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NMC
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Prairie Island Nuclear Generating Plant
Operated by Nuclear Management Company, LLC

MAR 2 1 2007

L-PI-07-019
10 CFR 50, Appendix E

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

Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 and 50-306
License Nos. DPR-42 and DPR-60

Notification of Changes to the Emergency Response Data System (ERDS) Data Point Library (DPL)

In accordance with 10 CFR 50, Appendix E, Section VI, Nuclear Management Company, LLC (NMC) is submitting changes to the ERDS DPL for the Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2.

The DPL changes were implemented on February 21, 2007 and are provided in Enclosure 1. These changes have been requested by the State of Minnesota Emergency Operations Center (Minnesota EOC) to improve communications with offsite agencies by using the engineering units the Minnesota EOC and State of Wisconsin EOC use for inputs to offsite dose assessment model RASCAL (Radiological Assessment System for Consequence Analysis). Minnesota EOC has also requested that PINGP send radiation release rates from potential radioactive steam release paths, resulting in the addition of two new data points for each unit.

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

Thomas J. Palmisano
Site Vice President, Prairie Island Nuclear Generating Plant
Nuclear Management Company, LLC

1717 Wakonade Drive East • Welch, Minnesota 55089-9642
Telephone: 651.388.1121

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Enclosure

cc: Administrator, Region III, USNRC
Project Manager, USNRC
Resident Inspector, USNRC, Prairie Island
ERDS Project Manager, USNRC, Office of Nuclear Security and Incident Response
Minnesota EOC
Wisconsin EOC

ENCLOSURE 1

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNITS 1 AND 2
Emergency Response Data System Data Point Library

4 pages to follow

PROCESS DESCRIPTIONS	DEFINITIONS
AVG	The average of 2 values with rejection of bad quality inputs.
CV-AVG	The average of 3 or more values with Chauvenet rejection of out of range or bad inputs.
MAVG15	The 15 minute moving average over time of a single value.
SUM	The sum of 2 or more inputs.
DIFF	The difference of 2 inputs.
QV	Quality validation of a single value (i.e. Range checking applied).
STAB_FUNC	Atmospheric Stability function of (60 Meter - 10 meter temperature).
MAX	Maximum value of 2 or more inputs.
OR	Logical OR of 2 or more digital inputs.

ABBREVIATIONS	
WR	WIDE RANGE SENSORS
NR	NARROW RANGE SENSORS
FR	FULL RANGE SENSORS
BWST / RWST	REFUELING WATER STORAGE TANK
CNTMT	CONTAINMENT
COND	CONDENSER
DIR	DIRECTION
HP / LP	HIGH / LOW PRESSURE
LVL	LEVEL
MU	REACTOR MAKEUP
N/A	NOT APPLICABLE

ABBREVIATIONS	
P/S	"Process or Sensor" column heading
NIS / NI	NUCLEAR INSTRUMENTATION SYSTEM
PRZR	PRESSURIZER
RAD	RADIATION
RCS	REACTOR COOLANT SYSTEM
RNG	RANGE
SAS	SAFETY ASSESSMENT SYSTEM (SPDS)
SG	STEAM GENERATOR
SI	SAFETY INJECTION
STM	STEAM
T/C or TC	THERMOCOUPLE

Other Notes

1) Feeder ID for unit 1 is "PI1".
2) The "Generic Description" field is the same as the ERCS point description for all points in this document.
3) The "Analog / Digital" field is omitted because all points in this document are analogs (except Y1057D).
4) There are no trip setpoints, but we have provided high and low alarm limits if any.
5) Changes to the previous (12/13/05) DPL in yellow.
   U5061AH. Different Eng Units per State of Minnesota EOC request.
   U5061AL. Different Eng Units per State of Minnesota EOC request.
   R0051U1 added per State of Minnesota EOC request.
   Y1057D added per State of Minnesota EOC request.
   Other minor editorial changes identified.

