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Georgia Power

The Southeast Electric System

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50-425

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

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT  
EMERGENCY RESPONSE DATA SYSTEM (ERDS)  
PAL/DPL TRANSMITTAL

Please find attached the Vogtle Plant Attribute Library (PAL) and Data Point Library (DPL) as requested in NUREG-1394 Revision 1 and the August 13, 1991, publication of the Final Rule in the Federal Register.

The attached document contains the communications information necessary to establish a highly reliable data link to the NRC. In addition, the DPL lists the specific information for each required data point; i.e., point identification, description, engineering units, etc. for each unit.

Please contact this office if you have any questions.

Sincerely,

*C.K.M.'G*  
C. K. McCoy

CKM/JGM/clr

Enclosures

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Emergency Response Data System (ERDS)  
Plant Attribute Library  
VEGP Units 1 & 2

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Emergency Response Data System (ERDS)  
Plant Attribute Library  
VEGP Units 1 & 2

ERDS Communications Description

This section is understood, no exceptions are required. The Vogtle ERDS interface will be a "single-feeder" site connection.

III. Selection of Data Feeders

- A. How many data feeders are there (six maximum)?

The Vogtle ERDS interface will be IBM-compatible personal computers running a Southern Company Services, Inc. program called PC-Link. This program allows the PC to access both the Unit 1 and Unit 2 Emergency Response Facilities (ERF) computer systems. PC-Link will perform all data conversions necessary to conform to the communication protocols given in Appendix B.II. The configuration is shown in Figure 1.

PC-Link will be considered the only data feeder for the Vogtle ERDS interface.

- B. Identify the selected feeders (etc.)

PC-Link will provide all required categories of data points for both Unit 1 and Unit 2.

- C. Which data feeder is the site time determining feeder?

PC-Link will poll either the Unit 1 or Unit 2 ERF computer clock depending on which Unit is involved in the event. This time will be considered the site time for ERDS purposes.

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IV. Data Feeder Information

General Questions

1. Identification of Data Feeder

- a. What is the name in local parlance given to this data feeder?

This feeder is called the ERF PC-Link. It is fed from the Unit 1 and Unit 2 ERF computers. The data transmitted will typically be described by plant personnel as "ERF data." ERF is used as an acronym for Emergency Response Facilities Computer Systems. Plant tag numbers for the personal computers used for ERDS communications are A-2701-C5-PCA and A-2701-C5-PCB.

- b. Is this the site time determining feeder?

PC-Link will determine the site time from the affected unit's ERF computer. Thus, the ERF is considered the site time determining feeder.

- c. How often will this feeder transmit an update set to the ERDS (in seconds)?

PC-Link will transmit an update set to the to the ERDS every 15 seconds.

2. Hardware/Software Environment

- a. Identify the manufacturer and model number of the data feeder hardware.

The PC-Link runs on IBM compatible personal computers with an 80386 CPU, 33 MHz, zero wait state, 100 Mbyte (minimum) hard drive, 1Mbyte (minimum) RAM, 101 key enhanced keyboard, Super VGA Graphics card and monitor, 4 serial ports, and 2 parallel ports.

The ERF computers which the PC-Link connects to are Foxboro FOX 1/A Model C.

- b. Identify the operating system.

The PC's run DOS 5.0, and the ERF's run the Southern Company Services FOX operating system.

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- c. What method of timekeeping is implemented on this feeder system?

Eastern Standard Time (changing to Eastern Daylight Time as appropriate).

- d. In what time zone is this feeder located?

The Eastern Time Zone.

3. Data Communications Details

- a. Can this data feeder provide asynchronous serial data communication (RS-232-C) with full-modem control?

Yes.

- b. Will this feeder transmit in ASCII or EBCDIC?

ASCII.

- c. Can this feeder transmit at a serial rate of 2400 bps?

Yes.

- d. Does the operating system support XON/XOFF flow control?

Yes.

1. Are any problems foreseen with the NRC using XON/XOFF to control the transmissions of data?

No.

- e. If it is not feasible to reconfigure a serial port for the ERDS linkup (i.e., change the baud rate, parity, etc.), please explain why.

The serial port connection will be configured for the proper parameters including baud rate and parity.

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- f. Do any ports currently exist for the ERDS linkup?

Yes, currently the ERF computer has six asynchronous serial ports. Two of these ports shall be utilized for ERDS (one port for the Unit 1 PC and one port for the Unit 2 PC). The ERDS linkup ports (provided on the PC's) will then transmit the required data set to the NRC.

1. If not, is it possible to add additional ports.

N/A.

2. If yes, will the port be used solely by the ERDS or shared with other non-emergency-time users? Give details.

During ERDS activation, the ERF ports to the Unit 1 and Unit 2 PC's will be dedicated solely for the purpose of maintaining the ERDS communication link. In addition, during an Alert or higher emergency, the ERDS PC's will also be dedicated for ERDS use only.

During non-emergency conditions, the data connection between the ERF computer and the PC's will allow for several analytical functions to be performed on the designated PC's for internal plant use only. The PC's will be running an internally developed software package known as "PC-Link."

4. Data Feeder Physical Environment and Management

- a. Where is the data feeder located in terms of the TSC, EOF, and control room?

The PC's running PC-Link (incorporating the ERDS connection) will be located in the ISC Computer Room.

- b. Is the data feeder protected from loss of supply of electricity?

The PC's will be powered from battery-backed inverters.

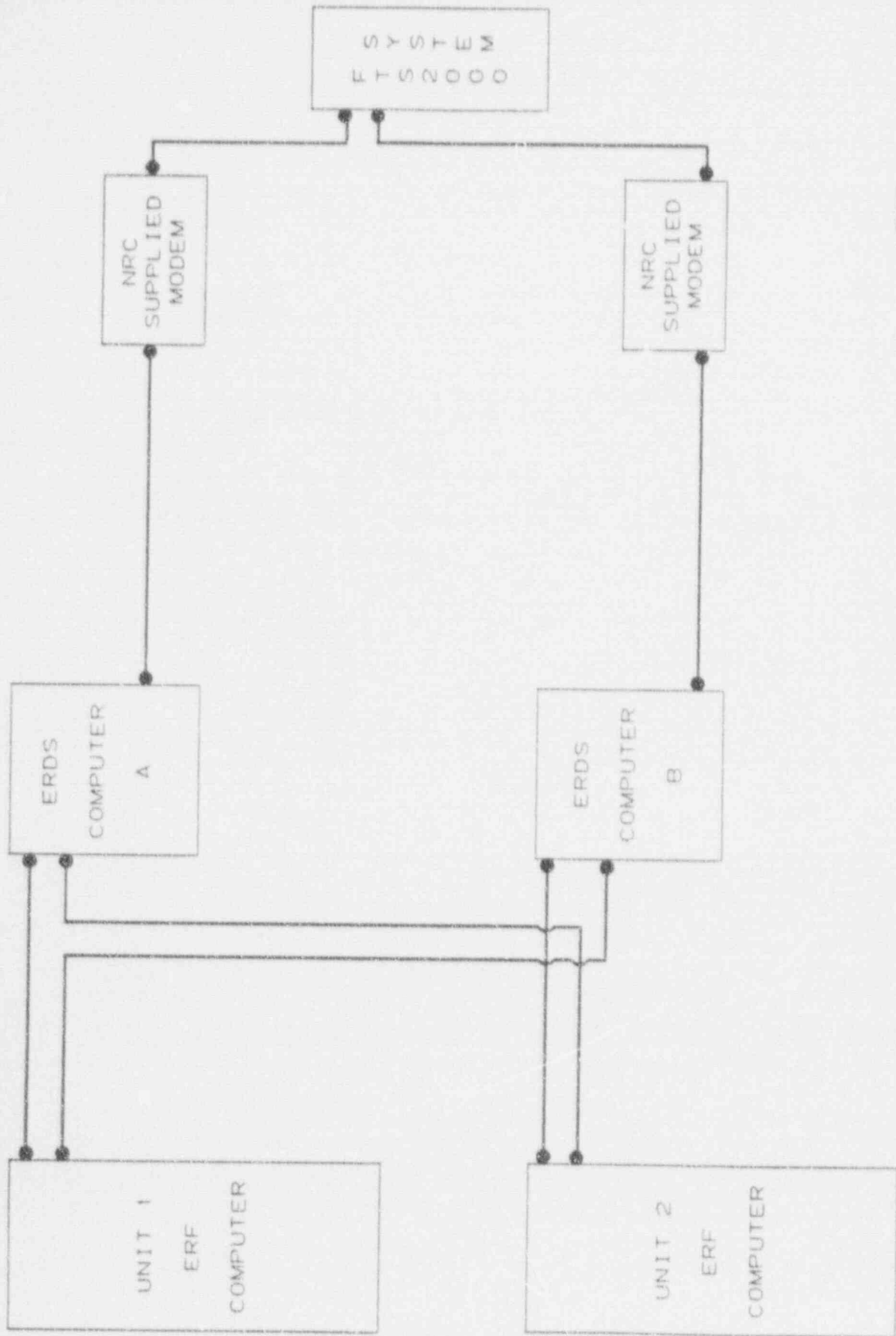
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c. Is there a human operator for this data feeder?

