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Fax: 724-643-8069April 22, 2004  
L-04-039U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001**Subject: Beaver Valley Power Station, Unit No. 1 and Unit No. 2**  
**Docket No. 50-334, License No. DPR-66**  
**Docket No. 50-412, License No. NPF-73**  
**Emergency Response Data System (ERDS)**

Attached is a revised ERDS Data Point Library (DPL) Required by 10 CFR 50, Appendix E, Section VI. The DPL is being provided in its entirety (Attachment 1) because of the extensive number of changes made. Attachment 2 is a table describing the changes reflected in the DPL. The changes are a result of a comprehensive review of the DPL against computer data provided to the ERDS. The review was initiated as a corrective action because discrepancies had been discovered and reported through the site's Corrective Action Program.

No regulatory commitments are contained in this submittal. If you have any questions concerning the DPL changes, please contact Mr. Larry R. Freeland, Manager, Regulatory Affairs/Performance Improvement at 724-682-5284.

Sincerely,

  
L. William Pearce

## Attachments

c: Mr. T. G. Colburn, NRR Sr. Project Manager  
Mr. J. R. Jolicoeur, USNRC Incident Response Division  
Mr. P. C. Cataldo, NRC Sr. Resident Inspector  
Mr. H. J. Miller, NRC Region I Administrator

Beaver Valley Power Station, Units No. 1 and No. 2  
Emergency Response Data System (ERDS)  
L-04-039

## **ATTACHMENT 1 DATA POINT LIBRARY**

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 4/26/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: H2-CONC1

Point ID: C0201A

Plant Spec Point Desc.: CNMT HYDROGEN CONCENTRATION CH 1

Generic/Cond Desc.: CONTAINMENT HYDROGEN CONC

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 10

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALARM AT 1.0%

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Containment gas is sampled and analyzed at Hydrogen Analyzer H2-HY101A. Hydrogen concentration is indicated locally and on the main control board. H2-HY101A senses hydrogen concentration alternately in Stream 1 the Pressurizer Cubicle, then in Stream 2 the suction line for the Containment Evacuation Pump 1A (Containment Dome). Ref: Op Manual Chapter 46, RM-150-1

Alarms valid in Modes 1 thru 4.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 4/26/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA22

Point ID: C0202A

Plant Spec Point Desc.: CNMT HYDROGEN CONCENTRATION CH 2

Generic/Cond Desc.: CONTAINMENT HYDROGEN CONC

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 10

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALARM AT 1.0%

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Containment gas is sampled and analyzed at Hydrogen Analyzer H2-HY101B. Hydrogen concentration is indicated locally and on the main control board. H2-HY101B senses hydrogen concentration alternately in Stream 1 the Pressurizer Cubicle, then in Stream 2 the suction line for the Containment Evacuation Pump 1B (Containment Dome). Ref: Op Manual Chapter 46, RM-150-1

Alarms valid in Modes 1 thru 4.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: RCS-CHG-MU

Point ID: F0128A

Plant Spec Point Desc.: CHG PUMP DISCH HDR UNCORR FLOW

Generic/Cond Desc.: PRIMARY SYSTEM CHG OR MU FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 150

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Three Charging Pumps with a rated flow of 150 GPM at 2500 PSIG each provide borated water from the RWST through FCV-1CH-122 to the Reactor Coolant Loops. FT-1CH-122 senses charging flow between the discharge of the Charging Pumps CH-P-1A, B and C and the Regenerative Heat Exchanger. Ref: Op Manual Chapter 7; RM-407-1

LOW ALARM = 20 GPM (Modes 1 and 2); 0 GPM (Modes 3 thru 6)

HI ALARM = 120 GPM (Modes 1 thru 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: MN-FD-FL-1A

Point ID: F0403A

Plant Spec Point Desc.: SG A UNCRR FW 1 FLOW

Generic/Cond Desc.: STM GEN A MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: MLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4.6120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: FT-1FW-476 provides Main Feed flow indication at the Main Control Board, a signal to PNL-AMSAC and signals to the solid state protection system (SSPS). Two Main Feed Pumps (1FW-P-1A, B) rated at 15200 GPM at 1900 TDH supply feedwater to three Steam Generators. FT-1FW-476 senses Main Feed flow to SG A between the First Point Feedwater Heater and Feed Regulating Valve (FCV-FW478). Ref: Op Manual Chapter 24; RM-424-1

LOW ALARM = 0 MLB/HR (Modes 1 and 2)  
HIGH ALARM = 4 MLB/HR (Modes 1 and 2)  
Also alarm on redundant tolerance (Modes 1 and 2)  
No alarms (Mode 3 thru 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA6

Point ID: F0404A

Plant Spec Point Desc.: SG A UNCRR FW 2 FLOW

Generic/Cond Desc.: STM GEN A MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: MLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4.6120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: FT-1FW-477 provides Main Feed flow indication at the Main Control Board, a signal to PNL-AMSAC and signals to the solid state protection system (SSPS). Two Main Feed Pumps (1FW-P-1A, B) rated at 15200 GPM at 1900 TDH supply feedwater to three Steam Generators. FT-1FW-477 senses Main Feed flow to SG A between the First Point Feedwater Heater and Feed Regulating Valve (FCV-FW478). Ref: Op Manual Chapter 24; RM-424-1

LOW ALARM = 0 MLB/HR (Modes 1 and 2)  
HIGH ALARM = 4 MLB/HR (Modes 1 and 2)  
Also alarm on redundant tolerance (Modes 1 and 2)  
No alarms (Mode 3 thru 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: MN-FD-FL-2B

Point ID: F0423A

Plant Spec Point Desc.: SG B UNCRR FW 1 FLOW

Generic/Cond Desc.: STM GEN B MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: MLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4.6120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: FT-1FW-486 provides Main Feed flow indication at the Main Control Board, a signal to PNL-AMSAC and signals to the solid state protection system (SSPS). Two Main Feed Pumps (1FW-P-1A, B) rated at 15200 GPM at 1900 TDH supply feedwater to three Steam Generators. FT-1FW-486 senses Main Feed flow to SG B between the First Point Feedwater Heater and Feed Regulating Valve (FCV-FW488). Ref: Op Manual Chapter 24; RM-424-1

LOW ALARM = 0 MLB/HR (Modes 1 and 2)  
HIGH ALARM = 4.2 MLB/HR (Modes 1 and 2)  
Also alarm on redundant tolerance (Modes 1 and 2)  
No alarms (Mode 3 thru 6)



# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA7

Point ID: F0424A

Plant Spec Point Desc.: SG B UNCORR FW 2 FLOW

Generic/Cond Desc.: STM GEN B MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: MLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4.6120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: FT-1FW-487 provides Main Feed flow indication at the Main Control Board, a signal to PNL-AMSAC and signals to the solid state protection system (SSPS). Two Main Feed Pumps (1FW-P-1A, B) rated at 15200 GPM at 1900 TDH supply feedwater to three Steam Generators. FT-1FW-487 senses Main Feed flow to SG B between the First Point Feedwater Heater and Feed Regulating Valve (FCV-FW488). Ref: Op Manual Chapter 24; RM-424-1

LOW ALARM = 0 MLB/HR (Modes 1 and 2)  
HIGH ALARM = 4.2 MLB/HR (Modes 1 and 2)  
Also alarm on redundant tolerance (Modes 1 and 2)  
No alarms (Mode 3 thru 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: MN-FD-FL-3C

Point ID: F0443A

Plant Spec Point Desc.: SG C UNCORR FW 1 FLOW

Generic/Cond Desc.: STM GEN C MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: MLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4.6120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: FT-1FW-496 provides Main Feed flow indication at the Main Control Board, a signal to PNL-AMSAC and signals to the solid state protection system (SSPS). Two Main Feed Pumps (1FW-P-1A, B) rated at 15200 GPM at 1900 TDH supply feedwater to three Steam Generators. FT-1FW-496 senses Main Feed flow to SG C between the First Point Feedwater Heater and Feed Regulating Valve (FCV-FW498). Ref: Op Manual Chapter 24; RM-424-1

LOW ALARM = 0 MLB/HR (Modes 1 and 2)  
HIGH ALARM = 4.2 MLB/HR (Modes 1 and 2)  
Also alarm on redundant tolerance (Modes 1 and 2)  
No alarms (Mode 3 thru 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA8

Point ID: F0444A

Plant Spec Point Desc.: SG C UNCORR FW 2 FLOW

Generic/Cond Desc.: STM GEN C MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: MLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4.6120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: FT-1FW-497 provides Main Feed flow indication at the Main Control Board, a signal to PNL-AMSAC and signals to the solid state protection system (SSPS). Two Main Feed Pumps (1FW-P-1A, B) rated at 15200 GPM at 1900 TDH supply feedwater to three Steam Generators. FT-1FW-497 senses Main Feed flow to SG C between the First Point Feedwater Heater and Feed Regulating Valve (FCV-FW498). Ref: Op Manual Chapter 24; RM-424-1

LOW ALARM = 0 MLB/HR (Modes 1 and 2)  
HIGH ALARM = 4.2 MLB/HR (Modes 1 and 2)  
Also alarm on redundant tolerance (Modes 1 and 2)  
No alarms (Mode 3 thru 6)

## BEAVER VALLEY POWER STATION ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: AX-FD-FL-1A

Point ID: F0601A

Plant Spec Point Desc.: SG A AUX FEED FLOW

Generic/Cond Desc.: STM GEN A AUXILIARY FW FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Auxiliary Feedwater flow is provided by 1 Steam Driven (700 GPM) pump (1FW-P-2) and 2 Electric Driven (350 GPM) pumps (1FW-P-3A and B) taking suction on Primary Plant Demineralized Storage Tank or River Water System. Auxiliary Feedwater Pump (1FW-P-4) takes suction from the Demineralized Water Storage Tanks (1WT-TK-11, 26) and provides 440-700 GPM flow to bring plant to cold shutdown. 1FW-P-4 is required because the 1st 3 pumps do not comply with separation requirements of 10CFR50 APPENDIX R. FT-1FW-100A senses Auxiliary Feedwater to SG A between Auxiliary Feedwater Throttle Valves and SG A. Auxiliary Feedwater Header connects with the Main Feedwater line downstream of the Main Feedwater Isolation Valves.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: AX-FD-FL-2B

Point ID: F0602A

Plant Spec Point Desc.: SG B AUX FEED FLOW

Generic/Cond Desc.: STM GEN B AUXILIARY FW FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Auxiliary Feedwater flow is provided by 1 Steam Driven (700 GPM) pump (1FW-P-2) and 2 Electric Driven (350 GPM) pumps (1FW-P-3A and B) taking suction on Primary Plant Demineralized Storage Tank or River Water System. Auxiliary Feedwater Pump (1FW-P-4) takes suction from the Demineralized Water Storage Tanks (1WT-TK-11, 26) and provides 440-700 GPM flow to bring plant to cold shutdown. 1FW-P-4 is required because the 1st 3 pumps do not comply with separation requirements of 10CFR50 APPENDIX R. FT-1FW-100B senses Auxiliary Feedwater to SG B between Auxiliary Feedwater Throttle Valves and SG B. Auxiliary Feedwater Header connects with the Main Feedwater line downstream of the Main Feedwater Isolation Valves.

## BEAVER VALLEY POWER STATION ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: AX-FD-FL-3C

Point ID: F0603A

Plant Spec Point Desc.: SG C AUX FEED FLOW

Generic/Cond Desc.: STM GEN C AUXILIARY FW FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Auxiliary Feedwater flow is provided by 1 Steam Driven (700 GPM) pump (1FW-P-2) and 2 Electric Driven (350 GPM) pumps (1FW-P-3A and B) taking suction on Primary Plant Demineralized Storage Tank or River Water System. Auxiliary Feedwater Pump (1FW-P-4) takes suction from the Demineralized Water Storage Tanks (1WT-TK-11, 26) and provides 440-700 GPM flow to bring plant to cold shutdown. 1FW-P-4 is required because the 1st 3 pumps do not comply with separation requirements of 10CFR50 APPENDIX R. FT-1FW-100C senses Auxiliary Feedwater to SG C between Auxiliary Feedwater Throttle Valves and SG C. Auxiliary Feedwater Header connects with the Main Feedwater line downstream of the Main Feedwater Isolation Valves.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: HPSI-FLOW1

Point ID: F5940A

Plant Spec Point Desc.: HHSI TO HOT LEG HDR FLOW

Generic/Cond Desc.: HIGH PRESS SAFETY INJECTION FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 1000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the flow from the High Head Safety Injection Pumps into the Hot and Cold Reactor Coolant Loops A, B and C. CH-P-1A, B and C provide a HHSI flow rate of 150 GPM at 2500 PSIG. FT-1SI-940 senses flow at the discharge of CH-P-1A, B and C prior to the header connection to the Hot and Cold Legs of Reactor Coolant Loops A, B and C. Ref: Op Manual Chapter 11; RM-411-1; RM-407-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: HPSI-FLOW2

Point ID: F5943A

Plant Spec Point Desc.: HHSI TO BIT FLOW

Generic/Cond Desc.: HIGH PRESS SAFETY INJECTION FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 1000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the flow from the High Head Safety Injection Pumps into the Boron Injection Tank Header. CH-P-1A, B and C provide a HHSI flow rate of 150 GPM at 2500 PSIG. FT-1SI-943 senses flow from the discharge of CH-P-1A, B and C to the High Head Safety Injection Header connection to the Boron Injection Tank. Ref: Op Manual Chapter 11; RM-411-1; RM-407-1



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: LPSI-FLOW1

Point ID: F5945A

Plant Spec Point Desc.: SI-P-1A DISCHARGE FLOW

Generic/Cond Desc.: LOW PRESS SAFETY INJECTION FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Low Head Safety Injection Pump SI-P-1A takes a suction on the BWST and provides rated flow of 3000 GPM at 111 PSIG to the reactor coolant loops. FT-1SI-945 senses flow at the discharge of the Low Head Safety Injection Pump SI-P-1A. Ref: Op Manual Chapter 11; RM-407-1; RM-411-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: LPSI-FLOW2

Point ID: F5946A

Plant Spec Point Desc.: SI-P-1B DISCHARGE FLOW

Generic/Cond Desc.: LOW PRESS SAFETY INJECTION FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 4000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Low Head Safety Injection Pump SI-P-1B takes a suction on the BWST and provides rated flow of 3000 GPM at 111 PSIG to the reactor coolant loops. FT-1SI-946 senses flow at the discharge of the Low Head Safety Injection Pump SI-P-1B. Ref: Op Manual Chapter 11; RM-407-1; RM-411-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SG-LEVEL-1A

Point ID: L0403A

Plant Spec Point Desc.: SG A WIDE RANGE LEVEL

Generic/Cond Desc.: STEAM GENERATOR A WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: UTUBES

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: LT-1FW-477 senses wide range SG A level and transmits a signal to the Main Control Board, the Emergency Shutdown Panel and the Auxiliary Feed Pump Room. (see attached % level vs. Gallons curve) LT-1FW-477 senses wide range level between the upper tap at 789' 11" and the lower tap at 752' on SG A. Zero reference top of U Tubes elevation 775' 9". Normal water level is at elevation 783' 2". Ref: Op Manual Chapter 24; ISO 6.24-2743.

LOW ALARM = 43% (Modes 1 thru 6)  
HIGH ALARM = 60% (Modes 1 thru 4); 85% (Modes 5 and 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SG-LEVEL-2B

Point ID: L0423A

Plant Spec Point Desc.: SG B WIDE RANGE LEVEL

Generic/Cond Desc.: STEAM GENERATOR B WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: UTUBES

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: LT-1FW-487 senses wide range SG B level and transmits a signal to the Main Control Board, the Emergency Shutdown Panel and the Auxiliary Feed Pump Room. (see attached % level vs. Gallons curve) LT-1FW-487 senses wide range level between the upper tap at 789' 11" and the lower tap at 742' on SG B. Zero reference top of U Tubes elevation 775' 9". Normal water level is at elevation 783' 2". Ref: Op Manual Chapter 24; ISO 6.24-2744.

LOW ALARM = 43% (Modes 1 thru 6)  
HIGH ALARM = 70% (Modes 1 thru 4); 85% (Modes 5 and 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SG-LEVEL-3C

Point ID: L0443A

Plant Spec Point Desc.: SG C WIDE RANGE LEVEL

Generic/Cond Desc.: STEAM GENERATOR C WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: UTUBES

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: LT-1FW-497 senses wide range SG C level and transmits a signal to the Main Control Board, the Emergency Shutdown Panel and the Auxiliary Feed Pump Room. (see attached % level vs. Gallons curve) LT-1FW-497 senses wide range level between the upper tap at 789' 11" and the lower tap at 742' on SG C. Zero reference top of U Tubes elevation 775' 9". Normal water level is at elevation 783' 2". Ref: Op Manual Chapter 24; ISO 6.24-2745.

