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Ref: # 10CFR50, APP. E

TU ELECTRIC

October 15, 1993

William J. Cahill, Jr.
Group Vice President

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) - UNIT 1
DOCKET NO. 50-445
EMERGENCY RESPONSE DATA SYSTEM (ERDS)

- REF: 1) TU Electric Letter logged TXX-92363 from
William J. Cahill Jr. to NRC dated August 3, 1992.
2) TU Electric Letter logged TXX-91383 from
William J. Cahill Jr. to NRC dated October 26, 1991.

Gentlemen:

By this letter TU Electric hereby submits a copy of M1-2909 "Unit 1 Computer System ERDS Data Point Library."

In reference 2, TU Electric transmitted to the NRC the CPSES Plant Attribute Library (PAL) as part of the Unit 2 ERDS installation. As the Plant Computer Systems are similar for both CPSES Units 1 and 2, the PAL is applicable to both Units. By reference 1, TU Electric transmitted to the NRC the CPSES Unit 2 Data Point Library (DPL). TU Electric will inform the NRC of any changes to the Unit 1 DPL resulting from the installation and test of the Unit 1 computer.

If you have any questions contact Mr. Jose' D. Rodriguez at (214) 812-8674.

Sincerely,

William J. Cahill, Jr.

William J. Cahill, Jr.

By: *Roger D. Walker*

Roger D. Walker

Manager of Regulatory Affairs

JDR/grp
Enclosure

c - Mr. J. L. Milhoan, Region IV c/o
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111

Enclosure to TXX-93354
M1-2909 "Unit 1 Computer System
ERDS Data Point Library"

UNIT 1 PLANT COMPUTER SYSTEM EMERGENCY RESPONSE DATA SYSTEM DATA POINT LIBRARY

SEE ATTACHED PAGES

					NON-SAFETY			
					TU ELECTRIC CPSES GLEN ROSE, TEXAS			
					UNIT 1 PLANT COMPUTER SYSTEM ERDS DATA POINT LIBRARY PAGE 1 OF 58			
REV	DWN CHKD	RE LDE	DV	APVD	REMARKS	DWG. NO.	SH. NO.	REV.
CP-1	MOC MEX	MOC RKG	W/A	RKG 9/23/93	THIS IS AN INITIAL ISSUE.	M1-2909	-	CP-1

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Jay Amundson
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NOTES: (FC) - First Class Mail

IR - Inspection Reports

NODIL - Correspondence related to material/component acceptability.
VENDOR - Vendor documents per STA-206 (Vendor Document Group or VETIP Coordinator).
IOER - NRCB, GL and IN
ORC - Part 21 Submittals, Incoming Part 21 notifications, LER, and description letters for changes to licensing basis documents.

October 5, 1993

If revisions are required to distribution or distribution sheet, contact Gayle Peck (812-8219), Don Woodlan (812-8225) or John Marshall (812-8220).

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: RCS CHG/MU

POINT ID: F6138A

PLANT SPEC POINT DESC.: CHRG FLO

GENERIC/COND DESC.: PRI SYS CHARGING OR MAKEUP FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 200.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: AUX BLDG 810'6" CHARGING PUMP DISCHARGE

ALARM/TRIP SET POINTS: LOW 55 GPM, HIGH 150 GPM

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: NL

POINT ID: F6918A

PLANT SPEC POINT DESC.: SIP 1 DISCH FLOW

GENERIC/COND DESC.: SI PUMPS DISCHG FLOW TRAIN A

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 800.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: SG BLDG 773'DH SI PMP#1 DISCHARGE

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR (INIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: NL

POINT ID: F6922A

PLANT SPEC POINT DESC.: SIP 2 DISCH FLOW

GENERIC/COND DESC.: SI PUMPS DISCHG FLOW TRAIN B

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 800.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PMOC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: SG BLDG 773'D" SI PMP#2 DISCHARGE

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: RCS LTDN RAD

POINT ID: R7677A

PLANT SPEC POINT DESC.: REACTOR COOLANT RAD-FAILED FUEL MONITOR

GENERIC/COND DESC.: RCS RAD - FAILED FUEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: UCI/ML

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 1.0

MAXIMUM INSTR RANGE: 1.0E+05

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 1

HOW PROCESSED: CALCULATED FROM SAMPLE ACTIVITY

SENSOR LOCATIONS: RCS LETDOWN LINE, OFF-LINE

ALARM/TRIP SET POINTS: 1.0E1

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
FCR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: A SAMPLE VOLUME OF PRIMARY COOLANT IS EXPOSED TO A GM DETECTOR. THE DETECTOR IS SENSITIVE TO GAMMA ACTIVITY WITH CO(60) ENERGY.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

MRC ERDS PARAMETER: WIND SPEED

POINT ID: S6017A

PLANT SPEC POINT DESC.: WIND SPEED PRIMARY 60M

GENERIC/COND DESC.: WIND SPEED-REACTOR SITE 200 FEET

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: MPH

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: PRIMARY MET TOWER, 60M

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC:

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: WIND SPEED

POINT ID: S6018A

PLANT /EC POINT DESC.: WIND SPEED PRIMARY 10M

GENERIC/COND DESC.: WIND SPEED-REACTOR SITE 30 FEET

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: MPH

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: PRIMARY MET TOWER, 10M

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC:

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

MRC ERDS PARAMETER: ATM STAB

POINT ID: T6019A

PLANT SPEC POINT DESC.: ATMOS STAB PRIMARY DELTA - A

GENERIC/COND DESC.: DIFFERENTIAL TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: -5.00