No. A human operator activates the ERDS initially but does not continuously monitor the system once it is in operation.

1. If so, how many hours a day is the feeder attended?

N/A.



VEGP  
ERDS COMMUNICATIONS  
UNIT 1 & 2

FIGURE 1



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : NI POWER RNG  
POINT ID : UV5049  
PLANT SPEC POINT DESC : VALIDATED NEUTRON FLUX POWER RANGE  
GENERIC/COND DESC : NUCLEAR INSTRUMENTS, POWER RANGE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 120.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 4  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : ADJACENT TO OUTSIDE OF REACTOR VESSEL  
ALARM/TRIP SETPOINTS : 5% HIGH (POSTTRIP) 101% HIGH (NORM OPS)  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is calculated using the four power range channel NI detectors. Only valid inputs are used in the calculation. Invalid inputs are discarded and the calculation performed. This point is marked invalid if no valid input points are present. The power range detectors are ionization type detectors located 90 degrees from each other around the outside of the reactor vessel. The detectors are centered approximately over the active fuel region of the core. The detectors actually consist of upper and lower units for measurement of 8 core sections. The individual upper and lower readings for each quadrant are summed and converted to percent power. The four converted values are the input to this calculation.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : NI INTER RNG  
POINT ID : UV5035  
PLANT SPEC POINT DESC : VALIDATED NEUTRON FLUX INTERMEDIATE RANGE  
GENERIC/COND DESC : NUCLEAR INSTRUMENTS, INTERMEDIATE RANGE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : AMPS  
ENGR UNITS CONVERSION : 1.0E-11 to 1.0E-03 AMPS  
MINIMUM INSTR RANGE : 1.0E-11  
MAXIMUM INSTR RANGE : 1.0E-3  
ZERO POINT REFERENCE : . /A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : ADJACENT TO OUTSIDE OF REACTOR VESSEL  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point represents the validated average of the intermediate range NI detectors. Only valid inputs are used in the calculation. Invalid inputs are discarded prior to performance of the calculation. If no valid inputs are present, this point is marked invalid. The intermediate range detectors are located externally to the reactor vessel.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : NI SOURC RNG  
POINT ID : UV5031  
PLANT SPEC POINT DESC : VALIDATED NEUTRON FLUX SOURCE RANGE  
GENERIC/COND DESC : NUCLEAR INSTRUMENTS, SOURCE RANGE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : CPS  
ENGR UNITS CONVERSION : 1.0 to 1.0E+6 CPS  
MINIMUM INSTR RANGE : 1.0  
MAXIMUM INSTR RANGE : 1000000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : ADJACENT TO OUTSIDE OF REACTOR VESSEL  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : 10% INCREASING  
NI POWER TURN ON : 1.0E-10 AMPS  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point consists of the validated average of the two source range signals from the excore detectors located adjacent to the outside of the vessel. If either signal is invalid the other is used. The point is marked invalid if no valid inputs are present. Source range instrumentation can be bypassed if one intermediate range channel is greater than P6. The source range detectors are energized below P6. P6 represents 1.0E-10 amps intermediate range power. Source range detectors deenergize automatically at P10 (10% Power Range power).

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : REAC VES LEV  
POINT ID : UV9863  
PLANT SPEC POINT DESC : VALIDATED RVLIS DYNAMIC HEAD  
GENERIC/COND DESC : REACTOR VESSEL WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : ‡  
ENGR UNITS CONVERSION : 0.0 to 120.0 ‡  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : HEAD VENT (TOP) & BOTTOM OF VESSEL  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION : Y  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

This point provides the validated average of the reactor vessel level wide range indication. Instrumentation is located in the instrument loop (top and bottom of vessel). If one of the inputs is invalid the other point is used. The point is marked invalid if both inputs are invalid. Compensation for density changes occurs in the PSMS system, a 1E classified computer system that receives all of the RVLIS temperature, pressure, and level inputs from the field transmitters.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : TEMP CORE EX  
POINT ID : UT5002  
PLANT SPEC POINT DESC : AVERAGE OF HIGHEST 5 INCORE T/C TEMPS  
GENERIC/COND DESC : HIGHEST TEMPERATURE AT THE CORE EXIT  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 2300.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 2300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 50  
HOW PROCESSED : AVERAGE  
SENSOR LOCATIONS : TOP OF CORE - SELECTED FUEL ASSEMBLIES  
ALARM/TRIP SETPOINTS : VARIABLE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point consists of the validated average of the 5 highest core exit thermocouple inputs. The core exit thermocouples are located in selected fuel assemblies at the top of the active fuel region.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SUB MARGIN  
POINT ID : UV9644  
PLANT SPEC POINT DESC : VALIDATED RCS SUBCOOLING  
GENERIC/COND DESC : SATURATION TEMPERATURE - HIGHEST CET  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : -600.0 to 350.0 DEGF  
MINIMUM INSTR RANGE : -600.0  
MAXIMUM INSTR RANGE : 350.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : CORE EXIT THERMOCOUPLES AND RCS PRESSURE  
ALARM/TRIP SETPOINTS : 28.0 DEGF LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the RCS subcooling inputs. If either signal is invalid the other signal is used. If both signals are invalid this point is marked invalid. RCS subcooling inputs originate from Data Processing Units of the PSMS computer system.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CORE FLOW  
POINT ID : F5400  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 1 FLOW (CH 1)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 1 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 100% = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 1. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CORE FLOW  
POINT ID : F5421  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 2 FLOW (CH 2)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 2 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : ‡  
ENGR UNITS CONVERSION : 100‡ = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IA A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90‡ LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 2. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CORE FLOW  
POINT ID : F5442  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 3 FLOW (CH 3)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 3 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 100% = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 3. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CORE FLOW  
POINT ID : F5460  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 4 FLOW (CH 4)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 4 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 100% = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 4. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 1/A  
POINT ID : L5404  
PLANT SPEC POINT DESC : SG1 LEVEL WIDE RANGE CH1  
GENERIC/COND DESC : STEAM GENERATOR 1 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-001  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-001 (Steam Generator 1). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 2/B  
POINT ID : L5424  
PLANT SPEC POINT DESC : SG2 LEVEL WIDE RANGE CH2  
GENERIC/COND DESC : STEAM GENERATOR 2 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-002  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-002 (Steam Generator 2). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 3/C  
POINT ID : L5444  
PLANT SPEC POINT DESC : SG3 LEVEL WIDE RANGE CH3  
GENERIC/COND DESC : STEAM GENERATOR 3 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-003  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-003 (Steam Generator 3). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 4/D  
POINT ID : L5464  
PLANT SPEC POINT DESC : SG4 LEVEL WIDE RANGE CH4  
GENERIC/COND DESC : STEAM GENERATOR 4 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-004  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-004 (Steam Generator 4). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG PRESS 1/A  
POINT ID : UV5400  
PLANT SPEC POINT DESC : VALIDATED SG1 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 1 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-001  
ALARM/TRIP SETPOINTS : 1065 PSIG LOW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 1 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG PRESS 2/B  
POINT ID : UV5420  
PLANT SPEC POINT DESC : VALIDATED SG2 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 2 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-002  
ALARM/TRIP SETPOINTS : 1065 PSIG LOW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 2 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG PRESS 3/C  
POINT ID : UV5440  
PLANT SPEC POINT DESC : VALIDATED SG3 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 3 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-003  
ALARM/TRIP SETPOINTS : 1065 PSIG LGW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 3 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG PRESS 4/D  
POINT ID : UV5460  
PLANT SPEC POINT DESC : VALIDATED SG4 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 4 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-004  
ALARM/TRIP SETPOINTS : 1065 PSIG LOW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 4 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MN FD FL 1/A  
POINT ID : UV5403  
PLANT SPEC POINT DESC : VALIDATED SG1 FW FLOW  
GENERIC/COND DESC : STM GEN 1 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR HEATR DISCH UPSTRM OF STM GEN 1  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 1. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NERC ERDS PARAMETER : MN FD FL 2/B  
POINT ID : UV5423  
PLANT SPEC POINT DESC : VALIDATED SG2 FW FLOW  
GENERIC/COND DESC : STM GEN 2 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR HEATR DISCH UPSTRM OF STM GEN 2  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 2. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MN FD FL 3/C  
POINT ID : UV5443  
PLANT SPEC POINT DESC : VALIDATED SG3 FW FLOW  
GENERIC/COND DESC : STM GEN 3 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBLR OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR HEATR DISCH UPSTRM OF STM GEN 3  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 3. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MN FD FL 4/D  
POINT ID : UV5463  
PLANT SPEC POINT DESC : VALIDATED SG4 FW FLOW  
GENERIC/COND DESC : STM GEN 4 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR HEATR DISCH UPSTRM OF STM GEN 4  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 4. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : AX FD FL 1/A  
POINT ID : UV7326  
PLANT SPEC POINT DESC : VALIDATED SG1 AUX FW FLOW  
GFNERIC/COND DESC : STM GEN 1 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM OF STM GEN 1  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 1. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : AX FD FL 2/B  
POINT ID : UV7327  
PLANT SPEC POINT DESC : VALIDATED SG2 AUX FW FLOW  
GENERIC/COND DESC : STM GEN 2 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM 6" STM GEN 2  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 2. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : AX FD FL 3/C  
POINT ID : UV7328  
PLANT SPEC POINT DESC : VALIDATED SG3 AUX FW FLOW  
GENERIC/COND DESC : STM GEN 3 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESS'D : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM OF STM GEN 3  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 3. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : AX FD FL 4/D  
POINT ID : UV7329  
PLANT SPEC POINT DESC : VALIDATED SG4 AUX FW FLOW  
GENERIC/COND DESC : STM GEN 4 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM OF STM GEN 4  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 4. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 1/A  
POINT ID : T5419  
PLANT SPEC POINT DESC : LOOP 1 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 1 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 1 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 1 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 1.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 2/B  
POINT ID : T5439  
PLANT SPEC POINT DESC : LOOP 2 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 2 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 2 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 2 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 2.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 3/C  
POINT ID : T5459  
PLANT SPEC POINT DESC : LOOP 3 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 3 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 3 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 3 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 3.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 4/D  
POINT ID : T5479  
PLANT SPEC POINT DESC : LOOP 4 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 4 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATION'S : LOOP 4 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 4 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 4.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 1/A  
POINT ID : T5406  
PLANT SPEC POINT DESC : LOOP 1 WIDE RANGE T-COLD  
GENERIC/COND DESC : STM GEN 1 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 1 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF LOW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 1 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 1.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 2/B  
POINT ID : T5426  
PLANT SPEC POINT DESC : LOOP 2 WIDE RANGE T-COLD  
GENERIC/COND DESC : STM GEN 2 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 2 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF LOW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 2 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 2.



