150.26	252.00	(4)	1.966+004	-7.813+004	9.928+004	000
2.600	(1)	161.71	127.67	(5)	150.13	252.00	(4)	7.062+003	-2.827+004	9.928+004	000
2.650	(1)	161.84	138.89	(1)	147.13	229.60	(5)	4.451+004	-6.442+004	9.928+004	000
2.650	(1)	161.84	107.57	(2)	70.90	67.20	(2)	1.548+004	.000	9.928+004	000
2.650	(1)	161.84	129.36	(3)	124.03	129.20	(3)	1.198+004	-1.062+003	9.928+004	000
2.650	(1)	161.84	127.61	(4)	150.52	252.00	(4)	1.969+004	-7.786+004	9.928+004	000
2.650	(1)	161.84	127.75	(5)	150.39	252.00	(4)	7.072+003	-2.817+004	9.928+004	000
2.700	(1)	161.96	139.04	(1)	147.32	229.60	(5)	4.445+004	-6.421+004	9.928+004	.000
2.700	(1)	161.96	107.68	(2)	70.95	67.20	(2)	1.549+004	.000	9.928+004	.000
2.700	(1)	161.96	129.44	(3)	124.04	129.20	(3)	1.200+004	-1.060+003	9.928+004	000
2.700	(1)	161.96	127.69	(4)	150.78	252.00	(4)	1.972+004	-7.759+004	9.928+004	000
2.700	(1)	161.95	127.83	(5)	150.65	252.00	(4)	7.083+003	-2.808+004	9.928+004	.000
2.750	(1)	162.08	139.19	(1)	147.51	229.60	(5)	4.440+004	-6.401+004	9.928+004	000
2.750	(1)	162.08	107.79	(2)	70.99	67.20	(2)	1.549+004	.000	9.928+004	000
2.750	(1)	162.08	129.52	(3)	124.04	129.20	(3)	1.202+004	-1.059+003	9.928+004	000
2.750	(1)	162.08	127.77	(4)	151.03	252.00	(4)	1.974+004	-7.732+004	9.928+004	000
2.750	(1)	162.08	127.92	(5)	150.91	252.00	(4)	7.093+003	-2.798+004	9.928+004	.000
2.800	(1)	162.20	139.34	(1)	147.70	229.60	(5)	4.435+004	-6.382+004	9.928+004	.000
2.800	(1)	162.20	107.89	(2)	71.03	67.20	(2)	1.550+004	.000	9.928+004	.000
2.800	(1)	162.20	129.60	(3)	124.05	129.20	(3)	1.204+004	-1.057+003	9.928+004	000
2.800	(1)	162.20	127.86	(4)	151.78	252.00	(4)	1.977+004	-7.706+004	9.928+004	000
2.800	(1)	162.20	128.00	(5)	151.16	252.00	(4)	7.103+003	-2.789+004	9.928+004	.000
2.850	(1)	162.32	139.49	(1)	147.88	229.60	(5)	4.429+004	-6.362+004	9.928+004	000
2.850	(1)	162.32	107.99	(2)	71.07	67.20	(2)	1.550+004	.000	9.928+004	000
2.850	(1)	162.32	129.68	(3)	124.06	129.20	(3)	1.206+004	-1.055+003	9.928+004	000
2.850	(1)	162.32	127.94	(4)	151.53	252.00	(4)	1.980+004	-7.681+004	9.928+004	000
2.850	(1)	162.32	128.08	(5)	151.40	252.00	(4)	7.112+003	-2.780+004	9.928+004	000
2.900	(1)	162.44	139.63	(1)	148.06	229.60	(5)	4.424+004	-6.343+004	9.928+004	000
2.900	(1)	162.44	108.10	(2)	71.12	67.20	(2)	1.550+004	.000	9.928+004	000
2.900	(1)	162.44	129.76	(3)	124.06	129.20	(3)	1.208+004	-1.054+003	9.928+004	000
2.900	(1)	162.44	128.02	(4)	151.77	252.00	(4)	1.982+004	-7.656+004	9.928+004	.000
2.900	(1)	162.44	128.16	(5)	151.64	252.00	(4)	7.122+003	-2.771+004	9.928+004	000
2.950	(1)	162.56	139.77	(1)	148.24	229.60	(5)	4.419+004	-6.325+004	9.928+004	000
2.950	(1)	162.56	108.20	(2)	71.16	67.20	(2)	1.551+004	.000	9.928+004	000
2.950	(1)	162.56	129.83	(3)	124.07	129.20	(3)	1.210+004	-1.052+003	9.928+004	000
2.950	(1)	162.56	128.10	(4)	152.00	252.00	(4)	1.985+004	-7.632+004	9.928+004	000
2.950	(1)	162.56	128.24	(5)	151.88	252.00	(4)	7.131+003	-2.762+004	9.928+004	000

