



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 22, 2015

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
P.O. Box 2000
Soddy-Daisy, TN 37384

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2, LICENSE RENEWAL
APPLICATION – SET 25 (TAC NOS. MF0481 AND MF0482)

Dear Mr. Shea:

By letter dated January 7, 2013, Tennessee Valley Authority submitted an application pursuant to Title 10 of the *Code of Federal Regulations* (CFR) Part 54, to renew operating licenses DPR-77 and DPR-79 for Sequoyah Nuclear Plant, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission staff. The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

These requests for additional information were discussed with Dennis Lundy, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-4084 or by e-mail at Emmanuel.Sayoc@nrc.gov.

Sincerely,

/RA by John Daily for/

Emmanuel Sayoc, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosure:
Requests for Additional Information

cc: Listserv

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DATE	6/ 22 /15	6/ 22 /15	6/ 22 /15	6/ 22 /15

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Letter to J. Shea from E. Sayoc date June 22, 2015

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SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION
SUPPLEMENTAL REQUESTS FOR ADDITIONAL INFORMATION

RAI 3.0.3.2.17-1a (Surveillance Capsule Operating Experience Followup)

Background:

During Refueling Outage No. 20 at Sequoyah Nuclear Plant (SQN), Unit 1, inservice inspections of the reactor vessel internals (RVI) revealed that two reactor pressure vessel (RPV) surveillance capsules had become dislodged from their baskets and that capsule pieces or specimens from at least one of these capsules had become loose inside the Unit 1 RPV. Apparent damage to some RVI components was noted by Tennessee Valley Authority (TVA or the applicant).

Issue:

Any damage to RVI components should be assessed to demonstrate that stress profiles for the damaged components remains bounded by those assumed for the as-built component configurations in the applicable Materials Reliability Program (MRP) reports; this is regardless of whether the damage was induced by an age-related aging effect.

In addition, the staff is concerned that any damage that occurred from the impacts of the loose parts (e.g., causing cold work to the affected components) could create a preferential site for initiation of degradation, such as stress corrosion cracking, during the period of extended operation. Evaluation should adequately address the use of future examinations of the damaged locations using inspection methods that will address this issue.

Request:

- (1) Provide an adequate technical justification for not considering the potential effects of loose part-induced cold work on the likelihood of degradation of the damaged reactor internals, in particular the long term prospects for initiation of stress corrosion cracking in the damaged internals.
- (2) Provide a basis for not performing subsequent re-inspections of the damaged locations of the Unit 1 reactor internals using inspection methods that will effectively address impact-related damage.