LOW ALARM = 43% (Modes 1 thru 6)

HIGH ALARM = 60% (Modes 1 thru 4); 85% (Modes 5 and 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CTMNT-SP-WR1

Point ID: L0750A

Plant Spec Point Desc.: RECIRC SUMP WTR LVL 1

Generic/Cond Desc.: CTMNT SUMP WIDE RANGE LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 90

Zero Point Reference: COMPLX

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: LT-1RS-151A provides wide range Containment Sump indication at the Main Control Board. LT-1RS-151A senses North side Containment Sump level (Inside Recirculating Spray Pump 1A Sump). Zero Reference 6" above sump bottom. Ref.: Op Manual Chapter 13

LOW ALARM = None (Modes 1 thru 6)

HIGH ALARM = 2.5 IN (Modes 1 thru 5); None (Mode 6).

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CTMNT-SP-WR2

Point ID: L0751A

Plant Spec Point Desc.: RECIRC SUMP WTR LVL 2

Generic/Cond Desc.: CTMNT SUMP WIDE RANGE LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 90

Zero Point Reference: COMPLX

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: LT-1RS-151B provides wide range Containment Sump indication at the Main Control Board. LT-1RS-151B senses North side Containment Sump level (Inside Recirculating Spray Pump 1B Sump). Zero Reference 6" above sump bottom. Ref: Op Manual Chapter 13

LOW ALARM = None (Modes 1 thru 6)

HIGH ALARM = 2.5 IN (Modes 1 thru 5); None (Mode 6).

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CNMNT-SP-NR1

Point ID: L0752A

Plant Spec Point Desc.: CNMT SUMP WTR LEVEL

Generic/Cond Desc.: CNMNT SUMP NARROW RANGE LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: N/A

Minimum Instr Range: 3

Maximum Instr Range: 15

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 10.0; LO ALM @ 3.5 IN ALL MODES

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: LT-1DA-100 provides narrow range Containment Sump indication at the Main Control Board and provides start/stop signals to the Containment Sump Pumps. LT-1DA-100 senses water level in the South side of the Containment Sump (720 Gal). Ref: Op Manual Chapter 9



# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: REAC-VES-LV1

Point ID: L3204A

Plant Spec Point Desc.: RX VESSEL FULL RANGE LEVEL - A

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: TAF

Reference Point Notes: TAF=728'8"(274" FROM BOT RX VESS)=62.5%

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel Head and Incore Instrument Tube #8 at the Seal Table are the sensing points. Reference line tubing runs from these points to high volume sensors that isolate the RCS from remainder of the RVLIS tubing. Capillary tubing runs from high volume sensors thru the containment wall to hydraulic isolators. RTDs are installed on capillary lines for containment temperature compensation. ICCM receives transmitter output, invalid if RCPs are running. LT-1RC-1311 senses reactor vessel level between top of Reactor Vessel Head (Elev. 745' 10") to Thimble Guide Tube #8 (Elev. 705' 10").

LOW ALARM = 39% (Mode 3); 95% (Modes 4 and 5)  
HIGH ALARM = 120% (Modes 3 thru 5)  
No alarms in Modes 1, 2 and 6

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: REAC-VES-LV3

Point ID: L3206A

Plant Spec Point Desc.: RX VESSEL DYNAMIC LEVEL - A

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel at the Incore Instrument Tubes sense Reactor Vessel core and internal DP. Reference line tubing runs from the instrument tubes to high volume sensors that isolate the RCS from the remainder of the RVLIS tubing. Capillary tubing runs from the high volume sensors thru the containment wall to hydraulic isolators. RTDs are installed on capillary lines for containment temperature compensation. ICCM receives transmitter output; this reading is invalid unless RCPs are running. LT-1RC-1312 senses DP across Reactor Vessel and internals when any RCPs are running.

LOW ALARM = 95% (Modes 1 thru 5)  
HIGH ALARM = 115% (Modes 1 thru 5)  
No alarms in Mode 6

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: REAC-VES-LV2

Point ID: L3210A

Plant Spec Point Desc.: RX VESSEL FULL RANGE LEVEL - B

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: TAF

Reference Point Notes: TAF=728'8"(274" FROM BOT RX VESS)=62.5%

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel Head and Incore Instrument Tube #8 at the Seal Table are the sensing points. Reference line tubing runs from these points to high volume sensors that isolate the RCS from the remainder of the RVLIS tubing. Capillary tubing runs from high volume sensors through the containment wall to hydraulic isolators. RTDs are installed on capillary lines for containment temperature compensation. ICCM receives transmitter output, invalid if RCPs are running. LT-1RC-1321 senses Reactor Vessel level between top of Reactor Vessel Head (Elev. 745' 10") to Thimble Guide Tube #8 (Elev. 705' 10").

LOW ALARM = 39% (Mode 3); 95% (Modes 4 and 5)  
HIGH ALARM = 120% (Modes 3 thru 5)  
No alarms in Modes 1, 2 and 6

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: REAC-VES-LV4

Point ID: L3212A

Plant Spec Point Desc.: RX VESSEL DYNAMIC RANGE - B

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: ICCM RVLIS ALGORITHM

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel at the Incore Instrument Tubes sense Reactor Vessel core and internal DP. Reference line tubing runs from the instrument tubes to high volume sensors that isolate the RCS from the remainder of the RVLIS tubing. Capillary tubing runs from the high volume sensors thru the containment wall to hydraulic isolators. RTDs are installed on capillary lines for containment temperature compensation. ICCM receives transmitter output; this reading is invalid unless RCPs are running. LT-1RC-1322 senses DP across Reactor Vessel and internals when any RCPs are running.

LOW ALARM =95% (Mode 1 thru 5)  
HIGH ALARM =115% (Mode 1 thru 5)  
No alarms in Mode 6

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: NI-SOURC-RNG

Point ID: N0031A

Plant Spec Point Desc.: SOURCE RANGE DET 1 LOG FLUX

Generic/Cond Desc.: NUCLEAR INSTRUMENTS SOURCE RANGE

Analog/Digital: A

Engr Units/Dig States: CPS

Engr Units Conversion:  $\text{LOG Y} = 6/5 * \text{VOLTS}$

Minimum Instr Range: 1

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level:  $1/2 \text{INTRNG} > 1\text{E}-10$

NI Detector Power Supply Turn-ON Power Level:  $2/2 \text{INTRNG} < 1\text{E}-10$

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Source Range provides power level indication from about  $10\text{E}-10$  % to  $10\text{E}-4$  %. Source Range power level is calibrated from 1 to  $1.0\text{E}6$  counts per second. N-31 (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2

LOW ALARM = No low alarm in any mode

HIGH ALARM =  $9.0\text{E}4$  CPS (Modes 1 thru 4); 500 CPS (Modes 5 and 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA5

Point ID: N0032A

Plant Spec Point Desc.: SOURCE RANGE DET 2 LOG FLUX

Generic/Cond Desc.: NUCLEAR INSTRUMENTS SOURCE RANGE

Analog/Digital: A

Engr Units/Dig States: CPS

Engr Units Conversion:  $\text{LOG Y} = 6/5 * \text{VOLTS}$

Minimum Instr Range: 1

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level:  $1/2 \text{INTRNG} > 1\text{E}-10$

NI Detector Power Supply Turn-ON Power Level:  $2/2 \text{INTRNG} < 1\text{E}-10$

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Source Range provides power level indication from about  $10\text{E}-10$  % to  $10\text{E}-4$  %. Source Range power level is calibrated from 1 to  $1.0\text{E}6$  counts per second. N-32 (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2

LOW ALARM = No low alarm in any mode

HIGH ALARM =  $9.0\text{E}4$  CPS (Modes 1 thru 4); 500 CPS (Modes 5 and 6)

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 12/18/2002

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: NI-INTER-RNG

Point ID: N0035A

Plant Spec Point Desc.: INTERMEDIATE RANGE DET 1 LOG FLUX

Generic/Cond Desc.: NUC INSTRUMENTS, INT RANGE

Analog/Digital: A

Engr Units/Dig States: AMP

Engr Units Conversion:  $\text{LOG Y} = 8/5 * \text{VOLTS} - 11$

Minimum Instr Range: 1.0E-11

Maximum Instr Range: 1.0E-3

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: 2/4 PWR RNG>10%

NI Detector Power Supply Turn-ON Power Level: 3/4 PWR RNG<10%

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Intermediate Range level indication from 1.0E-11 to 1.0E-3 AMPS corresponds to about 10E-6 % to 10E2 % full rated power. Power Range level indication will not come on scale until the reactor power level rises to about 10E-5 AMPS Intermediate Range level. (~1% Full Power). N-35 (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2.

LOW ALARM = 1.0E-11 AMP  
HIGH ALARM = 1.0E-03 AMP (Mode 1); 1.3E-04 AMP (Mode 2 thru 6)

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 12/18/2002

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA4

Point ID: N0036A

Plant Spec Point Desc.: INTERMEDIATE RANGE DET 2 LOG FLUX

Generic/Cond Desc.: NUC INSTRUMENTS, INT RANGE

Analog/Digital: A

Engr Units/Dig States: AMP

Engr Units Conversion:  $\text{LOG Y} = 8/5 * \text{V} - 11$

Minimum Instr Range: 1.0E-11

Maximum Instr Range: 1.0E-3

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: 2/4 PWR RNG>10%

NI Detector Power Supply Turn-ON Power Level: 3/4 PWR RNG<10%

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Intermediate Range level indication from 1.0E-11 to 1.0E-3 AMPS corresponds to about 10E-6 % to 10E2 % full rated power. Power Range level indication will not come on scale until the reactor power level rises to about 10E-5 AMPS Intermediate Range level. (~1% Full Power). N-36 (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2.

LOW ALARM = 1.0E-11 AMP  
HIGH ALARM = 1.0E-03 AMP (Mode 1); 1.3E-04 AMP (Mode 2 thru 6)



# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: NI-POWER-RNG

Point ID: N0049A

Plant Spec Point Desc.: PWR RNG CHANNEL 1 FLUX (QUAD 4)

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. N-41A and N-41B (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2

LOW ALARM = 0% (Modes 1 and 2); None (Modes 3 thru 6)  
HIGH ALARM = 102% (Mode 1); 20% (Mode 2); 109% (Modes 3 thru 6)  
Also alarms on redundant tolerance.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA1

Point ID: N0050A

Plant Spec Point Desc.: PWR RNG CHANNEL 2 FLUX (QUAD 2)

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. N-42A and N-42B (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2

LOW ALARM = 0% (Modes 1 and 2); None (Modes 3 thru 6)

HIGH ALARM = 102% (Mode 1); 20% (Mode 2); 109% (Modes 3 thru 6)

Also alarms on redundant tolerance.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA2

Point ID: N0051A

Plant Spec Point Desc.: PWR RNG CHANNEL 3 FLUX (QUAD 1)

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. N-43A and N-43B (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2

LOW ALARM = 0% (Modes 1 and 2); None (Modes 3 thru 6)  
HIGH ALARM = 102% (Mode 1); 20% (Mode 2); 109% (Modes 3 thru 6)  
Also alarms on redundant tolerance.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA3

Point ID: N0052A

Plant Spec Point Desc.: PWR RNG CHANNEL 4 FLUX (QUAD 3)

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. N-44A and N-44B (see attached NIS detector location dwg.) Ref: Op Manual Chapter 2

LOW ALARM = 0% (Modes 1 and 2); None (Modes 3 thru 6)  
HIGH ALARM = 102% (Mode 1); 20% (Mode 2); 109% (Modes 3 thru 6)  
Also alarms on redundant tolerance.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: RCS-PRESSURE

Point ID: P0498A

Plant Spec Point Desc.: RCS LOOP 2 WIDE RANGE PRESS

Generic/Cond Desc.: REACTOR COOLANT SYSTEM PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 3000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: PT-1RC-403 is RCS wide range pressure indication at the Main Control Board, and the Back-Up Indicating Panel. PT-1RC-403 also provides an open and close signal to PORV (PVC-1RC-455C). PT-1RC-403 is located in Containment. PT-1RC-403 senses pressure between the Reactor Vessel and Loop B Hot Leg Isolation Valve MOV-1RC-592. Ref: Op Manual Chapter 6; RM-406-1

HIGH ALARM = 2300 PSIG (Modes 1 thru 3); 375 PSIG (Modes 4 and 5); 300 PSIG (Mode 6)  
LOW ALARM = 2150 PSIG (Modes 1 and 2); 300 PSIG (Mode 3); 0 PSIG (Modes 4 thru 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA9

Point ID: P0499A

Plant Spec Point Desc.: RCS WR PRESSURE

Generic/Cond Desc.: REACTOR COOLANT SYSTEM PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 3000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: PT-1RC-402 is RCS wide range pressure indication at the Main Control Board, and the Back-Up Indicating Panel. PT-1RC-402 also provides an open and close signal to PORV (PVC-1RC-455D). PT-1RC-402 is located in Containment. PT-1RC-402 senses pressure between the Reactor Vessel and Loop C Hot Leg Isolation Valve MOV-1RC-594. Ref: Op Manual Chapter 6; RM-406-1

HIGH ALARM = 2300 PSIG (Modes 1 thru 3); 375 PSIG (Modes 4 and 5); 300 PSIG (Mode 6)  
LOW ALARM = 2150 PSIG (Modes 1 and 2); 300 PSIG (Mode 3); 0 PSIG (Modes 4 thru 6)

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CTMNT-PRESS

Point ID: P1008A

Plant Spec Point Desc.: WIDE RANGE CNMT PRESS CH 1

Generic/Cond Desc.: CONTAINMENT PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIA

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 200

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: PT-1LM-101A provides wide range containment pressure indication at the main control board. PT-1LM-101A senses containment pressure at a pressure tap located between TV-1LM-100A1 and TV-1LM100A2 (containment isolation valves) and containment. Ref: Op Manual Chapter 12.

LOW ALARM = 9.0 PSIA in Modes 1 thru 4

HIGH ALARM = 14.7 PSIA in Modes 1 thru 4

No alarms in Modes 5 and 6

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA21

Point ID: P1009A

Plant Spec Point Desc.: WIDE RANGE CNMT PRESS CH 2

Generic/Cond Desc.: CONTAINMENT PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIA

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 200

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: PT-1LM-101B provides wide range containment pressure indication at the main control board. PT-1LM-101B senses containment pressure at a pressure tap located between TV-1LM-100A1 and TV-1LM100A2 (containment isolation valves) and containment. Ref: Op Manual Chapter 12.

LOW ALARM = 9.0 PSIA in Modes 1 thru 4

HIGH ALARM = 14.7 PSIA in Modes 1 thru 4

No alarms in Modes 5 and 6.



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: COND-AE-RAD1

Point ID: R0029A

Plant Spec Point Desc.: CONDENSER AIR EJECTOR

Generic/Cond Desc.: COND AIR EJECTOR RADIOACTIVITY

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 10

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1SV-100 continuously monitors the effluent for gaseous activity (I-131, Xe-133, Kr-85) from the condenser air ejector vent. An alarm indicates a primary to secondary leak. A High-High radioactivity alarm diverts the gaseous discharge to the Containment Building for subsequent discharge through the Elevated Release Point. A beta scintillation detector continuously monitors the condenser air ejector vent. Ref: Op Manual Chapter 43, RM-422-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EFF-LIQ-RAD1

Point ID: R0030A

Plant Spec Point Desc.: LIQUID WASTE EFFLUENT

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED LIQUID

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 10

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1LW-104 monitors the activity (Co-60 and Cs-137) of any radioactive liquid waste discharged from the station. A High-High activity automatically terminates flow by closing the discharge line isolation valves. A gamma scintillation detector monitors the activity of radioactive liquid waste discharged down stream of the last point of radioactive effluent addition to the discharge header. Ref. Op Manual Chapter 43, RM-417-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SG-BD-RAD-1A

Point ID: R0034A

Plant Spec Point Desc.: STEAM GENERATOR BLOWDOWN

Generic/Cond Desc.: STM GEN A/B/C BLOWDOWN RAD LEVEL

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 10

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1BD-100 monitors the blowdown discharged from the Blowdown Heat Exchanger discharge line for Co-60 and Cs-137. A High-High alarm may indicate a primary to secondary leak. A gamma scintillation detector monitors activity from samples taken at the discharge of the Blowdown Drain Heat Exchanger. Ref: Op Manual Chapter 43.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: RCS-LTD-RAD1

Point ID: R0036A

Plant Spec Point Desc.: RX COOLANT LETDOWN HI RANGE

Generic/Cond Desc.: RAD LEVEL OF RCS LETDOWN LINE

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 10

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1CH-101A monitors the gross activity of the reactor coolant (Co-60 and Cs-137) by drawing samples from the reactor coolant letdown line and delaying them to permit sufficient decay of the N-16 isotope before they pass by the detectors. This is an indication of fission products present in the reactor coolant. This radiation monitor provides the Low and High range indication. A gamma scintillation detector monitors the gross activity of the reactor coolant by drawing samples from the Reactor Coolant Letdown line downstream of the non-regenerative heat exchanger. Ref: Op Manual Chapter 43

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: RCS-LTD-RAD2

Point ID: R0037A

Plant Spec Point Desc.: RX COOLANT LETDOWN LO RANGE

Generic/Cond Desc.: RAD LEVEL OF RCS LETDOWN LINE

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 10

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1CH-101B monitors the gross activity of the reactor coolant (Co-60 and Cs-137) by drawing samples from the reactor coolant letdown line and delaying them to permit sufficient decay of the N-16 isotope before they pass by the detectors. This is an indication of fission products present in the reactor coolant. This radiation monitor provides the low and high range indication. A gamma scintillation detector monitors the gross activity of the reactor coolant by drawing samples from the Reactor Coolant Letdown line down stream of the Non-Regenerative Heat Exchanger. Ref: Op Manual Chapter 43

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CTMNT-RAD1

Point ID: R0070A

Plant Spec Point Desc.: CNMT HIGH RANGE RAD MONITOR CH 1

Generic/Cond Desc.: RADIATION LEVEL IN CONTAINMENT

Analog/Digital: A

Engr Units/Dig States: R/HR

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 1E7

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1RM-219A functions as an accident detector measuring radiation levels inside Containment. An ion chamber detector monitors accident radiation levels inside Containment on the Crane Wall above the operating floor. Ref: Op Manual Chapter 43

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CTMNT-RAD2

Point ID: R0071A

Plant Spec Point Desc.: CNMT HIGH RANGE RAD MONITOR CH 2

Generic/Cond Desc.: RADIATION LEVEL IN CONTAINMENT

Analog/Digital: A

Engr Units/Dig States: R/HR

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 1E7

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1RM-219B functions as an accident detector measuring radiation levels inside Containment. An ion chamber detector monitors accident radiation levels inside Containment on the Crane Wall above the operating floor. Ref: Op Manual Chapter 43

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: BWST-LEVEL1

Point ID: RWSTLEV

Plant Spec Point Desc.: RWST AVERAGE LEVEL 1/2/3

Generic/Cond Desc.: BORATED WATER STORAGE TANK LEVEL

Analog/Digital: A

Engr Units/Dig States: FEET

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 55

Zero Point Reference: COMPLX

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The BWST at BV1 is referred to as "Refueling Water Storage Tank" (RWST). There is one RWST at BV1 with a capacity of 446,035 Gallons. There is about 6,000 unusable gallons below the Quench Spray pump suction. There are approximately 8483 gallons/ft. in the RWST. (see attached tank curve). RWST level signal is the average of 3, 2 or a single value depending on the deviation between values. LT-1QS-100A, B and C sense level in the BWST at the 736' 6" elevation. Zero point reference: the bottom of BWST is at 735' 6" elevation and the suction line for Quench Spray pumps is at 736' 3" elevation.



# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CL-TEMP-1A

Point ID: T0406A

Plant Spec Point Desc.: RCLA WR TCOLD

Generic/Cond Desc.: STM GEN A OUTLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop A Cold Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant computer. TRB-RC-410 is located between RC-P-1A discharge and the A Loop Stop Valve. Ref: Op Manual Chapter 6; RM-406-1

LOW ALARM = 541 DEGF (Modes 1 and 2); 350 DEGF (Mode 3); 190 DEGF (Mode 4); 0 DEGF (Modes 5 and 6)

HIGH ALARM = 560 DEGF (Modes 1 and 2); 550 DEGF (Mode 3); 350 DEGF (Mode 4); 200 DEGF (Mode 5); 140 DEGF (Mode 6)

Also alarms on redundant tolerance

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: HL-TEMP-1A

Point ID: T0419A

Plant Spec Point Desc.: RCLA WR THOT

Generic/Cond Desc.: STM GEN A INLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop A Hot Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant computer. TRB-RC-413 is located between A Loop Stop Valve and Coolant Inlet to SG A. Ref: Op Manual Chapter 6; RM-406-1

LOW ALARM = 541 DEGF (Modes 1 and 2); 350 DEGF (Mode 3); 200 DEGF (Mode 4); None (Modes 5 and 6)

HIGH ALARM = 650 DEGF (Modes 1 and 2); 550 DEGF (Mode 3); 350 DEGF (Mode 4); 200 DEGF (Mode 5); 140 DEGF (Mode 6)

Also alarms on redundant tolerance

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CL-TEMP-2B

Point ID: T0426A

Plant Spec Point Desc.: RCLB WR TCOLD

Generic/Cond Desc.: STM GEN B OUTLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop B Cold Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant computer. TRB-RC-420 is located between RC-P-1B discharge and the B Loop Stop Valve. Ref: Op Manual Chapter 6; RM-406-1

LOW ALARM = 541 DEGF (Modes 1 and 2); 350 DEGF (Mode 3); 190 DEGF (Mode 4); none (Modes 5 and 6)

HIGH ALARM = 560 DEGF (Modes 1 and 2); 550 DEGF (Mode 3); 350 DEGF (Mode 4); 200 DEGF (Mode 5); 140 DEGF (Mode 6)

Also alarms on redundant tolerance

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: HL-TEMP-2B

Point ID: T0439A

Plant Spec Point Desc.: RCLB WR THOT

Generic/Cond Desc.: STM GEN B INLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop B Hot Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant computer. TRB-RC-423 is located between B Loop Stop Valve and Coolant Inlet to SG B. Ref: Op Manual Chapter 6; RM-406-1

LOW ALARM = 541 DEGF (Modes 1 and 2); 350 DEGF (Mode 3); 200 DEGF (Mode 4); None (Modes 5 and 6)

HIGH ALARM = 650 DEGF (Modes 1 and 2); 550 DEGF (Mode 3); 350 DEGF (Mode 4); 200 DEGF (Mode 5); 140 DEGF (Mode 6)

Also alarms on redundant tolerance

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CL-TEMP-3C

Point ID: T0446A

Plant Spec Point Desc.: RCLC WR TCOLD

Generic/Cond Desc.: STM GEN C OUTLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop C Cold Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant computer. TRB-RC-430 is located between RC-P-1C discharge and the C Loop Stop Valve. Ref: Op Manual Chapter 6; RM-406-1

LOW ALARM = 541 DEGF (Modes 1 and 2); 350 DEGF (Mode 3); 190 DEGF (Mode 4); none (Modes 5 and 6)

HIGH ALARM = 560 DEGF (Modes 1 and 2); 550 DEGF (Mode 3); 350 DEGF (Mode 4); 200 DEGF (Mode 5); 140 DEGF (Mode 6)

Also alarms on redundant tolerance

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: HL-TEMP-3C

Point ID: T0459A

Plant Spec Point Desc.: RCLC WR THOT

Generic/Cond Desc.: STM GEN C INLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop C Hot Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant computer. TRB-RC-433 is located between C Loop Stop Valve and Coolant Inlet to SG C. Ref: Op Manual Chapter 6; RM-406-1

LOW ALARM = 541 DEGF (Modes 1 and 2); 350 DEGF (Mode 3); 200 DEGF (Mode 4); None (Modes 5 and 6)

HIGH ALARM = 650 DEGF (Modes 1 and 2); 550 DEGF (Mode 3); 350 DEGF (Mode 4); 200 DEGF (Mode 5); 140 DEGF (Mode 6)

Also alarms on redundant tolerance

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: TMP-CORE-EX1

Point ID: U0093

Plant Spec Point Desc.: IN CORE T/C 5 HOTTEST AVG

Generic/Cond Desc.: HIGHEST TEMPERATURE AT CORE EXIT

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 32

Maximum Instr Range: 2300

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 51

How Processed: U0091 PA09 OUTPUT

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 2300 ; LO ALM @ 32 [ALL MODES]

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The "IPC" computer produces U0093 as part of its PA09 calculation of U0091. The PA09 calculation computes the average temperature, maximum temperature, the relative index of the highest temperature thermocouple and the average of the 5 highest Incore Thermocouples.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SUB-MARGIN1

Point ID: U0094

Plant Spec Point Desc.: SUBCOOL (AVG 5 HI T/C) ICCM AVG

Generic/Cond Desc.: SATURATION TEMP - HIGHEST CET

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: -35

Maximum Instr Range: 200

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 53

How Processed: FROM TRAIN A & TRAIN B ICCM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The average of Train A and Train B ICCM subcooling (AVG 5 HI T/C) points. The ICCM computes subcooling based on the average of the 5 hottest Incore T/Cs and sends these calculated values to the "IPC" as 1 to 5 volt outputs from the ICCM Demultiplexer. The two "IPC" points are then averaged together to produce U0094.

LOW ALARM = -35 DEGF (Modes 1 thru 4)  
HIGH ALARM = 200 DEGF (Modes 1 thru 4)  
No alarms in Modes 5 and 6



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CORE-FLOW1

Point ID: U0400

Plant Spec Point Desc.: RCLA UNCORRECTED FLOW 1/2/3 AVG

Generic/Cond Desc.: TOTAL REACTOR COOLANT FLOW

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: U0400 is the average of three, two or a single flow value depending on the deviation between flow signals. RC-P-1A, B and C each have a design flow rate of 88,500 GPM at 549F and 2235 PSIG. FT-1RC-414, 415 and 416 sense flow at the Reactor Coolant Pipe Elbow between SG A Outlet and Reactor Coolant Pump RC-P-1A. Ref: Op Manual Chapter 6; RM-406-1; RM-406-3.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SG-PRESS-1A

Point ID: U0414

Plant Spec Point Desc.: SG A STM OUT PRESS 1/2/3 AVG

Generic/Cond Desc.: STEAM GENERATOR A PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 1400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This point provides an average of three, two, or a single steam pressure value depending on the deviation between the values. The Atmospheric Steam Dump Valves open at 1025 PSIG, the Main Steam Safety Valves begin lifting at 1075 PSIG. PT-MS-474, 475 and 476 sense Main Steam Line pressure between the Main Steam Trip Valves and SG A. Ref: Op Manual Chapter 21; RM-421-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CORE-FLOW2

Point ID: U0420

Plant Spec Point Desc.: RCLB UNCORRECTED FLOW 1/2/3 AVG

Generic/Cond Desc.: TOTAL REACTOR COOLANT FLOW

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: U0420 is the average of three, two or a single flow value depending on the deviation between flow signals. RC-P-1A, B and C each have a design flow rate of 88,500 GPM at 549F and 2235 PSIG. FT-1RC-424, 425 and 426 sense flow at the Reactor Coolant Pipe Elbow between SG B Outlet and Reactor Coolant Pump RC-P-1B. Ref: Op Manual Chapter 6; RM-406-1; RM-406-3.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SG-PRESS-2B

Point ID: U0434

Plant Spec Point Desc.: SG B STM OUT PRESS 1/2/3 AVG

Generic/Cond Desc.: STEAM GENERATOR B PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 1400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This point provides an average of three, two, or a single steam pressure value depending on the deviation between the values. The Atmospheric Steam Dump Valves open at 1025 PSIG, the Main Steam Safety Valves begin lifting at 1075 PSIG. PT-MS-484, 485 and 486 sense Main Steam Line pressure between the Main Steam Trip Valves and SG B. Ref: Op Manual Chapter 21; RM-421-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CORE-FLOW3

Point ID: U0440

Plant Spec Point Desc.: RCLC UNCORRECTED FLOW 1/2/3 AVG

Generic/Cond Desc.: TOTAL REACTOR COOLANT FLOW

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: U0440 is the average of three, two or a single flow value depending on the deviation between flow signals. RC-P-1A, B and C each have a design flow rate of 88,500 GPM at 549F and 2235 PSIG. FT-1RC-434, 435 and 436 sense flow at the Reactor Coolant Pipe Elbow between SG C Outlet and Reactor Coolant Pump RC-P-1C. Ref: Op Manual Chapter 6; RM-406-1; RM-406-3.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: SG-PRESS-3C

Point ID: U0454

Plant Spec Point Desc.: SG C STM OUT PRESS 1/2/3 AVG

Generic/Cond Desc.: STEAM GENERATOR C PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 1400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This point provides an average of three, two, or a single steam pressure value depending on the deviation between the values. The Atmospheric Steam Dump Valves open at 1025 PSIG, the Main Steam Safety Valves begin lifting at 1075 PSIG. PT-MS-494, 495 and 496 sense Main Steam Line pressure between the Main Steam Trip Valves and SG C. Ref: Op Manual Chapter 21; RM-421-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA10

Point ID: U0472

Plant Spec Point Desc.: PRESSURIZER PRESS 1/2/3 AVG

Generic/Cond Desc.: REACTOR COOLANT SYSTEM PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: N/A

Minimum Instr Range: 1700

Maximum Instr Range: 2500

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: U0472 is composed of three Pressurizer pressures, the point can be the average of three, average of two or a single value depending on the deviation of values.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: PRZR-LEVEL

Point ID: U0483

Plant Spec Point Desc.: PRESSURIZER LEVEL 1/2/3 AVG

Generic/Cond Desc.: PRIMARY SYSTEM PRESSURIZER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: TOPHTR

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: U0483 can be the average of three, two or one level transmitter signal depending on the deviation between values. See attached curve of % level vs Pressurizer volume in Gallons. LT-1RC-459, 460 and 461 sense Pressurizer level from 748' 1/4" (lower transmitter tap) to 781' 2 5/8" (upper transmitter tap). Zero reference minimum water level is at 752' 1 1/4" or approximately 12%. Ref: Op Manual Chapter 6; 8700-415.6A; 8700-6.24-CI2821



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA20

Point ID: U1000

Plant Spec Point Desc.: CONTAINMENT PRESS 1/2/3 AVG

Generic/Cond Desc.: CONTAINMENT PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIA

Engr Units Conversion: N/A

Minimum Instr Range: 5

Maximum Instr Range: 70

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: SAVG ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: NO ALARMS IN ANY MODE

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: U1000 receives inputs from all three pressure transmitters and can be the average of three, two, or a single value depending on the deviation of values. PT-1LM-100A, B, & C sense containment pressure at a pressure tap located between TV-LM-100A1 and A2 (containment isolation valves) and containment. Ref: Op Manual Chapter 12

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/22/1996

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: CTMNT-TEMP

Point ID: U1008

Plant Spec Point Desc.: AVG OF 5 TS CNMT AIR TEMPS

Generic/Cond Desc.: CONTAINMENT TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 300

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 5

How Processed: AVERAGE

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIQUE SYSTEM DESCRIPTION FIELD

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: HIGH

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: U1008 is the average of all five temperature inputs. T-LM100-4 senses temperature at 744' in the Pressurizer Cubicle; T-LM100-7 senses temperature at 799' on the Operating Floor NE of the Crane Wall; T-LM100-10 senses temperature at 850' in the NNE Containment Dome; T-LM100-15 senses temperature at 730' in the SSE Annulus; T-LM-100-16 senses temperature at 701' 6" in the ENE Annulus (see attached dwg.)

LOW ALARM = 77 DEGF (Modes 1 thru 4); 32 DEGF (Modes 5 and 6)  
HIGH ALARM = 111 DEGF (Modes 1 thru 6)

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-SPEED1

Point ID: XM006

Plant Spec Point Desc.: WIND SPEED 35' LEVEL

Generic/Cond Desc.: WIND SPEED AT THE REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: MPH

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 50

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor value substituted if primary bad or missing. Sensors are same quality/calibration. Value used in dose assessments, as ground level speed.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-SPEED2

Point ID: XM026

Plant Spec Point Desc.: WIND SPEED 500' ELEVATION

Generic/Cond Desc.: WIND SPEED AT THE REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: MPH

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 50

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor substituted if primary bad or missing. Sensors are same quality/calibration. Value is dose assessments as elevated wind speed.

**BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY**

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-DIR1

Point ID: XM051

Plant Spec Point Desc.: WIND DIRECTION 150' ELEVATION

Generic/Cond Desc.: WIND DIRECTION AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: DEGFR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 360

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor value substituted if primary bad or missing. Sensors are same quality/calibration. Value used in dose assessments as ground level direction. Wind direction 0 is North. Wind direction is direction from which wind is coming.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-DIR2

Point ID: XM061

Plant Spec Point Desc.: WIND DIRECTION 500' ELEVATION

Generic/Cond Desc.: WIND DIRECTION AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: DEGFR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 360

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor value substituted if primary bad or missing. Sensors are same quality/calibration. Value used in dose assessments as ground level direction. Wind direction 0 is North. Wind direction is direction from which wind is coming.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: STAB-CLASS1

Point ID: XM083

Plant Spec Point Desc.: STABILITY-GROUND LEVEL

Generic/Cond Desc.: AIR STABILITY AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: STABI

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 7

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is based on 15 minute average Delta-T for 35' and 150' temperature sensors. Based on redundant sensor if primary bad or missing. Sensors are same quality/calibration. Stability classes 1 thru 7 correspond to stability classes A to G.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: STAB-CLASS2

Point ID: XM087

Plant Spec Point Desc.: STABILITY-ELEVATED

Generic/Cond Desc.: AIR STABILITY AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: STABI

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 7

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is based on 15 minute average Delta-T for 35' and 500' temperature sensors. Based on redundant sensor if primary bad or missing. Sensors are same quality/calibration. Stability classes 1 thru 7 correspond to stability classes A thru G.



