ENCLOSURE 1

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNIT 2

DOCKET NO. 50-328

(TVA-SQN-TS-90-09)

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SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-1972; however, the methods of ANSI/ANS 56.8-1987 for mass point data analysis may be used in lieu of the methods specified in ANSI N45.4-1972. R91

a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10-month intervals during shutdown at P_a, 12 psig, during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection.

b. If any periodic Type A test fails to meet 0.75 L_a the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet 0.75 L_a, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 L_a at which time the above test schedule may be resumed. *

c. The accuracy of each Type A test shall be verified by a supplemental test which:

1. Confirms the accuracy of the Type A test by verifying that the difference between supplemental and Type A test data is within 0.25 L_a,
2. Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.
3. Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage at P_a, 12 psig.

d. Type B and C tests shall be conducted with gas at P_a, 12 psig, at intervals no greater than 24 months except for tests involving:

1. Air locks,
2. Penetrations using continuous leakage monitoring systems, and

* An exemption from the 18 month accelerated frequency requirement is allowed for the Type A test failures conducted during the unit 2 cycle 2 and Unit 2 cycle 3 refueling outages

ENCLOSURE 2

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNIT 2

DOCKET NO. 50-328

(TVA-SQN-TS-90-09)

DESCRIPTION AND JUSTIFICATION FOR
EXEMPTION TO SURVEILLANCE REQUIREMENT 4.6.1.2(b)

ENCLOSURE 2

Description of Change

Tennessee Valley Authority proposes to modify the Sequoyah Nuclear Plant (SQN) Unit 2 Technical Specifications (TSs) to request an exemption from a portion of SQN TS Surveillance Requirement (SR) 4.6.1.2(b) regarding accelerated Type A (containment integrated leak rate test [CILRT]) test schedules. Two Type A tests performed on SQN Unit 2 during the Unit 2 Cycle 2 refueling outage (November 1984) and the Unit 2 Cycle 3 refueling outage (March 1989) were classified as failed tests. These two consecutive failures require an accelerated Type A test frequency as stated in SQN TS SR 4.6.1.2(b):

> "b. If any periodic Type A test fails to meet 0.75 La the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet 0.75 La, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 La at which time the above test schedule may be resumed."

TVA's proposed TS change requests an exemption from the accelerated Type A test frequency for the Unit 2 Cycle 2 and Unit 2 Cycle 3 Type A test failures.

Reason for Change

TVA has evaluated the Type A test results in conjunction with the particular conditions that caused each of the Unit 2 CILRT failures and has determined that the increased surveillance frequency would be inappropriate. The leakage test results from each of the Unit 2 failures were below the maximum analyzed leakage (1.0 La). It should be noted that SQN's TSs contain a conservative leakage limit of 0.75 La. Test results, along with problem identification, have demonstrated that a general containment leakage problem does not exist. The particular conditions that caused each of the Unit 2 CILRT failures were positively identified. TVA has implemented a corrective action plan that directly addresses the cause of the CILRT failures to preclude recurrence. A detailed description of TVA's corrective action plan is provided in the justification for change provided below. Based on the improvements now contained in TVA's CILRT program coupled with the fact that the failed test leakage was below the maximum analyzed leakage, TVA has determined that increasing the frequency of the Type A test in accordance with SR 4.6.1.2(b) would not provide a corresponding increase in the level of confidence for demonstrating Unit 2 containment integrity.

In addition to the above, TVA has evaluated the hardships and impact of performing an increased frequency CILRT during the Unit 2 Cycle 4 refueling outage. TVA estimates the cost for setup, testing, and recovery to be approximately $250,000. This does not include replacement power

cost associated with the 3- to 4-day additional downtime. Current estimates of the replacement power cost during the fall and winter months (Unit 2 Cycle 4 refueling outage scheduled from October to December 1990) would be approximately $1 million. Consequently, based on monetary options, TVA considers the request for relief from the TS SR to be economically prudent.

Justification for Change

The following discussion provides a history of SQN Unit 2 CILRT results, the problems associated with the Unit 2 CILRT failures, and the steps TVA has taken to preclude recurrence. SQN TS 3/4.6.1 defines the maximum overall integrated leakage (i.e., safety analysis limit) as 1.0 La. This is equal to 0.25 percent per day of the containment free air volume at a calculated peak accident pressure (Pa) of 12.0 pounds per square inch gauge (psig). The SQN TS acceptance criteria for the periodic CILRT is 0.75 La or 0.1875 percent per day.

