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Docket Nos. 50-327/328

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Docket Nos: 50-327
and 50-328

Mr. H. G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Dear Mr. Parris:

Subject: Request for Additional Information on Sequoyah

Enclosed is a request for additional information on equipment temperature response to hydrogen burns which is required before we can complete our review.

We will be submitting this request to AEP and Duke Power. Since this subject is generic to the ice condenser plants, we suggest a coordinated utility response by mid-October 1982.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosure:
As stated

cc: See next page

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P PDR

OFFICE	DL:LB #4	LA:DL:LB #4	DL:LB #4				
SURNAME	CStahle/hmc	MDuncan	EAdensam				
DATE	9/17/82	9/28/82	9/17/82				

SEQUOYAH

Mr. H. G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

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Commission
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Soddy Daisy, Tennessee 37379

James P. O'Reilly, Regional Administrator
U.S. Nuclear Regulatory Commission,
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Request for Additional Information on
Equipment Qualification

We have reviewed the information submitted by TVA regarding plant equipment temperature response and need the following additional information to complete our evaluation:

- (1) In your response to Item 2 in your letter dated April 6, 1982, you have provided only one example to indicate that the temperature reached by the equipment during a hydrogen burn is below the qualification temperature for that equipment. Confirm that you have performed analysis for all the equipment required for the hydrogen burn and provide the qualification testing of these equipment. Also provide the reference to individual Summary Component Evaluation Worksheets (SCEWS) which were submitted in the EQ submittal in response to NUREG-0588, so that the staff can make an independent evaluation of the subject analyses.
- (2) Since the probability of local detonation exists, provide the analyses or experimental results to demonstrate the survivability of essential equipment for the local detonation predicted.
- (3) In your response to item 3 in your letter dated April 6, 1982, you indicated that for Case 1C the burns are of a much shorter duration and the ambient temperature is lower. The staff recognizes that the burns are of a shorter duration but in addition to this duration between burns is also of much shorter duration which allows less time for the equipment to cooldown. Also, if the licensee wants to demonstrate in the blowdown sensitivity studies (Case JJ1) that containment integrity is maintained even for three times the mass flow rate used in S2D scenario then it should also be demonstrated that equipment will survive for that scenario. Hence, provide the equipment temperature for these two cases.
- (4) In your submittal of December 1, 1981, you indicated that the analysis on the teflon wire which was melted during Fenwal testing also indicated that teflon will completely melt in 1.4 seconds. Provide the melting point for the teflon used in the analysis. Also using the same model provide the results of the analyses predicting the surface temperature of the exposed thermocouple and RTD cable.

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- (5) Sandia, based on the experimental results, is predicting that scaling may have a big impact on the analytical model used to predict equipment temperature. Test results performed in a small chamber may not be used to demonstrate the equipment survivability in the containment. Based on this, demonstrate how the analytical model used for Sequoyah takes into account the scaling factor. If the analytical model does not consider the scaling factor, provide the basis for eliminating this factor.

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