ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

(39)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9207140233 DOC.DATE: 92/07/08 NOTARIZED: NO DOCKET #
FACIL:50-263 Monticello Nuclear Generating Plant, Northern States 05000263
AUTH.NAME AUTHOR AFFILIATION
PARKER,T.M. Northern States Power Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Revises 920131 submittal of ERDS data point library & plant attribute library,per Rev 1 to NUREG-1394.Software Spec ERDS-SRS-1.00-1, "ERDS Data Point Library " encl.

DISTRIBUTION CODE: A026D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 2+58
TITLE: Emergency Response Data System (ERDS)

05000263

NOTES:NRR/LONG,W.

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	JOLICOEUR,J 01	2	2	PD3-1 LA	1	1
	LONG,W	1	1			
INTERNAL:	AEOD	1	1	AEOD/DOA/IRB	1	1
	NRR ERICKSON,P.	1	1	NRR HICKMAN,J.	1	0
	NRR/DREP/PEPB	1	1	OC/LFMB	1	0
	RGN3 ERC	1	1	RGN3 FILE	1	1
EXTERNAL:	NRC PDR	1	1			
NOTES:		1	1			

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 14 ENCL 12

Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

July 8, 1992

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

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Emergency Response Data System (ERDS) - Revisions
to Previously Submitted Data Point Library Information

As required by NUREG-1394 (Revision 1) Appendix A, information describing the Monticello Data Point Library and Plant Attribute Library was transmitted to the NRC as an attachment to our January 31, 1992 letter titled "Emergency Response Data System (ERDS) Data Point Library and Plant Attribute Library".

We have since completed preliminary and final testing of the ERDS software in conjunction with Halliburton NUS, and several changes to the previously transmitted Plant Attribute Library information have been identified. In addition, we have incorporated the Plant Attribute Library into the Data Point Library software specification. A revised Data Point Library software specification reflecting these changes is attached for your information and use. Changes to the previously transmitted Plant Attribute Library can be summarized as follows:

1. NRC ERDS Parameter "H2 CONC" has new point identifications. Recent testing has shown that the points previously identified were not needed within the process computer system and have been deleted.

2. As requested by the NRC, "EFF LIQ RAD" points have been modified to include engineering units conversion information from counts per second (CPS) and counts per minute (CPM) to microcuries/milliliter.

3. The previous transmittal erroneously assigned the same identification number (CST100) to two different "CST LEVEL" points. The Plant Attribute Library has been corrected to assign different identification numbers (CST100 & CST101) to these two unique points.

4. Section IV.3.d has been changed to reflect the use of "SUSPEND" and "RESUME" in lieu of "XOFF" and "XON".

As indicated in our January 31, 1992 transmittal, the following parameters will not be included in ERDS because their signals are not available:

A026

1. Nuclear Instruments, Intermediate Range

2. Nuclear Instruments, Source Range

3. Radiation Level of the Main Steam Line

As indicated in our January 31, 1992 transmittal, the following points are not currently available within the Plant Process Computer System (the ERDS feeder):

1. Wind Speed at Reactor Site (MET102, MET103, MET104, MET105)

2. Wind Direction at the Reactor Site (MET106, MET107, MET108, MET109)

3. Air Stability at the Reactor Site (MET110, MET111, MET112, MET113)

We previously indicated it was our intention to integrate these three points into ERDS before the system was declared operational. However, testing of ERDS progressed more quickly than anticipated and the system was operational before integration could be completed. We still intend to integrate the three points and will continue our efforts to complete this action in a timely manner.

Please contact Joe Sofge at (612) 295-1289 if you have any questions concerning the attached Data Point Library or any other Monticello ERDS implementation plans.

Thomas M Parker
Manager
Nuclear Support Services

c: Regional Administrator, Region III, NRC
Senior Resident Inspector, Monticello Site, NRC
NRR Project Manager, NRC
State of Minnesota,
Attn: Kris Sanda
J Silberg

Attachments: (1) Emergency Response Data System (ERDS) Data Point Library Software Specification (ERDS-SRS-1.00-1), issued April 14, 1992

CWI-4.3 3/25/91	SOFTWARE REQUIREMENT SPECIFICATION (SRS)	CFN: ERDS-SRS-1.00-1 SR:__ QA:XX CR:__ NQA:__
TITLE: EMERGENCY RESPONSE DATA SYSTEM (ERDS) DATA POINT LIBRARY		Prepared by: Russ Van Dell Date Issued: April 14,1992

INDEX

Reviewed By: J.T. Sorge Date: 4/21/92

Approved By: R.E. Van Dell Date: 4/21/92

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	NI POWER RNG
Point ID:	C51C4001
Plant Spec Point Desc.:	AVERAGE CONSISTENT APRM READING
Generic/Cond Desc.:	NUCLEAR INSTRUMENTS, POWER RANGE
Analog/Digital	A
Engr Units/Dig States:	%
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	125
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	12
How Processed:	AVERAGE OF CONSISTENT APRMS
Sensor Location:	APRM UTILIZE 24 LPRMS LOCATED IN CORE
Alarm/Trip Set Points:	HI-HI TRIP=(.58W+62%),W=%RECIRC FLOW
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	DOWNSCALE(3%),INOP,BYPASS
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	This point consists of either an average of all consistent APRMs or an average of in-range APRMs if there are less than the required number of consistent signals. APRMS(Average Power Range Monitors) consist of an average of 24 LPRMs (Local Power Range Monitors). Each individual APRM signal will fail on Downscale(3%), Inop, or Bypass. HI-HI trip feed RPS SCRAM for one-out-of-three-twice logic. HI trip (.58W+50%) results in Rod Withdraw Block.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	NI INTER RNG
Point ID:	
Plant Spec Point Desc.:	(not available)
Generic/Cond Desc.:	NUCLEAR INSTRUMENTS, INTERMEDIATE RANGE
Analog/Digital	
Engr Units/Dig States:	
Engr Units Conversion:	
Minimum Instr Range:	
Maximum Instr Range:	
Zero Point Reference:	
Reference Point Notes:	
PROC or SENS:	
Number of Sensors:	
How Processed:	
Sensor Location:	
Alarm/Trip Set Points:	
NI Detector Power Supply Cut-off Power Level:	
NI Detector Power Supply Turn-on Power Level:	
Instrument Failure Mode:	
Temperature Compensation For DP Transmitters:	
Level Reference Leg:	
Unique System Desc.:	Not available to Process Computer System.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	NI SOURC RNG
Point ID:	
Plant Spec Point Desc.:	(not available)
Generic/Cond Desc.:	NUCLEAR INSTRUMENTS, SOURCE RANGE
Analog/Digital	
Engr Units/Dig States:	
Engr Units Conversion:	
Minimum Instr Range:	
Maximum Instr Range:	
Zero Point Reference:	
Reference Point Notes:	
PROC or SENS:	
Number of Sensors:	
How Processed:	
Sensor Location:	
Alarm/Trip Set Points:	
NI Detector Power Supply	
Cut-off Power Level:	
NI Detector Power Supply	
Turn-on Power Level:	
Instrument Failure Mode:	
Temperature Compensation	
For DP Transmitters:	
Level Reference Leg:	
Unique System Desc.:	Not available to Process Computer System.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	REAC VES LEV
Point ID:	B21C0010
Plant Spec Point Desc.:	RPV VALIDATED WATER LEVEL
Generic/Cond Desc.:	REACTOR VESSEL WATER LEVEL
Analog/Digital	A
Engr Units/Dig States:	INCHES
Engr Units Conversion:	N/A
Minimum Instr Range:	-350
Maximum Instr Range:	350
Zero Point Reference:	MSSKRT
Reference Point Notes:	0" CORRESPONDS TO 126" ABOVE TOP OF FUEL
PROC or SENS:	P
Number of Sensors:	28
How Processed:	WEIGHTED AVERAGE OF CONSISTENT LEVELS
Sensor Location:	LEVEL REF LEGS - 5 HOT(IN DW) & 2 COLD
Alarm/Trip Set Points:	-48"=ECCS INIT, 9"=SCRAM, 48"=HI TRIP
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	+280" TOP OF REACTOR HEAD
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	WET
Unique System Desc.:	This point consists of either a weighted average of all consistent level indicators or an average of in-range level indicators if there are less than the required number of consistent signals. Algorithm performs temperature compensation and evaluates reference leg flashing on 7 level signals. Safeguards Levels (-50" to 50") utilize cold reference leg design outside of drywell. ECCS levels (-335" to 65") are invalidated with recirc pumps running. Other levels include 2 feedwater (0 to 60") and 1 vessel flood (-50" to -350").

