November 9, 1990

W. T. Cottle
Vice President
Operations
Grand Gulf Nuclear Station

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

> SUBJECT: Grand Gulf Nuclear Station
> Unit 1
> Docket No. 50-416
> License No. NPF-29
> Emergency Response Data
>   System-Communications Link
> Data Survey Response
> AECM-90/0170

Generic Letter 89-15 dated August 21, 1989, solicited utility participation in the Emergency Response Data System (ERDS) program. As explained in the generic letter, the ERDS would provide the NRC Operations Center direct electronic transmission of selected parameters from existing data systems. Voice transmission over the Emergency Notification System (ENS) would be used for essential data not available on existing plant systems. ERDS would be activated only upon declaration of an Alert or higher emergency classification. Grand Gulf Nuclear Station (GGNS) recognized the benefits of the program, and volunteered to participate in the ERDS program as described by Generic Letter 89-15 in our April 30, 1990 letter (AECM-90/0057).

Attached is the GGNS response to the ERDS communications link data survey transmitted by your May 16, 1990 letter (MAEC-90/0223). The information in this response has been updated to note changes underway in GGNS computer systems. Information previously provided to your contractor has changed to compensate for the Safety Paramater Display System (SPDS) upgrade, scheduled for completion in 1993. The data supplied in this response is tentative and will be updated as further details become available from the computer upgrade program. The related ERDS Data Point Library Reference File will be submitted upon its completion.

As stated in our April 30, 1990 letter, Mr. Robert J. Boring is the GGNS technical contact on this issue. However, any correspondence related to GGNS should be routed through this office. Please advise should you have any questions, or require any additional information, on this matter.

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Yours truly,

HEK/WTC:ams
Attachment

cc: (See Next Page)

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GRAND GULF NUCLEAR STATION
RESPONSE TO ERDS COMMUNICATIONS LINK DATA SURVEY

I. CONTACTS

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

GGNS - Robert Boring,
Computer Services Superintendent
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150
(601) 437-2109

B. Computer Hardware Specialist(s):

GGNS - Robert Portwood,
Technical Specialist I
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150
(601) 437-2324

C. Systems Software Specialist(s):

GGNS - Ewel Hughes,
Computer Engineer Supervisor
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150
(601) 437-2324

D. Application-Level Software Specialist(s):

GGNS - Not available at this time.

E. Telephone Systems Specialist(s):

GGNS - Ed Crippen,
Telecommunications Specialist
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150
(601) 437-6990

II. ERDS COMMUNICATIONS DESCRIPTION

iv. Exceptions

Please note any exceptions which must be taken to Section II and explain why.

GGNS - Since the feeder system is in the early development stages, it is
anticipated that no exceptions will need to be made for the requirements
stated in Section II.

III. SELECTION OF DATA FEEDERS

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

GGNS - One planned, this will be a new system which is still in the developmental stages.

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

GGNS - All categories of data points will be provided by one feeder.

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

GGNS - The categories of data points that will be provided by the feeder include: Nuclear Instruments, Core Cooling, Reactor Coolant System Integrity, Radioactivity Control, Containment Conditions, and Meteorological Conditions.

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

GGNS - The system upgrades underway will eventually replace all existing systems. Any alternative would more than double cost and maintenance of the link.

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

GGNS - N/A, one feeder

IV. DATA FEEDER INFORMATION

A. General Questions

i. 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.

  GGNS - Feeder is still in the early design stages, no local parlance has been assigned. This info will be available at a later date.

b. Is this the site time determining feeder?

  GGNS - Yes

c. What is the update frequency of this feeder (in seconds)?

  GGNS - approximately 15 seconds

ii. Hardware/Software Environment

GGNS - Undetermined at the current time

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

GGNS - information not known at this time, possibly "Apollo DN10000"

b. Identify the operating system.

GGNS - UNIX will be the operating system.

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

GGNS - Daylight Savings Time

d. In what time zone is this feeder located?

GGNS - Central Standard Time Zone

iii. Data Communication Details

The following answers are projected requirements to be incorporated into the feeder system development.

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

GGNS - Yes

b. Will this feeder transmit in ASCII or EBCDIC?

GGNS - ASCII

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

GGNS - Yes

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

GGNS - Yes

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

GGNS - 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.

GGNS - New port will be installed

f. Can the serial port dedicated to the ERDS be configured so that the NRC need not emulate a specific brand of terminal (i.e., can it be configured to a "vanilla" terminal)?

GGNS - Yes

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

GGNS - No

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

GGNS - New ports will be made available as the new system is built.

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

GGNS - A decision has not been made at this point as to whether or not the port will be dedicated to "ERDS". A development requirement will be that "ERDS" will have priority if the port is used by non-emergency users.

iv. Data Feeder Physical Environment and Management

GGNS - Undetermined at the current time.

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

GGNS - At this time it is projected that the hardware will reside in the LCSR computer room, Elevation 148 of the Control Building.

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

GGNS - The data feeder will use an uninterruptible power source.

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

GGNS - It is anticipated that a control room operator or TSC personnel will activate the program.

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

GGNS - 24