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Vice President, Nuclear  
Vogtle Project

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Docket Nos. 50-424  
50-425

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

Gentlemen:

**VOGTLE ELECTRIC GENERATING PLANT  
EMERGENCY RESPONSE DATA SYSTEM  
DATA POINT LIBRARY REVISION**

Title 10 of the Code of Federal Regulations Part 50, Appendix E requires that all nuclear plants implement and maintain an Emergency Response Data System which transmits a subset of the plant parameters to the NRC offices anytime an ALERT or higher emergency is declared on site. As a part of this rule, the Vogtle Electric Generating Plant is required to transmit any changes to the Data Point Library (DPL) described in NUREG-1394, Revision 1 within 30 days following the implementation of such changes. These changes are now completed for Unit 1 due to our recent plant computer replacement performed during the Unit 1 refueling outage (1R5).

Attached are the marked revisions to the previously submitted DPL. The majority of the revisions are minor changes to the computer point identifications based on the new computer's database. However, the reactor coolant system flow indications were changed to a more reliable computer point which was previously not available on the replaced system.

In addition, please find attached the Unit 2 DPL with its associated modifications. It is our intent to perform an identical plant process computer changeout for Unit 2 (2R4) in the Spring of 1995. The Unit 2 DPL is being transmitted now with the understanding that it should not be loaded until our upcoming 2R4 outage scheduled to begin on February 25, 1995, in order to coincide with the upcoming modification.

Sincerely,

*C. K. McCoy*  
C. K. McCoy

cc: (See next page)

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U. S. Nuclear Regulatory Commission

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CKM/JGM/gmb

Attachment

cc: Georgia Power Company  
Mr. J. B. Beasley, Jr.  
Mr. M. Sheibani  
NORMS

U. S. Nuclear Regulatory Commission  
Mr. S. D. Ebnetter, Regional Administrator  
Mr. D. S. Hood, Licensing Project Manager, NRR  
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

# **The Vogtle Electric Generating Plant**

## **Emergency Response Data System -- UNIT 1**

### **Data Point Library (DPL) Point Listing**

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : NI POWER RNG  
Point ID : UV0049  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : NI INTER RNG  
Point ID : UV0035  
Plant Spec Point Desc : VALIDATED NEUTRON FLUX INTERMEDIATE RNG  
Generic/Cond Desc : NUCLEAR INSTRUMENTS, INT 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 : 1.00E-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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : NI SOURC RNG  
Point ID : UV0031  
Plant Spec Point Desc : VALIDATED NEUTRON FLUX SOURCE RANGE  
Generic/Cond Desc : NUCLEAR INSTRUMENTS, SOURCE RNG  
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 : 10000000.0  
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 Description

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 : 08/27/92  
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 : % LIQUID  
Engr Units Conversion : 0.0 to 120.0 % LIQUID  
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 Description

This point provides the validated average of the reactor vessel level wide range dynamic 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. RVLIS level calculations (conversion to percent) are performed by the Plant Safety Monitoring System. During normal operating conditions when all reactor coolant pumps are operating, the dynamic head indication should be 100 percent or greater. If loss of coolant occurs while the pumps are operating, there would be no distinct water level in the vessel because the pumps would maintain fluid circulation even if voids were formed in the reactor coolant system. These voids would reduce mass flow, and this point would indicate less than the normal reading. This point provides a reading of the coolant quality in the circulating system. The SPDS setpoints for this parameter based on providing adequate cooling to the core are as follows:

Number of RCPs Running	Required Level
1	13 % or greater
2	20 % or greater
3	30 % or greater
4	44 % or greater

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : TEMP CORE EX  
Point ID : UT0002  
Plant Spec Point Desc : AVERAGE OF HIGHEST 5 INCORE T/C TEMPS  
Generic/Cond Desc : HIGHEST TEMPERATURE AT 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 Description

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 : 07/05/94  
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 TEMP - HIGHEST CET  
Analog/Digital : A  
Engr Units/Dig States : DEGF  
Engr Units Conversion : -600.0 TO 400.0 DEGF  
Minimum Instr Range : -600.0  
Maximum Instr Range : 400.0  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0402  
Plant Spec Point Desc : RCS LOOP 1 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 1 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 1.

