

JUN 25 1984

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

Gentlemen:

SUBJECT: REPORT NOS. 50-327/83-26 AND 50-328/83-26

We have completed our evaluation of your response dated January 20, 1984, to Item C in our Notice of Violation issued on December 21, 1983, concerning activities conducted at your Sequoyah facility. Our review has concluded that the violation occurred as stated in the Notice of Violation. Enclosed is our staff evaluation of your response.

Therefore, in accordance with the requirements of 10 CFR 2.201, please resubmit your response to the Notice within 30 days of the date of this letter.

Should you have any questions concerning this letter, please contact us.

Sincerely,

James P. O'Reilly
Regional Administrator

Enclosure:
Staff Evaluation of Licensee
Response

cc w/encl:
C. C. Mason, Sequoyah Site Director
P. R. Wallace, Plant Manager
J. W. Anderson, Manager
Office of Quality Assurance
H. N. Culver, Chief, Nuclear Safety
Staff
D. L. Williams, Jr., Supervisor,
Licensing Section
J. E. Wills, Project Engineer

bcc w/encl: (See page 2)

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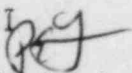
JUN 25 1984

Tennessee Valley Authority


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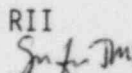
bcc w/encl:
NRC Resident Inspector
Document Control Desk
State of Tennessee


NOTE: F. Jape stated on 6/1/84 that he has previously contacted D. Brinkman, NRR by phone and received concurrence on our position.

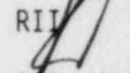
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DVerrelli
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MPukett
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JAOlshinski
5/12/84

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RLewis
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ENCLOSURE

STAFF EVALUATION OF LICENSEE RESPONSE DATED JANUARY 20, 1984

In the response letter of January 20, 1984, TVA denies the violation on the following basis:

"As stated in letters to NRC dated September 7, 1979, December 10, 1980, and February 16, 1982, in response to NUREGs 0578 and 0737, Sequoyah has four separate means of determining safety valve position (i.e., open or closed).

- a. Temperature sensors downstream of each safety valve (one per valve). Temperature indication and alarm are provided in the main control room.
- b. Pressurizer relief tank has temperature, pressure, level indication, and alarm in the main control room.
- c. Acoustic flow monitors are mounted downstream of each safety valve (one per valve). A flow indicating module in the main control room is calibrated to detect failure of a valve to reclose. An alarm in the main control room will actuate when any valve is not fully closed.
- d. Pressurizer pressure indicator and alarm in the main control room.

In supplement 1 to the Sequoyah SER, NRC acknowledges these four means as providing indication of valve position. The bases for Technical Specification 3.3.3.7 (B 3/4 3.3.7) which provides the reasoning behind and the 'intent' of the specification states, '...the operability of the accident monitoring instrumentation ensures that sufficient information is available ...to monitor and assess...an accident.' Thus, the intent of requiring two indications per valve is to ensure sufficient information is available to assess whether a safety valve has failed to reclose.

TVA design provides four separate means of position indication for the pressurizer safety relief valves, and thus, we will take reasonable measures to ensure all four indications are operable during modes 1, 2 and 3. Only two indications, however, are required to meet the limiting condition for operation in the Technical Specifications, and the acoustic monitors are not specifically identified as being required operable. Sequoyah was, therefore, in compliance with LCO 3.3.3.7 at all times during the event described in the violation."

The NRC position on this matter is that the Technical Specifications are intended to be implemented as described in the SER. Supplement 1 to the Sequoyah SER clearly states the acceptable method for meeting the requirements is to have redundant, direct, positive valve position indication. Contrary to what is implied in the denial, the NRC has not acknowledged all four methods of determining valve position as being equally acceptable alternatives. The SER states that temperature sensors downstream of each valve; temperature, pressure and

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level indications of the pressurizer relief tank; and pressurizer high pressure sensors are backups to the acoustic monitors and stem mounted limit switches. Based on the information from the SER, TVA had received sufficient guidance as to which method the NRC accepted for fulfilling the NUREG 0737 Technical Specification requirement.

In citing this violation, we realized that the Technical Specification requirement did not clearly specify which "indicators" are the "2/valve" required channels. However, considering the original reason for acoustic monitor installation to meet TMI requirements we conclude that the intent of the acoustic monitors was not only to meet TMI requirements but also to meet the TS requirement for valve position indication. The intent of NUREGs 0737 and 0578 is to require the two valve position indicators to be either a reliable position indication of the valve stem, detection of flow by acoustic methods, or measurement of the flow rate in the discharge piping. The Sequoyah SER on this matter clearly describes the positive channels of PORV indication as the stem mounted indicator and the acoustic monitors (accelerometer). For the safety valves, the SER describes the only channel as the acoustics. All the other methods acclaimed by TVA to be equal (or better) than the acoustic monitors are described as "backup methods" in the SER.