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 3/C  
POINT ID : T5446  
PLANT SPEC POINT DESC : LOOP 3 WIDE RANGE T-COLD  
GENERIC/COND DESC : SIM GEN 3 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 3 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF LOW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 3 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 3.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 4/D  
POINT ID : T5466  
PLANT SPEC POINT DESC : LOOP 4 WIDE RANGE T-COLD  
GENERIC/COND DESC : STM GEN 4 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 4 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF OW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEC : N/A

UNIQUE SYSTEM DESC

Senses loop 4 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 4.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : RCS PRESSURE  
POINT ID : UV5408  
PLANT SPEC POINT DESC : VALIDATED RCS WIDE RANGE PRESSURE  
GENERIC/COND DESC : REACTOR COOLANT SYSTEM PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 3000.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 3000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 4  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : INSTRUMENT TAPS - TOP/BOT OF CORE  
ALARM/TRIP SETPOINTS : 1900 PSIG LOW, 2250 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point consists of the validated average of the four RCS wide range pressure transmitters located in the instrument loop. Invalid inputs are discarded and the remaining inputs used to calculate the average. If all inputs are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : PRZR LEVEL  
POINT ID : UV5480  
PLANT SPEC POINT DESC : VALIDATED PRESSURIZER LEVEL  
GENERIC/COND DESC : PRIMARY SYSTEM PRESSURIZER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 1% = 5.195" of H2O  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : COMPLX  
REFERENCE POINT NOTES : HP SENSOR LOCATED 43.29' ABOVE LP SENSOR  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : PRESSURIZER  
ALARM/TRIP SETPOINTS : 10% LOW, 50% HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

This point represents the validated average of the three pressurizer hot cal (550 DEGF) level inputs. Only valid inputs are used in the calculation. If all three inputs are invalid this point is marked invalid. The low pressure sensor is located 61.75" from tank bottom in the cylindrical portion of the tank. The tank is a vertically mounted hemispherical end tank located off of the hot leg of loop 4.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : RCS CHG/MU  
POINT ID : F5128  
PLANT SPEC POINT DESC : MAKEUP (CVCS) FLOW  
GENERIC/COND DESC : PRIM SYS CHARGING OR MAKEUP FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 200.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 200.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OP SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CHARGING LINE UPSTREAM OF REGEN HX  
ALARM/TRIP SETPOINTS : 47 GPM LOW, 175 GPM HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point represents normal charging flow indication to the RCS via element FT0121. This element in conjunction with a pressurizer level input work to control pressurizer level within a preset band by operating FCV-0122 (charging flow control valve). The element is located downstream of the common charging pump discharge header and upstream of the regenerative heat exchanger in the chemical and volume control system.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HP SI FLOW  
POINT ID : F5918  
PLANT SPEC POINT DESC : SAFETY INJECTION PUMP TRAIN A FLOW  
GENERIC/COND DESC : HIGH PRESSURE SAFETY INJECTION FLOW TRAIN A  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 800.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CHRGING PMP DISCH UPSTRM OF HOT LEG  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates high head safety injection flow downstream of the charging pump.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HP SI FLOW  
POINT ID : F5922  
PLANT SPEC POINT DESC : SAFETY INJECTION PUMP TRAIN B FLOW  
GENERATOR/COND DESC : HIGH PRESSURE SAFETY INJECTION FLOW TRAIN B  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 800.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CHRGING PMP DISCH UPSTRM OF HOT LEG  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates high head safety injection flow downstream of the charging pump.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : LP SI FLOW  
POINT ID : F5626  
PLANT SPEC POINT DESC : RHR TRAIN A COOLANT FLOW  
GENERIC/COND DESC : LOW PRESSURE SAFETY INJECTION FLOW TRAIN A  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 5000.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 5000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : DISCHARGE OF RHR PUMP A  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates RHR pump flowrate downstream of the RHR pump. RHR pumps are considered low head safety injection used primarily for long term cooling of the core. They initially inject water from the RWST to the core until the RWST reaches a low level. At that time they are swapped to a recirculation phase taking suction from the Containment Emergency Recirculation Sumps.