MAXIMUM INSTR RANGE: 15.00

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: $dt = T(60) - t(10)$

SENSOR LOCATIONS: PRIMARY MET TOWER, 60M AND 10M

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ATMOSPHERIC STABILITY IS CALCULATED BY TAKING THE TEMPERATURE DIFFERENCE BETWEEN
THE 60m AND 10m VALUES.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: ATM STAB

POINT ID: T6020A

PLANT SPEC POINT DESC.: ATMOS STAB PRIMARY DELTA - B

GENERIC/COND DESC.: DIFFERENTIAL TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: -5.00

MAXIMUM INSTR RANGE: 15.00

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: $dt=T(60)-T(10)$

SENSOR LOCATIONS: PRIMARY MET TOWER, 60M - 10M

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ATMOSPHERIC STABILITY IS CALCULATED BY TAKING THE DIFFERENCE BETWEEN THE 60m AND
THE 10m TEMPERATURES.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: RCS PRESSURE

POINT ID: U6002A

PLANT SPEC POINT DESC.: LOOP PRESSURE (WR)

GENERIC/COND DESC.: REACTOR COOLANT SYSTEM PRESSURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: PSIG

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 3000.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 3

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: RB B27(3616) RB 837(403,437)

ALARM/TRIP SET POINTS: 364

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT TRANSMITTER WITH SINGLE TAP. PT-0403 AND PT-0437 IMPULSE TAPS ARE ON THE LOOP 1 AND 4 HOT LEG SIS PUMP SUPPLY LINE. PT-3616 IMPULSC TAP IS ON THE J-10 THIMBLE. 364 PSI SETPOINT PREVENTS OPENING RHR ISOLATION VALVES.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: PRZR LEVEL

POINT ID: U6004A

PLANT SPEC POINT DESC.: PRZR LEVEL

GENERIC/COND DESC.: PRIMARY SYSTEM PRESSURIZER LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: 0%=636 GAL = 858'-11" ; 100% = 13104 GAL = 902'-2"

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: EL. 858'-11"

REFERENCE POINT NOTES: ZERO POINT IS = 73" BELOW TOP OF HEATERS

PROC OR SENS: P

NUMBER OF SENSORS: 3

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: REAC BLDG 832'-6" OUTSIDE PZR COMPARTMENT

ALARM/TRIP SET POINTS: LOW LVL ALARM = 17%; HI LVL RX TRIP =92

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/A

LEVEL REFERENCE LEG: WET

UNIQUE SYSTEM DESC: ITT BARTON DP TRANSMITTER WITH CONDENSATE RESERVOIR AND DOUBLE ISOLATION.
GEOGRAPHIC ELEVATIONS FROM 1-SC-8800-L. VOLUMES FROM CALCULATIONS
NSF-SA-CP1/0-005 REV. 0 AND NSF-SA-CP1/0-017 REV. 1. THE PRESSURIZER WATER
LEVEL PROVIDES NO TRIP FUNCTIONS FOLLOWING AN ACCIDENT WHICH RESULTS IN AN
ADVERSE ENVIRONMENT INSIDE THE CONTAINMENT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: TEMP CORE EX

POINT ID: U6005A

PLANT SPEC POINT DESC.: AUCTION HI CORE EXIT TEMP

GENERIC/COND DESC.: HIGHEST TEMP AT THE CORE EXIT

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 2300.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 50

HOW PROCESSED: HIGHEST OF TRAIN A/B TC INPUTS

SENSOR LOCATIONS: ABOVE UPPER CORE PLATE

ALARM/TRIP SET POINTS: ORANGE 750, RED 1200

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: N/A

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: EXOSENSOR CORE COOLING MONITOR SYSTEM HAS 50 CORE EXIT THERMOCOUPLES (25 TRAIN A AND 25 TRAIN B) LOCATED JUST ABOVE THE UPPER CORE PLATE). CORE COOLING STATUS TREE BECOMES "ORANGE" IF CET IS ABOVE 750 DEG AND BECOMES "RED" IF CET IS ABOVE 1200 DEG.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SUB MARGIN

POINT ID: U6006A

PLANT SPEC POINT DESC.: RCS SAT MARGIN

GENERIC/COND DESC.: SATURATION TEMP - HIGHEST CET

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: -300.0

MAXIMUM INSTR RANGE: 300.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 62

HOW PROCESSED: HIGHER OF TRAIN A/B SAT MARGINS

SENSOR LOCATIONS: HOT LEG, COLD LEG, PZR PRESS, CORE EXIT

ALARM/TRIP SET POINTS: <25 DEG. SUB COOLING MARGIN

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: N/A

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: SATURATION MARGIN IS CALCULATED BY THE CCM MICROPROCESSOR (WHITTAKER). THE
HIGHEST VALID RCS TEMPERATURE AND LOWEST VALID RCS PRESSURE ARE UTILIZED. THE
CORE COOLING STATUS TREE IS NOT "GREEN" IF THE SUBCOOLING MARGIN IS LESS THAN 25
DEGREE F.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CU-1

DATA FEEDER: PCS

NRC ERDS PARAMETER: CTMNT TEMP

POINT ID: U6007A

PLANT SPEC POINT DESC.: CNTMT AVE TEMP

GENERIC/COND DESC.: CONTAINMENT TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 360.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: REAC BLDG VARIOUS ELE. WALL AND COLUMN

ALARM/TRIP SET POINTS: HIGH 120 DEG F

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: N/A

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: CONAX RTD'S EXPOSED TO REACTOR BLDG. ATMOSPHERE WITH NO THERMOWELLS.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

