



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

July 24, 1992

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

Gentlemen:

In the Matter of)	Docket Nos. 50-260
Tennessee Valley Authority)	50-327
)	50-328

EMERGENCY RESPONSE DATA SYSTEM (ERDS) - DATA POINT LIBRARY

Enclosed is TVA's updated Data Point Library for Browns Ferry Nuclear Plant Unit 2 and Sequoyah Nuclear Plant Units 1 and 2. This update supplies the additional information requested by the NRC ERDS Project Manager. Please process as soon as possible so that software testing with NUS may begin.

If you have questions, please telephone S. W. Spencer at (615) 751-4778.

Sincerely,

Mark J. Burzynski
 Mark J. Burzynski
 Manager
 Nuclear Licensing and Regulatory Affairs

Enclosure: Copy of disk information
cc: See page 2

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U.S. Nuclear Regulatory Commission

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cc: Mr. D. E. LaBarge, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. John R. Jolicoeur (Enclosures: Disk and information on disk)
ERDS Project Manager
U.S. Nuclear Regulatory Commission
Mail Stop MNBB 3206
Washington, DC 20555

NRC Resident Inspector
Browns Ferry Nuclear Plant
Route 12, Box 637
Athens, Alabama 35611

NRC Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

Mr. Peter S. Tam, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region I
111 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

BROWNS FERRY UNIT 2 - ERDS DATA POINT LIBRARY

1.	REAC VES LEV	D1001	RX WATER LEVEL 2-LI-3-58A
2.	NI POWER RNG	SPDS0001	RX POWER APPM - Composed
3.	REAC VES LEV	D1002	RX WATER LEVEL 2-LI-3-52
4.	REAC VES LEV	D1000	RX WATER LEVEL 2-LI-3-60
5.	RCS PRESSURE	SPDS0008	Rx Pressure - Composed
6.	EFF GAS RAD	SPDS0024	Stock Release Rate - Composed
7.	DW PRESSURE	SPDS0009	Drywell Pressure - Composed
8.	DW TEMP	SPDS0010	Drywell Temperature - Composed
9.	TP TEMP	SPDS0016	SUPPR PL WTR TEMP - Composed
10.	SP LEVEL	SPDS0013	SUPPL PL WTR LVL (IN) - Composed
11.	H2 CONC	SPDS0017	Drywell H2 - Composed
12.	H2 CONC	SPDS0018	Suppr Pl H2 - Composed
13.	WIND SPEED	MET001	91M VECTOR WIND SPEED (15 MIN AVG)
14.	WIND SPEED	MET002	46M VECTOR WIND SPEED (15 MIN AVG)
15.	WIND SPEED	MET003	10M VECTOR WIND SPEED (15 MIN AVG)
16.	WIND DIR	MET004	91M VECTOR WIND DIRECTION (15 MIN AVG)
17.	WIND DIR	MET005	46M VECTOR WIND DIRECTION (15 MIN AVG)
18.	WIND DIR	MET006	10M VECTOR WIND DIR (15 MIN AVG)
19.	STAB CLASS	MET007	Stability Class Upper
20.	STAB CLASS	MET008	Stability Class Intermediate
21.	STAB CLASS	MET009	Stability Class Lower

ERDS point number 1. REAC VES LEV D1001 Reactor Vessel Water Level

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: REAC VES LEV
Point ID: D1001
Plant Spec Point Desc: RX WATER LEVEL 2-LI-3-58A
Generic/Cond Desc: Reactor Vessel Water Level

Analog/Digital: A
Engr Units/Dig States: INCHES
Engr Units Conversion: N/A
Minimum Instr Range: -155
Maximum Instr Range: 60
Zero Point Reference: 528"
Reference Point Notes: TAF= -162" (ref. to instr. zero)

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Ref. leg tap at 366" above vessel zero
Alarm/Trip Set Points: LO LO ALARM 11.2"

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation: N
Level Reference Leg: WLT

Unique System Desc: The emergency systems range water level instr. is calibrated hot (rated temp) and is not compensated. (See curve)
Note: Zero Point Reference is instrument zero, 528" above vessel zero.

ERDS point number 2. NI POWER RNG SPDS0001 Nuclear Instruments - Powr Range

Date: 06/30/93
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: NI POWER RNG
Point ID: SPDS0001
Plant Spec Point Desc: RX POWER APRM - Composed
Generic/Cond Desc: Nuclear Instruments - Powr Range

Analog/Digital: A
Engr Units/Orig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 125
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SFNS: P
Number of Sensors: 6
How Processed: Weighted Average
Sensor Locations: Incore
Alarm/Trip Set Points: See graph

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Multiple
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: This point is used to indicate an EOI entry condition. The HI HI Alarm is set at 5%. This alarm is inhibited when there is no scram signal.

ERDS point number 3. REAC. VES LEV D1002 Reactor Vessel Water Level

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: RLAC VES LEV
Point ID: D1002
Plant Spec Point Desc: RX WATER LEVEL 2-LI-3-52
Generic/Cond Desc: Reactor Vessel Water Level

Analog/Digital: A
Engr Units/Dig States: INCHES
Engr Units Conversion: N/A
Minimum Instr Range: -268
Maximum Instr Range: 32
Zero Point Reference: 528"
Reference Point Notes: TAP = -162" (ref. to instru zero)

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Ref. leg tap at 143.5" above vessel zero
Alarm/Trip Set Points: LO LO Alarm 11.2 in

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: The post accident range water level instru. is calibrated cold (212 deg. F) and is not compensated. (See curve) Indicated water level increases as forced circulation increases (offscale high at rated conditions).
Note : Instrument zero, 528" above vessel zero.

ERDS point number 4. REAC VES LEV D1000 Reactor Vessel Water Level

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: REAC VES LKV
Point ID: D1000
Plant Spec Point Desc: RX WATER LEVEL 2-II-3-60
Generic/Cond Desc: Reactor Vessel Water Level

Analog/Digital: A
Engr Units/Dig States: INCHES
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 60
Zero Point Reference: 528"
Reference Point Notes: TAP=-162" (REFERENCED TO INSTRU ZERO)

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: REF LEG TAP AT 517" ABOVE VESSEL ZERO
Alarm/Trip Set Points: HI 39 IN, LO 27 IN, LO LO 11.2 IN(SCRAM)

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation: Y
Level Reference Leg: WRT

Unique System Desc: The normal control range water level instrument is calibrated for hot (rated temp) and is pressure compensated.
Note: Instrument zero, 528" above vessel zero.

ERDS point number 5. RCS PRESSURE SPDS0008 Reactor Coolant System Pressure

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: RCS PRESSURE
Point ID: SPDS0008
Plant Spec Point Desc: Rx Pressure - Composed
Generic/Cond Desc: Reactor Coolant System Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Unit Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: Weighted Average
Sensor Locations: RX Bldg. elev 593'
Alara/Trip Set Points: 1043 (reactor SCRAM)

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 7. DW PRESSURE SPDS0009 Drywell Pressure

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: DW PRESSURE
Point ID: SPDS0009
Plant Spec Point Desc: Drywell Pressure - Composed
Generic/Cond Desc: Drywell Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: -14.7
Maximum Instr Range: 300
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: Weighted Average
Sensor Locations: Rx Bldg elev. 593'
Alarm/Trip Set Points: HI Alarm 1.96 PSIG, HI HI Alarm 2.45 *

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low ca loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: This point is composed from 3 inputs with the following ranges: -5 to +5 PSIG, 0 to 80 PSIG, and 0 to 300 PSIG.
* Reactor Scram

ERDS point number 8. DW TEMP SPDS0010 Drywell Temperature

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: DW TEMP
Point ID: SPDS0010
Plant Spec Point Desc: Drywell Temperature - Composed
Generic/Cond Desc: Drywell Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 400
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Weighted Average
Sensor Locations: Drywell elev 583' azimuth 225 deg.
Alarm/Trip Set Points: HI Alarm 145 DEGF, HI HI Alarm 160 DEGF

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Multiple, low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 9. SP TEMP SPDS0016 Suppression Pool Temperature

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: SP TEMP
Point ID: SPDS0016
Plant Spec Point Desc: SUPPR PL WTR TEMP - Composed
Generic/Cond Desc: Suppression Pool Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: N/A
Minimum Instr Range: 30
Maximum Instr Range: 230
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Weighted Average
Sensor Locations: C : RTD in each bay
Alarm/Trip Set Points: HI HI Alarm 95 DEGF

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Multiple, low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The composed temperature is determined from the Div I and
Div II bulk temperatures which average 6 RTD inputs each
(i.e. 16 total inputs are used).

ERDS point number 10. SP LEVEL SPDS0013 Suppression Water Pool Level

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: SP LEVEL
Point ID: SPDS0013
Plant Specific Point Desc: SUPPL PL WTR LVL (IN) - Composed
Generic/Cond Desc: Suppression Water Pool Level

Analog/Digital: A
Engr Units/Dig States: Inches
Engr Units Conversion: N/A
Minimum Instr Range: -181.45
Maximum Instr Range: 58.55
Zero Point Reference: 536'8"
Reference Point Notes: torus zero 521'6" elev. (bottom of torus)

PROC or SENS: P
Number of Sensors: 3
How Processed: Weighted Average
Sensor Locations: RX BLDG 519' elev.
Alarm/Trip Set Points: HIHI -1.00, HI -2.00, LO -5.50, LO LO -6.25

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Multiple, low on loss of power
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: This point is composed using 2 narrow range inputs (-25 to +25 inches, referenced to instru. zero) and one wide range input (0 to 20 feet, referenced to torus zero).

ERDS point number 11. H2 CONC SPDS0017 Drywell Hydrogen Concentration

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: H2 CONC
Point ID: SPDS0017
Plant Spec Point Desc: Drywell H2 - Composed
Generic/Cond Desc: Drywell Hydrogen Concentration

Analog/Digital: A
Engr Units/Dig States: †
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 70
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Weighted Average
Sensor Locations: RX Bldg 565 elev.
Alarm/Trip Set Points: HI HI Alarm 24†

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 12. H2 CONC SPDS0018 Torus Hydrogen Concentration

Date: 06/30/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: H2 CONC
Point ID: SPDS0018
Plant Spec Point Desc: Suppr Pl H2 - Composed
Generic/Cond Desc: Torus Hydrogen Concentration

Analog/Digital: A
Engr Units/Dig States: 1
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 20
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Weighted Average
Sensor Locations: Rx Bldg 565 Elev.
Alarm/Trip Set Points: HI HI Alarm 2.4%

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 13.

WIND SPEED

MET001

Wind Speed - Upper Level

Date: 12/01/91
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET001
Plant Spec Point Desc: 91M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Upper Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 91 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: I/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 14.

WIND SPEED

MET002

Wind Speed - Intermediate Level

Date: 12/01/91
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET002
Plant Spec Point Desc: 46M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Intermediate Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 46 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Uniqc System Desc:

ERDS point number 15.

WIND SPEED

MET003

Wind Speed - Lower Level

Date: 12/01/91
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET003
Plant Spec Point Desc: 10M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Lower Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 10 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 16. WIND DIR MET004 Wind Direction - Upper Level

Date: 12/02/91
Reactor Unit: BF2
Data Transfer: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET004
Plant Spec Point Desc: 91M VECTOR WIND DIRECTION (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Upper Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 91 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 17.

WIND DIR

MET005

Wind Direction - Intermed. Level

Date: 12/02/92
Reactor Unit: BF3
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET005
Plant Spec Point Desc: 46M VECTOR WIND DIRECTION (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Intermed. Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 46 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 18. WIND DIR MET006 Wind Direction - Lower Level

Date: 12/02/91
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET006
Plant Spec Point Desc: 10M VECTOR WIND DIR (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Lower Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 10 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LCW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 19. STAB CLASS MET007 Air Stability Upper

Date: 12/02/91
 Reactor Unit: BF2
 Data feeder: 1
 NRC ERDS Parameter: STAB CLASS
 Point ID: MET007
 Plant Spec Point Desc: Stability Class Upper
 Generic/Cond Desc: Air Stability Upper

Analog/Digital:
 Engr Units/Dig States: STABA
 Engr Units Conversion:
 Minimum Instr Range:
 Maximum Instr Range:
 Zero Point Reference: N/A
 Reference Point Notes: N/A

PROC or SENS: P
 Number of Sensors: 2
 How Processed:
 Sensor Locations:
 Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
 NID power cut-on level: N/A
 Instrument Failure Mode: LOW
 Temperature Compensation:
 Level Reference Leg: N/A

Unique System Desc:	Differential Temperature Upper-Lower (deg C)		Stability Class	Point Value
	Difference	Difference		
	>	<=		
		-1.9	A	1
	-1.9	-1.7	B	2
	-1.7	-1.5	C	3
	-1.5	-0.5	D	4
	-0.5	1.5	E	5
	1.5	4.0	F	6
	4.0		G	7

ERDS print number 20.