POINT ID	DATE	NRC ERDS PARAMETER	ERCS POINT DESCRIPTION	ENG UNITS	P/S	# OF SENSORS	PROCESS / COMPUTATION	SENSOR LOCATION	LOW ENG LIMIT	HIGH ENG LIMIT	FAIL MODE	LOW ALARM LIMIT	HIGH ALARM LIMIT	CONVERSION	ZERO REF.	DP/TEMP COMPENSATION	Notes
1F0128A	07/06/91	RCS CHARGE/MU FLOW	Charge Pmp Disch Hdr flow	Gpm	S	1	Field instrument	Note 1	0	100	LOW	NONE	NONE	N/A	N/A	N/A	Note 1: Sensor located 20 feet above discharge pump.
1R0009A	07/06/91	RCS LTDN RAD	RCS Letdown Line Rad	MR/Hr	S	1	Field instrument		0.1	10000	Fail	NONE	1000	N/A	N/A	N/A	
1R0021A	10/10/91	EFFLUENT LIQ RAD	Circ Wtr Disch RAD	CPM	S	1	Field instrument		10	1.0E6	Fail	NONE	1000	N/A	N/A	N/A	
1R0051U1	02/19/07	EFFLUENT GAS RAD	Steam Release Rad Rate	uCi/Sec	P	21	Complex Calculation		0	1E6	N/A	N/A	N/A	N/A	N/A	N/A	Requested by MN State EOC. Only computed for a few days after RX trip. Must be validated by other intrumentation. e.g.; Main Steam line Radiation levels.
1U0651A	10/09/91	LP SI FLOW	Total RHR flow	Gpm	P	2	SUM(F0626A F0928A) Note 1		-1	9000	Fail	1250	2500	N/A	N/A	N/A	Note 1: F0626A=RHR loop flow; F0928A=RHR flow to rx vessel
1U4105A	10/16/91	WIND SPEED	10M Wind Spd A 15 MIN AVG	MPH	P	1	MAVG15(Y4105A)	10 METER A	0	100	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower A 10 meter 15 minute moving average of 30sec readings.
1U4106A	10/16/91	WIND SPEED	10M Wind Spd B 15 MIN AVG	MPH	P	1	MAVG15(Y4106A)	10 METER B	0	100	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower B 10 meter 15 minute moving average of 30sec readings.
1U4109A	09/26/05	WIND DIR	10M Wind Dir A 15 MIN AVG	Deg	P	1	MAVG15(Y4109AA)	10 METER A	0	360	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower A 10 meter 15 minute moving average of 30sec readings.
1U4110A	09/26/05	WIND DIR	10M Wind Dir B 15 MIN AVG	Deg	P	1	MAVG15(Y4110AA)	10 METER B	0	360	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower B 10 meter 15 minute moving average of 30sec readings.
1U4135A	02/19/07	STABILITY CLASS	Delta-T Pasquill Stability A	N/A	P	2	STAB_FUNC(T2907A)	10 & 60 M	1	7	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: DELTA-T based atmosperic stability. Output 1-7 corresponds to class A-G. No Engineering units apply. Note 2: T2907A=50 meter delta-t.
1U4136A	02/19/07	STABILITY CLASS	Delta-T Pasquill Stability B	N/A	P	2	STAB_FUNC(T2908A)	10 & 60 M	1	7	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: DELTA-T based atmosperic stability. Output 1-7 corresponds to class A-G. No Engineering units apply. Note 2: T2908A=50 meter delta-t.
1U5001A	07/06/91	RCS PRESSURE	SAS Avg RCS pressure	PSIG	P	4 / 2 NOTE	CV-AVG(4 NR OR 2 WR) Note 1		0	3000	Fail	1900	2385 Note 2	N/A	N/A	N/A	Note 1: If quality of NR sensors (P0480A,P0481A,P0482A,P0483A) is bad, then use the 2 WR sensors (P0507A,P0508A); Note 2: At other than full power mode SAS calculates Hi and Lo alarm limits.
1U5007A	07/06/91	PRZR LEVEL	SAS Avg PRZR H2O lvl (NR)	%	P	3	CV-AVG(L0480A L0481A L0482A)		0	100	Fail	14.8	90	64.6 gal/%	527 gal Note 1	None	Note 1: Zero % level is 18'9" above top of fuel; Level sensor id's 426, 427, 428