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA11

Point ID: XR001

Plant Spec Point Desc.: 1RM-MS-101

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 0.01

Maximum Instr Range: 4E4

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: CALCULATED

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: <= 650

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1MS-101 monitors the activity in one of the two exhaust lines of the turbine driven auxiliary feed pump. High activity alarms alert the operator to abnormal conditions. Monitor is a gamma scintillation detector. Ref: Op Manual Chapter 43; RM-421-1.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA12

Point ID: XR002

Plant Spec Point Desc.: 1RM-MS-100A

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 0.01

Maximum Instr Range: 4E4

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: CALCULATED

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: <= 50

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1MS-100A monitors the activity (Xe-133) in the discharge path of Main Steam Relief Loop A when the Atmospheric Dump Valve or Main Steam Safety Valves discharge to the environment. Detector located in discharge piping downstream of the lowest lift setpoint Main Steam Safety Valve and the Atmospheric Dump Valve on Main Steam Relief Loop A. Ref: Op Manual Chapter 43; RM-421-1.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA13

Point ID: XR003

Plant Spec Point Desc.: 1RM-MS-100B

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 0.01

Maximum Instr Range: 4E4

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: CALCULATED

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: <= 50

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1MS-100B monitors the activity (Xe-133) in the discharge path of Main Steam Relief Loop B when the Atmospheric Dump Valve or Main Steam Safety Valves discharge to the environment. Detector located in discharge piping downstream of the lowest lift setpoint Main Steam Safety Valve and the Atmospheric Dump Valve on Main Steam Relief Loop B. Ref: Op Manual Chapter 43; RM-421-1.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA14

Point ID: XR004

Plant Spec Point Desc.: 1RM-MS-100C

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 0.01

Maximum Instr Range: 4E4

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: CALCULATED

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: <= 50

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1MS-100C monitors the activity (Xe-133) in the discharge path of Main Steam Relief Loop C when the Atmospheric Dump Valve or Main Steam Safety Valves discharge to the environment. Detector located in discharge piping downstream of the lowest lift setpoint Main Steam Safety Valve and the Atmospheric Dump Valve on Main Steam Relief Loop C. Ref: Op Manual Chapter 43; RM-421-1.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 12/4/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD1

Point ID: XR005

Plant Spec Point Desc.: 1RM-VS-109 CH5

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=1.24E7 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 879 CPM >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to 10 CFR 20 Limits at most restrictive receptor per ODCM. RM-1VS-109 monitors for low range noble gases at the discharge of the Auxiliary Building shielded area exhaust fans and at the discharge of the Containment Refueling and Purge Exhaust Fan (during refueling). Provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-416-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 12/4/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD2

Point ID: XR006

Plant Spec Point Desc.: 1RM-VS-109 CH7

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=3.54E2 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH  $\leq 669 \text{ CPM}$  >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to a General Emergency for eight hours. RM-1VS-109 Channel 7 monitors for mid range noble gases at the discharge of the Auxiliary Building Shielded Area Exhaust Fans and at the discharge of the Containment Refueling and Purge Exhaust Fan (during refueling). This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-416-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 12/4/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD3

Point ID: XR007

Plant Spec Point Desc.: 1RM-VS-109 CH9

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe^{133}=3.95 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. RM-1VS-109 Channel 9 monitors for high range noble gases at the discharge of the Auxiliary Building Shielded Area Exhaust Fans and at the discharge of the Containment Refueling and Purge Exhaust Fan (during refueling). This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-416-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD4

Point ID: XR009

Plant Spec Point Desc.: 1RM-VS-110 CH5

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=1.33E7 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 2030 CPM >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to 10 CFR 20 Limits at most restrictive receptor per ODCM. RM-1VS-110 Channel 5 monitors for low range noble gases at the discharge of the Leak Collection Area Exhaust Fans before the Elevated Release Vent. This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-416-1



# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD5

Point ID: XR010

Plant Spec Point Desc.: 1RM-VS-110 CH7

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=3.01E2 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH  $\leq 798 \text{ CPM}$  >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to a General Emergency if the release continues 8 hours. RM-1VS-110 Channel 7 monitors for mid range noble gases at the discharge of the Leak Collection Area Exhaust Fans before the Elevated Release Vent. This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD6

Point ID: XR011

Plant Spec Point Desc.: 1RM-VS-110 CH9

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe^{133}=4.87 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. RM-1VS-110 Channel 9 monitors for high range noble gases at the discharge of the Leak Collection Area Exhaust Fans before the Elevated Release Vent. This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data.  
Ref: Op Manual Chapter 43; RM-416-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA15

Point ID: XR013

Plant Spec Point Desc.: 1RM-GW-109 CH5

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=1.26E7 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 3.6E5 CPM >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to 10 CFR 20 Limits at most restrictive receptor per ODCM. RM-1GW-109 Channel 5 monitors for low range noble gases at the discharge of the gaseous waste disposal blowers. This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-419-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA16

Point ID: XR014

Plant Spec Point Desc.: 1RM-GW-109 CH7

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=3.00E2 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. RM-1GW-109 Channel 7 monitors for mid range noble gases at the discharge of the gaseous waste disposal blowers. This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-419-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV1

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA17

Point ID: XR015

Plant Spec Point Desc.: 1RM-GW-109 CH9

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe^{133}=3.95 \text{ CPM/uCI/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 1.83E5 CPM >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCI/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to a General Emergency if the release continues for eight hours. RM-1GW-109 Channel 9 monitors for High Range noble gases at the discharge of the Gaseous Waste Disposal Blowers. The monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-419-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA18

Point ID: Y0705A

Plant Spec Point Desc.: COMP COOLING/RECIRC SPRAY HX RW

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED LIQUID

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 10

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1RW-100 samples for activity (Co-60 and Cs-137) at the discharge of the Reactor Plant Component Cooling Water Heat Exchangers. Following a CIB signal the HHSI Pump Oil Cooler and the Recirculation Spray Heat Exchanger discharge is also monitored. High activity is indicative of a heat exchanger leak. A gamma scintillation detector monitors the combined river water discharge manifold downstream of the Reactor Plant Component Cooling Water / Recirculation Spray Heat Exchangers. Ref: Op Manual Chapter 43; RM-430-3

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EFF-LIQ-RAD2

Point ID: Y0717A

Plant Spec Point Desc.: LIQUID WASTE CONTAINMENT DN EFF

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED LIQUID

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion: N/A

Minimum Instr Range: 10

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1LW-116 continuously monitors the activity (Co-60 and Cs-137) of the effluent down stream of the Liquid Waste Contaminated Drains Filter. A High-High activity will automatically close the isolation valves to terminate flow. A gamma scintillation detector monitors the activity of liquid waste contaminated drains effluent down stream of the Contaminated Drains Filter.  
Ref: Op Manual Chapter 43; RM-417-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 8/16/1999

Reactor Unit: BV1

Data Feeder: IPC

NRC ERDS Parameter: EXTRA19

Point ID: Y0735A

Plant Spec Point Desc.: REACTOR CONTAINMENT L/R

Generic/Cond Desc.: RADIATION LEVEL IN CONTAINMENT

Analog/Digital: A

Engr Units/Dig States: MR/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0.1

Maximum Instr Range: 10000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: SEE UNIT 1 RMS SETPOINT LOG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: RM-1RM-202 monitors the radiation level inside Containment and warns personnel of an increase in the radiation level. A geiger-mueller detector monitors radiation level inside the Containment Crane Wall opposite the personnel access. Ref: Op Manual Chapter 43



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CORE-FLOW1

Point ID: F0400C

Plant Spec Point Desc.: RCL A FLW          RCS\*FT414

Generic/Cond Desc.: REACTOR COOLANT LOOP A FLOW

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2RCS\*FT414 senses RCS Loop A flow and provides a signal to the computer, SSPS, and the Main Control Board. The Reactor Coolant Pump design flow rate is 95,230 GPM at 542F and 2250 PSIG. 100% flow in Loop A is approximately 3.5E7 LBM/HR. 2RCS\*FT414 senses flow at the Reactor Coolant Pipe Elbow at SG A Outlet. Ref: 10080-TLD-006-045; RM-406-1; RM-406-3; 2BVT 1.6.1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CORE-FLOW2

Point ID: F0421C

Plant Spec Point Desc.: RCL B FLW            RCS\*FT425

Generic/Cond Desc.: REACTOR COOLANT LOOP B FLOW

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2RCS\*FT425 senses RCS Loop B flow and provides a signal to the computer, SSPS, and the Main Control Board. The Reactor Coolant Pump design flow rate is 95,230 GPM at 542F and 2250 PSIG. 100% flow in Loop B is approximately 3.5E7 LBM/HR. 2RCS\*FT425 senses flow at the Reactor Coolant Pipe Elbow at SG B Outlet. Ref: 10080-TLD-006-062; RM-406-1; RM-406-3; 2BVT 1.6.1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CORE-FLOW3

Point ID: F0442C

Plant Spec Point Desc.: RCL C FLW          RCS\*FT436

Generic/Cond Desc.: REACTOR COOLANT LOOP C FLOW

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2RCS\*FT436 senses RCS Loop C flow and provides a signal to the computer, SSPS, and the Main Control Board. The Reactor Coolant Pump design flow rate is 95,230 GPM at 542F and 2250 PSIG. 100% flow in Loop C is approximately 3.5E7 LBM/HR. 2RCS\*FT436 senses flow at the Reactor Coolant Pipe Elbow at SG C Outlet. Ref: 10080-TLD-006-079; RM-406-1; RM-406-3; 2BVT 1.6.1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/6/1997

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: REAC-VES-LV3

Point ID: L0071A

Plant Spec Point Desc.: RVLIS-A FULL RANGE RCS\*LIS1311

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: PSMS RVLIS ALGORITHM

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: TAF

Reference Point Notes: TAF=729'3"(276" FROM BOT RX VESS)=62.5%

PROC or SENS: S

Number of Sensors: 1

How Processed: PSMS RVLIS ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel Head and Incore Instrumentation Tube #20 at the Seal Table are the sensing points. Reference line tubing runs from these points to High Volume Sensors which isolate the RCS from the remainder of the RVLIS tubing. Capillary tubing runs from the High Volume Sensors through the Containment Wall to hydraulic isolators. RTDs are installed on capillary lines for Containment temperature compensation. PSMS receives transmitter output. Reading is invalid if RCPs are running. 2RCS\*LT1311 senses Reactor Vessel level between the top of the Reactor Vessel Head elevation 746' 6" to Thimble Guide Tube #20 elevation 705' 9".

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/6/1997

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: REAC-VES-LV1

Point ID: L0072A

Plant Spec Point Desc.: RVLIS-A DYNAMIC RANGE LIS1312

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: PSMS RVLIS ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel Head at the Incore Instrumentation Tubes sense Reactor Vessel core and internal DP. Reference line tubing runs from the instrument tubes to High Volume Sensors which isolate the RCS from the remainder of the RVLIS tubing. Capillary tubing runs from the High Volume Sensors through the Containment Wall to hydraulic isolators. RTDs are installed on capillary lines for containment temperature compensation. PSMS receives transmitter output. Reading is invalid unless RCPs are running. 2RCS\*LT1312 senses DP across Reactor Vessel core and internals when any RCPs are running. Normal DP is 110-112%.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/6/1997

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: REAC-VES-LV4

Point ID: L0074A

Plant Spec Point Desc.: RVLIS-B FULL RANGE RCS\*LIS1321

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: PSMS RVLIS ALGORITHM

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: TAF

Reference Point Notes: TAF=729'3"(276" FROM BOT RX VESS)=62.5%

PROC or SENS: S

Number of Sensors: 1

How Processed: PSMS RVLIS ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel Head and Incore Instrumentation Tube #20 at the Seal Table are the sensing points. Reference line tubing runs from these points to High Volume Sensors which isolate the RCS from the remainder of the RVLIS tubing. Capillary tubing runs from the High Volume Sensors through the Containment Wall to hydraulic isolators. RTDs are installed on capillary lines for Containment temperature compensation. PSMS receives transmitter output. Reading is invalid if RCPs are running. 2RCS\*LT1321 senses Reactor Vessel Head between the top of the Reactor Vessel Head elevation 746' 9" to Thimble Guide Tube #20 elevation 705' 9".

**BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY**

Date: 3/6/1997

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: REAC-VES-LV2

Point ID: L0075A

Plant Spec Point Desc.: RVLIS-B DYNAMIC RANGE LIS1322

Generic/Cond Desc.: REACTOR VESSEL WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: PSMS RVLIS ALGORITHM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: Y

Level Reference Leg: WET

Unique System Desc.: Connections to the Reactor Vessel Head and Incore Instrumentation Tubes sense Reactor Vessel core and internal DP. Reference line tubing runs from the instrument tubes to High Volume Sensors which isolate the RCS from the remainder of the RVLIS tubing. Capillary tubing runs from the High Volume Sensors through the Containment Wall to hydraulic isolators. RTDs are installed on capillary lines for Containment temperature compensation. PSMS receives transmitter output. Reading is invalid unless RCPs are running. 2RCS\*LT1322 senses DP across Reactor Vessel core and internals when any RCPs are running. normal DP is 110-112%.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 9/1/1994

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-SP-NR1

Point ID: L0100A

Plant Spec Point Desc.: CNMT SUMP LVL      DAS\*LT220

Generic/Cond Desc.: CTMNT SUMP NARROW RANGE LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 12

Zero Point Reference: TNKBOT

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 3.0 IN

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Containment Sump Narrow Range level measures the 12 Inch floor recess (2DAS-TK204) located at the East side of Containment adjacent to the wall on elevation 692' 11". The sump has a volume of 258 Gallons or 21.5 Gallons/Inch. 2DAS\*LE220 located in the East side of Containment adjacent to the wall at elevation 692' 11" (2DAS\*LT222 located in the Service Building 730' elevation). Zero reference: tank bottom. Ref: Op Manual Chapter 9, 10080-TLD-009-032



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 9/1/1994

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-SP-NR2

Point ID: L0102A

Plant Spec Point Desc.: CNMT SUMP LVL      DAS\*LT222

Generic/Cond Desc.: CTMNT SUMP NARROW RANGE LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 12

Zero Point Reference: TNKBOT

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 3.0 IN

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Containment sump Narrow Range level measures the 12 Inch floor recess (2DAS-TK204) located at the East side of Containment adjacent to the wall on elevation 692' 11". The sump has a volume of 258 Gallons or 21.5 Gallons/Inch. 2DAS\*LE222 located in the East side of Containment adjacent to the wall at elevation 692' 11" (2DAS\*LT222 located in the Service Building 730' elevation). Zero reference tank bottom. Ref: Op Manual Chapter 9, 10080-TLD-009-045

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SG-LEVEL-1A

Point ID: L0403A

Plant Spec Point Desc.: SG 21A WR LVL      FWS\*LT477

Generic/Cond Desc.: STEAM GENERATOR A WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: UTUBES

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH ALM @ 65 %/LO ALM @ 43 %

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2FWS\*LT477 provides SG A Wide Range Level indication at the Main Control Board, Shutdown Panel, Alternate Shutdown Panel and at the Feedwater Control Valves. 2FWS\*LT477 senses level in SG A from 789' 11 11/16" (upper tap) to 742' 1/16" (lower tap). Top of SG A U-Tubes is at 775' 9 1/16" with normal water level at 783' 2". Ref: Op. Manual Chapter 24A; RK-313R; TLD-24A-051

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SG-LEVEL-2B

Point ID: L0423A

Plant Spec Point Desc.: SG 21B WR LVL      FWS\*LT487

Generic/Cond Desc.: STEAM GENERATOR B WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: UTUBES

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH ALM @ 65 %/LO ALM @ 43 %

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2FWS\*LT487 provides SG B Wide Range Level indication at the Main Control Board, Shutdown Panel, Alternate Shutdown Panel and at the Feedwater Control Valves. 2FWS\*LT487 senses level in SG B from 789' 11 1/16" (upper tap) to 741' 11 7/8" (lower tap). Zero Reference: Top of SG B U-Tubes is at 775' 8 7/8" with normal water level at 783' 1 3/4". Ref: Op. Manual Chapter 24A; RK-313V; TLD-24A-059

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SG-LEVEL-3C

Point ID: L0443A

Plant Spec Point Desc.: SG 21C WR LVL      FWS\*LT497

Generic/Cond Desc.: STEAM GENERATOR C WATER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: UTUBES

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH ALM @ 65 %/LO ALM @ 43 %

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2FWS\*LT497 provides SG C Wide Range Level indication at the Main Control Board, Shutdown Panel and at the Feedwater Control Valves. 2FWS\*LT497 senses level in SG C from 790' 5 1/2" (upper tap) to 742' 1/8" (lower tap). Zero Reference: Top of SG C U-Tubes is at 775' 9 1/8" with normal water level at 783' 2". Ref: Op. Manual Chapter 24A; RK-313Z; TLD-24A-066

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: BWST-LEVEL1

Point ID: L0500A

Plant Spec Point Desc.: RWST LVL            QSS\*LT100A

Generic/Cond Desc.: BORATED WATER STORAGE TANK LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 730

