

REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 MILLS, L.M. Tennessee Valley Authority
 RECIP. NAME RECIPIENT AFFILIATION
 ADENSAM, E. Licensing Branch 4

SUBJECT: Forwards response to Generic Ltr 82-33 re Suppl 1 to NUREG-0737, "Requirements for Emergency Response Capability."

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 TITLE: OR/Licensing Submittal: Suppl 1 to NUREG-0737 (Generic Ltr 82-33)

NOTES:

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TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

April 15, 1983

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

In the Matter of the Application of) Docket Nos. 50-438
Tennessee Valley Authority) 50-439

As requested by D. G. Eisenhower's December 17, 1982 letter to "All Licensees of Operating Reactors, Applicants for Operating Licenses, and Holders of Construction Permits" regarding Supplement 1 to NUREG-0737 Requirements for Emergency Response Capability (Generic Letter #82-33), we are providing the enclosed response.

If you have any questions concerning this matter, please get in touch with Bill Watters at FTS 858-2691.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills
L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 15th day of April 1983

Paulette A. White
Notary Public
My Commission Expires 9-5-84

Enclosure

cc: U.S. Nuclear Regulatory Commission (Enclosure)
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, NW, Suite 2900
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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 RESPONSE TO GENERIC LETTER 82-33 SCHEDULE FOR IMPLEMENTING THE REQUIREMENTS OF NUREG-0737 SUPPLEMENT 1

A. SAFETY PARAMETER DISPLAY SYSTEM (SPDS)

A contract has been awarded for an Emergency Response Facility Data System (ERFDS) which is a computerized, current generator real time monitoring and display system. The ERFDS will provide the capability to gather, store, and display information needed to support the SPDS and Technical Support Center (TSC) functions as well as Regulatory Guide 1.47 functions. All portions of the ERFDS will be implemented emphasizing human-factors engineering. This system will be operational, and the operators trained on its use at least six months before fuel load.

A written safety analysis describing the basis on which the selected parameters are sufficient to assess the safety status of the following functions will be provided at least nine months before fuel load:

- a. Reactivity control
- b. Reactor core cooling and heat removal from the Reactor Coolant System
- c. Reactor coolant system integrity
- d. Radioactivity control
- e. Containment conditions

The SPDS design will be integrated with the control room design review, development of the symptom-oriented emergency operating procedures, Regulatory Guide 1.97 postaccident monitoring parameter set, and the emergency response facilities. The SPDS integration activity will be completed before fuel load. Refer to the attached Figure 1 for the integrated action plan. In addition, TVA does not request a pre-implementation review by the NRC for the SPDS.

B. CONTROL ROOM DESIGN REVIEW (CRDR)

In the Main Control Room, all major control panels are installed with approximately 80 percent of the controls and displays in place. TVA initiated a CRDR for Bellefonte in November 1982. This activity was developed utilizing an internal TVA program plan for all CRDRs. This program plan will be submitted by June 1, 1983. This schedule replaces the schedule given in L. M. Mills' June 11, 1982 letter to E. Adensam.

The Bellefonte CRDR team has completed the survey and operator interview portion of the CRDR and has documented all related Human Engineering Discrepancies (HEDs). The task analysis portion of the CRDR will be completed after validated symptom-oriented emergency operating procedures have been implemented at Bellefonte. To support the current construction schedule for Bellefonte, the major problem areas (HEDs) must be identified and corrective action taken so as to minimize a schedule impact. To support this effort, a full-scale Main Control Room mock-up has been built and extensively utilized to assess the HEDs and develop the required corrective actions. The requirement to submit the CRDR program plan within two months after the start of the review effort has not been met.

The CRDR activity will be completed, and a summary report submitted by fuel load. This date is dependent upon completion of the emergency operating procedures activity at least three months before the summary report submittal date.

C. REGULATORY GUIDE 1.97

A report defining the methods for implementing Regulatory Guide 1.97 (Rev. 2) along with supporting technical justification of any proposed alternatives will be submitted at least six months before fuel load. This report shall include the information required by Supplement 1 of NUREG-0737.

D. UPGRADED EMERGENCY OPERATING PROCEDURES (EOPs)

TVA has completed the initial review of the base Bellefonte abnormal transient operator guidelines (ATOG) and preliminary natural circulation guidelines. Included in the base ATOG are symptom-oriented procedures for excessive heat transfer, lack of heat transfer, loss of subcooling margin, and single steam generator tube ruptures. Bellefonte base ATOG and natural circulation guidelines will be completed by July 1984. Inadequate core cooling and small break LOCA information will be available to complete those ATOGs by May 1984.