1U5011A	07/02/91	REACTOR VESSEL LEV	SAS Avg Reactor Vessel Level	%	P	2 / 4 note	AVG(2 SENSORS) Note 1	Cntmt	0	120	Fail	0	120	4.4 inch/%	Note 2	Note 3	Note 1: If RCP is off use FR full range sensors; else WR wide range; Note 2: Top of fuel = 56.7%. Bottom of fuel = 24%; Note 3: Compensation in RVLIS; Alarm values are calculated.
1U5013A	07/06/91	CNTMT TEMP	SAS Avg Cntmt Temp	DegF	P	3	CV-AVG(T1000A T1001A T1002A)	Cntmt Note 1	0	400	Fail	NONE	Note 2	N/A	N/A	N/A	Note 1: Sensor elevations:697 738 755; Note 2: High alarm is 10 DegF greater than rolling 5 min avg of containment temp.
1U5015A	07/06/91	CNTMT PRESS	SAS Avg Cntmt Press	PSIG	P	2	AVG(P1010A P1011A)	Cntmt	-5	200	Fail	-5	4	N/A	N/A	N/A	WR sensor id's 717, 718
1U5017A	02/19/07	CNTMT SUMP WR	SAS Avg Cntmt WR Lvl	Ft.	P	2	AVG(L5556A L5557A)		0	12	Fail	0	0.5	40741 gal/ft	0.0 ft	N/A	Note 1: Containment area = 5446 sq ft. Accuracy is +/- 17.2% due to complexities.
1U5021A	07/06/91	CNTMT H2 CONC	SAS Avg Cntmt H2 conc	%	P	2	AVG(Y0454A Y0455A)	Cntmt	0	10	Fail	NONE	NONE	N/A	N/A	N/A	
1U5022A	02/19/07	CNTMT RAD	SAS Cntmt rad - Hi Rng	R/Hr	P	2	MAX(R0048A R0049A)		1	1.0E8	Fail	1	20000	N/A	N/A	N/A	
1U5024A	07/06/91	COND A/E RAD	SAS Air Ejector Rad	CPM	S	1	QV(R0015A) Note 1		10	1.0E6	Fail	10	5000	N/A	N/A	N/A	Note 1: R0015A=CDSR air ejector gas radioactivity.
1U5026A	07/06/91	SG BD RAD 1A	SAS Stm Gen Blowdown Rad	CPM	S	1	QV(R0019A)		10	1.0E6	Fail	10	10000	N/A	N/A	N/A	
1U5032A	07/02/91	SG LEVEL 1	SAS Avg Stm Gen 1 H2O Level	%	P	3	CV-AVG(L0400A L0401A L0402A)	Note 1	0	100	Fail	20	67	180gal/% @STP	Note 2	None	Note 1: Sensor is 433" above tube sheet. NR sensors span of 144"; Note 2: Zero ref 23" above tube bundle; 420" = top of tube bundle; Level ref leg filled with condenser pot.
1U5034A	07/05/91	SG LEVEL 2	SAS Avg Stm Gen 2 H2O Level	%	P	3	CV-AVG(L0420A L0421A L0422A)	Note 1	0	100	Fail	20	67	180gal/% @STP	Note 2	None	Note 1: Sensor is 433" above tube sheet. NR sensors span of 144"; Note 2: Zero ref 23" above tube bundle; 420" = top of tube bundle; Level ref leg filled with condenser pot.
1U5036A	07/05/91	SG PRESS 1	SAS Avg Stm Gen 1 Pressure	PSIG	P	3	CV-AVG(P0400A P0401A P0402A)		0	1400	Fail	500	1075	N/A	N/A	N/A	sensor id's 468, 469, 482
1U5038A	07/05/91	SG PRESS 2	SAS Avg Stm Gen 2 Pressure	PSIG	P	3	CV-AVG(P0420A P0421A P0422A)		0	1400	Fail	500	1075	N/A	N/A	N/A	sensor id's 478, 479, 483
1U5040A	07/05/91	MAIN FEED FLOW 1	SAS Avg Stm Gen 1 Feed Flow	Lb/Hr	P	2	AVG(F0403A F0404A)		0	4470000	Fail	NONE	NONE	N/A	N/A	None	flow xmtrs 466, 467
1U5042A	07/05/91	MAIN FEED FLOW 2	SAS Avg Stm Gen 2 Feed Flow	Lb/Hr	P	2	AVG(F0423A F0424A)		0	4470000	Fail	NONE	NONE	N/A	N/A	None	flow xmtrs 467, 477
1U5044A	07/05/91	AUX FEED FLOW 1	SAS Avg Stm Gen 1 Aux Fd Fl	GPM	S	1	QV(F2861A)		0	200	Fail	NONE	NONE	N/A	N/A	None	
1U5045A	07/05/91	AUX FEED FLOW 2	SAS Avg Stm Gen 2 Aux Fd Fl	GPM	S	1	QV(F2871A)		0	200	Fail	NONE	NONE	N/A	N/A	None	
1U5048A	07/02/91	NI POWER RNG	SAS NIS Avg Pwr Rng Pwr Level	%	P	4	CV-AVG(N41 N42 N43 N44)	Excore	0	120	LOW	NONE	NONE	N/A	N/A	N/A	ERCS points N0049A, N0050A, N0051A, N0052A correspond to N41 N42 N43 N44
1U5049A	07/05/91	RCS HOT LEG TEMP 1	SAS RCS Hot leg 1 Temp	DegF	S	1	QV(T0419A)		50	700	Fail	NONE	NONE	N/A	N/A	N/A	
1U5051A	07/05/91	RCS HOT LEG TEMP 2	SAS RCS Hot leg 2 Temp	DegF	S	1	QV(T0439A)		50	700	Fail	NONE	NONE	N/A	N/A	N/A	