STAB CLASS

MET008

Air Stability

Date: 12/02/92
Reactor Unit: BF2
Data feeder: 1
NRC ERDS Parameter: STAB CLASS
Point ID: MET008
Plant Spec Point Desc: Stability Class Intermediate
Generic/Cond Desc: Air Stability

Analog/Digital:
Engr Units/Dig States:
Engr Units Conversion: STABA
Minimum Instr Range:
Maximum Instr Range:
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed:
Sensor Locations:
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc: Differential Temperature Upper-Intermediate (deg C)
Difference Stability Class Print Value

>	<=		
	-1.9	A	1
-1.9	-1.7	B	2
-1.7	-1.5	C	3
-1.5	-0.5	D	4
-0.5	1.5	E	5
1.5	4.0	F	6
4.0		G	7

ERDS point number 21.

STAB CLASS

ME7009

Air Stability

Date: 12/02/92
 Reactor Unit: BF2
 Data feeder: 1
 NRC ERDS Parameter: STAB CLASS
 Point ID: ME7009
 Plant Spec Point Desc: Stability Class Lower
 Generic/Cond Desc: Air Stability

Analog/Digital:
 Engr Units/Dig States:
 Engr Units Conversion: STABA
 Minimum Instr Range:
 Maximum Instr Range:
 Zero Point Reference: N/A
 Reference Point Notes: N/A

PROC or SENS: P
 Number of Sensors: 2
 How Processed:
 Sensor Locations:
 Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
 NID power cut-on level: N/A
 Instrument Failure Mode: LOW
 Temperature Compensation: N
 Level Reference Leg: N/A

Unique System Desc: Differential Temperature Intermediate-Lower (deg C)			
Difference		Stability Class	Point Value
>	<=		
	-1.9	A	1
-1.9	-1.7	B	2
-1.7	-1.5	C	3
-1.5	-0.5	D	4
-0.5	1.5	E	5
1.5	4.0	F	6
4.0		G	7

SEQUOYAH UNIT 1 - ERDS DATA POINT LIBRARY

	SIMULATION	INDICATES REAL OR SIMULATED DATA
1.		
2.	NI POWER RNG UN2000	POWER RNG AVG
3.	NI INTER RNG UN101F	INTER RNG FLUX (LOG)
4.	NI SOURCE RNG UN1014	Source Range Flux (log)
5.	REAC VES LEV UL6000	RVLIS LOWER RANGE AVERAGE
6.	TEMP CORE EX UT1003	CORE EXIT TEMP MAX
7.	SUB MARGIN UT1005	MIN SUBCOOL
8.	SG LEVEL 1/A UL1001	SG 1 NR LEVEL AVG
9.	SG LEVEL 2/B UL1002	SG 2 NR LEVEL AVG
10.	SG LEVEL 3/C UL1003	SG 3 NR LEVEL AVG
11.	SG LEVEL 4/D UL1004	SG 4 NR LEVEL AVG
12.	SG PRESS 1/A UP1002	SG 1 MS PRESSURE AVG
13.	SG PRESS 2/B UP1003	SG 2 MS PRESSURE AVG
14.	SG PRESS 3/C UP1004	SG 3 MS PRESSURE AVG
15.	SG PRESS 4/D UP1005	SG 4 MS PRESSURE AVG
16.	MN FD FL 1/A UF1000	SG 1 FW FLOW AVG
17.	MN FD FL 2/B UF1001	SG 2 FW FLOW AVG
18.	MN FD FL 3/C UF1002	SG 3 FW FLOW AVG
19.	MN FD FL 4/D UF1003	SG 4 FW FLOW AVG
20.	AX FW FL 1/A 1-FM3-163B	STM GEN 1 AFW INLET FLOW
21.	AX FW FL 2/B 1-FM3-155B	STM GEN 2 AFW INLET FLOW
22.	AX FW FL 3/C 1-FM3-147B	STM GEN 3 AFW INLET FLOW
23.	AX FW FL 4/D 1-FM3-170B	STM GEN 4 AFW INLET FLOW
24.	HL TEMP 1/A 1-TM68-1B	LP 1 HL WID RNG TEMP
25.	HL TEMP 2/B 1-TM68-24B	LP 2 HL WID RNG TEMP
26.	HL TEMP 3/C 1-TM68-43B	LP 3 HL WID RNG TEMP
27.	HL TEMP 4/D 1-TM68-65B	LP 4 HL WID RNG TEMP
28.	CL TEMP 1/A 1-TE68-18	LP 1 CL WID RNG TEMP
29.	CL TEMP 2/B 1-TE68-41	LP 2 CL WID RNG TEMP
30.	CL TEMP 3/C 1-TE68-60	LP 3 CL WID RNG TEMP
31.	CL TEMP 4/D 1-TE68-83	LP 4 CL WID RNG TEMP
32.	RCS PRESSURE UP1000	RCS WIDE RNG PRESS AVG
33.	PRZR LEVEL UL1005	PRZR LEV AVG
34.	RCS CHG/MU UF1016	NET CHG FLO
35.	HP SI FLOW UF1010	SI FLOW TOTAL
36.	LP SI FLOW UF1011	RHR COLD LEG TOTAL FLOW
37.	CNTMT SMP WR UL1011	CNTMT SUMP LEV AVG
38.	EFF GAS RAD 1-RM90-400	Unit 1 Shield Bldg Release Rate
39.	EFF GAS RAD 2-RM90-400	Unit 2 Shield Bldg Release Rate
40.	EFF LIQ RAD 0-RE90-122	WDS Liquid Effluent
41.	COND A/E RAD UR1006	Low Range COND VAC PUMP AIR EXH RAD MON
42.	COND A/E RAD UR1007	Mid Rng COND VAC PUMP AIR EXH RAD MON
43.	COND A/E RAD UR1008	High Rng COND VAC PUMP AIR EXH RAD MON
44.	CNTMNT RAD UR6021	UPPER CONTAINMENT RADIATION
45.	CNTMNT RAD UR6022	LOWER CONTAINMENT RADIATION
46.	MAIN SL 1/A UR1001	MN STEAM LINE 1 RAD LEV
47.	MAIN SL 2/B UR1002	MN STEAM LINE 2 RAD LEV
48.	MAIN SL 3/C UR1003	MN STEAM LINE 3 RAD LEV
49.	MAIN SL 4/D UR1004	MN STEAM LINE 4 RAD LEV
50.	SG BD RAD 1A 1-RE90-120	Steam Generator Blowdown Liquid Monitor
51.	SG BD RAD 2B 1-RE90-121	Steam Generator Blowdown Liquid Monitor
52.	CTMNT PRESS UP6000	CNTMT PRESSURE AVERAGE
53.	CTMNT TEMP UT1004	CONTAINMENT TEMP MAX DEV
54.	H2 CONC UY1005	H2 CONC AVG
55.	BWST LEVEL UL1000	RWST LEVEL
56.	WIND SPEED MET001	91M VECTOR WIND SPRED (15 MIN AVG)

57.	WIND SPEED	MET002	46M VECTOR WIND SPEED (15 MIN AVG)
58.	WIND SPEED	MET003	10M VECTOR WIND SPEED (15 MIN AVG)
59.	WIND DIR	MET004	91M VECTOR WIND DIR (15 MIN AVG)
60.	WIND DIR	MET005	46M VECTOR WIND DIR (15 MIN AVG)
61.	WIND DIR	MET006	10M VECTOR WIND DIR (15 MIN AVG)
62.	STAB CLASS	MET007	Stability Class Upper
63.	STAB CLASS	MET008	Stability Class Intermediate
64.	STAB CLASS	MET009	Stability Class Lower

ERDS point number 1.

SIMULATION

REAL/SIMULATED DATA

Date: 06/09/92

Reactor Unit: SE1

Data feeder: 1

NRC ERDS Parameter:

Point ID: SIMULATION

Plant Spec Point Desc: INDICATES REAL OR SIMULATED DATA

Generic/Cond Desc: REAL/SIMULATED DATA

Analog/Digital: D

Engr Units/Dig States: REAL/SIMUL

Engr Units Conversion: N/A

Minimum Instr Range: N/A

Maximum Instr Range: N/A

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 0

How Processed: 0 IF REAL, 1 IF SIMULATED

Sensor Locations: N/A

Alarm/Trip Set Points: N/A

NID power cutoff level: N/A

NID power cut-on level: N/A

Instrument Failure Mode: N/A

Temperature Compensation: N

Level Reference Leg: N/A

Unique System Desc: THIS POINT IS USED TO INDICATE WHETHER THE DATA IS COMING FROM THE UNIT OR FROM THE SIMULATOR

ERDS point number 2. NI POWER RNG UN2000 Reactor Power

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: NI POWER RNG
Point ID: UN2000
Plant Spec Point Desc: POWER RNG AVG
Generic/Cond Desc: Reactor Power

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: 0-10V = 0-120% Power (Linear)
Minimum Instr Range: 0
Maximum Instr Range: 120
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 8
How Processed: AVG
Sensor Locations: Upper & Lower excore detectors
Alarm/Trip Set Points: Rod Stop=103% Overpwr Reactor Trip=109%

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Probable Downscale (No forcing function)
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: From TSC Upper & Lower detection inputs for
1-NE92-41,42,43,44.

ERDS point number 3. NI INTER RNG UN1015 Reactor Power - Intermediate Rng

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: NI INTER RNG
Point ID: UN1015
Plant Spec Point Desc: INTER RNG FLUX (LOG)
Generic/Cond Desc: Reactor Power - Intermediate Rng

Analog/Digital: A
Engr Units/Dig States: LOGPC
Engr Units Conversion: OUTPUT(V) = [LOG(%Power)]+8
Minimum Instr Range: -8
Maximum Instr Range: 2.301
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVG
Sensor Locations: AZ 0 deg & 180 deg Excore
Alarm/Trip Set Points: Rod Stop - 20% , Reactor Trip - 25% Pwr

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Probable Downscale (no forcing function)
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Avg of XI-92-5003(channel N35) and 5004 (channel N36)

ERDS joint number 4. NI SOURC RNG UN1014 Reactor Power - Source Range

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: NI SOURC RNG
Point ID: UN1014
Plant Spec Point Desc: Source Range Flux (Log)
Generic/Cond Desc: Reactor Power - Source Range

Analog/Digital: A
Engr Units/Dig States: CPS
kngr Units Conversion: $OUTPUT(V) = [Log(CPS)] * 1.667$
Minimum Instr Range: 10E0
Maximum Instr Range: 10E6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 4
How Processed: Avg.
Sensor Locations: AZ 0 deg. & 180 deg. Excore
Alarm/Trip Set Points: Reactor Trip - 10E5 CPS

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Probable Downscale (No forcing function)
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Avg of XI-92-5001(channel N31) & 5002 (channel N32)Detectors
(2 chambers/detector)

ERDS point number 5. REAC VES LEV UL6000 Reactor Vessel Water Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: REAC VES LEV
Point ID: UL6000
Plant Spec Point Desc: RVLIS LOWER RANGE AVERAGE
Generic/Cond Desc: Reactor Vessel Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 70
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Remote location in the Penetration Rooms
Alarm/Trip Set Points: High at 50 % Low at 0%

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: This is the lower range portion of the Rx Vessel level indication. The lower range provides indication of the reactor vessel level from the bottom of the vessel to the hot leg during natural circulation conditions. Average of 1-LM-68-368E and -371E.

ERDS point number 6. TEMP CORE EX UT1003 Highest Core Exit Temperature

Date: 12/02/91
Reactor Unit: SR1
Data feeder: 1
NRC ERDS Parameter: TEMP CORE EX
Point ID: UT1003
Plant Spec Point Desc: CORE EXIT TEMP MAX
Generic/Cond Desc: Highest Core Exit Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: TYPE K TC Table
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 59
How Processed: HIGHEST
Sensor Locations: Throughout core
Alarm/Trip Set Points: High at 700 DEGF Low at 0 DEGF

NID power cutoff level: N/A
NIE power cut-on level: L/A
Instrument Failure Mode: Eliminates open TC's
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: INCORE Thermocouples processed through "Exosensor" system. The system is divisionalized into 2 divisions. Total of 60 elements with one TC inoperable. The numeric is the higher of 1-XM-94-103-69 and 1-XM-94-103-75.