The CILRT performed on SQN Unit 2 during the Cycle 2 refueling outage (November 1984) recorded an "as-found" measured leakage rate of 0.22 percent per day. This value was above the 0.75 La allowable TS limit but below the 1.0 La safety analysis limit of 0.25 percent per day. Under the philosophy and language provided in a proposed rule change to 10 CFR 50 Appendix J (refer to Federal Register, Volume 51, No. 209 dated October 29, 1986), the as-found measured leakage rate would have been acceptable and would not have been classified as a failed test. The proposed rule change to Appendix J provides a clarification regarding the philosophy for having a 25 percent margin between the TS acceptance criteria (0.75 La) and the maximum allowable leakage limit (1.0 La). The intent of Appendix J is to establish a maximum leakage limit (1.0 La) that would preclude exceeding radiation exposure limits for (a) operating or (b) design basis accident conditions. To ensure that these limits would not be exceeded during operation between regularly scheduled Type A tests, a 25 percent margin for containment leakage degradation is imposed on the acceptable leakage limit for return to power operation following a periodic Type A test. The proposed rule changes to Appendix J clarify the intent to measure, record, and report as-found and as-left leakage rates and the appropriate acceptance criteria for each condition. Section III.A.7(b) of the proposed rule change states that the as-found leakage rate must not exceed 1.0 La and the as-left leakage rate must not exceed 0.75 La. This is consistent with the philosophy for having a 25 percent margin for deterioration of containment integrity during the interval between normally scheduled Type A tests.

The root cause of the Cycle 2 CILRT failure was determined to be packing leakage from two outboard root valves on two containment pressure sensing lines. TVA's investigation to determine the root cause of the excessive leakage problem was submitted to NRC in a TVA summary technical report.

(Reference TVA letter from R. H. Shell to Ms. E. Adensam dated February 19, 1985.) The investigation found that maintenance had been performed on the pressure sensing lines during the Cycle 2 outage and that no postmaintenance leak rate testing had been performed. The root valves were subsequently repaired (tightened packing), which resulted in an immediate reduction in the measured leak rate to below the TS limit. SQN's CILRT program did not previously include any postmaintenance leak rate testing for these pressure sense lines.

TVA has implemented corrective actions that directly address the leakage conditions associated with pressure sense lines. These actions include:

1. Programmatic review of instrument maintenance and operation activities to identify potential impacts to containment integrity.

2. Expansion of SQN's local leak rate test (LLRT) program to require an LLRT following any maintenance performed on containment pressure sense lines. Postmaintenance leak rate testing is now required and is contained in SQN's Surveillance Instruction (SI) 159.1, "Leak Rate Test on Containment Pressure Instrumentation."

The corrective actions listed above are intended to fully address the root cause of the leakage problems associated with the Unit 2 Cycle 2 CILRT failure.

The CILRT performed on Unit 2 during the Cycle 3 refueling outage (March 1989) recorded an as-found leakage rate of 0.20191 percent per day. This value was similar to the 1984 CILRT in that it was above the SQN TS limit of 0.75 La, but within the 1.0 La safety analysis limit of 0.25 percent per day. Therefore, the as-found leakage measured during the March 1989 CILRT would have been acceptable under the philosophy stated in the proposed rule change to Appendix J.

The primary cause of the Cycle 3 CILRT failure was due to excessive leakage through Penetration X-59. A thorough description of TVA's investigation regarding the excessive leakage through X-59 is contained in TVA's letter to NRC dated June 15, 1989, "Sequoyah Nuclear Plant (SQN) Unit 2 - Reactor Containment Building Intergrated Leak Rate Test (ILRT)." An LLRT was performed on Penetration X-59 on March 3, 1989, to determine the leak rate prior to the start of the CILRT. The test results indicated that the expected leakage from X-59 during the CILRT would be 0.3266 standard cubic feet per hour (scfh). However, during the CILRT on March 17, 1989, the leak rate from X-59 was discovered to be considerably higher than expected. Because of the excessive leakage through X-59, TVA conducted an additional LLRT of X-59 to determine the root cause of the excessive penetration leakage. The root cause was determined to be a personnel error during conduct of the X-59 LLRT on March 3, 1989. The root cause stems from carelessness in properly connecting the hose from the test equipment to the test connection for the valves associated with penetration X-59. The test hose passed over a sharp edge that crimped the hose flat, thereby hindering flowrate through the hose. This hose restriction masked the correct leakage rate.