1U5053A	07/05/91	RCS COLD LEG TEMP 1	SAS RCS Cold leg 1 Temp	DegF	S	1	QV(T0406A)		50	700	Fail	520 Note 1	555	N/A	N/A	N/A	Note 1: Alarm setpoints are at full power. In other modes; setpoints are calculated based on system pressure.
1U5055A	07/05/91	RCS COLD LEG TEMP 2	SAS RCS Cold leg 2 Temp	DegF	S	1	QV(T0426A)		50	700	Fail	520 Note 1	555	N/A	N/A	N/A	Note 1: Alarm setpoints are at full power. In other modes; setpoints are calculated based on system pressure.
1U5061AH	02/19/07	EFFLUENT GAS RAD	Stack Effl Rad High Rng	uCi/Sec Note 1	P	2	.246 * R0050A * F5429A Note 2		0	1.0E9	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: Units=Micro-Curries/Sec xenon 133 equivalent. Note 2: F5429A=stack flow. R0050A=Hi Range vent gas rad. UC/S requested by MN State EOC.
1U5061AL	02/19/07	EFFLUENT GAS RAD	Stack Effl Rad Low Rng	uCi/Sec Note 1	P	2	1.0933E-05 * R0022A * F5429A Note 2		0	1.0E6	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: Units=Micro-Curries/Sec xenon 133 equivalent. Note 2: F5429A=stack flow. R0022A=Lo Range vent gas rad. UC/S requested by MN State EOC.
1U5068A	07/06/91	BWST LEVEL	SAS Avg RWST level	%	P	2	AVG(L0920A L0921A)	RWST	0	100	Fail	NONE	NONE	2922 Gal/%	1898 Gal	N/A	RWST=Refueling Water Storage Tank
1U5077A	07/02/91	SUBCOOLING MARGIN	SAS RCS Subcooling Margin	DegF	P	40	DIFF(U5003A - U5009A) Note 1	Incore	-200	1000	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: U5003A=RCS saturation temp based on the 1967 ASME steam tables; U5009A=Avg Core Exit Temp
1U5081A	10/16/91	NI SOURC RNG	NIS Avg Source Rng Log Q	CPS	P	2	AVG(N0031A N0032A)	Excore	1	1000000	LOW	NONE	NONE	N/A	N/A	N/A	Value quality reads "BAD" (due to hi limit exceeded) at higher power levels.
1U5082A	10/16/91	NI INTERMED RNG	NIS Avg Intermediate Rng Log Q	AMP	P	2	AVG(N0035A N0036A)	Excore	0	0.001	LOW	NONE	NONE	N/A	N/A	N/A	35B & 36B neutron flux detectors.
1U5143A	07/06/91	MAIN SL 1	SAS Main Steamline A Rad	MR/Hr	S	1	QV(R0051A)		1	1.0E5	Fail	NONE	NONE	N/A	N/A	N/A	
1U5144A	07/06/91	MAIN SL 2	SAS Main Steamline B Rad	MR/Hr	S	1	QV(R0052A)		1	1.0E5	Fail	NONE	NONE	N/A	N/A	N/A	
1U5152A	07/17/91	CORE FLOW	RCS Avg flow	%	P	6	AVG(U5150A U5151A) Note 1		0	115	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: LOOP A (U5150A) = AVG(F0400A,F0401A,F0402A); LOOP B (U5151A)=AVG(F0420A,F0421A,F0422A)
1U5153A	07/17/91	CNTMT SUMP NR	Cntmt Sump B avg level NR	%	P	2	AVG(L5550A L5555A)		0	100	Fail	NONE	NONE	Note 1	Zero	N/A	Note 1: 14.7 gal/% UP TO 84% & 1903gal/% > 84%; Sump area = 42 sq ft. Depth=47".
1U5154A	10/09/91	HP SI FLOW	Total Safety Injection flow	Gpm	P	2	SUM(F0922A F0923A) Note 1		0	1500	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: F0922A=Flow to cold leg; F0923A=Flow to rx vessel.
1U5510A	10/16/91	CORE EXIT TEMP.	SAS 1st hottest incore TC	DegF	P	39	MAX(39 INCORE TC'S)	Incore	32	2300	Fail	N/A	N/A	N/A	N/A	N/A	Hottest of 39 incore thermocouples.
1Y1057D	02/19/07	CNTMT SPRAY	CNTMT SPRAY ON/OFF	N/A	S	2	OR(11,12) SPRAY PMP BKR		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Requested by MN State EOC
SERVERID	09/26/05	FEEDER IDENTIFICATION	SERVER ID	N/A	S	1	CONSTANT VALUE		1	20	N/A	NONE	NONE	N/A	N/A	N/A	Used to identify which computer is transmitting data. ERCS1-A=1; ERCS1-B=2; ERCS2-A=3; ERCS2-B=4; SIMULATOR-A=17; SIMULATOR-B=19