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t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
3.000	(1)	162.67	139.91	(1)	148.41	229.60	(5)	4.414+004	-6.307+004	9.928+004	.000
3.000	(1)	162.67	108.30	(2)	71.20	67.20	(2)	1.551+004	.000	9.928+004	.000
3.000	(1)	162.67	129.91	(3)	124.07	129.20	(3)	1.211+004	-1.051+003	9.928+004	.000
3.000	(1)	162.67	128.18	(4)	152.23	252.00	(4)	1.987+004	-7.608+004	9.928+004	.000
3.000	(1)	162.67	128.32	(5)	152.11	252.00	(4)	7.140+003	-2.753+004	9.928+004	.000
3.050	(1)	162.78	140.05	(1)	148.58	229.60	(5)	4.409+004	-6.289+004	9.928+004	.000
3.050	(1)	162.78	108.39	(2)	71.24	67.20	(2)	1.552+004	.000	9.928+004	.000
3.050	(1)	162.78	129.98	(3)	124.08	129.20	(3)	1.213+004	-1.049+003	9.928+004	.000
3.050	(1)	162.78	128.26	(4)	152.46	252.00	(4)	1.990+004	-7.584+004	9.928+004	.000
3.050	(1)	162.78	128.39	(5)	152.33	252.00	(4)	7.149+003	-2.744+004	9.928+004	.000
3.100	(1)	162.89	140.13	(1)	148.75	229.60	(5)	4.405+004	-6.271+004	9.928+004	.000
3.100	(1)	162.89	108.49	(2)	71.28	67.20	(2)	1.552+004	.000	9.928+004	.000
3.100	(1)	162.89	130.06	(3)	124.08	129.20	(3)	1.215+004	-1.048+003	9.928+004	.000
3.100	(1)	162.89	128.33	(4)	152.68	252.00	(4)	1.992+004	-7.561+004	9.928+004	.000
3.100	(1)	162.89	128.47	(5)	152.56	252.00	(4)	7.158+003	-2.736+004	9.928+004	.000
3.150	(1)	163.01	140.32	(1)	148.91	229.60	(5)	4.400+004	-6.254+004	9.928+004	.000
3.150	(1)	163.01	108.59	(2)	71.32	67.20	(2)	1.552+004	.000	9.928+004	.000
3.150	(1)	163.01	130.13	(3)	124.09	129.20	(3)	1.216+004	-1.046+003	9.928+004	.000
3.150	(1)	163.01	128.41	(4)	152.90	252.00	(4)	1.994+004	-7.538+004	9.928+004	.000
3.150	(1)	163.01	128.55	(5)	152.78	252.00	(4)	7.167+003	-2.728+004	9.928+004	.000
3.200	(1)	163.11	140.45	(1)	149.07	229.60	(5)	4.395+004	-6.237+004	9.928+004	.000
3.200	(1)	163.11	108.68	(2)	71.35	67.20	(2)	1.553+004	.000	9.928+004	.000
3.200	(1)	163.11	130.21	(3)	124.09	129.20	(3)	1.218+004	-1.045+003	9.928+004	.000
3.200	(1)	163.11	128.49	(4)	153.12	252.00	(4)	1.997+004	-7.516+004	9.928+004	.000
3.200	(1)	163.11	128.62	(5)	152.99	252.00	(4)	7.175+003	-2.720+004	9.928+004	.000
3.250	(1)	163.22	140.58	(1)	149.23	229.60	(5)	4.391+004	-6.220+004	9.928+004	.000
3.250	(1)	163.22	108.78	(2)	71.39	67.20	(2)	1.553+004	.000	9.928+004	.000
3.250	(1)	163.22	130.28	(3)	124.10	129.20	(3)	1.220+004	-1.043+003	9.928+004	.000
3.250	(1)	163.22	128.56	(4)	153.33	252.00	(4)	1.999+004	-7.494+004	9.928+004	.000
3.250	(1)	163.22	128.70	(5)	153.20	252.00	(4)	7.184+003	-2.712+004	9.928+004	.000
3.300	(1)	163.33	140.71	(1)	149.39	229.60	(5)	4.386+004	-6.204+004	9.928+004	.000
3.300	(1)	163.33	108.87	(2)	71.43	67.20	(2)	1.553+004	.000	9.928+004	.000
3.300	(1)	163.33	130.35	(3)	124.10	129.20	(3)	1.221+004	-1.042+003	9.928+004	.000
3.300	(1)	163.33	128.64	(4)	153.54	252.00	(4)	2.001+004	-7.472+004	9.928+004	.000
3.300	(1)	163.33	128.77	(5)	153.41	252.00	(4)	7.192+003	-2.704+004	9.928+004	.000
3.350	(1)	163.43	140.84	(1)	149.54	229.60	(5)	4.382+004	-6.188+004	9.928+004	.000
3.350	(1)	163.43	108.96	(2)	71.47	67.20	(2)	1.554+004	.000	9.928+004	.000
3.350	(1)	163.43	130.42	(3)	124.11	129.20	(3)	1.223+004	-1.040+003	9.928+004	.000
3.350	(1)	163.43	128.71	(4)	153.74	252.00	(4)	2.003+004	-7.451+004	9.928+004	.000
3.350	(1)	163.43	128.85	(5)	153.62	252.00	(4)	7.200+003	-2.697+004	9.928+004	.000