WRC ERDS PARAMETER: CTMNT SUMP WR

POINT ID: U6009A

PLANT SPEC POINT DESC.: CNTMT RECIRC SUMP LEVEL

GENERIC/COND DESC.: CNTMT SUMP WIDE RANGE LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: FTDEC (ELEV)

ENGR UNITS CONVERSION: 808' = 0 GALS ; 816' APPROX 629,000 GALS

MINIMUM INSTR RANGE: 808.0'

MAXIMUM INSTR RANGE: 817.5'

ZERO POINT REFERENCE: CNTFLR

REFERENCE POINT NOTES: MIN DETECTABLE IS 3" ABOVE CNTFLR

PROC OR SENS: P

NUMBER OF SENSORS: 22

HOW PROCESSED: COMPLX SEE SYSTEM DESCRIPTION

SENSOR LOCATIONS: REAC BLDG 808'0" COLUMN MOUNTED

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: DECREASING SIGNAL LEVEL

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: TWO LEVEL PROBE ASSEMBLIES EACH CONSISTING OF 11 SENSORS ARE SPACED AT ONE FOOT INTERVALS. WHEN RISING WATER LEVEL COVERS A SENSOR THE THERMAL CONDUCTIVITY CHANGES. THE SIGNAL CONDITIONING CIRCUITS GENERATE A 4 TO 20 mA SIGNAL WHICH IS PROPORTIONAL TO THE NUMBER OF WET SENSORS. THE FIRST SENSOR IS LOCATED 3" ABOVE THE ELEV. 808' FLOOR OF THE CONTAINMENT. THE TOP SENSOR IS AT ELEV 817' 5". THE QUANTITY OF WATER IN CONTAINMENT AT VARIOUS ELEVATIONS IS CALCULATED AND IS APPROXIMATELY 629,000 GAL. AT ELEVATION 816'.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: CNTMT RAD

POINT ID: U6011A

PLANT SPEC POINT DESC.: CNTMT RAD (HI RANGE)

GENERIC/COND DESC.: RADIATION LEVEL IN CONTAINMENT

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: R/HR

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 1.0

MAXIMUM INSTR RANGE: 0.1 E+09

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: COMPLX

SENSOR LOCATIONS: REACTOR CONTAINMENT BLDG 905'

ALARM/TRIP SET POINTS: HIGH= 1.0E4

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDELY SEPARATED REDUNDANT CLASS 1E MONITORS LOCATED ON 905' REACTOR CONTAINMENT BUILDING.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: COND A/E RAD

POINT ID: U6012A

PLANT SPEC POINT DESC.: CNDsr OFF GAS RADIATION

GENERIC/COND DESC.: CNDsr AIR EJECTOR RADIOACTIVITY

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: UCI/ML

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 3E-07

MAXIMUM INSTR RANGE: 1E-01

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 1

HOW PROCESSED: CALCULATED FROM SAMPLE FLOW AND ACTIVITY

SENSOR LOCATIONS: DISCH. OF COND. VACUUM PUMP EXH HEADER

ALARM/TRIP SET POINTS: HIGH = 2.0E-05

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: OFFLINE MONITOR HAS DRYER IN LINE TO REMOVE MOISTURE. PLASTIC SCINTILLATION
DETECTOR SENSITIVE TO GROSS BETA ACTIVITY WITH Xe 133 ENERGY. THE DETECTOR
MEASURES THE ACTIVITY OF THE SAMPLE AND CALCULATES THE RADIOACTIVE CONTENT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SGBDRAD

POINT ID: U6013A

PLANT SPEC POINT DESC.: SG BLDW RADIATION

GENERIC/COND DESC.: STEAM GENERATOR BLOWDOWN RAD

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: UCI/ML

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 1.0E-05

MAXIMUM INSTR RANGE: 1.0E-01

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: CALCULATED FROM SAMPLE FLOW AND ACTIVITY

SENSOR LOCATIONS: OFFLINE, DNSTRM OF CLEANUP SYS DEMINS

ALARM/TRIP SET POINTS: HIGH = 0.5E-03

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: NaI SCINTILLATION DETECTOR, SENSITIVE TO GROSS GAMMA ACTIVITY AT CO(60) ENERGY.
THE CHAMBER MEASURES THE ACTIVITY OF THE SAMPLE VOLUME AND CALCULATES THE
RADIOACTIVITY CONTENT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SG LEVEL 1/A

POINT ID: U6018A

PLANT SPEC POINT DESC.: SG 1 LVL (NR)

GENERIC/COND DESC.: STEAM GEN 1 (OR A) WATER LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: 0% = EL. 863'-4 1/4"; 100% = EL. 882'-9 3/4"

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: COMPLX

REFERENCE POINT NOTES: ZERO POINT IS 4.5" BELOW TOP OF U TUBE

PROC OR SENS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: REAC BLDG 860'0" OUTSIDE S/G COMPARTMENT

ALARM/TRIP SET POINTS: LO = 25% RX TRIP; HI = 82.4 % TURB TRIP

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: WET

UNIQUE SYSTEM DESC: ITT BARTON DP TRANSMITTER WITH UPPER AND LOWER TAP. NARROW RANGE LEVEL SYSTEM. THE CONDENSING CHAMBER IS LOCATED 186" ABOVE THE TOP OF THE U-TUBES AT ELEVATION 882'9". THE LOWER TAP IS LOCATED 4.5" BELOW THE TOP OF THE U-TUBES AT ELEVATION 863'4".

SPECIAL REMARK: CONVERSION TO GALLONS IS NOT AVAILABLE DUE TO THE S.G. IRREGULAR INTERVALS.