ERDS point number 7. SUB MARGIN UT1005 Saturation Temp. - Highest CET

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SUB MARGIN
Point ID: UT1005
Plant Spec Point Desc: MIN SUBCOOL
Generic/Cond Desc: Saturation Temp. - Highest CET

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: TYPE K TC Table
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Number: N/A

PROC or SENS: P
Number of Sensors: 59
How Processed: Highest
Sensor Locations: Throughout Core
Alarm/Trip Set Points: Low at 15 DEGF, High at 130 DEGF

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Eliminates open TC's
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: INCORE Thermocouples processed through "Exosensor" System.
The system is divisionalized into 2 divisions. Total of 60
TC with one TC inoperable.

ERDS point number 8. SG LEVEL 1/A UL1001 Steam Generator 1 Water Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SG LEVEL 1/A
Point ID: UL1001
Plant Spec point Desc: SG 1 NR LEVEL AVG
Generic/Cond Desc: Steam Generator 1 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PRJC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator #1 Water Level. Average of 1-LT-3-39 and -42

ERDS point number 9. SG LEVEL 2/B UL1002 Steam Generator 2 Water Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SG LEVEL 2/B
Point ID: UL1002
Plant Spec Point Desc: SG 2 NR LEVEL AVG
Generic/Cond Desc: Steam Generator 2 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator #2 Water Level. Average of 1-L1 3-52 and -55

ERDS point number 10. SG LEVEL 3/C UL1003 Steam Generator 3 Water Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SG LEVEL 3/C
Point ID: UL1003
Plant Spec Point Desc: SG 3 NR LEVEL AVG
Generic/Cond Desc: Steam Generator 3 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WBT

Unique System Desc: Steam Generator #3 Water Level. Average of 1-LT-3-94 and -97

ERDS point number 11. SG LEVEL 4/D UL1004 Steam Generator 4 Water Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: EG LEVEL 4/D
Point ID: UL1004
Plant Spec Point Desc: SG 4 NR LKVEL AVG
Generic/Cond Desc: Steam Generator 4 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Lev-1 Reference Leg: WET

Unique System Desc: Steam Generator #4 Water Level. Average of 1-LT-3-107 and -110.

ERDS point number 12. SG PRESS 1/A UP1002 Steam Generator 1 Pressure

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
N&C ERDS Parameter: SG PRESS 1/A
Point ID: UP1002
Plant Spec Point Desc: SG 1 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 1 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote Location in Penetration Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: Steam Generator #1 Pressure. Average of 1-PT-1-2A and 1-PT-1-2B.

ERDS point number 13. SG PRESS 2/B UP1003 Steam Generator 2 Pressure

Date: 12/02/91
Reactor Unit: SR1
Data feeder: 1
NRC ERDS Parameter: SG PRESS 2/B
Point ID: UP1003
Plant Spec Point Desc: SG 2 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 2 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote location in East Valve Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: Steam Generator #2 Pressure. Average of 1-PT-1-9A and 1-PT-1-9B.

ERDS point number 14. SG PRESS 3/C UP1004 Steam Generator 3 Pressure

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SG PRESS 3/C
Point ID: UP1004
Plant Spec Point Desc: SG 3 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 3 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote Location in East Valve Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: Steam Generator #3 Pressure. Average of 1-PT-1-20A and 1-PT-1-20B.

ERDS point number 15. SG PRESS 4/D UP1005 Steam Generator 4 Pressure

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SG PRESS 4/D
Point ID: UP1005
Plant Spec Point Desc: SG 4 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 4 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote location in Penetration Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: Steam Generator #4 Pressure. Average of 1-PT-1-27A and 1-PT-1-27B.

ERDS point number 16. MN FD FL 1/A UF1000 Stm Gen 1 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MN FD FL 1/A
Point ID: UF1000
Plant Spec Point Desc: SG 1 FW FLOW AVG
Generic/Cond Desc: Stm Gen 1 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KBH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 1, Aux. Bldg
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 1 Main Feedwater Flow. Average of 1-FT-3-35A and 1-FT-3-35B.

ERDS point number 17. MN FD FL 2/B UF1001 Stm Gen 2 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MN FD FL 2/B
Point ID: UF1001
Plant Spec Point Desc: SG 2 FW FLOW AVG
Generic/Cond Desc: Stm Gen 2 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KBH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 2, Aux. Bldg
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 2 Main Feedwater Flow. Average of 1-FT-3-48A and 1-FT-3-48B.

ERDS point number 18.

MN FD FL 3/C

UF1002

Stm Gen 3 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MN FD FL 3/C
Point ID: UF1002
Plant Spec Point Desc: SG 3 FW FLOW AVG
Generic/Cond Desc: Stm Gen 3 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KBH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SFNS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 3, Aux. Bld.
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 3 Main Feedwater Flow. Average of 1-FT-3-90A and 1-FT-3-90B.

ERDS point number 19. MN FD FL 4/D UF1003 Stm Gen 4 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MN FD FL 4/D
Point ID: UF1003
Plant Spec Point Desc: SG 4 FW FLOW AVG
Generic/Cond Desc: Stm Gen 4 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KBH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 4, Aux. Bldg
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 4 Main Feedwater Flow. Average of
1-FT-3-103A and 1-FT-3-103B.

ERDS point number 20. AX FW FL 1/A 1-FM3-163B Stm Gen 1 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: AX FW FL 1/A
Point ID: 1-FM3-163B
Plant Spec Point Desc: STM GEN 1 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 1 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1-5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Down Stream of MDAFW, TDAFW tie to S/G1
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPs share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPs and turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 21. AX FW FL 2/B 1-FM3-155B Stm Gen 2 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: AX FW FL 2/B
Point ID: 1-FM3-155B
Plant Spec Point Desc: STM GEN 2 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 2 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1-5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Downstream of MDAFW, TDAFW tie to S/G 2
Alarm/Trip Set Points: No alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPs share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPs and turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 22. AX FW FL 3/C 1-FM3-147B Stm Gen 3 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: AX FW FL 3/C
Point ID: 1-FM3-147B
Plant Spec Point Desc: STM GEN 3 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 3 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1-5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Downstream of MDAFW,TDAFW tie to S/G 3
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPs share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPs and turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 23. AX FW FL 4/D 1-FM3-170B Stm Gen 4 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SFI
Data feeder: 1
NRC ERDS Parameter: AX FW FL 4/D
Point ID: 1-FM3-170B
Plant Spec Point Desc: STM GEN 4 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 4 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1.5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Downstream of MDAFW, TDAFW tie to S/G 4
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-cn level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPs share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPs and Turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 24. HL TEMP 1/A 1-TM68-1B Stm Gen 1 Inlet Temperature

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: HL TEMP 1/A
Point ID: 1-TM68-1B
Plant Spec Point Desc: LP 1 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 1 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On Loop 1 RCS hot leg piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temperature is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temperature indication is also used to control RCS pressure and temperature within required limits.

ERL5 point number 25. HL TEMP 2/B 1-TM68-24B Stm Gen 2 Inlet Temperature

Date: 05/20/92
Reactor Unit: SE1
Data Feeder: 1
NRC ERDS Parameter: HL TEMP 2/B
Point ID: 1-TM68-24B
Plant Spec Point Desc: LP 2 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 2 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 2 RCS Hot Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temperature is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temperature indication is also used to control RCS pressure and temp. within required limits.

ERDS point number 26. HL TEMP 3/C 1-TM68-43B Stm Gen 3 Inlet Temperature

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: HL TEMP 3/C
Point ID: 1-TM68-43B
Plant Spec Point Desc: LP 3 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 3 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1.5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 3 RCS Hot Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temp. is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temperature indication is also used to control RCS pressure and temp. within required limits.

ERDS point number 27. HL TEMP 4/D 1-TM68-65B Stm Gen 4 Inlet Temperature

Date: 05/20/92
Reactor Unit: 2B1
Data feeder: 1
NRC ERDS Parameter: HL TEMP 4/D
Point ID: 1-TM68-65B
Plant Spec Point Desc: LP 4 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 4 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Note: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 4 RCS Hot Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temperature is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temp. indication is also used to control RCS pressure and temperature within required limits.

ERDS point number 28. CL TEMP 1/A 1-TE68-18 Stm Gen 1 Outlet Temperature

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: CL TEMP 1/A
Point ID: 1-TE58-18
Plant Spec Point Desc: LP 1 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 1 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 1 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS cold leg temperature is used in event recovery to maintain proper relationship between RCS pressure and temperature while cooling down, and providing information to manually control RCS temperature by controlling AFW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and verifying natural circulation.

ERDS point number 29. CL TEMP 2/B 1-TE68-41 Stm Gen 2 Outlet Temperature

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: CL TEMP 2/B
Point ID: 1-TE68-41
Plant Spec Point Desc: LP 2 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 2 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 2 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS cold leg temperature is used in event recovery to maintain proper relationship between RCS pressure and temperature while cooling down, and providing information to manually control RCS temperature by controlling AFW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and verify natural circulation.

ERDS point number 30. CL TEMP 3/C 1-TE68-60 Stm Gen 3 Outlet Temperature

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: CL TEMP 3/C
Point ID: 1-TE68-60
Plant Spec Point Desc: LP 3 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 3 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=C-700 DEGF
Minimum Instr Range: 0
Maximum Inst. Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 3 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS Cold Leg Temperature is used in event recovery to maintain proper relationship between RCS pressure and temperature while cooling down, and providing information to manually control RCS temperature by controlling AFW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and verifying natural circulation.

ERDS point number 31. CL TEMP 4/D 1-TE68-83 Stm Gen 4 Outlet Temperature

Date: 05/10/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS parameter: CL TEMP 4/D
Point ID: 1-TE68-83
Plant Spec Point Desc: LP 4 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 4 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 4 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS Cold Leg temperature is used in event recovery to maintain proper relationship between RCS pressure and temp. while cooling down, and providing information to manually control RCS temperature by controlling AFW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and verify natural circulation.

ERDS point number 32. RCS PRESSURE UP1000 Reactor Coolant System Pressure

Date: 05/21/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: RCS PRESSURE
Point ID: UP1000
Plant Spec Point Desc: RCS WIDE RNG PRESS AVG
Generic/Cond Desc: Reactor Coolant System Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: 1-5 VDC-0-2000 PSIG
Minimum Instr Range: 0
Maximum Instr Range: 3000
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: AVERAGE
Sensor Locations: RCS Hot Legs 1,3,4
Alarm/Trip Set Points: Low 1865 PSIG RxTrip, High 2390 PSIG RxTr

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS pressure determined by this point is the average of 3 signals which measure wide range hot leg pressures. (1-PT-68-62, -66, and -68) RCS pressure indication is utilized by the operators to identify events for SI actuation and termination, starting and stopping RHR pumps, and controlling cooldown to prevent PTS. The alarm trip setpoints are actuated by pressurized pressure transmitters at the given setpoints.

ERDS point number 33. PRZR LEVEL UL1005 Primary System Pressurizer Level

Date: 05/21/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: PRZR LEVEL
Point ID: UL1005
Plant Spec Point Desc: PRZR LEV AVG
Generic/Cond Desc: Primary System Pressurizer Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: Average
Sensor Locations: TAPs from Pressurizer
Alarm/Trip Set Points: High at 92% Rx Trip

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: The pressurizer level is an averaged signal from 3 level transmitters. (1-LT-68-320, -335, -339) Pressurized level indication is used for manual action throughout the emergency procedures such as: SI initiation and termination, isolation of letdown and charging, and identify a LOCA. The level is measured through use of sealed bellows on the reference leg.

ERDS point number 34. RCS CHG/MU UF1016 Primary System Charging / Makeup

Date: 05/21/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: RCS CHG/MU
Point ID: UF1016
Plant Spec Point Desc: NET CHG FLO
Generic/Cond Desc: Primary System Charging / Makeup

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: N/A
Minimum Instr Range: -200
Maximum Instr Range: 176
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 6
How Processed: Subtraction
Sensor Locations: COP Pmp, RCP Seal/Leakoff, RCS Letdown
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Multiple due to number of sensors
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The net charging flow is calculated by subtracting RCP seal return, and CVCS letdown flow from the discharge flow of the charging pump. The design charging flow is between 55 and 100 GPM during normal operation.

