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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
Renewed License Nos. DPR-42 and DPR-60

Notification of Changes to Prairie Island Nuclear Generating Plant (PINGP) Emergency Response Data System (ERDS) Data Point Library (DPL)

In accordance with the requirements of 10CFR 50, Appendix E, Section VI.3.a, Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter "NSPM") is submitting a change to the ERDS DPL for the Prairie Island Nuclear Generating Plant, Units 1 and 2.

A summary of the change is included on page 1 of the enclosure for Unit 1, and page 3 for Unit 2.

Summary of Commitments

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

Mark A. Schimmel
Site Vice President, Prairie Island Nuclear Generating Plant
Northern States Power Company - Minnesota

Enclosures (1)

cc: Administrator, Region III, USNRC
NRR Project Manager, USNRC
Resident Inspector, USNRC, PINGP
Bezakulu Alemu, USNRC ERDS Project Manager
Steve Sage, ERDS System Engineer

A026
MRR

ENCLOSURE 1

Prairie Island Nuclear Generating Plant Unit 1 and Unit 2
Emergency Response Data System (ERDS) Data Point Library

4 pages follow

PROCESS

DESCRIPTIONS	DEFINITIONS
AVG	The average of 2 or more 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
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) The "Generic Description" field is the same as the ERCS point description for all points in this document.
- 2) The "Analog / Digital" field is omitted because all points in this document are analogs (except Y1057D).
- 3) There are no trip setpoints, but we have provided high and low alarm limits if any.
- 4) Changes to the previous (11/21/2011) DPL in yellow on the spreadsheet.

Change summary:

Point changed	Point Description	Reason
1U5013A	SAS CNTMT TEMP AVG	The calculation method was changed from Chauvenet average of 3 sensors to a simple average with rejection of bad/out-of-range inputs at 30 degrees F deviation from the mean.

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Change summary:

Point changed	Point Description	Reason
2U5013A	SAS CNTMT TEMP AVG	The calculation method was changed from Chauvenet average of 3 sensors to a simple average with rejection of bad/out-of-range inputs at 30 degrees F deviation from the mean.