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRD ERDS PARAMETER: SG LEVEL 2/B

POINT ID: U6019A

PLANT SPEC POINT DESC.: SG 2 LVL (NR)

GENERIC/COND DESC.: STEAM GEN 2 (OR B) WATER LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: 0% = EL. 863'-4 3/8"; 100% = EL. 882'-9/16"

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: COMPLX

REFERENCE POINT NOTES: ZERO POINT IS 4.5" BELOW TOP OF U TUBES

PROC OR SENS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: REAC BLDG 860'0" OUTSIDE S/G COMPARTMENT

ALARM/TRIP SET POINTS: LO = 25% RX TRIP; HI = 82.4% TURB TRIP

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: WET

UNIQUE SYSTEM DESC: ITT BARTON DP TRANSMITTER WITH UPPER AND LOWER TAPS. NARROW RANGE LEVEL SYSTEM.
THE CONDENSING CHAMBER IS LOCATED 186" ABOVE THE TOP OF THE U-TUBES AT
ELEVATION 882'10". THE LOWER TAP IS LOCATED 4.5" BELOW THE TOP OF THE U-TUBES
AT ELEVATION 863'5".

SPECIAL REMARK: CONVERSION TO GALLONS IS NOT AVAILABLE DUE TO THE S.G. IRREGULAR INTERNALS.

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SG LEVEL 3/C

POINT ID: U6020A

PLANT SPEC POINT DESC.: SG 3 LVL (NR)

GENERIC/COND DESC.: STEAM GEN 3 (OR C) WATER LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: 0% = EL. 863'-4 1/4"; 100% = EL. 882' -9"

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: COMPLX

REFERENCE POINT NOTES: ZERO POINT IS 4.5" BELOW TOP OF U-TUBES

PROC OR SENS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: REAC BLDG 860'0" OUTSIDE S/G COMPARTMENT

ALARM/TRIP SET POINTS: LO = 25% RX TRIP; HI = 82.4% TURB TRIP

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: WET

UNIQUE SYSTEM DESC: 1TT BARTON DP TRANSMITTER WITH UPPER AND LOWER TAPS. NARROW RANGE SYSTEM. THE CONDENSING CHAMBER IS LOCATED 186" ABOVE THE TOP OF THE U-TUBES AT ELEVATION 882'10". THE LOWER TAP IS LOCATED 4.5 INCHES BELOW THE TOP OF THE U-TUBES AT ELEVATION 863'5".

SPECIAL REMARK: CONVERSION TO GALLONS IS NOT AVAILABLE DUE TO THE S.G. IRREGULAR INTERNALS.

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NR: ERDS PARAMETER: SG LEVEL 4/D

POINT ID: U6021A

PLANT SPEC POINT DESC.: SG 4 LVL (NR)

GENERIC/COND DESC.: STEAM GEN 4 (OR D) WATER LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: 0% = EL. 863'-4 3/16"; 100% = EL. 882'-8 3/4"

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: COMPLX

REFERENCE POINT NOTES: ZERO POINT IS 4.5" BELOW TOP OF U-TUBES

PROC OR SENS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: REAC BLDG 860'0" OUTSIDE S/G COMPARTMENT

ALARM/TRIP SET POINTS: LO = 25% RX TRIP; HI = 82.4% TURB TRIP

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: WET

UNIQUE SYSTEM DESC: 1TT BARTON DP TRANSMITTER WITH UPPER AND LOWER TAPS. NARROW RANGE LEVEL SYSTEM. THE CONDENSING CHAMBER IS LOCATED 186" ABOVE THE TOP OF THE U-TUBES AT ELEVATION 882'9". THE LOWER TAP IS LOCATED 4.5" BELOW THE TOP OF THE U-TUBES AT ELEVATION 863'4".

SPECIAL REMARK: CONVERSION TO GALLONS IS NOT AVAILABLE DUE TO THE S.G. IRREGULAR INTERNALS.

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SG PRESS 1/A

POINT ID: U6022A

PLANT SPEC POINT DESC.: MSL 1 PRESSURE

GENERIC/COND DESC.: STEAM GEN 1 (OR A) PRESSURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: PSIG

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 1300.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 3

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SAFEGUARD BLDG 852'6" UPSTREAM OF MSIV'S

ALARM/TRIP SET POINTS: LOW = 605 PSI

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ITT BARTON DP TRANSMITTER WITH SINGLE TAP.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SG PRESS 2/B

POINT ID: U6023A

PLANT SPEC POINT DESC.: MSL 2 PRESSURE

GENERIC/COND DESC.: STEAM GEN 2 (OR B) PRESSURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: PSIG

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 1300.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 3

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SAFEGUARD BLDG 852'6" UPSTREAM OF MSIV'S

ALARM/TRIP SET POINTS: LOW = 605 PSI

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ITT BARTON DP TRANSMITTER WITH SINGLE TAP.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SG PRESS 3/C

POINT ID: U6024A

PLANT SPEC POINT DESC.: MSL 3 PRESSURE

GENERIC/COND DESC.: STEAM GEN 3 (OR C) PRESSURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: PSIG

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 1300.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 3

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SAFEGUARD BLDG 852'6" UPSTREAM OF MSIV'S

ALARM/TRIP SET POINTS: LOW = 605 PSI

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: IIT BARTON DP TRANSMITTER WITH SINGLE TAP.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: SG PRESS 4/D

POINT ID: U6025A

PLANT SPEC POINT DESC.: MSL 4 PRESSURE

GENERIC/CORD DESC.: STEAM GEN 4 (OR D) PRESSURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATE: PSIG

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 1300.0

ZERO POINT REFERENCE: NONE

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 3

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SAFEGUARD BLDG B52'6" UPSTREAM OF MSIV'S