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STATION BLACKOUT RCIC ROOM TEMPERATURE TRANSIENT

t	(:A1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
3.400	(1)	163.54	140.97	(1)	149.70	229.60	(5)	4.378+004	-6.172+004	9.928+004	.000
3.400	(1)	163.54	109.06	(2)	71.50	67.20	(2)	1.554+004	.000	9.928+004	.000
3.400	(1)	163.54	130.49	(3)	124.11	129.20	(3)	1.224+004	-1.039+003	9.928+004	.000
3.400	(1)	163.54	128.79	(4)	153.94	252.00	(4)	2.005+004	-7.431+004	9.928+004	.000
3.400	(1)	163.54	128.92	(5)	153.82	252.00	(4)	7.208+003	-2.689+004	9.928+004	.000
3.450	(1)	163.64	141.09	(1)	149.85	229.60	(5)	4.374+004	-6.155+004	9.928+004	.000
3.450	(1)	153.64	109.15	(2)	71.54	67.20	(2)	1.554+004	.000	9.928+004	.000
3.450	(1)	163.64	130.56	(3)	124.12	129.20	(3)	1.226+004	-1.038+003	9.928+004	.000
3.450	(1)	163.64	128.86	(4)	154.14	252.00	(4)	2.008+004	-7.410+004	9.928+004	.000
3.450	(1)	163.64	128.99	(5)	154.02	252.00	(4)	7.216+003	-2.682+004	9.928+004	.000
3.500	(1)	163.74	141.22	(1)	149.99	229.60	(5)	4.369+004	-6.141+004	9.928+004	.000
3.500	(1)	163.74	109.24	(2)	71.58	67.20	(2)	1.555+004	.000	9.928+004	.000
3.500	(1)	163.74	130.63	(3)	124.12	129.20	(3)	1.227+004	-1.036+003	9.928+004	.000
3.500	(1)	163.74	128.93	(4)	154.34	252.00	(4)	2.010+004	-7.390+004	9.928+004	.000
3.500	(1)	163.74	129.06	(5)	154.21	252.00	(4)	7.224+003	-2.674+004	9.928+004	.000
3.550	(1)	163.84	141.34	(1)	150.14	229.60	(5)	4.365+004	-6.125+004	9.928+004	.000
3.550	(1)	163.84	109.32	(2)	71.61	67.20	(2)	1.555+004	.000	9.928+004	.000
3.550	(1)	163.84	130.70	(3)	124.13	129.20	(3)	1.229+004	-1.035+003	9.928+004	.000
3.550	(1)	163.84	129.01	(4)	154.53	252.00	(4)	2.012+004	-7.370+004	9.928+004	.000
3.550	(1)	163.84	129.13	(5)	154.41	252.00	(4)	7.231+003	-2.667+004	9.928+004	.000
3.600	(1)	163.94	141.46	(1)	150.28	229.60	(5)	4.361+004	-6.110+004	9.928+004	.000
3.600	(1)	163.94	109.41	(2)	71.65	67.20	(2)	1.555+004	.000	9.928+004	.000
3.600	(1)	163.94	130.77	(3)	124.13	129.20	(3)	1.230+004	-1.034+003	9.928+004	.000
3.600	(1)	163.94	129.08	(4)	154.72	252.00	(4)	2.013+004	-7.351+004	9.928+004	.000
3.600	(1)	163.94	129.21	(5)	154.60	252.00	(4)	7.239+003	-2.660+004	9.928+004	.000
3.650	(1)	164.04	141.58	(1)	150.42	229.60	(5)	4.357+004	-6.096+004	9.928+004	.000
3.650	(1)	164.04	109.50	(2)	71.68	67.20	(2)	1.556+004	.000	9.928+004	.000
3.650	(1)	164.04	130.84	(3)	124.14	129.20	(3)	1.232+004	-1.032+003	9.928+004	.000
3.650	(1)	164.04	129.15	(4)	154.91	252.00	(4)	2.015+004	-7.331+004	9.928+004	.000
3.650	(1)	164.04	129.28	(5)	154.78	252.00	(4)	7.246+003	-2.653+004	9.928+004	.000
3.700	(1)	164.14	141.70	(1)	150.56	229.60	(5)	4.353+004	-6.081+004	9.928+004	.000
3.700	(1)	164.14	109.59	(2)	71.72	67.20	(2)	1.556+004	.000	9.928+004	.000
3.700	(1)	164.14	130.90	(3)	124.14	129.20	(3)	1.233+004	-1.031+003	9.928+004	.000
3.700	(1)	164.14	129.22	(4)	155.09	252.00	(4)	2.017+004	-7.312+004	9.928+004	.000
3.700	(1)	164.14	129.34	(5)	154.97	252.00	(4)	7.253+003	-2.646+004	9.928+004	.000
3.750	(1)	164.24	141.82	(1)	150.70	229.60	(5)	4.350+004	-6.067+004	9.928+004	.000
3.750	(1)	164.24	109.67	(2)	71.75	67.20	(2)	1.556+004	.000	9.928+004	.000
3.750	(1)	164.24	130.97	(3)	124.15	129.20	(3)	1.235+004	-1.030+003	9.928+004	.000
3.750	(1)	164.24	129.29	(4)	155.27	252.00	(4)	2.019+004	-7.294+004	9.928+004	.000
3.750	(1)	164.24	129.41	(5)	155.15	252.00	(4)	7.261+003	-2.640+004	9.928+004	.000