Another factor that contributed to the excessive leakage through X-59 involves a maintenance sequence that occurred when the outboard containment isolation valve (FCV-67-88) was previously disassembled, cleaned, and reassembled during the outage. FCV-67-88 is a motor-operated butterfly valve with a rubber lining. There are no internal travel stops inside this type of butterfly valve. The travel stop limits for this type valve are set in the valve operator. Since the travel stops are set within the operator, the actual valve position cannot be guaranteed if the valve has been removed from the piping, the valve operator detached from the valve body, and the valve subsequently replaced in the line prior to reconnecting the operator. Therefore, whenever maintenance requires removal of this type valve from the piping, the valve operator limits must be adjusted with the valve body attached so that a visual confirmation of valve position is known prior to installing the valve back into the piping. The maintenance sequence performed on FCV-67-88 in February directly contributed to the excessive leakage through X-59 during the March CILRT.

TVA has implemented corrective actions that directly address the root causes of the excessive leakage from Penetration X-59. These actions include:

1. Revising the LLRT program (SI-158.1) to include instructional steps that require the test hoses to be visually inspected to ensure that no restrictions or crimped conditions exist.

2. Revising SQN maintenance instruction (O-MI-MVV-000-008.0) to ensure that when soft-seated butterfly valves without internal disc stops are removed from the piping, the valve operator limits are set with the valve body attached to ensure that valve position is established prior to reinstallation.

The corrective actions listed above are documented in a SQN condition adverse to quality report (SQP 890169). These improvements in SQN's LLRT program and maintenance procedure are intended to fully address the root causes of the problems associated with the Unit 2 Cycle 3 CILRT failure.

In conclusion, the as-found measured leakage rate for each of the Unit 2 CILRTs did not exceed the 1.0 La safety analysis limit. Additionally, under the philosophy and language provided in the 1986 proposed rule change to Appendix J, the as-found measured leakage rate would have been acceptable and would not have classified the Unit 2 CILRTs as failures. The conditions that resulted in the CILRT failures on SQN Unit 2 did not indicate the existence of a general containment leakage problem. The root causes of the CILRT failures were maintenance activities conducted during outage periods and were not due to containment conditions or degradation during previous operation. SQN's LLRT, CILRT, and maintenance programs were reviewed, expanded, and improved to address the specific problem areas. TVA concludes that the identified leakage problems that caused the CILRT failures can best be addressed through TVA's alternative corrective actions rather than increasing the frequency of Type A tests.

Environmental Impact Evaluation

The proposed change request does not involve an unreviewed environmental question because operation of SQN Unit 2 in accordance with this change would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the Staff's testimony to the Atomic Safety and Licensing Board, supplements to the FES, environmental impact appraisals, or decisions of the Atomic Safety and Licensing Board.

2. Result in a significant change in effluents or power levels.

3. Result in matters not previously reviewed in the licensing basis for SQN that may have a significant environmental impact.

ENCLOSURE 3

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNIT 2

DOCKET NO. 50-328

(TVA-SQN-TS-90-09)

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

ENCLOSURE 3

Significant Hazards Evaluation

TVA has evaluated the proposed technical specification (TS) change and has determined that it does not represent a significant hazards consideration based on criteria established in 10 CFR 50.92(c). Operation of Sequoyah Nuclear Plant (SQN) in accordance with the proposed amendment will not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated.

The requested change does not require a physical modification to any plant system and does not affect any accident analysis. The exemption from the accelerated Type A test frequency is based on the fact that the measured as-found leakage rates for both Unit 2 CILRTs were below the safety analysis limit of 1.0 La. The implementation of TVA's corrective action plan is intended to correct the root causes of the problems that resulted in the Unit 2 Type A test failures. TVA's corrective action plan focuses attention on the root causes of Unit 2 leakage problems and is considered to be more appropriate than performance of two consecutive successful Type A leakage tests (i.e., increased frequency). A general containment leakage problem does not exist. Therefore, the requested change does not involve a significant increase in the probability or consequences of an accident previously analyzed.

