



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379

November 18, 1999

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of) Docket Nos. 50-327
Tennessee Valley Authority) 50-328

SEQUOYAH NUCLEAR PLANT (SQN) COMMENTS FOR REACTOR VESSEL
INTEGRITY DATABASE (RVID), REVISION 2

Reference: NRC letter to TVA dated October 6, 1999, "Closeout
of Generic Letter 92-01, Revision 1, Supplement 1,
'Reactor Vessel Integrity, for Sequoyah Nuclear
Plant Units 1 and 2 (TAC Nos. M92730 and M92731)"

Enclosed are comments to the current RVID for Unit 1 at
Sequoyah Nuclear Plant. The referenced letter requested
comments on the RVID by November 1, 1999. A revised response
date of December 1, 1999, was coordinated with Ron Hernan on
October 26.

Our comments identify revisions to the RVID for Unit 1. The
first revision is associated with the intermediate shell 05
forging (revises the unirradiated material upper shelf energy
from 74 ft-lb to 79 ft-lb). The second revision is
associated with the best estimate chemistry data for the
circumferential weld material (revises the Nickel content
from 0.13 percent to 0.11 percent). The enclosure provides a
detailed discussion of each change.

No comments are necessary for Unit 2 at this time.

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Please direct questions concerning this issue to me at
(423) 843-7170 or J. D. Smith at (423) 843-6672.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pedro Salas', is written over a large, loopy scribble that also contains the word 'Sincerely'.

Pedro Salas
Licensing and Industry Affairs Manager

Enclosure

cc (Enclosure):

Mr. R. W. Hernan, Project Manager
Nuclear Regulatory Commission
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Rockville, Maryland 20852-2739

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ENCLOSURE

TENNESSEE VALLEY AUTHORITY SEQUOYAH NUCLEAR PLANT (SQN) UNITS 1 AND 2

COMMENTS FOR REACTOR VESSEL INTEGRITY DATABASE (RVID), REVISION 2

NRC Request

Provide written comments on RVID, Revision 02. Note that lack of comments on the database will be construed by NRC as agreement with its contents.

TVA Response

TVA has reviewed Revision 02 of the NRC RVID and have the following comments:

SQN Unit 1

The intermediate shell 05 forging unirradiated material upper shelf energy (USE) should be revised from 74 ft-lb to 79 ft-lb. The current RVID value (74 ft-lb) is based on a 65 percent reduction of a single longitudinal Charpy test result obtained from Rotterdam Dockyard Company and was reported in the original TVA Generic Letter 92-01 submittal (see TVA letter dated July 7, 1992). Our original response was based on a review of the available information at the time of submittal. Subsequent review of available test data identified a set of axial Charpy test results applicable to the intermediate shell 05 forging. The revised USE for the forging is based on a direct calculation from the measured axial test data. The intermediate shell 05 forging is not the controlling material for SQN's reactor coolant system heatup and cooldown limits and does not affect these limits in the SQN technical specifications.

The best estimate chemistry data for the circumferential weld material (Heat No. 25295) should be revised to reflect a Nickel content of 0.11 percent rather than 0.13 percent. The revised value is based on a clarification of the testing performed for irradiated test specimen TW 58, which was reported in the Surveillance Capsule "X" analysis report (i.e., WCAP-13333 submitted to NRC by TVA letter dated September 20, 1992). The value of 0.42 percent Cu and 0.08 percent Ni reported in WCAP 13333 for irradiated Charpy specimen TW 58 was actually an average of two specimens, TW58a and TW58b, with chemistries of

0.424/0.406 percent Copper (Cu) and 0.084/0.085 percent Nickel (Ni) accordingly. When the results are averaged as individual samples with 3 significant figures, the Ni content drops from 0.13 percent to 0.11 percent as shown below. The copper content is not affected by this clarification and remains at the present value of 0.35 percent.

	<u>Percent Cu</u>	<u>Percent Ni</u>
TVA, SC	.33	.17
TVA, SC ⁽¹⁾	.424	.084
TVA, SC ⁽¹⁾	.406	.085
SC AVG.	.3867	.11
SC AVG	.3867	.11
RDM WQ ⁽²⁾	.300	---
RDM WQ ⁽²⁾	.25	---
RDM WQ ⁽²⁾	.46	---
AVG.	.35	.11

SQN Unit 2

Our review of SQN's Unit 2 RVID data finds that there are no changes at this time. Surveillance Capsule Y test results for SQN Unit 2 were recently received from Westinghouse Electric Company and are undergoing review for further validation by our engineering staff. In accordance with the reporting requirements of 10 CFR 50, Appendix H (Paragraph IV.A), we plans to provide the results of this review in the Capsule Y summary report scheduled for submittal in April 2000. Should any changes be necessary for the Unit 2 RVID as a result of this review, we will provide this feedback to NRC.

(1) Clarification of the testing performed for irradiated test specimen TW 58

(2) Rotterdam Weld Qualification