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : LP SI FLOW  
POINT ID : F5627  
PLANT SPEC POINT DESC : RHR TRAIN B COOLANT FLOW  
GENERIC/COND DESC : LOW PRESSURE SAFETY INJECTION FLOW TRAIN B  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 5000.0 GPM  
MIN. UM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 5000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : DISCHARGE OF RHR PUMP B  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates RHR pump flowrate downstream of the RHR pump. RHR pumps are considered low head safety injection used primarily for long term cooling of the core. They initially inject water from the RWST to the core until the RWST reaches a low level. At that time they are swapped to a recirculation phase taking suction from the Containment Emergency Recirculation Sumps.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT SMP NR  
POINT ID : L7502  
PLANT SPEC POINT DESC : CONTAINMENT SOUTH SUMP LEVEL  
GENERIC/COND DESC : CONTAINMENT SUMP NARROW RANGE LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : INCHES  
ENGR UNITS CONVERSION : 0.0 to 48.0 INCHES  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 48.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CONTAINMENT FLOOR SOUTH END ELEV 191'9"  
ALARM/TRIP SETPOINTS : VARIABLE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of the water level in the normal containment sumps. This sump continuously collects runoff from condensation and small leaks.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT SMP NR  
POINT ID : L7503  
PLANT SPEC POINT DESC : CONTAINMENT NORTH SUMP LEVEL  
GENERIC/COND DESC : CONTAINMENT SUMP NARROW RANGE LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : INCHES  
ENGR UNITS CONVERSION : 0.0 to 48.0 INCHES  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 48.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CONTAINMENT FLOOR NORTH END ELEV 191'9"  
ALARM/TRIP SETPOINTS : VARIABLE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of the water level in the normal containment sumps. This sump continuously collects runoff from condensation and small leaks.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT SMP WR  
POINT ID : UV9003  
PLANT SPEC POINT DESC : CONTAINMENT WR SUMP LEVEL  
GENERIC/COND DESC : CONTAINMENT SUMP WIDE RANGE LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : INCHES  
ENGR UNITS CONVERSION : 0.0 to 120.0 INCHES H2O  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : COMPLX  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : CONTAINMENT FLOOR NEAR RECIRC SPRAY SUMP  
ALARM/TRIP SETPOINTS : 0.6 INCHES HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses reactor containment floor level. This point consists of the validated average of the two wide range sump level indications. If either input is invalid the other is used. If both inputs are invalid this point is marked invalid. The low pressure tap is located 9" above the floor of containment at elevation 172'9". The high pressure tap is located 10'0" above the low pressure tap.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : EFF GAS RAD  
POINT ID : R6253  
PLANT SPEC POINT DESC : RE-014 MAIN PLANT VENT RADIOGAS HIGH RNG  
GENERIC/COND DESC : RADIOACTIVITY OF RELEASED GASES  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1.0E+04 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1.0E+04  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : VENTILATION STACK  
ALARM/TRIP SETPOINTS : 1.14 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point provides indication of all radioactivity releases through the main plant vent. It is located in the stack beyond the last point of gaseous radioactivity addition to the effluent path.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : EFF LIQ RAD  
POINT ID : R6235  
PLANT SPEC POINT DESC : RE-018 WASTE LIQUID EFFLUENT RAD  
GENERIC/COND DESC : RADIOACTIVITY OF RELEASED LIQUID  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 0.1 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 0.1  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : DSCHRG TUNL PAST LAST PT OF RAD ADDITION  
ALARM/TRIP SETPOINTS : 2.44E-04 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of radiation in the liquid effluent line for the normal release path. This monitor is located just prior to effluent path discharge offsite and is used to isolate the effluent path on high radiation.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : COND A/E RAD  
POINT ID : R6381  
PLANT SPEC POINT DESC : RE-12839E COND<sup>R</sup> AIR EJCTR/STM RAD-HI RNG  
GENERIC/COND DESC : CONDENSER AIR EJECTOR RADIOACTIVITY  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 5.8E+05 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 5.8E+05  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : OUTPUT OF CONDENSOR AIR EJECTORS  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam jet air ejector exhaust line for radiation. The SJAE is used to maintain vacuum on the condensers. On detected high radiation, SJAE effluents are diverted to a HEPA filter.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CNTMNT RAD  
POINT ID : UR6201  
PLANT SPEC POINT DESC : AUCTIONEERED CONTAINMENT RADIATION  
GENERIC/COND DESC : RADIATION LEVEL IN THE CONTAINMENT  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : R/HR  
ENGR UNITS CONVERSION : 0.0 to 1.0E+08 R/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1.0E+08  
ZERO POINT REFERENCE : V/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 6  
HOW PROCESSED : AUCTIONEERED HIGH - SEE SYSTEM DESCRIP  
SENSOR LOCATIONS : CONTAINMENT  
ALARM/TRIP SETPOINTS : 1.0 R/HR HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is composed of the 6 radiation monitors (3 low range and 3 high range) monitoring the containment radiation. It is the auctioneered high signal. Invalid signals are discarded from the calculation. If all of the inputs are invalid the result is marked invalid.



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : RCS LTDN RAD  
POINT ID : R6374  
PLANT SPEC POINT DESC : RE-48000 CVCS LETDOWN RAD (NTS)  
GENERIC/COND DESC : RAD LEVEL OF RCS LETDOWN LINE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 40.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 40.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LETDOWN LINE DWNSTRM OF REGEN HX  
ALARM/TRIP SETPOINTS : 2.0E-02 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of Chemical and Volume Control System (CVCS) radiation level. This monitor is located downstream of the letdown heat exchanger.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 1/A  
POINT ID : R6386  
PLANT SPEC POINT DESC : RE-13120 STM GEN 1 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 1 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 1  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 1 main steam line radiation level. The radiation monitor clamps around the main steam line.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 2/B  
POINT ID : R6387  
PLANT SPEC POINT DESC : RE-13121 STM GEN 2 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 2 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 2  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 2 main steam line radiation level. The radiation monitor clamps around the main steam line.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 3/C  
POINT ID : R6388  
PLANT SPEC POINT DESC : RE-13122 STH GEN 3 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 3 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 3  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 3 main steam line radiation level. The radiation monitor clamps around the main steam line.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 4/D  
POINT ID : R6385  
PLANT SPEC POINT DESC : RE-13119 STM GEN 4 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 4 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 4  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 4 main steam line radiation level. The radiation monitor clamps around the main steam line.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG BD RAD 1A  
POINT ID : R6239  
PLANT SPEC POINT DESC : RE-021 STM GEN BLOWDOWN LIQ PROC RAD  
GENERIC/COND DESC : STM GEN 1 BLOWDOWN RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 0.04 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 0.04  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : SEE SYSTEM DESCRIPTION  
ALARM/TRIP SETPOINTS : 8.0E-07 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors radiation levels in the liquid phase of the steam generator blowdown. The radiation monitor is located in the common line downstream of the SGBD mixed bed demineralizers and filters and upstream of the Waste Water Retention Basin. It monitors the combined SGBD effluent from all 4 steam generators.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT PRESS  
POINT ID : UV6001  
PLANT SPEC POINT DESC : VALIDATED CONTAINMENT PRESSURE  
GENERIC/COND DESC : CONTAINMENT PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : -5.0 to 160.0 PSIG  
MINIMUM INSTR RANGE : -5.0  
MAXIMUM INSTR RANGE : 160.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 7  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : CONTAINMENT  
ALARM/TRIP SETPOINTS : 2.0 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point represents the validated average of the 7 containment pressure inputs (4 narrow range, 3 wide range). The calculation discards invalid input points and uses only the valid inputs to calculate the average. If all input points are invalid the resulting average is marked invalid. Narrow range pressure transmitters are valid from 0 to 75 PSIG while the wide range transmitters are valid from -5 to 160 PSIG.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT TEMP  
POINT ID : UT7501  
PLANT SPEC POINT DESC : AVERAGE CONTAINMENT TEMPERATURE  
GENERIC/COND DESC : CONTAINMENT TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 500.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 500.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : AVERAGE  
SENSOR LOCATIONS : REACTOR CONTAINMENT  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the average of the three containment temperature input points. If any one of the inputs is invalid the average is marked invalid.



DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : H2 CONC  
POINT ID : UV7501  
PLANT SPEC POINT DESC : VALIDATED CONTAINMENT HYDROGEN CONC  
GENERIC/COND DESC : CONTAINMENT HYDROGEN CONCENTRATION  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 10 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 10.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUXILIARY BUILDING  
ALARM/TRIP SETPOINTS : 0.1% HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two containment hydrogen concentration inputs. If one input is invalid the other input is used. If both inputs are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : BWST LEVEL  
POINT ID : UV6130  
PLANT SPEC POINT DESC : VALIDATED RWST LEVEL  
GENERIC/COND DESC : BORATED WATER STORAGE TANK LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : GALLONS REMAIN AT ZERO POINT  
PROC OR SENS : P  
NUMBER OF SENSORS : 4  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : RWST  
ALARM/TRIP SETPOINTS : 39% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : DRY

UNIQUE SYSTEM DESC

Indicates the level in the RWST. The average of the four valid signals is used. Invalid inputs are discarded prior to calculating the average. The point is marked invalid if all of the inputs are invalid.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : WIND SPEED  
POINT ID : S6170  
PLANT SPEC POINT DESC : PRIMARY MET TOWER 10 METER WIND SPEED  
GENERIC/COND DESC : WIND SPEED AT THE REACTOR SITE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : MPH  
ENGR UNITS CONVERSION : 0.0 to 100 MPH  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : 10 METERS ON THE PRIMARY MET TOWER  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Measures the wind speed at the primary meteorological monitoring station at the 10 meter level.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : WIND DIR  
POINT ID : Y6171  
PLANT SPEC POINT DESC : PRIMARY MET TOWER 10 METER WIND DIR  
GENERIC/COND DESC : WIND DIRECTION AT THE REACTOR SITE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEG  
ENGR UNITS CONVERSION : 0.0 to 360.0 DEG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 360.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : 10 METERS ON THE PRIMARY MET TOWERS  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Measures the wind direction at the primary meteorological monitoring station at the 10 meter level.

DATE : 01/02/92  
REACTOR UNIT : VO1  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : STAB CLASS  
POINT ID : T6174  
PLANT SPEC POINT DESC : PRIMARY MET TOWER 60-10 METER DELTA TEMP  
GENERIC/COND DESC : AIR STABILITY AT THE REACTOR SITE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : -5.0 to 10.0 DEGF  
MINIMUM INSTR RANGE : -5.0  
MAXIMUM INSTR RANGE : 10.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : PRIMARY MET TOWER  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Uses the 60 meter and 10 meter temperature inputs to calculate a delta temperature at the primary meteorological monitoring station. 60-10 meter delta T provides an indication of atmospheric stability class (Pasquill Category) as follows:

Pasquill Category	Stability Class	60-10 M Delta T DEGF
A	Extremely Unstable	DT < -1.71
B	Moderately Unstable	-1.71 < DT < -1.53
C	Slightly Unstable	-1.53 < DT < -1.35
D	Neutral	-1.35 < DT < -0.45
E	Slightly Stable	-0.45 < DT < +1.35
F	Moderately Stable	+1.35 < DT < +3.60
G	Extremely Stable	+3.60 < DT

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : NI POWER RNG  
POINT ID : UV5049  
PLANT SPEC POINT DESC : VALIDATED NEUTRON FLUX POWER RANGE  
GENERIC/COND DESC : NUCLEAR INSTRUMENTS, POWER RANGE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 120.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 4  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : ADJACENT TO OUTSIDE OF REACTOR VESSEL  
ALARM/TRIP SETPOINTS : 5% HIGH (POSTTRIP) 10% HIGH (NORM OPS)  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is calculated using the four power range channel NI detectors. Only valid inputs are used in the calculation. Invalid inputs are discarded and the calculation performed. This point is marked invalid if no valid input points are present. The power range detectors are ionization type detectors located 90 degrees from each other around the outside of the reactor vessel. The detectors are centered approximately over the active fuel region of the core. The detectors actually consist of upper and lower units for measurement of 8 core sections. The individual upper and lower readings for each quadrant are summed and converted to percent power. The four converted values are the input to this calculation.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : NI INTER RNG  
POINT ID : UV5035  
PLANT SPEC POINT DESC : V.LIDATED NEUTRON FLUX INTERMEDIATE RANGE  
GENERIC/COND DESC : NUCLEAR INSTRUMENTS, INTERMEDIATE RANGE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : AMPS  
ENGR UNITS CONVERSION : 1.0E-11 to 1.0E-03 AMPS  
MINIMUM INSTR RANGE : 1.0E-11  
MAXIMUM INSTR RANGE : 1.0E-3  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : ADJACENT TO OUTSIDE OF REACTOR VESSEL  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point represents the validated average of the intermediate range NI detectors. Only valid inputs are used in the calculation. Invalid inputs are discarded prior to performance of the calculation. If no valid inputs are present, this point is marked invalid. The intermediate range detectors are located externally to the reactor vessel.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : NI SOURC RNG  
POINT ID : UV5031  
PLANT SPEC POINT DESC : VALIDATED NEUTRON FLUX SOURCE RANGE  
GENERIC/COND DESC : NUCLEAR INSTRUMENTS, SOURCE RANGE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : CPS  
ENGR UNITS CONVERSION : 1.0 to 1.0E+6 CPS  
MINIMUM INSTR RANGE : 1.0  
MAXIMUM INSTR RANGE : 1000000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : ADJACENT TO OUTSIDE OF REACTOR VESSEL  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : 10% INCREASING  
NI POWER TURN ON : 1.0E-10 AMPS  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point consists of the validated average of the two source range signals from the excore detectors located adjacent to the outside of the vessel. If either signal is invalid the other is used. The point is marked invalid if no valid inputs are present. Source range instrumentation can be bypassed if one intermediate range channel is greater than P6. The source range detectors are energized below P6. P6 represents 1.0E-10 amps intermediate range power. Source range detectors deenergize automatically at P10 (10% Power Range power).



DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : REAC VES LEV  
POINT ID : UV9863  
PLANT SPEC POINT DESC : VALIDATED RVLIS DYNAMIC HEAD  
GENERIC/COND DESC : REACTOR VESSEL WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : ‡  
ENGR UNITS CONVERSION : 0.0 to 120.0 ‡  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : HEAD VENT (TOP) & BOTTOM OF VESSEL  
ALARM/TRIP SETPOINTS : NOME  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION : Y  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

This point provides the validated average of the reactor vessel level wide range indication. Instrumentation is located in the instrument loop (top and bottom of vessel). If one of the inputs is invalid the other point is used. The point is marked invalid if both inputs are invalid. Compensation for density changes occurs in the PSMS system, a 1E classified computer system that receives all of the RVLIS temperature, pressure, and level inputs from the field transmitters.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : TEMP CORE EX  
POINT ID : UT5002  
PLANT SPEC POINT DESC : AVERAGE OF HIGHEST 5 INCORE T/C TEMPS  
GENERIC/COND DESC : HIGHEST TEMPERATURE AT THE CORE EXIT  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 2300.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 2300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 50  
HOW PROCESSED : AVERAGE  
SENSOR LOCATIONS : TOP OF CORE - SELECTED FUEL ASSEMBLIES  
ALARM/TRIP SETPOINTS : VARIABLE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point consists of the validated average of the 5 highest core exit thermocouple inputs. The core exit thermocouples are located in selected fuel assemblies at the top of the active fuel region.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SUB MARGIN  
POINT ID : UV9644  
PLANT SPEC POINT DESC : VALIDATED RCS SUBCOOLING  
GENERIC/COND DESC : SATURATION TEMPERATURE - HIGHEST CET  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : -600.0 to 350.0 DEGF  
MINIMUM INSTR RANGE : -600.0  
MAXIMUM INSTR RANGE : 350.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : CORE EXIT THERMOCOUPLES AND RCS PRESSURE  
ALARM/TRIP SETPOINTS : 28.0 DEGF LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the RCS subcooling inputs. If either signal is invalid the other signal is used. If both signals are invalid this point is marked invalid. RCS subcooling inputs originate from Data Processing Units of the PSMS computer system.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CORE FLOW  
POINT ID : F5400  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 1 FLOW (CH 1)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 1 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 100% = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 1. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.

DATE : 01/02/92  
REACTOR UNIT : VC3  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CORE FLOW  
POINT ID : F5421  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 2 FLOW (CH 2)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 2 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 100% = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 2. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.