ALARM/TRIP SET POINTS: LOW = 605 PSI

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: 1TT BARTON DP TRANSMITTER WITH SINGLE TAP.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: MN FD FL 1/A

POINT ID: U6026A

PLANT SPEC POINT DESC.: SG 1 FW FLOW

GENERIC/COND DESC.: SG 1 (OR A) MAIN FEEDWATER FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: MLB/HR

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 5.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

LDW PROCESSED: N/A

SENSOR LOCATIONS: SG BLDG 832'6" UPSTREAM FW CONTROL VALV

ALARM/TRIP SET POINTS: NONE

HI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

HI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ITT BARTON TRANSMITTER ACROSS VENTURI TUBE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: MN FD FL 2/3

POINT ID: U6027A

PLANT SPEC POINT DESC.: SG 2 FW FLOW

GENERIC/COND DESC.: SG 2 (OR B) MAIN FEEDWATER FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: MLB/HR

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 5.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: SG BLDG 832'6" UPSTREAM FW CONTROL VALV

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ITT BARTON DP TRANSMITTER ACROSS VENTURI TUBE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: MN FD FL 3/C

POINT ID: U6028A

PLANT SPEC POINT DESC.: SG 3 FW FLOW

GENERIC/COND DESC.: SG 3 (OR C) MAIN FEEDWATER FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: MLB/HR

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 5.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: SG BLDG 832'6" UPSTREAM FW CONTROL VALVE

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: 1TT BARTON DP TRANSMITTER ACROSS VENTURI TUBE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: MN FD FL 4/D

POINT ID: U6029A

PLANT SPEC POINT DESC.: SG 4 FW FLOW

GENERIC/COND DESC.: SG 4 (OR D) MAIN FEEDWATER FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: MLB/HR

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 5.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: SG BLDG B32'6" UPSTREAM FW CONTROL VALVE

ALARM/TRIP SET POINTS: NONE

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ITT BARTON DP TRANSMITTER ACROSS VENTURI TUBE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: HL TEMP 1/A

POINT ID: U6030A

PLANT SPEC POINT DESC.: HL 1 TEMP

GENERIC/COND DESC.: SG 1 (OR A) INLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: HOWE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808'0" UPSTREAM S/G INLET

ALARM/TRIP SET POINTS: LOW= 350

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION SYSTEM LOW TEMPERATURE SETPOINT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: HL TEMP 2/B

POINT ID: U6031A

PLANT SPEC POINT DESC.: HL 2 TEMP

GENERIC/COND DESC.: SG 2 (OR B) INLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNIT'S CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808'0" UPSTREAM S/G INLET

ALARM/TRIP SET POINTS: LOW= 350

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION SYSTEM LOW TEMPERATURE
SETPPOINT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: HL TEMP 3/C

POINT ID: J6032A

PLANT SPEC POINT DESC.: HL 3 TEMP

GENERIC/COND DESC.: SG 3 (OR C) INLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808'D" UPSTREAM S/G INLET

ALARM/TRIP SET POINTS: LOW= 350

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION SYSTEM LOW TEMPERATURE SETPOINT.

SPECIAL REMARK:

DATE: 5/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: HL TEMP 4/D

POINT ID: U6033A

PLANT SPEC POINT DESC.: HL 4 TEMP

GENERIC/COND DESC.: SG 4 (OR D) INLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SEWS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808'D" UPSTREAM S/G INLET

ALARM/TRIP SET POINTS: LOW= 350

HI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

HI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: HIGH

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION SYSTEM LOW TEMPERATURE SETPOINT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: CL TEMP 1/A

POINT ID: U6034A

PLANT SPEC POINT DESC.: CL 1 TEMP

GENERIC/COND DESC.: SG 1 (OR A) OUTLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808'D" OUTLET OF RCP

ALARM/TRIP SET POINTS: LOW= 350

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION SYSTEM LOW TEMPERATURE SETPOINT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: CL TEMP 2/B

POINT ID: U6035A

PLANT SPEC POINT DESC.: CL 2 TEMP

GENERIC/COND DESC.: SG 2 (OR B) OUTLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808"0" OUTLET OF RCP

ALARM/TRIP SET POINTS: LOW= 350

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION SYSTEM LOW TEMPERATURE SETPOINT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: CL TEMP S/C

POINT ID: U6036A

PLANT SPEC POINT DESC.: CL 3 TEMP

GENERIC/COND DESC.: SG 3 (OR C) OUTLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808'0" OUTLET OF RCTR CLNT PMP

ALARM/TRIP SET POINTS: LOW= 350

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION LOW TEMPERATURE SETPOINT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: CL TEMP 4/D

POINT ID: U6037A

PLANT SPEC POINT DESC.: CL 4 TEMP

GENERIC/COND DESC.: SG 4 (OR D) OUTLET TEMPERATURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEGF

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 700.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: RB 808'0" OUTLET OF RCTR CLNT PMP

ALARM/TRIP SET POINTS: LOW= 350

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIDE RANGE TEMPERATURE. COLD OVER PRESSURE PROTECTION SYSTEM LOW TEMPERATURE SETPOINT.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: N1 SOURC RNG