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0422  
Plant Spec Point Desc : RCS LOOP 2 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 2 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 2.

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0442  
Plant Spec Point Desc : RCS LOOP 3 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 3 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 3.



Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0462  
Plant Spec Point Desc : RCS LOOP 4 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 4 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 4.

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 1/A  
Point ID : L0404  
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 Description

Senses the water level in steam generator 1-1201-B6-001 (Steam Generator 1). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 2/B  
Point ID : L0424  
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 Description

Senses the water level in steam generator 1-1201-B6-002 (Steam Generator 2). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 3/C  
Point ID : L0444  
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 Description

Senses the water level in steam generator 1-1201-B6-003 (Steam Generator 3). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 4/D  
Point ID : L0464  
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 Description

Senses the water level in steam generator 1-1201-B6-004 (Steam Generator 4). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 1/A  
Point ID : UV0400  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 2/B  
Point ID : UV0420  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 3/C  
Point ID : UV0440  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 4/D  
Point ID : UV0460  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 1/A  
Point ID : UV0403  
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 HEAIR 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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 2/B  
Point ID : UV0423  
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 Description

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 : 07/05/94  
Reactor Unit : VOL  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 3/C  
Point ID : UV0443  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 4, D  
Point ID : UV0463  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 1/A  
Point ID : UV2326  
Plant Spec Point Desc : VALIDATED SG1 AUX FW FLOW  
Generic/Cond Desc : STM GEN 1 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 2/B  
Point ID : UV2327  
Plant Spec Point Desc : VALIDATED SG2 AUX FW FLOW  
Generic/Cond Desc : STM GEN 2 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 3/C  
Point ID : UV2328  
Plant Spec Point Desc : VALIDATED SG3 AUX FW FLOW  
Generic/Cond Desc : STM GEN 3 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 4/D  
Point ID : UV2329  
Plant Spec Point Desc : VALIDATED SG4 AUX FW FLOW  
Generic/Cond Desc : STM GEN 4 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : HL TEMP 1/A  
Point ID : T0419  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : HL TEMP 2/B  
Point ID : T0439  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : HL TEMP 3/C  
Point ID : T0459  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : HL TEMP 4/D  
Point ID : T0479  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 1/A  
Point ID : T0406  
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 Description

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

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 2/B  
Point ID : T0426  
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 Description

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

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 3/C  
Point ID : T0446  
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 Description

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



Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 4/D  
Point ID : T0466  
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 Description

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

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : RCS PRESSURE  
Point ID : UV0408  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : PRZR LEVEL  
Point ID : UV0480  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : RCS CHG/MU  
Point ID : F0128  
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 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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : HP SI FLOW  
Point ID : F0918  
Plant Spec Point Desc : SAFETY INJECTION PUMP TRAIN A FLOW  
Generic/Cond Desc : HIGH PRESSURE SI 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 Description

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

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : HP SI FLOW  
Point ID : F0922  
Plant Spec Point Desc : SAFETY INJECTION PUMP TRAIN B FLOW  
Generic/Cond Desc : HIGH PRESSURE SI 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 Description

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

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : LP SI FLOW  
Point ID : F0626  
Plant Spec Point Desc : RHR TRAIN A COOLANT FLOW  
Generic/Cond Desc : LOW PRESSURE SI 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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : LP SI FLOW  
Point ID : F0627  
Plant Spec Point Desc : RHR TRAIN B COOLANT FLOW  
Generic/Cond Desc : LOW PRESSURE SI 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 Description

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 NR 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 Description

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 NR 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 Description

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

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CTMNT SMP WR  
Point ID : UV9003  
Plant Spec Point Desc : VALIDATED CONTAINMENT WATER LEVEL  
Generic/Cond Desc : CONTAINMENT SUMP WR 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 Description