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STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
3.800	(1)	164.34	141.93	(1)	150.34	229.60	(5)	4.346+004	-6.053+004	9.928+004	.000
3.800	(1)	164.34	109.76	(2)	71.79	67.20	(2)	1.556+004	.000	9.928+004	.000
3.800	(1)	164.34	131.04	(3)	124.15	129.20	(3)	1.236+004	-1.029+003	9.928+004	.000
3.800	(1)	164.34	129.36	(4)	155.45	252.00	(4)	2.021+004	-7.275+004	9.928+004	.000
3.800	(1)	164.34	129.48	(5)	155.33	252.00	(4)	7.268+003	-2.633+004	9.928+004	.000
3.850	(1)	164.43	142.05	(1)	150.97	229.60	(5)	4.342+004	-6.039+004	9.928+004	.000
3.850	(1)	164.43	109.84	(2)	71.82	67.20	(2)	1.557+004	.000	9.928+004	.000
3.850	(1)	164.43	131.10	(3)	124.16	129.20	(3)	1.237+004	-1.027+003	9.928+G04	.000
3.850	(1)	164.43	129.43	(4)	155.63	252.00	(4)	2.023+004	-7.257+004	9.928+004	.000
3.850	(1)	164.43	129.55	(5)	155.50	252.00	(4)	7.275+003	-2.626+004	9.928+004	.000
3.900	(1)	164.53	142.16	(1)	151.10	229.60	(5)	4.338+004	-6.025+004	9.928+004	.000
3.900	(1)	164.53	109.93	(2)	71.85	67.20	(2)	1.557+004	.000	9.928+004	.000
3.900	(1)	164.53	131.17	(3)	124.16	129.20	(3)	1.239+004	-1.026+003	9.928+004	.000
3.900	(1)	164.53	129.50	(4)	155.80	252.00	(4)	2.025+004	-7.240+004	9.928+004	.000
3.900	(1)	164.53	129.62	(5)	155.68	252.00	(4)	7.282+003	-2.620+004	9.928+004	.000
3.950	(1)	164.62	142.27	(1)	151.23	229.60	(5)	4.335+004	-6.011+004	9.928+004	.000
3.950	(1)	164.62	110.01	(2)	71.89	67.20	(2)	1.557+004	.000	9.928+004	.000
3.950	(1)	164.62	131.23	(3)	124.17	129.20	(3)	1.240+004	-1.025+003	9.928+004	.000
3.950	(1)	164.62	129.57	(4)	155.98	252.00	(4)	2.026+004	-7.222+004	9.928+004	.000
3.950	(1)	164.62	129.68	(5)	155.85	252.00	(4)	7.288+003	-2.614+004	9.928+004	.000
4.000	(1)	164.71	142.38	(1)	151.36	229.60	(5)	4.331+004	-5.998+004	9.928+004	.000
4.000	(1)	164.71	110.09	(2)	71.92	67.20	(2)	1.558+004	.000	9.928+004	.000
4.000	(1)	164.71	131.30	(3)	124.17	129.20	(3)	1.241+004	-1.024+003	9.928+004	.000
4.000	(1)	164.71	129.64	(4)	156.15	252.00	(4)	2.028+004	-7.205+004	9.928+004	.000
4.000	(1)	164.71	129.75	(5)	156.02	252.00	(4)	7.295+003	-2.607+004	9.928+004	.000
4.050	(1)	164.80	142.49	(1)	151.49	229.60	(5)	4.328+004	-5.985+004	9.928+004	.000
4.050	(1)	164.80	110.17	(2)	71.95	67.20	(2)	1.558+004	.000	9.928+004	.000
4.050	(1)	164.80	131.36	(3)	124.18	129.20	(3)	1.243+004	-1.023+003	9.928+004	.000
4.050	(1)	164.80	129.71	(4)	156.31	252.00	(4)	2.030+004	-7.188+004	9.928+004	.000
4.050	(1)	164.80	129.82	(5)	156.19	252.00	(4)	7.302+003	-2.601+004	9.928+004	.000
4.100	(1)	164.90	142.60	(1)	151.62	229.60	(5)	4.324+004	-5.972+004	9.928+004	.000
4.100	(1)	164.90	110.25	(2)	71.99	67.20	(2)	1.558+004	.000	9.928+004	.000
4.100	(1)	164.90	131.42	(3)	124.18	129.20	(3)	1.244+004	-1.021+003	9.928+004	.000
4.100	(1)	164.90	129.78	(4)	156.48	252.00	(4)	2.031+004	-7.171+004	9.928+004	.000
4.100	(1)	164.90	129.88	(5)	156.35	252.00	(4)	7.308+003	-2.595+004	9.928+004	.000
4.150	(1)	164.99	142.71	(1)	151.74	229.60	(5)	4.321+004	-5.959+004	9.928+004	.000
4.150	(1)	164.99	110.33	(2)	72.02	67.20	(2)	1.558+004	.000	9.928+004	.000
4.150	(1)	164.99	131.49	(3)	124.18	129.20	(3)	1.245+004	-1.020+003	9.928+004	.000
4.150	(1)	164.99	129.84	(4)	156.64	252.00	(4)	2.033+004	-7.154+004	9.928+004	.000
4.150	(1)	164.99	129.95	(5)	156.51	252.00	(4)	7.315+003	-2.589+004	9.928+004	.000

