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April 6, 1984

Docket Nos. 50-348
50-364

Director, Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. S. A. Varga

Joseph M. Farley Nuclear Plant - Units 1 and 2
Safety Parameter Display System Implementation Schedule

Gentlemen:

On April 15, 1983 Alabama Power Company submitted a Preliminary Farley Emergency Response Capability (ERC) Integrated Implementation Plan and Schedule in response to NRC Generic Letter 82-33, "Supplement 1 to NUREG-0737 - Requirements for Emergency Response Capability". On December 15, 1983 an updated Farley ERC Integrated Implementation Schedule was submitted which included a schedule for activities related to the Safety Parameter Display System (SPDS). This schedule (1) was developed prior to an extensive SPDS bid evaluation and award of an SPDS contract (2) was based on existing Alabama Power Company conceptual design and (3) was noted to be preliminary in nature. The SPDS conceptual design included a data link to the existing plant process computer (P2500) for data acquisition which required significant modification to the P2500. Additionally, the design's spatial requirements necessitated construction of a new computer room for the SPDS hardware installation.

As a result of extensive technical evaluations conducted during the SPDS bid evaluation, the conceptual design for the SPDS was revised to minimize modifications to the P2500 and to potentially eliminate the need for construction of a new computer room. The technical evaluation of the vendor proposals precipitated more detailed and additional vendor information related to project implementation which was not available for preparation of the December 15, 1983 submittal. This information has been considered in the development of a revised SPDS implementation schedule provided as Attachment 1. Although this schedule provides more detail and definition than previous schedule submittals, some information related to significant aspects of project

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Mr. S. A. Varga
U. S. Nuclear Regulatory Commission

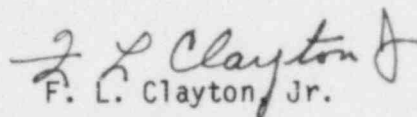
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implementation remains preliminary at this time. Every effort to advance this schedule will be made and it remains Alabama Power Company's goal to have a fully operational SPDS within three and one half years from the April 15, 1983 Supplement 1 submittal date. It is noted, however, that additional schedule refinement and revision will be possible only after the project scope is fully defined and responsibilities and schedules are formalized for design, manufacture, implementation and testing of the SPDS. A detailed description of the assumptions and considerations used in the development of the SPDS implementation schedule are provided as Attachment 2. This schedule was discussed with the NRC Farley Nuclear Plant Project Manager at a meeting held at the plant site on March 16, 1984.

Alabama Power Company believes that this submittal is a continued demonstration of our good-faith effort to address the provisions of NUREG-0737, Supplement 1 and to implement a fully integrated and cost-effective enhancement to the present Farley ERC in a reasonable period of time. Based on further definition of design, procurement, and other project activities, a refinement of the SPDS implementation schedule and other NUREG-0737, Supplement 1 schedules will be provided in September 1984.

If there are any questions, please advise.

Yours truly,


F. L. Clayton, Jr.

FLCJr/JLO:grs-D34
Attachments

cc: Mr. R. A. Thomas
Mr. J. P. O'Reilly
Mr. E. A. Reeves
Mr. W. H. Bradford

Attachment 1

SPDS Implementation Schedule

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Detailed Description of Schedule Assumptions and Considerations

1. Simulator and SPDS design and implementation are planned to occur in parallel. This parallel effort will minimize implementation time, enhance training, and readily support component verification and validation, but will complicate implementation.
2. Based on an engineering evaluation, the existing computer room HVAC equipment is not satisfactory for the existing room heat loads and SPDS. A split system or shared backup system will be designed to accommodate all loads in the computer room. An engineering study to determine the most efficient system for implementation is currently in progress. Either design will necessitate interfacing with existing HVAC duct work and extensive computer room modifications. To preclude potential equipment damage, SPDS hardware will not be installed in parallel with computer room modifications. The scope of these modifications may require existing computer hardware to be protected with scaffolding. Since the HVAC system services the P2500 and HP-1000 (used for emergency dose calculations), modifications to the computer room will be predominately outage dependent and are scheduled for the Unit 2 third and Unit 1 sixth refueling outages.
3. Approximately 25 of the inputs required for SPDS are not currently included in the P2500; therefore, cable runs will be required to provide these inputs in the existing computer rooms. These inputs will be obtained by interrupting the instrumentation loops at the 7300 process racks or termination cabinets. It is estimated that four weeks of two shifts per day are required to complete the cable runs. To expedite implementation, this effort will be done in parallel with the computer room modifications.
4. The latest generation of Westinghouse software is in the developmental stages at present and will not be fully developed and tested prior to May 1985.
5. The movement of equipment to the computer rooms requires passage through emergency safety function switchgear areas. Alabama Power Company operational policy prohibits equipment movement through these areas at power and necessitates the computer room equipment be moved only during an outage.
6. To acquire inputs for the SPDS, a multiplexer will be paralleled with the P2500 plant computer. The paralleling will require the termination of 576 conductors for both the P2500 and the multiplexer. It is estimated that this evolution will require four weeks of two shifts per day. During this period the P2500 should not be in service. Removing the P2500 from service for an extended period of time requires coordination with the Plant Operations and Technical Groups since the P2500 facilitates compliance with various Technical Specification requirements (e.g., flux mapping). Installation of the SPDS inputs is therefore scheduled to be completed during an outage.

7. Alabama Power Company does not plan to install SPDS displays and printers in the Main Control Room well in advance of the system being declared operational and operators being SPDS-trained on the simulator. Only equipment that will become operational within a short period of time is installed in the control room to minimize operator confusion. Additionally, Alabama Power Company does not plan to perform installation/testing activities in the Main Control Room while at power since such activity would distract the operators.
8. A two month period is required for site acceptance testing of each unit to allow for system debugging. A spare system has been purchased and will be staged at the vendor facilities during the site acceptance testing periods. This spare system will allow for expedited resolution at the vendor facilities of discrepancies found during site acceptance testing. Minor system problems will be tracked by punchlists.