Zero Point Reference: COMPLX

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: LO ALM @ 20.0 IN

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The BWST at BV2 is referred to as "Refueling Water Storage Tank" (RWST). There is one RWST at BV2 with a capacity of 911,000 Gallons. There are 31,823 unusable Gallons below the Quench Spray Pump suction. There are approximately 1250 Gallons/Inch in the RWST. (see attached tank curve). 2QSS\*LT100A senses level 12" from the bottom of the tank and 14" below the top of the Quench Spray Pump suction line. Zero reference 12" from bottom of BWST. Ref: MSP-2-13.11-I; 10080-TLD-13B-001; LSK-27-9D; LSK-29-6B; RK-325R

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: BWST-LEVEL2

Point ID: L0501A

Plant Spec Point Desc.: RWST LVL            QSS\*LT100B

Generic/Cond Desc.: BORATED WATER STORAGE TANK LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 730

Zero Point Reference: COMPLX

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: LO ALM @ 20.0 IN

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The BWST at BV2 is referred to as "Refueling Water Storage Tank" (RWST). There is one RWST at BV2 with a capacity of 911,000 Gallons. There are 31,823 unusable Gallons below the Quench Spray Pump suction. There are approximately 1250 Gallons/Inch in the RWST. (see attached tank curve). 2QSS\*LT100B senses level 12" from the bottom of the tank and 14" below the top of the Quench Spray Pump suction line. Zero reference 12" from bottom of BWST. Ref: MSP-2-13.11-I; 10080-TLD-13B-002; LSK-27-9D; LSK-29-6B; RK-325Q

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1994

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-SP-WR1

Point ID: L0750A

Plant Spec Point Desc.: RX CNMT SUMP LVL    RSS\*LT151A

Generic/Cond Desc.: CTMNT SUMP WIDE RANGE LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 225

Zero Point Reference: CNTFLR

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 35 IN

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2RSS\*LT151A measures Containment Sump level from the floor to a height of 709' 10 3/8". 2RSS-P21A thru D suction lines are at the 692' 11" level in containment. At 695' the Containment Air Recirculation A and C Fans trip. 2RSS\*LT151A measures level from the Containment Floor at elevation 691' 1 3/8" to a height of 709' 10 3/8". Zero reference: Containment Floor (691' 1 3/8"). Ref: MSP-2-13.09, 10080-TLD-13A-003; RK-6M; Op. Manual Chapter 13

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1994

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-SP-WR2

Point ID: L0751A

Plant Spec Point Desc.: RX CNMT SUMP LVL    RSS\*LT151B

Generic/Cond Desc.: CTMNT SUMP WIDE RANGE LEVEL

Analog/Digital: A

Engr Units/Dig States: IN

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 225

Zero Point Reference: CNTFLR

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 35 IN

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2RSS\*LT151B measures Containment Sump level from the floor to a height of 709' 10 3/8". 2RSS-P21A thru D suction lines are at the 692' 11" level in containment. At 695' the Containment Air Recirculation B and C Fans trip. 2RSS\*LT151B measures level from the Containment Floor at elevation 691' 1 3/8" to a height of 709' 10 3/8". Zero reference: Containment Floor (691' 1 3/8"). Ref: MSP-2-13.09, 10080-TLD-13A-003; RK-6M; Op. Manual Chapter 13



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: NI-SOURC-RNG

Point ID: N0031A

Plant Spec Point Desc.: SOURCE RNG DET 1 FLUX NM31F

Generic/Cond Desc.: NUCLEAR INSTRUMENTS,SOURCE RANGE

Analog/Digital: A

Engr Units/Dig States: CPS

Engr Units Conversion: LOG Y = 6/5 (VOLTS)

Minimum Instr Range: 1

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: 1/2INTRNG>1E-10

NI Detector Power Supply Turn-ON Power Level: 2/2INTRNG<1E-10

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The Source Range provides power level indication from about 10E-10% to 10E-4%. Source Range power level is calibrated from 1 to 1.0E6 Counts per Second. 2NMS\*NE31 (see attached NIS detector location dwg) Ref: Op Manual Chapter 2; 10080-TLD-02-001

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA5

Point ID: N0032A

Plant Spec Point Desc.: SOURCE RNG DET 2 FLUX NM32F

Generic/Cond Desc.: NUCLEAR INSTRUMENTS,SOURCE RANGE

Analog/Digital: A

Engr Units/Dig States: CPS

Engr Units Conversion: LOG Y = 6/5 (VOLTS)

Minimum Instr Range: 1

Maximum Instr Range: 1E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: 1/2INTRNG>1E-10

NI Detector Power Supply Turn-ON Power Level: 2/2INTRNG<1E-10

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The Source Range provides power level indication from about 10E-10% to 10E-4%. Source Range power level is calibrated from 1 to 1.0E6 Counts per Second. 2NMS\*NE32 (see attached NIS detector location dwg) Ref: Op Manual Chapter 2; 10080-TLD-02-002

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: NI-INTER-RNG

Point ID: N0035A

Plant Spec Point Desc.: INT RNG DET 1 FLUX      NM35B

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, INT RANGE

Analog/Digital: A

Engr Units/Dig States: AMP

Engr Units Conversion: LOG Y = 8/5 (VOLTS) -11

Minimum Instr Range: 1E-11

Maximum Instr Range: 1E-3

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: 2/4 PWRRNG >10%

NI Detector Power Supply Turn-ON Power Level: 3/4 PWRRNG <10%

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Intermediate Range level indication from 1.0E-11 to 1.0E-3 Amps corresponds to about 10E-6% to 10E2% full rated power. Power Range level indication will not come on scale until the Reactor power rises to about 10E-5 Amps Intermediate Range level (~ 1% full power). 2NMI\*NE32 (see attached NIS detector location dwg). Ref: Op Manual Chapter 2; 10080-TLD-02-003

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA4

Point ID: N0036A

Plant Spec Point Desc.: INT RNG DET 2 FLUX      NM36B

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, INT RANGE

Analog/Digital: A

Engr Units/Dig States: AMP

Engr Units Conversion: LOG Y = 8/5 (VOLTS) -11

Minimum Instr Range: 1E-11

Maximum Instr Range: 1E-3

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: 2/4 PWRRNG >10%

NI Detector Power Supply Turn-ON Power Level: 3/4 PWRRNG <10%

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Intermediate Range level indication from 1.0E-11 to 1.0E-3 Amps corresponds to about 10E-6% to 10E2% full rated power. Power Range level indication will not come on scale until the Reactor power rises to about 10E-5 Amps Intermediate Range level (~ 1% full power). 2NMI\*NE36 (see attached NIS detector location dwg). Ref: Op Manual Chapter 2; 10080-TLD-02-004

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: NI-POWER-RNG

Point ID: N0049A

Plant Spec Point Desc.: PWR RNG CHAN 1 FLUX      NM41F

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 102%/LO ALM @ -1%

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. 2NMP\*NE41A and B (see attached NIS detector location dwg). Ref: Op Manual Chapter 2; 10080-TLD-02-005

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA1

Point ID: N0050A

Plant Spec Point Desc.: PWR RNG CHAN 2 FLUX      NM42F

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 102%/LO ALM @ -1%

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. 2NMP\*NE42A and B (see attached NIS detector location dwg). Ref: Op Manual Chapter 2; 10080-TLD-02-006

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA2

Point ID: N0051A

Plant Spec Point Desc.: PWR RNG CHAN 3 FLUX      NM43F

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 102%/LO ALM @ -1%

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. 2NMP\*NE43A and B (see attached NIS detector location dwg). Ref: Op Manual Chapter 2; 10080-TLD-02-007

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA3

Point ID: N0052A

Plant Spec Point Desc.: PWR RNG CHAN 4 FLUX      NM44F

Generic/Cond Desc.: NUCLEAR INSTRUMENTS, POWER RANGE

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 120

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 102%/LO ALM @ -1%

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Power Range level is calibrated from a secondary plant calorimetric calculation to provide full rated power level. Power Range level is an average of the upper and lower detector flux levels. 2NMP\*NE44A and B (see attached NIS detector location dwg). Ref: Op Manual Chapter 2; 10080-TLD-02-008



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: COND-AE-RAD1

Point ID: R0001A

Plant Spec Point Desc.: AIR EJ DISCHARGE 2ARC-RQ100

Generic/Cond Desc.: COND AIR EJECTOR RADIOACTIVITY

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: N/A

Minimum Instr Range: 1.08E-7

Maximum Instr Range: 1.08E-1

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2ARC-RQ100 monitors the gaseous effluent from the Condenser Air Ejector discharge for Xe-133 before the Charcoal Delay Beds. An alarm indicates a primary to secondary leak. Detector output is sent to digital radiation monitor system (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A beta scintillation detector monitors the Condenser Air Ejector discharge upstream of the Charcoal Delay Beds. Ref: Op Manual Chapter 43, RM-419-2, TLD-43-056

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: RCS-LTD-RAD2

Point ID: R0002A

Plant Spec Point Desc.: RX CLNT LTDN LO RNG 2CHS-RQ101A

Generic/Cond Desc.: RAD LEVEL OF RCS LETDOWN LINE

Analog/Digital: A

Engr Units/Dig States: uCI/CC

Engr Units Conversion: N/A

Minimum Instr Range: 1.7E-4

Maximum Instr Range: 1.7E2

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2CHS-RQ101A monitors the gross activity of the reactor coolant (Cs-137) by drawing samples from the Reactor Coolant Letdown Line and delaying them to permit sufficient decay of the N-16 isotope before they pass by the detectors. This is an indication of fission products present in the reactor coolant. This radiation monitor provides the Low Range indication. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A detector monitors gross activity of the reactor coolant at Reactor Coolant Letdown Line.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: RCS-LTD-RAD1

Point ID: R0003A

Plant Spec Point Desc.: RX CLNT LTDN HI RNG 2CHS-RQ101B

Generic/Cond Desc.: RAD LEVEL OF RCS LETDOWN LINE

Analog/Digital: A

Engr Units/Dig States: uCI/CC

Engr Units Conversion: N/A

Minimum Instr Range: 7.2E-2

Maximum Instr Range: 7.2E4

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2CHS-RQ101B monitors the gross activity of the reactor coolant (Cs-137) by drawing samples from the Reactor Coolant Letdown Line and delaying them to permit sufficient decay of the N-16 isotope before they pass by the detectors. This is an indication of fission products present in the reactor coolant. This radiation monitor provides the High Range indication. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A detector monitors gross activity of the reactor coolant at Reactor Coolant Letdown Line.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: COND-AE-RAD2

Point ID: R0010A

Plant Spec Point Desc.: AIR EJ DELAY BED 2GWS-RQ102

Generic/Cond Desc.: COND AIR EJECTOR RADIOACTIVITY

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: N/A

Minimum Instr Range: 2.33E-7

Maximum Instr Range: 2.33E-1

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2GWS-RQ102 monitors the gaseous effluent from the Air Ejector Charcoal Bed for Xe-133. An alarm indicates a primary to secondary leak and a possible malfunction of the Charcoal Delay Beds. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A beta scintillation detector monitors Air Ejector Charcoal Bed gaseous effluent. Ref: Op Manual Chapter 43; RM-443-17; TLD-43-062

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SG-BD-RAD-1A

Point ID: R0079A

Plant Spec Point Desc.: SG BLOWDOWN      2SSR-RQ100

Generic/Cond Desc.: STM GEN A/B/C BLOWDOWN RAD LEVEL

Analog/Digital: A

Engr Units/Dig States: uCI/CC

Engr Units Conversion: N/A

Minimum Instr Range: 7.7E-8

Maximum Instr Range: 7.7E-2

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2SSR-RQ100 monitors the activity of the Steam Generator Blowdown for Cs-137. Samples are taken from a common header which acts as a manifold from the three Steam Generators. A High Alarm isolates the sample lines. The sampling valve arrangement permits the operator to determine the source of the high activity. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A gamma scintillator monitors the activity of the Steam Generator Blowdown effluent in a common header from all three Steam Generators.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-RAD1

Point ID: R0086A

Plant Spec Point Desc.: IN-CNMT HI RNG AREA 2RMR\*RQ206

Generic/Cond Desc.: RADIATION LEVEL IN CONTAINMENT

Analog/Digital: A

Engr Units/Dig States: R/HR

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 1E8

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2RMR\*RQ206 monitors the radiation levels inside Containment and provides both local and Control Room alarms and indication. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. An ion chamber detects High Range area radiation levels inside Containment. Ref: Op Mmanual Chapter 43; TLD-43-017

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-RAD2

Point ID: R0087A

Plant Spec Point Desc.: IN-CNMT HI RNG AREA 2RMR\*RQ207

Generic/Cond Desc.: RADIATION LEVEL IN CONTAINMENT

Analog/Digital: A

Engr Units/Dig States: R/HR

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 1E8

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2RMR\*RQ207 monitors the radiation levels inside Containment and provides both local and Control Room alarms and indication. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. An ion chamber detects High Range area radiation levels inside Containment. Ref: Op Mmanual Chapter 43; TLD-43-018

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: MAIN-SL-1A

Point ID: R0088A

Plant Spec Point Desc.: MAIN STM ACTIVITY 2MSS\*RQ101A

Generic/Cond Desc.: STM GEN A STEAM LINE RAD LEVEL

Analog/Digital: A

Engr Units/Dig States: uCI/CC

Engr Units Conversion: N/A

Minimum Instr Range: 2.5E-3

Maximum Instr Range: 2.5E3

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2MSS\*RQ101A monitors the activity (Kr-88) following an accident in which the Power-Operated Dump Valves or Main Steam Safety Valves may be used as a discharge path to the environment. This monitor is activated by a Safety Injection Signal. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A gamma scintillator detects activity in the Main Steam Line between SG A and the Main Steam Trip Valves upstream of the Safety Valve tie-in. Ref: Op Manual Chapter 43; TLD-43-071; RM-421-2



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: MAIN-SL-2B

Point ID: R0089A

Plant Spec Point Desc.: MAIN STM ACTIVITY 2MSS\*RQ101B

Generic/Cond Desc.: STM GEN B STEAM LINE RAD LEVEL

Analog/Digital: A

Engr Units/Dig States: uCI/CC

Engr Units Conversion: N/A

Minimum Instr Range: 2.5E-3

Maximum Instr Range: 2.5E3

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2MSS\*RQ101B monitors the activity (Kr-88) following an accident in which the Power-Operated Dump Valves or Main Steam Safety Valves may be used as a discharge path to the environment. This monitor is activated by a Safety Injection Signal. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A gamma scintillator detects activity in the Main Steam Line between SG B and the Main Steam Trip Valves upstream of the Safety Valve tie-in. Ref: Op Manual Chapter 43; TLD-43-075; RM-421-2

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: MAIN-SL-3C

Point ID: R0090A

Plant Spec Point Desc.: MAIN STM ACTIVITY 2MSS\*RQ101C

Generic/Cond Desc.: STM GEN C STEAM LINE RAD LEVEL

Analog/Digital: A

Engr Units/Dig States: uCI/CC

Engr Units Conversion: N/A

Minimum Instr Range: 2.5E-3

Maximum Instr Range: 2.5E3

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2MSS\*RQ101C monitors the activity (Kr-88) following an accident in which the Power-Operated Dump Valves or Main Steam Safety Valves may be used as a discharge path to the environment. This monitor is activated by a Safety Injection Signal. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A gamma scintillator detects activity in the Main Steam Line between SG C and the Main Steam Trip Valves upstream of the Safety Valve tie-in. Ref: Op Manual Chapter 43; TLD-43-076; RM-421-2

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EFF-LIQ-RAD1

Point ID: R0094A

Plant Spec Point Desc.: LIQ WST EFFLUENT 2SGC-RQ100

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED LIQ

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: N/A

Minimum Instr Range: 5.1E-8

Maximum Instr Range: 5.1E-2

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2SGC-RQ100 receives an auto-start signal and monitors the activity (Cs-137) in the Liquid Waste Process System when flow is detected. Upon detection of High radiation a valve is closed to prevent the release of this discharge. Detector output is sent to Digital Radiation Monitor System (DRMS) which transmits value and measurement condition once per minute to the ERFCS. A gamma scintillator detects activity in the discharge from the Liquid Waste Process System. Ref: Op Manual Chapter 43; TLD-43-048

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CL-TEMP-1A

Point ID: T0406A

Plant Spec Point Desc.: RCL A COLD LEG TEMP RCS\*TE410

Generic/Cond Desc.: STM GEN A OUTLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop A Cold Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant and PSMS computers. 2RCS\*TE410 is located between 2RCS\*P21A discharge and the A Loop Stop Valve. 10080-TLD-06-040; RM-75A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: HL-TEMP-1A

Point ID: T0419A

Plant Spec Point Desc.: RCL A HOT LEG TEMP    RCS\*TE413

Generic/Cond Desc.: STM GEN A INLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop A Hot Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant and PSMS computers. 2RCS\*TE413 is located between A Loop Stop Valve and Coolant Inlet to SG A. 10080-TLD-06-044; RM-75A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CL-TEMP-2B

Point ID: T0426A

Plant Spec Point Desc.: RCL B COLD LEG TEMP RCS\*TE420

Generic/Cond Desc.: STM GEN B OUTLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop B Cold Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant and PSMS computers. 2RCS\*TE420 is located between 2RCS\*P21B discharge and the B Loop Stop Valve. 10080-TLD-06-056; RM-75A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: HL-TEMP-2B