POINT ID: U6041A

PLANT SPEC POINT DESC.: SOURCE RANGE COUNT RATE

GENERIC/COND DESC.: NUCLEAR INSTR SOURCE RANGE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: CPS

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 10E-1

MAXIMUM INSTR RANGE: .1E+07

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: HIGHEST

SENSOR LOCATIONS: RB B10-B32, EXT TO VESSEL, VARIOUS QUADS

ALARM/TRIP SET POINTS: <=10E5 CPS

N1 DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL 10E-10 AMP

N1 DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL 5E-11 AMP

INSTRUMENT FAILURE
MODE: LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WESTINGHOUSE SOURCE RANGE HIGH VOLTAGE IS SHUT OFF BY INTERMEDIATE RANGE P6
SIGNAL AT 10E-10 AMP. HIGH VOLTAGE PERMISSIVE IS RESET AT 5E-11 AMP. SR HIGH
VOLTAGE IS AUTO TRIPPED BY POWER RANGE P10 SIGNAL AT 10% OR RATED FULL POWER, AS
A BACKUP FOR THE P6 TRIP.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: H2 CONC

POINT ID: U6046A

PLANT SPEC POINT DESC.: CNTMT H2 CONC

GENERIC/COND DESC.: CNTMNT HYDROGEN CONCENTRATION

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 10.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SEWS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: HIGHEST

SENSOR LOCATIONS: RR VARIOUS ELEVATIONS WALL MOUNTED

ALARM/TRIP SET POINTS: 03.0% HIGH

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: EXOSENSOR 2 CHANNELS, 2 DETECTORS PER CHANNEL

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: BWST LEVEL

POINT ID: U6047A

PLANT SPEC POINT DESC.: REFUELING WATER STORAGE TANK LEVEL

GENERIC/COND DESC.: BORATED WATER STORAGE TANK LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: 0% = 0" = 0 GALS; 100% = 513" = 507357 GALS

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 100.0

ZERO POINT REFERENCE: COMPLX

REFERENCE POINT NOTES: ZERO POINT IS 2.2" BELOW PUMP SUCTION

PROC OR SENS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: RWST ROOM 810'6" MOUNTED ON TANK WALL

ALARM/TRIP SET POINTS: LO-LO AL -40%; LO ALM =93%; HI ALM =98%

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WESTINGHOUSE DP TRANSMITTERS WITH SINGLE TAP. THE RANGE OF LEVEL INSTRUMENTS IS 513 INCHES, WITH A MARGIN OF +/- 13 INCHES. THE AVERAGE CAPACITY OF THE RWST IS 989 GAL/IN. THE MEASURED AND INDICATED VOLUME IS 507,357 GAL.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

WRC ERDS PARAMETER: AX FD FL 1/A

POINT ID: U6054A

PLANT SPEC POINT DESC.: SG 1 AFW FLOW

GENERIC/COND DESC.: SG 1 (OR A) AUXILIARY FW FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 550.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SG BLDG 852'6" DWNSTREAM AFW ISOL VALVES

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: 0 GPM LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: AX FD FL 2/B

POINT ID: U6055A

PLANT SPEC POINT DESC.: SG 2 AFW FLOW

GENERIC/COND DESC.: SG 2 (OR B) AUXILIARY FW FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 550.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SG BLDG 852'6" DWNSTREAM AFW ISOL VALVES

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: 0 GPM LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: AX FD FL 3/C

POINT ID: U6056A

PLANT SPEC POINT DESC.: SG 3 AFW FLOW

GENERIC/COND DESC.: SG 3 (OR C) AUXILIARY FW FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 550.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SG BLDG 852'6" DWNSTREAM AFW ISOL VALVES

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: 0 GPM LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: AX FD FL 4/D

POINT ID: U6057A

PLANT SPEC POINT DESC.: SG 4 AFW FLOW

GENERIC/COND DESC.: SG 4 (OR D) AUXILIARY FW FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: MCNE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 550.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SG BLDG 852'6" DWNSTREAM AFW ISOL VALVES

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: 0 GPM LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: NI POWER RNG

POINT ID: U6059A

PLANT SPEC POINT DESC.: POWER RANGE POWER

GENERIC/COND DESC.: NUCLEAR INSTR POWER RANGE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: %

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 120.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 4

HOW PROCESSED: HIGHEST

SENSOR LOCATIONS: RB 810-832' EXT TO VESSEL, VARIOUS QUADS

ALARM/TRIP SET POINTS: 109% FULL POWER

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL NONE

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL NONE

INSTRUMENT FAILURE
MODE: LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WESTINGHOUSE REACTOR TRIP, LOW RANGE AT 25% RTP, HIGH RANGE AT 109% RTP & HIGH
RATE +/- 5% RTP.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: NI INTER RNG

POINT ID: U6060A

PLANT SPEC POINT DESC.: IR CURRENT

GENERIC/COND DESC.: NUCLEAR INSTR INTERMEDIATE RANGE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: AMPS

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.1E-10

MAXIMUM INSTR RANGE: 0.1E-02

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: HIGHEST

SENSOR LOCATIONS: RB 810-832¹ EXT TO VESSEL, VARIOUS QUADS

ALARM/TRIP SET POINTS: <= 25% RTP

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL NONE

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL NONE

INSTRUMENT FAILURE
MODE: LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WESTINGHOUSE. INTERMEDIATE RANGE CHANNELS GENERATE NUMEROUS REACTOR POWER
CONTROL INTERLOCKS AND PERMISSIVE SIGNALS.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: MAIN SL 1/A

POINT ID: U6079A

PLANT SPEC POINT DESC.: MSL 1 RAD

GENERIC/COND DESC.: SG 1 (OR A) STEAM LINE RAD LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: uCi/ML

