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July 20, 1992

U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Allen R. Johnson
Project Directorate I-3
Washington, D.C. 20555

Subject: Emergency Response Data System (ERDS)
Submittal of ERDS Survey Questionnaire
R. E. Ginna Nuclear Power Plant
Docket No. 50-244

Ref.(a): NUREG-1394, Revision 1, Emergency Response Data System Implementation, June 1991

(b): Letter from R.C. Mecredy, RG&E, to A.R. Johnson, NRC, Subject: Submittal of Data Point Library Sheets, dated February 28, 1992

Dear Mr. Johnson:

Enclosed is the information required in reference (a), Appendix B.

Also enclosed are the quality codes and descriptions for our Plant Process Computer System (PPCS) at Ginna Station. Based on our October 18, 1991 meeting with the NRC and Halliburton NUS at King of Prussia, PA, the NRC will use the quality codes as they appear on the PPCS. Please inform us if there are limitations on the number of quality codes that the NRC can accept.

Very truly yours,

Robert C. Mecredy

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Attachments

xc: Mr. Allen R. Johnson (Mail Stop 14D1)
Project Directorate I-3
Washington, D.C. 20555

U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

US NRC Ginna Senior Resident Inspector

ATTACHMENT A

[From NUREG-1394 Rev. 1 Appendix B]

I. Contacts

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

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

Peter Polfleit
On-Site Emergency Planner
R.E. Ginna Nuclear Power Plant
1503 Lake Road
Ontario, NY 14519 315-524-4446 X108

B. Computer Hardware Specialist(s):

Thomas Kaza
Computer Systems Coordinator
same address
315-524-4446 X899

C. Systems Software Specialist(s)

Thomas Kaza

D. Application-level Software Specialist(s):

Thomas Kaza

E. Telepnone Systems Specialist(s):

David Leeper
Foreman, I&C Special Projects
same address
315-524-4446 X100

II. ERDS Communications Description

This section provides information to licensees. No response required.

III. Selection of Data Feeders

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

One data feeder

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

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

Meteorological, Radiation monitoring, and Plant data points will be provided as described on the DPL sheets submitted in Reference (b).

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

N/A

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

Site time is not determined by data feeder time.

IV. Data Feeder Information

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

General Questions

1. Identification of Data Feeder

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

PPCS - Plant Process Computer System

b. Is this the site time determining feeder?

No

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

One transmission/60 seconds

2. Hardware/Software Environment

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

Gould SEL 6780

b. Identify the operating system.

MPX 3.2 B

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

Eastern Standard/Daylight Savings Time

d. In what time zone is this feeder located?

Eastern

3. Data Communication Details

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

2400 bps

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

Yes

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

No

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.

N/A; The port will be configured for the ERDS linkup

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

No

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

Yes

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

Used solely for ERDS

4. Data Feeder Physical Environment and Management

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

TSC Computer Room

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

Yes. The PPCS is powered from the Technical Support Center Uninterruptible Power Supply

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

Yes

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

Typically 8 hours/workday

ATTACHMENT B

Plant Process Computer System (PPCS)
Data Quality Code Definitions

Code	Name	Color	Description
00	UNK	White	Unknown. Point has not yet been processed.
01	DEL	White	Point is deleted from processing by the operator. Point will not be processed until re-enabled.
03	NCAL	White	Value is "non-calculatable" due to one or more required input values having a "white" quality code.
04	INVL	White	Invalid. Data-acquisition hardware error.
05	RDER	White	Sensor read error.
06	OTD	White	Open thermocouple error.
07	BAD	White	Analog input "counts" exceed sensor limits.
08	HENG	Red	Engineering unit (EU) value is above high EU.
09	LENG	Red	EU value is below low EU.
10	REDU	Red	Point fails redundant point comparison.
11	HALM	Red	EU value is above high alarm limit.
12	LALM	Red	EU value is below low alarm limit.
13	ALRM	Red	Logical-value Point's state matches defined alarm state.
14	COS	Red	Logical-value Point meets change-of-state alarm criteria
17	HWRN	Yellow	EU value is above high warning limit.
18	LWRN	Yellow	EU value is below low warning limit.

22	SUB	Green	A substitute value has been entered for Point.
24	DALM	Green	Point is deleted from all alarm processing.
25	INHB	Green	Point is in an abnormal condition, but alarm generation is inhibited via cut-out point.
26	OTT	Green	Open thermocouple hardware test was in progress when point was scanned.
29	GOOD	Green	Point is normal, i.e., passes all above tests.

Suspect Data Bias

In the RG&E PPCS system, additional provision is made to identify certain data points whose values are considered to be "suspect" or questionable. Examples of suspect data points are:

1. a calculated point where one or more of the argument points used in the calculation has a "white" data quality code and, hence, the "white" point was excluded from the calculation.

2. an average-value calculation where one or more of the point values used in the calculation differed by more than a specified tolerance from the average value and was excluded from the calculation.

"Suspect" data points are considered as valid points for use in other point calculations. "Suspect" quality codes of argument points in calculations are propogated to the calculated point.

The quality code of a suspect point will be biased by 128. For example:

GOOD code	=	29
SUSPECT bias	=	+ 128
quality code	=	157

Alarm Posted Bias

An "alarm posted bias" of 32 may also be included in the data quality code. The alarm bias is for internal alarm processing and should be ignored by the NRC. For example:

GOOD code	=	29
posted bias	=	+ 32
quality code	=	61