Point ID: T0439A

Plant Spec Point Desc.: RCL B HOT LEG TEMP    RCS\*TE423

Generic/Cond Desc.: STM GEN B INLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop B Hot Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant and PSMS computers. 2RCS\*TE423 is located between B Loop Stop Valve and Coolant Inlet to SG B. 10080-TLD-06-060; RM-75A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CL-TEMP-3C

Point ID: T0446A

Plant Spec Point Desc.: RCL C COLD LEG TEMP RCS\*TE430

Generic/Cond Desc.: STM GEN C OUTLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 650 DEGF; LO ALM @ 0 DEGF

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop C Cold Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant and PSMS computers. 2RCS\*TE430 is located between 2RCS\*P21C discharge and the C Loop Stop Valve. 10080-TLD-06-072; RM-75A



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: HL-TEMP-3C

Point ID: T0459A

Plant Spec Point Desc.: RCL C HOT LEG TEMP    RCS\*TE433

Generic/Cond Desc.: STM GEN C INLET TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 700

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 650 DEGF; LO ALM @ 0 DEGF

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Reactor Coolant Loop C Hot Leg temperature signal is sent to the Main Control Board, Remote Shutdown Panel, and the plant and PSMS computers. 2RCS\*TE433 is located between C Loop Stop Valve and Coolant Inlet to SG C. 10080-TLD-06-076; RM-75A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/18/1995

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-TEMP

Point ID: T1002A

Plant Spec Point Desc.: RX CNMT TEMP      LMS-TE100-2

Generic/Cond Desc.: CONTAINMENT TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 300

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 121.3 DEGF; LO ALM @ 80.7 DEGF

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: HIGH

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2LMS\*TE100-2 measures Containment temperature inside the Crane Wall.  
See attached drawing for detector locations in Containment. 2LMS\*TE100-2  
senses Containment temperature at 801' 6" elevation inside the Crane Wall.  
Ref:10080-TLD-12B-007; RK-14A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/18/1995

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA12

Point ID: T1008A

Plant Spec Point Desc.: RX CNMT TEMP      LMS-TE100-8

Generic/Cond Desc.: CONTAINMENT TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 50

Maximum Instr Range: 130

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 106.3 DEGF; LO ALM @ 79.5 DEGF

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: HIGH

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2LMS\*TE100-8 measures Containment temperature inside the Crane Wall.  
See attached drawing for detector locations in Containment. 2LMS\*TE100-8  
senses temperature in Containment at 743' elevation inside the Crane Wall.  
Ref:10080-TLD-12B-013; RK-14A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/18/1995

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA13

Point ID: T1013A

Plant Spec Point Desc.: RX CNMT TEMP      LMS-TE100-13

Generic/Cond Desc.: CONTAINMENT TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 300

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 123.9 DEGF; LO ALM @ 83.4 DEGF

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: HIGH

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2LMS\*TE100-13 measures Containment temperature inside the Crane Wall.  
See attached drawing for detector locations in Containment. 2LMS\*TE100-13  
senses temperature in Containment at 802' elevation inside the Crane Wall.  
Ref:10080-TLD-12B-018; RK-14A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/18/1995

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA14

Point ID: T1014A

Plant Spec Point Desc.: RX CNMT TEMP      LMS-TE100-14

Generic/Cond Desc.: CONTAINMENT TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 300

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 90.4 DEGF; LO ALM @ 71.5 DEGF

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: HIGH

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2LMS\*TE100-4 measures Containment temperature outside the Crane Wall. See attached drawing for detector locations in Containment. 2LMS\*TE100-14 senses temperature in Containment at 701' 6" elevation outside the Crane Wall. Ref:10080-TLD-12B-019, RK-14A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 7/18/1995

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA15

Point ID: T1015A

Plant Spec Point Desc.: RX CNMT TEMP      LMS-TE100-15

Generic/Cond Desc.: CONTAINMENT TEMPERATURE

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 300

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 132.4 DEGF; LO ALM @ 80.0 DEGF

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: HIGH

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 2LMS\*TE100-5 measures Containment temperature outside the Crane Wall. See attached drawing for detector locations in Containment. 2LMS\*TE100-15 senses temperature in Containment at 777' 4" elevation outside the Crane Wall. Ref:10080-TLD-12B-020; RK-14A

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: MN-FD-FL-1A

Point ID: UF1001

Plant Spec Point Desc.: MF FLO SG A AVG

Generic/Cond Desc.: STM GEN A MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: KLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 5000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the average of two flow signals sensed from the venturi flow element 2FWS\*FE476. There are two, half capacity, Main Feed Pumps which have a design flow rate of 15,200 GPM at 1,694 ft. Total Design Head (TDH) each. 2FWS\*FT476 and 2FWS\*FT477 sense flow to SG A between the Main Feed Pump discharge and the Main Feed Regulating Valve. 10080-TLD-24A-052;10080-TLD-24A-050; RM-45A

## BEAVER VALLEY POWER STATION ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: MN-FD-FL-2B

Point ID: UF1002

Plant Spec Point Desc.: MF FLO SG B AVG

Generic/Cond Desc.: STM GEN B MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: KLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 5000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the average of two flow signals sensed from the venturi flow element 2FWS\*FE486. There are two, half capacity, Main Feed Pumps which have a design flow rate of 15,200 GPM at 1,694 ft. Total Design Head (TDH) each. 2FWS\*FT486 and 2FWS\*FT487 sense flow to SG B between the Main Feed Pump discharge and the Main Feed Regulating Valve. 10080-TLD-24A-057;10080-TLD-24A-058; RM-45A



# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: MN-FD-FL-3C

Point ID: UF1003

Plant Spec Point Desc.: MF FLO SG C AVG

Generic/Cond Desc.: STM GEN C MAIN FEEDWATER FLOW

Analog/Digital: A

Engr Units/Dig States: KLB/HR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 5000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the average of two flow signals sensed from the venturi flow element 2FWS\*FE496. There are two, half capacity, Main Feed Pumps which have a design flow rate of 15,200 GPM at 1,694 ft. Total Design Head (TDH) each. 2FWS\*FT496 and 2FWS\*FT497 sense flow to SG C between the Main Feed Pump discharge and the Main Feed Regulating Valve. 10080-TLD-24A-064;10080-TLD-24A-065; RM-45A

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: HPSI-FLOW1

Point ID: UF1011

Plant Spec Point Desc.: HI SI TOTAL FLOW

Generic/Cond Desc.: HIGH PRESS SAFETY INJECTION FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 2000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: SUM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the total flow through the Train A and B High Pressure Safety Injection Lines. The Charging Pumps (2CHS\*P21A, B and C) provide the HPSI flow. 2SIS\*FT940 (Train A) and 2SIS\*FT943 (Train B) sense flow at the discharge of 2CHS\*P21A, B and C prior to the header connection to the Hot and Cold Legs of Reactor Coolant Loops A, B and C. 10080-TLD-11A-038; 10080-TLD-11A-039; RM-407-1; RM-411-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: RCS-CHG-MU

Point ID: UF1013

Plant Spec Point Desc.: TOTAL CHARGING PMP FLO

Generic/Cond Desc.: PRIMARY SYSTEM CHG OR MU FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 195

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 4

How Processed: SUM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Total Charging Flow is calculated by adding the normal Charging Flow and the RCP Seal Injection flow, then subtracting the RCP Seal Leakoff Flow. There are three Charging Pumps 2CHS\*P21A, B and C each capable of supplying 150 GPM at 2500 PSIG with a shutoff head of 2600 PSIG. 2RCS\*FT422 senses normal Charging Flow, 2RCS\*FT124, 127 and 130 sense Reactor Coolant Pump Seal Injection Flow and 2RCS\*FT154A, 155A and 156A sense Reactor Coolant Pump Seal Leakoff. 10080-TLD-006-023; 10080-TLD-006-026; 10080-TLD-006-027; 10080-TLD-006-079; 10080-TLD-006-080; 10080-TLD-006-081; 10080-TLD-006-094; RM-407-1; RM-407-3

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: LPSI-FLOW1

Point ID: UF1014

Plant Spec Point Desc.: LO SI FLO

Generic/Cond Desc.: LOW PRESS SAFETY INJECTION FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 10,000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: SUM

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is total flow through Train A and B Low Pressure Safety Injection Header or Safety Injection Flow from Recirculation Spray Pumps to Reactor Coolant Loops A, B and C. Pumps 2SIS\*P21A and B have a design flow rate of 3000 GPM at 240 PSIG with a shutoff head of 350'. The Recirculation Pumps (2RSS\*P21A, B, C and D) have a design flow rate of 3500 GPM at 280f and 266 FT. 2SIS\*FT945 (Train A) and 2SIS\*FT946 (Train B) sense flow at the discharge of the LHSI Pumps (2SIS\*P21A and B) between the Recirculation Spray Pump connection to the injection header and the header connection to the Hot and Cold Legs for Reactor Coolant Loops A, B and C.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: AX-FD-FL-1A

Point ID: UF3000

Plant Spec Point Desc.: AF FLO SG A

Generic/Cond Desc.: STM GEN A AUXILLIARY FW FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the average of two flow signals sensed from the same flow element located before the A Auxiliary Feed Line Containment Penetration. The Auxiliary Feedwater system consists of two half size Motor Driven Feed Pumps (375 GPM at 2760 TDH) and one full size Turbine Driven Feed Pump (750 GPM at 2760 TDH) which take a suction on the 152,000 Gallon Primary Plant Demineralized Water Storage Tank. 2FWE\*FT100A and 2FWE\*FT100A1 sense flow between the Auxiliary Feedwater Throttle Valves and SG A. The Auxiliary Feedwater Line taps into the Main Feed Line between the Feedwater Isolation Valve and SG A.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: AX-FD-FL-2B

Point ID: UF3001

Plant Spec Point Desc.: AF FLO SG B

Generic/Cond Desc.: STM GEN B AUXILLIARY FW FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the average of two flow signals sensed from the same flow element located before the B Auxiliary Feed Line Containment Penetration. The Auxiliary Feedwater system consists of two half size Motor Driven Feed Pumps (375 GPM at 2760 TDH) and one full size Turbine Driven Feed Pump (750 GPM at 2760 TDH) which take a suction on the 152,000 Gallon Primary Plant Demineralized Water Storage Tank. 2FWE\*FT100B and 2FWE\*FT100B1 sense flow between the Auxiliary Feedwater Throttle Valves and SG B. The Auxiliary Feedwater Line taps into the Main Feed Line between the Feedwater Isolation Valve and SG B.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: AX-FD-FL-3C

Point ID: UF3002

Plant Spec Point Desc.: AF FLO SG C

Generic/Cond Desc.: STM GEN C AUXILLIARY FW FLOW

Analog/Digital: A

Engr Units/Dig States: GPM

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 400

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This value is the average of two flow signals sensed from the same flow element located before the C Auxiliary Feed Line Containment Penetration. The Auxiliary Feedwater system consists of two half size Motor Driven Feed Pumps (375 GPM at 2760 TDH) and one full size Turbine Driven Feed Pump (750 GPM at 2760 TDH) which take a suction on the 152,000 Gallon Primary Plant Demineralized Water Storage Tank. 2FWE\*FT100C and 2FWE\*FT100C1 sense flow between the Auxiliary Feedwater Throttle Valves and SG C. The Auxiliary Feedwater Line taps into the Main Feed Line between the Feedwater Isolation Valve and SG C.

**BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY**

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: PRZR-LEVEL

Point ID: UL1000

Plant Spec Point Desc.: PRZR LEV AVG

Generic/Cond Desc.: PRIMARY SYSTEM PRESSURIZER LEVEL

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 100

Zero Point Reference: TOPHTR

Reference Point Notes: SEE UNIQUE SYSTEM DESCRIPTION FIELD

PROC or SENS: P

Number of Sensors: 3

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 92 %/LO ALM @ 14 %

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: The indicated level can be the average of three, two or one level transmitter signal depending on the deviation between values. See attached curve of % level vs Pressurizer volume in Gallons. 2RCS\*LT459, 460 and 461 sense Pressurizer level from 748' 3 3/4" (lower transmitter tap) to 780' 10 9/16" (upper transmitter tap). Zero reference: minimum water level (top of Heaters) is at 752' 1 5/8" or approximately 12%. Ref: Op Manual Chapter 6; 2004.150-001-010; RK-326R; RK-326S; RK-326T



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: CTMNT-PRESS

Point ID: UP1000

Plant Spec Point Desc.: CNMT PRESS AVG

Generic/Cond Desc.: CONTAINMENT PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIA

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 180

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 59.7 PSIA

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This signal is an average of two Containment pressure signals. The design pressure of the BV2 Reactor Containment is 8 PSIG to 45 PSIG. 2LMS\*PT106A and 2LMS\*PT106B sense Containment pressure from an open tap in Containment. Ref:10080-TLD-12B-034; 10080-TLD-12B-035; RK-321H; RK-321K

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: RCS-PRESSURE

Point ID: UP1001

Plant Spec Point Desc.: RCS WR PRESS

Generic/Cond Desc.: REACTOR COOLANT SYSTEM PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 3000

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM = UP1011; LO ALM = UP1012

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This signal is an average of three Wide Range RCS pressure signals. 2RCS\*PT440 and 442 senses pressure at Loop A Hot Leg RVLIS tap located between Loop A Hot Leg Isolation Valve and the Reactor Vessel. 2RCS\*PT441 senses pressure at Loop B Hot Leg RVLIS tap located between the Loop B Hot Leg Isolation Valve and the Reactor Vessel. 10080-TLD-06-004; 10080-TLD-06-005; 10080-TLD-05D-008; RK-25G; RK-25E

UP1011 = RCS Wide Pressure Hi Limit; UP1012 = Saturation Pressure

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SG-PRESS-1A

Point ID: UP1003

Plant Spec Point Desc.: SG A MAIN STM PRESS AVG

Generic/Cond Desc.: STEAM GENERATOR A PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 1200

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: LO ALM @ 504 PSIG; HI ALM @ 975 PSIG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This signal is an average of the three Main Steam Line pressure sensors. The Atmospheric Steam Dump Valves trip open at 1060 PSIG. The Main Steam Safety Valves begin lifting at 1075 PSIG. 2MSS\*PT474, 2MSS\*PT475 and 2MSS\*PT476 sense pressure at SG A Main Steam Line between the Safety Relief Valves and the Main Steam Line Isolation Valves. 10080-TLD-21A-010; RM-421-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SG-PRESS-2B

Point ID: UP1004

Plant Spec Point Desc.: SG B MAIN STM PRESS AVG

Generic/Cond Desc.: STEAM GENERATOR B PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 1200

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: LO ALM @ 504 PSIG; HI ALM @ 975 PSIG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This signal is an average of the three Main Steam Line pressure sensors. The Atmospheric Steam Dump Valves trip open at 1060 PSIG. The Main Steam Safety Valves begin lifting at 1075 PSIG. 2MSS\*PT484, 2MSS\*PT485 and 2MSS\*PT486 sense pressure at SG B Main Steam Line between the Safety Relief Valves and the Main Steam Line Isolation Valves. 10080-TLD-21A-011; RM-421-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SG-PRESS-3C

Point ID: UP1005

Plant Spec Point Desc.: SG C MAIN STM PRESS AVG

Generic/Cond Desc.: STEAM GENERATOR C PRESSURE

Analog/Digital: A

Engr Units/Dig States: PSIG

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 1200

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 3

How Processed: REDUNDANT SENSOR ALGORITHM (RSA)

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: LO ALM @ 504 PSIG; HI ALM @ 975 PSIG

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: This signal is an average of the three Main Steam Line pressure sensors. The Atmospheric Steam Dump Valves trip open at 1060 PSIG. The Main Steam Safety Valves begin lifting at 1075 PSIG. 2MSS\*PT494, 2MSS\*PT495 and 2MSS\*PT496 sense pressure at SG C Main Steam Line between the Safety Relief Valves and the Main Steam Line Isolation Valves. 10080-TLD-21A-020; RM-421-1

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: SUB-MARGIN1

Point ID: UT1002

Plant Spec Point Desc.: MIN SUBCOOL

Generic/Cond Desc.: SATURATION TEMP - HIGHEST CET

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: N/A

Maximum Instr Range: N/A

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 0

How Processed: ERFCS ALGORITHM "DIFF"

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: ERFCS uses the average wide range pressure UP1001 and then determines T-SAT (UT1005). The minimum subcool within ERFCS then is determined by "DIFF" which is the difference between the saturation temperature and highest Core Exit Thermocouple or basically UT1005-UT1003. Alarm limits vary with plant condition. Alarm condition will be transmitted over ERDS link.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: TMP-CORE-EX1

Point ID: UT1003

Plant Spec Point Desc.: MAX CORE EXIT

Generic/Cond Desc.: HIGHEST TEMPERATURE AT CORE EXIT

Analog/Digital: A

Engr Units/Dig States: DEGF

Engr Units Conversion: N/A

Minimum Instr Range: N/A

Maximum Instr Range: N/A

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 51

How Processed: ERFCS ALGORITHM "CET"

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM = UT1005; LO ALM = UT1007

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: ERFCS accepts the inputs of the compensated Core Exit Thermocouples (51 total) via data link from the Plant Safety Monitoring System (PSMS). The SPDS algorithm, "CET", then selects the maximum Core Exit Thermocouple temperature. Alarm limits are dependent on plant condition. Alarm condition will be transmitted over ERDS line. UT1005= TSAT - Saturation Temperature UT1007= TCLOL - Core Exit Temperature Low Limit.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-SPEED1

Point ID: XM006

Plant Spec Point Desc.: WIND SPEED 35' LEVEL

Generic/Cond Desc.: WIND SPEED AT THE REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: MPH

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 50

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor value substituted if primary bad or missing. Sensors are same quality/calibration. Value used in dose assessments, as ground level speed.



