June 16, 1995

MEMORANDUM TO: Frederick J. Hebdon, Director
Project Directorate II-3
Division of Reactor Projects - I/II, NRR

FROM: Peter S. Tam, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II, NRR

SUBJECT: FORTHCOMING MEETING WITH TENNESSEE VALLEY AUTHORITY (TAC NOS. M84429, M87197, M90253 AND M91523)

DATE & TIME: June 23, 1995 (Friday)
11:00 a.m.

LOCATION: One White Flint North
11555 Rockville Pike
Rockville, Maryland
Room 4-B-13

PURPOSE: To discuss technical issues regarding Chapter 11, "Radwaste Management Systems", of the Watts Bar Final Safety Analysis Report. See enclosure for details.

PARTICIPANTS: NRC
T. Chandrasekaran, G. Hubbard, J. Minns, M. Bugg, P. Tam, et al.

TVA
Hank Benningford, Greg Evans, Betsy Eiford-Lee, John Vorees, et al.

Original signed by
Peter S. Tam, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II, NRR

Docket No. 50-390

cc: See next page

*Meetings between NRC technical staff and applicants or licensees are open for interested members of the public, petitioners, intervenors, or other parties to attend as observers pursuant to "Commission Policy Statement on Staff Meetings Open to the Public," 59 Federal Register 48344, 9/20/94. Persons who wish to observe should contact the project manager at 301-415-1451 within 24 hours before the meeting.

Contact: Peter S. Tam, NRR
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Staff Comments on Radwaste Management Systems for Watts Bar

(TAC M84429, M87197 and M90253)

The staff has completed its review of Chapter 11, regarding radwaste management systems, of the Watts Bar FSAR up to and including Amendment 89, TVA's submittals to date and handouts given during the meeting with TVA on January 10, 1995 (meeting summary dated January 19, 1995). Based on the review, the staff requests expeditious resolution of the following comments to support timely issuance of a safety evaluation on the radwaste management systems.

Liquid Radwaste Management System (LWMS)

1. Both Page 11.2-16 and Section 11.4.2.1.1 of the Watts Bar FSAR do not list the chemical drain tank as a tank from where liquid waste discharge to the environs can occur. However, Page 11.2-5 lists the above tank as one of the tanks from where discharge to the environs can occur.

2. Section 11.2.4.1.1 includes the floor drain collector tank as one of the tanks from where the liquid waste discharge is continuously monitored. However, other FSAR sections do not list the above tank as one of the tanks from where discharge to the environs can occur.

Gaseous radwaste management system (GWMS)

1. Section 11.3.2 does not explicitly state that operator actions will be performed both at 2% and 4% oxygen concentration levels when either the sequential or the continuous analyzer reaches either of the above concentration levels for oxygen. Also, the section does not identify the actions. The staff notes that TVA's February 17, 1995 submittal identifies the actions. However, the staff considers that it is appropriate to include the information in the FSAR section, since the Watts Bar design of the analyzers deviates from SRP 11.3 criteria for design of analyzers. Also, the FSAR section should spell out the corrective actions the operator will have to perform in the event one or more analyzers become inoperable. These additional surveillances are given in the handout on explosive gas and storage tank radioactivity monitoring program. The staff recognizes that the program need not be spelled out in detail in the Watts Bar TS. However, the staff's acceptance of the analyzers for Watts Bar is partially based on grab sampling and analysis provisions and reporting requirements (see SSER 8, Page 11-1). Since the Watts Bar design of the analyzers deviates from SRP acceptance criteria, it is necessary to describe the equivalent level of protection for the gaseous radwaste processing system.

ENCLOSURE

Solid radwaste management system

1. TVA has faxed (April 19, 1995) information on waste packaging area for Watts Bar. The faxed information should be adequately supplemented and incorporated in FSAR Section 11.5.

2. TVA has not indicated where the processed primary spent resins placed in liners and HICs will be stored.

3. TVA has not provided information on the processing of secondary spent resins from the condensate polishing demineralizer.

4. TVA has not provided information on available storage space for wet wastes other than primary spent resins (i.e., spent resins from mobile demineralizer system and secondary regenerant demineralizers; spent filter elements).

5. TVA has not provided information on available storage space for packaged dry active wastes and contaminated equipment. In this context TVA should explain what it means by the words "stored outside".

6. TVA has not demonstrated that storage area for wet wastes other than primary spent resins is sufficient to accommodate at least 30 days of the subject wet waste generation at normal generation rate in accordance with Position III.2 of BTP ETSB 11-3. TVA has not clarified whether the storage area will be located indoors as required by the above BTP position.

7. TVA has not demonstrated that the storage area for DAW and packaged contaminated equipment is sufficient to accommodate one full offsite shipment in accordance with BTP Position B.III.3.

8. TVA should clarify whether DAW that can be compacted will be compacted onsite. This question arises since the handout "Solid Waste Disposal" (N3-77B-4001) refers to such possibility. Also, clarify whether the exhaust from the subject area will be HEPA filtered.

Process and effluent radiological monitoring and sampling system

1. Page 11.3-8 refers to two exhaust vents for the service building. However, Section 11.4 and Tables 11.4-2 and -3 refer to only one effluent monitor. Explain how this single monitor monitors the exhausts from both the vents. Clarify whether both the exhausts will be filtered.

2. Section 11.4 does not explicitly state that the system will meet the guidelines of RG 4.15, "Quality Assurance for Radiological Monitoring Programs (Normal Operation) -

Effluent Streams and the Environment".

Offsite Dose Calculation Manual (ODCM)

The ODCM should be revised to be consistent with both Appendix I, Paragraphs II.A,II.B and II.C objectives as well as Docket-RM-50-2 (Annex to Appendix I) objectives. This means that it should be revised as follows:

1. Specification 1.2.1.2 Liquid Effluent Controls

a. Calendar quarter limit-	Total body	1.5 mrem
	Organ	2.5 mrem
b. Calendar year limit-	Total Body	3 mrem
	Organ	5 mrem

2. Specification 1.2.1.3, Liquid Radwaste Treatment System Control

31-day period limit-	Total Body	0.06 mrem
	Organ	0.1 mrem

Note that the above limits are based on Unit 1 only operating.

3. Add a specification for limit of I-131 release via gaseous effluent. The specification should limit the release to 1 Ci/yr/unit. Also, an appropriate quarter yearly limit may be specified.

4. Add a specification for limiting release of radioactive material other than Tritium and dissolved gases in liquid effluent. This specification should limit the release to 5 Ci/yr/unit. Also, an appropriate quarter yearly limit may be specified.

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