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 1.0E-03

MAXIMUM INSTR RANGE: 1.0E+03

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 1

HOW PROCESSED: CMLX

SENSOR LOCATIONS: ADJACENT TO MSL1, DOWNSTREAM OF PORV

ALARM/TRIP SET POINTS: HIGH= 50.00

N1 DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

N1 DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: SHIELDED DETECTOR IS LOCATED ADJACENT TO MSL WHICH IS SENSITIVE TO GAMMA ACTIVITY. GENERAL ATOMICS CALCULATIONS INDICATE 10E-1 TO 10E3 uCi/ML RADIOACTIVITY IN STEAM IS TYPICALLY EQUIVALENT TO 10E1 TO 10E5 mR/HOUR ADJACENT TO STEAM LINE. RANGE IS 1.0E-3 TO 1.0E3 uCi/ML OF Xe(133). THE 10E-3 TO 10E-1 RANGE IS BEYOND THE 95% CONFIDENCE LEVEL REQUIRED BY ANSI N13.10.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: MAIN SL 2/B

POINT ID: U6080A

PLANT SPEC POINT DESC.: MSL 2 RAD

GENERIC/COND DESC.: SG 2 (OR B) STEAM LINE RAD LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: uCi/ML

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 1.0E-03

MAXIMUM INSTR RANGE: 1.0E+03

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 1

HOW PROCESSED: COMPLX

SENSOR LOCATIONS: ADJACENT TO MSL2, DOWNSTREAM OF PORV

ALARM/TRIP SET POINTS: HIGH= 50.00

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: SHIELDED DETECTOR IS LOCATED ADJACENT TO MSL WHICH IS SENSITIVE TO GAMMA ACTIVITY. GENERAL ATOMICS CALCULATIONS INDICATE 10E-1 TO 10E3 uCi/ML RADIOACTIVITY IN STEAM LINE IS TYPICALLY EQUIVALENT TO 10E1 TO 10E5 mR/HOUR ADJACENT TO STEAM LINE. RANGE IS 1.0E-3 TO 1.0E3 uCi/ML OF Xe(133). THE 10E-3 TO 10E-1 RANGE IS BEYOND THE 95% CONFIDENCE LEVEL REQUIRED BY ANSI N13.10.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: MAIN SL 3/C

POINT ID: U6081A

PLANT SPEC POINT DESC.: MSL 3 RAD

GENERIC/COND DESC.: SG 3 (OR C) STEAM LINE RAD LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: uCi/ML

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 1.0E-03

MAXIMUM INSTR RANGE: 1.0E+03

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 1

HOW PROCESSED: CMPLX

SENSOR LOCATIONS: ADJACENT TO MSL3, DOWNSTREAM OF PORV

ALARM/TRIP SET POINTS: HIGH= 50.00

HI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

HI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: SHIELDED GM TUBE IS LOCATED ADJACENT TO MSL WHICH IS SENSITIVE TO GAMMA ACTIVITY. GENERAL ATOMICS CALCULATIONS INDICATE 10E-1 TO 10E3 uCi/ML RADIOACTIVITY IN STEAM IS TYPICALLY EQUIVALENT TO 10E1 TO 10E5 mR/HOUR ADJACENT TO STEAM LINE. RANGE IS 1.0E-3 TO 1.0E3 uCi/ML OF Xe(133). THE 10E-3 TO 10E-1 RANGE IS BEYOND THE 95% CONFIDENCE LEVEL REQUIRED BY ANSI N13.10.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

HRC ERDS PARAMETER: MAIN SL 4/D

POINT ID: U60B2A

PLANT SPEC POINT DESC.: MSL 4 RAD

GENERIC/COND DESC.: SG 4 (OR D) STEAM LINE RAD LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: uCi/ML

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 1.0E-03

MAXIMUM INSTR RANGE: 1.0E+03

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SEWS: P

NUMBER OF SENSORS: 1

HOW PROCESSED: CMLX

SENSOR LOCATIONS: ADJACENT TO MSL4, DOWNSTREAM OF PORV

ALARM/TRIP SET POINTS: HIGH= 50.00

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: SHIELDED GM TUBE IS LOCATED ADJACENT TO MSL AND IS SENSITIVE TO GAMMA ACTIVITY. GENERAL ATOMIC CALCULATIONS INDICATE 10E-1 TO 10E3 uCi/ML RADIOACTIVITY IN STEAM IS TYPICALLY EQUIVALENT TO 10E1 TO 10E5 mR/HOUR ADJACENT TO STEAM LINE. RANGE IS 1.0E-3 TO 1.0E3 uCi/ML OF Xe(133). THE 10E-3 TO 10E-1 RANGE IS BEYOND THE 95% CONFIDENCE LEVEL REQUIRED BY ANSI N13.10.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: CTMNT PRESS

POINT ID: U6087A

PLANT SPEC POINT DESC.: CHTMT PRESS (WR)

GENERIC/COND DESC.: CONTAINMENT PRESSURE

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: PSIG

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 150.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: AVERAGE

SENSOR LOCATIONS: SG BLDG 832'6" MOUNTED ON RB WALL

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: 0 PSI LOW

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ITT BARTON CAPILLARY FILLED SYSTEM.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: LP SI FLOW

POINT ID: U6108A

PLANT SPEC POINT DESC.: RHR FLOW TOTAL

GENERIC/COND DESC.: LOW PRESS SAFETY INJECTION FLOW

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: GPM

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 5500.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: SUM

SENSOR LOCATIONS: SG BLDG 773'0" DOWNSTREAM OF RHR HX

ALARM/TRIP SET POINTS: CONTROL:3,950, LOW:3,000

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ROSEMOUNT DP TRANSMITTER ACROSS ORIFICE PLATE. EACH CHANNEL HAS A RANGE OF 0 TO 5500 GPM.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: EFF GAS RAD

