UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

January 22, 1992

Docket No. 50-390
and 50-391

MEMORANDUM FOR: Files

FROM: Peter S. Tam, Senior Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II, NRR

SUBJECT: WATTS BAR NUCLEAR PLANT - QA RECORDS CORRECTIVE ACTION PROGRAM, PLACEMENT OF DOCUMENT IN THE PDR (TAC M71923)

The enclosed 3 pages of questions, generated by the NRR Performance and Quality Evaluation Branch for use in the meeting on January 27, 1992, is hereby placed in the NRC and local Public Document Rooms by copy of this memorandum.

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cc. Docket Files
NRC PDR
Local PDR

Memo 4

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NRC Staff Handout for 1-27-92 Meeting

REV. 4 OF TVA'S QA RECORDS CAP - WATTS BAR UNIT 1

(Submitted by letter dated December 6, 1991)

1. Section 4.1.1 of the CAP refers to TVA's QA Topical Report (TVA-TR75-1A). The QA Topical Report has been superseded by the TVA Nuclear QA Plan (TVA-NQA-PLN-89), and this should be reflected in the next revision of the CAP.

2. Section 4.1.2 of the CAP states that the Record Retrieval Guide is now available to users. Clarify whether or not the Record Retrieval Guide and its related documentation are treated as controlled documents in accordance with the TVA Nuclear QA Plan.

3. Section 4.3.2 of the CAP lists four ways that records can be "required." A fifth way would be the requirement to meet TVA commitments in licensing documents (for example, records required to meet TVA's commitment to Regulatory Guide 1.88 as given on pages 96 and 97 of the Nuclear QA Plan). This fifth way should be included in Section 4.3.2 of the CAP.

4. Section 4.3.4 of the CAP indicates that nonconformances will be considered design significant if they do not meet appropriate codes, standards, or licensing requirements. As in item 3, above, nonconformances to TVA commitments in licensing documents is a fourth set of nonconformances that should also be considered design significant and referred to in Section 4.3.4 of the CAP. This comment also applies to the fourth paragraph in Section 2.e of the ASRR (page 7).

5. The fifth bullet in CAP Section 4.4 states that WBN records from organizations at WBN will be filmed and indexed onsite. In this respect, clarify how TVA will treat WBN records from organizations not at the site.

6. Attachment 4 to the CAP should not be considered a complete list of records required by regulation. For example, Attachment 4 could be interpreted to indicate that the only record required by 10CFR 50, Appendix B, is a QA Plan. This point should be clarified.

7. Clarify the first sentence on page 10 of the ASRR which states: "The WPs/MRs generated during the timeframe of the CAPs/SPs (i.e., after 1987) will be evaluated." Does this mean that there will be a 100% independent assessment of these documents, or will a sampling plan be used?

8. What is meant by "Secondary deficiencies will be evaluated on a page basis ... ." on the middle of page 10 of the ASRR?

9. Section 6.b of the ASRR indicates that a record plan is developed for each CAP/SP which meets four specific criteria. Are these plans and the results of their implementation independently reviewed within TVA to ensure acceptability?

10. The last paragraph on page 4 of the ASRR indicates that CAP records will be reviewed where they apply. We believe that this means that CAP records will be included in the record population(s) from which the samples for each "cell" on Figure 1 are randomly selected. Clarify whether this is the case. If so, the randomness of a selected sample (within each "cell") assumes even greater importance. Therefore, describe how samples are selected to ensure randomness. If not, what is meant?

11. Delete or clarify what is meant by: "except where the ANSI record type in question has already been sufficiently sampled" [Middle of page 5 of the ASRR, Section 2.c(4)]. Our understanding from TVA's July 2, 1991 letter is that the ASRR is to "stand alone" and not rely on previous reviews.

12. TVA responded to NRC's earlier question 13E by letter dated May 10, 1991. The weighting procedure described at the top of page 8 of CAP Attachment 6 (the ASRR) is taken from Reference 3[1] of the May 10 letter. We were unable to find Equation 2 of the weighting procedure in this reference. Explain the use of the equation.

13. TVA's sampling statistics are based on Figure 2 in the same reference. Since this reference adopts a Bayesian approach, we have the following questions:

    (a) What is the justification for using a Bayesian as opposed to a standard classical approach?

    (b) What is the prior distribution of the defect fraction used to calculate the curves in Figure 2 of the reference? On what basis was it chosen?

    (c) What prior distributions will be used for the weighted average technique and on what bases were they chosen?

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[1] Kaplan, S., "Bayesian Sampling for Quality Confidence-II," Pickard, Lowe, and Garrick, Inc., prepared for Tennessee Valley Authority, PLG-0806, Revision 1, March 1991.

(d) What is the sensitivity of the results to the prior distributions used in (b) and (c) above?

14. Using a standard classical probability approach, the last several sentences of the second paragraph of Section 2.e of the ASRR would be correct if they were revised as follows:

> A 95 percent confidence that there are less than 5 [not 3] percent deficiencies in the remaining population (95/5) [not 95/3] could be established by finding no deficiencies in a sample of 60. Similarly, satisfying 95/3 could be established by finding no deficiencies in a sample of 100 [not 60]. Similarly, satisfying 95/5 could be established by finding less than or equal to one deficiency in a sample of 93 [not 60]. A 95/10 could be satisfied by finding less than or equal to three deficiencies in a sample of 75.

Or the last sentence could say:

> A 95/10 could be satisfied by less than or equal to two deficiencies in a sample of 61.

Or:

> A 95/10 could be satisfied by less than or equal to one deficiency in a sample of 46.

Or:

> A 95/10 could be satisfied by finding no deficiency in a sample of 30.

15. Whether using the sampling plan and acceptance criteria proposed in the ASRR or using a standard classical approach, the question arises as to what happens if the acceptance criterion is not met. We understand that the "extent of condition" will be determined and followed-up to reduce the probability of finding another deficiency in the same cell when the next sample is randomly selected. Clarify whether another random (though "stratified") sample will be tested for the new, improved, population.