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-SPEED2

Point ID: XM026

Plant Spec Point Desc.: WIND SPEED 500' ELEVATION

Generic/Cond Desc.: WIND SPEED AT THE REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: MPH

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 50

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor substituted if primary bad or missing. Sensors are same quality/calibration. Value is dose assessments as elevated wind speed.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-DIR1

Point ID: XM051

Plant Spec Point Desc.: WIND DIRECTION 150' ELEVATION

Generic/Cond Desc.: WIND DIRECTION AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: DEGFR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 360

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor value substituted if primary bad or missing. Sensors are same quality/calibration. Value used in dose assessments as ground level direction. Wind direction 0 is North. Wind direction is direction from which wind is coming.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: WIND-DIR2

Point ID: XM061

Plant Spec Point Desc.: WIND DIRECTION 500' ELEVATION

Generic/Cond Desc.: WIND DIRECTION AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: DEGFR

Engr Units Conversion: N/A

Minimum Instr Range: 0

Maximum Instr Range: 360

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is the 15 minute average value for primary sensor. Redundant sensor value substituted if primary bad or missing. Sensors are same quality/calibration. Value used in dose assessments as ground level direction. Wind direction 0 is North. Wind direction is direction from which wind is coming.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: STAB-CLASS1

Point ID: XM083

Plant Spec Point Desc.: STABILITY-GROUND LEVEL

Generic/Cond Desc.: AIR STABILITY AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: STABI

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 7

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is based on 15 minute average Delta-T for 35' and 150' temperature sensors. Based on redundant sensor if primary bad or missing. Sensors are same quality/calibration. Stability classes 1 thru 7 correspond to stability classes A to G.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: STAB-CLASS2

Point ID: XM087

Plant Spec Point Desc.: STABILITY-ELEVATED

Generic/Cond Desc.: AIR STABILITY AT REACTOR SITE

Analog/Digital: A

Engr Units/Dig States: STABI

Engr Units Conversion: N/A

Minimum Instr Range: 1

Maximum Instr Range: 7

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 2

How Processed: FAILOVER SUBSTITUTION

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is based on 15 minute average Delta-T for 35' and 500' temperature sensors. Based on redundant sensor if primary bad or missing. Sensors are same quality/calibration. Stability classes 1 thru 7 correspond to stability classes A thru G.

# BEAVER VALLEY POWER STATION

## ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA15

Point ID: XR013

Plant Spec Point Desc.: 1RM-GW-109 CH5

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=1.26E7 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 3.6E5 CPM >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to 10 CFR 20 Limits at most restrictive receptor per ODCM. RM-1GW-109 Channel 5 monitors for low range noble gases at the discharge of the gaseous waste disposal blowers. This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-419-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA16

Point ID: XR014

Plant Spec Point Desc.: 1RM-GW-109 CH7

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe133=3.00E2 \text{ CPM/uCi/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: N/A

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCi/CC conversion depending on which default source term was selected and decay period. RM-1GW-109 Channel 7 monitors for mid range noble gases at the discharge of the gaseous waste disposal blowers. This SPING monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-419-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA17

Point ID: XR015

Plant Spec Point Desc.: 1RM-GW-109 CH9

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: CPM

Engr Units Conversion:  $Xe^{133}=3.95 \text{ CPM/uCI/CC}$

Minimum Instr Range: 1.0

Maximum Instr Range: 1.2E6

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 1.83E5 CPM >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Point is 1 minute average. Site dose assessment varies CPM to uCI/CC conversion depending on which default source term was selected and decay period. Alarm setpoint corresponds to a General Emergency if the release continues for eight hours. RM-1GW-109 Channel 9 monitors for High Range noble gases at the discharge of the Gaseous Waste Disposal Blowers. The monitor provides alarms to warn the operator of abnormal releases and provides input to compute integrated release data. Ref: Op Manual Chapter 43; RM-419-1



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD1

Point ID: XR041

Plant Spec Point Desc.: 2HVS-RQI101A

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: N/A

Minimum Instr Range: 5.6E-11

Maximum Instr Range: 5.6E-5

Zero Point Reference: 0

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 1.67E-5 UCI/CC >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 1 minute average data. Site dose assessment assigns correction factors to the uCi/CC to correct for source term differences depending on selected default source term and decay period. 2HVS\*RQI101A monitors the airborne activity (Xe-133) between the discharge of the Leak Collection Normal Exhaust Fans and the Ventilation Vent. A High activity signal will isolate the Purge System and indicate to the operator the need to divert flow through the Filter Banks. Ref: Op Manual Chapter 43; TLD-43-068; RM-416-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD2

Point ID: XR042

Plant Spec Point Desc.: 2HVS-RQI101B

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: 3.65E-8 UCI/CC/CPM

Minimum Instr Range: 3.7E-7

Maximum Instr Range: 0.37

Zero Point Reference: 0

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 1.81E-4 UCI/CC >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 1 minute average data. Site dose assessment assigns correction factors to the uCi/CC to correct for source term differences depending on selected default source term and decay period. 2HVS\*RQI101B monitors the airborne activity (Kr-85) between the discharge of the Leak Collection Normal Exhaust Fans and the Ventilation Vent. A High activity signal will isolate the Purge System and indicate to the operator the need to divert flow through the Filter Banks. Ref: Op Manual Chapter 43; TLD-43-068; RM-416-1

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD3

Point ID: XR045

Plant Spec Point Desc.: 2HVS-RQI109A

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: N/A

Minimum Instr Range: 3.3E-11

Maximum Instr Range: 3.3E-5

Zero Point Reference: 0

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 9.84E-6 UCI/CC >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 1 minute average data. Site dose assessment assigns correction factors to the uCi/CC to correct for source term differences depending on selected default source term and decay period. 2HVS\*RQI109A monitors the airborne activity (Xe-131) between the discharge of the Leak Collection Filter Exhaust Fans and the Elevated Release Exhaust Line. This sample is composed of effluent from the Auxiliary and Fuel Buildings, after it has passed through Main Filter Banks in the SLCRS system before being discharged to atmosphere. Ref: Op Manual Chapter 43; TLD-43-068; RM-416-2

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 3/3/1993

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EFF-GAS-RAD4

Point ID: XR046

Plant Spec Point Desc.: 2HVS-RQI109

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: UCI/SEC

Engr Units Conversion: 1.94E-8 UCI/CC/CPM

Minimum Instr Range: 2.45E-7

Maximum Instr Range: 1.0E+5

Zero Point Reference: 0

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 1.77E3 UCI/SEC

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 1 minute average data. Site dose assessment assigns correction factors to the uCi/CC to correct for source term differences depending on selected default source term and decay period. This is a multi-range monitor. Lowest onscale channel report. 2HVS-RQI109B, C and D monitors the gaseous activity (Xe-133) between the discharge of the leak collection filter exhaust fans and the elevated release exhaust line. This sample is composed of effluent from the Auxiliary and Fuel Buildings, after it has passed through the Main Filter Banks in the SLCRS system before being discharged to atmosphere.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA9

Point ID: XR053

Plant Spec Point Desc.: 2MSS-RQI101A

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: N/A

Minimum Instr Range: 2.5E-3

Maximum Instr Range: 2.5E3

Zero Point Reference: 0

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 3.9E-2 uCi/CC >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 1 minute average data. Site dose assessment assigns correction factors to the uCi/CC to correct for source term differences depending on selected default source term and decay period. Only read if release ongoing. Density corrected to atmospheric pressure.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA10

Point ID: XR054

Plant Spec Point Desc.: 2MSS-RQI101B

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASES

Analog/Digital: A

Engr Units/Dig States: UCI/CC

Engr Units Conversion: N/A

Minimum Instr Range: 2.5E-3

Maximum Instr Range: 2.5E3

Zero Point Reference: 0

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 3.9E-2 UCI/CC >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 1 minute average data. Site dose assessment assigns correction factors to the uCi/CC to correct for source term differences depending on selected default source term and decay period. Only read if release ongoing. Density corrected to atmospheric pressure.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/14/1992

Reactor Unit: BV2

Data Feeder: ARERAS

NRC ERDS Parameter: EXTRA11

Point ID: XR055

Plant Spec Point Desc.: 2MSS-RQI101C

Generic/Cond Desc.: RADIOACTIVITY OF RELEASED GASSES

Analog/Digital: A

Engr Units/Dig States: uCi/CC

Engr Units Conversion: N/A

Minimum Instr Range: 2.5E-3

Maximum Instr Range: 2.5E3

Zero Point Reference: 0

Reference Point Notes: N/A

PROC or SENS: P

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HIGH 3.9E-2 uCi/CC >BACKGROUND

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: DEPENDS ON FAILURE MODE

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: 1 minute average data. Site dose assessment assigns correction factors to the uCi/CC to correct for source term differences depending on selected default source term and decay period. Only read if release ongoing. Density corrected to atmospheric pressure.

BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/30/1998

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: H2-CONC1

Point ID: Y0752A

Plant Spec Point Desc.: CNMT H2 CONC TRN A HCS\*HA100A

Generic/Cond Desc.: CONTAINMENT HYDROGEN CONC

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 10

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 0.5 %

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Containment gas is sampled and analyzed at the Hydrogen Analyzer (2HCS\*HA100A) with the results transmitted to 2HCS\*PNL100A where % hydrogen is calculated. 2HCS\*HA100A senses hydrogen at the 801' level in Containment. 10080-TLD-46-001; RK-317C; RM-446-1



BEAVER VALLEY POWER STATION  
ERDS DATA POINT LIBRARY

Date: 11/30/1998

Reactor Unit: BV2

Data Feeder: ERFCS

NRC ERDS Parameter: EXTRA16

Point ID: Y0753A

Plant Spec Point Desc.: CNMT H2 CONC TRN B HCS\*HA100B

Generic/Cond Desc.: CONTAINMENT HYDROGEN CONC

Analog/Digital: A

Engr Units/Dig States: %

Engr Units Conversion: LINEAR

Minimum Instr Range: 0

Maximum Instr Range: 10

Zero Point Reference: N/A

Reference Point Notes: N/A

PROC or SENS: S

Number of Sensors: 1

How Processed: N/A

Sensor Location: SEE UNIQUE SYSTEM DESCRIPTION FIELD

Alarm/Trip Set Points: HI ALM @ 0.5 %

NI Detector Power Supply Cut-Off Power Level: N/A

NI Detector Power Supply Turn-ON Power Level: N/A

Instrument Failure Mode: LOW

Temperature Compensation for DP Transmitters: N

Level Reference Leg: N/A

Unique System Desc.: Containment gas is sampled and analyzed at the Hydrogen Analyzer (2HCS\*HA100B) with the results transmitted to 2HCS\*PNL100B where % hydrogen is calculated. 2HCS\*HA100B senses hydrogen at the 802' level in Containment. 10080-TLD-46-002; RK-317C; RM-446-1

Beaver Valley Power Station, Units No. 1 and No. 2  
Emergency Response Data System (ERDS)  
L-04-039

**ATTACHMENT 2  
TABULATION OF CHANGES  
TO  
DATA POINT LIBRARY**

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
C0201A	1	Unique System Desc.		added at end: Alarms valid in Modes 1 through 4
C0202A	1	Unique System Desc.		added at end: Alarms valid in Modes 1 through 4
F0128A	1	Alarm/Trip Set Points	Hi Alm @ 150 GPM/Lo Alm @ -5 GPM	see unique system description
		Unique System Desc.		added at end: Hi Alm = 120 GPM in Modes 1 thru 6 Lo Alm = 20 GPM in Modes 1 and 2 Lo Alm = 0 GPM in Modes 3 thru 6
F0403A	1	Engr Units/Dig States	KLB/HR	MLB/HR
		Maximum Instr Range	4612	4.612
		Alarm/Trip Set Points	Hi Alm @ 4400 KLB/HR/Lo Alm @ -2 KLB/HR	see unique system description
		Unique System Desc.		added at end: Hi Alm = 4 MLB/HR in Modes 1 and 2 Lo Alm = 0 MLB/HR in Modes 1 and 2 No Alarms in Modes 3 thru 6. Point also alarms on Redundant Tolerance in Modes 1 and 2.
F0404A	1	Engr Units/Dig States	KLB/HR	MLB/HR
		Maximum Instr Range	4612	4.612
		Alarm/Trip Set Points	Hi Alm @ 4400 KLB/HR/Lo Alm @ -2 KLB/HR	see unique system description
		Unique System Desc.		added at end: Hi Alm = 4 MLB/HR in Modes 1 and 2 Lo Alm = 0 MLB/HR in Modes 1 and 2 No Alarms in Modes 3 thru 6. Point also alarms on Redundant Tolerance in Modes 1 and 2.
F0423A	1	Engr Units/Dig States	KLB/HR	MLB/HR
		Maximum Instr Range	4612	4.612
		Alarm/Trip Set Points	Hi Alm @ 4400 KLB/HR/Lo Alm @ -2 KLB/HR	see unique system description
		Unique System Desc.		added at end: Hi Alm = 4.2 MLB/HR in Modes 1 and 2 Lo Alm = 0 MLB/HR in Modes 1 and 2 No Alarms in Modes 3 thru 6. Point also alarms on Redundant Tolerance in Modes 1 and 2.

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
F0424A	1	Engr Units/Dig States	KLB/HR	MLB/HR
		Maximum Instr Range	4612	4.612
		Alarm/Trip Set Points	Hi Alm @ 4400 KLB/HR/Lo Alm @ -2 KLB/HR	see unique system description
		Unique System Desc.		added at end: Hi Alm = 4.2 MLB/HR in Modes 1 and 2 Lo Alm = 0 MLB/HR in Modes 1 and 2 No Alarms in Modes 3 thru 6. Point also alarms on Redundant Tolerance in Modes 1 and 2.
F0443A	1	Engr Units/Dig States	KLB/HR	MLB/HR
		Maximum Instr Range	4612	4.612
		Alarm/Trip Set Points	Hi Alm @ 4400 KLB/HR/Lo Alm @ -2 KLB/HR	see unique system description
		Unique System Desc.		added at end: Hi Alm = 4.2 MLB/HR in Modes 1 and 2 Lo Alm = 0 MLB/HR in Modes 1 and 2 No Alarms in Modes 3 thru 6. Point also alarms on Redundant Tolerance in Modes 1 and 2.
F0444A	1	Engr Units/Dig States	KLB/HR	MLB/HR
		Maximum Instr Range	4612	4.612
		Alarm/Trip Set Points	Hi Alm @ 4400 KLB/HR/Lo Alm @ -2 KLB/HR	see unique system description
		Unique System Desc.		added at end: Hi Alm = 4.2 MLB/HR in Modes 1 and 2 Lo Alm = 0 MLB/HR in Modes 1 and 2 No Alarms in Modes 3 thru 6. Point also alarms on Redundant Tolerance in Modes 1 and 2.
L0403A	1	Alarm/Trip Set Points	Hi Alm @ 70%/Lo Alm @ 43%	see unique system description
		Unique System Desc.		added at end: Hi Alm = 60% in Modes 1 thru 4 Hi Alm = 85% in Modes 5 and 6 Lo Alm =43% in Modes 1 thru 6
L0423A	1	Alarm/Trip Set Points	Hi Alm @ 70%/Lo Alm @ 43%	see unique system description
		Unique System Desc.		added at end: Hi Alm = 70% in Modes 1 thru 4 Hi Alm = 85% in Modes 5 and 6 Lo Alm =43% in Modes 1 thru 6

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
L0443A	1	Alarm/Trip Set Points	Hi Alm @ 70%/Lo Alm @ 43%	see unique system description
		Unique System Desc.		added at end: Hi Alm = 60% in Modes 1 thru 4 Hi Alm = 85% in Modes 5 and 6 Lo Alm =43% in Modes 1 thru 6
L0750A	1	Alarm/Trip Set Points	Hi Alm @ 2.5 IN	see unique system description
		Unique System Desc.		added at end: Hi Alm = 2.5 IN in Modes 1 thru 5 No Lo Alm in Modes 1 thru 6 No Hi Alm in Modes 6
L0751A	1	Alarm/Trip Set Points	Hi Alm @ 2.5 IN	see unique system description
		Unique System Desc.		added at end: Hi Alm = 2.5 IN in Modes 1 thru 5 No Lo Alm in Modes 1 thru 6 No Hi Alm in Modes 6
L0752A	1	Alarm/Trip Set Points	Hi Alm @ 8.5 IN/Lo Alm @ 3.0 IN	Hi Alm @ 10.0 IN / Lo Alm @ 3.5 IN all Modes
L3204A	1	Alarm/Trip Set Points	N/A	see unique system description
		Unique System Desc.		added at end: Hi Alm = 120% in Modes 3 thru 5 Lo Alm = 39% in Mode 3 Lo Alm =95% in Modes 4 and 5 No Alarms in Modes 1, 2 and 6.
L3206A	1	Alarm/Trip Set Points	N/A	see unique system description
		Unique System Desc.		added at end: Hi Alm = 115% in Modes 1 thru 5 Lo Alm = 95% in Modes 1 thru 5 No Alarms in Mode 6.
L3210A	1	Alarm/Trip Set Points	N/A	see unique system description
		Unique System Desc.		added at end: Hi Alm = 120% in Modes 3 thru 5 Lo Alm = 39% in Mode 3 Lo Alm =95% in Modes 4 and 5 No Alarms in Modes 1, 2 and 6.