POINT ID	CHANGE DATE	NRC ERDS PARAMETER	ERCS POINT DESCRIPTION	ENG UNITS	LOW ENG LIMIT	HIGH ENG LIMIT	LOW ALARM LIMIT	HIGH ALARM LIMIT	P/S	# OF SENSORS	SENSOR LOCATION	FAIL MODE	PROCESS / COMPUTATION	CONVERSION	ZERO REF.	COMPEN SATION	Notes
2F0128A	07/06/91	RCS CHARGE/MU FLOW	CHARG PMP DISCH HDR F	Gpm	0	100	NONE	NONE	S	1	Note 1	LOW	Field instrument	N/A	N/A	N/A	Note 1: Sensor located 20 feet above discharge pump.
2R0009A	07/06/91	RCS LTDN RAD	RC LETDN LINE R UNIT 2	MR/Hr	0.1	10000	NONE	1000	S	1		Fail	Field instrument	N/A	N/A	N/A	
2R0021A	10/10/91	EFFLUENT LIQ RAD	CIRC WTR DISCH R	CPM	10	1.0E6	NONE	1000	S	1		Fail	Field instrument	N/A	N/A	N/A	
2R0051U1	12/04/07	EFFLUENT GAS RAD	STM-RAD RELEASE RATE	uCi/Sec	0	1E6	N/A	N/A	P	21		N/A	Complex Calculation	N/A	N/A	N/A	Note 1: Requested by MN State EOC. Only computed for a few days after RX trip. Must be validated by other instrumentation. e.g.; Main Steam line Radiation levels.
2U0651A	10/09/91	LP SI FLOW	RHR TOTAL FLOW	Gpm	-1	9000	1250	2500	P	2		Fail	SUM(F0626A F0928A) Note 1	N/A	N/A	N/A	Note 2: Micro-Curies/sec Xenon 133 equivalent. Note 1: F0626A=RHR loop flow; F0928A=RHR flow to RX vessel
2U4143WSSEL	10/16/91	WIND SPEED	MET WIND SPD 15MAVG SEL	MPH	0	100	NONE	NONE	P	4	10Meter A,B 60Meter A,B 22Meter BU	Fail	BEST OF INSTRUMENTS 10MA, 10MB, 60MA, 60MB, 22M	N/A	N/A	N/A	Meteorological tower best of 10 meter train A, train B and 60 meter train A & B and 22 meter backup tower in that order. Values are 15 min avg of 1 sec input data
2U4143WSEL	09/26/05	WIND DIR	MET WIND DIR 15MAVG SEL	Deg	0	360	NONE	NONE	P	4	10Meter A,B 60Meter A,B 22Meter BU	Fail	BEST OF INSTRUMENTS 10MA, 10MB, 60MA, 60MB, 22M	N/A	N/A	N/A	Meteorological tower best of 10 meter train A, train B and 60 meter train A & B and 22 meter backup tower in that order. Values are 15 min avg of 1 sec input data
2U4143STAB	02/19/07	STABILITY CLASS	MET DELTA-T PASQUILL STAB SEL	N/A	1	7	NONE	NONE	P	2	10 & 60 M	Fail	BEST OF 2 60METER-10M STAB_FUNC(DELTA-T)	N/A	N/A	N/A	Note 1: DELTA-T based atmospheric stability. Output 1-7 corresponds to class A-G. No Engineering units apply. Note 2: Best of train A & B in that order.
2U5001A	07/06/91	RCS PRESSURE	SAS RCS PRESS AVG	PSIG	0	3000	1900	2385 Note 2	P	4 / 2 NOTE		Fail	CV-AVG(4 NR OR 2 WR) Note 1	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 PRZR LVL AVG	%	0	100	14.8	90	P	3		Fail	CV-AVG(L0480A L0481A L0482A)	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 RX VESSEL LVL AVG	%	0	120	0	120	P	2 / 4 note	Cntrmt	Fail	AVG(2 SENSORS) Note 1	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. Note 1: Sensor elevations: 697, 738, 755. Note 2: High alarm is 10 DegF greater than rolling 5 min avg of containment temp.
2U5013A	12/29/11	CNTMT TEMP	SAS CNTMT TEMP AVG	DegF	0	400	NONE	Note 2	P	3	Cntrmt Note 1	Fail	AVG(T1000A T1001A T1002A)	N/A	N/A	N/A	WR sensor id's 717, 718
2U5015A	07/06/91	CNTMT PRESS	SAS CNTMT PRESS AVG	PSIG	-5	200	-5	4	P	2	Cntrmt	Fail	AVG(P1010A P1011A)	N/A	N/A	N/A	SAS CNTMT SUMP B WR LVL AVG
2U5017A	02/19/07	CNTMT SUMP WR	SAS CNTMT SUMP B WR LVL AVG	Ft.	0	12	0	0.5	P	2		Fail	AVG(L5556A L5557A)	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 CNTMT H2 CONC AVG	%	0	10	NONE	NONE	P	2	Cntrmt	Fail	AVG(Y0454A Y0455A)	N/A	N/A	N/A	
2U5022A	02/19/07	CNTMT RAD	SAS CNTMT HIGH RAD	R/Hr	1	1.0E8	1	20000	P	2		Fail	MAX(R0048A R0049A)	N/A	N/A	N/A	
2U5024A	07/06/91	COND A/E RAD	SAS AIR EJECTOR RAD	CPM	10	1.0E6	10	5000	S	1		Fail	QV(R0015A) Note 1	N/A	N/A	N/A	Note 1: R0015A=CDSR air ejector gas radioactivity.
2U5026A	07/06/91	SG BD RAD 1A	SAS SG BLOWN RAD	CPM	10	1.0E6	10	10000	S	1		Fail	QV(R0019A)	N/A	N/A	N/A	
2U0780A	02/23/11	SG LEVEL 1	SAS SG A WR LVL AVG	%	0	100			P	3		Fail	AVG(L0403A L0404A)				