ERDS point number 35. HP SI FLOW UF1010 High Pressure Safety Inj. Flow

Date: 05/21/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: HP SI FLOW
Point ID: UF1010
Plant Spec Point Desc: SI FLOW TOTAL
Generic/Cond Desc: High Pressure Safety Inj. Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1600
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sum
Sensor Locations: Discharge of Safety Injection Pumps
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The total flow is measured by adding the discharge flow rates from two Safety Injection Pumps. The total accident flow rates for cold leg injection or recirculation and hot leg recirculation can be monitored by this point. Safety Injection Pumps on miniflow will not show flow since miniflow path is upstream of flow element. The design flow rate is 425 GPM @ 2500 ft of head for each SI Pump.
(Sum of 1-FT-63-20 and -151)

ERDS point number 36. LP SI FLOW UF1011 Low Pressure Safety Inj. Flow

Date: 05/31/93
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: LP SI FLOW
Point ID: UF1011
Plant Spec Point Desc: RHR COLD LEG TOTAL FLOW
Generic/Cond Desc: Low Pressure Safety Inj. Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 11000
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 4
How Processed: Average
Sensor Locations: RHR Cold Legs 2,3, and 1,4 Piping
Alarm/Trip Set Points: None

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The RHR Cold Leg Flow Rate value is calculated by summing the average flow from cold legs 2 and 3 with the average flow from cold legs 1 and 4. The design flow rate for a RHR pump is 3000 GPM at 375 feet of head. Flow sensors include 1-FT-63-91A and -91B, 1-FT-63-92A and -92B.

ERDS point number 37. CNTMT SMP WR UL1011 Containment Sump Wide Rng Lvl

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: CNTMT SMP WR
Point ID: UL1011
Plant Spec Point Desc: CNTMT SUMP LEV AVG
Generic/Cond Desc: Containment Sump Wide Rng Lvl

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: 1% = 2.4 inches of water
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: CNTFLR
Reference Point Notes: The containment floor is elevation 680

PROC or SENS: P
Number of Sensors: 4
How Processed: Average, Redundant Sensor Algorithm
Sensor Locations: Containment Sump
Alarm/Trip Set Points: 11% Containment Sump Swapover

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Des : The containment average sump level is calculated by a redundant sensor algorithm using four sump level transmitters. The containment sump level indicates loss of coolant in the containment and determines if sufficient volume of water for recirculation mode. The transfer from RWST to containment sump setpoint is 11%, which is approximately 2.5 feet above containment floor elevation. (averages 1-LT-63-176, -177, -178, and -179)

ERDS point number 38. EFF GAS RAD 1-RM90-400 Release Rt of Radioactive Gases

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: EFF GAS RAD
Point ID: 1-RM90-400
Plant Spec Point Desc: Unit 1 Shield Bldg Release Rate
Generic/Cond Desc: Release Rt of Radioactive Gases

Analog/Digital: A
Eng. Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: 10E-2 uCi/sec
Maximum Instr Range: 10E10 uCi/sec
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sampled Totalized times flow rate
Sensor Locations: Auxiliary Bldg
Alarm/Trip Set Points: 31,000 uCi/sec

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Unit 1 shield Bldg Exhaust. To obtain true release rate,
Unit 2 monitor must also be checked. Flow path for Unit 1
can be either the Unit 1 or the Unit 2 stack.

ERDS point number 39. EPF GAS RAD 2-RM90-400 Release Rt. of Radioactive Gases

Date: 12/22/91
Reactor Unit: FES
Data feeder: 1
NRC ERDS Parameter: EPF GAS RAD
Point ID: 2-RM90-400
Plant Spec Point Desc: Unit 2 Shield Bldg Release Rate
Generic/Cond Desc: Release Rt. of Radioactive Gases

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: 10E-2 uCi/sec
Maximum Instr Range: 10E10 uCi/sec
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: Sampled Totalized times flow rate
Sensor Locations: Auxiliary Bldg
Alarm/Trip Set Points: 31,000 uCi/sec

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Unit 2 shield bldg exhaust. To obtain true release rate,
Unit 1 monitor must also be checked. Flow path for Unit 1
can be either the Unit 1 or the Unit 2 stack.

ERDS point number 40. EFF LIQ RAD 0-RE90-122 Radioactivity of Released Liquid

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: EFF LIQ RAD
Point ID: 0-RE90-122
Plant Spec Point Desc: WDS Liquid Effluent
Generic/Cond Desc: Radioactivity of Released Liquid

Analog/Digital: A
Engr Units/Dig States: CPM
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 CPM
Maximum Instr Range: 10E7 CPM
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sum
Sensor Locations: Auxiliary Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Waste Disposal System Liquid Effluent
This computer point is in counts per minute.

ERDS point number 41. COND A/E RAD UR1006 Cond Air Ejector Radioactivity

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: COND A/E RAD
Point ID: UR1006
Plant Spec Point Desc: Low Range COND VAC PUMP AIR EXH RAD MON
Generic/Cond Desc: Cond Air Ejector Radioactivity

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Cond Flow * Dose
Sensor Locations: Turbine Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low coil loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Condenser Air Ejector Noble Gas Monitor
This is one of three computer points needed to cover full range. This point uses inputs from 1-FT2-256 and 1-RE90-119 to compute dose rates.

ERDS point number 42. COND A/E RAD UR1007 Cond Air Ejector Radioactivity

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: COND A/E RAD
Point ID: UR1007
Plant Spec Point Desc: Mid Rng COND VAC PUMP AIR EXH RAD MON
Geueric/Cond Desc: Cond Air Ejector Radioactivity

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: COND FLOW * DOSE
Sensor Locations: Turbine Bldg.
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Condenser Air Ejector Noble Gas Monitor
This is one of three computer points needed to cover full
range. This point uses inputs from 1-PT2-256 & 1-RE90-99
to compute dose rates.

ERDS point number 43. COND A/E RAD UR1008 Cond Air Ejector Radioactivity

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: COND A/E RAD
Point ID: UR1008
Plant Spec Point Desc: High Rng COND VAC PUMP AIR EXH RAD MON
Generic/Cond Desc: Cond Air Ejector Radioactivity

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: COND FLOW * DOSE
Sensor Locations: Turbine Blg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Condenser Air Ejector Noble Gas Monitor
This is one of three computer points needed to cover full range. This point uses inputs from 1-FT2-256 & 1-RE90-404B to compute dose rates.

ERDS point number 44. CNFMNT RAD UR6021 Containment Radiation Level

Date: 12/02/91
Reactor Unit: SR1
Data feeder: 1
NRC ERDS Parameter: CNFMNT RAD
Point ID: UR6021
Plant Spec Point Desc: UPPER CONTAINMENT RADIATION
Generic/Cond Desc: Containment Radiation Level

Analog/Digital: A
Engr Units/Dig States: R/hour
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 R/hour
Maximum Instr Range: 10E8 R/hour
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Upper Containment
Alarm/Trip Set Points: 100 R/hour

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Upper Containment High Range Area Monitors
Inputs are 1-RE90-271 & 1-RE90-272.

ERDS point number 45. CNTMNT RAD UR6022 Lower Containment Radiation Lvl

Date: 12/02/91
Reactor Unit: SS1
Data feeder: 1
NRC ERDS Parameter: CNTMNT RAD
Point ID: UR6022
Plant Spec Point Desc: LOWER CONTAINMENT RADIATION
Generic/Cond Desc: Lower Containment Radiation Lvl

Analog/Digital: A
Engr Units/Dig States: R/hour
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 R/hour
Maximum Instr Range: 10E8 R/hour
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Lower Containment
Alarm/Trip Set Points: 100 R/hour

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Lower Containment High Range Area Monitor
Inputs are 1-RE90-273 and 1-RE90-274.

ERDS point number 46. MAIN SL 1/A UR1001 Stm Gen 1 Steam Line Rad Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MAIN SL 1/A
Point ID: UR1001
Plant Spec Point Desc: MN STEAM LINE 1 RAD LEV
Generic/Cond Desc: Stm Gen 1 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam Line prior to ATM reliefs
Alarm/Trip Set Points: $8.5 * 10E-3$

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #1 Radioactivity Monitor
This value is calculated as the product of main steam line release rate, steam radioactivity, specific vol. of steam, and a conversion constant. The PORV's for each steam generator are monitored. If a PORV is 'NOT CLOSED', this vlv is assumed to contribute 890000 lb/hr flow to atmosphere. There are 5 code safety valves for each S/G. The main steam line header pressure is monitored to determine condition of each valve. Each open valve contributes 890000 lb/hr to flow rate. (Rad Mon 1-RM-90-421)

ERDS point number 47. MAIN SL 2/B UR1002 Stm Gen 2 Steam Line Rad Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MAIN SL 2/B
Point ID: UR1002
Plant Spec Point Desc: MN STEAM LINE 2 RAD LEV
Generic/Cond Desc: Stm Gen 2 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCI/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam Line prior to ATM reliefs
Alarm/Trip Set Points: 8.5*10E-3

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #2 Radioactivity Monitor. This value is calculated as product of main steam line release rate, steam radioactivity, specific vol. of steam, and a conversion constant. PORV's for each steam generator are monitored. If PORV is 'NOT CLOSED', valve is assumed to contribute 890000 lb/hr flow to atmosphere. 5 code safety valves for each S/G. Main steam line header pressure is monitored to determine condition of valves. Each open valve is assumed to contribute an additional 890000 lb/hr to flow rate. (rad Mon 1-RM-90-422)

ERDS point number 48. MAIN SL 3/C UR1003 Str Gen 3 Steam Line Rad Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MAIN SL 3/C
Point ID: UR1003
Plant Spec Point Desc: MN STEAM LINE 3 RAD LEV
Generic/Cond Desc: Str Gen 3 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam line prior to ATM reliefs
Alarm/Trip Set Points: $8.5 * 10E-3$

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #3 Radioactivity Monitor. Value calculated as product of main steam line release rate, steam radioactivity, specific vol. of steam, and conversion constant. PORV's for each steam generator are monitored. If a PORV is 'NOT CLOSED', valve assumed to contribute 890000 lb/hr flow to atmosphere. 5 code safety valves exist for each S/G. The main steam line header pressure is monitored to determine condition of valves. Each open valve is assumed to contribute an additional 890000 lb/hr to the flow rate.
Rad Mon 1-RM-90-423

ERDS point number 49. MAIN SL 4/D UR1004 Stm Gen 4 Steam Line Rad Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: MAIN SL 4/D
Point ID: UR1004
Plant Spec Point Desc: MN STEAM LINE 4 RAD LEV
Generic/Cond Desc: Stm Gen 4 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCI/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam Line prior to ATM reliefs
Alarm/Trip Set Points: 8.5 * 10E-3

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #4 Radioactivity Monitor. Value calculated as product of main steam line release rate, steam radioactivity, specific vol. of steam, and conversion constant. PORV's for each steam generator are monitored. If a PORV 'NOT CLOSED', valve assumed to contribute 890000 lb/hr flow to atmosphere. 5 code safety valves exist for each S/G. Main steam line header pressure is monitored to determine condition of valves. Each open valve assumed to contribute an additional 890000 lb/hr to flow rate. Rad Mon 1-RM-90-424

ERDS point number 50. SG BD RAD 1A 1-RE90-120 Stm Gen Header Blowdown Rad Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SG BD RAD 1A
Point ID: 1-RE90-120
Plant Spec Point Desc: Steam Generator Blowdown Liquid Monitor
Generic/Cond Desc: Stm Gen Header Blowdown Rad Level

Analog/Digital: A
Engr Units/Dig States: CPM
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 CPM
Maximum Instr Range: 10E7 CPM
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sum
Sensor Locations: Turbine Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low in loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Steam Generator Blowdown Header Liquid Monitor.
This is one of two monitors, one of which is valved out.
The monitor is for the header and not individual loops.

ERDS point number 51. SG BD RAD 2B 1-RE90-121 Stm Gen Header Blowdown Rad Lev1

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: SG BD RAD 2B
Point ID: 1-RE90-121
Plant Spec Point Desc: Steam Generator Blowdown Liquid Monitor
Generic/Cond Desc: Stm Gen Header Blowdown Rad Lev1

Analog/Digital: A
Engr Units/Dig States: CPM
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 CPM
Maximum Instr Range: 10E7 CPM
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sum
Sensor Locations: Turbine Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Steam Generator Blowdown Header Liquid Monitor
This is one of two monitors, one of which is valved out.
The monitor is for the header and not individual loops.

ERDS point number 52. CTMNT PRESS UP6000 Containment Pressure

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: CTMNT PRESS
Point ID: UP6000
Plant Spec Point Desc: CNTMT PRESSURE AVERAGE
Generic/Cond Desc: Containment Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: -1
Maximum Instr Range: 15
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Avg
Sensor Locations: Annulus
Alarm/Trip Set Points: High - 2.81 PSIG High-High 12.0

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Containment Pressure. This is actually a differential
between containment and the annulus. Average of 1-PDT-30-44
and -45.

