

Docket Nos.: 50-327
and 50-328

18 SEP 1986

Mr. S. A. White
Manager of Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 370402-2801

Dear Mr. White:

SUBJECT: REQUEST FOR INFORMATION CONCERNING THE INSERVICE TESTING (IST)
PROGRAM FOR SEQUOYAH

In the course of reviewing the IST program for Sequoyah, the staff has developed the enclosed request for additional information. It is requested that you respond within two weeks from the date of this letter.

If you have any questions regarding this matter or cannot meet the requested schedule, please contact T. Alexion at FTS 492-7386.

Sincerely,

B.J. Youngblood, Director
PWR Project Directorate #4
Division of PWR Licensing-A

Enclosure: As stated

cc: See next page

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~~PWR#4/DPWR-A~~
TAlexion/rad
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CStahle
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BJYoungblood
09/18/86

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PDR ADOCK 05000327
P PDR

Mr. S. A. White
Tennessee Valley Authority

Sequoyah Nuclear Plant

cc:
Tennessee Department of Public
Health
ATTN: Director, Bureau of
Environmental Health Services
Cordell Hull Building
Nashville, Tennessee 37219

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission,
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323

W. C. Drotleff
ATTN: J. A. Raulston
Tennessee Valley Authority
400 West Summit Hill Drive, W12 A12
Knoxville, Tennessee 37902

Mr. Michael H. Mobley, Director
Division of Radiological Health
T.E.R.R.A. Building
150 9th Avenue North
Nashville, Tennessee 37203

Mr. Bob Faas
Westinghouse Electric Corp.
P.O. Box 355
Pittsburgh, Pennsylvania 15230

County Judge
Hamilton County Courthouse
Chattanooga, Tennessee 37402

R. L. Gridley
Tennessee Valley Authority
5N 157B Lookout Place
Chattanooga, Tennessee 37402-2801

M. R. Harding
Tennessee Valley Authority
Sequoyah Nuclear Plant
P.O. Box 2000
Soddy Daisy, Tennessee 37379

Resident Inspector/Sequoyah NPS
c/o U.S. Nuclear Regulatory Commission
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

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Docket File

NRC PDR

Local PDR

PRC System

NSIC

PWR#4 Reading

MDuncan

BJYoungblood Reading

TAlexion

TVAOP (3) S. Richardson AR 5029

HDenton

JTaylor

BHayes

GZech, RII

NGrace

LSpessard

KBarr

SAConnolly

DMuller

TNovak

BJYoungblood

JHolonich

CStahle

TKenyon

WLong

BKSingh

KHooks

ACRS (10)

OGC

JPartlow

BGrimes

EJordan

TPoindexter

1. Diesel fuel oil transfer pumps

TVA should provide the basis for exemption from compliance with the Code requirement for measuring the inlet and differential pressure for these pumps. The Code does not address any separate requirements or exemptions for positive displacement pumps. TVA should demonstrate compliance with the intent of the Code for showing acceptable pump operation. TVA's response should address the proposed method(s) to be used to meet the intent of the Code, i.e., to detect change in the hydraulic and mechanical condition of the pumps. The only method stated is assuring a >10 gpm flow rate.

2. Trending of leak rate and corrective action for containment isolation valves (CIVs)

Article-IWV-3426 of the Code requires that leakage rate measurements shall be compared with previous measurements. Further, IWV-3427 requires replacement or repair of valves whose tests show a leakage rate increasing with time and for which projections indicate exceeding the maximum permissible leak rate. How will TVA demonstrate leakage rate changes with time? Alternatively, what is TVA's basis for not making this demonstration? TVA should provide the basis for not performing comparisons with previous test data and should justify the adequacy of a single data point versus a time trend. Article IWV-3427 of the Code requires repair or replacement of valves with leakage rates exceeding either the values specified by the Owner (TVA) or a leak rate delineated in IWV-3426 where no Owner-defined value exists. TVA should provide the basis for not performing repair or replacement of valves with leak rates found to be in excess of Owner-specified (TVA-defined reference leak rate) leak rates as required by IWV-3427.

3. Corrective action for valves failing exercising tests

TVA should provide the basis for not conforming to the requirements of IWV-3427 for trending and corrective actions applied to pressure isolation valves. TVA should provide discussion of specific conformance to each section of the Code for which credit is taken by the Technical Specifications (e.g., how is IWV-3417(a) met with respect to stroke time?)

4. Testing of valves previously out of service

TVA should provide clarification of the basis upon which the 30 day requirement for retesting will be applied, e.g., will TVA's proposed deviation only apply when other reasons for declaring a system inoperable cause that inoperability to extend beyond 90 days? TVA should commit to testing the valve prior to declaring the system operable again, or provide a basis for not doing so.

5. Pressurizer auxiliary spray line check valve (62-661) and power-operated auxiliary spray valve (62-84)

Article IWV-1100 specifies the scope of the application of rules and requirements for inservice testing of certain Class 1, 2, and 3 valves which are required to perform a specific function in shutting a reactor down or mitigating the consequences of an accident. Article IWV-1400 requires that the Owner shall categorize each valve to be tested in accordance with the rules of Section XI, and also that the Owner shall list these valves in the plant records in accordance with IWV-6000.

Before exempting or removing any valve from their IST program, TVA should provide appropriate evidence that such valve is not classified ASME Class 1, 2, or 3, including plant records showing this; or that the valve qualifies for exception in accordance with IWV-1200; or that some other acceptable basis for its removal has been established.

TVA should specifically address these Code requirements with respect to inclusion of valves CV 62-661 and PCV 62-84 in their IST program.