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STATION BLACKOUT   RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
4.200	(1)	165.08	142.82	(1)	151.86	229.60	(5)	4.317+004	-5.946+004	9.928+004	.000
4.200	(1)	165.08	110.41	(2)	72.05	67.20	(2)	1.559+004	.000	9.928+004	.000
4.200	(1)	165.08	131.5	(3)	124.19	129.20	(3)	1.246+004	-1.019+003	9.928+004	.000
4.200	(1)	165.08	129.9:	(4)	156.80	252.00	(4)	2.034+004	-7.138+004	9.928+004	.000
4.200	(1)	165.08	130.01	(5)	156.68	252.00	(4)	7.321+003	-2.583+004	9.928+004	.000
4.250	(1)	165.17	142.93	(1)	151.99	229.60	(5)	4.314+004	-5.933+004	9.928+004	.000
4.250	(1)	165.17	110.49	(2)	72.08	67.20	(2)	1.559+004	.000	9.928+004	.000
4.250	(1)	165.17	131.61	(3)	124.19	129.20	(3)	1.248+004	-1.018+003	9.928+004	.000
4.250	(1)	165.17	129.98	(4)	156.96	252.00	(4)	2.036+004	-7.121+004	9.928+004	.000
4.250	(1)	165.17	130.08	(5)	156.83	252.00	(4)	7.328+003	-2.577+004	9.928+004	.000
4.300	(1)	165.25	143.03	(1)	152.11	229.60	(5)	4.311+004	-5.921+004	9.928+004	.000
4.300	(1)	165.25	110.57	(2)	72.11	67.20	(2)	1.559+004	.000	9.928+004	.000
4.300	(1)	165.25	131.67	(3)	124.20	129.20	(3)	1.249+004	-1.017+003	9.928+004	.000
4.300	(1)	165.25	130.05	(4)	157.12	252.00	(4)	2.037+004	-7.105+004	9.928+004	.000
4.300	(1)	165.25	130.14	(5)	156.99	252.00	(4)	7.334+003	-2.572+004	9.928+004	.000
4.350	(1)	165.24	143.14	(1)	152.23	229.60	(5)	4.307+004	-5.909+004	9.928+004	.000
4.350	(1)	165.34	110.65	(2)	72.15	67.20	(2)	1.559+004	.000	9.928+004	.000
4.350	(1)	165.34	131.74	(3)	124.20	129.20	(3)	1.250+004	-1.016+003	9.928+004	.000
4.350	(1)	165.34	130.11	(4)	157.28	252.00	(4)	2.039+004	-7.089+004	9.928+004	.000
4.350	(1)	165.34	130.20	(5)	157.15	252.00	(4)	7.340+003	-2.566+004	9.928+004	.000
4.400	(1)	165.43	143.24	(1)	152.34	229.60	(5)	4.304+004	-5.896+004	9.928+004	.000
4.400	(1)	165.43	110.72	(2)	72.18	67.20	(2)	1.560+004	.000	9.928+004	.000
4.400	(1)	165.43	131.80	(3)	124.20	129.20	(3)	1.251+004	-1.015+003	9.928+004	.000
4.400	(1)	165.43	130.18	(4)	157.43	252.00	(4)	2.040+004	-7.074+004	9.928+004	.000
4.400	(1)	165.43	130.27	(5)	157.30	252.00	(4)	7.346+003	-2.560+004	9.928+004	.000
4.450	(1)	165.52	143.34	(1)	152.46	229.60	(5)	4.301+004	-5.884+004	9.928+004	.000
4.450	(1)	165.52	110.80	(2)	72.21	67.20	(2)	1.560+004	.000	9.928+004	.000
4.450	(1)	165.52	131.86	(3)	124.21	129.20	(3)	1.252+004	-1.014+003	9.928+004	.000
4.450	(1)	165.52	130.24	(4)	157.58	252.00	(4)	2.042+004	-7.058+004	9.928+004	.000
4.450	(1)	165.52	130.33	(5)	157.45	252.00	(4)	7.353+003	-2.555+004	9.928+004	.000
4.500	(1)	165.60	143.45	(1)	152.58	229.60	(5)	4.298+004	-5.872+004	9.928+004	.000
4.500	(1)	165.60	110.88	(2)	72.24	67.20	(2)	1.560+004	.000	9.928+004	.000
4.500	(1)	165.60	131.92	(3)	124.21	129.20	(3)	1.254+004	-1.012+003	9.928+004	.000
4.500	(1)	165.60	130.31	(4)	157.73	252.00	(4)	2.043+004	-7.043+004	9.928+004	.000
4.500	(1)	165.60	130.39	(5)	157.60	252.00	(4)	7.359+003	-2.549+004	9.928+004	.000
4.550	(1)	165.69	143.55	(1)	152.69	229.60	(5)	4.295+004	-5.861+004	9.928+004	.000
4.550	(1)	165.69	110.95	(2)	72.27	67.20	(2)	1.560+004	.000	9.928+004	.000
4.550	(1)	165.69	131.98	(3)	124.22	129.20	(3)	1.255+004	-1.011+003	9.928+004	.000
4.550	(1)	165.69	130.37	(4)	157.88	252.00	(4)	2.045+00	-7.028+004	9.928+004	.000
4.550	(1)	165.69	130.45	(5)	157.75	252.00	(4)	7.365+003	-2.544+004	9.928+004	.000

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STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
4.600	(1)	165.77	143.65	(1)	152.80	229.60	(5)	4.291+004	-5.849+004	9.928+004	.000
4.600	(1)	165.77	111.03	(2)	72.30	67.20	(2)	1.561+004	.000	9.928+004	.000
4.600	(1)	165.77	132.04	(3)	124.22	129.20	(3)	1.256+004	-1.010+003	9.928+004	.000
4.600	(1)	165.77	130.44	(4)	158.03	252.00	(4)	2.046+004	-7.013+004	9.928+004	.000
4.600	(1)	165.77	130.51	(5)	157.90	252.00	(4)	7.371+003	-2.538+004	9.928+004	.000
4.650	(1)	165.86	143.75	(1)	152.91	229.60	(5)	4.288+004	-5.837+004	9.928+004	.000
4.650	(1)	165.86	111.10	(2)	72.33	67.20	(2)	1.561+004	.000	9.928+004	.000
4.650	(1)	165.86	132.10	(3)	124.22	129.20	(3)	1.257+004	-1.009+003	9.928+004	.000
4.650	(1)	165.86	130.50	(4)	158.17	252.00	(4)	2.047+004	-6.998+004	9.928+004	.000
4.650	(1)	165.86	130.57	(5)	158.04	252.00	(4)	7.376+003	-2.533+004	9.928+004	.000
4.700	(1)	165.94	143.85	(1)	153.03	229.60	(5)	4.285+004	-5.826+004	9.928+004	.000
4.700	(1)	165.94	111.18	(2)	72.36	67.20	(2)	1.561+004	.000	9.928+004	.000
4.700	(1)	165.94	132.16	(3)	124.23	129.20	(3)	1.258+004	-1.008+003	9.928+004	.000
4.700	(1)	165.94	130.57	(4)	158.32	252.00	(4)	2.049+004	-6.984+004	9.928+004	.000
4.700	(1)	165.94	130.64	(5)	158.19	252.00	(4)	7.382+003	-2.528+004	9.928+004	.000
4.750	(1)	166.02	143.95	(1)	153.14	229.60	(5)	4.282+004	-5.815+004	9.928+004	.000
4.750	(1)	166.02	111.25	(2)	72.39	67.20	(2)	1.561+004	.000	9.928+004	.000
4.750	(1)	166.02	132.21	(3)	124.23	129.20	(3)	1.259+004	-1.007+003	9.928+004	.000
4.750	(1)	166.02	130.63	(4)	158.46	252.00	(4)	2.050+004	-6.969+004	9.928+004	.000
4.750	(1)	166.02	130.70	(5)	158.33	252.00	(4)	7.388+003	-2.523+004	9.928+004	.000
4.800	(1)	166.11	144.04	(1)	153.24	229.60	(5)	4.279+004	-5.804+004	9.928+004	.000
4.800	(1)	166.11	111.32	(2)	72.42	67.20	(2)	1.562+004	.000	9.928+004	.000
4.800	(1)	166.11	132.27	(3)	124.24	129.20	(3)	1.260+004	-1.006+003	9.928+004	.000
4.800	(1)	166.11	130.70	(4)	158.60	252.00	(4)	2.051+004	-6.955+004	9.928+004	.000
4.800	(1)	166.11	130.76	(5)	158.47	252.00	(4)	7.394+003	-2.517+004	9.928+004	.000
4.850	(1)	166.19	144.14	(1)	153.35	229.60	(5)	4.276+004	-5.792+004	9.928+004	.000
4.850	(1)	166.19	111.40	(2)	72.45	67.20	(2)	1.562+004	.000	9.928+004	.000
4.850	(1)	166.19	132.33	(3)	124.24	129.20	(3)	1.262+004	-1.005+003	9.928+004	.000
4.850	(1)	166.19	130.76	(4)	158.74	252.00	(4)	2.053+004	-6.941+004	9.928+004	.000
4.850	(1)	166.19	130.82	(5)	158.61	252.00	(4)	7.400+003	-2.512+004	9.928+004	.000
4.900	(1)	166.27	144.24	(1)	153.46	229.60	(5)	4.274+004	-5.781+004	9.928+004	.000
4.900	(1)	166.27	111.47	(2)	72.48	67.20	(2)	1.562+004	.000	9.928+004	.000
4.900	(1)	166.27	132.39	(3)	124.24	129.20	(3)	1.263+004	-1.004+003	9.928+004	.000
4.900	(1)	166.27	130.82	(4)	158.89	252.00	(4)	2.054+004	-6.927+004	9.928+004	.000
4.900	(1)	166.27	130.87	(5)	158.74	252.00	(4)	7.405+003	-2.507+004	9.928+004	.000
4.950	(1)	166.35	144.33	(1)	153.56	229.60	(5)	4.271+004	-5.771+004	9.928+004	.000
4.950	(1)	166.35	111.54	(2)	72.50	67.20	(2)	1.562+004	.000	9.928+004	.000
4.950	(1)	166.35	132.44	(3)	124.25	129.20	(2)	1.264+004	-1.003+003	9.928+004	.000
4.950	(1)	166.35	130.89	(4)	159.02	252.00	(4)	2.055+004	-6.913+004	9.928+004	.000
4.950	(1)	166.35	130.93	(5)	158.88	252.00	(4)	7.4 +003	-2.502+004	9.928+004	.000