ERDS point number 53. CTMNT TEMP UT1004 Containment Temperature

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: CTMNT TEMP
Point ID: UT1004
Plant Spec Point Desc: CONTAINMENT TEMP MAX DEV
Generic/Cond Desc: Containment Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 4
How Processed: Maximum Value
Sensor Locations: TE-212A, TE212B, TE212C & TE212D
Alarm/Trip Set Points: Low at 60 DEGF, High at 130 DEGF

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Fail Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Maximum Containment Air Temperature. The temperature element is inside the Polar Crane Wall at intake for lower compartment cooler. The value displayed is the maximum of 1-TE-30-212A, -212B, -212C, or -212D.

ERDS point number 54. H2 CONC UY1005 Containment H2 Concentration

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: H2 CONC
Point ID: UY1005
Plant Spnc Point Desc: H2 CONC AVG
Generic/Cond Desc: Containment H2 Concentration

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 10
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Avg
Sensor Locations: Sample line from both uppr & lowr cntmnt
Alarm/Trip Set Points: High at 10 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Downscale on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Samples H2 gas concentration in containment. Average of
1-H2AN43-200 and 1-H2AN43-210.

ERDS point number 55. BWST LEVEL UL1000 Refueling Water Storage Tank Lev

Date: 05/20/92
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: BWST LEVEL
Pc nt ID: UL1000
Plant Spec Point Desc: RWST LEVEL
Generic/Cond Desc: Refueling Water Storage Tank Lev

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: 1% is 3500 Gals
Minimum Instr Range: 0
Maximum Instr Range: 100.0
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average, Redundant Sensor Algorithm
Sensor Locations: RWST taps 25,000 Gals in tnk below buttn
Alarm/Trip Set Points: Low level 27.4%

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The RWST average level is calculated by a redundant sensor algorithm from the 2 RWST level transmitters. The RWST provides a source of borated water for the charging, safety injection and RHR pumps for safety injection mode of accident recovery. The low level setpoint is 27.4% of span which is 106 inches above the lower tap of the RWST. The low level causes transfer to containment sump recirculation mode of accident recovery. The RWST tank capacity is 379,000 Gals. There is one per unit. Average of 1-LT-63-50 and -51.

ERDS point number 56. WIND SPEED MET001 Wind Speed - Upper Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET001
Plant Spec Point Desc: 91M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Upper Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 91 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 57. WIND SPEED MET002 Wind Speed - Intermediate Level

Date: 12/02/91
Reactor Unit: 3E1
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET002
Plant Spec Point Desc: 46M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Intermediate Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 46 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 58. WIND SPEED MET003 Wind Speed - Lower Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET003
Plant Spec Point Desc: 10M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Lower Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 10 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 59.

WIND DIR

MET004

Wind Direction - Upper Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET004
Plant Spec Point Desc: 91M VECTOR WIND DIR (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Upper Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 91 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

FRDS point number 60. WIND DIR MET005 Wind Direction - Intermed. Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET005
Plant Spec Point Desc: 46M VECTOR WIND DIR (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Intermed. Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 46 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 61. WIND DIR MET006 Wind Direction - Lower Level

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET006
Plant Spec Point Desc: 10M VECTOR WIND DIR (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Lower Level

Analog/Digital: A
Engr Unit: Dig States: DEG
Engr Unit Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 10 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 62. STAB CLASS MET007 Air Stability Upper

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Parameter: STAB CLASS
Point ID: MET007
Plant Spec Point Desc: Stability Class Upper
Generic/Cond Desc: Air Stability Upper

Analog/Digital:
Engr Units/Dig States: STABA
Engr Units Conversion:
Minimum Instr Range:
Maximum Instr Range:
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed:
Sensor Locations:
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc: Differential Temperature Upper-Lower (deg C)

Difference	Stability Class	Point Value
> -1.9	A	1
-1.9	B	2
-1.7	C	3
-1.5	D	4
-0.5	E	5
1.5	F	6
4.0	G	7

ERDS point number 63. STAB CLASS MET008 Air Stability

Date: 12/02/91
Reactor Unit: SE1
Data feeder: 1
NRC ERDS Pa ameter: STAB CLASS
Point ID: MET008
Plant Spec Point Desc: Stability Class Intermediate
Generic/Cond Desc: Air Stability

Analog/Digital:
Engr Units/Dig States: STABA
Engr Units Conversion:
Minimum Instr Range:
Maximum Instr Range:
Zero Point Referen~: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed:
Sensor Locations:
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc: Differential Temperature Upper-Intermediate (deg C)

>	<=	Stability Class	Point Value
	-1.9	A	1
-1.9	-1.7	B	2
-1.7	-1.5	C	3
-1.5	-0.5	D	4
-0.5	1.5	E	5
1.5	4.0	F	6
4.0		G	7

ERDS point number 64. STAB CLASS ME1009 Air Stability

Date: 12/02/91
 Reactor Unit: SE1
 Data feeder: 1
 NRC ERDS Parameter: STAB CLASS
 Point ID: MET009
 Plant Spec Point Desc: Stability Class Lower
 Generic/Cond Desc: Air Stability

Analog/Digital:
 Engr Units/Dig States: STABA
 Engr Units Conversion:
 Minimum Instr Range:
 Maximum Instr Range:
 Zero Point Reference: N/A
 Reference Point Notes: N/A

PROC or SENS: P
 Number of Sensors: 2
 How Processed:
 Sensor Locations:
 Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
 NID power cut-on level: N/A
 Instrument Failure Mode: LOW
 Temperature Compensation:
 Level Reference Leg: N/A

Unique System Desc: Differential Temperature Intermediate-Lower (deg C)

>	<=	Stability Class	Point Value
	-1.9	A	1
-1.9	-1.7	B	2
-1.7	-1.5	C	3
-1.5	-0.5	D	4
-0.5	1.5	E	5
1.5	4.0	F	6
4.0		G	7

SEQUOYAH UNIT 2 - ERDS DATA POINT LIBRARY

	SIMULATION	INDICATES REAL OR SIMULATED DATA
1.		
2.	NI POWER RNG UN2000	POWER RNG AVG
3.	NI INTER RNG UN1015	INTER RNG FLUX (LOG)
4.	NI SOURC RNG UN1014	Source Range Flux (Log)
5.	RETC VES LEV UL6000	KVLIS LOWER RANGE AVERAGE
6.	TEMP CORE EX UT1003	CORE EXIT TEMP MAX
7.	SUB MARGIN UT1005	MIN SUBCOOL
8.	SG LEVEL 1/A UL1001	SG 1 NR LEVEL AVG
9.	SG LEVEL 2/B UL1002	SG 2 NR LEVEL AVG
10.	SG LEVEL 3/C UL1003	SG 3 NR LEVEL AVG
11.	SG LEVEL 4/D UL1004	SG 4 NR LEVEL AVG
12.	SG PRESS 1/A UP1002	SG 1 MS PRESSURE AVG
13.	SG PRESS 2/B UP1003	SG 2 MS PRESSURE AVG
14.	SG PRESS 3/C UP1004	SG 3 MS PRESSURE AVG
15.	SG PRESS 4/D UP1005	SG 4 MS PRESSURE AVG
16.	MN FD FL 1/A UF1000	SG 1 FW FLOW AVG
17.	MN FD FL 2/B UF1001	SG 2 FW FLOW AVG
18.	MN FD FL 3/C UF1002	SG 3 FW FLOW AVG
19.	MN FD FL 4/D UF1003	SG 4 FW FLOW AVG
20.	AX FW FL 1/A 2-FM3-163B	STM GEN 1 APW INLET FLOW
21.	AX FW FL 2/B 2-FM3-155B	STM GEN 2 APW INLET FLOW
22.	AX FW FL 3/C 2-FM3-147B	STM GEN 3 APW INLET FLOW
23.	AX FW FL 4/D 2-FM3-170B	STM GEN 4 APW INLET FLOW
24.	HL TEMP 1/A 2-TM68-1B	LP 1 HL WID RNG TEMP
25.	HL TEMP 2/B 2-TM68-24B	LP 2 HL WID RNG TEMP
26.	HL TEMP 3/C 2-TM68-43B	LP 3 HL WID RNG TEMP
27.	HL TEMP 4/D 2-TM68-65B	LP 4 HL WID RNG TEMP
28.	CL TEMP 1/A 2-TE68-18	LP 1 CL WID RNG TEMP
29.	CL TEMP 2/B 2-TE68-41	LP 2 CL WID RNG TEMP
30.	CL TEMP 3/C 2-TE68-60	LP 3 CL WID RNG TEMP
31.	CL TEMP 4/D 2-TE68-83	LP 4 CL WID RNG TEMP
32.	RCS PRESSURE UP1000	RCS WIDE RNG PRESS AVG
33.	PRZR LEVEL UL1005	PRZR LEV AVG
34.	RCS CHG/MU UF1016	NET CHG FLO
35.	HP SI FLOW UF1010	SI FLOW TOTAL
36.	LP SI FLOW UF1011	RHR COLD LEG TOTAL FLOW
37.	CNTMT SMP WR UL1011	CNTMT SUMP LEV AVG
38.	EFF GAS RAD 1-RM90-400	Unit 1 Shield Bldg Release Rate
39.	EFF GAS RAD 2-RM90-400	Unit 2 Shield Bldg Release Rate
40.	EFF LIQ RAD 0-RE90-122	WDS Liquid Effluent
41.	COND A/E RAD UR1006	Low Range COND VAC PUMP AIR EXH RAD MON
42.	COND A/E RAD UR1007	Mid Rng COND VAC PUMP AIR EXH RAD MON
43.	COND A/E RAD UR1008	High Rng COND VAC PUMP AIR EXH RAD MON
44.	CNTMNT RAD UR6021	UPPER CONTAINMENT RADIATION
45.	CNTMNT RAD UR6022	LOWER CONTAINMENT RADIATION
46.	MAIN SL 1/A UR1001	MN STEAM LINE 1 RAD LEV
47.	MAIN SL 2/B UR1002	MN STEAM LINE 2 RAD LEV
48.	MAIN SL 3/C UR1003	MN STEAM LINE 3 RAD LEV
49.	MAIN SL 4/D UR1004	MN STEAM LINE 4 RAD LEV
50.	SG BD RAD 1A 2-RE90-120	Steam Generator Blowdown Liquid Monitor
51.	SG BD RAD 2B 2-RE90-121	Steam Generator Blowdown Liquid Monitor
52.	CTMNT PRESS UP6000	CNTMT PRESSURE AVERAGE
53.	CTMNT TEMP UT1004	CONTAINMENT TEMP MAX DEV
54.	H2 CONC UY1005	H2 CONC AVG
55.	BWST LEVEL UL1000	RWST LEVEL
56.	WIND SPEED MET001	91M VECTOR WIND SPEED (15 MIN AVG)

57.	WIND SPEED	MET002	46M VECTOR WIND SPEED (15 MIN AVG)
58.	WIND SPEED	MET003	10M VECTOR WIND SPEED (15 MIN AVG)
59.	WIND DIR	MET004	91M VECTOR WIND DIR (15 MIN AVG)
60.	WIND DIR	MET005	46M VECTOR WIND DIR (15 MIN AVG)
61.	WIND DIR	MET006	10M VECTOR WIND DIR (15 MIN AVG)
62.	STAB CLASS	MET007	Stability Class Upper
63.	STAB CLASS	MET008	Stability Class Intermediate
64.	STAB CLASS	MET009	Stability Class Lower

ERDS point number 1.

SIMULATION

REAL/SIMULATED DATA

Date: 06/09/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter:
Point ID: SIMULATION
Plant Spec Point Desc: INDICATES REAL OR SIMULATED DATA
Generic/Cond Desc: REAL/SIMULATED DATA

Analog/Digital: D
Engr Units/Dig States: REAL/SIMU
Engr Units Conversion: N/A
Minimum Instr Range: N/A
Maximum Instr Range: N/A
Zero Point Reference: N/A
Reference Point Notes: N/A

PRXC or SENS: P
Number of Sensors: 0
How Processed: 0 IF REAL, 1 IF SIMULATED
Sensor Locations: N/A
Alarm/Trip Set Points: N/A

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: N/A
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: THIS POINT IS USED TO INDICATE WHETHER THE DATA IS COMING FROM THE UNIT OR FROM THE SIMULATOR

ERDS point number 2. NI POWER RNG UN2000 Reactor Power

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: NI POWER RNG
Point ID: UN2000
Plant Spec Point Desc: POWER RNG AVG
Generic/Cond Desc: Reactor Power

Analog/Digital: A
Engr Units/Dig States: 4
Engr Units Conversion: 0-10V = 0-120% Power (Linear)
Minimum Instr Range: 0
Maximum Instr Range: 120
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 8
How Processed: AVG
Sensor Locations: Upper & Lower excore detectors
Alarm/Trip Set Points: Rod Stop=103% Overpwr Reactor Trip=105%

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Probable Downscale (No forcing functio.)
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: From TSC Upper & Lower detection inputs for
2-NE92-41,42,43,44.