(2) Create the possibility of a new or different kind of accident from any previously analyzed.

No physical modification is being made to any plant system as a result of this change. The proposed exemption from the increased frequency requirement for Type A tests does not alter any accident analysis or any assumptions used to support the accident analysis. TVA has implemented a corrective action plan that is intended to prevent recurrence of previously identified leakage problems that were encountered during the last two Type A tests on Unit 2. Therefore, the possibility of a new or different kind of accident is not created.

(3) Involve a significant reduction in a margin of safety.

The margin of safety provided by the allowable containment leakage limit (0.75 La) currently contained in TSs remains unchanged. The as-left leakage value will still meet this limit. The nature of the problems encountered during the previous two Type A tests on SQN Unit 2 indicates that a general containment leakage problem does not exist. TVA's corrective action plan directly addresses the identified problem areas to prevent recurrence. Therefore, there is no significant reduction in the margin of safety.

ENCLOSURE 4

SEQUOYAH NUCLEAR PLANT UNIT 2

REQUEST FOR EXEMPTION FROM
10 CFR 50, APPENDIX J, SECTION III.A.6(b)

ENCLOSURE 4

EXEMPTION REQUEST AND ENVIRONMENTAL ASSESSMENT

Section III.A.6(b) of Appendix J to 10 CFR 50 states:

> "b. If two consecutive periodic Type A tests fail to meet the applicable acceptance criteria in III.A.5(b), not withstanding the periodic retest schedule of III.D., a Type A test shall be performed at each plant shutdown for refueling or approximately every 18 months, whichever occurs first, until two consecutive Type A tests meet the acceptance criteria in III.A.5(b), after which time the retest schedule specified in III.D. may be resumed."

TVA is requesting an exemption from the accelerated frequency requirement of Section III.A.6(b) for SQN Unit 2. TVA's proposed exemption is related to two Type A tests performed on SQN Unit 2 during the Unit 2 Cycle 2 refueling outage (November 1984) and the Unit 2 Cycle 3 refueling outage (March 1989). The as-found leak rate measured during each Type A test failed to meet the acceptance criteria of Appendix J. The applicable acceptance criteria for SQN is given in Appendix J, Section III.A.5(b)(2) and is 0.75 La or 0.1875 percent per day. Based on the philosophy provided in a proposed rule change to 10 CFR 50 Appendix J, TVA has evaluated the SQN Unit 2 Type A test results and the particular conditions that caused each of the test failures and has determined that increased frequency would be inappropriate. TVA's exemption from the accelerated frequency requirement for Type A testing is requested in accordance with 10 CFR 50.12(a)(2)(ii), 10 CFR 50.12(a)(2)(iii), and 10 CFR 50.12(a)(2)(v).

JUSTIFICATION

10 CFR 50.12(a)(2)(ii)

TVA considers the proposed exemption to be justified based on the provisions of 10 CFR 50.12(a)(2)(ii); i.e., application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

The intent of Appendix J is to establish a maximum leakage limit (1.0 La) that would preclude exceeding offsite dose limits postaccident. To ensure that this limit would not be exceeded during operational intervals between regularly scheduled Type A tests, a 25 percent margin for containment leakage degradation was imposed on the acceptable leakage limit (0.75 La). A proposed rule change to Appendix J (refer to Federal Register Volume 51, No. 209 dated October 29, 1986) clarifies the intent to measure, record, and report as-found and as-left leakage rates and the appropriate acceptance criteria for each condition. Section III.A.7(b) of the proposed rule states that the as-found leakage rate must not exceed

1.0 La and the as-left leakage rate must not exceed 0.75 La. This is consistent with the philosophy of having a 25 percent margin for deterioration of containment integrity during the interval between normally scheduled Type A tests.

The following provides a historical summary of the Type A test results for SQN Unit 2.