TVA will submit the technical guidelines (ATOG) in July 1984.

TVA will submit the procedures generation package for Bellefonte no later than nine months before fuel load.

TVA will initiate operator training to implement symptom-oriented emergency procedures no later than six months before fuel load.

E. EMERGENCY RESPONSE FACILITIES (ERF)

1. Technical Support Center (TSC)

The TSC will be fully functional including the appropriate data system before fuel load. The TSC makeup (structure, staff, communications, procedures, etc.) will be similar to and consistent with the TSC operations at other TVA nuclear plants. A description of this facility will be included in the Bellefonte radiological emergency plan (REP)*. The data systems will include appropriate variables essential for TSC functions.

2. ~~Operations Support Center (OSC)~~

The OSC will be fully functional before unit 1 fuel load. The makeup of the OSC (structure, staff, communications, procedures, etc.) will be similar to and consistent with the OSC operations at other TVA nuclear plants. A description of this facility will be included in the Bellefonte REP.

3. Emergency Operations Facility (EOF)

TVA has implemented a centralized emergency management system to satisfy the EOF requirement for all TVA plants. This operation has received previous Commission approval as indicated in a Darrell G. Eisenhower (NRC) to H. G. Parris (TVA) letter dated March 19, 1981. This system consists of a Central Emergency Control Center (CECC) located in Chattanooga, Tennessee, and two emergency support facilities; the Knoxville Emergency Center (KEC) located in Knoxville, Tennessee and the Muscle Shoals Emergency Center (MSEC) located in Muscle Shoals, Alabama.

To augment these facilities and satisfy the additional elements listed in Mr. Eisenhower's letter to Mr. Parris as well as the requirements of Generic Letter 82-33, TVA will establish a 'Local Recovery Center' (LRC) at Bellefonte to accommodate an NRC site team. The LRC will be fully functional before unit 1 fuel load. The makeup of the LRC will be similar to and consistent with those established at other TVA nuclear plants. A description of this facility will be included in the Bellefonte REP.

*The next revision to the Bellefonte REP is scheduled for 12 months before fuel load.

TVA's offsite emergency centers have been described in previous submittals to NRC in response to Generic Letter 81-10 for Sequoyah and Browns Ferry Nuclear Plants and are applicable to Bellefonte. (Please refer to the letter from D. Kammer to E. Adensam dated December 6, 1982 on Generic Letter 81-10.) In that response, TVA describes a data-link between the CECC central data processor and the TSC and SPDS data bases. Meteorological variables will be transmitted by an automated data system. TVA will provide appropriate plant parameters essential for EOF functions to the EOF by way of facsimile transmission (these parameter lists will be provided in the Bellefonte Radiological Emergency Plan Implementing Procedures Documents). TVA believes this system of data transmission is a fully adequate means of supplying the EOF with the essential parameters for EOF functions in a timely manner. With this data transmission system, the requirements of Generic Letter 82-33 will be met. These facilities will be considered fully operational, and TVA no longer intends to install the data-link as described in TVA's response to Generic Letter 81-10.

F. INTEGRATED TRAINING PLAN

The integrated program for training the Bellefonte operators on the upgraded emergency operating instructions, the safety parameter display system, and any plant modifications as a result of the control room design review and Regulatory Guide 1.97 will be conducted as follows.

The plant operators will be trained during cold license training and during the regularly scheduled requalification and group training after initial startup. Special training sessions will be scheduled as necessary. A plant-specific simulator will be used extensively in this effort.