ERDS point number 3. NI INTER RNG UN1015 Reactor Power - Intermediate Rng

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: NI INTER RNG
Point ID: UN1015
Plant Spec Point Desc: INTER RNG FLUX (LOG)
Generic/Cond Desc: Reactor Power - Intermediate Rng

Analog/Digital: A
Engr Units/Dig States: LOGPC
Engr Units Conversion: $OUTPUT(V) = [LCJ(\%Power)]+8$
Minimum Instr Range: -8
Maximum Instr Range: 2.301
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVG
Sensor Locations: AZ 0 deg & 180 deg Excore
Alarm/Trip Set Points: Rod Stop - 20% , Reactor Trip - 25% Pwr

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Probable Downscale (no forcing function)
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Avg of XI-92-5003(channel N35) and 5004 (channel N36)

ERDS point number 4. NI SOURC RNG UN1014 Reactor Power - Source Range

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: NI SOURC RNG
Point ID: UN1014
Plant Spec Point Desc: Source Range Flux (Log)
Generic/Cond Desc: Reactor Power - Source Range

Analog/Digital: A
Engr Units/Dig States: CPS
Engr Units Conversion: $OUTPUT(V) = [Log(CPS)] * 1.667$
Minimum Instr Range: 10E0
Maximum Instr Range: 10E6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 4
How Processed: Avg.
Sensor Locations: AZ 0 deg. & 180 deg. Excore
Alarm/Trip Set Points: Reactor Trip - 10E5 CPS

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Probable Downscale (No forcing function)
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Avg of XI-92-5001(channel N31) & 5002 (channel N32) Detectors
(2 chambers/detector)

ERDS point number 5. REAC VES LEV UL6000 Reactor Vessel Water Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: REAC VES LEV
Point ID: UL6000
Plant Spec Point Desc: RVLIS LOWER RANGE AVERAGE
Generic/Cond Desc: Reactor Vessel Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 70
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
Hc# Processed: Average
Sensor Locations: Remote location in the Penetration Rooms
Alarm/Trip Set Points: High at 50 % Low at 0%

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: This is the lower range portion of the Rx Vessel level indication. The lower range provides indication of the reactor vessel level from the bottom of the vessel to the hot leg during natural circulation conditions. Average of 2-LM-68-368E and -371E.

ERDS point number 6. TEMP CORE EX UT1003 Highest Core Exit Temperature

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: TEMP CORE EX
Point ID: UT1003
Plant Spec Point Desc: CORE EXIT TEMP MAX
Generic/Cond Desc: Highest Core Exit Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: TYPE K TC Table
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 59
How Processed: HIGHEST
Sensor Locations: Throughout core
Alarm/Trip Set Points: High at 700 DEGF Low at 0 DEGF

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Eliminates open TC's
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: INCORE Thermocouples processed through "Exosensor" system. The system is divisionalized into 2 divisions. Total of 60 elements with one TC inoperable. The numeric is the higher of 2-XM-94-103-69 and 2-XM-94-103-75.

ERDS point number 7. SUB MARGIN UT1005 Saturation Temp. - Highest CET

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SUB MARGIN
Point ID: UT1005
Plant Spec Point Desc: MIN SUBCOOL
Generic/Cond Desc: Saturation Temp. - Highest CET

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: TYPE K TC Table
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 59
How Processed: Highest
Sensor Locations: Throughout Core
Alarm/Trip Set Points: Low at 15 DEGF, High at 130 DEGF

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Eliminates open TC's
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: INCORE Thermocouples processed through "Exosensor" System.
The system is divisionalized into 2 divisions. Total of 60
TC with one TC inoperable.

ERDS point number 8. SG LEVEL 1/A UL1001 Steam Generator 1 Water Level

Date: 17/02/91
Reactor Unit: S12
Data feeder: 1
NRC ERDS Parameter: SG LEVEL 1/A
Point ID: UL1001
Plant Spec Point Desc: SG 1 NR LEVEL AVG
Generic/Cond Desc: Steam Generator 1 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator #1 Water Level. Average of 1-LT-3-39 and -42

ERDS point number 9. SG LEVEL 2/B UL1002 Steam Generator 2 Water Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG LEVEL 2/B
Point ID: UL1002
Plant Spec Point Desc: SG 2 NR LEVEL AVG
Generic/Cond Desc: Steam Generator 2 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator #2 Water Level. Average of 2-LT-3-52 and -55

ERDS point number 10. SG LEVEL 3/C UL1003 Steam Generator 3 Water Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG LEVEL 3/C
Point ID: UL1003
Plant Spec Point Desc: SG 3 NR LEVEL AVG
Generic/Cond Desc: Steam Generator 3 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator #3 Water Level. Average of 2-LT-3-94 and -97

ERDS point number 11. SG LEVEL 4/D UL1004 Steam Generator 4 Water Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG LEVEL 4/D
Point ID: UL1004
Plant Spec Point Desc: SG 4 NR LEVEL AVG
Generic/Cond Desc: Steam Generator 4 Water Level

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote locat outside of Polar Crane Wall
Alarm/Trip Set Points: Low at 25 %, High at 70 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator #4 Water Level. Average of 2-LT-3-107 and -110.

ERDS point number 12. SG PRESS 1/A UP1002 Steam Generator 1 Pressure

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG PRESS 1/A
Point ID: UP1002
Plant Spec Point Desc: SG 1 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 1 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote Location in Penetration Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: Steam Generator #1 Pressure. Average of 2-PT-1-2A and 2-PT-1-2B.

ERDS point number 13. SG PRESS 2/B UP1003 Steam Generator 2 Pressure

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG PRESS 2/B
Point ID: UP1003
Plant Spec Point Desc: SG 2 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 2 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote location in East Valve Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: Steam Generator #2 Pressure. Average of 2-PT-1-9A and 2-PT-1-9B.

ERDS point number 14. SG PRESS 3/C UP1004 Steam Generator 3 Pressure

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG PRESS 3/C
Point ID: UP1004
Plant Spec Point Desc: SG 3 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 3 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote Location in East Valve Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: Steam Generator #3 Pressure. Average of 2-PT-1-20A and 2-PT-1-20B.

ERDS point number 15. SG PRESS 4/D UP1005 Steam Generator 4 Pressure

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG PRESS 4/D
Point ID: UP1005
Plant Spec Point Desc: SG 4 MS PRESSURE AVG
Generic/Cond Desc: Steam Generator 4 Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Remote location in Penetration Room
Alarm/Trip Set Points: Low at 600 PSIG, High at 1200 PSIG

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: WRT

Unique System Desc: Steam Generator #4 Pressure. Average of 2-PT-1-27A and 2-PT-1-27B.

ERDS point number 16. MN FD FL 1/A UF1000 Stm Gen 1 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: MN FD FL 1/A
Point ID: UF1000
Point Spec Point Desc: SG 1 FW FLOW AVG
Generic/Cond Desc: Stm Gen 1 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KBH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 1, Aux. Bldg
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 1 Main Feedwater Flow. Average of 2-PT-3-35A and 2-PT-3-35B.

ERDS point number 17. MN FD FL 2/B UF1001 Stm Gen 2 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: MN FD FL 2/B
Point ID: UF1001
Plant Spec Point Desc: SG 2 FW FLOW AVG
Generic/Cond Desc: Stm Gen 2 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KBH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 2, Aux. Bldg
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 2 Main Feedwater Flow. Average of 2-FT-3-48A and 2-FT-3-48B.

ERDS point number 18. MN FD FL 3/C UF1002 Stm Gen 3 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: MN FD FL 3/C
Point ID: UF1002
Plant Spec Point Desc: SG 3 FW FLOW AVG
Generic/Cond Desc: Stm Gen 3 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KEH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 3, Aux. Bldg
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 3 Main Feedwater Flow. Average of 2-FT-3-90A and 2-FT-3-90B.

ERDS point number 19. MN FD FL 4/D UF1003 Stm Gen 4 Main Feedwater Flow

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: MN FD FL 4/D
Point ID: UF1003
Plant Spec Point Desc: SG 4 FW FLOW AVG
Generic/Cond Desc: Stm Gen 4 Main Feedwater Flow

Analog/Digital: A
Engr Units/Dig States: KBH
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 4500
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: AVERAGE
Sensor Locations: Stm Gen FW Line 4, Aux. Bldg
Alarm/Trip Set Points: High at 4500 KBH Low at 0 KBH

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: Y
Level Reference Leg: WET

Unique System Desc: Steam Generator 4 Main Feedwater Flow. Average of
2-FT-3-103A and 2-FT-3-103B.

ERDS point number 20. AX FW FL 1/A 2-FM3-163B Stm Gen 1 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: AX FW FL 1/A
Point ID: 2-FM3-163B
Plant Spec Point Desc: STM GEN 1 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 1 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1-5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Down Stream of MDAFW, TDAFW tie to S/G1
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPS share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPS and turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 21. AX FW FL 2/B 2-FM3-155B Stm Gen 2 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: AX FW FL 2/B
Point ID: 2-FM3-155B
Plant Spec Point Desc: STM GEN 2 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 2 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1-5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Location: Downstream of MDAFW, TDAFW tie to S/G 2
Alarm/Trip Set Points: No alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPS share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPS and turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 22. AX FW FL 3/C 2-FM3-147B Stm Gen 3 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: AX FW FL 3/C
Point ID: 2-FM3-147B
Plant Spec Point Desc: STM GEN 3 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 3 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1-5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Downstream of MDAFW, TDAFW tie to S/G 3
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPS share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPS and turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 23. AX FW FL 4/D 2-FM3-170B Stm Gen 4 Auxiliary FW Flow

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: AX FW FL 4/D
Point ID: 2-FM3-170B
Plant Spec Point Desc: STM GEN 4 AFW INLET FLOW
Generic/Cond Desc: Stm Gen 4 Auxiliary FW Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: 1-5 VDC=0-440 GPM
Minimum Instr Range: 0
Maximum Instr Range: 440
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: Downstream of MDAFW, TDAFW tie to S/G 4
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: There are two electric and one turbine-driven AFWPS. Each electric pump feeds two SG's and the turbine-driven pump feeds all four SG's. The electric and turbine-driven AFWPS share the same piping to each SG. The flow element is located in the shared piping, maximum rated flow for MDAFWPS and Turbine-driven AFWP, is 440 and 880 gpm, respectively.

ERDS point number 24. HL TEMP 1/A 2-TM68-1B Stm Gen 1 Inlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: HL TEMP 1/A
Point ID: 2-TM68-1B
Plant Spec Point Desc: LP 1 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 1 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On Loop 1 RCS hot leg piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temperature is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temperature indication is also used to control RCS pressure and temperature within required limits.

ERDS point number 25. HL TEMP 2/B 2-TM68-24B Stm Gen 2 Inlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: HL TEMP 2/B
Point ID: 2-TM68-24B
Plant Spec Point Desc: LP 2 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 2 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 2 RCS Hot Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temperature is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temperature indication is also used to control RCS pressure and temp. within required limits.

ERDS point number 26. HL TEMP 3/C 2-TM68-43B Stm Gen 3 Inlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: HL TEMP 3/C
Point ID: 2-TM68-43B
Plant Spac Point Desc: LP 3 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 3 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or TRANS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 3 RCS Hot Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temp. is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temperature indication is also used to control RCS pressure and temp. within required limits.

ERDS point number 27. HL TEMP 4/D 2-TM68-65B Stm Gen 4 Inlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: HL TEMP 4/D
Point ID: 2-TM68-65B
Plant Spec Point Desc: LP 4 HL WID RNG TEMP
Generic/Cond Desc: Stm Gen 4 Inlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PFOC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 4 RCS Hot Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS hot leg temperature is used in event recovery to provide information for manual control of RCS temperature, control of the ECCS pumps and RCPs, and verifying natural circulation or increase blow down. The temp. indication is also used to control RCS pressure and temperature within required limits.

ERDS point number 28. CL TEMP 1/A 2-TE68-18 Stm Gen 1 Outlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CL TEMP 1/A
Point ID: 2-TE68-18
Plant Spec Point Desc: LP 1 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 1 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1.5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 1 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NIL power cutoff level: N/A
NIL power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS cold leg temperature is used in event recovery to maintain proper relationship between RCS pressure and temperature while cooling down, and providing information to manually control RCS temperature by controlling AFW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and verifying natural circulation.