2U0781A	02/23/11	SG LEVEL 2	SAS SG B WR LVL AVG	%	0	100			P	3		Fail	AVG(L0423A L0424A)				
2U5036A	07/05/91	SG PRESS 1	SAS SG A PRESS AVG	PSIG	0	1400	500	1075	P	3		Fail	CV-AVG(P0400A P0401A P0402A)	N/A	N/A	N/A	sensor id's 468, 469, 482
2U5038A	07/05/91	SG PRESS 2	SAS SG B PRESS AVG	PSIG	0	1400	500	1075	P	3		Fail	CV-AVG(P0420A P0421A P0422A)	N/A	N/A	N/A	sensor id's 478, 479, 483
2U5040A	07/05/91	MAIN FEED FLOW 1	SAS SG A FW FLOW AVG	Lb/Hr	0	4470000	NONE	NONE	P	2		Fail	AVG(F0403A F0404A)	N/A	N/A	None	flow xmtrs 466, 467
2U5042A	07/05/91	MAIN FEED FLOW 2	SAS SG B FW FLOW AVG	Lb/Hr	0	4470000	NONE	NONE	P	2		Fail	AVG(F0423A F0424A)	N/A	N/A	None	flow xmtrs 467, 477
2U5044A	07/05/91	AUX FEED FLOW 1	SAS SG A AUX FW FLOW	GPM	0	200	NONE	NONE	S	1		Fail	QV(F2861A)	N/A	N/A	None	
2U5045A	07/05/91	AUX FEED FLOW 2	SAS SG B AUX FW FLOW	GPM	0	200	NONE	NONE	S	1		Fail	QV(F2871A)	N/A	N/A	None	
2U5048A	07/02/91	NI POWER RNG	SAS PWR RNG PWR AVG	%	0	120	NONE	NONE	P	4	Excure	LOW	CV-AVG(N41 N42 N43 N44)	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 A THOT (T0419A)	DegF	50	700	NONE	NONE	S	1		Fail	QV(T0419A)	N/A	N/A	N/A	
2U5051A	07/05/91	RCS HOT LEG TEMP 2	SAS RCS B THOT (T0439A)	DegF	50	700	NONE	NONE	S	1		Fail	QV(T0439A)	N/A	N/A	N/A	
2U5053A	07/05/91	RCS COLD LEG TEMP 1	RC A COLD LEG (T0406A)	DegF	50	700	520 Note 1	555	S	1		Fail	QV(T0406A)	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	RC B COLD LEG (T0426A)	DegF	50	700	520 Note 1	555	S	1		Fail	QV(T0426A)	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	12/04/07	EFFLUENT GAS RAD	SHLD BLD EFFL RAD LO RNG	uCi/Sec	Note 1	0	1.0E9	NONE	NONE	P	2	Fail	15.093 * R0050A * F5429A Note 2	N/A	N/A	N/A	Note 1: Units=Micro-Curies/Sec Xenon 133 equivalent. uCi/Sec requested by MN State EOC. Note 2: F5429A=stack flow. R0050A=Hi Range vent gas rad.
2U5061AL	12/04/07	EFFLUENT GAS RAD	SHLD BLD EFFL RAD HI RNG	uCi/Sec	Note 1	0	1.0E6	NONE	NONE	P	2	Fail	Z=F5429A*471.66 (see note 2) IF(R22<340) Z*(A*X*X + B*X + C) IF(R22>=340) Z*(X**D)*E	N/A	N/A	N/A	Note 1: Units=Micro-Curies/Sec Xenon 133 equivalent. uCi/Sec requested by MN State EOC. Note 2: F5429A=stack flow. R0022A=Lo Range vent gas rad. X=R0022A; A=6.0E-10; B=5.0E-07; C=-2.0E-05; D=1.1455; E=3.0E-07
2U5068A	07/06/91	BWST LEVEL	RWST LVL AVG	%	0	100	NONE	NONE	P	2	RWST	Fail	AVG(L0920A L0921A)	2922 Gal/%	1898 Gal	N/A	RWST=Refueling Water Storage Tank
2U5077A	07/02/91	SUBCOOLING MARGIN	RCS SUBCOOLING MARGIN	DegF	-200	1000	NONE	NONE	P	40	Incure	Fail	DIFF(U5003A - U5009A) Note 1	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 SRC RNG LOG Q 31E/32F	CPS	1	1000000	NONE	NONE	P	2	Excure	LOW	AVG(N0031A N0032A)	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 INT RNG LOG Q 35A/36B	AMP	0	0.001	NONE	NONE	P	2	Excure	LOW	AVG(N0035A N0036A)	N/A	N/A	N/A	35B & 36B neutron flux detectors.
2U5143A	07/06/91	MAIN SL 1	SAS MAIN STM RAD A	MR/Hr	1	1.0E5	NONE	NONE	S	1		Fail	QV(R0051A)	N/A	N/A	N/A	
2U5144A	07/06/91	MAIN SL 2	SAS MAIN STM RAD B	MR/Hr	1	1.0E5	NONE	NONE	S	1		Fail	QV(R0052A)	N/A	N/A	N/A	
2U5152A	07/17/91	CORE FLOW	RC FLOW AVG	%	0	115	NONE	NONE	P	6		Fail	AVG(U5150A U5151A) Note 1	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 LVL NR AVG	%	0	100	NONE	NONE	P	2		Fail	AVG(L5550A L5555A)	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	SI SAFETY INJ FLOW TOTAL	Gpm	0	1500	NONE	NONE	P	2		Fail	SUM(F0922A F0923A) Note 1	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	INCORE TC 1ST HOTTEST	DegF	32	2300	N/A	N/A	P	39	Incure	Fail	MAX(39 INCORE TC'S)	N/A	N/A	N/A	Hottest of 39 incore thermocouples.
2Y1057D	02/19/07	CNTMT SPRAY	21/22 CNTMT SPRY PMP BKR	N/A	N/A	N/A	N/A	N/A	S	2		N/A	OR(21,22) SPRAY PMP BKR	N/A	N/A	N/A	Requested by MN State EOC.