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 : 06/26/92  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : EFF GAS RAD  
Point ID : R6379  
Plant Spec Point Desc : RE-12444E PLANT VENT RADICGAS-HI-RANGE  
Generic/Cond Desc : RADIOACTIVITY OF RELEASED GASES  
Analog/Digital : A  
Engr Units/Dig States : LCI/CC  
Engr Units Conversion : 0.0 to 5.8E+04 uCI/CC  
Minimum Instr Range : 0.0  
Maximum Instr Range : 5.8E+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 : 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 Description

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 Description

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 CNDSR AIR EJCTR/STM RAD-HI RNG  
Generic/Cond Desc : COND 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 Description

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 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 Description

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 Description

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 Description

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

Date : 0. / 2/92  
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 Description

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 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 Description

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 Description

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 Description

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 : 07/05/94  
Reactor Unit : VOL  
Data Feeder : N/A  
NRC ERDS Parameter : CTMNT PRESS  
Point ID : UV1001  
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 Description

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 : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : CTMNT TEMP  
Point ID : UT2501  
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 Description

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 CONC  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 0.0 to 10.0 %  
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 Description

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 Description

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 100.0 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 Description

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

Date : 07/05/94  
Reactor Unit : VO1  
Data Feeder : N/A  
NRC ERDS Parameter : WIND DIR  
Point ID : UY6571  
Plant Spec Point Desc : PRIMARY MET TOWER 10 METER WIND DIR  
Generic/Cond Desc : WIND DIR 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 : P  
Number of Sensors : 1  
How Processed : CONVERTED DIRECTION - SEE SYSTEM DESCRIP  
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 Description

Y6171 measures the wind direction at the primary meteorological monitoring station at the 10 meter level. Point Y6171 is a direct sensor input which ranges from 0 to 540 degrees. UY6571 is the converted value of Y6171 within a range of 0 to 360 degrees. 0 Degrees represents wind direction from the North.

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 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 Description

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	$+3.60 < DT$

# **The Vogtle Electric Generating Plant**

## **Emergency Response Data System -- UNIT 2**

### **Data Point Library (DPL) Point Listing**

Date : 07/05/94  
Reactor Unit : V02  
Data Feeder : N/A  
NRC ERDS Parameter : NI POWER RNG  
Point ID : UV0049  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : NI INTER RNG  
Point ID : UV0035  
Plant Spec Point Desc : VALIDATED NEUTRON FLUX INTERMEDIATE RNG  
Generic/Cond Desc : NUCLEAR INSTRUMENTS, INT 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 : 1.00E-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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : NI SOURC RNG  
Point ID : UV0031  
Plant Spec Point Desc : VALIDATED NEUTRON FLUX SOURCE RANGE  
Generic/Cond Desc : NUCLEAR INSTRUMENTS, SOURCE RNG  
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 Description

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 : 08/27/92  
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 : % LIQUID  
Engr Units Conversion : 0.0 to 120.0 % LIQUID  
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 Description

This point provides the validated average of the reactor vessel level wide range dynamic 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. RVLIS level calculations (conversion to percent) are performed by the Plant Safety Monitoring System. During normal operating conditions when all reactor coolant pumps are operating, the dynamic head indication should be 100 percent or greater. If loss of coolant occurs while the pumps are operating, there would be no distinct water level in the vessel because the pumps would maintain fluid circulation even if voids were formed in the reactor coolant system. These voids would reduce mass flow, and this point would indicate less than the normal reading. This point provides a reading of the coolant quality in the circulating system. The SPDS setpoints for this parameter based on providing adequate cooling to the core are as follows:

Number of RCPs Running	Required Level
1	13 % or greater
2	20 % or greater
3	30 % or greater
4	44 % or greater

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : TEMP CORE EX  
Point ID : UT0002  
Plant Spec Point Desc : AVERAGE OF HIGHEST 5 INCORE T/C TEMPS  
Generic/Cond Desc : HIGHEST TEMPERATURE AT 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 Description

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 : 07/05/94  
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 TEMP - HIGHEST CET  
Analog/Digital : A  
Engr Units/Dig States : DEGF  
Engr Units Conversion : -600.0 TO 400.0 DEGF  
Minimum Instr Range : -600.0  
Maximum Instr Range : 400.0  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0402  
Plant Spec Point Desc : RCS LOOP 1 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 1 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 1.