6. Normal charging line check valve 62-543

Article IWV-1100 specifies the scope of the application of rules and requirements for inservice testing of certain Class 1, 2, and 3 valves which are required to perform a specific function in shutting a reactor down or mitigating the consequences of an accident. Article IWV-1400 requires that the Owner shall categorize each valve to be tested in accordance with the rules of Section XI, and also that the Owner shall list these valves in the plant records in accordance with IWV-6000.

Before exempting or removing any valve from their IST program, TVA should provide appropriate evidence that such valve is not classified ASME Class 1, 2, or 3, including plant records showing this; or that the valve qualifies for exception in accordance with IWV-1200; or that some other acceptable basis for its removal has been established.

TVA should specifically address these Code requirements with respect to inclusion of valve CV 62-543 in their IST program.

The Code provides specific alternative requirements for the testing of check valves when it is not practical to do so during power operation. TVA should evaluate and state whether their need is to take exception to testing requirements or to seek exception from Code applicability for valve 62-543. TVA should show how compliance with the intent of the Code, which is to demonstrate valve operability, will be accomplished.

7. BCP seal injection check valves (62-560, -561, -562, -563)

Article IWV-1100 specifies the scope of the application of rules and requirements for inservice testing of certain Class 1, 2, and 3 valves which are required to perform a specific function in shutting a reactor down or mitigating the consequences of an accident. Article IWV-1400 requires that the Owner shall categorize each valve to be tested in accordance with the rules of Section XI, and also that the Owner shall list these valves in the plant records in accordance with IWV-6000.

Before exempting or removing any valve from their IST program, TVA should provide appropriate evidence that such valve is not classified ASME Class 1, 2, or 3, including plant records showing this; that the valve qualifies for exception in accordance with IWV-1200; or that some other acceptable basis for its removal has been established.

The Code provides specific alternative requirements for the testing of check valves when it is not practical to do so during power operation. TVA should evaluate and state whether their need is to take exception to testing requirements or to seek exception from Code applicability for valves 62-560, 62-561, 62-562, and 62-563. TVA should show how compliance with the intent of the Code, which is to demonstrate valve operability, will be accomplished.

8. RCS check valve 68-559 to PR

Article IWV-3522 delineates requirements for exercising all class 1, 2, and 3 check valves, including those valves that cannot be exercised during plant operation. TVA should either demonstrate how they will achieve compliance with IWV-3522 for valve 68-559 (either during operation or cold shutdown), or provide evidence of some other acceptable basis for taking exception to the Code which will satisfy the intent of this Article.

9. RV Head Vent Valves FSV-68-396 and -397

IWV-3300 requires that valves with remote position indicators shall be observed at least once every two years to verify that valve operation is accurately indicated. TVA states that these valves are totally enclosed solenoid-actuated valves and that their position or operation cannot be visually observed. What method(s) will TVA use to verify that valve operation is accurately indicated and that the valves will be tested in accordance with the requirements of IWV-3300?

10. PASS Valves

IWV-3300 requires that valves with remote position indicators shall be observed at least once every two years to verify that valve operation is accurately indicated. TVA states that these valves are totally enclosed solenoid-actuated valves and that their position or operation cannot be visually observed. What method(s) will TVA use to verify that valve operation is accurately indicated and that the valves will be tested in accordance with the requirements of IWV-3300?

11. Maximum allowable stroke time for power-operated valves

The NRC staff position concerning stroke time measurements of power operated valves is that those measurements must be trended in accordance with Section XI so the information can be utilized to monitor valve degradation and predict valve failure. The exception to this position is explained as follows.

Rapid-acting valves are defined as those power operated valves that stroke in 2 seconds or less. Relief from the trending requirements of Section XI (Paragraph IWV-3417(a), 1980 Edition

through Winter 1981 Addenda) presents no safety concerns for these valves since variations in the stroke times will be affected by slight variations in the response times of the personnel performing the tests. However, the staff does require that the licensee assign a maximum limiting stroke time of 2 seconds to these valves in order to obtain this Code relief. Where this requirement cannot be met, the licensee is required to meet the Code.

TVA should confirm that its position is in accordance with the above.

12. Parallel UHI and SIS check valves

IWV-3411 states that Category A and B valves shall be exercised at least once every 3 months, with exceptions as defined in IWV-3412(a), IWV-3415, and IWV-3416. In the exceptions, the Code permits the valves to be tested at cold shutdown where:

1. It is not practical to exercise the valves to the position required to fulfill their function or to the partial position during power operation.

2. It is not practical to observe the operation of the valves (with failsafe actuators) upon loss of actuator power.

TVA states that they will not quarterly exercise the parallel UHI and SIS check valves individually; that the valves will be stroked in combination.

IWV-3412(a) states that valves that cannot be exercised during plant operation shall be specifically identified by the owner (TVA) and shall be full stroke exercised during cold shutdowns. Such valves shall be exercised on a frequency determined by the intervals between shutdowns as follows: for intervals of three months or longer, exercise during each shutdown; for intervals of less than three months, full stroke exercise is not required unless three months have passed since the last shutdown exercise.

What is the TVA basis for not quarterly exercising the UHI and SIS check valves individually? TVA should demonstrate how stroking of the valves in combination will meet the requirements of Code Subsection IWV-3412(a).

13. Containment Pressure Transmitter Isolation Valves

IWV-3300 requires that valves with remote position indicators shall be observed at least once every two years to verify that valve operation is accurately indicated. TVA states that these valves are totally enclosed solenoid-actuated valves and that their position or operation cannot be visually observed. What method(s) will TVA use to verify that valve operation is accurately indicated and that the valves will be tested in accordance with the requirements of IWV-3300?