DATE : 01/02/92  
REACTOR UNIT : VO2  
D. CA FEEDER : N/A  
ERC ERDS PARAMETER : CORE FLOW  
POINT ID : F5442  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 3 FLOW (CH 3)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 3 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 100% = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 3. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CORE FLOW  
POINT ID : F5460  
PLANT SPEC POINT DESC : PRIMARY COOLANT LOOP 4 FLOW (CH 4)  
GENERIC/COND DESC : REACTOR COOLANT LOOP 4 FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : ‡  
ENGR UNITS CONVERSION : 100‡ = 95,700 GPM NOMINAL FLOW  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : INTERMEDIATE LEG BETWEEN RCP AND S/G  
ALARM/TRIP SETPOINTS : 90‡ LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates flow in reactor coolant loop 4. The transmitter is a delta P type transmitter located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 1/A  
POINT ID : L5404  
PLANT SPEC POINT DESC : SG1 LEVEL WIDE RANGE CH1  
GENERIC/COND DESC : STEAM GENERATOR 1 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-001  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-001 (Steam Generator 1). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.



DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 2/B  
POINT ID : L5424  
PLANT SPEC POINT DESC : SG2 LEVEL WIDE RANGE CH2  
GENERIC/COND DESC : STEAM GENERATOR 2 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-002  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-002 (Steam Generator 2). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 3/C  
POINT ID : L5444  
PLANT SPEC POINT DESC : SG3 LEVEL WIDE RANGE CH3  
GENERIC/COND DESC : STEAM GENERATOR 3 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-003  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-003 (Steam Generator 3). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG LEVEL 4/D  
POINT ID : L5464  
PLANT SPEC POINT DESC : SG4 LEVEL WIDE RANGE CH4  
GENERIC/COND DESC : STEAM GENERATOR 4 WATER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TUBSHT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : STEAM GENERATOR 1-1201-B6-004  
ALARM/TRIP SETPOINTS : 25% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

Senses the water level in steam generator 1-1201-B6-004 (Steam Generator 4). This wide range indication provides the level from the bottom of the steam generator (tube sheet) to the top of the steam generator.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG PRESS 1/A  
POINT ID : UV5400  
PLANT SPEC POINT DESC : VALIDATED SG1 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 1 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-001  
ALARM/TRIP SETPOINTS : 1065 PSIG LOW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 1 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG PRESS 2/B  
POINT ID : UV5420  
PLANT SPEC POINT DESC : VALIDATED SG2 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 2 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-002  
ALARM/TRIP SETPOINTS : 1065 PSIG LOW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 2 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG PRESS 3/C  
POINT ID : UV5440  
PLANT SPEC POINT DESC : VALIDATED SG3 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 3 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-003  
ALARM/TRIP SETPOINTS : 1065 PSIG LOW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 3 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NPC ERDS PARAMETER : SG PRESS 4/D  
POINT ID : UV5460  
PLANT SPEC POINT DESC : VALIDATED SG4 PRESSURE OUT  
GENERIC/COND DESC : STEAM GENERATOR 4 PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 1300.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1300.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : OUTPUT OF STM GEN 1-1201-B6-004  
ALARM/TRIP SETPOINTS : 1065 PSIG LOW, 1105 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides pressure of the steam which is enroute from Steam Generator 4 to the main steam manifold. The valid wide range signals are averaged (3 sensors). Invalid inputs are discarded from the calculation. If no valid signals are present this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MN FD FL 1/A  
POINT ID : UV5403  
PLANT SPEC POINT DESC : VALIDATED SG1 FW FLOW  
GENERIC/COND DESC : STM GEN 1 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR HEATR DISCH UPSTRM OF STM GEN 1  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 1. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.



DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MN FD FL 2/B  
POINT ID : UV5423  
PLANT SPEC POINT DESC : VALIDATED SG2 FW FLOW  
GENERIC/COND DESC : STM GEN 2 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR HEATR DISCH UPSTRM OF STM GEN 2  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 2. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MN FD FL 3/C  
POINT ID : UV5443  
PLANT SPEC POINT DESC : VALIDATED SG3 FW FLOW  
GENERIC/COND DESC : STM GEN 3 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR HEATR DISCH UPSTRM OF STM GEN 3  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 3. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MN FD FL 4/D  
POINT ID : UV5463  
PLANT SPEC POINT DESC : VALIDATED SG4 FW FLOW  
GENERIC/COND DESC : STM GEN 4 MAIN FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : KLB/HR  
ENGR UNITS CONVERSION : 0.0 to 4800.0 KLB/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 4800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : FEEDWTR INSTR DISCH UPSTRM OF STM GEN 4  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses flow in main feedwater line to steam generator 4. The average of the 2 valid feed flow signals is used for this point. If one of the inputs is invalid the other is used. If both signals are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NR: ERDS PARAMETER : AX FD FL 1/A  
POINT ID : UV7326  
PLANT SPEC POINT DESC : VALIDATED SG1 AUX FW FLOW  
GENERIC/COND DESC : STM GEN 1 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM OF STM GEN 1  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 1. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : AX FD FL 2/B  
POINT ID : UV7327  
PLANT SPEC POINT DESC : VALIDATED SG2 AUX FW FLOW  
GENERIC/COND DESC : STM GEN 2 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM OF STM GEN 2  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 2. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : AX FD FL 3/C  
POINT ID : UV7328  
PLANT SPEC POINT DESC : VALIDATED SG3 AUX FW FLOW  
GENERIC/COND DESC : STM GEN 3 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM OF STM GEN 3  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 3. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : AX FD FL 4/D  
POINT ID : UV7329  
PLANT SPEC POINT DESC : VALIDATED SG4 AUX FW FLOW  
GENERIC/COND DESC : STM GEN 4 AUXILIARY FEEDWATER FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 600.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 600.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUX FEED PMP DISCH UPSTRM OF STM GEN 4  
ALARM/TRIP SETPOINTS : 125 GPM LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two aux feedwater flow input points for Steam Generator 4. If one of the input points is invalid the other is used. If both input points are invalid this point is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 1/A  
POINT ID : T5419  
PLANT SPEC POINT DESC : LOOP 1 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 1 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 1 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 1 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 1.



DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 2/B  
POINT ID : T5439  
PLANT SPEC POINT DESC : LOOP 2 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 2 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 2 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 2 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 2.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 3/C  
POINT ID : T5459  
PLANT SPEC POINT DESC : LOOP 3 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 3 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 3 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 3 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 3.

DATE : 01, 22/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HL TEMP 4/D  
POINT ID : T5479  
PLANT SPEC POINT DESC : LOOP 4 WIDE RANGE T-HOT  
GENERIC/COND DESC : STM GEN 4 INLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 4 HOT LEG  
ALARM/TRIP SETPOINTS : 562 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 4 hot leg temperature. Transmitter is a fast response  
RTD located between the core exit to the hot leg and Steam  
Generator 4.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 1/A  
POINT ID : T5406  
PLANT SPEC POINT DESC : LOOP 1 WIDE RANGE T-COLD  
GENERIC/COND DESC : STM GEN 1 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 1 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF LOW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 1 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 1.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 2/B  
POINT ID : T5426  
PLANT SPEC POINT DESC : LOOP 2 WIDE RANGE T-COLD  
GENERIC/COND DESC : STM GEN 2 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 2 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF LOW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 2 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 2.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 3/C  
POINT ID : T5446  
PLANT SPEC POINT DESC : LOOP 3 WIDE RANGE T-COLD  
GENERIC/COND DESC : STM GEN 3 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 3 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF LOW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 3 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 3.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CL TEMP 4/D  
POINT ID : T5466  
PLANT SPEC POINT DESC : LOOP 4 WIDE RANGE T-COLD  
GENERIC/COND DESC : STM GEN 4 OUTLET TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 700.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 700.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LOOP 4 COLD LEG  
ALARM/TRIP SETPOINTS : 550 DEGF LOW, 564 DEGF HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses loop 4 cold leg temperature. Transmitter is a fast response RTD located between the RCP and the Vessel Inlet for Loop 4.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : RCS PRESSURE  
POINT ID : UV5408  
PLANT SPEC POINT DESC : VALIDATED RCS WIDE RANGE PRESSURE  
GENERIC/COND DESC : REACTOR COOLANT SYSTEM PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : 0.0 to 3000.0 PSIG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 3000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 4  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : INSTRUMENT TAPS - TOP/BOT OF CORE  
ALARM/TRIP SETPOINTS : 1900 PSIG LOW, 2250 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point consists of the validated average of the four RCS wide range pressure transmitters located in the instrument loop. Invalid inputs are discarded and the remaining inputs used to calculate the average. If all inputs are invalid this point is marked invalid.