	As-found Leak rate (% per day)	0.75 La Limit (% per day)	1.0 La Limit (% per day)	Status
Preoperational Test (1981)	0.14	0.1875	0.25	Pass
Test 1 (1984)	0.22	0.1875	0.25	Failure
Test 2 (1989)	0.20	0.1875	0.25	Failure

It can be seen from the above test results that the as-found leak rate measured during both the 1984 test and the 1989 test would have been acceptable under the philosophy stated in the proposed rule change to Appendix J. In both cases, the as-found leak rate was below the 1.0 La limit. In addition, Section III.A.8(a) of the proposed rule change redirects the existing Appendix J requirements for situations where the Type A test fails to meet the as-found acceptance criteria of 1.0 La. Instead of relying solely on increased Type A test frequency, attention is focused on a corrective action plan to be developed and implemented by the licensee for determining the cause and nature of the Type A test failure. Section III.A.(8)(b)(ii) of the proposed rule change indicates that an alternative leakage test program may be more appropriate than performing more frequent Type A leakage tests.

TVA investigated the excessive leakage problems associated with each of the SQN Unit 2 Type A test failures. The root cause of the first Type A test failure (1984 test) was determined to be packing leakage from two outboard root valves on two containment pressure sensing lines. It was found that maintenance had been performed on the pressure sensing lines and that no postmaintenance leak rate testing had been performed. The root valves were subsequently repaired (tightened packing), which resulted in an immediate reduction in the measured leakage rate to below the 0.75 La limit. SQN's leak rate test program did not previously include postmaintenance leak rate testing for these pressure sense lines.

TVA has implemented corrective actions that directly address the leakage conditions associated with pressure sense lines. These actions include:

1. Programmatic review of instrument maintenance and operation activities to identify potential impacts to containment integrity.

2. Expansion of SQN's local leak rate test (LLRT) program to require an LLRT following any maintenance performed on containment pressure sense lines. Postmaintenance leak rate testing is now required and is contained in SQN's Surveillance Instruction (SI) 159.1, "Leak Rate Test on Containment Pressure Instrumentation."

The corrective actions listed above provide assurance that the leakage problems associated with the Unit 2 Type A test failure (November 1984) do not recur.

The primary cause of the second Type A test failure (1989 test) was excessive leakage through Penetration X-59. An LLRT of Penetration X-59 was performed on March 3, 1989, to determine the leak rate prior to the start of the Type A test. The test results indicated that the expected leakage from X-59 would be 0.3266 standard cubic feet per hour (scfh). However, during the Type A test on March 17, 1989, the leak rate from X-59 was discovered to be considerably higher than expected (171.7 scfh). The root cause was determined to be a personnel error during conduct of the X-59 LLRT on March 3, 1989. The root cause stems from carelessness in properly connecting the hose from the test equipment to the test connection for the valves associated with Penetration X-59. The test hose passed over a sharp edge that crimped the hose flat, thereby hindering flowrate through the hose. This hose restriction masked the correct leakage rate.

Another factor that contributed to the excessive leakage through X-59 involves a maintenance sequence that occurred when the outboard containment isolation valve (FCV-67-88) was disassembled, cleaned, and reassembled during the outage. FCV-67-88 is a motor-operated butterfly valve with a rubber lining. There are no internal travel stops inside this type of butterfly valve. The travel stop limits for this type valve are set in the valve operator. Since the travel stops are set within the operator, the actual valve position cannot be guaranteed if the valve has been removed from the piping and the valve operator detached from the valve body during maintenance. Therefore, whenever maintenance requires removal of this type valve from the piping, the valve operator limits should be adjusted with the valve body attached so that a visual confirmation of valve position is known prior to installing the valve back into the piping. The maintenance sequence performed on FCV-67-88 during the outage directly contributed to the excessive leakage through X-59 during the March Type A test.

TVA has implemented corrective actions that directly address the root causes of the excessive leakage from Penetration X-59. These actions include:

1. Revising the LLRT program (SI-158.1) to include instructional steps that require that the test hoses be visually inspected to ensure that no restrictions or crimped conditions exist.

2. Revising SQN maintenance instruction (0-MI-MVV-000-008.0) to ensure that when soft-seated butterfly valves without internal disc stops are removed from the piping, the valve operator limits are set with the valve body attached to ensure that valve position is established prior to reinstallation.

The corrective actions are documented in a SQN condition adverse to quality report (SQP890169). These improvements in SQN's LLRT program and maintenance procedure adequately address the problems associated with the second Type A failure.