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	MAIN FD FLOW
Point ID:	C51C9001
Plant Spec Point Desc.:	SMOOTHED FEEDWATER FLOW LOOP A
Generic/Cond Desc.:	FEEDWATER FLOW INTO THE REACTOR SYSTEM
Analog/Digital	A
Engr Units/Dig States:	MLB/HR
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	4
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	4
How Processed:	SMOOTHED FW FLOW CALC FROM A NOZZLE D/P
Sensor Location:	FW NOZZLE IS DOWNSTREAM OF RX FW PUMPS
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:	HI/LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	SMOOTHED FW FLOW LOOP A is calculated using Feedwater nozzle D/P, Pressure, and temperature. Smoothing algorithm sums 1/12 current sample + 11/12 of previous smoothed value. Sampling frequency is 5 seconds. Feedwater nozzles are located downstream of Reactor Feedwater Pumps and ahead of high pressure heaters.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	MAIN FD FLOW
Point ID:	C51C9002
Plant Spec Point Desc.:	SMOOTHED FEEDWATER FLOW LOOP B
Generic/Cond Desc.:	FEEDWATER FLOW INTO THE REACTOR SYSTEM
Analog/Digital	A
Engr Units/Dig States:	MLB/HR
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	4
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	4
How Processed:	SMOOTHED FW FLOW CALC FROM B NOZZLE D/P
Sensor Location:	FW NOZZLE IS DOWNSTREAM OF RX FW PUMPS
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:	HI/LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	SMOOTHED FW FLOW LOOP B is calculated using Feedwater nozzle D/P, Pressure, and temperature. Smoothing algorithm sums 1/12 current sample + 11/12 of previous smoothed value. Sampling frequency is 5 seconds. Feedwater nozzles are located downstream of Reactor Feedwater Pumps and ahead of high pressure heaters.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	RCIC FLOW
Point ID:	RCI100
Plant Spec Point Desc.:	RCIC PUMP DISCHARGE FLOW
Generic/Cond Desc.:	REACTOR CORE ISOLATION COOLING
Analog/Digital	A
Engr Units/Dig States:	GPM
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	500
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM FLOW TRANSMITTER
Sensor Location:	FLOW ELEMENT ON RCIC PUMP DISHARGE
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	RCIC is a steam turbine driven pump designed to deliver 400 gpm over reactor pressure range of 150-1120 psig. Flow element is located on pump disharge line ahead of the test return line to the CST tanks and injection line into "A" feedwater line. RCIC injects into feedwater line prior to the line entering containment.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	LPCI FLOW
Point ID:	RHR100
Plant Spec Point Desc.:	CONTAINMENT SPRAY/COOLING A LOOP
Generic/Cond Desc.:	LOW PRESSURE COOLANT INJECTION FLOW
Analog/Digital	A
Engr Units/Dig States:	GPM
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	10000
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM FLOW TRANSMITTER
Sensor Location:	DISCHARGE OF RHR HEAT EXCHANGERS
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	CONTAINMENT SPRAY/COOLING A LOOP flow is the RHR flow to the A loop drywell spray, torus spray and torus cooling. Each RHR pump is approximately rated at 4000 gpm depending on system head. Two pumps are located in each loop although flow can be cross tied between A and B loops.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	LPCI FLOW
Point ID:	RHR101
Plant Spec Point Desc.:	CONTAINMENT SPRAY/COOLING B LOOP
Generic/Cond Desc.:	LOW PRESSURE COOLANT INJECTION FLOW
Analog/Digital	A
Engr Units/Dig States:	GPM
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	10000
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM FLOW TRANSMITTER
Sensor Location:	DISCHARGE OF RHR HEAT EXCHANGERS
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	CONTAINMENT SPRAY/COOLING B LOOP flow is the RHR flow to the B loop drywell spray, torus spray and torus cooling. Each RHR pump is approximately rated at 4000 gpm depending on system head. Two pumps are located in each loop although flow can be cross tied between A and B loops.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	LPCI FLOW
Point ID:	RHR102
Plant Spec Point Desc.:	RHR LOOP A INJECT FLOW
Generic/Cond Desc.:	LOW PRESSURE COOLANT INJECTION FLOW
Analog/Digital	A
Engr Units/Dig States:	GPM
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	10000
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM FLOW TRANSMITTER
Sensor Location:	DISCHARGE OF RHR HEAT EXCHANGERS
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	RHR LOOP A INJECT FLOW is the RHR flow to the A Recirc Loop, Reactor Head Cooling, Waste Surge Tank, and cross tie to B Loop. Each RHR pump is rated at about 4000 gpm depending on system head. Two pumps are located in each loop although flow can be cross tied between A and B loops.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	LPCI FLOW
Point ID:	RHR103
Plant Spec Point Desc.:	RHR LOOP B INJECT FLOW
Generic/Cond Desc.:	LOW PRESSURE COOLANT INJECTION FLOW
Analog/Digital	A
Engr Units/Dig States:	GPM
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	10000
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM FLOW TRANSMITTER
Sensor Location:	DISCHARGE OF RHR HEAT EXCHANGERS
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	RHR LOOP B INJECT FLOW is the RHR flow to the B Recirc Loop and cross tie to A Loop. Each RHR pump is rated at about 4000 gpm depending on system head. Two pumps are located in each loop although flow can be cross tied between A and B loops.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	CR SPRAY FL
Point ID:	CSP100
Plant Spec Point Desc.:	CS LOOP 11 FLOW
Generic/Cond Desc.:	Core Spray Cooling System Flow
Analog/Digital	A
Engr Units/Dig States:	GPM
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:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM FLOW TRANSMITTER
Sensor Location:	ON PUMP DISCHARGE LINE
Alarm/Trip Set Points:	
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	The loop A Core Spray system consists of one electric driven pump designed to deliver 3020 gpm against a system head corresponding to a reactor pressure of 130psi above containment pressure. The flow element is located on the pump discharge line just a head of the reactor vessel injection and test return lines.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	CR SPRAY FL
Point ID:	CSP101
Plant Spec Point Desc.:	CS LOOP 12 FLOW
Generic/Cond Desc.:	CORE SPRAY COOLING SYSTEM FLOW
Analog/Digital	A
Engr Units/Dig States:	GPM
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:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM FLOW TRANSMITTER
Sensor Location:	ON PUMP DISCHARGE LINE
Alarm/Trip Set Points:	
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	The loop B Core Spray system consists of one electric driven pump designed to deliver 3020 gpm against a system head corresponding to a reactor pressure of 130psi above containment pressure. The flow element is located on the pump discharge line just a head of the reactor vessel injection and test return lines.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	DW FD SMP LV
Point ID:	PCT138
Plant Spec Point Desc.:	DW EQUIP DRAIN SUMP VOL
Generic/Cond Desc.:	DRYWELL FLOOR DRAIN SUMP LEVEL
Analog/Digital	A
Engr Units/Dig States:	GAL
Engr Units Conversion:	N/A
Minimum Instr Range:	114.4
Maximum Instr Range:	514.8
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM LEVEL TRANSMITTER
Sensor Location:	DIRECTLY BELOW RX VESSEL IN DRYWELL
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	This sump collects liquid effluent from valve stem leak-offs, Rx Recirc Pump and piping maintenance drains, vent cooler drains, reactor well bulkhead and bellows drains, reactor vessel flange leakoff and Drywell Equipment Drain Sump heat exchanger drain. Two 50 GPM pumps discharge the water to the Waste Collector Tank in the Reactor building. Sump is isolated by Group II Isolation or manually from control room. Sump overflows into Drywell Floor Drain Sump at 1090 Gallons.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	DW FD SMP LV
Point ID:	PCT139
Plant Spec Point Desc.:	DW FLOOR DRAIN SUMP VOL
Generic/Cond Desc.:	DRYWELL FLOOR DRAIN SUMP LEVEL
Analog/Digital	A
Engr Units/Dig States:	GAL
Engr Units Conversion:	N/A
Minimum Instr Range:	114.4
Maximum Instr Range:	514.8
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM LEVEL TRANSMITTER
Sensor Location:	DIRECTLY BELOW RX VESSEL IN DRYWELL
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	This sump collects liquid effluent from Drywell cooler drains, floor drains, control rod drive leakage and drains, closed cooling water piping drains, and piping and equipment maintenance vents. Two 50 GPM pumps discharge the water to the Floor Drain Collector Tank in the Reactor building. Sump is isolated by Group II Isolation or manually from control room. Sump overflows into Drywell Equipment Drain Sump at 1090 Gallons.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF GAS RAD
Point ID:	PRM121
Plant Spec Point Desc.:	STACK EFF MONITOR CH A
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED GASES
Analog/Digital	A
Engr Units/Dig States:	uCI/S
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E12
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL FROM ANALOG OUTPUT OF MONITOR
Sensor Location:	FOUR ISOKINETIC PROBES IN OFF GAS STACK
Alarm/Trip Set Points:	HI=3200, HI-HI=90000
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	STACK EFF MONITOR CH A is a wide range gas monitor consisting of isokinetic probe assembly, sample conditioning unit, sample detection unit, and Control Room panel. The detector assembly consists of low, mid, and high range detectors. Hi-Hi and/or INOP from both Channel A & B monitors will close valves to isolate off gas flow to the stack.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF GAS RAD
Point ID:	PRM122
Plant Spec Point Desc.:	STACK EFF MONITOR CH B
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED GASES
Analog/Digital	A
Engr Units/Dig States:	uCI/S
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E12
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL FROM ANALOG OUTPUT OF MONITOR
Sensor Location:	FOUR ISOKINETIC PROBES IN OFF GAS STACK
Alarm/Trip Set Points:	HI=3200, HI-HI=90000
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	STACK EFF MONITOR CH B is a wide range gas monitor consisting of isokinetic probe assembly, sample conditioning unit, sample detection unit, and Control Room panel. The detector assembly consists of low, mid, and high range detectors. Hi-Hi and/or INOP from both Channel A & B monitors will close valves to isolate off gas flow to the stack.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF GAS RAD
Point ID:	PRM123
Plant Spec Point Desc.:	REV EFFLUENT MONITOR CH A
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED GASES
Analog/Digital	A
Engr Units/Dig States:	uCI/S
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E12
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL FROM ANALOG OUTPUT OF MONITOR
Sensor Location:	ISOKINETIC PROBES IN EACH RX BLDG VENT
Alarm/Trip Set Points:	HI=400, HI-HI=4500
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Reactor Building Vent Effluent Monitor Channel A is a wide range gas monitor consisting of isokinetic probe assemblies, sample conditioning unit, sample detection unit, and Control Room panel. The detector assembly consists of low, mid, and high range detectors.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF GAS RAD
Point ID:	PRM124
Plant Spec Point Desc.:	RBV EFFLUENT MONITOR CH B
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED GASES
Analog/Digital	A
Engr Units/Dig States:	uCI/S
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E12
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL FROM ANALOG OUTPUT OF MONITOR
Sensor Location:	ISOKINETIC PROBES IN EACH RX BLDG VENT
Alarm/Trip Set Points:	HI=400, HI-HI=4500
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Reactor Building Vent Effluent Monitor Channel B is a wide range gas monitor consisting of isokinetic probe assemblies, sample conditioning unit, sample detection unit, and Control Room panel. The detector assembly consists of low, mid, and high range detectors.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	EFF LIQ RAD
Point ID:	PRM107
Plant Spec Point Desc.:	SERVICE WATER EFFLUENT
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED LIQUIDS
Analog/Digital	A
Engr Units/Dig States:	CPS
Engr Units Conversion:	uCi/Ml=((PRM107 in CPS)-5)*(4.3E-7)
Minimum Instr Range:	.1
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM MONITOR
Sensor Location:	SAMPLES SW PRIOR TO SW LEAVING RX BLDG
Alarm/Trip Set Points:	HI ALARM AS SET BY PLANT CHEMIST
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	DOWNSCALE & UPSCALE
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Gamma radiation emitted by radioactive materials contained in process liquid are detected by a scintillation detector housed in shielded sampler. Sidestream sample is used from the service water line prior to leaving the Reactor Building. After leaving Reactor Building, line discharges into circ water discharge pipe. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	EFF LIQ RAD
Point ID:	PRM109
Plant Spec Point Desc.:	RADWASTE EFFLUENT
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED LIQUIDS
Analog/Digital	A
Engr Units/Dig States:	CPS
Engr Units Conversion:	uCi/Ml=((PRM109 in CPS)-7)*(2.5E-6)
Minimum Instr Range:	.1
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM MONITOR
Sensor Location:	SAMPLED PRIOR TO LEAVING RADWASTE BLDG
Alarm/Trip Set Points:	HI ALARM AS SET BY PLANT CHEMIST
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	DOWNSCALE & UPSCALE, INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Gamma radiation emitted by radioactive materials contained in process liquid are detected by a scintillation detector housed in shielded sampler. Liquid is sampled prior to leaving the Radwaste Building. After leaving Radwaste Building, line discharges into discharge canal. Although Monticello has permits, Monticello maintains a policy of zero liquid radwaste releases into the river. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF LIQ RAD
Point ID:	PRM110
Plant Spec Point Desc.:	TE NORMAL WASTE SUMP CH A
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED LIQUIDS
Analog/Digital	A
Engr Units/Dig States:	CPM
Engr Units Conversion:	uCi/Ml=((PRM110 in CPM)-400)*(3.5E-9)
Minimum Instr Range:	10
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM MONITOR
Sensor Location:	SAMPLED PRIOR TO LEAVING TURBINE BLDG
Alarm/Trip Set Points:	HI ALARM AS SET BY PLANT CHEMIST
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	DOWNSCALE & UPSCALE, INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Gamma radiation emitted by radioactive materials contained in process liquid are detected by a scintillation detectors in dry tube in sump. Sampled prior to leaving the Turbine Building. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF LIQ RAD
Point ID:	PRM111
Plant Spec Point Desc.:	TB NORMAL WASTE SUMP CH B
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED LIQUIDS
Analog/Digital	A
Engr Units/Dig States:	CPM
Engr Units Conversion:	uCi/Ml=((PRM111 in CPM)-400)*(3.5E-9)
Minimum Instr Range:	10
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM MONITOR
Sensor Location:	SAMPLED PRIOR TO LEAVING TURBINE BLDG
Alarm/Trip Set Points:	HI ALARM AS SET BY PLANT CHEMIST
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	DOWNSCALE & UPSCALE, INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Gamma radiation emitted by radioactive materials contained in process liquid are detected by a scintillation detectors in dry tube in sump. Sampled prior to leaving the Turbine Building. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF LIQ RAD
Point ID:	PRM112
Plant Spec Point Desc.:	DISCHARGE CANAL MONITOR A
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED LIQUIDS
Analog/Digital	A
Engr Units/Dig States:	CPS
Engr Units Conversion:	uCi/Ml=((PRM112 in CPS)-2)*(1.4E-7)
Minimum Instr Range:	.1
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM MONITOR
Sensor Location:	550FT DOWNSTREAM FROM DISCHARGE STRUCTURB
Alarm/Trip Set Points:	HI ALARM AS SET BY PLANT CHEMIST
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	DOWNSCALE & UPSCALE, INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Gamma radiation emitted by radioactive materials contained in process liquid are detected by a scintillation detectors. Sample is drawn from 4 standpipes in canal 550 feet downstream from the discharge structure. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	EFF LIQ RAD
Point ID:	PRM113
Plant Spec Point Desc.:	DISCHARGE CANAL MONITOR B
Generic/Cond Desc.:	RADIOACTIVITY OF RELEASED LIQUIDS
Analog/Digital	A
Engr Units/Dig States:	CPS
Engr Units Conversion:	uCi/Ml=((PRM113 in CPS)-2)*(1.4E-7)
Minimum Instr Range:	.1
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM MONITOR
Sensor Location:	550FT DOWNSTREAM FROM DISCHARGE STRUCTURE
Alarm/Trip Set Points:	HI ALARM AS SET BY PLANT CHEMIST
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	DOWNSCALE & UPSCALE, INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Gamma radiation emitted by radioactive materials contained in process liquid are detected by a scintillation detectors. Sample is drawn from 4 standpipes in canal 550 feet downstream from the discharge structure. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	CND A/E RAD
Point ID:	PRM118
Plant Spec Point Desc.:	OFF GAS CH 1
Generic/Cond Desc.:	CONDENSER AIR EJECTOR RADIOACTIVITY
Analog/Digital	A
Engr Units/Dig States:	MR/HR
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL OUTPUT FROM MONITOR
Sensor Location:	SAMPLE DRAWN FROM OFF GAS LINE
Alarm/Trip Set Points:	TRIP ON BOTH MONITORS UP,DOWN OR INOP
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.:	OFF GAS CH 1 radiation monitor is positioned adjacent to a vertical sample chamber. A continuous sample is drawn from the off gas line downstream from the Steam Jet Air Ejectors and ahead of the Recombiner trains. The sample is monitored after a time delay of approximately 2 minutes to permit Nitrogen-16 and Oxygen-19 to decay. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	CND A/E RAD
Point ID:	PRM119
Plant Spec Point Desc.:	OFF GAS CH 2
Generic/Cond Desc.:	CONDENSER AIR EJECTOR RADIOACTIVITY
Analog/Digital	A
Engr Units/Dig States:	MR/HR
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E6
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL OUTPUT FROM MONITOR
Sensor Location:	SAMPLE DOWNSTREAM OF STEAM JET AIR EJECT
Alarm/Trip Set Points:	TRIP ON BOTH MONITORS UP,DOWN OR INOP
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.:	OFF GAS CH 2 radiation monitor is positioned adjacent to a vertical sample chamber. A continuous sample is drawn from the off gas line downstream from the Steam Jet Air Ejectors and ahead of the Recombiner trains. The sample is monitored after a time delay of approximately 2 minutes to permit Nitrogen-16 and Oxygen-19 to decay. Alarm setpoints vary with plant operation as determined by plant chemist.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	DW RAD
Point ID:	PCT109
Plant Spec Point Desc.:	DRYWELL RADIATION CH A
Generic/Cond Desc.:	RADIATION LEVEL IN THE DRYWELL
Analog/Digital	A
Engr Units/Dig States:	R/HR
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E8
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM RADIATION MONITOR
Sensor Location:	DRYWELL 180 DEGREE AZIMUTH AT 944'
Alarm/Trip Set Points:	HI=50, HI-HI=100
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH SENSOR, INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Purpose is to provide estimate of core damage by measuring drywell gamma radiation fields caused by fission product leakage from the core. Each sensor is an ionization chamber with an internal U-234 source which gives 1R/HR reading for operation verification. Elevation 944' is just below bottom of reactor vessel (949').

