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SR. VICE PRESIDENT
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April 15, 1983

Mr. Darrell B. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
USNRC
Washington, DC 20555

SUBJECT: Limerick Generating Station, Units 1 & 2
Docket Nos. 50-352 & 50-353

REFERENCE: Supplement 1 to NUREG-0737
Requirements for Emergency Response Capability
Generic Letter No. 82-33

Dear Mr. Eisenhut:

Following are our responses to the five initiatives required to be addressed by the referenced generic letter:

1. SAFETY PARAMETER DISPLAY SYSTEM (SPDS)

REFERENCE: SECTION 4 OF SUPPLEMENT 1 TO NUREG-0737

CURRENT STATUS:

The Limerick Design includes an Emergency Response Facility Data System (ERFDS). This system is based on the General Electric Emergency Response Information System. The SPDS at Limerick will be a part of this ERFDS.

The hardware design is essentially complete with installation scheduled to begin in April, 1983. The software effort is proceeding on schedule to support system check out in August, 1983. It is expected that the system will be operational by fuel load.

A003

ADD:
W. Paulson

SAFETY ANALYSIS:

The parameters included in the SPDS display are based on the entry conditions for the Limerick symptom-based emergency procedures. As changes and improvements are made to the reactor pressure vessel control and containment control procedures, the system can be modified to reflect these changes. The SPDS parameters are a subset of the parameters available in the ERFDS data base, which is based on the Reg. Guide 1.97 Rev. 2 BWR parameter list.

A written safety analysis describing the basis on which the selected parameters are sufficient to assess the safety status of each identified function for a wide range of events will be available by August 1983.

INTEGRATION OF SPDS WITH OTHER INITIATIVES:

Prior to fuel load, the SPDS will be reviewed in conjunction with the other NUREG-0737 supplement initiatives. As one of the final steps in integrating all of the control room modifications (i.e. Reg. Guide 1.97, SPDS, Emergency Operating Procedures), an emergency procedure walk through is scheduled as part of the control room review.

2. DETAILED CONTROL ROOM DESIGN REVIEW (CRDR)

REFERENCE: SECTION 5 OF SUPPLEMENT 1 TO NUREG-0737

CURRENT STATUS:

The CRDR effort directed by Item I.D.I and required by Supplement 1 to NUREG-0737 began in 1980 with PECo's participation in the Boiling Water Reactor Owners Group (BWROG) CRDR Subcommittee. The subcommittee produced a BWROG Generic CRDR Program which addresses Item 5.1.b of Supplement 1. This Generic Program was submitted to the NRC for review in August, 1981. The review and subsequent discussions between the NRC and representatives of the subcommittee have resulted in a supplement to the review program.

A preliminary review of the Limerick control room was conducted using the original design review program in October, 1981. At that time, the Limerick control room was still in the construction phase and the formal Limerick unique Emergency Procedures were not available for the walk through.

PECo is currently developing a program to address the Assessment, Implementation and Verification phases of the Limerick Control Room Design Review Program.

BASIC REQUIREMENTS COMPLETION DATES:
(Numbering refers to corresponding portions Section S of Supplement 1)

5.1.a) As was the case during the initial review phase, a person competent in human factors engineering as well as persons competent in system design and system operation will be included in the assessment phase of the Program. This assessment will be completed by January, 1984.

5.1.b) A preliminary review of the control room has been completed as discussed in current status above. Completion of the review to address the supplemental check list, those items not included in the preliminary review due to contruction status, and the Emergency Proceudre Walk-through is scheduled for October, 1983. This date is contingent on NRC concurrence with the review approach used in the BWROG-CRDR program

5.1.c) Assessment of the Human Engineering Discrepancies (HED's) will be completed by January, 1984.

5.1.d) Proposed improvements will be reviewed by the multi-disciplinary task force described in 5.1.a to assure the proposed change addresses the identified HED and does not create additional HED's. All changes will be integrated with other control room modifications. This will be completed by February, 1984.

5.2.a) The program plan for completing the Control Room Design Review is outlined below:

i. Complete the Generic review program including the supplemental review and the emergency procedure walk-through.

ii. Assess the identified HED's and generate recommendations for modifications to those HED's that warrant a change.

iii. Each of the proposed modifications will be reviewed to verify that it corrects the HED it was intended to correct and does not create any new unacceptable HED's. The modifications will be coordinated with the balance of the NUREG-0737 Supplement 1 initiatives.

iv. A summary report will be prepared to document the program actions and recommendations. It will also contain a schedule for modifications to correct the HED's.

