Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

DEC 13 1991

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

Gentlemen:

In the Matter of	)	Docket Nos.	50-259
Tennessee Valley Authority	)		50-260
	)		50-296

EMERGENCY RESPONSE DATA SYSTEM (ERDS) - IMPLEMENTATION SCHEDULE

In accordance with a verbal request from the NRC Project Manager for Browns Ferry Nuclear Plant (BFN), TVA is clarifying its original response concerning the operability date for BFN Unit 2. Also, TVA would like to provide additional data concerning the installation of redundant data links. Enclosures 2, 4, and 5 of the original submittal dated October 28, 1991, are enclosed and have revision bars to denote changes. No new commitments are contained in this submittal.

Sincerely,

Mark J. Burzynski for EGW
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Manager
Nuclear Licensing and Regulatory Affairs

Enclosures
cc: See page 2

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U.S. Nuclear Regulatory Commission

DEC 13 1991

Enclosures
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ENCLOSURE 2

TVA will implement Browns Ferry Nuclear Plant's (BFN) Emergency Response Data System (ERDS) through the Central Emergency Control Center (CECC) which serves as the Emergency Operations facility for BFN. The specific implementation plan and schedule for the activities identified by NUREG 1394, Rev. 1, for BFN are as follows:

1. TVA will complete the planned CECC computer upgrade by February 3, 1992. The current VAX 11/750 processors will be replaced with redundant VAX 4000 processors with expanded disk and tape storage capacity.

2. The phone line and modem installation is scheduled to be completed by January 31, 1992. This is in accordance with the NRC schedule contained in Generic Letter 91-14. Phone line and modem for ERDS will be installed in the CECC.

3. The Plant Attribute List and the Data Point Library will be submitted to NRC by December 2, 1991.

4. The software for the capture and storage of the BFN data transmitted to the CECC will be developed and tested by March 31, 1992.

5. Appropriate administrative control procedures will be revised and/or written and approved by August 7, 1992, to ensure that NRC is notified whenever an ERDS data point is changed. Changes to the Data Point Library will be submitted within 30 days of the change.

6. Preliminary transmission testing of the ERDS CECC to NRC data link will begin on June 1, 1992, with completion expected before June 30, 1992.

7. Preliminary software testing for ERDS data transmission will begin on June 15, 1992, with completion expected before June 30, 1992.

8. Formal software testing with the NRC contractor will begin on July 1, 1992, with completion expected before July 24, 1992.

9. Formal system testing with NRC will begin on July 27, 1992, with completion expected before August 14, 1992. This schedule is dependent upon NRC scheduling of system tests.

10. The appropriate procedures for activation and administration of ERDS will be revised and/or developed and will have an effective date to coincide with the date ERDS is declared operational. These procedures will require activation of ERDS within one hour of the declaration of an alert or higher classification.

11. BFN Unit 2 ERDS will be operational at the completion of the formal system testing scheduled to be completed by August 14, 1992. BFN ERDS will transmit a limited data set at this time based on data points available on the BFN Unit 2 Interim Safety Parameter Display System. As agreed to by NRC in the letter to BFN dated March 6, 1991, BFN will upgrade SPDS to provide additional available data points to ERDS during Refueling Outage Cycle 6 and declare the SPDS operational during Operation Cycle 7.

12. BFN Units 1 and 3 will be added to ERDS as these units prepare for restart.

ENCLOSURE 4

TVA will implement the Browns Ferry (BFN), Sequoyah (SQN), and Watts Bar (WBN) Nuclear Plants' Emergency Response Data System (ERDS) through the Central Emergency Control Center (CECC) which serves as the Emergency Operations facility for TVA nuclear sites. This facility, located in TVA's office complex in Chattanooga is manned 24 hours a day.

TVA is currently replacing the existing VAX 11/750 processors with redundant VAX 4000 processors. Only 1 processor is required to implement the functions required for the CECC including the ERDS function. The redundant processor is maintained in an "operational standby" mode. The CECC currently has high speed data links to the SQN Technical Support Center Data System, the BFN Unit 2 Interim Safety Parameter Display System, and the Watts Bar Emergency Response Facility Data System simulator system. The CECC also has a data link to the Environmental Data Station computer systems at BFN, SQN, and WBN. The data links between the operating sites and the CECC will be made redundant. The high speed links that connect the CECC computer system to the plant data systems are TVA owned and operated. These links will be monitored 24 hours a day to ensure high reliability. This arrangement has distinct advantages over systems located at the sites. These advantages are:

1. Redundant processors
2. 24-hour coverage
3. Multiple modems to NRC
4. Multiple transmission lines to NRC
5. Single source of data collection e.g., SPDS data and meteorological data
6. One single point to activate ERDS
7. Shorter lead time to implement
8. Less software to be developed and maintained
9. Additional operating units will be added with no additional ERDS interfaces required and
10. Currently, the plant simulators are configured to execute exercise and drill scenario data through the CECC computer and not the site computers. This data could also be transmitted to ERDS to allow more realistic NRC participation in drills.

The specific implementation schedule for the activities identified by NUREG 1394, Rev 1, are as follows:

1. TVA will complete the CECC computer upgrade by February 3, 1992. The current VAX 11/750 processors will be replaced with redundant VAX 4000 processors with expanded disk and tape storage capacity.

2. The phone line and modem installation is scheduled to be completed by January 31, 1992. This is in accordance with the NRC schedule contained in Generic Letter 91-14.

2a. The data links from the CECC to the operating sites (SQN and BFN) will be made redundant by May 1, 1992.

3. The software for the transmission of the CECC data to the NRC ERDS will be developed and tested by June 1, 1992.

4. Preliminary transmission testing of the ERDS CECC to NRC data link will begin on June 1, 1992, with completion expected before June 30, 1992.

ENCLOSURE A

5. Preliminary software testing for ERDS data transmission will begin on June 15, 1992, with completion expected before June 30, 1992.

6. Formal software testing with the NRC contractor will begin on July 1, 1992, with completion expected before July 24, 1992.

7. The ERDS hardware and software will be controlled by the CP?? software Quality Assurance Plan. Appropriate administrative control procedures will be revised and/or written and approved by August 7, 1992, to require:

   a. proposed system modifications which could affect data communication protocol be submitted for NRC review in advance to ensure changes are compatible with ERDS, and

   b. changes to the Data Point Library be submitted to NRC within 30 days of the change.

8. The appropriate procedures for activation and administration of ERDS will be revised and/or developed and will have an effective date to coincide with the date ERDS is declared operational. These procedures will require activation of ERDS within one hour of the declaration of an alert or higher classification.

9. Appropriate personnel will be trained in the operation of the ERDS interface by July 30, 1992.

10. Formal system testing with NRC will begin on July 27, 1992, with completion expected before August 14, 1992. This schedule is dependent upon NRC scheduling of system tests.

ENCLOSURE 5

1. BFN Unit 1 will have an operational ERDS at the time of restart.

2. BFN Unit 2 will have an operational ERDS with a limited data set by August 14, 1992.

3. BFN Unit 2 will upgrade ERDS to provide additional available data points during Cycle 6 refueling outage and declare the SPDS operational during operation Cycle 7.

4. BFN Unit 3 will have an operational ERDS at the time of restart.

5. SQN, Units 1 and 2, will have an operational ERDS by August 14, 1992.

6. WBN Units 1 and 2 will have an operational ERDS at the time of licensing.

7. CECC will have an operational ERDS by August 14, 1992.

8. The data links from the CECC to the site operating units (SQN and BFN) will be made redundant by May 1, 1992.