April 9, 2002

MEMO TO FILE

FROM: Ronald W. Hernan, Senior Project Manager, Section 2 ***/RA/***
Project Directorate II
Division of Licensing Reactor Projects
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission

SUBJECT: SEQUOYAH TSC 01-10 - TVA RESPONSE TO RAI

Two followup questions were sent to TVA on March 14, 2002 regarding Questions 5 and 6 in the March 13, 2002, formal response to the staff's Request for additional Information regarding the subject license amendment request (TS 01-10).

The attachments provide documentation of TVA's responses to the additional request.

Docket Nos. 50-327 and 50-328

Attachments:
1. 3/14/02 e-mail from H. Ashar
2. Request for Additional Information - 2
3. 4/3/02 e-mail from D. Goodin
4. TVAN Calculation Update (pdf format)

From: Hansraj Ashar
To: Ronald Hernan
Date: 3/14/02 9:22AM
Subject: Follow-up RAI on TVA's Draft Responses

Ron:

Please transmit it to TVA as per your procedure.

Thanks.

Hans

CC: David Terao; James Pulsipher; Michael Snodderly

REQUEST FOR ADDITIONAL INFORMATION-2
SEQUOYAH NUCLEAR PLANT, UNITS 2
ONE TIME EXTENSION FOR CONTAINMENT INTEGRATED LEAK RATE TESTING

References:

1. Letter from TVA to NRC, "Sequoyah Nuclear Station, Unit 2 (SQN-2), Technical Specification (TS) Change No. 01-10, One time Extension for Type A (Containment Integrated Leak Rate) Test, October 9, 2001.
2. E-Mail from TVA, "Draft Responses to RAI-1 Questions," March 6, 2002.

1. In response to question 5 of RAI-1 regarding the examination of seals and gaskets, you refer to Appendix J, Type B testing (using performance based alternative - Option B of of Appendix J). You also state that the Type B testing shall be performed at least once in an ISI interval. Most licensees we talked to limit the Type B testing for such penetrations (i.e. penetrations with seals or gaskets, which are not disassembled frequently) to every two to three outages to ensure the integrity of the associated seals and gaskets. For the penetrations with seals and gaskets, which does not require disassembly, please provide the Type B test interval.

2. The response to question 6 can be categorized in three categories:

   a. NUREG 1493, and the licensee's assumption that the probability of preexisting leak because of the degradations, mentioned in question 6, has no consequence because the containments were intact, in spite of the degradations.
   b. The results of recent Inspections, and the fact that the containment has to maintain a negative pressure between 0.1 and 0.3 psi., and
   c. Conclusions drawn from NUREG 1493

   NUREG 1493 and EPRI TR-104285 are good guidance documents for performing the risk assessment related to the ILRT extension request. However, none of the documents explicitly consider the preexisting degradations in the uninspectable areas. Moreover, the containments where degradations were found in the uninspectable areas were not intact during the findings. If a design basis or a severe accident had occurred before the findings, the containment would not have served as essentially leaktight barrier.

   Category b response has some features which would detect large leakage, if the uninspectable areas (interior shell surfaces behind the ice baskets) were ultrasonically tested as part of the augmented inspection (IWE-1240). In absence of such an inspection, the best way to factor-in the potential degradations in the uninspectable areas is to modify Class 10 (Table 8, P.19, Enclosure 4, Ref. 1) to have 100 L_a as the maximum leak rate, and perform the consequence analysis. Please provide information as to how you would factor in the potential degradations in uninspectable areas.

From: "Goodin, Donald V. II" <dvgoodin@tva.gov>
To: "'Ronald Hernan'" <RWH@nrc.gov>
Date: 4/3/02 1:37PM
Subject: Response to Hans Asher Questions

Ron,

The responses to the two questions from Hans Asher are as follows:

Question 1 - SQN has 14 containment penetrations that have gaskets or seals. These penetrations are all Type B tested under Appendix J as a minimum once every 5 years. SQN has not extended the frequency for testing these penetrations beyond 5 years under option B. Note that in the event they are disassembled for any reason, they would also receive the Type B test as a post-maintenance test.

Question 2 - Chris Carey has revised the applicable pages of SQN's PRA calculation that supports the CILRT extension. He has increased the pre-existing leak rate from 35 to 100 La. The results are provided on pages 19 and 20 in the attached pdf file.

<<SQN - Revised Risk Calculation Pages.pdf>>

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