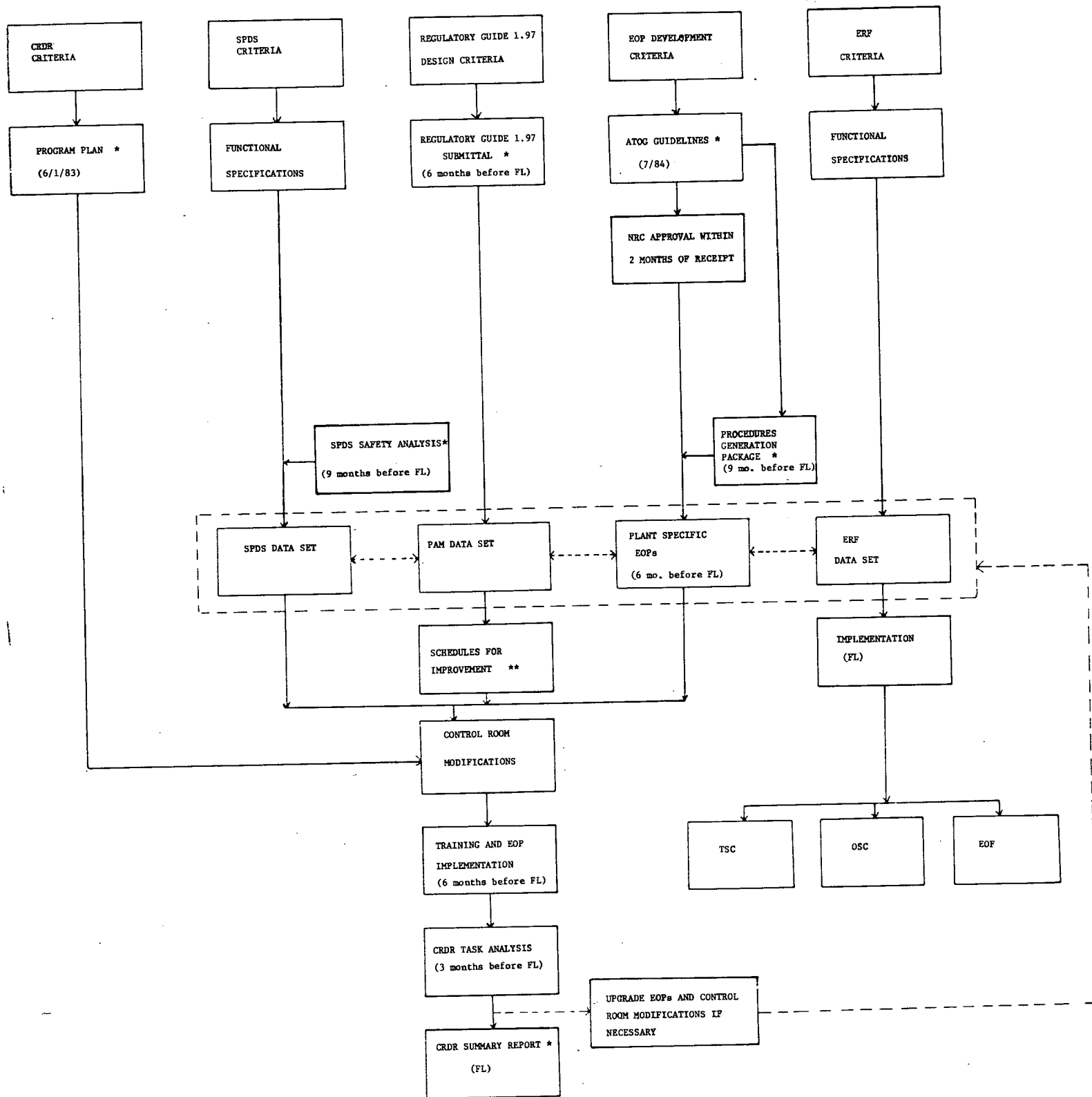
TVA will maintain consistency of control room design with the plant control boards and the plant-specific simulator; therefore, all control board modifications will be reflected on the plant-specific simulator and all simulator training will be conducted on up-to-date control boards with emphasis on the modifications.

G. INTEGRATION OF EMERGENCY RESPONSE CAPABILITY INITIATIVES

Effective implementation of emergency response capability initiatives requires the integration of these capabilities into an action plan which recognizes their interdependence. TVA intends to accomplish this using an integrated action plan which is graphically illustrated in the attached Figure 1. This action plan has been simplified to identify fundamental relationships between the initiatives. As such, it does not show all interactions between them.

It must also be recognized that this is an interactive process. Implementation of various Main Control Room modifications will be coordinated and integrated with other plant modifications consistent with TVA's integrated schedule concept. As Main Control Room/plant modifications are implemented, procedures will be reviewed and revised as necessary and operators trained on these changes consistent with established operator training programs. Training will thus be an integral activity in the implementation of these initiatives. Implementation schedules are discussed in response to each of the individual initiatives.

FIGURE 1
BELLEFONTE NUCLEAR PLANT
INTEGRATED ACTION PLAN



* Submittals to NRC

** Schedules for installation or upgrade will be identified when Reg. Guide 1.97 data set is integrated into CRDR and equipment delivery dates, outage projections, load demands, and manpower requirements are identified.