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
L3212A	1	Alarm/Trip Set Points	N/A	see unique system description
		Unique System Desc.		added at end: Hi Alm = 115% in Modes 1 thru 5 Lo Alm = 95% in Modes 1 thru 5 No Alarms in Mode 6.
N0031A	1	Engr Units Conversion	LOG Y = 6/5 (VOLTS) -1	LOG Y = 6/5 * VOLTS
		Maximum Instr Range	1.00E+05	1.00E+06
		Alarm/Trip Set Points	Hi Alm @ 90,000 CPS / Lo Alm @ 0 CPS	see unique system description
		Unique System Desc.		added at end: Hi Alm = 9.0E+04 in Modes 1 thru 4 Hi Alm = 500 in Modes 5 and 6 No Low Alarms in any Mode.
N0032A	1	Engr Units Conversion	LOG Y = 6/5 (VOLTS) -1	LOG Y = 6/5 * VOLTS
		Maximum Instr Range	1.00E+05	1.00E+06
		Alarm/Trip Set Points	Hi Alm @ 90,000 CPS / Lo Alm @ 0 CPS	see unique system description
		Unique System Desc.		added at end: Hi Alm = 9.0E+04 in Modes 1 thru 4 Hi Alm = 500 in Modes 5 and 6 No Low Alarms in any Mode.
N0035A	1	Engr Units Conversion	LOG Y = 8/5 (VOLTS) -5	LOG Y = 8/5 * VOLTS -11
		Minimum Instr Range	1.00E-10	1.00E-11
		Maximum Instr Range	1.00E-02	1.00E-03
		Unique System Desc.		added at end: Modes 1- 6 low alarm = 1.0E-11
N0036A	1	Engr Units Conversion	LOG Y = 8/5 (VOLTS) -5	LOG Y = 8/5 * VOLTS -11
		Minimum Instr Range	1.00E-10	1.00E-11
		Maximum Instr Range	1.00E-02	1.00E-03
		Unique System Desc.		added at end: Modes 1- 6 low alarm = 1.0E-11

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
N0049A	1	Alarm/Trip Set Points	Low Power @ -3 % / Hi Alm @ 105%	see unique system description
		Unique System Desc.		added at end: Low Alarms = 0% in Modes 1 & 2, none in Modes 3 thru 6. High Alarm = 102% in Mode 1, 20% in Mode 2, 109% in Mode 3 thru 6. Also alarms on redundant tolerance.
N0050A	1	Alarm/Trip Set Points	Low Power @ -3 % / Hi Alm @ 105%	see unique system description
		Unique System Desc.		added at end: Low Alarms = 0% in Modes 1 & 2, none in Modes 3 thru 6. High Alarm = 102% in Mode 1, 20% in Mode 2, 109% in Mode 3 thru 6. Also alarms on redundant tolerance.
N0051A	1	Alarm/Trip Set Points	Low Power @ -3 % / Hi Alm @ 105%	see unique system description
		Unique System Desc.		added at end: Low Alarms = 0% in Modes 1 & 2, none in Modes 3 thru 6. High Alarm = 102% in Mode 1, 20% in Mode 2, 109% in Mode 3 thru 6. Also alarms on redundant tolerance.
N0052A	1	Alarm/Trip Set Points	Low Power @ -3 % / Hi Alm @ 105%	see unique system description
		Unique System Desc.		added at end: Low Alarms = 0% in Modes 1 & 2, none in Modes 3 thru 6. High Alarm = 102% in Mode 1, 20% in Mode 2, 109% in Mode 3 thru 6. Also alarms on redundant tolerance.
P0498A	1	Alarm/Trip Set Points	HI ALM @ 2275 PSIG/LO ALM @ 0 PSIG	see unique system description
		Unique System Desc.		added at end: Hi Alm = 2300 in Modes 1 thru 3, 375 in Modes 4 & 5, 300 in Mode 6. Lo Alm = 2150 in Modes 1 & 2, 300 in Mode 3, 0 in Modes 4 thru 6.

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
P0499A	1	Alarm/Trip Set Points	HI ALM @ 2275 PSIG/LO ALM @ 0 PSIG	see unique system description
		Unique System Desc.		added at end: Hi Alm = 2300 in Modes 1 thru 3, 375 in Modes 4 & 5, 300 in Mode 6. Lo Alm = 2150 in Modes 1 & 2, 300 in Mode 3, 0 in Modes 4 thru 6.
		Plant Spec Point Desc	RCS LOOP 3 WIDE RANGE PRESSURE	RCS WR PRESSURE
P1008A	1	Alarm/Trip Set Points	N/A	see unique system description
		Unique System Desc.		added at end: HiGH Alm = 14.7 PSIA in Modes 1 thru 4 LOW Alm = 9.0 PSIA in Modes 1 thru 4 No Alarms in Modes 5 and 6.
P1009A	1	Alarm/Trip Set Points	N/A	see unique system description
		Unique System Desc.		added at end: HiGH Alm = 14.7 PSIA in Modes 1 thru 4 LOW Alm = 9.0 PSIA in Modes 1 thru 4 No Alarms in Modes 5 and 6.
R0070A	1	Plant Spec Point Desc	CNMT HIGH RANGE RAD CH 1	CNMT HIGH RANGE RAD MONITOR CH 1
R0071A	1	Plant Spec Point Desc	CNMT HIGH RANGE RAD CH 2	CNMT HIGH RANGE RAD MONITOR CH 2
RWSTLEV	1	How Processed	Believed Value Point	SAVG
T0406A	1	Alarm/Trip Set Points	HI ALM @ 650 DEGF/LO ALM @ 32 DEGF	see unique system description
		Unique System Desc.		added at end: Low Alarms = 541 in Modes 1 & 2, 350 in Mode 3, 190 in Mode 4, 0 in Modes 5 & 6. High Alarms = 560 in Modes 1 & 2, 550 in Mode 3, 350 in Mode 4, 200 in Mode 5, 140 in Mode 6. Also alarms on redundant tolerance.



## CHANGES TO DATA POINT LIBRARY

<i>Point</i>	<i>BVPS Unit</i>	<i>Field</i>	<i>Changed From</i>	<i>Changed To</i>
T0419A	1	Alarm/Trip Set Points	HI ALM @ 650 DEGF/LO ALM @ 32 DEGF	see unique system description
		Unique System Desc.		added at end: Low Alarms = 541 in Modes 1 & 2, 350 in Mode 3, 200 in Mode 4, none in Modes 5 & 6. High Alarms = 650 in Modes 1 & 2, 550 in Mode 3, 350 in Mode 4, 200 in Mode 5, 140 in Mode 6. Also alarms on redundant tolerance.
T0426A	1	Alarm/Trip Set Points	HI ALM @ 650 DEGF/LO ALM @ 32 DEGF	see unique system description
		Unique System Desc.		added at end: Low Alarms = 541 in Modes 1 & 2, 350 in Mode 3, 190 in Mode 4, none in Modes 5 & 6. High Alarms = 560 in Modes 1 & 2, 550 in Mode 3, 350 in Mode 4, 200 in Mode 5, 140 in Mode 6. Also alarms on redundant tolerance.
T0439A	1	Alarm/Trip Set Points	HI ALM @ 650 DEGF/LO ALM @ 32 DEGF	see unique system description
		Unique System Desc.		added at end: Low Alarms = 541 in Modes 1 & 2, 350 in Mode 3, 200 in Mode 4, none in Modes 5 & 6. High Alarms = 650 in Modes 1 & 2, 550 in Mode 3, 350 in Mode 4, 200 in Mode 5, 140 in Mode 6. Also alarms on redundant tolerance.
T0446A	1	Alarm/Trip Set Points	HI ALM @ 650 DEGF/LO ALM @ 32 DEGF	see unique system description
		Unique System Desc.		added at end: Low Alarms = 541 in Modes 1 & 2, 350 in Mode 3, 190 in Mode 4, none in Modes 5 & 6. High Alarms = 560 in Modes 1 & 2, 550 in Mode 3, 350 in Mode 4, 200 in Mode 5, 140 in Mode 6. Also alarms on redundant tolerance.

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
T0459A	1	Alarm/Trip Set Points	HI ALM @ 650 DEGF/LO ALM @ 32 DEGF	see unique system description
		Unique System Desc.		added at end: Low Alarms = 541 in Modes 1 & 2, 350 in Mode 3, 200 in Mode 4, none in Modes 5 & 6. High Alarms = 650 in Modes 1 & 2, 550 in Mode 3, 350 in Mode 4, 200 in Mode 5, 140 in Mode 6. Also alarms on redundant tolerance.
U0093	1	How Processed	MARCAT	U0091 PA09 OUTPUT
		Alarm/Trip Set Points	Hi Alm @ 700 DegF	Hi Alm @ 2300 / Lo Alm @ 32 in all Modes
		Unique System Desc.	complete re-write	The IPC computer produces U0093 as part of its PA09 calculation of U0091. The PA09 calc. computes the average temperature, maximum temperature, and relative index of the highest temperature thermocouple, and the average of the 5 highest Incore thermocouples.
U0094	1	How Processed	MARCAT	from Train A & B ICCM
		Alarm/Trip Set Points	N/A	see Unique Sys Description
		Unique System Desc.	complete re-write	This point is the AVG of the Train A & Train B ICCM SUBCOOLING (AVG 5 HI T/C) points. The ICCM units compute Subcooling based on AVG of the 5 hottest Incore T/C's and sends these calculated values to the IPC as 1 to 5 volt outputs from the ICCM Demultiplexer. The two IPC points are then averaged together to produce U0094. High Alarm = 200 DegF in modes 1 thru 4 Low Alarm = -35 DegF in modes 1 thru 4 No Alarms in Modes 5 and 6.
		Plant Spec Point Desc	Subcool (AVG 5 Hi T/C)	Subcool (AVG 5 Hi T/C) ICCM AVG
U0400	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 120% / Lo Alm @ 92%	No Alarms in any Modes
		Unique System Desc.	ARCSFLOW is the ....	U0400 is the ....
U0414	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 1400 PSIG / Lo Alm @ 600 PSIG	No Alarms in any Modes

## CHANGES TO DATA POINT LIBRARY

<b>Point</b>	<b>BVPS Unit</b>	<b>Field</b>	<b>Changed From</b>	<b>Changed To</b>
U0420	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 120% / Lo Alm @ 92%	No Alarms in any Modes
		Unique System Desc.	BRCSFLOW is the ....	U0420 is the ....
U0434	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 1400 PSIG / Lo Alm @ 600 PSIG	No Alarms in any Modes
U0440	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 120% / Lo Alm @ 92%	No Alarms in any Modes
		Unique System Desc.	CRCSFLOW is the ....	U0440 is the ....
U0454	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 1400 PSIG / Lo Alm @ 600 PSIG	No Alarms in any Modes
U0472	1	How Processed	Believed Value Algorithm	SAVG
		Unique System Desc.	PZRPRESS is composed ....	U0472 is composed ....
U0483	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 60% / Lo Alm @ 12%	No Alarms in any Modes
		Unique System Desc.	PZRLEVEL can be ....	U0483 can be ....
U1000	1	How Processed	Believed Value Algorithm	SAVG
		Alarm/Trip Set Points	Hi Alm @ 14.7 PSIA / Lo Alm @ 9.0 PSIA	No Alarms in any Modes
U1008	1	Plant Spec Point Desc	Avg of 5 TS Temps	Avg of 5 TS CNMT Air Temps
		Alarm/Trip Set Points	Hi Alm @ 103 DegF / Lo Alm @ 32 DegF	see unique system description
		Unique System Desc.		added at end: .... High Alarm = 111 DegF in modes 1 thru 6 Low Alarm = 77 DegF in modes 1 thru 4, 32 DegF in modes 5 and 6
N0031A	2	Engr Units Conversion	LOG Y = 6/5 (VOLTS) -1	LOG Y = 6/5 (VOLTS)
		Unique System Desc.	... from 1 to 10E6 counts ...	... from 1 to 1.0E6 counts ...
N0032A	2	Engr Units Conversion	LOG Y = 6/5 (VOLTS) -1	LOG Y = 6/5 (VOLTS)
		Unique System Desc.	... from 1 to 10E6 counts ...	... from 1 to 1.0E6 counts ...
N0035A	2	Engr Units Conversion	LOG Y = 8/5 (VOLTS) -5	LOG Y = 8/5 (VOLTS) -11
N0036A	2	Engr Units Conversion	LOG Y = 8/5 (VOLTS) -5	LOG Y = 8/5 (VOLTS) -11
N0049A	2	Alarm/Trip Set Points	Hi Alm @ 101%/Lo Alm @ -1%	Hi Alm @ 102%/Lo Alm @ -1%
N0050A	2	Alarm/Trip Set Points	Hi Alm @ 101%/Lo Alm @ -1%	Hi Alm @ 102%/Lo Alm @ -1%
N0051A	2	Alarm/Trip Set Points	Hi Alm @ 101%/Lo Alm @ -1%	Hi Alm @ 102%/Lo Alm @ -1%
N0052A	2	Alarm/Trip Set Points	Hi Alm @ 101%/Lo Alm @ -1%	Hi Alm @ 102%/Lo Alm @ -1%
T0446A	2	Alarm/Trip Set Points	Hi Alm @ 650 DegF	Hi Alm @ 650 DegF/Lo Alm @ 0 DegF
T0459A	2	Alarm/Trip Set Points	Hi Alm @ 650 DegF	Hi Alm @ 650 DegF/Lo Alm @ 0 DegF

## CHANGES TO DATA POINT LIBRARY

<i>Point</i>	<i>BVPS Unit</i>	<i>Field</i>	<i>Changed From</i>	<i>Changed To</i>
UP1001	2	Alarm/Trip Set Points	N/A	Hi Alm = UP1011 / Lo Alm = UP1012
		Unique System Desc.		added at end: UP1011= RCS WID PRESS HI LIMIT UP1012= SATURATION PRESS
UT1003	2	Alarm/Trip Set Points	N/A	Hi Alm = UT1005 / Lo Alm = UT1007
		Unique System Desc.		added at end: UT1005= TSAT - SATURATION TEMP UT1007= TCLOL- CORE EXIT TEMP LO LIMIT
XR001	1	Engr Units/Dig States	uCi/cc	cpm
		Alarm/Trip Set Points	"N/A"	≤650 cpm
XR002	1	Engr Units/Dig States	uCi/cc	cpm
		Alarm/Trip Set Points	"N/A"	≤50 cpm
XR003	1	Engr Units/Dig States	uCi/cc	cpm
		Alarm/Trip Set Points	"N/A"	≤50 cpm
XR004	1	Engr Units/Dig States	uCi/cc	cpm
		Alarm/Trip Set Points	"N/A"	≤50 cpm
XR005	1	Alarm/Trip Set Points	4.40E+2 cpm	879 cpm
XR006	1	Alarm/Trip Set Points	2.75E+2 cpm	≤669 cpm
XR009	1	Alarm/Trip Set Points	1.01E+3 cpm	2030 cpm
XR010	1	Alarm/Trip Set Points	3.51E+2 cpm	≤798 cpm
XR013	1	Alarm/Trip Set Points	6.60E+6 cpm	3.60E+5 cpm
XR015	1	Alarm/Trip Set Points	1.80E+4 cpm	1.83E+5 cpm
XR041	2	Alarm/Trip Set Points	1.4E-8 uCi/cc	1.67E-5 uCi/cc
XR042	2	Engr Units Conversion	"N/A"	3.65E-8 uCi/cc/cpm
		Alarm/Trip Set Points	9.04E-5 uCi/cc	1.81E-4 uCi/cc
XR045	2	Alarm/Trip Set Points	3.4E-9 uCi/cc	9.84E-6 uCi/cc
XR046	2	Engr Units/Dig States	uCi/cc	uCi/sec
		Engr Units Conversion	"N/A"	1.94E-8 uCi/cc/cpm
		Alarm/Trip Set Points	3.26E-5 uCi/cc	1.77E+3 uCi/sec