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0422  
Plant Spec Point Desc : RCS LOOP 2 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 2 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 2.

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0442  
Plant Spec Point Desc : RCS LOOP 3 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 3 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 3.

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CORE FLOW  
Point ID : UV0462  
Plant Spec Point Desc : RCS LOOP 4 AVERAGE UNCORRECTED FLOW  
Generic/Cond Desc : REACTOR COOLANT LOOP 4 FLOW  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 100% = 93,600 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 : P  
Number of Sensors : 3  
How Processed : VALIDATED AVERAGE  
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 Description

This point consists of the validated average of the three flow signals from the transmitters located in the elbow of the intermediate leg between the steam generator and the reactor coolant pump. The point is marked invalid if no valid inputs are present. The transmitters are delta P types which indicate flow in reactor coolant loop 4.

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 1/A  
Point ID : L0404  
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 2-1201-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 Description

Senses the water level in steam generator 2-1201-B6-001 (Steam Generator 1). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.



Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 2/B  
Point ID : L0424  
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 2-1201-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 Description

Senses the water level in steam generator 2-1201-B6-002 (Steam Generator 2). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 3/C  
Point ID : L0444  
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 2-1201-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 Description

Senses the water level in steam generator 2-1201-B6-003 (Steam Generator 3). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG LEVEL 4/D  
Point ID : L0464  
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 2-1201-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 Description

Senses the water level in steam generator 2-1201-B6-004 (Steam Generator 4). The wide range level provides 559 inches of indication starting from about 20 inches above the tube sheet and covering the U-tubes. The top of the U-tubes is located at the equivalent of about 60% indicated level. Total Steam Generator height is 812 inches. The tube sheet is located 75 inches from the bottom of the generator.

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 1/A  
Point ID : UV0400  
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 :  
How Processed : VALIDATED AVERAGE  
Sensor Locations : OUTPUT OF STM GEN 2-1201-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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 2/B  
Point ID : UV0420  
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 2-1201-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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 3/C  
Point ID : UV0440  
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 2-1201-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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : SG PRESS 4/D  
Point ID : UV0460  
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 2-1201-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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 1/A  
Point ID : UV0403  
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 : F  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 2/B  
Point ID : UV0423  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 3/C  
Point ID : UV0443  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : MN FD FL 4/D  
Point ID : UV0463  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 1/A  
Point ID : UV2326  
Plant Spec Point Desc : VALIDATED SG1 AUX FW FLOW  
Generic/Cond Desc : STM GEN 1 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 2/B  
Point ID : UV2327  
Plant Spec Point Desc : VALIDATED SG2 AUX FW FLOW  
Generic/Cond Desc : STM GEN 2 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 3/C  
Point ID : UV2328  
Plant Spec Point Desc : VALIDATED SG3 AUX FW FLOW  
Generic/Cond Desc : STM GEN 3 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : AX FD FL 4/D  
Point ID : UV2329  
Plant Spec Point Desc : VALIDATED SG4 AUX FW FLOW  
Generic/Cond Desc : STM GEN 4 AUX 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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : HL TEMP 1/A  
Point ID : T0419  
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 Description

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



Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : HL TEMP 2/B  
Point ID : T0439  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : HL TEMP 3/C  
Point ID : T0459  
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 Description

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	: 07/05/94
Reactor Unit	: VO2
Data Feeder	: N/A
NRC ERDS Parameter	: HL TEMP 4/D
Point ID	: T0479
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 1/A  
Point ID : T0406  
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 Description