ERDS point number 29. CL TEMP 2/B 2-TE68-41 Stm Gen 2 Outlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CL TEMP 2/B
Point ID: 2-TE68-41
Plant Spec Point Desc: LP 2 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 2 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 2 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS cold leg temperature is used in event recovery to maintain proper relationship between RCS pressure and temperature while cooling down, and providing information to manually control RCS temperature by controlling AFW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and vessel natural circulation.

ERDS point number 30. CL TEMP 3/C 2-TE68-60 Stm Gen 3 Outlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CL TEMP 3/C
Point ID: 2-TE68-60
Plant Spec Point Desc: LP 3 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 3 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: N/A
Sensor Locations: On loop 3 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS Cold Leg Temperature is used in event recovery to maintain proper relationship between RCS pressure and temperature while cooling down, and providing information to manually control RCS temperature by controlling AFW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and verify natural circulation.

ERDS point number 31. CL TEMP 4/D 2-TE68-83 Stm Gen 4 Outlet Temperature

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CL TEMP 4/D
Point ID: 2-TE68-83
Plant Spec Point Desc: LP 4 CL WID RNG TEMP
Generic/Cond Desc: Stm Gen 4 Outlet Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: 1-5 VDC=0-700 DEGF
Minimum Instr Range: 0
Maximum Instr Range: 700
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: 2
Number of Set Pts: 1
How Processed: 6 A
Sensor Locations: On loop 4 RCS Cold Leg Piping
Alarm/Trip Set Points: No Alarms

NID power cutoff level: E/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS Cold Leg temperature is used in event recovery to maintain proper relationship between RCS pressure and temp. while cooling down, and providing information to manually control RCS temperature by controlling APW flow, steam generator pressure, and RHR. The temperature indication is also used in maintaining stable plant conditions and verify natural circulation.

ERDS point number 32. RCS PRESSURE UP1000 Reactor Coolant System Pressure

Date: 05/21/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: RCS PRESSURE
Point ID: UP1000
Plant Spec Point Desc: RCS WIDE RNG PRESS AVG
Generic/Cond Desc: Reactor Coolant System Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: 1-5 VDC=0-3000 PSIG
Minimum Inst: Range: 0
Maximum Instr Range: 3000
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: AVERAGE
Sensor Locations: RCS Hot Legs 1,3,4
Alarm/Trip Set Points: Low 1865 PSIG RxTrip, High 2390 PSIG RxTr

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: RCS pressure determined by this point is the average of 3 signals which measure wide range hot leg pressures. (2-PT-68-62, -66, and -68) RCS pressure indication is utilized by the operators to identify events for SI actuation and termination, starting and stopping RHR pumps, and controlling cooldown to prevent PTS. The alarm trip setpoints are actuated by pressurized pressure transmitters at the given setpoints.

ERDS point number 33. PRZR LEVEL UL1005 Primary System Pressurizer Level

Date: 05/21/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: PRZR LEVEL
Point ID: UL1005
Plant Spec Point Desc: PRZR LEV AVG
Generic/Cond Desc: Primary System Pressurizer Level

Analog/Digital: A
Engr Units/Dig States: 1
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: Average
Sensor Locations: TAPs from Pressurizer
Alarm/Trip Set Points: High at 92% Rx Trip

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: WET

Unique System Desc: The pressurizer level is an averaged signal from 3 level transmitters. (2-LT-68-320, -335, -339) Pressurized level indication is used for manual action throughout the emergency procedures such as: SI initiation and termination, isolation of letdown and charging, and identify a LOCA. The level is measured through use of sealed bellows on the reference leg.

ERDS point number 34. RCS CHG/MU UF1016 Primary System Charging / Makeup

Date: 05/21/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: RCS CHG/MU
Point ID: UF1016
Plant Spec Point Desc: NET CHG FLO
Generic/Cond Desc: Primary System Charging / Makeup

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: N/A
Minimum Instr Range: -200
Maximum Instr Range: 176
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 6
How Processed: Subtraction
Sensor Locations: COP Pmp, RCP Seal/Leakoff, RCS Letdown
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Multiple due to number of sensors
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The net charging flow is calculated by subtracting RCP seal return, and CVCS letdown flow from the discharge flow of the charging pump. The design charging flow is between 55 and 100 GPM during normal operation.

ERDS point number 35. HP SI FLOW UF1010 High Pressure Safety Inj. Flow

Date: 05/21/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: HP SI FLOW
Point ID: UF1010
Plant Spec Point Desc: SI FLOW TOTAL
Generic/Cond Desc: High Pressure Safety Inj. Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 1600
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sum
Sensor Locations: Discharge of Safety Injection Pump.s
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The total flow is measured by adding the discharge flow rates from two Safety Injection Pumps. The total accident flow rates for cold leg injection or recirculation and hot leg recirculation can be monitored by this point. Safety Injection Pumps on miniflow will not show flow since miniflow path is upstream of flow element. The design flow rate is 425 GPM @ 2500 ft of head for each SI Pump.
(Sum of 2-FT-63-20 and -151)

ERDS point number 36. LP SI FLOW UF1011 Low Pressure Safety Inj. Flow

Date: 05/21/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: LP SI FLOW
Point ID: UF1011
Plant Spec Point Desc: RHR COLD LEG TOTAL FLOW
Generic/Cond Desc: Low Pressure Safety Inj. Flow

Analog/Digital: A
Engr Units/Dig States: GPM
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 11000
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 4
How Processed: Average
Sensor Locations: RHR Cold Legs 2,3, and 1,4 Piping
Alarm/Trip Set Points: None

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The RHR Cold Leg Flow Rate value is calculated by summing the average flow from cold legs 2 and 3 with the average flow from cold legs 1 and 4. The design flow rate for a RHR pump is 3000 GPM at 375 feet of head. Flow sensors include 2-FT-63-91A and -91B, 2-FT-63-92A and -92B.

ERDS point number 37. CNTMT SMP WR UL1011 Containment Sump Wide Rng Lvl

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CNTMT SMP WR
Point ID: UL1011
Plant Spec Point Desc: CNTMT SUMP LEV AVG
Generic/Cond Desc: Containment Sump Wide Rng Lvl

Analog/Digital: A
Engr Units/Dig States: 4
Engr Units Conversion: 14=2.4 inches of water
Minimum Instr Range: 0
Maximum Instr Range: 100
Zero Point Reference: CNTFLR
Reference Point Notes: The containment floor is elevation 680

PROC or SENS: P
Number of Sensors: 4
Hcw Processed: Average, Redundant Sensor Algorithm
Sensor Locations: Containment Sump
Alarm/Trip Set Points: 114 Containment Sump Swapover

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: The containment average sump level is calculated by a redundant sensor algorithm using four sump level transmitters. The containment sump level indicates loss of coolant in the containment and determines if sufficient volume of water for recirculation mode. The transfer from RWST to containment sump setpoint is 114, which is approximately 2.5 feet above containment floor elevation. (average 2-LT-63-176, -177, -178, and -179)

ERDS point number 38. EFF GAS RAD 1-RM90-400 Release Rt of Radioactive Gases

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: EFF GAS RAD
Point ID: 1-RM90-400
Plant Spec Point Desc: Unit 1 Shield Bldg Release Rate
Generic/Cond Desc: Release Rt of Radioactive Gases

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: 10E-2 uCi/sec
Maximum Instr Range: 10E10 uCi/sec
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sampled Totalized times flow rate
Sensor Locations: Auxiliary Bldg
Alarm/Trip Set Points: 31,000 uCi/sec

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Unit 1 shield Bldg Exhaust. To obtain true release rate,
Unit 2 monitor must also be checked. Flow path for Unit 1
can be either the Unit 1 or the Unit 2 stack.

ERDS point number 39. EFF GAS RAD 2-RM90-400 Release Rt. of Radioactive Gases

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: EFF GAS RAD
Point ID: 2-RM90-400
Plant Spec Point Desc: Unit 2 Shield Bldg Release Rate
Generic/Cond Desc: Release Rt. of Radioactive Gases

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: 10E-2 uCi/sec
Maximum Instr Range: 10E10 uCi/sec
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 3
How Processed: Sampled Totalized times flow rate
Sensor Locations: Auxiliary Bldg
Alarm/Trip Set Points: 31,000 uCi/sec

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Unit 2 shield bldg exhaust. To obtain true release rate,
Unit 1 monitor must also be checked. Flow path for Unit 1
can be either the Unit 1 or the Unit 2 stack.

ERDS point number 40. EFF LIQ RAD 0-RE90-122 Radioactivity of Released Liquid

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: EFF LIQ RAD
Point ID: 0-RE90-122
Plant Spec Point Desc: WDS Liquid Effluent
Generic/Cond Desc: Radioactivity of Released Liquid

Analog/Digital: A
Engr Units/Dig States: CPM
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 CPM
Maximum Instr Range: 10E7 CPM
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sum
Sensor Locations: Auxiliary Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Waste Disposal System Liquid Effluent
 This computer point is in counts per minute.

ERDS point number 41. COND A/E RAD UR1006 Cond Air Ejector Radioactivity

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: COND A/E RAD
Point ID: UR1006
Plant Spec Point Desc: Low Range COND VAC PUMP AIR EXH RAD MON
Generic/Cond Desc: Cond Air Ejector Radioactivity

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Cond Flow * Dose
Sensor Locations: Turbine Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Condenser Air Ejector Noble Gas Monitor
This is one of three computer points needed to cover full range. This point uses inputs from 2-FT2-256 and 2-RE90-119 to compute dose rates.

ERDS point number 42. COND A/E RAD UR1007 Cond Air Ejector Radioactivity

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: COND A/E RAD
Point ID: UR1007
Plant Spec Point Desc: Mid Rng COND VAC PUMP AIR EXH RAD MON
Generic/Cond Desc: Cond Air Ejector Radioactivity

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: COND FLOW * DOSE
Sensor Locations: Turbine Bldg.
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Condenser Air Ejector Noble Gas Monitor
This is one of three computer points needed to cover full range. This point uses inputs from 2-FT2-256 & 2-RE90-99 to compute dose rates.

ERDS point number 43. COND A/E RAD UR1008 Cond Air Ejector Radioactivity

Date: 12/02/91
Reactor Unit: 3E2
Data feeder: 1
NRC ERDS Parameter: COND A/E RAD
Point ID: UR1008
Plant Spec Point Desc: High Rng COND VAC PUMP AIR EXH RAD MON
Generic/Cond Desc: Cond Air Ejector Radioactivity

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: F
Number of Sensors: 2
How Processed: COND FLOW * DOSE
Sensor Locations: Turbine Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Condenser Air Ejector Noble Gas Monitor
This is one of three computer points needed to cover full range. This point uses inputs from 2-FT2-256 & 2-RE90-404B to compute dose rates.

ERDS point number 44. CNTMNT RAD UR6021 Containment Radiation Level

Date: 12/02/91
Reactor Unit: SE2
Data Feeder: 1
NRC ERDS Parameter: CNTMNT RAD
Point ID: UR6021
Plant Spec Point Desc: UPPER CONTAINMENT RADIATION
Generic/Cond Desc: Containment Radiation Level

Analog/Digital: A
Engr Units/Dig States: R/hour
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 P/hour
Maximum Instr Range: 10E8 R/hour
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Upper Containment
Alarm/Trip Set Points: 100 R/hour

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Upper Containment High Range Area Monitors
Inputs are 2-RE90-271 & 2-RE90-272.

ERDS point number 45. CNTMNT RAD UR6022 Lower Containment Radiation Lvl

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CNTMNT RAD
Point ID: UR6022
Plant Spec Point Desc: LOWER CONTAINMENT RADIATION
Generic/Cond Desc: Lower Containment Radiation Lvl

Analog/Digital: A
Engr Units/Dig States: R/hour
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 R/hour
Maximum Instr Range: 10E8 R/hour
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average
Sensor Locations: Lower Containment
Alarm/Trip Set Points: 100 R/hour

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Lower Containment High Range Area Monitor
Inputs are 2-RE90-273 and 2-RE90-274.