DATE : 01/02/92  
REACTOR UNIT : V02  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : PRZR LEVEL  
POINT ID : UV5480  
PLANT SPEC POINT DESC : VALIDATED PRESSURIZER LEVEL  
GENERIC/COND DESC : PRIMARY SYSTEM PRESSURIZER LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : 4  
ENGR UNITS CONVERSION : 14 = 5.195" of H2O  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : COMPLX  
REFERENCE POINT NOTES : HP SENSOR LOCATED 43.29' ABOVE LP SENSOR  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : PRESSURIZER  
ALARM/TRIP SETPOINTS : 10% LOW, 50% HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : WET

UNIQUE SYSTEM DESC

This point represents the validated average of the three pressurizer hot cal (550 DEGF) level inputs. Only valid inputs are used in the calculation. If all three inputs are invalid this point is marked invalid. The low pressure sensor is located 61.75" from tank bottom in the cylindrical portion of the tank. The tank is a vertically mounted hemispherical end tank located off of the hot leg of loop 4.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : RCS CHG/MU  
POINT ID : F5128  
PLANT SPEC POINT DESC : MAKEUP (CVCS) FLOW  
GENERIC/COND DESC : PRIMARY CHARGING OR MAKEUP FLOW  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 200.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 200.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CHARGING LINE UPSTREAM OF REGEN HX  
ALARM/TRIP SETPOINTS : 47 GPM LOW, 175 GPM HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point represents normal charging flow indication to the RCS via element FT0121. This element in conjunction with a pressurizer level input work to control pressurizer level within a preset band by operating FCV-0122 (charging flow control valve). The element is located downstream of the common charging pump discharge header and upstream of the regenerative heat exchanger in the chemical and volume control system.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HP SI FLOW  
POINT ID : F5918  
PLANT SPEC POINT DESC : SAFETY INJECTION PUMP TRAIN A FLOW  
GENERIC/COND DESC : HIGH PRESSURE SAFETY INJECTION FLOW TRAIN A  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 800.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CHRGING PMP DISCH UPSTRM OF HOT LEG  
ALARM/TRIP SETPOINTS : NONE  
NI POWER TWT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates high head safety injection flow downstream of the charging pump.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : HP SI FLOW  
POINT ID : F5922  
PLANT SPEC POINT DESC : SAFETY INJECTION PUMP TRAIN B FLOW  
GENERIC/COND DESC : HIGH PRESSURE SAFETY INJECTION FLOW TRAIN B  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 800.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 800.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CHRGING PMP DISCH UPSTRM OF HOT LEG  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates high head safety injection flow downstream of the charging pump.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : LP SI FLOW  
POINT ID : F5626  
PLANT SPEC POINT DESC : RHR TRAIN A COOLANT  
GENERIC/COND DESC : LOW PRESSURE SAFETY INJECTION FLOW TRAIN A  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 5000.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 5000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : DISCHARGE OF RHR PUMP A  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates RHR pump flowrate downstream of the RHR pump. RHR pumps are considered low head safety injection used primarily for long term cooling of the core. They initially inject water from the RWST to the core until the RWST reaches a low level. At that time they are swapped to a recirculation phase taking suction from the Containment Emergency Recirculation Sumps.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : LP SI FLOW  
POINT ID : F5627  
PLANT SPEC POINT DESC : RHR TRAIN B COOLANT FLOW  
GENERIC/COND DESC : LOW PRESSURE SAFETY INJECTION FLOW TRAIN B  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : GPM  
ENGR UNITS CONVERSION : 0.0 to 5000.0 GPM  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 5000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : DISCHARGE OF RHR PUMP B  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Indicates RHR pump flowrate downstream of the RHR pump. RHR pumps are considered low head safety injection used primarily for long term cooling of the core. They initially inject water from the RWST to the core until the RWST reaches a low level. At that time they are swapped to a recirculation phase taking suction from the Containment Emergency Recirculation Sumps.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT SMP NR  
POINT ID : L7502  
PLANT SPEC POINT DESC : CONTAINMENT SOUTH SUMP LEVEL  
GENERIC/COND DESC : CONTAINMENT SUMP NARROW RANGE LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : INCHES  
ENGR UNITS CONVERSION : 0.0 to 48.0 INCHES  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 48.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CONTAINMENT FLOOR SOUTH END ELEV 191'9"  
ALARM/TRIP SETPOINTS : VARIABLE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of the water level in the normal containment sumps. This sump continuously collects runoff from condensation and small leaks.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT SMP NR  
POINT ID : L7503  
PLANT SPEC POINT DESC : CONTAINMENT NORTH SUMP LEVEL  
GENERIC/COND DESC : CONTAINMENT SUMP NARROW RANGE LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : INCHES  
ENGR UNITS CONVERSION : 0.0 to 48.0 INCHES  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 48.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : CONTAINMENT FLOOR NORTH END ELEV 191'9"  
ALARM/TRIP SETPOINTS : VARIABLE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of the water level in the normal containment sumps. This sump continuously collects runoff from condensation and small leaks.



DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT SMP WR  
POINT ID : UV9003  
PLANT SPEC POINT DESC : CONTAINMENT WR SUMP LEVEL  
GENERIC/COND DESC : CONTAINMENT SUMP WIDE RANGE LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : INCHES  
ENGR UNITS CONVERSION : 0.0 to 120.0 INCHES H2O  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 120.0  
ZERO POINT REFERENCE : COMPLX  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : CONTAINMENT FLOOR NEAR RECIRC SPRAY SUMP  
ALARM/TRIP SETPOINTS : 0.6 INCHES HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Senses reactor containment floor level. This point consists of the validated average of the two wide range sump level indications. If either input is invalid the other is used. If both inputs are invalid this point is marked invalid. The low pressure tap is located 9" above the floor of containment at elevation 172'9". The high pressure tap is located 10'0" above the low pressure tap.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : EFF GAS RAD  
POINT ID : R6253  
PLANT SPEC POINT DESC : RE-014 MAIN PLANT VENT RADIOGAS HIGH RNG  
GENERIC/COND DESC : RADIOACTIVITY OF RELEASED GASES  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1.0E+04 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1.0E+04  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : VENTILATION STACK  
ALARM/TRIP SETPOINTS : 1.14 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point provides indication of all radioactivity releases through the main plant vent. It is located in the stack beyond the last point of gaseous radioactivity addition to the effluent path.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : EFF LIQ RAD  
POINT ID : R6235  
PLANT SPEC POINT DESC : RE-018 WASTE LIQUID EFFLUENT RAD  
GENERIC/COND DESC : RADIOACTIVITY OF RELEASED LIQUID  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 0.1 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 0.1  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : DSCRG TUNL PAST LAST PT OF RAD ADDITION  
ALARM/TRIP SETPOINTS : 2.44E-04 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of radiation in the liquid effluent line for the normal release path. This monitor is located just prior to effluent path discharge offsite and is used to isolate the effluent path on high radiation.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : COND A/E RAD  
POINT ID : R6381  
PLANT SPEC POINT DESC : RE-12839E CNDSR AIR EJCTR/STM RAD-HI RNG  
GENERIC/COND DESC : CONDENSER AIR EJECTOR RADIOACTIVITY  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 5.8E+05 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 5.8E+05  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : OUTPUT OF CONDENSOR AIR EJECTORS  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam jet air ejector exhaust line for radiation. The SJAE is used to maintain vacuum on the condensers. On detected high radiation, SJAE effluents are diverted to a HEPA filter.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CNTMNT RAD  
POINT ID : UR6201  
PLANT SPEC POINT DESC : AUCTIONEERED CONTAINMENT RADIATION  
GENERIC/COND DESC : RADIATION LEVEL IN THE CONTAINMENT  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : R/HR  
ENGR UNITS CONVERSION : 0.0 to 1.0E+08 R/HR  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1.0E+08  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 6  
HOW PROCESSED : AUCTIONEERED HIGH - SEE SYSTEM DESCRIP  
SENSOR LOCATIONS : CONTAINMENT  
ALARM/TRIP SETPOINTS : 1.0 R/HR HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is composed of the 6 radiation monitors (3 low range and 3 high range) monitoring the containment radiation. It is the auctioneered high signal. Invalid signals are discarded from the calculation. If all of the inputs are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : RCS LTDN RAD  
POINT ID : R6374  
PLANT SPEC POINT DESC : RE-48000 CVCS LETDOWN RAD (NTS)  
GENERAL/COND DESC : RAD LEVEL OF RCS LETDOWN LINE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 40.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 40.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : LETDOWN LINE DWNSTRM OF REGEN HX  
ALARM/TRIP SETPOINTS : 2.0E-02 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Provides indication of Chemical and Volume Control System (CVCS) radiation level. This monitor is located downstream of the letdown heat exchanger.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 1/A  
POINT ID : R638  
PLANT SPEC POINT DESC : RE-13120 STM GEN 1 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 1 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 1  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 1 main steam line radiation level. The radiation monitor clamps around the main steam line.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 2/B  
POINT ID : R6387  
PLANT SPEC POINT DESC : RE-13121 STM GEN 2 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 2 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 2  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 2 main steam line radiation level. The radiation monitor clamps around the main steam line.



DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 3/C  
POINT ID : R6388  
PLANT SPEC POINT DESC : RE-13122 STM GEN 3 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 3 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 3  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 3 main steam line radiation level. The radiation monitor clamps around the main steam line.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : MAIN SL 4/D  
POINT ID : R6385  
PLANT SPEC POINT DESC : RE-13119 STM GEN 4 MAIN STM LINE MONITOR  
GENERIC/COND DESC : STM GEN 4 STEAM LINE RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 1000.0 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 1000.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : MAIN STEAM LINE DOWNSTREAM OF SG 4  
ALARM/TRIP SETPOINTS : 2.0E-01 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors the steam generator 4 main steam line radiation level. The radiation monitor clamps around the main steam line.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : SG BD RAD 1A  
POINT ID : R6239  
PLANT SPEC POINT DESC : RE-021 STM GEN BLOWDOWN LIQ PROC RAD  
GENERIC/COND DESC : STM GEN 1 BLOWDOWN RAD LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : uCI/CC  
ENGR UNITS CONVERSION : 0.0 to 0.04 uCI/CC  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 0.04  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : SEE SYSTEM DESCRIPTION  
ALARM/TRIP SETPOINTS : 8.0E-07 uCI/CC HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Continuously monitors radiation levels in the liquid phase of the steam generator blowdown. The radiation monitor is located in the common line downstream of the SGBD mixed bed demineralizers and filters and upstream of the Waste Water Retention Basin. It monitors the combined SGBD effluent from all 4 steam generators.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT PRESS  
POINT ID : UV6001  
PLANT SPEC POINT DESC : VALIDATED CONTAINMENT PRESSURE  
GENERIC/COND DESC : CONTAINMENT PRESSURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : PSIG  
ENGR UNITS CONVERSION : -5.0 to 160.0 PSIG  
MINIMUM INSTR RANGE : -5.0  
MAXIMUM INSTR RANGE : 160.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 7  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : CONTAINMENT  
ALARM/TRIP SETPOINTS : 2.0 PSIG HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point represents the validated average of the 7 containment pressure inputs (4 narrow range, 3 wide range). The calculation discards invalid input points and uses only the valid inputs to calculate the average. If all input points are invalid the resulting average is marked invalid. Narrow range pressure transmitters are valid from 0 to 75 PSIG while the wide range transmitters are valid from -5 to 160 PSIG.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : CTMNT TEMP  
POINT ID : UT7501  
PLANT SPEC POINT DESC : AVERAGE CONTAINMENT TEMPERATURE  
GENERIC/COND DESC : CONTAINMENT TEMPERATURE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : 0.0 to 500.0 DEGF  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 500.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 3  
HOW PROCESSED : AVERAGE  
SENSOR LOCATIONS : REACTOR CONTAINMENT  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the average of the three containment temperature input points. If any one of the inputs is invalid the average is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : H2 CONC  
POINT ID : UV7501  
PLANT SPEC POINT DESC : VALIDATED CONTAINMENT HYDROGEN CONC  
GENERIC/COND DESC : CONTAINMENT HYDROGEN CONCENTRATION  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 10 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 10.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : P  
NUMBER OF SENSORS : 2  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : AUXILIARY BUILDING  
ALARM/TRIP SETPOINTS : 0.1% HIGH  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

This point is the validated average of the two containment hydrogen concentration inputs. If one input is invalid the other input is used. If both inputs are invalid the result is marked invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : BWST LEVEL  
POINT ID : UV6130  
PLANT SPEC POINT DESC : VALIDATED RWST LEVEL  
GENERIC/COND DESC : BORATED WATER STORAGE TANK LEVEL  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : %  
ENGR UNITS CONVERSION : 0.0 to 100.0 %  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : TNKBOT  
REFERENCE POINT NOTES : GALLONS REMAIN AT ZERO POINT  
PROC OR SENS : P  
NUMBER OF SENSORS : 4  
HOW PROCESSED : VALIDATED AVERAGE  
SENSOR LOCATIONS : RWST  
ALARM/TRIP SETPOINTS : 39% LOW  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : DRY

UNIQUE SYSTEM DESC

Indicates the level in the RWST. The average of the four valid signals is used. Invalid inputs are discarded prior to calculating the average. The point is marked invalid if all of the inputs are invalid.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : WIND SPEED  
POINT ID : S6170  
PLANT SPEC POINT DESC : PRIMARY MET TOWER 10 METER WIND SPEED  
GENERIC/COND DESC : WIND SPEED AT THE REACTOR SITE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : MPH  
ENGR UNITS CONVERSION : 0.0 to 100 MPH  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 100.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : 10 METERS ON THE PRIMARY MET TOWER  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Measures the wind speed at the primary meteorological monitoring station at the 10 meter level.



DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : WIND DIR  
POINT ID : Y6171  
PLANT SPEC POINT DESC : PRIMARY MET TOWER 10 METER WIND DIR  
GENERIC/COND DESC : WIND DIRECTION AT THE REACTOR SITE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEG  
ENGR UNITS CONVERSION : 0.0 to 360.0 DEG  
MINIMUM INSTR RANGE : 0.0  
MAXIMUM INSTR RANGE : 360.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : 10 METERS ON THE PRIMARY MET TOWERS  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Measures the wind direction at the primary meteorological monitoring station at the 10 meter level.

DATE : 01/02/92  
REACTOR UNIT : VO2  
DATA FEEDER : N/A  
NRC ERDS PARAMETER : STAB CLASS  
POINT ID : T6174  
PLANT SPEC POINT DESC : PRIMARY MET TOWER 60-10 METER DELTA TEMP  
GENERIC/COND DESC : AIR STABILITY AT THE REACTOR SITE  
ANALOG/DIGITAL : A  
ENGR UNITS/DIG STATES : DEGF  
ENGR UNITS CONVERSION : -5.0 to 10.0 DEGF  
MINIMUM INSTR RANGE : -5.0  
MAXIMUM INSTR RANGE : 10.0  
ZERO POINT REFERENCE : N/A  
REFERENCE POINT NOTES : N/A  
PROC OR SENS : S  
NUMBER OF SENSORS : N/A  
HOW PROCESSED : N/A - THIS IS A DIRECT SENSOR INPUT  
SENSOR LOCATIONS : PRIMARY MET TOWER  
ALARM/TRIP SETPOINTS : NONE  
NI POWER CUT OFF : N/A  
NI POWER TURN ON : N/A  
INSTRUMENT FAILURE MODE : N/A  
TEMP COMPENSATION :  
LEVEL REFERENCE LEG : N/A

UNIQUE SYSTEM DESC

Uses the 60 meter and 10 meter temperature inputs to calculate a delta temperature at the primary meteorological monitoring station. 60-10 meter delta T provides an indication of atmospheric stability class (Pasquill Category) as follows:

Pasquill Category	Stability Class	60-10 M Delta T DEGF
A	Extremely Unstable	DT < -1.71
B	Moderately Unstable	-1.71 < DT < -1.53
C	Slightly Unstable	-1.53 < DT < -1.35
D	Neutral	-1.35 < DT < -0.45
E	Slightly Stable	-0.45 < DT < +1.35
F	Moderately Stable	+1.35 < DT < +3.60
G	Extremely Stable	+3.60 < DT