



JAN 26 2012

L-PI-12-006
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
HRR

ENCLOSURE 1

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

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. |

| 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 |
|--------------|-------------|---------------------|----------------------------------|-------------------|---------------|----------------|-----------------|------------------|-----|--------------|--|-----------|---|--------------|-------------------|---------------|--|
| 1F0128A | 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. |
| 1R0009A | 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 | |
| 1R0011A | 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 | |
| 1R0051U1 | 12/04/07 | EFFLUENT GAS RAD | STM-RAD RELEASE RATE | uCi/Sec NOTE 2 | 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. Note 2: Micro-Curies/sec Xenon 133 equivalent. |
| 1U0651A | 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 1: F0626A=RHR loop flow; F0928A=RHR flow to RX vessel |
| 1U4143WSSEL | 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 |
| 1U4143WDSSEL | 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 |
| 1U4143STAB | 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. Note 2: Compensation in RVLIS; Alarm values are calculated. |
| 1U5001A | 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. |
| 1U5007A | 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 |
| 1U5011A | 07/02/91 | REACTOR VESSEL LEV | SAS RX VESSEL LVL AVG | % | 0 | 120 | 0 | 120 | P | 2 / 4 note | Cntmt | 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. |
| 1U5013A | 12/29/11 | CNTMT TEMP | SAS CNTNT TEMP AVG | DegF | 0 | 400 | NONE | Note 2 | P | 3 | Cntmt | Fail | AVG(T1000A T1001A T1002A) | 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 CNTMT PRESS AVG | PSIG | -5 | 200 | -5 | 4 | P | 2 | Cntmt | Fail | AVG(P1010A P1011A) | N/A | N/A | N/A | WR sensor id's 717, 718 |
| 1U5017A | 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. |
| 1U5021A | 07/06/91 | CNTMT H2 CONC | SAS CNTMT H2 CONC AVG | % | 0 | 10 | NONE | NONE | P | 2 | Cntmt | Fail | AVG(Y0454A Y0455A) | N/A | N/A | N/A | |
| 1U5022A | 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 | |
| 1U5024A | 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. |
| 1U5026A | 07/06/91 | SG BD RAD 1A | SAS SG BLOWDN RAD | CPM | 10 | 1.0E6 | 10 | 10000 | S | 1 | | Fail | QV(R0019A) | N/A | N/A | N/A | |
| 1U0780A | 02/23/11 | SG LEVEL 1 | SAS SG A WR LVL AVG | % | 0 | 100 | | | P | 3 | | Fail | AVG(L0403A L0404A) | | | | |
| 1U0781A | 02/23/11 | SG LEVEL 2 | SAS SG B WR LVL AVG | % | 0 | 100 | | | P | 3 | | Fail | AVG(L0423A L0424A) | | | | |
| 1U5036A | 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 |
| 1U5038A | 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 |
| 1U5040A | 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 |
| 1U5042A | 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 |
| 1U5044A | 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 | |
| 1U5045A | 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 | |
| 1U5048A | 07/02/91 | NI POWER RNG | SAS PWR RNG PWR AVG | % | 0 | 120 | NONE | NONE | P | 4 | Excore | 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 |
| 1U5049A | 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 | |
| 1U5051A | 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 | |
| 1U5053A | 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. |
| 1U5055A | 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. |
| 1U5061AH | 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. |
| 1U5061AL | 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 |
| 1U5068A | 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 |
| 1U5077A | 07/02/91 | SUBCOOLING MARGIN | RCS SUBCoolING MARGIN | DegF | -200 | 1000 | NONE | NONE | P | 40 | Incore | 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 |
| 1U5081A | 10/16/91 | NI SOURC RNG | NIS SRC RNG LOG Q 31E/32F | CPS | 1 | 1000000 | NONE | NONE | P | 2 | Excore | LOW | AVG(N0031A N0032A) | 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 INT RNG LOG Q 35A/36B | AMP | 0 | 0.001 | NONE | NONE | P | 2 | Excore | LOW | AVG(N0035A N0036A) | N/A | N/A | N/A | 35B & 36B neutron flux detectors. |
| 1U5143A | 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 | |
| 1U5144A | 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 | |
| 1U5152A | 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) |
| 1U5153A | 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". |
| 1U5154A | 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. |
| 1U5510A | 10/16/91 | CORE EXIT TEMP. | INCORE TC 1ST HOTTEST | DegF | 32 | 2300 | N/A | N/A | P | 39 | Incore | Fail | MAX(39 INCORE TC'S) | N/A | N/A | N/A | Hottest of 39 incore thermocouples. |
| 1Y1057D | 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. |

PROCESS**DESCRIPTIONS****DEFINITIONS**

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| NR | NARROW RANGE SENSORS |
| FR | FULL RANGE SENSORS |
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| CNTMT | CONTAINMENT |
| COND | CONDENSER |
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| HP / LP | HIGH / LOW PRESSURE |
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Other Notes

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- 4) Changes to the previous (11/21/2011) DPL in yellow on the spreadsheet.

Change summary:

| Point changed | Point Description | Reason |
|---------------|--------------------|---|
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| 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 NOTE 2 | 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. Note 2: Micro-Curies/sec Xenon 133 equivalent. |
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| 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 |
| 2U4143WDSSEL | 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. |
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| 2U5011A | 07/02/91 | REACTOR VESSEL LEV | SAS RX VESSEL LVL AVG | % | 0 | 120 | 0 | 120 | P | 2 / 4 note | Cntmt | 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. |
| 2U5013A | 12/29/11 | CNTMT TEMP | SAS CNTNT TEMP AVG | DegF | 0 | 400 | NONE | Note 2 | P | 3 | Cntmt Note 1 | Fail | AVG(T1000A T1001A T1002A) | 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 CNTMT PRESS AVG | PSIG | -5 | 200 | -5 | 4 | P | 2 | Cntmt | Fail | AVG(P1010A P1011A) | N/A | N/A | N/A | WR sensor id's 717, 718 |
| 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 | Cntmt | 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 BLOWDN 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 | Excore | 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 | Incore | 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 | Excore | 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 | Excore | 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 | Incore | 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. |