10 CFR 50.90

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

July 23, 1987

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

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

Serial No. 87-375
NO/ETS:vlh
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
TECHNICAL SPECIFICATION CHANGE REQUEST
TYPE A TEST ACCEPTANCE CRITERIA

Pursuant to 10 CFR 50.90 Virginia Electric and Power Company requests an amendment in the form of changes to the Technical Specifications to Operating Licenses No. DPR-32 and DPR-37, for Surry Power Station Unit 1 and 2. Implicit in this request are specific exemption requests, in accordance with 10 CFR 50.12, from Article III.A.5(b), of 10 CFR 50 Appendix J. Virginia Electric and Power Company is requesting that the "as-found" measured leakage rate (Lam) acceptance criterion for each Type A test be revised to less than or equal to the maximum allowable leakage rate (La), where La = 0.1 weight percent per 24 hours at calculated peak containment pressure (Pa). This "as-found" acceptance criterion will be used to determine the Type A test schedule and for reportability determinations. The "as-left" measured leakage rate acceptance criterion will remain unchanged at 0.75 La. Additionally, an exemption is requested to use ANSI/ANS 56.8-1981 in place of ANSI N45.4-1972 as guidance for performing and verifying Type A tests.

Changing the "as-found" leakage rate acceptance criterion will not reduce any margin to safety. The "as-left" leakage rate acceptance criterion will remain at 0.75 La. This maintains the existing .25 La margin for increased containment leakage over the operating cycle prior to reaching the maximum allowable leakage (La) assumed in our accident analysis for all loss-of-coolant accidents and offsite dose calculations. Included in the "as-found" measured leakage rate are the results of the Type B and C tests performed during that outage as well as those Type B and C tests performed during the previous operating cycle.

Revising the "as-found" acceptance criterion should minimize pressurization and stress of the containment due to unnecessary testing and allow our corrective actions to be focused on identified Appendix J Type B and C testing problems.

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The leakage rate test pressure will be increased from 39.2 psig to 44.2 psig based on a LOCA reanalysis using a cold leg pump suction break with the minimum ESF available.

This request, including the 10 CFR 50 Appendix J relief request, has been reviewed and approved by the Station Nuclear Safety and Operating Committee and the Safety and Evaluation Control Staff. It has been determined that this request does not pose an unreviewed safety question as defined by 10 CFR 50.92 nor does it pose a significant safety hazards consideration as defined by 10 CFR 50.92.

In accordance with 10 CFR 170 an application fee of $150 is enclosed.

If you have any questions or need additional information to process this request please contact us.

Very truly yours,

W. L. Stewart

Attachments

1. Discussion of T.S. Change
2. Proposed Change for Units 1 and 2
3. Check

cc: Dr. J. Nelson Grace
Regional Administrator
NRC Region II

Mr. W. E. Holland
NRC Senior Resident Inspector
Surry Power Station

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NRC Surry Project Manager
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Mr. Charles Price
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Discussion of Proposed Changes

for Technical Specifications

Change Request Surry Units 1 & 2

Discussion of Proposed Changes

The proposed change will revise the "as-found" leakage rate acceptance criterion to less than or equal to the maximum allowable leakage rate (La). Raising the "as-found" acceptance criterion to La from 0.75 La will prevent unnecessary pressurization of the containment due to Type A testing and still provide a 0.25 La margin for increased leakage over the operating cycle. Including the results of Type B and C testing performed over the previous cycle and the current outage with the "as-found" Type A test results will provide an accurate interpretation of containment integrity. Additionally, the minimum leakage rate test pressure will be raised from 39.2 psig (Pa) to 44.2 psig (Pa).

If the measured leakage is less than La, the assumption utilized in the updated safety analysis report remains bounded. Therefore, "as-found" Type A test results below 1.0 La should not be considered a failure for determining the required Type A test schedule. The "as-left" leakage rate acceptance criteria remains at 0.75 La and continues to provide a 0.25 La margin for increased containment leakage at the start of each operating cycle (prior to reaching the assumed leakage of La in the Safety Analysis Report).

Paragraphs 4.4B and 4.4C are being modified to differentiate between "as-found" and "as-left" leakage rate acceptance criteria. The "as-found" leakage rate acceptance criterion will be changed to less than or equal to La (.1 weight percent per 24 hours at pressure Pa) and require inclusion of Type B and C test results performed during the same outage or performed during the previous cycle of operation. The "as-left" leakage rate acceptance criterion will remain unchanged (0.75 La), thus providing the same margin of safety and 0.25 La margin of increased leakage over the operating cycle. In section 4.4C the test schedule and reportability will be based on the "as-found" acceptance criteria of 1.0 La. This prevents unnecessary pressurization of the containment every operating cycle and allow corrective actions to be focused on identified Type B and C testing problems.

