

**Bryce L. Shriver**  
Senior Vice President and  
Chief Nuclear Officer

**PPL Susquehanna, LLC**  
769 Salem Boulevard  
Berwick, PA 18603  
Tel. 570.542.3120 Fax 570.542.1504  
blshriver@pplweb.com



JAN 30 2004

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station OP1-17  
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION  
REVISIONS TO ERDS DATA POINT LIBRARY  
REFERENCE FILE DUE TO THE REMOVAL OF  
THE SPING IODINE AND PARTICULATE CHANNELS  
PLA-5716**

**Docket Nos. 50-387  
and 50-388**

In accordance with 10 CFR 50 Appendix E Section VI.3, attached are revisions to the ERDS Data Point Library as a result of the removal of the Iodine and Particulate channels in the SPING monitors in Susquehanna SES Unit 1 and Unit 2.

If you have any questions, please contact Mr. C. T. Coddington at (610) 774-4019.

Sincerely,

B. L. Shriver

Attachment

copy: NRC Region I  
Mr. R. V. Guzman, NRC Project Manager  
Mr. S. L. Hansell, NRC Sr. Resident Inspector  
Mr. R. Janati, DEP/BRP  
Mr. C. Grant, NRC

A026



SAFETY RELATED   
 OTHER QUALITY   
 CRITICAL SOFTWARE (C)   
 NON-QUALITY

CSD ER-005  
 FILE No. N/A  
 PAGE 1 of 72

COMPUTER SYSTEM DOCUMENT

EMERGENCY RESPONSE DATA SYSTEM (ERDS)  
 DATA POINT LIBRARY (DPL)

PPL SUSQUEHANNA, LLC - UNITS 1 AND 2

Qualifications: The signatures of preparer, reviewer, and approver below must be qualified as follows:

- 4. SQA Plan Documents: EG900
- 5. Computer Test of Validation Procedures: EG900 and EG903
- 6. Computer System Requirements Specifications: EG900

All other types of CSDs do not require any qualification.

REV.	DATE	DESCRIPTION	PREPARED BY	VERIFIED	APPROVED
5	1/21/04	Iodine and Particulate Elimination -DCP 296398	H. A. Clatch	N/A	<i>B. Clatch</i>
4	05/23/02	Admin. Correction-DCN 98-0656 was incorporated into Rev. 3; Addition of LEFM Pts. To Unit 1	H.A. Clatch	N/A	W.A. DeLuca
3	06/01/01	Addition of LEFM Pts. To Unit 2	H.A. Clatch	N/A	W.A. DeLuca
2	05/13/98	Addition of Unit 1 PICSY	H.A. Clatch	N/A	G.J. Krupko
1	11/14/95	Addition of Unit 2 PICSY	M.L. Orloski	N/A	Henry P. Seager
0	11/30/92	Initial Issue	J.L. Angstadt	N/A	D.D. Kelley

Procedure Change Summary

TITLE: EMERGENCY RESPONSE DATA SYSTEM (ERDS) DATA POINT LIBRARY (DPL)

1) Appendix C changes -

- a. Remove the following points due to the Iodine and Particulate removal modification - Mod #DCP 296398

EGRPRX1	EGRPTB1	EGRPTB2
EGRIRX1	EGRITB1	EGRITB2
EGRPSGTS	EGRPRX2	EGRPSITE
EGRISGTS	EGRIRX2	EGRISITE

- b. Delete the following pages due to item a and renumber the document: 40, 41, 43, 44, 46, 47, 49, 50, 52, 53, 55, 56

Emergency Response Data System (ERDS)

Data Point Library (DPL)

Table of Contents

	<u>Page</u>
Section 1.0 Scope . . . . .	4
Section 2.0 General Information . . . . .	4
Section 3.0 References . . . . .	5
Appendix A . . . . .	6
Appendix B . . . . .	6
Appendix C . . . . .	7
Appendix D . . . . .	66
Appendix E . . . . .	70

1.0 SCOPE

This CSD documents the Emergency Response System Data Point Library (DPL) submitted to the U.S. Nuclear Regulatory Commission to meet the DPL requirements of NUREG-1394 Rev.1, Emergency Response Data System (ERDS) Implementation.

2.0 General Information

The Appendices of this CSD have been named to correspond to the Appendices of NUREG-1394, Rev. 1. Not all of the information required by NUREG 1394, Rev. 1 appendix is included in this document.

**NOTICE**

Changes to Appendix C or E of this CSD may require that the NRC be notified of the change. Reference CSD-PIC-759 for additional guidance.

The following list identifies the NUREG Appendices, and where the information (if any) required by that Appendix is provided:

<u>Appendix</u>	<u>Description</u>	<u>Response</u>
A	Emergency Response Data System ERDS Transmission/Reception Plan	PP&L response provided in letter PLA-3704 dated December 20, 1991.
B	ERDS Communication Description and Survey Questionnaire	PP&L response provided in letter PLA-3672 dated October 24, 1991.
C	Data Point Library	Included in this CSD. <sup>(1)</sup>
D	Data Point Library Reference File Definitions	No response required. Appendix duplicated in this CSD for convenience. <sup>(2)</sup>
E	Critical Safety Function Parameters	Included in this CSD. <sup>(3)</sup>
F	Engineering Units Coding Scheme <sup>(4)</sup>	No response required. Reference NUREG 1394, Rev. 1 for details.
G	Zero Reference Coding Scheme <sup>(5)</sup>	No response required. Reference NUREG 1394, Rev. 1 for details.
H	Coding Scheme for Unit Name and Unit ID	No response required. Reference NUREG 1394, Rev. 1 for details.
I	Computer Point Selection <sup>(6)</sup>	No response required. Reference NUREG 1394, Rev. 1 for details.

<sup>(1)</sup> This Appendix provides detailed information for each point listed in Appendix E.

<sup>(2)</sup> This Appendix provides a description of each field in the Data Point Library and the fields maximum character length.

<sup>(3)</sup> This Appendix provides a summary of all the computer points that are utilized for ERDS. Reference Appendix C of NUREG-1394 for additional guidance on Data Point Library entries.

<sup>(4)</sup> This Appendix provides the preferred engineering units abbreviations for use in the Engineering Units field of the Data Point Library entries.

<sup>(5)</sup> This Appendix provides the accepted abbreviations for the Zero Reference Point field of the entries in the Data Point Library that require this field.

<sup>(6)</sup> This Appendix provides guidance on the selection of computer points to satisfy the ERDS requirements.

### 3.0 REFERENCES

3.1 NUREG-1394, Rev. 1, Emergency Response Data System (ERDS)  
Implementation

3.2 NSEP-QA-500, Process Computer Quality Assurance and Design Control  
Program

## APPENDIX A & B

Appendix A & B are not included in this CSD.  
Reference Section 2.0 for more information on  
these appendices.

APPENDIX C  
DATA POINT LIBRARY

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI POWER RNG  
Point ID: PWR  
Plant Spec Point Desc.: REACTOR POWER  
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: 6  
How Processed: Averaged (ref. Unique System Desc.)  
Sensor Locations: Each APRM has 21 to 22 LPRMs as inputs  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: A Supplier proprietary algorithm basically averages the highest number  
of on-scale APRMs whose values are in agreement.  
<sup>(1)</sup>- Various trip set points exist for the APRMs depending on the plant  
Condition (i.e. Condition 1-5).

Note: PWR is a composite SPDS parameter with the following points as  
inputs: NM551, NM552, NM553, NM554, NM555, NM556.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI INTER RNG  
Point ID: NN109  
Plant Spec Point Desc.: IRM A FLUX (% OF SCALE)  
Generic/Cond Desc.: Nuclear Instruments, Inter Rng A  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: N/A  
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: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 16-53.  
<sup>(1)</sup>- When the plant is in Condition 2-5 there is an upscale neutron Flux/RPS trip = 95.8%, an upscale neutron flux/Rod Block = 86.2%, and a downscale neutron flux/Rod Block = 4.2%. These blocks/trips are bypassed in Condition 1.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI INTER RNG  
Point ID: NN112  
Plant Spec Point Desc.: IRM D FLUX (% OF SCALE)  
Generic/Cond Desc.: Nuclear Instruments, Inter Rng D  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: N/A  
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: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 32-37.  
<sup>(1)</sup> - When the plant is in Condition 2-5 there is an upscale neutron flux/RPS trip = 95.8%, an upscale neutron flux/Rod Block = 86.2%, and a downscale neutron flux/Rod Block = 4.2%. These blocks/trips are bypassed in Condition 1.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI INTER RNG  
Point ID: NN115  
Plant Spec Point Desc.: IRM G FLUX (% OF SCALE)  
Generic/Cond Desc.: Nuclear Instruments, Inter Rng G  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: N/A  
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: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 48-13.  
<sup>(1)</sup>- When the plant is in Condition 2-5 there is an upscale neutron flux/RPS trip = 95.8%, an upscale neutron flux/Rod Block = 86.2%, and a downscale neutron flux/Rod Block = 4.2%. These blocks/trips are bypassed in Condition 1.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI INTER RNG  
Point ID: NN116  
Plant Spec Point Desc.: IRM H FLUX (% OF SCALE)  
Generic/Cond Desc.: Nuclear Instruments, Inter Rng H  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: N/A  
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: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 16-13.  
<sup>(1)</sup> - When the plant is in Condition 2-5 there is an upscale neutron flux/RPS trip = 95.8%, an upscale neutron flux/Rod Block = 86.2%, and a downscale neutron flux/Rod Block = 4.2%. These blocks/trips are bypassed in Condition 1.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NNX01  
Plant Spec Point Desc.: IRM A RANGE SWITCH POSN  
Generic/Cond Desc.: IRM A Range Switch Position  
Analog/Digital: A  
Engr Units/Dig States: N/A  
Engr Units Conversion: N/A  
Minimum Instr Range: 1  
Maximum Instr Range: 10  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 10  
How Processed: Reference Unique System Desc.  
Sensor Locations: Panel 1C651<sup>(1)</sup>-11D IRM range switch A  
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: N/A  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The analog value for switch position is calculated from the IRM switch  
position digital inputs.

<sup>(1)</sup> - Panel 1C651 is for SQ1, Panel 2C651 is for SQ2

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NNX04  
Plant Spec Point Desc.: IRM D RANGE SWITCH POSN  
Generic/Cond Desc.: IRM D Range Switch Position  
Analog/Digital: A  
Engr Units/Dig States: N/A  
Engr Units Conversion: N/A  
Minimum Instr Range: 1  
Maximum Instr Range: 10  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 10  
How Processed: Reference Unique System Desc.  
Sensor Locations: Panel 1C651<sup>(1)</sup>-11D IRM range switch D  
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: N/A  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The analog value for switch position is calculated from the IRM switch  
position digital inputs.

<sup>(1)</sup> - Panel 1C651 is for SQ1, Panel 2C651 is for SQ2

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NNX07  
Plant Spec Point Desc.: IRM G RANGE SWITCH POSN  
Generic/Cond Desc.: IRM G Range Switch Position  
Analog/Digital: A  
Engr Units/Dig States: N/A  
Engr Units Conversion: N/A  
Minimum Instr Range: 1  
Maximum Instr Range: 10  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 10  
How Processed: Reference Unique System Desc.  
Sensor Locations: Panel 1C651<sup>(1)</sup>-11D IRM range switch G  
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: N/A  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The analog value for switch position is calculated from the IRM switch  
position digital inputs.

<sup>(1)</sup> - Panel 1C651 is for SQ1, Panel 2C651 is for SQ2

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NNX08  
Plant Spec Point Desc.: IRM H RANGE SWITCH POSN  
Generic/Cond Desc.: IRM H Range Switch Position  
Analog/Digital: A  
Engr Units/Dig States: N/A  
Engr Units Conversion: N/A  
Minimum Instr Range: 1  
Maximum Instr Range: 10  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 10  
How Processed: Reference Unique System Desc.  
Sensor Locations: Panel 1C651<sup>(1)</sup>-11D IRM range switch H  
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: N/A  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The analog value for switch position is calculated from the IRM switch  
position digital inputs.

<sup>(1)</sup> - Panel 1C651 is for SQ1, Panel 2C651 is for SQ2

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NNZ54  
Plant Spec Point Desc.: IRM DET NOT FULL IN POS  
Generic/Cond Desc.: IRM Det(s) not full in Position  
Analog/Digital: D  
Engr Units/Dig States: NO/YES  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Full in limit switch on IRM drive unit  
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: Value = Yes (i.e. Not In)  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: This parameter is a logical 'or' of the Plant's eight (8) IRM  
detectors such that if any detector is not in the full in position  
this parameter will be true (YES).

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NNZ59  
Plant Spec Point Desc.: IRM BYPASS  
Generic/Cond Desc.: IRM Bypass  
Analog/Digital: D  
Engr Units/Dig States: NO/YES  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Panel 1C651<sup>(1)</sup>-11D IRM bypass switch  
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: Value = No (i.e. not Bypassed)  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: This parameter is a logical 'or' of the Plant's eight (8) IRM  
detectors bypass status such that if any detector is bypassed this  
parameter will be true (YES).  
<sup>(1)</sup> - Panel 1C651 is for SQ1, Panel 2C651 is for SQ2

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI SOURC RNG  
Point ID: NN1001Z  
Plant Spec Point Desc.: SRM A LOG RATE  
Generic/Cond Desc.: Nuclear Instruments, Sourc Rng A  
Analog/Digital: A  
Engr Units/Dig States: CPS  
Engr Units Conversion: N/A  
Minimum Instr Range: .1  
Maximum Instr Range: 1E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A

Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 16-45.  
<sup>(1)</sup>- When the plant is in Condition 2 - 5, there is an upscale alarm/rod block =  $1 \times 10^5$  CPS, an upscale/non-coincident trip =  $2 \times 10^5$  CPS, and a downscale/rod block = 4.1 CPS. These blocks/trips are bypassed when the plant is Condition 1. The upscale/non-coincident trip is defeated when the RPS shorting links are installed.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI SOURC RNG  
Point ID: NN1002Z  
Plant Spec Point Desc.: SRM B LOG RATE  
Generic/Cond Desc.: Nuclear Instruments, Sourc Rng B  
Analog/Digital: A  
Engr Units/Dig States: CPS  
Engr Units Conversion: N/A  
Minimum Instr Range: .1  
Maximum Instr Range: 1E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A

Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 40-45.  
<sup>(1)</sup>- When the plant is in Condition 2 - 5, there is an upscale alarm/rod block =  $1 \times 10^5$  CPS, an upscale/non-coincident trip =  $2 \times 10^5$  CPS, and a downscale/rod block = 4.1 CPS. These blocks/trips are bypassed when the plant is Condition 1. The upscale/non-coincident trip is defeated when the RPS shorting links are installed.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI SOURC RNG  
Point ID: NN1003Z  
Plant Spec Point Desc.: SRM C LOG RATE  
Generic/Cond Desc.: Nuclear Instruments, Sourc Rng C  
Analog/Digital: A  
Engr Units/Dig States: CPS  
Engr Units Conversion: N/A  
Minimum Instr Range: .1  
Maximum Instr Range: 1E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 40-21.  
<sup>(1)</sup>- When the plant is in Condition 2 - 5, there is an upscale alarm/rod block =  $1 \times 10^5$  CPS, an upscale/non-coincident trip =  $2 \times 10^5$  CPS, and a downscale/rod block = 4.1 CPS. These blocks/trips are bypassed when the plant is Condition 1. The upscale/non-coincident trip is defeated when the RPS shorting links are installed.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: NI SOURC RNG  
Point ID: NN1004Z  
Plant Spec Point Desc.: SRM D LOG RATE  
Generic/Cond Desc.: Nuclear Instruments, Sourc Rng D  
Analog/Digital: A  
Engr Units/Dig States: CPS  
Engr Units Conversion: N/A  
Minimum Instr Range: .1  
Maximum Instr Range: 1E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(1)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The electrical full-in limit, positions the detector 18" above the active fuel center line. The mechanical full-in limit is 21" above the active fuel center line. The location of the detector during normal reactor operation (full-out limit) is 24" below the bottom of the active fuel. The GE coordinate (radial position) of the detector in the core is 16-21.  
<sup>(1)</sup>- When the plant is in Condition 2 - 5, there is an upscale alarm/rod block =  $1 \times 10^5$  CPS, an upscale/non-coincident trip =  $2 \times 10^5$  CPS, and a downscale/rod block = 4.1 CPS. These blocks/trips are bypassed when the plant is Condition 1. The upscale/non-coincident trip is defeated when the RPS shorting links are installed.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NPY001Z  
Plant Spec Point Desc.: SRM POSITION A  
Generic/Cond Desc.: SRM Position A  
Analog/Digital: D  
Engr Units/Dig States: NOT IN,IN  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: SRM drive motor limit switch  
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: Value = 'Not In'  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.:

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NPY002Z  
Plant Spec Point Desc.: SRM POSITION B  
Generic/Cond Desc.: SRM Position B  
Analog/Digital: D  
Engr Units/Dig States: NOT IN,IN  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: SRM drive motor limit switch.  
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: Value = 'Not In'  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.:

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NPY003Z  
Plant Spec Point Desc.: SRM POSITION C  
Generic/Cond Desc.: SRM Position C  
Analog/Digital: D  
Engr Units/Dig States: NOT IN, IN  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: SRM drive motor limit switch  
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: Value = 'Not In'  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.:

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: NPY004Z  
Plant Spec Point Desc.: SRM POSITION D  
Generic/Cond Desc.: SRM Position D  
Analog/Digital: D  
Engr Units/Dig States: NOT IN,IN  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: SRM drive motor limit switch  
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: Value = 'Not In'  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.:

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: REAC VES LEV  
Point ID: RWL  
Plant Spec Point Desc.: REACTOR 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: -310  
Maximum Instr Range: 500  
Zero Point Reference: BDSKRT  
Reference Point Notes: BDSKRT = near bottom of dryer skirt<sup>(1)</sup>  
PROC or SENS: P  
Number of Sensors: Reference Unique System Desc.  
How Processed: Reference Unique System Desc.  
Sensor Locations: Reactor Bldg Elevation 749'  
Alarm/Trip Set Points: Reference Unique System Desc.<sup>(2)</sup>  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N  
Level Reference Leg: Wet  
Unique System Desc.: SPDS has 13 Rx water level inputs in 6 different range groups, narrow, wide, extended, upset, shutdown & fuel zone. A Supplier proprietary algorithm will arrive at a value for RWL by either averaging only valid signals in the most appropriate range group or by selection of a single level signal.  
<sup>(1)</sup>- Zero point reference is 527.5" above vessel zero (bottom drain 0.0"). TAF is at 366.31".  
<sup>(2)</sup>- Various initiations or trips will occur at Level 1 (-149"), Level 2 (-38"), Level 3 (+12.5") and Level 8 (+54")  
Note: RWL is a composite SPDS parameter with the following points as inputs: NFL001Z, NFL002Z, NFL003Z, NFL004Z, NFL005Z, NFL007Z, NBL001Z, NBL002Z, NBL003Z, NBL004Z, NBL005Z, NBL006Z, and NBL007Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/23/02  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: MAIN FD FLOW  
Point ID: NFF77  
Plant Spec Point Desc.: FW FLOW A  
Generic/Cond Desc.: Feedwater Flow A into React Syst  
Analog/Digital: A  
Engr Units/Dig States: MLBS/H  
Engr Units Conversion: N/A  
Minimum Instr Range: 0.0  
Maximum Instr Range: 8.000  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low - downscale  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Flow is measured on discharge line of Pump A prior to common feedwater header.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/23/02  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: MAIN FD FLOW  
Point ID: NFF78  
Plant Spec Point Desc.: FW FLOW B  
Generic/Cond Desc.: Feedwater Flow B into React Syst  
Analog/Digital: A  
Engr Units/Dig States: MLBS/H  
Engr Units Conversion: N/A  
Minimum Instr Range: 0.0  
Maximum Instr Range: 8.000  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Dest.  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low - downscale  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Flow is measured on discharge line of Pump B prior to common feedwater header.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/23/02  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: MAIN FD FLOW  
Point ID: NFF79  
Plant Spec Point Desc.: FW FLOW C  
Generic/Cond Desc.: Feedwater Flow C into React Syst  
Analog/Digital: A  
Engr Units/Dig States: MLBS/H  
Engr Units Conversion: N/A  
Minimum Instr Range: 0.0  
Maximum Instr Range: 8.000  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low - downscale  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Flow is measured on discharge line of Pump C prior to common feedwater header.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: RCIC FLOW  
Point ID: NIF01  
Plant Spec Point Desc.: RCIC FLOW  
Generic/Cond Desc.: Reactor Core Isolat Cooling Flow  
Analog/Digital: A  
Engr Units/Dig States: GPM  
Engr Units Conversion: N/A  
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: Between RCIC pump and pump discharge valve<sup>(1)</sup>  
Alarm/Trip Set Points: Alarm, Low Flow at 60 GPM  
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  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: <sup>(1)</sup> - Reactor Building Elevation 645'

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: RCS PRESSURE  
Point ID: RXPR  
Plant Spec Point Desc.: REACTOR PRESSURE  
Generic/Cond Desc.: Reactor Coolant System Pressure  
Analog/Digital: A  
Engr Units/Dig States: PSIG  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: 1500  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: Reference Unique System Desc.  
How Processed: Reference Unique System Desc.  
Sensor Locations: Reactor Bldg Elevation 749'  
Alarm/Trip Set Points: Alarm @ 1020 PSIG, Trip @ 1037 PSIG  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: A Supplier proprietary algorithm arrives at a value for RXPR by either selecting a single signal or by averaging signals depending on the results of validation and verification of the five sensed pressure signal inputs.

Note: RXPR is a composite SPDS parameter with the following points as inputs: NFP001Z, NFP002Z, NFP003Z, NFP005Z, and NFP006Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: HPCI FLOW  
Point ID: NGF01  
Plant Spec Point Desc.: HPCI PP DSCH LINE FLOW  
Generic/Cond Desc.: High Pressure Coolant Injec Flow  
Analog/Digital: A  
Engr Units/Dig States: GPM  
Engr Units Conversion: N/A  
Minimum Instr Range: 0.0  
Maximum Instr Range: 6000  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Pump discharge line - Rx Bldg Elev. 645'  
Alarm/Trip Set Points: Alarm, Low Flow at 300 GPM  
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  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.:

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: LPCI FLOW  
Point ID: NHF01  
Plant Spec Point Desc.: RHR SYS A FLOW  
Generic/Cond Desc.: Low Press Coolant Inject A Flow  
Analog/Digital: A  
Engr Units/Dig States: GPM  
Engr Units Conversion: N/A  
Minimum Instr Range: 0.0  
Maximum Instr Range: 30000  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Description  
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  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Flow sensed by a flow element in the RHR distribution piping downstream  
of the RHR heat exchanger.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: LPCI FLOW  
Point ID: NHF02  
Plant Spec Point Desc.: RHR SYS B FLOW  
Generic/Cond Desc.: Low Press Coolant Inject B Flow  
Analog/Digital: A  
Engr Units/Dig States: GPM  
Engr Units Conversion: N/A  
Minimum Instr Range: 0.0  
Maximum Instr Range: 30000  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.  
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  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Flow sensed by a flow element in the RHR distribution piping downstream  
of the RHR heat exchanger.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: CR SPRAY FL  
Point ID: LPCS  
Plant Spec Point Desc.: TOTAL CORE SPRAY 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: 10,000  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 2  
How Processed: Sum (Reference Unique System Desc.)  
Sensor Locations: Reference Unique System Description<sup>(1)</sup>  
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  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.:  
A Supplier proprietary algorithm calculates LPCS as the sum of the CS Loop A and Loop B flows. The algorithm utilizes the position of the CS Test Isolation Valve as well as drywell pressure, reactor vessel pressure, and reactor water level in the selection and validation of each loop's flow.  
The algorithm selects a value for flow for each loop from either the measured loop flow or the calculated loop flow (based on loop pressure and pump-head performance curve) depending on the algorithm logic table.  
<sup>(1)</sup>-Downstream of Pump A & C (Loop A) Discharge connection and Pump B & D Loop B) Discharge connection.  
Note: LPCS is a composite SPDS parameter with the following points as inputs: NSF001Z, NSF002Z, NSP001Z, and NSP002Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQL/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: DW FD SMP LV  
Point ID: RLL004Z  
Plant Spec Point Desc.: A DRWL SUMP LEVEL  
Generic/Cond Desc.: Drywell Floor Drain Sump Level A  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: Each 1% = 1 Gallon<sup>(1)</sup>  
Minimum Instr Range: 37.5  
Maximum Instr Range: 100  
Zero Point Reference: BTSUMP = Bottom of Sump  
Reference Point Notes: Reference Unique System Desc.<sup>(2)</sup>  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Drywell Floor Drain Elev. 704'  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A

Unique System Desc.:  
<sup>(1)</sup> Instrumentation output is level switch driven, each step is approximately 15 gals.  
<sup>(2)</sup> Input referenced to bottom of sump. Actual instrument zero is .25" below input reference point.

Upon containment isolation output of sump is also isolated.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: DW FD SMP LV  
Point ID: RLL005Z  
Plant Spec Point Desc.: B DRWL SUMP LEVEL  
Generic/Cond Desc.: Drywell Floor Drain Sump Level B  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: Each 1% = 1.2 Gallon for SQ1<sup>(1)</sup>  
Each 1% = 1 Gallon for SQ2  
Minimum Instr Range: 37.5  
Maximum Instr Range: 100  
Zero Point Reference: BTSUMP = Bottom of Sump  
Reference Point Notes: Reference Unique System Desc.<sup>(2)</sup>  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Drywell Floor Drain Elev. 704'  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.:  
<sup>(1)</sup> Instrumentation output is level switch driven, each step is approximately  
16 gals for Unit 1 (SQ1) and 15 gals for Unit 2 (SQ2).  
<sup>(2)</sup> Input referenced to bottom of sump. Actual instrument zero is .25"  
below input reference point.

Upon containment isolation output of sump is also isolated.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: EFF GAS RAD  
Point ID: EGRNRX1  
Plant Spec Point Desc.: RAD OF RELEASED NBLGAS-RX 1 VENT  
Generic/Cond Desc.: Rad of Released NBLGAS-Rx 1 Vent  
Analog/Digital: A  
Engr Units/Dig States: uCI/Min  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: Average  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The Eberline Control Terminal provides 1 min averages for the Noble Gas release component. EGRNRX1 is created by averaging the properly selected Noble Gas range (low, mid or high) 1 min average releases for a 15 min period. EGRNRX1 is updated each quarter hour (i.e. it is not a sliding 15 min average). Therefore, the same value of EGRNRX1 will be transmitted each minute for a given fifteen minute period until the next update is available.  
<sup>(1)</sup>- Isokinetic sample drawn @ Rx Bldg vent near Rx Bldg roof.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: EFF GAS RAD  
Point ID: EGRNTB1  
Plant Spec Point Desc.: RAD OF RELEASED NBLGAS-TB 1 VENT  
Generic/Cond Desc.: Rad of Released NBLGAS-TB 1 Vent  
Analog/Digital: A  
Engr Units/Dig States: uCI/Min  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: Average  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The Eberline Control Terminal provides 1 min averages for the Noble Gas release component. EGRNTB1 is created by averaging the properly selected Noble Gas range (low, mid or high) 1 min average releases for a 15 min period. EGRNTB1 is updated each quarter hour (i.e. it is not a sliding 15 min average). Therefore, the same value of EGRNTB1 will be transmitted each minute for a given fifteen minute period until the next update is available.  
<sup>(1)</sup>- Isokinetic sample drawn @ Turbine Bldg vent near Rx Bldg roof.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: EFF GAS RAD  
Point ID: EGRNSGTS  
Plant Spec Point Desc.: RAD OF RELEASED NBLGAS-SGTS VENT  
Generic/Cond Desc.: Rad of Released NBLGAS-SGTS Vent  
Analog/Digital: A  
Engr Units/Dig States: uCI/Min  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: Average  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The Eberline Control Terminal provides 1 min averages for the Noble Gas release component. EGRNSGTS is created by averaging the properly selected Noble Gas range (low, mid or high) 1 min average releases for a 15 min period. EGRNSGTS is updated each quarter hour (i.e. it is not a sliding 15 min average). Therefore, the same value of EGRNSGTS will be transmitted each minute for a given fifteen minute period until the next update is available.  
<sup>(1)</sup>- Isokinetic sample drawn @ SGTS vent near Rx Bldg roof.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: EFF GAS RAD  
Point ID: EGRNRX2  
Plant Spec Point Desc.: RAD OF RELEASED NBLGAS-RX 2 VENT  
Generic/Cond Desc.: Rad of Released NBLGAS-Rx 2 Vent  
Analog/Digital: A  
Engr Units/Dig States: uCI/Min  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: Average  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The Eberline Control Terminal provides 1 min averages for the Noble Gas release component. EGRNRX2 is created by averaging the properly selected Noble Gas range (low, mid or high) 1 min average releases for a fifteen min period. EGRNRX2 is updated each quarter hour (i.e. it is not a sliding 15 min average). Therefore, the same value of EGRNRX2 will be transmitted each minute for a given fifteen minute period until the next update is available.  
<sup>(1)</sup>- Isokinetic sample drawn @ Rx Bldg vent near Rx Bldg roof.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: EFF GAS RAD  
Point ID: EGRNTB2  
Plant Spec Point Desc.: RAD OF RELEASED NBLGAS-TB 2 VENT  
Generic/Cond Desc.: Rad of Released NBLGAS-TB 2 Vent  
Analog/Digital: A  
Engr Units/Dig States: uCI/Min  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: Average  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The Eberline Control Terminal provides 1 min averages for the Noble Gas release component. EGRNTB2 is created by averaging the properly selected Noble Gas range (low, mid or high) 1 min average releases for a 15 min period. EGRNTB2 is updated each quarter hour (i.e. it is not a sliding 15 min average). Therefore, the same value of EGRNTB2 will be transmitted each minute for a given fifteen minute period until the next update is available.  
<sup>(1)</sup> - Isokinetic sample drawn @ Turbine Bldg vent near Rx Bldg roof.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: EFF GAS RAD  
Point ID: EGRNSITE  
Plant Spec Point Desc.: RAD OF RELEASED NBLGAS-SITE TOTL  
Generic/Cond Desc.: Rad of Released NBLGAS-Site Totl  
Analog/Digital: A  
Engr Units/Dig States: uCI/Min  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 5  
How Processed: Reference Unique System Desc.  
Sensor Locations: N/A  
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: N/A  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: A Site Total 1 min average for the Noble Gas release component is created by summing the Noble Gas 1 min averages of the Rx 1, TB 1, SGTS, Rx 2 and TB 2 vents. EGRNSITE is created by averaging the Site Total 1 min averages for a 15 min period. EGRNSITE is updated each quarter hour (i.e. it is not a sliding 15 min average). Therefore, the same value for EGRNSITE will be transmitted each minute for a given fifteen minute period until the next update is available.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: EFF LIQ RAD  
Point ID: VDR001Z  
Plant Spec Point Desc.: LRW DSCH RAD MON  
Generic/Cond Desc.: Radioactivity of Released Liq'ds  
Analog/Digital: A  
Engr Units/Dig States: CPM  
Engr Units Conversion: N/A  
Minimum Instr Range: 10  
Maximum Instr Range: 1E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Ref. Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: Varies - Ref. Unique System Desc.<sup>(2)</sup>  
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.: <sup>(1)</sup> Sample drawn from LRW discharge pipe prior to release to environment.

The Liquid Radwaste Effluent Monitor is a microprocessor based NMC Liquid Radiation Monitor. A single gamma scintillation detector is exposed to the sample of the discharge stream. Discharge is governed by Radiation Effluent release permit.

<sup>(2)</sup> Detector alarm settings are determined for each release based upon tank activity & background values at the sample unit.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: VDF001Z  
Plant Spec Point Desc.: LRW DISCHARGE FLOW  
Generic/Cond Desc.: LRW Discharge Flow  
Analog/Digital: A  
Engr Units/Dig States: GPM  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: 100  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A

Unique System Desc.: <sup>(1)</sup> On Liquid Radwaste discharge line prior to environment. The liquid radwaste line discharges into the Cooling tower discharge pipe. The cooling tower discharge pipe goes to the Susquehanna River.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: DW RAD  
Point ID: PCA  
Plant Spec Point Desc.: PRIMARY CONTAINMENT ACTIVITY  
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: 1E8  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 2  
How Processed: Average (ref. Unique System Desc.)  
Sensor Locations: Drywell on Bioshield Wall  
Alarm/Trip Set Points: Alarm 400 R/HR and 2000 R/HR  
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.: A Supplier proprietary algorithm selects the point with the higher value if the difference between the two points exceeds a predefined delta.  
  
Note: PCA is a composite SPDS parameter with the following points as inputs: MAR001Z and MAR002Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: MN STEAM RAD  
Point ID: NAR01  
Plant Spec Point Desc.: MAIN STEAM LINE RAD A  
Generic/Cond Desc.: Radiation Lvl of Main Stm Line A  
Analog/Digital: A  
Engr Units/Dig States: MR/H  
Engr Units Conversion: N/A  
Minimum Instr Range: 1.000  
Maximum Instr Range: 1.0E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: 7 times Background at Full Power  
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.: Standard BWR Main Steam Line Radiation Monitoring design and configuration.

<sup>(1)</sup> - The detectors (A-D) are located in the steam tunnel as close as practical to the containment. The detectors are arranged such that each detector will view all steam lines with approximately the same response.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: MN STEAM RAD  
Point ID: NAR02  
Plant Spec Point Desc.: MAIN STEAM LINE RAD B  
Generic/Cond Desc.: Radiation Lvl of Main Stm Line B  
Analog/Digital: A  
Engr Units/Dig States: MR/H  
Engr Units Conversion: N/A  
Minimum Instr Range: 1.000  
Maximum Instr Range: 1.0E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: 7 times Background at Full Power  
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.: Standard BWR Main Steam Line Radiation Monitoring design and  
configuration.

<sup>(1)</sup> - The detectors (A-D) are located in the steam tunnel as close as practical to the containment. The detectors are arranged such that each detector will view all steam lines with approximately the same response.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: MN STEAM RAD  
Point ID: NAR03  
Plant Spec Point Desc.: MAIN STEAM LINE RAD C  
Generic/Cond Desc.: Radiation Lvl of Main Stm Line C  
Analog/Digital: A  
Engr Units/Dig States: MR/H  
Engr Units Conversion: N/A  
Minimum Instr Range: 1.000  
Maximum Instr Range: 1.0E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: 7 times Background at Full Power  
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.: Standard BWR Main Steam Line Radiation Monitoring design and  
configuration.  
<sup>(1)</sup> - The detectors (A-D) are located in the steam tunnel as close as  
practical to the containment. The detectors are arranged such that  
each detector will view all steam lines with approximately the same  
response.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: MN STEAM RAD  
Point ID: NAR04  
Plant Spec Point Desc.: MAIN STEAM LINE RAD-D  
Generic/Cond Desc.: Radiation Lvl of Main Stm Line D  
Analog/Digital: A  
Engr Units/Dig States: MR/H  
Engr Units Conversion: N/A  
Minimum Instr Range: 1.000  
Maximum Instr Range: 1.0E6  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: 7 times Background at Full Power  
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.: Standard BWR Main Steam Line Radiation Monitoring design and  
configuration.

<sup>(1)</sup> - The detectors (A-D) are located in the steam tunnel as close as practical to the containment. The detectors are arranged such that each detector will view all steam lines with approximately the same response.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: DW PRESS  
Point ID: DWPR  
Plant Spec Point Desc.: DRYWELL PRESSURE  
Generic/Cond Desc.: Drywell Pressure  
Analog/Digital: A  
Engr Units/Dig States: PSIG  
Engr Units Conversion: N/A  
Minimum Instr Range: -15.0  
Maximum Instr Range: 250.0  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 5  
How Processed: Reference Unique System Desc.  
Sensor Locations: Reactor Bldg. Elevation 719'  
Alarm/Trip Set Points: Trip @ 1.72 PSIG  
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  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: A Supplier proprietary algorithm selects the value for DWPR by using up to five inputs, one Narrow Range (NR) signal (-3.0 to +3.0 PSIG), two Intermediate Range (IR) signals (-15.0 to +65.0 PSIG), and two Wide Range (WR) signals (0 to +250.0 PSIG). If the NR signal is onscale then it is selected for DWPR. If the NR signal is invalid and the IR signal(s) are onscale then they are utilized for DWPR. If both NR and IR signals are invalid then the WR signals will be utilized for DWPR.

Note: DWPR is a composite SPDS parameter with the following points as inputs: MAP001Z, MAP003Z, MAP004Z, MAP005Z, and MAP006Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: DW TEMP  
Point ID: DWT  
Plant Spec Point Desc.: DRYWELL TEMPERATURE  
Generic/Cond Desc.: Drywell Temperature  
Analog/Digital: A  
Engr Units/Dig States: DEGF  
Engr Units Conversion: N/A  
Minimum Instr Range: 40  
Maximum Instr Range: 440  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 8  
How Processed: Average (Reference Unique System Desc.)  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: Alarm 135°F  
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  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: A Supplier proprietary algorithm uses the Technical Specification method for calculating drywell average air temperature which selects the higher valid signal from a minimum of 3 of the following drywell areas: top, middle, bottom and pedestal. DWT is then calculated as the average of the 3 or 4 valid signals selected. If there is less than 3 valid signals then the algorithm cannot calculate an average value. Sensor Locations (elevation, azimuth): (797' 8", 295°), (797' 8", 110°), (752' 2", 270°), (752' 2", 90°), (737', 300°), (737', 150°), (711', 270°), (720', 85°)  
Note: DWT is a composite SPDS parameter with the following points as inputs: MAT001Z, MAT002Z, MAT003Z, MAT004Z, MAT005Z, MAT006Z, MAT007Z, and MAT008Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: SP TEMP  
Point ID: SPT  
Plant Spec Point Desc.: SUPPRESSION POOL 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: 2  
How Processed: Average  
Sensor Locations: Reference Unique System Desc.  
Alarm/Trip Set Points: Alarm at 90°F, 105°F, 110°F & 120°F  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: A Supplier proprietary algorithm calculates SPT as the average of the two inputs if they are valid and agree, otherwise the higher of the two signals is selected. Each of the inputs to the algorithm is provided by a Suppression Pool Temperature Monitoring System (SPOTMOS). The SPOTMOS unit uses up to 8 temperature inputs to calculate the average temperature. The RTD inputs to SPOTMOS that are used to calculate the average temperature are located at approximately the 21 foot level in the suppression pool.

Note: SPT is a composite SPDS parameter with the following points as inputs: MAT012Z and MAT013Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: SP LEVEL  
Point ID: SPWL  
Plant Spec Point Desc.: SUPPRESSION POOL WATER LEVEL  
Generic/Cond Desc.: Suppression Pool Water Level  
Analog/Digital: A  
Engr Units/Dig States: FEET  
Engr Units Conversion: N/A  
Minimum Instr Range: 4.5  
Maximum Instr Range: 49  
Zero Point Reference: TNKBOT  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 4  
How Processed: Reference Unique System Desc.  
Sensor Locations: Rx Bldg Elev. 645'  
Alarm/Trip Set Points: High  $\geq$  23.75 ft, Low  $\leq$  22.25 ft  
NI Detector Power Supply Cut-off Power Level: N/A  
NI Detector Power Supply Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation For DP Transmitters: N/A  
Level Reference Leg: Wet  
Unique System Desc.: A Supplier proprietary algorithm uses 2 Narrow Range (NR), 18-26.5 ft, and 2 Wide Range (WR), 4.5-49 ft, signals to arrive at a value for SPWL. The NR signals are given preference over the WR signals. In cases in which NR signals do not agree and are not confirmed by WR signals, a signal (or average of signals) with greater deviation from Normal Water Level (NWL), measured at 23 ft, is used because it is a critical safety concern. A WR signal (or average of WR signals) may be chosen over a NR signal if it is verified as having a greater deviated value from the NWL than the NR signal.

Note: SPWL is a composite SPDS parameter with the following points as inputs: MAL001Z, MAL002Z, MAL003Z, and MAL004Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: H2 CONC  
Point ID: HYDGN  
Plant Spec Point Desc.: CONTNMNT. HYDROGEN CONCENTRATION  
Generic/Cond Desc.: Drywell Hydrogen Concentration  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: 30  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 2  
How Processed: Average (ref. Unique System Desc.)  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Each of the inputs has dual range capability and will have a range of 0-10% or 0-30%. A Supplier proprietary algorithm will calculate HYDGN as the average of the two inputs if they are both on the same range and agree. Any other combination of valid points (e.g. points disagree, are on different ranges, only one on-scale) will cause the algorithm to select only one of the two inputs for the value of HYDGN.

<sup>(1)</sup>- Sample drawn from drywell or suppression chamber and measured at Panel 1C226A & B for SQ1 and 2C226A & B for SQ2, Reactor Building Elev. 719'.

Note: HYDGN is a composite SPDS parameter with the following points as inputs: MAC003Z and MAC004Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: O2 CONC  
Point ID: OXYGN  
Plant Spec Point Desc.: CONTINMNT. OXYGEN CONCENTRATION  
Generic/Cond Desc.: Drywell Oxygen 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: P  
Number of Sensors: 2  
How Processed: Average (ref. Unique System Desc.)  
Sensor Locations: Reference Unique System Desc.<sup>(1)</sup>  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low, High  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A

Unique System Desc.: Each of the inputs has dual range capability and will have a range of 0-10% or 0-25%. A Supplier proprietary algorithm will calculate OXYGN as the average of the two inputs if they are both on the same range and agree. Any other combination of valid points (e.g. points disagree, are on different ranges, only one on-scale) will cause the algorithm to select only one of the two inputs for the value of OXYGN.

<sup>(1)</sup>- Sample drawn from drywell or suppression chamber and measured at Panel 1C226A & B for SQ1 and 2C226A & B for SQ2, Reactor Building Elev. 719'.

Note: OXYGN is a composite SPDS parameter with the following points as inputs: MAC001Z and MAC002Z.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: CST LEVEL  
Point ID: CSL01  
Plant Spec Point Desc.: COND STORAGE TANK 1 LVL  
Generic/Cond Desc.: Condensate Storage Tank 1 Level  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: Each 1% = 3,000 Gallons  
Minimum Instr Range: 0.0  
Maximum Instr Range: 100.0  
Zero Point Reference: TNKBOT  
Reference Point Notes: Zero is 13.5 inches above tank bottom  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: 7.5 inches below zero reference  
Alarm/Trip Set Points: Low level at 0% (ref. Unique System Desc.)  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low or High (on LI, LR and Computer point)  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Zero is 10,000 gallons above HPCI suction.  
The RWST and both CSTs can be manually cross connected. The capacity of  
each CST is 300,000 gallons and the RWST capacity is 680,000 gallons.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: CST LEVEL  
Point ID: CSL02  
Plant Spec Point Desc.: COND STORAGE TANK 2 LVL  
Generic/Cond Desc.: Condensate Storage Tank 2 Level  
Analog/Digital: A  
Engr Units/Dig States: %  
Engr Units Conversion: Each 1% = 3,000 gallons  
Minimum Instr Range: 0.0  
Maximum Instr Range: 100.0  
Zero Point Reference: TNKBOT  
Reference Point Notes: Zero is 13.5 inches above tank bottom  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: 7.5 inches below zero reference  
Alarm/Trip Set Points: Low level at 0% (ref. Unique System Desc.)  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low or High (on LI, LR and Computer point)  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: Zero is 10,000 gallons above HPCI suction.

The RWST and both CSTs can be manually cross connected. The capacity of each CST is 300,000 gallons and the RWST capacity is 680,000 gallons.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: WIND SPEED  
Point ID: METULS  
Plant Spec Point Desc.: WIND SPEED-60M  
Generic/Cond Desc.: Wind Speed at Reactor Site -60M  
Analog/Digital: A  
Engr Units/Dig States: MPH  
Engr Units Conversion: N/A  
Minimum Instr Range: 1.0  
Maximum Instr Range: 50.0  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: 15 min average (ref. Unique System Desc)  
Sensor Locations: Met Tower is ~ 1,200 ft. ESE of Rx Bldg  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: 15 min average is a sliding 15 min average.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: WIND SPEED  
Point ID: METLLS  
Plant Spec Point Desc.: WIND SPEED-10M  
Generic/Cond Desc.: Wind Speed at Reactor Site -10M  
Analog/Digital: A  
Engr Units/Dig States: MPH  
Engr Units Conversion: N/A  
Minimum Instr Range: 1.0  
Maximum Instr Range: 50.0  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: 15 min average (ref. Unique System Desc)  
Sensor Locations: Met Tower is = 1,200 ft. ESE of Rx Bldg  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: 15 min average is a sliding 15 min average.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: WIND DIR  
Point ID: METULD  
Plant Spec Point Desc.: WIND DIR - 60 M  
Generic/Cond Desc.: Wind Dir at the React Site -60M  
Analog/Digital: A  
Engr Units/Dig States: DEGFR  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: 360  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: 15 min vector average<sup>(1)</sup>  
Sensor Locations: Met Tower is = 1,200 ft. ESE of Rx Bldg  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: <sup>(1)</sup> - 15 min average is a sliding 15 min average.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: WIND DIR  
Point ID: METLLD  
Plant Spec Point Desc.: WIND DIR - 10 M  
Generic/Cond Desc.: Wind Dir at the React Site -10M  
Analog/Digital: A  
Engr Units/Dig States: DEGFR  
Engr Units Conversion: N/A  
Minimum Instr Range: 0  
Maximum Instr Range: 360  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: 15 min vector average<sup>(1)</sup>  
Sensor Locations: Met Tower is = 1,200 ft. ESE of Rx Bldg  
Alarm/Trip Set Points: N/A  
NI Detector Power Supply  
Cut-off Power Level: N/A  
NI Detector Power Supply  
Turn-on Power Level: N/A  
Instrument Failure Mode: Low  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: <sup>(1)</sup> - 15 min average is a sliding 15 min average.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: STAB CLASS  
Point ID: METSTAB  
Plant Spec Point Desc.: AIR STABILITY AT THE REACT SITE  
Generic/Cond Desc.: Air Stability at the React Site  
Analog/Digital: A  
Engr Units/Dig States: STABI  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: P  
Number of Sensors: 1  
How Processed: Reference Unique System Desc.  
Sensor Locations: Reference Unique System Desc.  
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: Reference Unique System Desc.  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: The parameter is derived from the Delta Temperature between the 10  
meter and 60 meter levels. If the Delta Temperature signal is invalid  
then the parameter is derived from the Sigma Theta of wind direction.  
A value of 1 through 7 which corresponds to a stability class of A  
through F, or 9 (invalid) will be transmitted for METSTAB.

SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 & 2  
ERDS DATA POINT LIBRARY REFERENCE FILE

Date: 05/13/98  
Reactor Unit: SQ1/SQ2  
Data Feeder: N/A  
NRC ERDS Parameter: Not Listed  
Point ID: EXERCISE  
Plant Spec Point Desc.: EXERCISE DATA  
Generic/Cond Desc.: Exercise Data  
Analog/Digital: D  
Engr Units/Dig States: NO/YES  
Engr Units Conversion: N/A  
Minimum Instr Range: N/A  
Maximum Instr Range: N/A  
Zero Point Reference: N/A  
Reference Point Notes: N/A  
PROC or SENS: S  
Number of Sensors: 1  
How Processed: N/A  
Sensor Locations: RDAS variable (i.e. pseudo point)  
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: N/A  
Temperature Compensation  
For DP Transmitters: N/A  
Level Reference Leg: N/A  
Unique System Desc.: This parameter is a constant whose value is equal to 0 when actual  
plant data is being transmitted and 1 when exercise/drill data is  
being transmitted.

APPENDIX D  
DATA POINT LIBRARY REFERENCE  
FILE DEFINITIONS

APPENDIX D

DATA POINT LIBRARY  
REFERENCE FILE DEFINITIONS

**Date:** The date that this form is filled out or modified. (Eight characters)

**Reactor Unit:** The nuclear power plant name and abbreviation from the enclosed list of sites. (Three characters)

**Data Feeder:** If there is more than one data feeder for your system, enter the acronym for the data feeder from which the point comes. If there is only one data feeder, enter "N/A" in this field (Ten characters)

**NRC ERDS Parameter:** One of the parameters from the enclosed BWR or PWR parameter list. A single value should be transmitted for each parameter for each loop. If not on the list, insert "Not Listed" or "NL". (Twelve characters)

**Point ID:** Alphanumeric point description used to label the point during transmission. (Twelve characters)

**Plant-Specific Point Description:** Licensee computer point description for the transmitted point. (Forty characters)

**Generic Or Condensed Description:** Parameter description from the enclosed list of points for a BWR or PWR. If not on the list, condense the plant-specific point description. (Thirty-two characters)

**Analog/Digital:** "A" if the signal is analog or numerical or "D" if the signal is off/on. (One character)

**Engineering Units Or Digital States** Engineering units used by the licensee for display on licensee output devices. Use the engineering units abbreviations from the enclosed list when possible. When specifying pressure, use "PSIA" or "PSIG" rather than "PSI". For digital signals, give the "OFF" and "ON" state descriptors. (Twelve characters)

**Engineering Units Conversion:** Notes about any special features of the A/D conversion and scaling. (Forty characters)

**Minimum Instrument Range:** Engineering units value below which data cannot go (bottom-of-scale value). (Ten characters)

Maximum Instrument Range: Engineering units value above which data cannot go (top-of-scale value). (Ten characters)

Zero Reference Point: Zero-point of engineering units scale used primarily for levels or heights. Use the zero reference point abbreviations from the enclosed list when possible. (Six characters)

Reference Point Notes: Notes about the reference point or other important and special features of the parameter. (Forty characters)

PROC or SENS: Is the point formed by processing more than one signal, or is the source a single sensor ("P" or "S")? (One character)

Number of Sensors: The number of signals processed in a full calculation assuming no bypassed or inoperative sensors. (Three characters)

How Processed: The processing algorithm (sum, average, weighted average, highest, lowest, or a short description). (Forty characters)

Sensor Locations: Description of the location(s) of the instrument(s) used. (Forty characters)

Alarm or Trip Setpoints: The most important setpoints for the parameter. State whether the limit is high or low. (Forty characters)

NI Detector Power Supply Cut-Off Power Level: The power level at which the power supply for the NI detector switches off. (Fifteen characters)

NI Detector Power Supply Turn-On Power Level: The power level at which the power supply for the NI detector switches on. (Fifteen characters)

Instrument Failure Mode: The mode in which this instrument fails. Possible answers are HIGH, MEDIUM, OR LOW. If available, provide the numeric value at which the instrument fails. (Thirty characters)

Temperature Compensation For DP Transmitters: This question pertains to differential pressure transmitters. Possible answers are "YES" or "NO" ("Y" or "N"). If the answer is "NO", please attach a copy of the correction curve. (One character)

Level Reference Leg:

The type of level measurement (dry or wet) used on the level reference leg. (Three characters)

Unique System Description:

Additional important information which will assist the NRC Operations Center personnel in understanding how the plant team interprets the data. (600 characters)

PICSY

Plant Integrated Computer System - Unit 2

APPENDIX E  
CRITICAL SAFETY FUNCTION PARAMETERS

**CRITICAL SAFETY FUNCTION PARAMETERS - ERDS**

<u>PARAMETER DESCRIPTION</u>	<u>UNITS</u>
NI POWER RNG Nuclear Instruments, Power Range	%
NI INTER RNG Nuclear Instruments, Inter Rng A	%
NI INTER RNG Nuclear Instruments, Inter Rng D	%
NI INTER RNG Nuclear Instruments, Inter Rng C	%
NI INTER RNG Nuclear Instruments, Inter Rng H	%
Not Listed IRM A Range Switch Position	
Not Listed IRM D Range Switch Position	
Not Listed IRM G Range Switch Position	
Not Listed IRM H Range Switch Position	
Not Listed IRM Det(s) not Full in Position	NO/YES
Not Listed IRM Bypass	NO/YES
NI SOURC RNG Nuclear Instruments, Sourc Rng A	CPS
NI SOURC RNG Nuclear Instruments, Sourc Rng B	CPS
NI SOURC RNG Nuclear Instruments, Sourc Rng C	CPS
NI SOURC RNG Nuclear Instruments, Sourc Rng D	CPS
Not Listed SRM Position A	NOT IN/IN
Not Listed SRM Position B	NOT IN/IN
Not Listed SRM Position C	NOT IN/IN
Not Listed SRM Position D	NOT IN/IN
<u>CORE COOLING</u>	
REAC VES LEV Reactor Vessel Water Level	
MAIN FD FLOW Feedwater Flow A into React Syst	MLBS/H
MAIN FD FLOW Feedwater Flow B into React Syst	MLBS/H
MAIN FD FLOW Feedwater Flow C into React Syst	MLBS/H
RCIC FLOW Reactor Core Isolat Cooling Flow	GPM
<u>RCS INTEGRITY</u>	
RCS PRESSURE Reactor Coolant System Pressure	PSIG
HPCI FLOW High Pressure Coolant Injec Flow	GPM
LPCI FLOW Low Press Coolant Inject A Flow	GPM
LPCI FLOW Low Press Coolant Inject B Flow	GPM
CR SPRAY FL Core Spray Cooling System Flow	GPM
DW FD SUMP LV Drywell Floor Drain Sump Level A	%
DW FD SUMP LV Drywell Floor Drain Sump Level B	%

RADIOACTIVITY CONTROL

EFF GAS RAD	Rad of Released NBLGAS-Rx 1 Vent	UCI/MIN
EFF GAS RAD	Rad of Released NBLGAS-TB 1 Vent	UCI/MIN
EFF GAS RAD	Rad of Released NBLGAS-SGTS Vent	UCI/MIN
EFF GAS RAD	Rad of Released NBLGAS-Rx 2 Vent	UCI/MIN
EFF GAS RAD	Rad of Released NBLGAS-TB 2 Vent	UCI/MIN
EFF GAS RAD	Rad of Released NBLGAS-Site Totl	UCI/MIN
EFF LIQ RAD	Radioactivity of Released Liq'ds	CFM
Not Listed	LRW Discharge Flow	GPM
CND A/E RAD	Condenser Air Ejector Radioactivity	
DW RAD	Radiation Level in the Drywell	R/R
MX STEAM RAD	Radiation Lvl of Main Stm Line A	MR/R
MX STEAM RAD	Radiation Lvl of Main Stm Line B	MR/R
MX STEAM RAD	Radiation Lvl of Main Stm Line C	MR/R
MX STEAM RAD	Radiation Lvl of Main Stm Line D	MR/R

CONTAINMENT CONDITIONS

DW PRESS	Drywell Pressure	PSIG
DW TEMP	Drywell Temperature	DEGF
SP TEMP	Suppression Pool Temperature	DEGF
SP LEVEL	Suppression Pool Water Level	FEET
H2 CONC	Drywell Hydrogen Concentration	%
O2 CONC	Drywell Oxygen Concentration	%

MISCELLANEOUS PARAMETERS

CST LEVEL	Condensate Storage Tank 1 Level	%
CST LEVEL	Condensate Storage Tank 2 Level	%
WIND SPEED	Wind Speed at Reactor Site -60M	MPH
WIND SPEED	Wind Speed at Reactor Site -10M	MPH
WIND DIR	Wind Dir at the React Site -60M	DEGFR
WIND DIR	Wind Dir at the React Site -10M	DEGFR
STAB CLASS	Air Stability at the React Site	STABA
EXERCISE DATA	Exercise Data	NO/YES