PROCESS DESCRIPTIONS	DEFINITIONS
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STAB_FUNC	Atmospheric stability function of (60 Meter - 10 meter temperature).
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CNTMT	CONTAINMENT
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N/A	NOT APPLICABLE
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RNG	RANGE
SAS	SAFETY ASSESSMENT SYSTEM (SPDS)
SG	STEAM GENERATOR
SI	SAFETY INJECTION
STM	STEAM
T/C or TC	THERMOCOUPLE

Other Notes

1) Feeder ID for unit 1 is "PI2".
2) The "Generic Description" field is the same as the ERCS point description for all points in this document.
3) The "Analog / Digital" field is omitted because all points in this document are analogs (except Y1057D).
4) There are no trip setpoints, but we have provided high and low alarm limits if any.
5) Changes to the previous (12/13/05) DPL in yellow.
   U5061AH. Different Eng Units per State of Minnesota EOC request.
   U5061AL. Different Eng Units per State of Minnesota EOC request.
   R0051U1 added per State of Minnesota EOC request.
   Y1057D added per State of Minnesota EOC request.
   Other minor editorial changes identified.

POINT ID	DATE	NRC ERDS PARAMETER	ERCS POINT DESCRIPTION	ENG UNITS	P/S	# OF SENSORS	PROCESS / COMPUTATION	SENSOR LOCATION	LOW ENG LIMIT	HIGH ENG LIMIT	FAIL MODE	LOW ALARM LIMIT	HIGH ALARM LIMIT	CONVERSION	ZERO REF.	DP/TEMP COMPEN SATION	Notes
2F0128A	07/06/91	RCS CHARGE/MU FLOW	Charge Pmp Disch Hdr flow	Gpm	S	1	Field instrument	Note 1	0	100	LOW	NONE	NONE	N/A	N/A	N/A	Note 1: Sensor located 20 feet above discharge pump.
2R0009A	07/06/91	RCS LTDN RAD	RCS Letdown Line Rad	MR/Hr	S	1	Field instrument		0.1	10000	Fail	NONE	1000	N/A	N/A	N/A	
2R0021A	10/10/91	EFFLUENT LIQ RAD	Circ Wtr Disch RAD	CPM	S	1	Field instrument		10	1.0E6	Fail	NONE	1000	N/A	N/A	N/A	
2R0051U1	02/19/07	EFFLUENT GAS RAD	Steam Release Rad Rate	uCi/Sec	P	21	Complex Calculation		0	1E6	N/A	N/A	N/A	N/A	N/A	N/A	Requested by MN State EOC. Only computed for a few days after RX trip. Must be validated by other intrumentation. e.g.; Main Steam line Radiation levels.
2U0651A	10/09/91	LP SI FLOW	Total RHR flow	Gpm	P	2	SUM(F0626A F0928A) Note 1		-1	9000	Fail	1250	2500	N/A	N/A	N/A	Note 1: F0626A=RHR loop flow; F0928A=RHR flow to rx vessel
2U4105A	10/16/91	WIND SPEED	10M Wind Spd A 15 MIN AVG	MPH	P	1	MAVG15(Y4105A)	10 METER A	0	100	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower A 10 meter 15 minute moving average of 30sec readings.
2U4106A	10/16/91	WIND SPEED	10M Wind Spd B 15 MIN AVG	MPH	P	1	MAVG15(Y4106A)	10 METER B	0	100	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower B 10 meter 15 minute moving average of 30sec readings.