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	DW RAD
Point ID:	PCT110
Plant Spec Point Desc.:	DRYWELL RADIATION CH B
Generic/Cond Desc.:	RADIATION LEVEL IN THE DRYWELL
Analog/Digital	A
Engr Units/Dig States:	R/HR
Engr Units Conversion:	N/A
Minimum Instr Range:	1
Maximum Instr Range:	10E8
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL INPUT FROM RADIATION MONITOR
Sensor Location:	DRYWELL 0 DEGREE AZIMUTH AT 944'
Alarm/Trip Set Points:	HI=50, HI-HI=100
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH SENSOR, INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Purpose is to provide estimate of core damage by measuring drywell gamma radiation fields caused by fission product leakage from the core. Each sensor is an ionization chamber with an internal U-234 source which gives 1R/HR reading for operation verification. Elevation 944' is just below bottom of reactor vessel (949').

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	MN STEAM RAD
Point ID:	
Plant Spec Point Desc.:	(not available)
Generic/Cond Desc.:	RADIATION LEVEL OF THE MAIN STEAM LINE
Analog/Digital	
Engr Units/Dig States:	
Engr Units Conversion:	
Minimum Instr Range:	
Maximum Instr Range:	
Zero Point Reference:	
Reference Point Notes:	
PROC or SENS:	
Number of Sensors:	
How Processed:	
Sensor Location:	
Alarm/Trip Set Points:	
NI Detector Power Supply Cut-off Power Level:	
NI Detector Power Supply Turn-on Power Level:	
Instrument Failure Mode:	
Temperature Compensation For DP Transmitters:	
Level Reference Leg:	
Unique System Desc.:	Not available to Process Computer System.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	DW PRESS
Point ID:	D23C0010
Plant Spec Point Desc.:	VALIDATED DRYWELL PRESSURE
Generic/Cond Desc.:	DRYWELL PRESSURE
Analog/Digital	A
Engr Units/Dig States:	PSIG
Engr Units Conversion:	N/A
Minimum Instr Range:	-5
Maximum Instr Range:	250
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	4
How Processed:	WEIGHTED AVERAGE OF CONSISTENT DW PRESS
Sensor Location:	SENSING LINES FROM DRYWELL
Alarm/Trip Set Points:	ALARMS LOW=0.1, HIGH=1.5
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	This point consists of either a weighted average of all consistent drywell pressure or an average of in-range drywell pressures if there are less than the required number of consistent singals. Four drywell pressure signals consist of one narrow range (-2 to 3), one wide range (0 to 80) and two accident (-5 to 250) ranges. Weighted averages produces average that is weighted based on instrument accuracy. Drywell internal design pressure is 56 PSIG at 281 Degrees F. At 2 PSIG, RPS initiates Reactor SCRAM and Primary Containment Isolation initiates Group 2 & 3.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	DW TEMP
Point ID:	D23C0310
Plant Spec Point Desc.:	VALIDATED DRYWELL TEMPERATURE
Generic/Cond Desc.:	DRYWELL TEMPERATURE
Analog/Digital	A
Engr Units/Dig States:	DEGF
Engr Units Conversion:	N/A
Minimum Instr Range:	32
Maximum Instr Range:	400
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	16
How Processed:	AVERAGE OF CONSISTENT DW TEMPERAURES
Sensor Location:	16 SENSORS AT 8 DRYWELL LOCATIONS
Alarm/Trip Set Points:	HI=150 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 & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	This point consists of either a weighted average bulk temperature of consistent regional temperatures or an unvalidated, non-weighted average of all in-range drywell temperatures. Regional weighting factors compensate for differences in drywell volume at the various elevations. Each location utilizes two sensors and are located in Drywell at: Elev 932' (East & West), Elev 951'(North & South), Elev 970' (East & West), and Elev 994'(North & South).

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	SP TEMP
Point ID:	D23C0410
Plant Spec Point Desc.:	VALIDATED TORUS TEMPERATURE
Generic/Cond Desc.:	SUPPRESSION POOL TEMPERATURE
Analog/Digital	A
Engr Units/Dig States:	DEGF
Engr Units Conversion:	N/A
Minimum Instr Range:	30
Maximum Instr Range:	230
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	16
How Processed:	AVERAGE OF 2 SPOTMOS (8 SENSORS EACH)
Sensor Location:	2 SENSORS IN EACH OF 8 TORUS SRV BAYS
Alarm/Trip Set Points:	HIGH=90
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR, SPOTMOS INOP
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	VALIDATED TORUS TEMPERATURE is the average of the inputs from two Suppression Pool Temperature Monitoring Systems (SPOTMOS). Each system generates an average of eight sensors. Each sensor is located in one of the eight bays that Safety Relief Valves discharge into.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	SP LEVEL
Point ID:	G43C0015
Plant Spec Point Desc.:	VALIDATED TORUS WATER LEVEL
Generic/Cond Desc.:	SUPPRESSION POOL WATER LEVEL
Analog/Digital	A
Engr Units/Dig States:	INCHES
Engr Units Conversion:	N/A
Minimum Instr Range:	-96
Maximum Instr Range:	180
Zero Point Reference:	N/A
Reference Point Notes:	0"=ELEVATION 910'= 530,000 GALLONS
PROC or SENS:	P
Number of Sensors:	4
How Processed:	WEIGHTED AVERAGE OF CONSISTENT LEVELS
Sensor Location:	LEVEL TAPS OFF TORUS SHELL
Alarm/Trip Set Points:	HIGH=2, LO=-2
NI Detector Power Supply Cut-off Power Level:	N/A
NI Detector Power Supply Turn-on Power Level:	N/A
Instrument Failure Mode:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	This point consists of either a weighted average of all consistent torus water levels or an average of in-range torus water levels if there are less than the required number of consistent signals. Four torus water level signals consist of two narrow range (-15 to 15) and two wide range (-96 to 180). Weighted averages produce an average that is based on instrument accuracy. HPCI suction transfer occurs at 2". Tech Specs level greater than -4" and less than 2.9".

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	H2 CONC
Point ID:	PCT116
Plant Spec Point Desc.:	PCTMT H2 ANALYZER A
Generic/Cond Desc.:	DRYWELL OR TORUS HYDROGEN CONCENTRATION
Analog/Digital	A
Engr Units/Dig States:	%
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	20
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL OUTPUT FROM H2 ANALYZER
Sensor Location:	SAMPLE LINES UPPER DW,TORUS,CGCS IN & OUT
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:	HIGH & LOW SENSOR, SYSTEM OFF
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Analyzers are normally shutdown and values will usually read less than 0.75%. System is capable of analyzing samples from Drywell (elev 994'), Torus and Combustible Gas Control System inlet and outlet. Sample line and sample return valves close on Group 2 Isolation.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	H2 CONC
Point ID:	PCT117
Plant Spec Point Desc.:	PCTMT H2 ANALYZER B
Generic/Cond Desc.:	DRYWELL OR TORUS HYDROGEN CONCENTRATION
Analog/Digital	A
Engr Units/Dig States:	%
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	20
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL OUTPUT FROM H2 ANALYZER
Sensor Location:	SAMPLE LINES UPPER DW,TORUS,CGCS IN & OUT
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:	HIGH & LOW SENSOR, SYSTEM OFF
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Analyzers are normally shutdown and values will usually read less than 0.75%. System is capable of analyzing samples from Drywell (elev 994'), Torus and Combustible Gas Control System inlet and outlet. Sample line and sample return valves close on Group 2 Isolation.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	H2 CONC
Point ID:	PCT118
Plant Spec Point Desc.:	PCTMT O2 ANALYZER A
Generic/Cond Desc.:	DRYWELL OR TORUS HYDROGEN CONCENTRATION
Analog/Digital	A
Engr Units/Dig States:	%
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	25
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL OUTPUT FROM O2 ANALYZER
Sensor Location:	SAMPLE LINES UPPER DW,TORUS,CGCS IN & OUT
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:	HIGH & LOW SENSOR, SYSTEM OFF
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Analyzers are normally shutdown and values will usually read less than 0.75%. System is capable of analyzing samples from Drywell (elev 994'), Torus and Combustible Gas Control System inlet and outlet. Sample line and sample return valves close on Group 2 Isolation. Normal operation concentrations are 2.4%.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	H2 CONC
Point ID:	PCT119
Plant Spec Point Desc.:	PCTMT O2 ANALYZER B
Generic/Cond Desc.:	DRYWELL OR TORUS HYDROGEN CONCENTRATION
Analog/Digital	A
Engr Units/Dig States:	%
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	25
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL OUTPUT FROM O2 ANALYZER
Sensor Location:	SAMPLE LINES UPPER DW,TORUS,CGCS IN & OUT
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:	HIGH & LOW SENSOR, SYSTEM OFF
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Analyzers are normally shutdown and values will usually read less than 0.75%. System is capable of analyzing samples from Drywell (elev 994'), Torus and Combustible Gas Control System inlet and outlet. Sample line and sample return valves close on Group 2 Isolation. Normal operation concentrations are 2.4%.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	CST LEVEL
Point ID:	CST100
Plant Spec Point Desc.:	CST TANK LEVEL A
Generic/Cond Desc.:	CONDENSATE STORAGE TANK LEVEL
Analog/Digital	A
Engr Units/Dig States:	FEET
Engr Units Conversion:	N/A
Minimum Instr Range:	5
Maximum Instr Range:	25
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL FROM LEVEL TRANSMITTER
Sensor Location:	LEVEL TX ON WATER COLUMUN IN RX BLDG
Alarm/Trip Set Points:	HI=24'(226,100gal) LO=11.5'(108,400gal)
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.:	Condensate Storage Tank (CST) Level A is the water level in the A CST. Two CSTs exist with a tank capacity of 230,000 gallons each. Makeup condensate water is provided through 3 electric pumps from the CST tanks to various plant systems. Each tank has suction line for Control Rod Drive, HPCI, Core Spray, RHR, and RCIC systems. At 7'(65,800gal) receive CST Low-Low Level alarm and condensate pumps trip. At 2'(18,800gal) HPCI transfers to Torus suction. Core Spray and RHR are normally lined up to the CSTs.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	CST LEVEL
Point ID:	CST101
Plant Spec Point Desc.:	CST TANK LEVEL B
Generic/Cond Desc.:	CONDENSATE STORAGE TANK LEVEL
Analog/Digital	A
Engr Units/Dig States:	FEET
Engr Units Conversion:	N/A
Minimum Instr Range:	5
Maximum Instr Range:	25
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	S
Number of Sensors:	1
How Processed:	SIGNAL FROM LEVEL TRANSMITTER
Sensor Location:	LEVEL TX ON WATER COLUMUN IN RX BLDG
Alarm/Trip Set Points:	HI=24'(226,100gal) LO=11.5'(108,400gal)
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.:	Condensate Storage Tank (CST) Level B is the water level in the B CST. Two CSTs exist with a tank capacity of 230,000 gallons each. Makeup condensate water is provided through 3 electric pumps from the CST tanks to various plant systems. Each tank has suction line for Control Rod Drive, HPCI, Core Spray, RHR, and RCIC systems. At 7'(65,800gal) receive CST Low-Low Level alarm and condensate pumps trip. At 2'(18,800gal) HPCI transfers to Torus suction.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	WIND SPEED
Point ID:	MET102
Plant Spec Point Desc.:	PRIMARY MET TOWER 43M AVG WIND SPEED A
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:	100.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 43 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	WIND SPEED
Point ID:	MET103
Plant Spec Point Desc.:	PRIMARY MET TOWER 43M AVG WIND SPEED B
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:	100.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 43 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	WIND SPEED
Point ID:	MET104
Plant Spec Point Desc.:	PRIMARY MET TOWER 100M AVG WIND SPEED A
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:	100.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 100 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	WIND SPEED
Point ID:	MET105
Plant Spec Point Desc.:	PRIMARY MET TOWER 100M AVG WIND SPEED B
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:	100.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 100 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	WIND DIR
Point ID:	MET106
Plant Spec Point Desc.:	PRIMARY MET TOWER 43M AVG WIND DIRECT A
Generic/Cond Desc.:	WIND DIRECTION AT THE REACTOR SITE
Analog/Digital	A
Engr Units/Dig States:	DEGFR
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	540.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 43 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	WIND DIR
Point ID:	MET107
Plant Spec Point Desc.:	PRIMARY MET TOWER 43M AVG WIND DIRECT B
Generic/Cond Desc.:	WIND DIRECTION AT THE REACTOR SITE
Analog/Digital	A
Engr Units/Dig States:	DEGFR
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	540.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 43 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	WIND DIR
Point ID:	MET108
Plant Spec Point Desc.:	PRIMARY MET TOWER 100M AVG WIND DIRECT A
Generic/Cond Desc.:	WIND DIRECTION AT THE REACTOR SITE
Analog/Digital	A
Engr Units/Dig States:	DEGFR
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	540.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 100 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	WIND DIR
Point ID:	MET109
Plant Spec Point Desc.:	PRIMARY MET TOWER 100M AVG WIND DIRECT B
Generic/Cond Desc.:	WIND DIRECTION AT THE REACTOR SITE
Analog/Digital	A
Engr Units/Dig States:	DEGFR
Engr Units Conversion:	N/A
Minimum Instr Range:	0
Maximum Instr Range:	540.00
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	P
Number of Sensors:	1
How Processed:	15 MINUTE AVERAGE OF 5 SECOND VALUES
Sensor Location:	PRIMARY MET TOWER AT 100 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	STAB CLASS
PointID:	MET110
Plant Spec Point Desc.:	PRIMARY MET TOWER 43M AVG DELTA TEMP A
Generic/Cond Desc.:	AIR STABILITY AT THE REACTOR SITE
Analog/Digital:	A
Engr Units/Dig States:	DEGF
Engr Units Conversion:	N/A
Minimum Instr Range:	-9.0
Maximum Instr Range:	9.0
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	PROC
Number of Sensors:	2
How Processed:	AVERAGED DIFFERENTIAL
Sensor Location:	PRIMARY MET AT 10 & 43 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average. This value represents the difference in temperature in degF/100ft.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	STAB CLASS
PointID:	MET111
Plant Spec Point Desc.:	PRIMARY MET TOWER 43M AVG DELTA TEMP B
Generic/Cond Desc.:	AIR STABILITY AT THE REACTOR SITE
Analog/Digital:	A
Engr Units/Dig States:	DEGF
Engr Units Conversion:	N/A
Minimum Instr Range:	-9.0
Maximum Instr Range:	9.0
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	PROC
Number of Sensors:	2
How Processed:	AVERAGED DIFFERENTIAL
Sensor Location:	PRIMARY MET AT 10 & 43 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average. This value represents the difference in temperature in degF/100ft.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	M01
Data Feeder:	PCS
NRC ERDS Parameter:	STAB CLASS
PointID:	MET112
Plant Spec Point Desc.:	PRIMARY MET TOWER 100M AVG DELTA TEMP A
Generic/Cond Desc.:	AIR STABILITY AT THE REACTOR SITE
Analog/Digital:	A
Engr Units/Dig States:	DEGF
Engr Units Conversion:	N/A
Minimum Instr Range:	-9.0
Maximum Instr Range:	9.0
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	PROC
Number of Sensors:	2
How Processed:	AVERAGED DIFFERENTIAL
Sensor Location:	PRIMARY MET AT 10 & 100 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average. This value represents the difference in temperature in degF/100ft.

DATA POINT LIBRARY REFERENCE FILE

Date:	01/07/92
Reactor Unit:	MO1
Data Feeder:	PCS
NRC ERDS Parameter:	STAB CLASS
PointID:	MET113
Plant Spec Point Desc.:	PRIMARY MET TOWER 100M AVG DELTA TEMP B
Generic/Cond Desc.:	AIR STABILITY AT THE REACTOR SITE
Analog/Digital:	A
Engr Units/Dig States:	DEGF
Engr Units Conversion:	N/A
Minimum Instr Range:	-9.0
Maximum Instr Range:	9.0
Zero Point Reference:	N/A
Reference Point Notes:	N/A
PROC or SENS:	PROC
Number of Sensors:	2
How Processed:	AVERAGED DIFFERENTIAL
Sensor Location:	PRIMARY MET AT 10 & 100 METER HEIGHT
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:	HIGH & LOW SENSOR
Temperature Compensation For DP Transmitters:	N/A
Level Reference Leg:	N/A
Unique System Desc.:	Data is collected every five seconds, averaged every 15 minutes, and stored in data files as 15-minute average. This value represents the difference in temperature in degF/100ft.

I. Contacts

Note: Please provide name, title, mailing address and phone number.

A. **Survey Coordinator (i.e. contact for later clarification of questionnaire answers):**

Russell E. Van Dell
Superintendent, Computer Services
Northern States Power Company
Monticello Nuclear Generating Plant
2807 W. Highway 75
Monticello, MN 55362
(612) 295-1326

B. **Computer Hardware Specialist(s):**

Joe Jirsa
Engineer Associate III
Northern States Power Company
Monticello Nuclear Generating Plant
2807 W. Highway 75
Monticello, MN 55362
(612) 295-1388

C. **Systems Software Specialist(s):**

Joe Sofge
Sr. Comp. Engr.
Northern States Power Company
Monticello Nuclear Generating Plant
2807 W. Highway 75
Monticello, MN 55362
(612) 295-1289

D. **Application-level Software Specialist(s):**

Joe Sofge
Sr. Comp. Engr.
Northern States Power Company
Monticello Nuclear Generating Plant
2807 W. Highway 75
Monticello, MN 55362
(612) 295-1289

E. **Telephone Systems Specialist(s):**

David Seestrom
Instrument Engineer
Northern States Power Company
Monticello Nuclear Generating Plant
2807 W. Highway 75
Monticello, MN 55362
(612) 295-1376

III. Selection of Data Feeders

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

One - Process Computer System

B. Identify the selected data feeders and provide the following for each:

(1) a short description of the categories of data points it will provide (e.g., met. rad. or plant data points, by unit) and

(2) the rationale for selecting it if another system can also provide its categories of data points.

(1) It is planned to provide both plant data points and meteorological information through the single feeder.

(2) No other system is capable of providing requested information.

C. Which data feeder is the site time determining feeder? This should be the feeder which is providing the majority of the data points.

IV. Data Feeder Information

Note: A new Section IV must be filled out for each feeder system selected.

General Questions

1. Identification of Data Feeder

   a. What is the name in local parlance given to this data feeder (e.g., Emergency Response Information System)? Please give both the acronym and the words forming it.

      PCS - Process Computer System

   b. Is this the site time determining feeder?

      Yes

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

      60 Seconds

2. Hardware/Software Environment

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

      Digital Equipment Corporation VAX-8550

   b. Identify the operating system.

      VAX VMS 4.7

   c. What method of timekeeping is implemented on this feeder system (Daylight Savings, Standard, Greenwich)?

      Daylight Savings

   d. In what time zone is this feeder located?

      Central Standard Time Zone

3. Data Communication Details

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

Yes

b. Will this feeder transmit in ASCII or EBCDIC?

ASCII

c. Can this feeder transmit at a serial baud rate of 2400 bps? If not, at what baud rate can it transmit?

Yes, 2400 bps can be used.

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

Yes

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

No, however the use of SUSPEND and RESUME to control the transmission of data works better as demonstrated in testing with Haliburton/NUS.

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

Note Applicable.

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

Yes

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

Not Applicable.

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

Port will be dedicated for ERDS.

4. Data Feeder Physical Environment and Management

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

Computer Room located in Plant Administrative Building adjacent to Plant Control Room.

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

Yes, PCS is provided with UPS (batteries with inverter and diesel generator).

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

Yes

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

It is planned to have the Shift Emergency Communicator (SEC) initiate the ERDS System per Emergency Implementing Procedures. An SEC is on duty 24 hours/day.

TO BE MAILED

TO LYNN

File _DUA0:[KLS]SYSA.OUT;1 (2005,8,0), last revised on 17-JUL-1992 12:24, is a 47 block sequential file owned by UIC [NRC,RCA].
The records are variable length with implied (CR) carriage control. The longest record is 158 bytes.

Job SYSA (382) queued to SYS$PRINT on 17-JUL-1992 12:25 by user KLS, UIC [NRC,KLS], under account ERDS at priority 100, started on printer _TXD2: on 17-JUL-1992 12:25 from queue TXD2.

Digital Equipment Corporation - VAX/VMS Version V5.0-1

Parameter Name	Current	Default	Minimum	Maximum	Unit	Dynamic
PFCDEFAULT	64	32	0	127	[illegible]	D
KFILSTCNT	16	4	2	255	[illegible]	
GBLSECTIONS	220	250	20	4095	Sections	
GBLPAGES	13100	10000	512	-1	Pages	
GBLPAGFIL	1024	1024	128	-1	Pages	
MAXPROCESSCNT	110	32	12	8192	Processes	
SMP_CPUS	-1	-1	0	-1	CPU bitmask	
MULTIPROCESSING	3	3	0	3	Coded-value	
SMP_SANITY_CNT	300	300	1	-1	10ms.	
SMP_SPINWAIT	100000	100000	1	8388607	10 usec.	
SMP_LNGSPINWAIT	3000000	3000000	1	8388607	10 usec.	
PROCSECTCNT	32	32	5	1024	Sections	
MINWSCNT	20	20	10	-1	Pages	
PAGFILCNT	2	2	1	63	Files	
SWPFILCNT	2	2	0	63	Files	
SYSMWCNT	971	500	40	16384	Pages	
INTSTKPAGES	4	4	1	-1	Pages	
BALSETCNT	90	16	4	1024	Slots	
IRPCOUNT	794	60	0	32768	Packets	
IRPCOUNTV	1764	250	0	32768	Packets	
WSMAX	8200	1024	60	100000	Pages	
NPAGEDYN	480768	300032	16384	-1	Bytes	
NPAGEVIR	994304	1000000	16384	-1	Bytes	
PAGEDYN	510976	190000	10240	-1	Bytes	
VIRTUALPAGECNT	40768	8192	512	600000	Pages	
SPTREQ	2100	2500	-1	-1	Pages	
LRPCOUNT	12	4	0	4096	Packets	
LRPCOUNTV	60	20	0	4096	Packets	
LRPSIZE	1504	1504	256	16384	Bytes	
SRPCOUNT	1111	120	0	131072	Packets	
SRPCOUNTV	2468	250	0	131072	Packets	
QUANTUM	20	20	2	32767	10Ms	D
MPW_WRTCLUSTER	96	96	16	120	Pages	
MPW_HILIMIT	1310	500	0	16384	Pages	
MPW_LOLIMIT	120	32	0	16384	Pages	
MPW_IOLIMIT	4	4	1	127	I/O	
MPW_THRESH	200	200	0	16384		D
MPW_WAITLIMIT	1406	596	0	16384		D
MPW_LOWAITLIMIT	1214	404	0	16384		D
PFRATH	0	0	0	-1	Flts/10Sec	D
PFRATL	120	120	0	-1	Flts/10Sec	D
WSINC	150	150	0	-1	Pages	D
WSDEC	250	250	0	-1	Pages	D
ADJWSLIM	50	50	0	-1	Pages	D
AWSTIME	20	20	1	-1	10Ms	D
[illegible]CNT	288	288	0	-1	Pages	D
LOCKRETRY	30	30	0	65535	Seconds	D
DORMANT_WAIT	2	2	0	65535	Seconds	D
ERRORLOGBUFFERS	4	4	2	64	Pages	
DUMPSTYLE	0	0	0	-1	Bitmask	
USER1	0	0	0	-1		D
USER2	0	0	0	-1		D
USER3	0	0	0	-1		
USER4	0	0	0	-1		
EXTRACPU	1000	1000	0	-1	10Ms	D
MAXSYSGROUP	8	8	1	32768	UIC Group	D

MAXBUF	8192	2048	1700	64000	Bytes	D
DEFMBXBUFQ[redacted]	1056	1056	256	64000	B[redacted]	D
DEFMBXMXMS[redacted]	256	256	64	64000	[redacted]	D
FREELIM	110	32	16	-1	Pa[redacted]	
FREEGOAL	330	200	16	-1	Pages	
GROWLIM	329	63	0	-1	Pages	D
BORROWLIM	412	300	0	-1	Pages	D
KE[redacted]ROTE	236	236	0	255	Special	D
[redacted]	0	0	0	255	Napregs	
[redacted]PORTS	0	0	0	-1	Pages	
CLI[redacted]	250	250	10	500	Pages	D
LOCKIDTBL	550	200	40	65535	Entries	
LOCKIDTBL_MAX	65535	65535	200	65535	Entries	D
RESHASHTBL	512	64	1	8192	Entries	
DE[redacted]_WAIT	10	10	0	-1	Seconds	D
SC[redacted]_CNT	50	50	0	32767	Entries	
SCSCONNCNT	4	40	2	32767	Entries	
SCSRESPCNT	300	300	0	32767	Entries	
SCSMAXDG	576	576	28	985	Bytes	
SCSMAXMSG	112	112	52	985	Bytes	
SC[redacted]CUSH	1	1	0	16	Credits	D
SC[redacted]SYSID	65534	0	-1	-1	Pure-number	
SC[redacted]SYSIDH	0	0	-1	-1	Pure-number	
SCSNODE	" "	" "	" "	"ZZZZ"	Ascii	
PRCPOLINTERVAL	30	30	1	32767	Seconds	D
PASTIMOUT	5	5	1	99	Seconds	D
PA[redacted]BUF	4	4	1	16	Buffers	
PA[redacted]POLL	16	16	1	223	Ports	D
PA[redacted]PORT	15	15	0	223	Port-number	D
PAPOLLINTERVAL	5	5	1	32767	Seconds	D
PAPOOLINTERVAL	15	15	1	32767	Seconds	D
PASANITY	1	1	0	1	Boolean	D
PA[redacted]POLL	0	0	0	1	Boolean	D
TI[redacted]PTWAIT	65535	-1	0	-1	uFortnights	
UDA[redacted]RATE	0	0	0	31	Longwords	
LNMSHASHTBL	128	128	1	16383	Entries	
LNMPHASHTBL	128	128	1	16383	Entries	
BUGREBOOT	1	1	0	1	Boolean	D
CA[redacted]ABLE	1	1	0	1	Boolean	
DU[redacted]	1	1	0	1	Boolean	
BU[redacted]FATAL	0	0	0	1	Boolean	D
ACP_MULTIPLE	0	0	0	1	Boolean	D
SETTIME	0	0	0	1	Boolean	
ACP_SHARE	1	1	0	1	Boolean	
UAFALTERNATE	0	0	0	1	Boolean	
SAVEDUMP	0	0	0	1	Boolean	
CLASS_PROT	0	0	0	1	Boolean	D
LGI_BRK_TERM	1	1	0	1	Boolean	D
LGI_BRK_DISUSER	0	0	0	1	Boolean	D
SHADOWING	0	0	0	1	Boolean	
MOUNTMSG	0	0	0	1	Boolean	D
DISMOUNSG	0	0	0	1	Boolean	D
TTY_SCANDELTA	10000000	10000000	100000	-1	100Ns	
TTY_DIALTYPE	0	0	0	255	Bit-Encoded	
TTY_SPEED	15	15	1	16	Special	
TTY_RSPEED	0	0	0	16	Special	
TTY_PARITY	24	24	0	255	Special	
TTY_BUF	80	80	0	65535	Characters	

TTY_TYPAHDSZ	78	78	0	-1	Bytes	
TTY_ALTYPA	200	200	0	32767	B	
TTY_ALTALA	64	64	0	-1	B	
TTY_RMASIZ	64	64	0	-1	By	D
TTY_PROT	65520	65520	0	-1	Protection	
TTY_OWNER	65540	65540	0	-1	UIC	
TTY_CLASSNAME	"TT"	"TT"	"AA"	"ZZ"	Ascii	
TTY_SILOTIME	8	8	0	255	Ms	
TTY_TIMEOUT	900	900	0	-1	Seconds	D
TTY_AUTOCHAR	7	7	0	255	Character	D
RMS_DFMBC	16	16	1	127	Blocks	D
RMS_DFMBFSDK	0	0	0	127	Blocks	D
RMS_DFMBFSMT	0	0	0	127	Blocks	D
RMS_DFMBFSUR	0	0	0	127	Buffers	D
RMS_DFMBFREL	0	0	0	127	Buffers	D
RMS_DFMBFIDX	0	0	0	127	Buffers	D
RMS_DFMBFHSH	0	0	0	127	Buffers	D
RMS_PROLOGUE	0	0	0	3	Prolog-Lvl	D
RMS_EXTEND_SIZE	0	0	0	65535	Blocks	D
RMS_FILEPROT	64000	64000	0	65535	Prot-mask	
RMS_GBLBUFQUO	1024	1024	0	32767	Gbl bufs	D
RMS_DFNBC	8	8	1	127	Blocks	D
PQL_DASTLM	24	24	-1	-1	Ast	D
PQL_MASTLM	4	4	-1	-1	Ast	D
PQL_DIOLM	50	18	-1	-1	I/O	D
PQL_MDIOLM	4	4	-1	-1	I/O	D
PQL_DBYTLM	40960	8192	-1	-1	Bytes	D
PQL_MBYTLM	1024	1024	-1	-1	Bytes	D
PQL_DCPULM	0	0	-1	-1	10Ms	D
PQL_MCPULM	0	0	-1	-1	10Ms	D
PQL_DDIOLM	50	18	-1	-1	I/O	D
PQL_MDIOLM	4	4	-1	-1	I/O	D
PQL_DFILLM	16	16	-1	-1	Files	D
PQL_MFILLM	2	2	-1	-1	Files	D
PQL_DPGFLQUOTA	8192	8192	-1	-1	Pages	D
PQL_MPGFLQUOTA	512	512	-1	-1	Pages	D
PQL_DPRCLM	12	8	-1	-1	Processes	D
PQL_MPRCLM	0	0	-1	-1	Processes	D
PQL_DTQELM	32	8	-1	-1	Timers	D
PQL_MTQELM	0	0	-1	-1	Timers	D
PQL_DWSDEFAULT	170	100	-1	-1	Pages	
PQL_DWSEFAULT	170	60	-1	-1	Pages	
PQL_DWSQUOTA	340	200	-1	-1	Pages	D
PQL_MWSQUOTA	340	60	-1	-1	Pages	D
PQL_DWSEXTENT	340	400	-1	-1	Pages	D
PQL_MWSEXTENT	340	60	-1	-1	Pages	D
PQL_DENQLM	30	30	-1	-1	Locks	D
PQL_MENQLM	4	4	-1	-1	Locks	D
PQL_DJOBQUOTA	1024	1024	-1	-1	Bytes	D
PQL_MJOBQUOTA	0	0	-1	-1	Bytes	D
ACP_MAPCACHE	8	8	1	-1	Pages	D
ACP_HDRCACHE	210	32	3	-1	Pages	D
ACP_DIRCACHE	210	20	2	-1	Pages	D
ACP_FIDXCACHE	52	25	2	-1	Pages	D
ACP_WORKSET	0	0	0	-1	Pages	D
ACP_FIDCACHE	64	64	0	-1	File-Ids	D
ACP_EXTCACHE	64	64	0	-1	Extents	D
ACP_EXTLIMIT	100	100	0	1000	Percent/10	D

ACP_MAXREAD	32	32	1	64	Blocks	D
ACP_WINDOW	7	7	1	-1	Buffers	D
ACP_WRITEB	1	1	0	1	Boolean	D
ACP_DATACH	2	2	0	3	Bit-mask	D
ACP_BASEPRIO	8	8	4	31	Priority	D
ACP_SWAPFLGS	14	15	0	15	Bit-mask	D
ACP_XQP_RES	1	1	0	1	Boolean	
ACP_REBLDSYSD	1	1	0	1	Boolean	
DEFPRI	4	4	1	31	Priority	D
IJOBLIM	64	64	1	1024	Jobs	D
BJOBLIM	16	16	0	1024	Jobs	D
NJOBLIM	16	16	0	1024	Jobs	D
RJOBLIM	16	16	2	254	Jobs	D
DEFQUEPRI	100	100	0	255	Priority	D
MAXQUEPRI	100	100	0	255	Priority	D
LGI_PWD_TMO	30	30	0	255	Seconds	D
LGI_RETRY_LIM	3	3	0	255	Tries	D
LGI_RETRY_TMO	20	20	0	255	Seconds	D
LGI_BRK_LIM	5	5	0	255	Failures	D
LGI_BRK_TMO	300	300	0	-1	Seconds	D
LGI_HID_TIM	300	300	0	-1	Seconds	D
VAXCLUSTER	0	1	0	2	Coded-value	
EXPECTED_VOTES	1	1	1	127	Votes	
VOTES	1	1	0	127	Votes	
RECNXINTERVAL	20	20	1	32767	Seconds	D
DISK_QUORUM	"	"	"	"ZZZZ"	Ascii	
QDSKVOTES	1	1	0	127	Votes	
QDSKINTERVAL	10	10	1	32767	Seconds	
ALLOCLASS	0	0	0	255	Pure-number	
LOCKDIRWT	1	0	0	255	Pure-number	
NISCS_CONV_BOOT	0	0	0	1	Boolean	
NISCS_LOAD_PEA0	0	0	0	1	Boolean	
NISCS_PORT_SERV	0	0	0	3	Bit-encoded	
MSCP_LOAD	0	0	0	1	Boolean	
MSCP_SERVE_ALL	0	0	0	2	Coded-value	
MSCP_BUFFER	128	128	16	-1	Coded-value	
MSCP_CREDITS	4	4	2	8	Coded-value	
TAILORED	0	0	0	1	Boolean	
WS_OPA0	0	0	0	1	Boolean	D
STARTUP_P1	"	"	"	"zzzz"	Ascii	
STARTUP_P2	"	"	"	"zzzz"	Ascii	
STARTUP_P3	"	"	"	"zzzz"	Ascii	
STARTUP_P4	"	"	"	"zzzz"	Ascii	
STARTUP_P5	"	"	"	"zzzz"	Ascii	
STARTUP_P6	"	"	"	"zzzz"	Ascii	
STARTUP_P7	"	"	"	"zzzz"	Ascii	
STARTUP_P8	"	"	"	"zzzz"	Ascii	
WINDOW_SYSTEM	0	0	0	2	Pure-number	D

Parameters in use: Active

Parameter Name	Current	Default	Minimum	Maximum	Unit	Dynamic
PAGTBLPFC	2	2	0	127	Pages	D
SYSPFC	1	1	0	127	Pages	
PIXSCAN	10	1	0	8192	Processes	D
SMP_CPUSH	0	0	0	-1	CPU bitmask	
SMP_TICK_CNT	30	30	1	-1	10ms.	
DLCKEXTRASTK	512	512	256	-1	Bytes	

SRPSIZE	96	96	96	144	Bytes	
SRPMIN	32	32	0	144	B[illegible]	
CHANNELCNT	127	127	31	2047	[illegible]els	
PIOPAGES	245	245	10	-1	P[illegible]	
CTLPAGES	50	50	10	-1	Pages	
CTLIMGLIM	35	35	0	-1	Pages	
IMGIOCNT	64	64	32	-1	Pages	D
MPW_PRIO	4	4	0	31		D
SWP_PRIO	4	4	0	31		D
TBSKIPWSL	8	8	0	512	Pages	D
PHYSICALPAGES	1047552	1047552	2048	1047552	Pages	
PFRATS	0	0	0	-1	Flts/10Sec	D
SWPRATE	500	500	0	-1	10Ms/Swap	D
SWPALLOCINC	96	96	16	-1	Blocks	
IOTA	2	2	0	32767	10Ms	D
SWPFAIL	20	20	0	32767		D
VMSD1	0	0	0	-1		D
VMSD2	0	0	0	-1		D
VMSD33	0	0	0	-1		D
VMSD[illegible]	0	0	0	-1		D
VMS5	0	0	0	-1		
VMS6	0	0	0	-1		
VMS7	0	0	0	-1		
VMS8	0	0	0	-1		
JOBCNT	0	0	0	-1		D
AUTOGENS	0	0	0	-1		D
WPITE_SIZE	1000	1000	0	-1	Entries	D
WPGE_SIZE	5	5	0	-1	Pages	D
QBUS_MULTI_INTR	0	0	0	1	Boolean	
LOCKRETRY	100000	100000	1	-1	Retries	D
PE1	0	0	0	-1		D
PE2	0	0	0	-1		D
PE3	0	0	0	-1		D
PE4	0	0	0	-1		D
PE5	0	0	0	-1		
PE6	0	0	0	-1		
CLOCK_INTERVAL	10000	10000	500	10000	us	
NOAUTOCONFIG	0	0	0	1	Boolean	D
TIME_CONTROL	0	0	0	-1	Bit-mask	D
BREAKPOINTS	3	3	0	-1	Bitmask	
NOCLUSTER	0	0	0	1	Boolean	
POOLCACHING	1	1	0	1	Boolean	
SHELFENABLE	1	1	0	1	Boolean	
WRITABLESYS	0	0	0	1	Boolean	
RELALLOC	0	0	0	1	Boolean	
SEIMGBIT	0	0	0	1	Boolean	
CONCEALDEVICES	1	1	0	1	Boolean	
WRITESYSPARAMS	0	1	0	1	Boolean	D
[illegible]	0	0	0	1	Boolean	D
[illegible]_IMAGES	1	1	0	1	Boolean	
TBS_SUPPORT	0	0	0	-1	Bit-Encoded	
SO[illegible]ING	0	0	0	-1	Bit-mask	
POOLCHECK	0	0	0	-1	Bit-encoded	D
PQ[illegible]DA	0	0	0	-1	Pages	
SE[illegible]FLAGS	0	0	0	-1	Bit-mask	D
MSCP_SERVE_PRI	1	1	0	15	Priority	D
TMSCP_SERVE_PRI	7	7	0	15	Priority	D
MEMPRFAIL	7	7	0	15	Priority	D

TO BE MAILED
TO LYNN

```
AAAAAAAAAA   000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000   AAAAAAAAA

                         K    K  L          SSSS
                         K   K   L         S
                         K  K    L         S
                         KKK     L          SSS
                         K  K    L             S
                         K   K   L             S
                         K    K  LLLLL     SSSS

                    SSSSSSSS  YY        YY    SSSSSSSS
                    SSSSSSSS  YY        YY    SSSSSSSS
                  SS          YY        YY  SS
                  SS          YY        YY  SS
                  SS            YY    YY    SS
                  SS            YY    YY    SS
                    SSSSSS        YY          SSSSSS
                    SSSSSS        YY          SSSSSS
                          SS      YY                SS
                          SS      YY                SS
                          SS      YY                SS
                          SS      YY                SS
                  SSSSSSSS        YY        SSSSSSSS
                  SSSSSSSS        YY        SSSSSSSS

              000000      UU        UU  TTTTTTTTTT        ;;;;         11
              000000      UU        UU  TTTTTTTTTT        ;;;;         11
            00      00    UU        UU      TT            ;;;;       1111
            00      00    UU        UU      TT            ;;;;       1111
            00      00    UU        UU      TT                         11
            00      00    UU        UU      TT                         11
            00      00    UU        UU      TT            ;;;;         11
            00      00    UU        UU      TT            ;;;;         11
            00      00    UU        UU      TT            ;;;;         11
            00      00    UU        UU      TT            ;;;;         11
      ....  00      00    UU        UU      TT              ;;         11
      ....  00      00    UU        UU      TT              ;;         11
      ....    000000      UUUUUUUUUU        TT            ;;         111111
      ....    000000      UUUUUUUUUU        TT            ;;         111111
```

[illegible]D$:[KLS]SYS.OUT;1 (1938,504,0), last revised on 17-JUL-1992 12:20, is a 47 block sequential file owned by UIC [illegible].
The [illegible] are variable length with implied (CR) carriage control. The longest record is 152 bytes.

Job [illegible] (381) queued to SYS$PRINT on 17-JUL-1992 12:21 by user KLS, UIC [NRC,KLS], under account ERDS at priority 100, started on printer _TXD2: on 17-JUL-1992 12:21 from queue TXD2.

```
AAAAAAAAAA   000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000   AAAAAAAAA
AAAAAAAAAA   00000000000000000000000   Digital Equipment Corporation - VAX/VMS Version V5.0-1   00000000000000000000000   AAAAAAAAA
AAAAAAAAAA   000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000   AAAAAAAAA
```

Parameter Name	Current	Default	Minimum	Maximum	UCOR	Dynamic
[illegible]	64	32	0	127		D
[illegible]	16	4	2	255	S [illegible]s	
[illegible]	240	250	20	4095	Sections	
[illegible]	12288	10000	512	-1	Pages	
[illegible]	1024	1024	128	-1	Pages	
MAXPROCESSCNT	130	32	12	8192	Processes	
[illegible]	-1	-1	0	-1	CPU bitmask	
[illegible]PROCESSING	3	3	0	3	Coded-value	
[illegible]_QUANTUM_CNT	300	300	1	-1	10ms.	
[illegible]_[illegible]WAIT	100000	100000	1	8388607	10 usec.	
SMP_LNGSPINWAIT	3000000	3000000	1	8388607	10 usec.	
PROCSECTCNT	32	32	5	1024	Sections	
MINWSCNT	20	20	10	-1	Pages	
PAGFILCNT	2	2	1	63	Files	
SWPFILCNT	2	2	0	63	Files	
SYSMWCNT	948	500	40	16384	Pages	
INTSTKPAGES	4	4	1	-1	Pages	
BALSETCNT	105	16	4	1024	Slots	
IRPCOUNT	882	60	0	32768	Packets	
IRPCOUNTV	3528	250	0	32768	Packets	
[illegible]	8200	1024	60	100000	Pages	
[illegible]	432640	300032	16384	-1	Bytes	
[illegible]	1298944	1000000	16384	-1	Bytes	
PAGEDYN	510976	190000	10240	-1	Bytes	
VIRTUALPAGECNT	40768	8192	512	600000	Pages	
[illegible]	2100	2500	-1	-1	Pages	
[illegible]	20	4	0	4096	Packets	
[illegible]	60	20	0	4096	Packets	
[illegible]	1504	1504	256	16384	Bytes	
SRPCOUNT	1234	120	0	131072	Packets	
SRPCOUNTV	4936	250	0	131072	Packets	
QUANTUM	20	20	2	32767	10Ms	D
MPW_[illegible]CLUSTER	96	96	16	120	Pages	
MPW_[illegible]LIMIT	1310	500	0	16384	Pages	
MPW_LOLIMIT	120	32	0	16384	Pages	
MPW_IOLIMIT	4	4	1	127	I/O	
MPW_THRESH	200	200	0	16384		D
MPW_WAITLIMIT	1406	596	0	16384		D
MPW_LOWAITLIMIT	1214	404	0	16384		D
PFRATL	0	0	0	-1	Flts/10Sec	D
PFRATH	120	120	0	-1	Flts/10Sec	D
WSINC	150	150	0	-1	Pages	D
WSDEC	250	250	0	-1	Pages	D
AWSMIN	50	50	0	-1	Pages	D
AWSTIME	20	20	1	-1	10Ms	D
SWPOUTPGCNT	288	288	0	-1	Pages	D
LONGWAIT	30	30	0	65535	Seconds	D
DORMANTWAIT	2	2	0	65535	Seconds	D
ERRORLOGBUFFERS	4	4	2	64	Pages	
DUMPSTYLE	0	0	0	-1	Bitmask	
USERD1	0	0	0	-1		D
USERD2	0	0	0	-1		D
USER3	0	0	0	-1		
USER4	0	0	0	-1		
EXTRACPU	1000	1000	0	-1	10Ms	D
MAXSYSGROUP	8	[illegible]	1	32768	UIC Group	D

MAXBUF	8192	2048	1703	64000	Bytes	
DEFMBXBUFQ	1056	1056	256	64000	[illegible]	D
DEFMBXMXMS	256	256	64	64000	[illegible]	D
FREELIM	125	32	16	-1	Pages	
FREEGOAL	375	200	16	-1	Pages	
GROWLIM	374	63	0	-1	Pages	D
BORROWLIM	468	300	0	-1	Pages	D
XFMAXRATE	236	236	0	255	Special	D
LAMAPREGS	0	0	0	255	Mapregs	
REALTIME_SPTS	0	0	0	-1	Pages	
CLISYMTBL	250	250	10	500	Pages	D
LOCKIDTBL	650	200	40	65535	Entries	
LOCKIDTBL_MAX	65535	65535	200	65535	Entries	D
RESHASHTBL	512	64	1	8192	Entries	
DEADLOCK_WAIT	10	10	0	-1	Seconds	D
SCSBUFFCNT	50	50	0	32767	Entries	
SCSCONNCNT	4	40	2	32767	Entries	
SCSRESPCNT	300	300	0	32767	Entries	
SCSMAXDG	576	576	28	985	Bytes	
SCSMAXMSG	112	112	52	985	Bytes	
SCSFLOWCUSH	1	1	0	16	Credits	D
SCSSYSTEMID	65534	0	-1	-1	Pure-number	
SCSSYSTEMIDH	0	0	-1	-1	Pure-number	
SCSNODE	" "	" "	" "	"ZZZZ"	Ascii	
PRCPOLINTERVAL	30	30	1	32767	Seconds	D
PAGEFAULT	5	5	1	99	Seconds	D
PAMAXBUF	4	4	1	16	Buffers	
PAMAXPORT	16	16	1	223	Ports	D
PAMINPORT	15	15	0	223	Port-number	D
PAPOLINTERVAL	5	5	1	32767	Seconds	D
PASWPINTERVAL	15	15	1	32767	Seconds	D
PAWAIT	1	1	0	1	Boolean	D
PANOPOLL	0	0	0	1	Boolean	D
TIMEPROMPTWAIT	65535	-1	0	-1	uFortnights	
UDABURSTRATE	0	0	0	31	Longwords	
LNMSHASHTBL	128	128	1	16383	Entries	
LNMPHASHTBL	128	128	1	16383	Entries	
BUGREBOOT	1	1	0	1	Boolean	D
CBF_BALANCE	1	1	0	1	Boolean	
DUMPBUG	1	1	0	1	Boolean	
BUGCHECKFATAL	0	0	0	1	Boolean	D
ACP_MULTIPLE	0	0	0	1	Boolean	D
SHELL	0	0	0	1	Boolean	
ACP_SHARE	1	1	0	1	Boolean	
UAFALTERNATE	0	0	0	1	Boolean	
SAVEDUMP	0	0	0	1	Boolean	
CLUSTER_AUTOGEN	0	0	0	1	Boolean	D
LGI_BRK_TERM	1	1	0	1	Boolean	D
LGI_BRK_DISUSER	0	0	0	1	Boolean	D
SHADOWING	0	0	0	1	Boolean	
MOUNTMSG	0	0	0	1	Boolean	D
DEFQUOTA	0	0	0	1	Boolean	D
TTY_SCANDELTA	10000000	10000000	100000	-1	100Ns	
TTY_DIALTYPE	1	0	0	255	Bit-Encoded	
TTY_SPEED	15	15	1	16	Special	
TTY_PARITY	0	0	0	16	Special	
TTY_LENGTH	24	24	0	255	Special	
TTY_DEFCHAR	80	80	0	65535	Characters	