POINT ID: U6135A

PLANT SPEC POINT DESC.: TOTAL STACK RADIATION

GENERIC/COND DESC.: RADIOACTIVITY OF RELEASED GASSES

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: UC1/S

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 10E-6

MAXIMUM INSTR RANGE: 10E5

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: P

NUMBER OF SENSORS: 2

HOW PROCESSED: SUM

SENSOR LOCATIONS: MIDPOINT OF VENT STACK

ALARM/TRIP SET POINTS: 8.9E4

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/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: GA TECHNOLOGIES WIDE RANGE GAS MONITOR SAMPLES VENT STACK. THREE DETECTORS
PROVIDE INPUT TO MICROPROCESSOR WHICH CALCULATES THE NOBLE GAS RELEASE RATE.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: REAC VES LEV

POINT ID: U6151A

PLANT SPEC POINT DESC.: RVLIS LEVEL TRAIN A

GENERIC/COND DESC.: REACTOR VESSEL WATER LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: INCHES

ENGR UNITS CONVERSION: ANALOG CONVERSION OF 8 POSSIBLE DIGITALS

MINIMUM INSTR RANGE: 823'-11"

MAXIMUM INSTR RANGE: 838'-2"

ZERO POINT REFERENCE: EL. 823'-11"

REFERENCE POINT NOTES: ZERO POINT = UPPER CORE PLATE + 11"

PROC OR SENS: P

NUMBER OF SENSORS: 8

HOW PROCESSED: HIGHEST OF DIGITALS INDICATING COOLANT

SENSOR LOCATIONS: ABOVE UPPER CORE PLATE

ALARM/TRIP SET POINTS: BELOW 11" ABOVE CORE PLATE, LOW

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: N/A

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ABB COMBUSTION ENGINEERING HEATED JUNCTION THERMOCOUPLE SYSTEM WITH DUAL PROBES.
EACH PROBE HAS SIX SENSORS LOCATED IN THE UPPER PLENUM REGION AND TWO SENSORS IN
THE UPPER HEAD REGION OF THE REACTOR VESSEL

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: REAC VES LEV

POINT ID: U6152A

PLANT SPEC POINT DESC.: RVL1S LEVEL TRAIN B

GENERIC/COND DESC.: REACTOR VESSEL WATER LEVEL

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: INCHES

ENGR UNITS CONVERSION: ANALOG CONVERSION OF 8 POSSIBLE DIGITALS

MINIMUM INSTR RANGE: 823'-11"

MAXIMUM INSTR RANGE: 838'-2"

ZERO POINT REFERENCE: EL. 823'-11"

REFERENCE POINT NOTES: ZERO POINT = UPPER CORE PLATE + 11"

PROC OR SENS: P

NUMBER OF SENSORS: 8

HOW PROCESSED: HIGHEST OF DIGITALS INDICATING COOLANT

SENSOR LOCATIONS: ABOVE UPPER CORE PLATE

ALARM/TRIP SET POINTS: BELOW 11 ABOVE CORE PLATE, LOW

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: N/A

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: ABB COMBUSTION ENGINEERING HEATED JUNCTION THERMOCOUPLE SYSTEM WITH DUAL PROBES.
EACH PROBE HAS SIX SENSORS LOCATED IN THE UPPER PLENUM REGION AND TWO SENSORS IN
THE UPPER HEAD REGION OF THE REACTOR VESSEL.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: WIND DIR

POINT ID: Y6015A

PLANT SPEC POINT DESC.: WIND DIRECTION PRIMARY 60M

GENERIC/COND DESC.: WIND DIRECTION-RX SITE 200 FEET

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEG AZIMUTH

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 540.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: PRIMARY MET TOWER, 60M

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: MID 360

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIND DIRECTION DISPLAY IS SCALED FROM 0 DEGREES TO 540 DEGREES WITH A 180 DEGREE
OFFSET INTRODUCED WHEN THE WIND VANE SWINGS PAST 360 DEGREES AND SUBTRACTED AS
THE WIND VANE SWINGS PAST 180 DEGREES.

SPECIAL REMARK:

DATE: 9/22/93

REACTOR UNIT: CP1

DATA FEEDER: PCS

NRC ERDS PARAMETER: WIND DIR

POINT ID: Y6016A

PLANT SPEC POINT DESC.: WIND DIRECTION PRIMARY 10M

GENERIC/COND DESC.: WIND DIRECTION-RX SITE 30 FEET

ANALOG/DIGITAL: A

ENGR UNITS/DIG STATES: DEG AZIMUTH

ENGR UNITS CONVERSION: NONE

MINIMUM INSTR RANGE: 0.0

MAXIMUM INSTR RANGE: 540.0

ZERO POINT REFERENCE: N/A

REFERENCE POINT NOTES: N/A

PROC OR SENS: S

NUMBER OF SENSORS: 1

HOW PROCESSED: N/A

SENSOR LOCATIONS: PRIMARY MET TOWER, 10M

ALARM/TRIP SET POINTS: NONE

NI DETECTOR POWER
SUPPLY CUT-OFF POWER
LEVEL N/A

NI DETECTOR POWER
SUPPLY TURN-ON POWER
LEVEL N/A

INSTRUMENT FAILURE
MODE: MID 360

TEMPERATURE COMPENSATION
FOR DP TRANSMITTERS: N/A

LEVEL REFERENCE LEG: N/A

UNIQUE SYSTEM DESC: WIND DIRECTION DISPLAY IS SCALED FROM 0 DEGREES TO 540 DEGREES WITH A 180 DEGREE
OFFSET INTRODUCED WHEN THE WIND VANE SWINGS PAST 360 DEGREES AND SUBTRACTED AS
THE WIND VANE SWINGS PAST 180 DEGREES.

SPECIAL REMARK: