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United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

**UPDATE OF EMERGENCY RESPONSE DATA SYSTEM (ERDS)
DATA POINT LIBRARY
SALEM GENERATING STATION UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311**

Ladies and Gentlemen:

In accordance with 10CFR50 Appendix E Section VI.3.a, PSEG Nuclear is notifying the NRC of changes to the Salem Units 1 and 2 ERDS Data Point Libraries (DPLs). The updates to the DPLs consist of changes to the data point identification numbers as a result of recent plant modifications to Safety Parameter Display System (SPDS). The old data point designation is provided in the first column and corresponding new data point designation is provided in the second column.

The following ERDS data points are affected for Salem Unit 1.

<u>Old Data Point Designation</u>	<u>New Data Point Designation</u>
U1NM0031FA	U1NM0031FAS
U1NM0035BB	U1NM0035BBS
U1ASUBCOOLMR	U1SBCLMRGNA
U1XA8496S	A9800
U1XA8499S	A9803
U1XA8497S	A9801
U1XA8498S	A9802
U1XA8500S	A9804
U1XA8501S	A9805

A026

The following ERDS data points are affected for Salem Unit 2.

<u>Old Data Point Designation</u>	<u>New Data Point Designation</u>
U2NM0031FA	U2NM0031FAS
U2NM0035BB	U2NM0035BBS
U2TC-HOTTE	U2TC-HOTTEST
U2ASUBCOOLMR	U2SBCLMRGNA
U2AVG-CNT-	U2AVG-CNT-T
U2XA8496S	A9800
U2XA8499S	A9803
U2XA8497S	A9801
U2XA8498S	A9802
U2XA8500S	A9804
U2XA8501S	A9805

Unit 2 data point U2LT0961S is being revised to correct a typographical error in the description.

In addition to the update to the ERDS data points, an update is being provided for the contact information, selection of data feeder information, and data feeder information previously submitted to the NRC due to the modification of the SPDS system.

If you have any questions concerning this submittal, please contact Brian Thomas at 856-339-2022.

Sincerely,



G. Salamon
Nuclear Safety and Licensing Manager

C Mr. Hubert J. Miller
Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

U. S. Nuclear Regulatory Commission
Attn: Mr. R. Fretz, Licensing Project Manager – Salem
Mail Stop O8B1
Washington, DC 20555

USNRC Resident Inspector (X24)
Salem Generating Station

Mr. K. Tosch, Manager IV
Bureau of Nuclear Engineering
P.O. Box 415
Trenton, NJ 08625

Mr. David Hake
Delaware Emergency Management Agency (DEMA)
165 Brick Store Landing Rd.
Smyrna, DE 19977

Salem Unit 1

ERDS Data Point Updates

LR-N02-0313

DATE 08/19/2002 REACTOR SA1

DATA FEEDER: SPDS

NRC ERDS PARAMETER: NI INTER RNG

POINT ID: U1NM0035BBS

PLANT POINT DESCRIPTION: INTERM RNG NEUTRON LVL CH I

ERDS DESC: NUCLEAR INSTRUMENTS-INTERMD RNGE ANALOG/DIGITAL A

ENG UNITS: AMP ENG UNITS CONV: LINEAR

MIN INSTR RANGE: 1E-11 MAX INSTR RANGE: 1E-03 ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: S NUMBER SENSORS: 001

HOW PROCESSED: NA

SENSOR LOCATION: REACTOR CAVITY

ALARM/TRIP SETPOINT INFO: NONE

NI DETECTOR PWR CUT OFF LVL: SUR/IR/PR OVRLP

NI DETECTOR PWR TURN ON LVL: 1E-11 AMPS

INSTRUMENT FAIL MODE: LOW

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES

CHANNEL PROVIDES INTERMEDIATE RANGE INDICATION OF NEUTRON ACTIVITY LEVELS TO THE OPERATOR. PROVIDES ROD BLOCK ON HIGH FLUX ALARM. LOW1 SETPOINT INTERLOCKED WITH P-6. LOW1 SETPOINT IS 6E-11. LOW2 SETPOINT IS 1E-10. DCP 1EO2654 K503

Design Input: CALC S-C-NIS-CEE-0702

RECORD NUMBER: 02

DATE 08/19/2002 REACTOR SA1

DATA FEEDER: SPDS

NRC ERDS PARAMETER: SUB MARGIN

POINT ID: U1SBCLMRGNA

PLANT POINT DESCRIPTION: SUBCOOLING MARGIN TRAIN A

ERDS DESC: SATURATION TEMPERATURE: T-REP

ANALOG/DIGITAL A

ENG UNITS: DEGF

ENG UNITS CONV: NA

MIN INSTR RANGE: 0

MAX INSTR RANGE: 250

ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: P

NUMBER SENSORS: 032

HOW PROCESSED: T-REP VS RCS PRESS

SENSOR LOCATION: VESSEL + CTMNT

ALARM/TRIP SETPOINT INFO: 10F DEC

NI DETECTOR PWR CUT OFF LVL: NA

NI DETECTOR PWR TURN ON LVL: NA

INSTRUMENT FAIL MODE: LOW

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES MARGIN BASED ON CE ALGORITHMS.
AUTOMATIC COMPENSATION DURING ADVERSE
CNTMNT CONDITIONS. 29 CETS SCANNED
PER CHANNEL PLUS RCS PRESS, CNTMNT
PRESS, & CNTMNT RAD.
DCP 1EO-2654 CD K503
POINT FORMMALLY CALLED U1ASUBCOOLMR

Design Input: VTD 313509

RECORD NUMBER: 06

DATE 08/19/2002 REACTOR SA1

DATA FEEDER: SPDS

NRC ERDS PARAMETER: WIND SPEED POINT ID: A9802

PLANT POINT DESCRIPTION: WIND SPEED 300 FT ELEV

ERDS DESC: WIND SPEED AT REACTOR SITE ANALOG/DIGITAL A

ENG UNITS: MPH ENG UNITS CONV: NA

MIN INSTR RANGE: 0 MAX INSTR RANGE: 100 ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: S NUMBER SENSORS: 001

HOW PROCESSED: NA

SENSOR LOCATION: MET TOWER

ALARM/TRIP SETPOINT INFO: NONE

NI DETECTOR PWR CUT OFF LVL: NA

NI DETECTOR PWR TURN ON LVL: NA

INSTRUMENT FAIL MODE: LOW

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES 15 MINUTE AVERAGE READING

Design Input:

RECORD NUMBER: 52

Salem Unit 2

ERDS Data Point Updates

LR-N02-0313

DATE 08/19/2002 REACTOR SA2

DATA FEEDER: SPDS

NRC ERDS PARAMETER: NI INTER RNG

POINT ID: U2NM0035BBS

PLANT POINT DESCRIPTION: INTERM RNG NEUTRON LVL CH I

ERDS DESC: NUCLEAR INSTRUMENTS-INTERM RANGE ANALOG/DIGITAL A

ENG UNITS: AMP ENG UNITS CONV: LINEAR

MIN INSTR RANGE: 1E-11 MAX INSTR RANGE: 1E-03 ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: S NUMBER SENSORS: 001

HOW PROCESSED: NA

SENSOR LOCATION: REACTOR CAVITY

ALARM/TRIP SETPOINT INFO: NONE

NI DETECTOR PWR CUT OFF LVL: SUR/IR/PR OVRLP

NI DETECTOR PWR TURN ON LVL: 1E-11 AMPS

INSTRUMENT FAIL MODE: LOW

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES CHANNEL PROVIDES INTERMEDIATE RANGE INDICATION OF
 NEUTRON ACTIVITY LEVELS TO THE OPERATOR. PROVIDES
 ROD BLOCK ON HIGH FLUX ALARM. LOW1 SETPOINT
 INTERLOCKED WITH P-6.
 LOW2 SETPOINT IS 6E-11. LOW2 SETPOINT 1E-10

Design Input: CALC S-C-NIS-CEE-0702, PROC S2.IC-CC.NIS-0013Q

RECORD NUMBER: 02

DATE 08/19/2002 REACTOR SA2

DATA FEEDER: SPDS

NRC ERDS PARAMETER: SUB MARGIN

POINT ID: U2SBCLMRGNA

PLANT POINT DESCRIPTION: SUBCOOLING MARGIN TRAIN A

ERDS DESC: SATURATION TEMPERATURE T-REP ANALOG/DIGITAL A

ENG UNITS: DEGF ENG UNITS CONV: NA

MIN INSTR RANGE: 0 MAX INSTR RANGE: 250 ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: P NUMBER SENSORS: 032

HOW PROCESSED: T-REP VS RCS PRESS

SENSOR LOCATION: VESSEL + CTMNT

ALARM/TRIP SETPOINT INFO: 10F DEC

NI DETECTOR PWR CUT OFF LVL: NA

NI DETECTOR PWR TURN ON LVL: NA

INSTRUMENT FAIL MODE: LOW

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES MARGIN BASED ON CE ALGORITHMS.

AUTOMATIC COMPENSATION DURING ADVERSE

CNTMNT CONDITIONS. 29 CETS SCANNED

PER CHANNEL PLUS RCS PRESS, CNTMNT

PRESS, & CNTMNT RAD.

Design Input: DCP 2SC-2276

RECORD NUMBER: 06

DATE 08/19/2002 REACTOR SA2

DATA FEEDER: SPDS

NRC ERDS PARAMETER: CTMNT TEMP POINT ID: U2AVG-CNT-T

PLANT POINT DESCRIPTION: AVERAGE CONTAINMENT TEMP

ERDS DESC: CONTAINMENT TEMPERATURE ANALOG/DIGITAL A

ENG UNITS: DEGF ENG UNITS CONV: NA

MIN INSTR RANGE: 0 MAX INSTR RANGE: 700 ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: P NUMBER SENSORS: 015

HOW PROCESSED: AVERAGE OF ALL SENSORS

SENSOR LOCATION: CNTMNT EL. 78,84,87,106,121,130,& 136

ALARM/TRIP SETPOINT INFO: NONE

NI DETECTOR PWR CUT OFF LVL: NA

NI DETECTOR PWR TURN ON LVL: NA

INSTRUMENT FAIL MODE: LOW

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES SPDS CALCULATED POINT.

Design Input: TECH SPECS

RECORD NUMBER: 43

DATE 08/19/2002 REACTOR SA2

DATA FEEDER: SPDS

NRC ERDS PARAMETER: WIND SPEED

POINT ID: A9800

PLANT POINT DESCRIPTION: WIND SPEED 33 FT ELEV

ERDS DESC: WIND SPEED AT REACTOR SITE ANALOG/DIGITAL A

ENG UNITS: MPH ENG UNITS CONV: NA

MIN INSTR RANGE: 0 MAX INSTR RANGE: 100 ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: S NUMBER SENSORS: 001

HOW PROCESSED: NA

SENSOR LOCATION: MET TOWER

ALARM/TRIP SETPOINT INFO: NONE

NI DETECTOR PWR CUT OFF LVL: NA

NI DETECTOR PWR TURN ON LVL: NA

INSTRUMENT FAIL MODE: LOW

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES

15 MINUTE AVERAGE READING

33 FT. ELEVATION IS MOST REPRESENTATIVE

OF SITE CONDITIONS.

Design Input:

DATE 08/19/2002 REACTOR SA2

DATA FEEDER: SPDS

NRC ERDS PARAMETER: WIND DIR POINT ID: A9804

PLANT POINT DESCRIPTION: WIND DIRECTION 150 FT ELEV

ERDS DESC: WIND DIRECTION AT REACTOR SITE ANALOG/DIGITAL A

ENG UNITS: DEGFR ENG UNITS CONV: NA

MIN INSTR RANGE: 0 MAX INSTR RANGE: 540 ZERO REF: NA

REF POINT NOTES: NA

PROC OR SENSOR: S NUMBER SENSORS: 001

HOW PROCESSED: NA

SENSOR LOCATION: MET TOWER

ALARM/TRIP SETPOINT INFO: NONE

NI DETECTOR PWR CUT OFF LVL: NA

NI DETECTOR PWR TURN ON LVL: NA

INSTRUMENT FAIL MODE: AS IS

TEMP COMP FOR DP TRANSMITTERS:

LEVEL REF LEG: NA

NOTES 15 MINUTE AVERAGE READING

Design Input:

RECORD NUMBER: 53

Salem Unit 1 & 2
ERDS Contacts, Selection of Data Feeders and
Data Feeder Information Updates

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SALEM UNITS 1 & 2

I. Contacts

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

- A. Survey Coordinator (i.e. contact for later clarification of questionnaire answers):
Jack Southers
Senior Engineer
PSEG Nuclear
MC N25
PO Box 236
Hancock's Bridge, NJ 08038 856-339-5630
- B. Computer Hardware Specialist(s):
Jack Southers
Senior Engineer
PSEG Nuclear
MC N25
PO Box 236
Hancock's Bridge, NJ 08038 856-339-5630
- C. Systems Software Specialist(s):
Jack Southers
Senior Engineer
PSEG Nuclear
MC N25
PO Box 236
Hancock's Bridge, NJ 08038 856-339-5630
- D. Application-level Software Specialist(s):
Jack Southers
Senior Engineer
PSEG Nuclear
MC N25
PO Box 236
Hancock's Bridge, NJ 08038 856-339-5630
- E. Telephone Systems Specialist(s):
Pat O'Connell
Project Manager – Information Technologies
PSEG Nuclear
MC N41
PO Box 236
Hancock's Bridge, NJ 08038 856-339-1225

SELECTION OF DATA FEEDERS

- A. How many data feeders are there (six maximum)
The Salem Safety Parameter Display System (SPDS) is the only data feeder. Currently, the SPDS system feeds a separate ERDS Personal Computer. The new system combines both the SPDS and ERDS functionality in one system.
- B. Identify the selected data feeders and provide the following for each:
(1) a short description of data points it will provide and
(2) the rationale for selecting it if another system can also provide its categories of data points.

The data feeder will provide all categories of data points previously submitted. The Salem Safety Parameter Display System (SPDS) is designed for providing information on accordance with NUREG-0737.

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

The Salem Safety Parameter Display System (SPDS) is the site time determining feeder.

DATA FEEDER INFORMATION

1. Identification of the Data Feeder

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

Safety Parameter Display System SPDS

- b. Is this the site time determining feeder?
Yes.

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

The feeder is configured to transmit at the recommended 15-second frequency per NUREG-1394.

2. Hardware/Software Environment

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

The manufacturer of the computer is COMPAQ computer corporation.
The model of the computer is ML370R.

- b. Identify the Operating System

The Operating System is Windows 2000, Service Pack 2.

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

Daylight Savings Time is implemented on the feeder system.

- d. In what time zone is this feeder located?

Public Service Electric & Gas Salem Nuclear Generating Station is located in Eastern Standard Time.

3. Data Communication Details

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

The feeder can transmit at 2400 baud.

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

Yes.

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

No problems are foreseen. The new ERDS transmission will be fully tested per NRC-312.

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

Not applicable. Serial port will be configured per NUREG-1394 guidelines.

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

New system designed for RS-232C communication ports to the NRC.

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.

The serial ports will be dedicated for ERDS use. There will be no sharing of serial ports.

4. Data Feeder Physical Environment and Management

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

The data feeder is located in the back of the TSC. The data feeder is within the TSC envelope.

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

Yes. The data feeder is protected with a dedicated Uninterruptible Power Supply (UPS).

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

No. The SPDS system is intended to operate without human intervention. An ERDS transmission can be initiated at any SPDS terminal.