TENNESSEE VALLEY AUTHORITY
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emp

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Secretary of the Commision
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Docketing and Service Branch

Dear Sir:

The Tennessee Valley Authority (TVA) is pleased to provide comments on NUREG-0814, "Methodology for Evaluation of Emergency Response Facilities," as noticed in the September 8, 1981 Federal Register (46 FR 44935-44936).

The abstract states this document will be used to evaluate Emergency Response Facilities conceptual designs. However, this document as written goes beyond design and includes operational readiness. If NUREG-0814 is just for conceptual design review, then its scope must be drastically reduced to exclude training requirements, etc.; however, if it is for operational readiness, the abstract should be changed to reflect the true scope of the document.

Our specific comments are enclosed. We appreciate the opportunity to comment.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure
cc (Enclosure):
Executive Secretary
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U.S. Nuclear Regulatory Commission
Washington, DC 20555

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Acknowledged by card. 12/15/81 emp

Enclosure
TVA's Comments on NUREG-0814

1. Section 2.2.1(b) — This section, as well as Sections 4.1.1 and 4.1.5, needs further clarification. It appears these paragraphs attempt to establish a maximum exposure a person will receive, for example, while walking from the control room to the TSC. Specifically stated, "The maximum exposure an individual can receive walking from the control room to the TSC must be less than or equal to 5 rem including all other exposures during the course of an accident." Radiation exposure received while moving from the TSC to the control room is one issue. Radiation exposure received performing all other duties is another issue. The controlling of radiation exposures to some predetermined maximum level (5 rem or 25 rem) is radiation dose management and includes exposures from all sources. Dose management is practical. Designing a facility or locating a facility from a dose management standpoint, when it is not the only source of radiation exposure, is not practicable because there are too many variables. Therefore, we believe the 5 rem limit should be removed. If a maximum exposure or, more appropriately, dose rate is required, then it should be specified, including what the plant conditions are for design purposes.

2. Section 2.5.3 — We believe Section 2.5.3 needs to be expanded greatly. The basic radiation monitoring requirements should be specified; i.e., beta gamma radiation detection capable of measuring dose rates between 0.1 mrem/hr and 10,000 mrem/hr, alarms, etc., should be provided. Once specified, then the questions contained in 2.5.3 may be asked. The monitoring requirement example of being able to detect iodine to 1×10^{-7} µci/cc has little meaning by itself unless a number of conditions are specified. For example, in what level of background radiation including noble gases must this be detectable? How long is allowed to measure this concentration? What confidence level must be placed upon the results?

3. Section 5 — In general, Section 5, "Emergency Operations Facility (EOF)," should be revised to allow the flexibility to evaluate alternate acceptable approaches to near-site EOFs. As the section is written, it assumes there is only one EOF. However, the functional criteria may best be met by two or more separate emergency operation facilities which would have complimentary capabilities but not necessarily identical capabilities.

   Section 5.5 — We suggest this section be revised to reduce the radiation monitoring requirements for EOFs greater than 10 miles away from the reactor site. This revision would be consistent with the relaxation of the ventilation and protection factor requirements for EOFs greater than 10 miles away allowed in NUREG-0696.

4. Section 7 — It appears there is no methodology provided concerning evaluation of the Safety Parameter Display System (SPDS) displays in this document or in NUREG-0696, although this is a key point in the evaluation of the ERF. The usage of the displays should be tied to the revised emergency operating procedures.

5. General

1. This document defines exact questions concerning the design but provides little, if any, criteria or methodology for the evaluation of the ERF. Rather than establish a list of detailed questions, we believe the NRC should be more interested in the utility's rationale for how the proposed design meets the intent of the NUREG-0696 requirements. Explanations and rationales are more appropriate than scan rates, disk size, bits/digital channel, etc.

2. A methodology should be given for evaluating how the ERF requirements integrate with other related requirements (i.e., revised emergency operating procedures, MCR design review).

3. There is no mention of human factors considerations, although there are detailed questions about CRTs. NUREG-0814 should be linked to NUREG-0700.