SARGENT & LUNDY

STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
5.000	(1)	166.43	144.43	(1)	153.67	229.60	(5)	4.268+004	-5.750+004	9.928+004	.000
5.000	(1)	166.43	111.61	(2)	72.53	67.20	(2)	1.562+004	.000	9.928+004	.000
5.000	(1)	166.43	132.50	(3)	124.25	129.20	(3)	1.265+004	-1.002+003	9.928+004	.000
5.000	(1)	166.43	130.95	(4)	159.15	252.00	(4)	2.056+004	-6.899+004	9.928+004	.000
5.000	(1)	166.43	130.99	(5)	159.02	252.00	(4)	7.416+003	-2.497+004	9.928+004	.000
5.050	(1)	166.51	144.52	(1)	153.77	229.60	(5)	4.265+004	-5.749+004	9.928+004	.000
5.050	(1)	166.51	111.58	(2)	72.56	67.20	(2)	1.563+004	.000	9.928+004	.000
5.050	(1)	166.51	132.56	(3)	124.25	129.20	(3)	1.266+004	-1.001+003	9.928+004	.000
5.050	(1)	166.51	131.01	(4)	159.29	252.00	(4)	2.057+004	-6.886+004	9.928+004	.000
5.050	(1)	166.51	131.05	(5)	159.15	252.00	(4)	7.422+003	-2.493+004	9.928+004	.000
5.100	(1)	166.59	144.62	(1)	153.88	229.60	(5)	4.262+004	-5.739+004	9.928+004	.000
5.100	(1)	166.59	111.75	(2)	72.59	67.20	(2)	1.563+004	.000	9.928+004	.000
5.100	(1)	166.59	132.61	(3)	124.26	129.20	(3)	1.267+004	-1.000+003	9.928+004	.000
5.100	(1)	166.59	131.08	(4)	159.42	252.00	(4)	2.058+004	-6.872+004	9.928+004	.000
5.100	(1)	166.59	131.11	(5)	159.28	252.00	(4)	7.427+003	-2.488+004	9.928+004	.000
5.150	(1)	166.67	144.71	(1)	153.98	229.60	(5)	4.259+004	-5.728+004	9.928+004	.000
5.150	(1)	166.67	111.82	(2)	72.62	67.20	(2)	1.563+004	.000	9.928+004	.000
5.150	(1)	166.67	132.67	(3)	124.26	129.20	(3)	1.268+004	-9.993+002	9.928+004	.000
5.150	(1)	166.67	131.14	(4)	159.55	252.00	(4)	2.060+004	-6.859+004	9.928+004	.000
5.150	(1)	166.67	131.17	(5)	159.41	252.00	(4)	7.433+003	-2.483+004	9.928+004	.000
5.200	(1)	166.75	144.81	(1)	154.08	229.60	(5)	4.257+004	-5.718+004	9.928+004	.000
5.200	(1)	166.75	111.89	(2)	72.65	67.20	(2)	1.563+004	.000	9.928+004	.000
5.200	(1)	166.75	132.73	(3)	124.27	129.20	(3)	1.269+004	-9.983+002	9.928+004	.000
5.200	(1)	166.75	131.20	(4)	159.68	252.00	(4)	2.061+004	-6.845+004	9.928+004	.000
5.200	(1)	166.75	131.22	(5)	159.54	252.00	(4)	7.436+003	-2.478+004	9.928+004	.000
5.250	(1)	166.83	144.90	(1)	154.18	229.60	(5)	4.254+004	-5.707+004	9.928+004	.000
5.250	(1)	166.83	111.96	(2)	72.67	67.20	(2)	1.564+004	.000	9.928+004	.000
5.250	(1)	166.83	132.78	(3)	124.27	129.20	(3)	1.270+004	-9.974+002	9.928+004	.000
5.250	(1)	166.83	131.26	(4)	159.81	252.00	(4)	2.062+004	-6.833+004	9.928+004	.000
5.250	(1)	166.83	131.28	(5)	159.67	252.00	(4)	7.444+003	-2.473+004	9.928+004	.000
5.300	(1)	166.91	144.99	(1)	154.28	229.60	(5)	4.251+004	-5.697+004	9.928+004	.000
5.300	(1)	166.91	112.03	(2)	72.70	67.20	(2)	1.564+004	.000	9.928+004	.000
5.300	(1)	166.91	132.84	(3)	124.27	129.20	(3)	1.271+004	-9.364+002	9.928+004	.000
5.300	(1)	166.91	131.33	(4)	159.94	252.00	(4)	2.063+004	-6.820+004	9.928+004	.000
5.300	(1)	166.91	131.34	(5)	159.80	252.00	(4)	7.449+003	-2.469+004	9.928+004	.000
5.350	(1)	166.98	145.08	(1)	154.38	229.60	(5)	4.249+004	-5.687+004	9.928+004	.000
5.350	(1)	166.98	112.10	(2)	72.73	67.20	(2)	1.564+004	.000	9.928+004	.000
5.350	(1)	166.98	132.89	(3)	124.28	129.20	(3)	1.272+004	-9.955+002	9.928+004	.000
5.350	(1)	166.98	131.39	(4)	160.07	252.00	(4)	2.064+004	-6.807+004	9.928+004	.000
5.350	(1)	166.98	131.39	(5)	159.93	252.00	(4)	7.454+003	-2.464+004	9.928+004	.000

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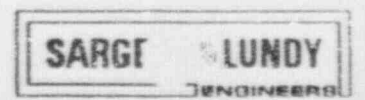
S&L N...J   CALC 3C7-0290-002   REV 1   PROJECT 8726-17   PART 1   TJB   DATE 051292   PAGE

STATION BLACKOUT: RCIC ROOM TEMPERATURE TRANSIENT

t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
5.400	(1)	167.06	145.17	(1)	154.48	229.60	(5)	4.246+004	-5.677+004	9.928+004	.000
5.400	(1)	167.06	112.17	(2)	72.76	67.20	(2)	1.564+004	.000	9.928+004	.000
5.400	(1)	167.06	132.95	(3)	124.28	129.20	(3)	1.273+004	-9.945+002	9.928+004	.000
5.400	(1)	167.06	131.45	(4)	160.19	252.00	(4)	2.065+004	-6.794+004	9.928+004	.000
5.400	(1)	167.06	131.45	(5)	160.05	252.00	(4)	7.460+003	-2.460+004	9.928+004	.000
5.450	(1)	167.14	145.26	(1)	154.57	229.60	(5)	4.243+004	-5.667+004	9.928+004	.000
5.450	(1)	167.14	112.23	(2)	72.78	67.20	(2)	1.565+004	.000	9.928+004	.000
5.450	(1)	167.14	133.00	(3)	124.28	129.20	(3)	1.274+004	-9.936+002	9.928+004	.000
5.450	(1)	167.14	131.51	(4)	160.32	252.00	(4)	2.066+004	-6.782+004	9.928+004	.000
5.450	(1)	167.14	131.51	(5)	160.18	252.00	(4)	7.465+003	-2.455+004	9.928+004	.000
5.500	(1)	167.21	145.35	(1)	154.67	229.60	(5)	4.241+004	-5.657+004	9.928+004	.000
5.500	(1)	167.21	112.30	(2)	72.81	67.20	(2)	1.565+004	.000	9.928+004	.000
5.500	(1)	167.21	133.05	(3)	124.29	129.20	(3)	1.275+004	-9.927+002	9.928+004	.000
5.500	(1)	167.21	131.57	(4)	160.44	252.00	(4)	2.067+004	-6.769+004	9.928+004	.000
5.500	(1)	167.21	131.56	(5)	160.30	252.00	(4)	7.470+003	-2.451+004	9.928+004	.000
5.550	(1)	167.29	145.44	(1)	154.77	229.60	(5)	4.238+004	-5.648+004	9.928+004	.000
5.550	(1)	167.29	112.37	(2)	72.84	67.20	(2)	1.565+004	.000	9.928+004	.000
5.550	(1)	167.29	133.11	(3)	124.29	129.20	(3)	1.276+004	-9.918+002	9.928+004	.000
5.550	(1)	167.29	131.64	(4)	160.57	252.00	(4)	2.068+004	-6.757+004	9.928+004	.000
5.550	(1)	167.29	131.62	(5)	160.42	252.00	(4)	7.475+003	-2.446+004	9.928+004	.000
5.600	(1)	167.37	145.53	(1)	154.86	229.60	(5)	4.236+004	-5.638+004	9.928+004	.000
5.600	(1)	167.37	112.43	(2)	72.86	67.20	(2)	1.565+004	.000	9.928+004	.000
5.600	(1)	167.37	133.16	(3)	124.29	129.20	(3)	1.277+004	-9.909+002	9.928+004	.000
5.600	(1)	167.37	131.70	(4)	160.69	252.00	(4)	2.069+004	-6.745+004	9.928+004	.000
5.600	(1)	167.37	131.67	(5)	160.54	252.00	(4)	7.481+003	-2.442+004	9.928+004	.000
5.650	(1)	167.44	145.62	(1)	154.96	229.60	(5)	4.233+004	-5.628+004	9.928+004	.000
5.650	(1)	167.44	112.50	(2)	72.89	67.20	(2)	1.566+004	.000	9.928+004	.000
5.650	(1)	167.44	133.22	(3)	124.30	129.20	(3)	1.278+004	-9.900+002	9.928+004	.000
5.650	(1)	167.44	131.76	(4)	160.81	252.00	(4)	2.070+004	-6.733+004	9.928+004	.000
5.650	(1)	167.44	131.73	(5)	160.66	252.00	(4)	7.486+003	-2.438+004	9.928+004	.000
5.700	(1)	167.52	145.71	(1)	155.05	229.60	(5)	4.231+004	-5.619+004	9.928+004	.000
5.700	(1)	167.52	112.57	(2)	72.92	67.20	(2)	1.566+004	.000	9.928+004	.000
5.700	(1)	167.52	133.27	(3)	124.30	129.20	(3)	1.279+004	-9.891+002	9.928+004	.000
5.700	(1)	167.52	131.82	(4)	160.93	252.00	(4)	2.071+004	-6.720+004	9.928+004	.000
5.700	(1)	167.52	131.78	(5)	160.78	252.00	(4)	7.491+003	-2.433+004	9.928+004	.000
5.750	(1)	167.59	145.79	(1)	155.14	229.60	(5)	4.228+004	-5.609+004	9.928+004	.000
5.750	(1)	167.59	112.63	(2)	72.94	67.20	(2)	1.566+004	.000	9.928+004	.000
5.750	(1)	167.59	133.32	(3)	124.30	129.20	(3)	1.280+004	-9.882+002	9.928+004	.000
5.750	(1)	167.59	131.88	(4)	161.05	252.00	(4)	2.071+004	-6.709+004	9.928+004	.000
5.750	(1)	167.59	131.84	(5)	160.90	252.00	(4)	7.496+003	-2.429+004	9.928+004	.000