TVA's investigation into the cause and nature of the SQN Unit 2 Type A test failures concludes that a general containment leakage problem does not exist. SQN's maintenance and leak rate test programs were reviewed, expanded, and improved to address the specific problem areas. TVA concludes that the identified leakage problems that caused the Type A test failures can best be addressed through TVA's alternative corrective actions rather than increasing the frequency of Type A tests. This is consistent with the philosophy provided in Section III.A.8(a) of the proposed rule change to Appendix J.

10 CFR 50.12(a)(2)(iii)

TVA considers the proposed exemption to be justified based on the provisions of 10 CFR 50.12(a)(2)(iii); i.e., compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted.

Application of the accelerated Type A test frequency requires that TVA conduct two consecutive successful Type A tests during the Unit 2 Cycle 4 and Unit 2 Cycle 5 refueling outages. TVA has evaluated the hardships and costs associated with performing Type A tests on an increased frequency. TVA estimates the cost for setup testing and recovery to be approximately $250,000 for each test. This does not include the replacement power cost associated with the 3- to 4-day additional downtime for each test. Current estimates of the replacement power cost for conducting a test during the Cycle 4 refueling outage would be approximately $1 million. Consequently, TVA considers the proposed exemption from accelerated frequency to be justified based on the hardship and cost.

10 CFR 50.12(a)(2)(v)

TVA considers the proposed exemption to be justified based on the provisions of 10 CFR 50.12(a)(2)(v); i.e., the exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation.

TVA's proposed exemption from the accelerated test frequency is considered by TVA to be a temporary relief and is solely related to the Unit 2 Type A test failures that occurred during the Unit 2 Cycle 2 test (1984) and the Unit 2 Cycle 3 test (1989). As discussed previously, TVA has implemented corrective actions that directly address the conditions that resulted in the Type A test failures. SQN's maintenance and leak rate test programs were reviewed, expanded, and improved to address the specific problem

areas. Based on these efforts, TVA concludes that the identified leakage problems that caused the Type A test failures can best be addressed through TVA's alternative corrective actions rather than increasing the frequency of Type A tests.

Environmental Assessment

1. Identification of Proposed Action

The proposed exemption would provide temporary relief from the accelerated frequency requirement of 10 CFR 50, Appendix J, Section III.6.(b) following two Type A test failures on SQN Unit 2 during the Cycle 2 and Cycle 3 refueling outages. TVA evaluated the acceptability of the measured leakage from each test failure. TVA also identified the root causes of each of the Type A test failures and has taken correct action to address the specific problem areas to prevent recurrence. TVA's evaluation concludes that a general containment integrity problem on SQN Unit 2 does not exist and that the test failures can best be addressed through TVA's alternative corrective actions rather than increasing the frequency of Type A tests.

2. Need for the Proposed Action

TVA's proposed exemption has been evaluated with regard to the hardship and impact of performing increased frequency testing. TVA estimates the cost for setup, testing, and recovery to be $250,000 per test. This does not include replacement power costs for the 3- to 4-day additional downtime. TVA estimates this cost to be approximately $1 million. TVA's proposed exemption would preclude the hardships associated with performing Type A tests on an increased frequency schedule.

3. Environmental Impact of the Proposed Action

The proposed exemption has no environmental impact because no changes are being made to the plant safety limits for containment leak rates. The leak rates experienced during the Unit 2 Type A test failures were below the safety analysis limit of 1.0 La. Consequently, no offsite radiation exposure limits were exceeded during periods of power operation. Radiological releases will not be greater than previously determined nor does the proposed exemption otherwise affect radiological plant effluent. There are no potential nonradiological environmental impacts associated with the proposed exemption.

4. Alternative to the Proposed Action

The alternative to the proposed exemption would be to perform two consecutive Type A tests on Unit 2 during the Cycle 4 and Cycle 5 refueling outages. Since the problems associated with test failures did not indicate the existence of general containment leakage problem,

TVA concludes that these test failures can best be addressed through alternative corrective actions in lieu of increased frequency.

5. Alternative Use of Resource

The proposed exemption does not involve the use of additional resources over those previously considered in the final environmental statement related to the operation of SQN Units 1 and 2 dated July 1974.

6. Finding of No Significant Impact

TVA finds no basis for preparing an environmental impact statement for the proposed exemption. Based on the above environmental assessment, TVA concludes that there will be no effect on the quality of the human environment.