A note is being added to the various valves in technical specification Table 3.8-1 and 3.8-2 to state that they are not required to be vented and drained during a Type A test. The basis for this change is that Paragraph III.A.1.(d) of 10 CFR 50, Appendix J specifies that penetrations which are water filled and would be operated during and after a DBA are exempt from the venting and draining requirement. All valves identified by Note (2) meet that requirement. In addition, in Tables 3.8-1 and 3.8-2 the functions for many valves have been modified to more accurately describe the system function of that isolation valve.

Paragraph 4.4B1b and the Basis have been changed to reflect the new minimum leakage rate test pressure. This change has been incorporated into the FSAR and station procedures and therefore to provide consistency between the licensing documents and station programs we are proposing this change.

Stone & Webster analyzed that during a LOCA with a cold leg pump suction double ended shear and a minimum engineered safeguard equipment available that the peak containment pressure could reach 44.2 psig. The analysis was presented to the NRC on November 22, 1978 (Serial No. 069C/013178). The Type A, B, and C test procedures were modified at the time to perform subsequent tests at a minimum pressure of 45 psig. The containment is pressurized to 47 psig for the Type A test to allow sufficient margin for stablization and equalization during the test.

In paragraph 4.4B1a the method utilized to verify the Type A test is being changed from make-up air method to a superimposed verification test as discussed in ANSI/ANS 56.8-1981. Currently, we are utilizing the ANSI/ANS 56.8-1981 for Type A test guidance and are therefore changing the technical specification to reflect that standard.

10 CFR 50.59 Safety Evaluation

The proposed change does not involve an unreviewed safety question because operation of Surry Power Station Units 1 and 2 in accordance with this change would not:

1. Increase the probability of occurrence or the consequence of any accidents or malfunction of equipment important to safety previously evaluated in the Updated Safety Analysis Report (UFSAR). Increasing the "as-found" acceptance criteria to (La) for Type A tests and increasing test pressure does not change any probability of occurrence or malfunction because the safety analyses utilizes 1.0 La and 44.2 psig for accident analysis and the "as-left" leakage rate (0.75 La) will remain unchanged providing the same margin of safety for the containment at the start of each operating cycle.

2. Create the possibility for an accident or malfunction of equipment of a different type than previously evaluated in the safety analysis report. These proposed changes do not involve any alterations to plant equipment or procedures which would introduce any new or unique operational modes or accident precursors.

3. Reduce the margin of safety as defined in the basis for any technical specification because the accident analyses performed in the UFSAR will continue to bound plant operation.

Therefore pursuant to 10 CFR 50.59 based on the above considerations it has been determined that this change does involve an unreviewed safety question.

Basis for No Significant Hazards Determination

The proposed change does not involve a significant hazards consideration because operation of Surry Units 1 and 2 in accordance with this change would not:

(1) involve a significant increase in the probability or consequence of an accident previously evaluated in the UFSAR. Increasing the "as-found" leakage rate acceptance criteria to La for Type A test does not affect any plant equipment or procedures or the probability or consequences of an accident. Increasing the "as-found" leakage rate acceptance criteria only affects test scheduling and reportability for Type A containment leak testing. Additionally, the proposed "as-found" leak rate limit of 1.0 La remains consistent with the current Safety Analysis which utilizes 1.0 La for accident analyses. Furthermore, the "as-left" leakage rate acceptance criteria remains unchanged at 75% of La

(2) create the possibility of a new or different kind of accident from any accident previously identified. It has been determined that a new or different kind of accident is not possible due to this change. This proposed change does not involve any alterations to plant equipment or procedures which would introduce any new or unique operational modes or accident sequences. Furthermore, the change which only affects testing schedule and reportability, utilizes 1.0 La as a limit which is consistent with the assumptions of the accident analyses.

(3) involve a significant reduction in a margin of safety. The margin of safety for any technical specification basis does not change. The UFSAR accident analyses assumes containment leakage at 1.0 La which is used as the "as-found" leakage limit in the proposed change. Furthermore, the margin of safety remains 0.25 La, the difference between the assumed 1.0 La and the "as-left" acceptance criteria 0.75 La at the start of each operating cycle.

Therefore, pursuant to 10 CFR 50.92 based on the above consideration it has been determined that this change does not involve a significant safety hazards consideration.