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t	(iA1)	TA	TW	(iW)	TW	TA	(iA2)	QW(iW,1)	QW(iW,2)	QA(iA1)	QA(iA2)
5.800	(1)	167.67	145.88	(1)	155.23	229.60	(5)	4.226+004	-5.600+004	9.928+004	.000
5.800	(1)	167.67	112.70	(2)	72.97	67.20	(2)	1.566+004	.000	9.928+004	.000
5.800	(1)	167.67	133.37	(3)	124.31	129.20	(3)	1.281+004	-9.873+002	9.928+004	.000
5.800	(1)	167.67	131.94	(4)	161.17	252.00	(4)	2.072+004	-6.697+004	9.928+004	.000
5.800	(1)	167.67	131.89	(5)	161.02	252.00	(4)	7.501+003	-2.425+004	9.928+004	.000
5.850	(1)	167.74	145.97	(1)	155.33	229.60	(5)	4.223+004	-5.590+004	9.928+004	.000
5.850	(1)	167.74	112.76	(2)	72.99	67.20	(2)	1.566+004	.000	9.928+004	.000
5.850	(1)	167.74	133.43	(3)	124.31	129.20	(3)	1.282+004	-9.865+002	9.928+004	.000
5.850	(1)	167.74	132.00	(4)	161.28	252.00	(4)	2.073+004	-6.685+004	9.928+004	.000
5.850	(1)	167.74	131.95	(5)	161.13	252.00	(4)	7.506+003	-2.421+004	9.928+004	.000
5.900	(1)	167.81	146.05	(1)	155.42	229.60	(5)	4.221+004	-5.581+004	9.928+004	.000
5.900	(1)	167.81	112.82	(2)	73.02	67.20	(2)	1.567+004	.000	9.928+004	.000
5.900	(1)	167.81	133.48	(3)	124.31	129.20	(3)	1.283+004	-9.856+002	9.928+004	.000
5.900	(1)	167.81	132.07	(4)	161.40	252.00	(4)	2.074+004	-6.673+004	9.928+004	.000
5.900	(1)	167.81	132.00	(5)	161.25	252.00	(4)	7.511+003	-2.416+004	9.928+004	.000
5.950	(1)	167.89	146.14	(1)	155.51	229.60	(5)	4.218+004	-5.572+004	9.928+004	.000
5.950	(1)	167.89	112.89	(2)	73.05	67.20	(2)	1.567+004	.000	9.928+004	.000
5.950	(1)	167.89	133.53	(3)	124.32	129.20	(3)	1.284+004	-9.847+002	9.928+004	.000
5.950	(1)	167.89	132.13	(4)	161.52	252.00	(4)	2.075+004	-6.662+004	9.928+004	.000
5.950	(1)	167.89	132.05	(5)	161.36	252.00	(4)	7.516+003	-2.412+004	9.928+004	.000
6.000	(1)	167.96	146.23	(1)	155.60	229.60	(5)	4.216+004	-5.563+004	9.928+004	.000
6.000	(1)	167.96	112.95	(2)	73.07	67.20	(2)	1.567+004	.000	9.928+004	.000
6.000	(1)	167.96	133.58	(3)	124.32	129.20	(3)	1.285+004	-9.839+002	9.928+004	.000
6.000	(1)	167.96	132.19	(4)	161.63	252.00	(4)	2.075+004	-6.650+004	9.928+004	.000
6.000	(1)	16..76	132.11	(5)	161.47	252.00	(4)	7.521+003	-2.408+004	9.928+004	.000

END RATT

PROGRAM HAD   0 OVRFLW.   0 UNDFLW.   4 DIVFLT.   0 O/O FLT.

#HDG.N

SARGENT & LUNDY