2U4109A	09/26/05	WIND DIR	10M Wind Dir A 15 MIN AVG	Deg	P	1	MAVG15(Y4109AA)	10 METER A	0	360	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower A 10 meter 15 minute moving average of 30sec readings.
2U4110A	09/26/05	WIND DIR	10M Wind Dir B 15 MIN AVG	Deg	P	1	MAVG15(Y4110AA)	10 METER B	0	360	Fail	NONE	NONE	N/A	N/A	N/A	Meteorological tower B 10 meter 15 minute moving average of 30sec readings.
2U4135A	02/19/07	STABILITY CLASS	Delta-T Pasquill Stability A	N/A	P	2	STAB_FUNC(T2907A)	10 & 60 M	1	7	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: DELTA-T based atmosperic stability. Output 1-7 corresponds to class A-G. No Engineering units apply. Note 2: T2907A=50 meter delta-t.
2U4136A	02/19/07	STABILITY CLASS	Delta-T Pasquill Stability B	N/A	P	2	STAB_FUNC(T2908A)	10 & 60 M	1	7	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: DELTA-T based atmosperic stability. Output 1-7 corresponds to class A-G. No Engineering units apply. Note 2: T2908A=50 meter delta-t.
2U5001A	07/06/91	RCS PRESSURE	SAS Avg RCS pressure	PSIG	P	4 / 2 NOTE	CV-AVG(4 NR OR 2 WR) Note 1		0	3000	Fail	1900	2385 Note 2	N/A	N/A	N/A	Note 1: If quality of NR sensors (P0480A,P0481A,P0482A,P0483A) is bad, then use the 2 WR sensors (P0507A,P0508A); Note 2: At other than full power mode SAS calculates Hi and Lo alarm limits.
2U5007A	07/06/91	PRZR LEVEL	SAS Avg PRZR H2O lvl (NR)	%	P	3	CV-AVG(L0480A L0481A L0482A)		0	100	Fail	14.8	90	64.6 gal/%	527 gal Note 1	None	Note 1: Zero % level is 18'9" above top of fuel; Level sensor id's 426, 427, 428
2U5011A	07/02/91	REACTOR VESSEL LEV	SAS Avg Reactor Vessel Level	%	P	2 / 4 note	AVG(2 SENSORS) Note 1	Cntmt	0	120	Fail	0	120	4.4 inch/%	Note 2	Note 3	Note 1: If RCP is off use FR full range sensors; else WR wide range; Note 2: Top of fuel = 56.7%. Bottom of fuel = 24%; Note 3: Compensation in RVLIS; Alarm values are calculated.
2U5013A	07/06/91	CNTMT TEMP	SAS Avg Cntmt Temp	DegF	P	3	CV-AVG(T1000A T1001A T1002A)	Cntmt Note 1	0	400	Fail	NONE	Note 2	N/A	N/A	N/A	Note 1: Sensor elevations:697 738 755; Note 2: High alarm is 10 DegF greater than rolling 5 min avg of containment temp.
2U5015A	07/06/91	CNTMT PRESS	SAS Avg Cntmt Press	PSIG	P	2	AVG(P1010A P1011A)	Cntmt	-5	200	Fail	-5	4	N/A	N/A	N/A	WR sensor id's 717, 718
2U5017A	02/19/07	CNTMT SUMP WR	SAS Avg Cntmt WR Lvl	Ft.	P	2	AVG(L5556A L5557A)		0	12	Fail	0	0.5	40741 gal/ft	0.0 ft	N/A	Note 1: Containment area = 5446 sq ft. Accuracy is +/- 17.2% due to complexities.
2U5021A	07/06/91	CNTMT H2 CONC	SAS Avg Cntmt H2 conc	%	P	2	AVG(Y0454A Y0455A)	Cntmt	0	10	Fail	NONE	NONE	N/A	N/A	N/A	
2U5022A	02/19/07	CNTMT RAD	SAS Cntmt rad - Hi Rng	R/Hr	P	2	MAX(R0048A R0049A)		1	1.0E8	Fail	1	20000	N/A	N/A	N/A	