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

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 2/B  
Point ID : T0426  
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 Description

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

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 3/C  
Point ID : T0446  
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 Description

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

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CL TEMP 4/D  
Point ID : T0466  
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 Description

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

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : RCS PRESSURE  
Point ID : UV0408  
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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : PRZR LEVEL  
Point ID : UV0480  
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 Description

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	: 07/05/94
Reactor Unit	: VO2
Data Feeder	: N/A
NRC ERDS Parameter	: RCS CHG/MU
Point ID	: F0128
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 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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : HP SI FLOW  
Point ID : F0918  
Plant Spec Point Desc : SAFETY INJECTION PUMP TRAIN A FLOW  
Generic/Cond Desc : HIGH PRESSURE SI 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 : CHRCING 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 Description

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

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : HP SI FLOW  
Point ID : F0922  
Plant Spec Point Desc : SAFETY INJECTION PUMP TRAIN B FLOW  
Generic/Cond Desc : HIGH PRESSURE SI 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 Description

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

Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : LP SI FLOW  
Point ID : F0626  
Plant Spec Point Desc : RHR TRAIN A COOLANT FLOW  
Generic/Cond Desc : LOW PRESSURE SI 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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : LP SI FLOW  
Point ID : F0627  
Plant Spec Point Desc : RHR TRAIN B COOLANT FLOW  
Generic/Cond Desc : LOW PRESSURE SI 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 Description

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 NR 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 Description

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 NR 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 Description

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



Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CTMNT SMP WR  
Point ID : UV9003  
Plant Spec Point Desc : VALIDATED CONTAINMENT WATER LEVEL  
Generic/Cond Desc : CONTAINMENT SUMP WR 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 : 0.5 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 Description

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	: 06/26/92
Reactor Unit	: VO2
Data Feeder	: N/A
NRC ERDS Parameter	: EFF GAS RAD
Point ID	: R6379
Plant Spec Point Desc	: RE-12444E PLANT VENT RADIOGAS-HI-RANGE
Generic/Cond Desc	: RADIOACTIVITY OF RELEASED GASES
Analog/Digital	: A
Engr Units/Dig States	: uCI/CC
Engr Units Conversion	: 0.0 to 5.8E+04 uCI/CC
Minimum Instr Range	: 0.0
Maximum Instr Range	: 5.8E+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	: 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 Description

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	: 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 Description

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	: COND 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 Description

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 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 DESCRIPT  
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 Description

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)  
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 Description

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 : 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 Description

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 Description

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 Description

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 Description

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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CTMNT PRESS  
Point : UV1001  
Plant & 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 Description

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 : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : CTMNT TEMP  
Point ID : UT2501  
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 Description

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 CONC  
Analog/Digital : A  
Engr Units/Dig States : %  
Engr Units Conversion : 0.0 to 10.0 %  
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 Description

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 Description

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 100.0 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 Description

Measures the wind speed at the primary meteorological monitoring station at the 10 meter level. This input is obtained from the Unit 1 Integrated Plant Computer system via datalink.



Date : 07/05/94  
Reactor Unit : VO2  
Data Feeder : N/A  
NRC ERDS Parameter : WIND DIR  
Point ID : UY6571  
Plant Spec Point Desc : PRIMARY MET TOWER 10 METER WIND DIR  
Generic/Cond Desc : WIND DIR 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 : P  
Number of Sensors : 1  
How Processed : CONVERTED DIRECTION - SEE SYSTEM DESCRIP  
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 Description

Y6171 measures the wind direction at the primary meteorological monitoring station at the 10 meter level. Point Y6171 is a direct sensor input which ranges from 0 to 540 degrees. UY6571 is the converted value of Y6171 within a range of 0 to 360 degrees. 0 Degrees represents wind direction from the North. This input is obtained from the Unit 1 Integrated Plant Computer system via datalink.

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 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 Description

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	$+3.60 < DT$

This input is obtained from the Unit 1 Integrated Plant Computer system via datalink.