5.2.b) A summary report will be prepared and submitted May, 1984. This will include proposed modifications and the proposed schedule. Any human factors enhancements (paint-tape-label) will be completed prior to fuel load. The modifications that require hardware changes will be scheduled according to equipment availability and start up schedule. They may be deferred until the first refueling outage.

3. REGULATORY GUIDE 1.97 - APPLICATION TO EMERGENCY RESPONSE FACILITIES

REFERENCE: SECTION 6 OF SUPPLEMENT 1 TO NUREG-0737

CONTROL ROOM:

The Limerick control room has been reviewed against the recommendations of Reg. Guide 1.97, Rev. 2. This review has resulted in some modification to the plant instrumentation system. The resulting design and compliance with the provisions of the Reg. Guide are presented in the Limerick FSAR, Section 7.5. In those instances where the Limerick design does not comply with the Regulatory Guide, a detailed justification is provided on a case by case basis. The design, as described in FSAR Section 7.5, will be installed prior to fuel load.

In the case of "Neutron flux", the neutron monitoring system does not meet the qualification requirements for category 2. PECo is currently working with a vendor of neutron monitoring

equipment to develop an ex-core neutron detection system for BWR's. When this system or other systems are fully developed, an evaluation will be performed. If a change is warranted, a schedule for implementation will be proposed.

TECHNICAL SUPPORT CENTER (TSC):

All of the Regulatory Guide 1.97, Rev. 2 parameters described in Limerick FSAR Section 7.5 will be available for display in the TSC on either the Emergency Response Facility Data System (ERFDS) or the Radiation Meteorological Monitoring System (RMMS). These systems are scheduled to be in place and operating prior to fuel load.

EMERGENCY OPERATIONS FACILITY (EOF):

The information available in the TSC is also available in the EOF.

DOCUMENTATION AND NRC REVIEW:

The information requested in this section of NUREG-0737 Supplement 1 is available in Section 7.5 of the Limerick FSAR.

4. UPGRADE EMERGENCY OPERATING PROCEDURES (EOP'S)

REFERENCE: SECTION 7 OF SUPPLEMENT 1 TO NUREG-0737

The EOP's required by Section 7 are called Transient Response Implementation Plan (TRIP) procedures at Limerick.

The Limerick TRIP Procedures are presently written to revision 2 of the BWR Owners' Group Emergency Procedures Guidelines (EPG's). The staff approved revision 2 of these EPG's via letter from D. G. Eisenhut to all BWR Licensees of Operating Reactors dated February 8, 1982.

The Licensed Operator Training Program at the Limerick simulator has used the TRIP procedures since March, 1982, prior to the NUREG-0737 Supplement 1 requirement for a procedures generation package. The following information is responsive to the requested contents of the procedures generation package:

I. Verified plant-specific data (setpoints, limits, curves, etc.) will be incorporated into the TRIP procedures and into the training program at least 9 months prior to fuel load (December, 1983).

II. An administrative procedure will be developed to provide guidance for writing new TRIP procedures and for revising existing TRIP procedures. This administrative procedure will be available for review by November, 1983.

III. The adequacy of existing TRIP procedures, as well as future revisions to those procedures and new procedures, is demonstrated in the following manner. A review is performed to assure that there is correspondence between the procedures and the control room hardware. Further assurance is obtained by exercising the procedures on the Limerick simulator.

IV. The licensed operator training program for Limerick has been in operation since December, 1979. As noted above, the TRIP procedures have been a part of that program since March, 1982.

5. EMERGENCY RESPONSE FACILITIES (ERF'S)

REFERENCE: SECTION 8 OF SUPPLEMENT 1 TO NUREG-0737

The three types of ERF's required by Section 8 will be provided for Limerick.

The Technical Support Center (TSC) will meet all of the requirements of Section 8.3.1. The OSC will be fully functional by January, 1984.

The Operational Support Center (OSC) will meet all of the requirements of Section 8.3.1. The OSC will be fully functional by January, 1984.

The Emergency Operations Facility (EOF) is located in an existing structure approximately 17 miles from the Limerick site. The EOF will meet all of the technical requirements of Section 8.4.1. The building alterations necessary for the EOF will be completed by September, 1983. The EOF will be fully functional by January, 1984.

Staffing of the EOF and the TSC is described in the Limerick Emergency Plan, Table I-1.

We will be pleased to review the information provided above with the NRC project manager for Limerick.

Very truly yours,

V. S. Boyer

TJR/cam

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