TTY_TYPAHDSZ	78	78	0	-1	Bytes	
TTY_ALTYPA	200	200	0	32767		
TTY_ALTALA	64	64	0	-1		
TTY_DMABUFSZ	64	64	0	-1		D
TTY_PROT	65520	65520	0	-1	Protection	
TTY_OWNER	65540	65540	0	-1	UIC	
TTY_CLASSNAME	"TT"	"TT"	"AA"	"ZZ"	Ascii	
TTY_SILOTIME	8	8	0	255	Ms	
TTY_TIMEOUT	900	900	0	-1	Seconds	D
TTY_AUTODNAR	7	7	0	255	Character	D
RMS_DFMBC	16	16	1	127	Blocks	D
RMS_DFMBFSDK	0	0	0	127	Blocks	D
RMS_DFMBFSMT	0	0	0	127	Blocks	D
RMS_DFMBFSUR	0	0	0	127	Buffers	D
RMS_DFMBFREL	0	0	0	127	Buffers	D
RMS_DFMBFIDX	0	0	0	127	Buffers	D
RMS_DFMBFHSH	0	0	0	127	Buffers	D
RMS_PROLOGUE	0	0	0	3	Prolog-Lvl	D
RMS_EXTEND_SIZE	0	0	0	65535	Blocks	D
RMS_FILEPROT	64000	64000	0	65535	Prot-mask	
RMS_GBLBUFQUO	1024	1024	0	32767	Gbl bufs	D
RMS_DFNBC	8	8	1	127	Blocks	D
PQL_DASTLM	24	24	-1	-1	Ast	D
PQL_MASTLM	4	4	-1	-1	Ast	D
PQL_DBIOLM	50	18	-1	-1	I/O	D
PQL_MBIOLM	4	4	-1	-1	I/O	D
PQL_DBYTLM	40960	8192	-1	-1	Bytes	D
PQL_MBYTLM	1024	1024	-1	-1	Bytes	
PQL_DCPULM	0	0	-1	-1	10Ms	
PQL_MCPULM	0	0	-1	-1	10Ms	D
PQL_DDIOLM	50	18	-1	-1	I/O	D
PQL_MDIOLM	4	4	-1	-1	I/O	D
PQL_DFILLM	16	16	-1	-1	Files	D
PQL_MFILLM	2	2	-1	-1	Files	D
PQL_DPGFLQUOTA	8192	8192	-1	-1	Pages	D
PQL_MPGFLQUOTA	512	512	-1	-1	Pages	D
PQL_DPRCLM	8	8	-1	-1	Processes	D
PQL_MPRCLM	0	0	-1	-1	Processes	D
PQL_DTQELM	18	8	-1	-1	Timers	D
PQL_MTQELM	0	0	-1	-1	Timers	D
PQL_DWSDEFAULT	170	100	-1	-1	Pages	
PQL_MWSDEFAULT	170	60	-1	-1	Pages	
PQL_DWSQUOTA	340	200	-1	-1	Pages	D
PQL_MWSQUOTA	340	60	-1	-1	Pages	D
PQL_DWSEXTENT	340	400	-1	-1	Pages	D
PQL_MWSEXTENT	340	60	-1	-1	Pages	D
PQL_DENQLM	30	30	-1	-1	Locks	D
PQL_MENQLM	4	4	-1	-1	Locks	D
PQL_DJTQUOTA	1024	1024	-1	-1	Bytes	D
PQL_MJTQUOTA	0	0	-1	-1	Bytes	D
ACP_MAPCACHE	8	3	1	-1	Pages	D
ACP_HDRCACHE	210	32	3	-1	Pages	D
ACP_DIRCACHE	210	20	2	-1	Pages	D
ACP_DINDXCACHE	52	25	2	-1	Pages	D
ACP_WORKSET	0	0	0	-1	Pages	D
ACP_FIDCACHE	64	64	0	-1	File-Ids	D
ACP_EXTCACHE	64	64	0	-1	Extents	D
ACP_EXTLIMIT	100	100	0	1000	Percent/10	D

ACP_MAXREAD	32	32	1	64	Blocks	D
ACP_WINDOW	7	7	1	-1	Buffers	D
AGP_WRITEB	1	1	0	1	Boolean	D
ACP_DATACH	2	2	0	3	Bit-mask	D
ACP_BASEPRIO	8	8	4	31	Priority	D
ACP_SWAPFLGS	14	15	0	15	Bit-mask	D
ACP_XQP_RES	1	1	0	1	Boolean	
ACP_REBLDSYSD	1	1	0	1	Boolean	
DEFPRI	4	4	1	31	Priority	D
IJOBLIM	64	64	1	1024	Jobs	D
BJOBLIM	16	16	0	1024	Jobs	D
NJOBLIM	16	16	0	1024	Jobs	D
RJOBLIM	16	16	2	254	Jobs	D
DEFQUEPRI	100	100	0	255	Priority	D
MAXQUEPRI	100	100	0	255	Priority	D
LGI_PWD_TMO	30	30	0	255	Seconds	D
LGI_RETRY_LIM	3	3	0	255	Tries	D
LGI_RETRY_TMO	20	20	0	255	Seconds	D
LGI_BRK_LIM	5	5	0	255	Failures	D
LGI_BRK_TMO	300	300	0	-1	Seconds	D
LGI_HID_TIM	300	300	0	-1	Seconds	D
VAXCLUSTER	0	1	0	2	Coded-Value	
EXPECTED_VOTES	1	1	1	127	Votes	
VOTES	1	1	0	127	Votes	
RECNXINTERVAL	20	20	1	32767	Seconds	D
DISK_QUORUM	"	"	"	"	"ZZZZ"	Ascii
QDSKVOTES	1	1	0	127	Votes	
QDSKINTERVAL	10	10	1	32767	Seconds	
ALLOCLASS	0	0	0	255	Pure-number	
LOCKDIRWT	1	0	0	255	Pure-number	
NISCS_CONV_BOOT	0	0	0	1	Boolean	
NISCS_LOAD_PEA0	0	0	0	1	Boolean	
NISCS_PORT_SERV	0	0	0	3	Bit-encoded	
MSCP_LOAD	0	0	0	1	Boolean	
MSCP_SERVE_ALL	0	0	0	2	Coded-value	
MSCP_BUFFER	128	128	16	-1	Coded-value	
MSCP_CREDITS	4	4	2	8	Coded-value	
TAILORED	0	0	0	1	Boolean	
NISCS_SMAX	0	0	0	1	Boolean	D
STARTUP_P1	"	"	"	"	"zzzz"	Ascii
STARTUP_P2	"	"	"	"	"zzzz"	Ascii
STARTUP_P3	"	"	"	"	"zzzz"	Ascii
STARTUP_P4	"	"	"	"	"zzzz"	Ascii
STARTUP_P5	"	"	"	"	"zzzz"	Ascii
STARTUP_P6	"	"	"	"	"zzzz"	Ascii
STARTUP_P7	"	"	"	"	"zzzz"	Ascii
STARTUP_P8	"	"	"	"	"zzzz"	Ascii
MIRROR_SYSTEM	0	0	0	2	Pure-number	D

Parameters in use: Active

Parameter Name	Current	Default	Minimum	Maximum	Unit	Dynamic
PAGEDLPFC	2	2	0	127	Pages	D
SYSPFC	1	1	0	127	Pages	
PIXSCAN	11	1	0	8192	Processes	D
SMP_PUSH	0	0	0	-1	CPU bitmask	
SMP_TICK_CNT	30	30	1	-1	10ms.	
DLCKEXTRASTK	512	512	256	-1	Bytes	

SRPSIZE	96	96	96	144	bytes	
SRPRIN	32	32	0	144	[illegible]	
CHANNELCNT	127	127	31	2047	[illegible]els	
PIOPAGES	245	245	10	-1	[illegible]	
CTLPAGES	50	50	10	-1	Pages	
CTLIMGLIM	35	35	0	-1	Pages	
IMGIOCNT	64	64	32	-1	Pages	
MPW_[illegible]	4	4	0	31		
[illegible]	4	4	0	31		D
[illegible]	8	8	0	512	Pages	D
PHYSICALPAGES	1047552	1047552	2048	1047552	Pages	
PFRATS	0	0	0	-1	Flts/10Sec	D
SWPRATE	500	500	0	-1	10Ms/Swap	D
SWPALLOCINC	96	96	16	-1	Blocks	
IOTA	2	2	0	32767	10Ms	D
SWPFAIL	20	20	0	32767		D
VMSD1	0	0	0	-1		D
VMSD2	0	0	0	-1		D
VMSD3	0	0	0	-1		D
VMSD4	0	0	0	-1		D
VMSD5	0	0	0	-1		
VMSD6	0	0	0	-1		
VMSD7	0	0	0	-1		
VMSD8	0	0	0	-1		
JOBCTLD	0	0	0	-1		D
PQ_OPTIONS	0	0	0	-1		D
WPTTE_SIZE	1000	1000	0	-1	Entries	D
WPRE_SIZE	5	5	0	-1	Pages	D
QBUS_MULT_INTR	0	0	0	1	Boolean	
LOCKRETRY	100000	100000	1	-1	Retries	D
PE1	0	0	0	-1		D
PE2	0	0	0	-1		D
PE3	0	0	0	-1		D
PE4	0	0	0	-1		D
PE5	0	0	0	-1		
PE6	0	0	0	-1		
CLOCK_INTERVAL	10000	10000	500	10000	us	
NOAUTOCONFIG	0	0	0	1	Boolean	D
TIME_CONTROL	0	0	0	-1	Bit-mask	D
BREAKPOINTS	3	3	0	-1	Bitmask	
NOCLUSTER	0	0	0	1	Boolean	
POOLPAGING	1	1	0	1	Boolean	
SBIERRENABLE	1	1	0	1	Boolean	
WRITABLESYS	0	0	0	1	Boolean	
RESALLOC	0	0	0	1	Boolean	
SSINHIBIT	0	0	0	1	Boolean	
CONCEAL_DEVICES	1	1	0	1	Boolean	
WRITESYSPARAMS	0	1	0	1	Boolean	D
NOPGFLSWP	0	0	0	1	Boolean	D
LOAD_SYS_IMAGES	1	1	0	1	Boolean	
TTY_DEFPORT	0	0	0	-1	Bit-Encoded	
SO_PAGING	0	0	0	-1	Bit-mask	
POOLCHECK	0	0	0	-1	Bit-encoded	D
PSEUDOLOA	0	0	0	-1	Pages	
SCH_CTLFLAGS	0	0	0	-1	Bit-mask	D
MINCLASSPRI	1	1	0	15	Priority	D
MAXCLASSPRI	7	7	0	15	Priority	D
MINPRPRI	7	7	0	15	Priority	D