2U5024A	07/06/91	COND A/E RAD	SAS Air Ejector Rad	CPM	S	1	QV(R0015A) Note 1		10	1.0E6	Fail	10	5000	N/A	N/A	N/A	Note 1: R0015A=CDSR air ejector gas radioactivity.
2U5026A	07/06/91	SG BD RAD 1A	SAS Stm Gen Blowdown Rad	CPM	S	1	QV(R0019A)		10	1.0E6	Fail	10	10000	N/A	N/A	N/A	
2U5032A	07/02/91	SG LEVEL 1	SAS Avg Stm Gen 1 H2O Level	%	P	3	CV-AVG(L0400A L0401A L0402A)	Note 1	0	100	Fail	20	67	180gal/% @STP	Note 2	None	Note 1: Sensor is 433" above tube sheet. NR sensors span of 144"; Note 2: Zero ref 23" above tube bundle; 420" = top of tube bundle; Level ref leg filled with condenser pot.
2U5034A	07/05/91	SG LEVEL 2	SAS Avg Stm Gen 2 H2O Level	%	P	3	CV-AVG(L0420A L0421A L0422A)	Note 1	0	100	Fail	20	67	180gal/% @STP	Note 2	None	Note 1: Sensor is 433" above tube sheet. NR sensors span of 144"; Note 2: Zero ref 23" above tube bundle; 420" = top of tube bundle; Level ref leg filled with condenser pot.
2U5036A	07/05/91	SG PRESS 1	SAS Avg Stm Gen 1 Pressure	PSIG	P	3	CV-AVG(P0400A P0401A P0402A)		0	1400	Fail	500	1075	N/A	N/A	N/A	sensor id's 468, 469, 482
2U5038A	07/05/91	SG PRESS 2	SAS Avg Stm Gen 2 Pressure	PSIG	P	3	CV-AVG(P0420A P0421A P0422A)		0	1400	Fail	500	1075	N/A	N/A	N/A	sensor id's 478, 479, 483
2U5040A	07/05/91	MAIN FEED FLOW 1	SAS Avg Stm Gen 1 Feed Flow	Lb/Hr	P	2	AVG(F0403A F0404A)		0	4470000	Fail	NONE	NONE	N/A	N/A	None	flow xmtrs 466, 467
2U5042A	07/05/91	MAIN FEED FLOW 2	SAS Avg Stm Gen 2 Feed Flow	Lb/Hr	P	2	AVG(F0423A F0424A)		0	4470000	Fail	NONE	NONE	N/A	N/A	None	flow xmtrs 467, 477
2U5044A	07/05/91	AUX FEED FLOW 1	SAS Avg Stm Gen 1 Aux Fd Fl	GPM	S	1	QV(F2861A)		0	200	Fail	NONE	NONE	N/A	N/A	None	
2U5045A	07/05/91	AUX FEED FLOW 2	SAS Avg Stm Gen 2 Aux Fd Fl	GPM	S	1	QV(F2871A)		0	200	Fail	NONE	NONE	N/A	N/A	None	
2U5048A	07/02/91	NI POWER RNG	SAS NIS Avg Pwr Rng Pwr Level	%	P	4	CV-AVG(N41 N42 N43 N44)	Excore	0	120	LOW	NONE	NONE	N/A	N/A	N/A	ERCS points N0049A, N0050A, N0051A, N0052A correspond to N41 N42 N43 N44
2U5049A	07/05/91	RCS HOT LEG TEMP 1	SAS RCS Hot leg 1 Temp	DegF	S	1	QV(T0419A)		50	700	Fail	NONE	NONE	N/A	N/A	N/A	
2U5051A	07/05/91	RCS HOT LEG TEMP 2	SAS RCS Hot leg 2 Temp	DegF	S	1	QV(T0439A)		50	700	Fail	NONE	NONE	N/A	N/A	N/A	
2U5053A	07/05/91	RCS COLD LEG TEMP 1	SAS RCS Cold leg 1 Temp	DegF	S	1	QV(T0406A)		50	700	Fail	520 Note 1	555	N/A	N/A	N/A	Note 1: Alarm setpoints are at full power. In other modes; setpoints are calculated based on system pressure.
2U5055A	07/05/91	RCS COLD LEG TEMP 2	SAS RCS Cold leg 2 Temp	DegF	S	1	QV(T0426A)		50	700	Fail	520 Note 1	555	N/A	N/A	N/A	Note 1: Alarm setpoints are at full power. In other modes; setpoints are calculated based on system pressure.
2U5061AH	02/19/07	EFFLUENT GAS RAD	Stack Effl Rad High Rng	uCi/Sec Note 1	P	2	.246 * R0050A * F5429A Note 2		0	1.0E9	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: Units=Micro-Curries/Sec xenon 133 equivalent. Note 2: F5429A=stack flow. R0050A=Hi Range vent gas rad. UC/S requested by MN State EOC.
2U5061AL	02/19/07	EFFLUENT GAS RAD	Stack Effl Rad Low Rng	uCi/Sec Note 1	P	2	1.4160E-06 * R0022A * F5429A Note 2		0	1.0E6	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: Units=Micro-Curries/Sec xenon 133 equivalent. Note 2: F5429A=stack flow. R0022A=Lo Range vent gas rad. UC/S requested by MN State EOC.
2U5068A	07/06/91	BWST LEVEL	SAS Avg RWST level	%	P	2	AVG(L0920A L0921A)	RWST	0	100	Fail	NONE	NONE	2922 Gal/%	1898 Gal	N/A	RWST=Refueling Water Storage Tank
2U5077A	07/02/91	SUBCOOLING MARGIN	SAS RCS Subcooling Margin	DegF	P	40	DIFF(U5003A - U5009A) Note 1	Incore	-200	1000	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: U5003A=RCS saturation temp based on the 1967 ASME steam tables; U5009A=Avg Core Exit Temp
2U5081A	10/16/91	NI SOURC RNG	NIS Avg Source Rng Log Q	CPS	P	2	AVG(N0031A N0032A)	Excore	1	1000000	LOW	NONE	NONE	N/A	N/A	N/A	Value quality reads "BAD" (due to hi limit exceeded) at higher power levels.
2U5082A	10/16/91	NI INTERMED RNG	NIS Avg Intermediate Rng Log Q	AMP	P	2	AVG(N0035A N0036A)	Excore	0	0.001	LOW	NONE	NONE	N/A	N/A	N/A	35B & 36B neutron flux detectors.
2U5143A	07/06/91	MAIN SL 1	SAS Main Steamline A Rad	MR/Hr	S	1	QV(R0051A)		1	1.0E5	Fail	NONE	NONE	N/A	N/A	N/A	
2U5144A	07/06/91	MAIN SL 2	SAS Main Steamline B Rad	MR/Hr	S	1	QV(R0052A)		1	1.0E5	Fail	NONE	NONE	N/A	N/A	N/A	
2U5152A	07/17/91	CORE FLOW	RCS Avg flow	%	P	6	AVG(U5150A U5151A) Note 1		0	115	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: LOOP A (U5150A) = AVG(F0400A,F0401A,F0402A); LOOP B (U5151A)=AVG(F0420A,F0421A,F0422A)
2U5153A	07/17/91	CNTMT SUMP NR	Cntmt Sump B avg level NR	%	P	2	AVG(L5550A L5555A)		0	100	Fail	NONE	NONE	Note 1	Zero	N/A	Note 1: 14.7 gal/% UP TO 84% & 1903gal/% > 84%; Sump area = 42 sq ft. Depth=47".
2U5154A	10/09/91	HP SI FLOW	Total Safety Injection flow	Gpm	P	2	SUM(F0922A F0923A) Note 1		0	1500	Fail	NONE	NONE	N/A	N/A	N/A	Note 1: F0922A=Flow to cold leg; F0923A=Flow to rx vessel.
2U5510A	10/16/91	CORE EXIT TEMP.	SAS 1st hottest incore TC	DegF	P	39	MAX(39 INCORE TC'S)	Incore	32	2300	Fail	N/A	N/A	N/A	N/A	N/A	Hottest of 39 incore thermocouples.
2Y1057D	02/19/07	CNTMT SPRAY	CNTMT SPRAY ON/OFF	N/A	S	2	OR(21,22) SPRAY PMP BKR		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Requested by MN State EOC.
SERVERID	09/26/05	FEEDER IDENTIFICATION	SERVER ID	N/A	S	1	CONSTANT VALUE		1	20	N/A	NONE	NONE	N/A	N/A	N/A	Used to identify which computer is transmitting data. ERCS1-A=1; ERCS1-B=2; ERCS2-A=3; ERCS2-B=4; SIMULATOR-A=17; SIMULATOR-B=19