ERDS point number 46. MAIN SL 1/A UR1001 Stm Gen 1 Steam Line Rad Level

Date: 12/02/91
Reactor Uni SE2
Data feeder: 1
NRC ERDS Parameter: MAIN SL 1/A
Point ID: UR1001
Plant Spec Point Desc: MN STEAM LINE 1 RAD LEV
Generic/Con\ Desc: Stm Gen 1 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam Line prior to ATM reliefs
Alarm/Trip Set Points: 8.5 * 10E-3

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #1 Radioactivity Monitor
This value is calculated as the product of main steam line release rate, steam radioactivity, specific vol. of steam, and a conversion constant. The PORV's for each steam generator are monitored. If a PORV is 'NOT CLOSED', this vlv is assumed to contribute 890000 lb/hr flow to atmosphere. There are 5 code safety valves for each S/G. The main steam line header pressure is monitored to determine condition of each valve. Each open valve contributes 890000 lb/hr to flow rate. (Rad Mon 2-RM-90-421)

ERDS point number 47. MAIN SL 2/B UR1002 Stm Gen 2 Steam Line Rad Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: MAIN SL 2/B
Point ID: UR1002
Plant Spec Point Desc: MN STEAM LINE 2 RAD LEV
Generic/Cond Desc: Stm Gen 2 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCI/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam Line prior to ATM reliefs
Alarm/Trip Set Points: 8.5*10E-3

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on Loss of Power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #2 Radioactivity Monitor. This value is calculated as product of main steam line release rate, steam radioactivity, specific vol. of steam, and a conversion constant. PORV's for each steam generator are monitored. If PORV is 'NOT CLOSED', valve is assumed to contribute 890000 lb/hr flow to atmosphere. 5 code safety valves for each S/G. Main steam line header pressure is monitored to determine condition of valves. Each open valve is assumed to contribute an additional 890000 lb/hr to flow rate.
(Rad Mon 2-RM-90-422)

ERDS point number 48. MAIN SL 3/C UR1003 Stm Gen 3 Steam Line Rad Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NPC ERDS Parameter: MAIN SL 3/C
Point ID: UR1003
Plant Spec Point Desc: MN STEAM LINE 3 RAD LEV
Generic/Cond Desc: Stm Gen 3 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCi/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam line prior to ATM reliefs
Alarm/Trip Set Points: 8.5 * 10E-3

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #3 Radioactivity Monitor. Value calculated as product of main steam line release rate, steam radioactivity, specific vol. of steam, and conversion constant. PORV's for each steam generator are monitored. If a PORV is 'NOT CLOSED', valve assumed to contribute 890000 lb/hr flow to atmosphere. 5 code safety valves exist for each S/G. The main steam line header pressure is monitored to determine condition of valves. Each open valve is assumed to contribute an additional 890000 lb/hr to the flow rate.
Rad Mon 2-RM-90-423

ERDS point number 49. MAIN SL 4/D UR1004 Stm Gen 4 Steam Line Rad Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: MAIN SL 4/D
Point ID: UR1004
Plant Spec Point Desc: MN STEAM LINE 4 RAD LEV
Generic/Cond Desc: Stm Gen 4 Steam Line Rad Level

Analog/Digital: A
Engr Units/Dig States: uCI/sec
Engr Units Conversion: N/A
Minimum Instr Range: -.17E+39
Maximum Instr Range: .17E+39
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Sampled Totalized
Sensor Locations: Main Steam Line prior to ATM reliefs
Alarm/Trip Set Points: 8.5 * 10E-3

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Main Steam Line #4 Radioactivity Monitor. Value calculated as product of main steam line release rate, steam radioactivity, specific vol. of steam, and conversion constant. PORV's for each steam generator are monitored. If a PORV 'NOT CLOSED', valve assumed to contribute 890000 lb/hr flow to atmosphere. 5 code safety valves exist for each S/G Main steam line header pressure is monitored to determine condition of valves. Each open valve assumed to contribute an additional 890000 lb/hr to flow rate. Rad Mon 2-RM-90-424

ERDS point number 50. SG BD RAD 1A 2-RE90-120 Stm Gen Header Blowdown Rad Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG BD RAD 1A
Point ID: 2-RE90-120
Plant Spec Point Desc: Steam Generator Blowdown Liquid Monitor
Generic/Cond Desc: Stm Gen Header Blowdown Rad Level

Analog/Digital: A
Engr Units/Dig States: CPM
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 CPM
Maximum Instr Range: 10E7 CPM
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sum
Sensor Locations: Turbine Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low in loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Steam Generator Blowdown Header Liquid Monitor.
This is one of two monitors, one of which is valved out.
The monitor is for the header and not individual loops.

ERDS point number 51. SG BD RAD 2B 2-RE90-121 Stm Gen Header Blowdown Rad Lev1

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: SG BD RAD 2B
Point ID: 2-RE90- 71
Plant Spec Point Desc: Steam Generator Blowdown Liquid Monitor
Generic/Cond Desc: Stm Gen Header Blowdown Rad Lev1

Analog/Digital: A
Engr Units/Dig States: CPM
Engr Units Conversion: N/A
Minimum Instr Range: 10E0 CPM
Maximum Instr Range: 10E7 CPM
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed: Sum
Sensor Locations: Turbine Bldg
Alarm/Trip Set Points: Variable

NID power cutoff level: K/A
NID power cut-on level: N/A
Instrument Failure Mode: Low on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Steam Generator Blowdown Header Liquid Monitor
This is one of two monitors, one of which is valved out.
The monitor is for the header and not individual loops.

ERDS point number 52. CTMNT PRESS UP6000 Containment Pressure

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CTMNT PRESS
Point ID: UP6000
Plant Spec Point Desc: CNTMT PRESSURE AVERAGE
Generic/Cond Desc: Containment Pressure

Analog/Digital: A
Engr Units/Dig States: PSIG
Engr Units Conversion: N/A
Minimum Instr Range: -1
Maximum Instr Range: 15
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Avg
Sensor Locations: Annulus
Alarm/Trip Set Points: High - 2.81 PSIG High-High 12.0

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Out of Range
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Containment Pressure. This is actually a differential between containment and the annulus. Average of 2-FDT-30-44 and -45.

ERDS point number 53. CTMNT TEMP UT1004 Containment Temperature

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: CTMNT TEMP
Point ID: UT1004
Plant Spec Point Desc: CONTAINMENT TEMP MAX DEV
Generic/Cond Desc: Containment Temperature

Analog/Digital: A
Engr Units/Dig States: DEGF
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 200
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 4
How Processed: Maximum Value
Sensor Locations: TE-212A, TE212B, TE212C & TE212D
Alarm/Trip Set Points: Low at 60 DEGF, High at 130 DEGF

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Fail Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Maximum Containment Air Temperature. The temperature element is inside the Polar Crane Wall at intake for lower compartment cooler. The value displayed is the maximum of 2-TE-30-212A, -212B, -212C, or -212D.

ERDS point number 54. H2 CONC UY1005 Containment H2 Concentration

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: H2 CONC
Point ID: UY1005
Plant Spec Point Desc: H2 CONC AVG
Generic/Cond Desc: Containment H2 Concentration

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: N/A
Minimum Instr Range: 0
Maximum Instr Range: 10
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Avg
Sensor Locations: Sample line from both upper & lower containment
Alarm/Trip Set Points: High at 10 %

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Downscale on loss of power
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc: Samples H2 gas concentration in containment. Average of 2-H2AN43-200 and 2-H2A ... 0.

ERDS point number 55.

BWST LEVEL

UL1000

Refueling Water Storage Tank Lev

Date: 05/20/92
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: BWST LEVEL
Point ID: UL1000
Plant Spec Point Desc: RWST 1 x 2L
Generic/Cond Desc: Refueling Water Storage Tank Lev

Analog/Digital: A
Engr Units/Dig States: %
Engr Units Conversion: 1% is 3500 Gals
Minimum Instr Range: 0
Maximum Instr Range: 100.0
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed: Average, Redundant Sensor Algorithm
Sensor Locations: RWST taps 25,000 Gals in tnk below buttn
Alarm/Trip Set Points: Low level 27.4%

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: Low
Temperature Compensation: N
Level Reference Leg: N/A

Unique System Desc:

The RWST average level is calculated by a redundant sensor algorithm from the 2 RWST level transmitters. The RWST provides a source of borated water for the charging, safety injection and RHR pumps for safety injection mode of accident recovery. The low level setpoint is 27.4% of span which is 106 inches above the lower tap of the RWST. The low level causes transfer to containment sump recirculation mode of accident recovery. The RWST tank capacity is 379,000 Gals. There is one per unit. Average of 2-LT-63-50 and -51.

EPDS point number 56. WIND SPEED MET001 Wind Speed - Upper Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET001
Plant Spec Point Desc: 91M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Upper Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 91 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 57. WIND SPEED MET002 Wind Speed - Intermediate Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET002
Plant Spec Point Desc: 46M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Intermediate Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 46 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 58. WIND SPEED MET 03 Wind Speed - Lower Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: WIND SPEED
Point ID: MET 03
Plant Spec Point Desc: 10M VECTOR WIND SPEED (15 MIN AVG)
Generic/Cond Desc: Wind Speed - Lower Level

Analog/Digital: A
Engr Units/Dig States: m/sec
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 44.6
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 10 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 59. WIND DIR MET004 Wind Direction - Upper Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET004
Plant Spec Point Desc: 91M VECTOR WIND DIR (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Upper Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 91 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 60. WIND DIR MET005 Wind Direction - Intermed. Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET005
Plant Spec Point Desc: 46M VECTOR WIND DIR (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Intermed. Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 46 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 61. WIND DIR MET006 Wind Direction - Lower Level

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: WIND DIR
Point ID: MET006
Plant Spec Point Desc: 10M VECTOR WIND DIR (15 MIN AVG)
Generic/Cond Desc: Wind Direction - Lower Level

Analog/Digital: A
Engr Units/Dig States: DEG
Engr Units Conversion:
Minimum Instr Range: 0
Maximum Instr Range: 360
Zero Point Reference: N/A
Reference Point Notes: K/A

PROC or SENS: S
Number of Sensors: 1
How Processed:
Sensor Locations: At the 10 Meter Level of the Met Tower
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc:

ERDS point number 62. STAB CLASS MET007 Air Stability Upper

Date: 12/02/91
 Reactor Unit: SE2
 Data feeder: 1
 NRC ERDS Parameter: STAB CLASS
 Point ID: MET007
 Plant Spec Point Desc: Stability Class Upper
 Generic/Cond Desc: Air Stability Upper

Analog/Digital:
 Engr Units/Dig States: STABA
 Engr Units Conversion:
 Minimum Instr Range:
 Maximum Instr Range:
 Zero Point Reference: N/A
 Reference Point Notes: N/A

PROC or SENS: P
 Number of Sensors: 2
 How Processed:
 Sensor Locations:
 Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
 NID power cut-on level: N/A
 Instrument Failure Mode: LOW
 Temperature Compensation:
 Level Reference Leg: N/A

Unique System Desc:	Differential Temperature Upper-Lower (deg C)	Stability Class	Point Value
	> -1.9	A	1
	-1.9 <= -1.7	B	2
	-1.7 <= -1.5	C	3
	-1.5 <= -0.5	D	4
	-0.5 <= 1.5	E	5
	1.5 <= 4.0	F	6
	4.0	G	7

ERDS point number 63. STAB CLASS MET008 Air Stability

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: STAB CLASS
Point ID: MET008
Plant Spec Point Desc: Stability Class Intermediate
Generic/Cond Desc: Air Stability

Analog/Digital:
Engr Units/Dig States: STABA
Engr Units Conversion:
Minimum Instr Range:
Maximum Instr Range:
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed:
Sensor Locations:
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc: Differential Temperature Upper-Intermediate (deg C)

>	<=	Stability Class	Point Value
	-1.9	A	1
-1.9	-1.7	B	2
-1.7	-1.5	C	3
-1.5	-0.5	D	4
-0.5	1.5	E	5
1.5	4.0	F	6
4.0		G	7

ERDS point number 64. STAB CLASS MET009 Air Stability

Date: 12/02/91
Reactor Unit: SE2
Data feeder: 1
NRC ERDS Parameter: STAB CLASS
Point ID: MET009
Plant Spec Point Desc: Stability Class Lower
Generic/Cond Desc: Air Stability

Analog/Digital:
Engr Units/Dig States: STABA
Engr Units Conversion:
Minimum Instr Range:
Maximum Instr Range:
Zero Point Reference: N/A
Reference Point Notes: N/A

PROC or SENS: P
Number of Sensors: 2
How Processed:
Sensor Locations:
Alarm/Trip Set Points: No Alarms

NID power cutoff level: N/A
NID power cut-on level: N/A
Instrument Failure Mode: LOW
Temperature Compensation:
Level Reference Leg: N/A

Unique System Desc: Differential Temperature Intermediate-Lower (deg C)

>	<=	Stability Class	Point Value
	-1.9	A	1
-1.9	-1.7	B	2
-1.7	-1.5	C	3
-1.5	-0.5	D	4
-0.5	1.5	E	5
1.5	4.0	F	6
4.0		G	7