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Robert A. Fenech
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September 27, 1993

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Gentlemen:

In the Matter of) Docket No. 50-328
Tennessee Valley Authority)

SEQUOYAH NUCLEAR PLANT (SQN) - UNIT 2 - REQUEST FOR 10 CFR 50, APPENDIX J SCHEDULAR EXEMPTION

In accordance with 10 CFR 50.12, TVA requests a one-time exemption from the schedular requirements of 10 CFR 50, Appendix J, Sections III.D.2(a) and III.D.3, for SQN Unit 2. This exemption would provide temporary relief from the two-year schedular requirement associated with Types B and C periodic local leak-rate tests (LLRT) and allow these tests to be performed during the Unit 2 Cycle 6 refueling outage. As defined in the 10 CFR 50 Appendix J paragraphs, Types B and C LLRTs are required to be performed "in no case at intervals greater than 2 years."

On March 15, 1992, SQN Unit 2 entered Mode 5 for its Cycle 5 refueling outage. During the refueling outage (late March to late April 1992), all Types B and C tests were performed. SQN Unit 2 returned to service from the Cycle 5 refueling outage on May 17, 1992. On March 1, 1993, Unit 2 was shut down because of an extraction steam leak. Since that time, Unit 2 has remained in cold shutdown (Mode 5). Following the restart of Unit 2, there is approximately six months of unit operation planned for the Cycle 6 fuel cycle.

The earliest expiration date for the two-year Types B and Type C test intervals is March 15, 1994. Since Unit 2 operation is desired past March 15, 1994, TVA requests that the Types B and C tests be deferred until the Unit 2 Cycle 6 refueling outage that is scheduled to begin in April 1994. The approval of TVA's one-time exemption is requested before March 15, 1994, to permit the realignment of the LLRT program with the SQN refueling outage schedule. The approval of this request will also

benefit the SQN As Low As Reasonably Achievable Program by eliminating the additional personnel exposure that would accrue during the performance of these tests before the Unit 2 Cycle 6 refueling outage.

Enclosure 1 contains the exemption request. Enclosure 2 contains a tabular performance listing of the impacted components.

Please direct questions concerning this issue to D. V. Goodin at (615) 843-7734.

Sincerely,

Robert A. Fenech

Robert A. Fenech

Enclosures
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ENCLOSURE 1

REQUEST FOR A SCHEDULAR EXEMPTION
FROM 10 CFR 50, APPENDIX J
SEQUOYAH NUCLEAR PLANT
UNIT 2

Introduction

In accordance with 10 CFR 50.12, TVA is requesting a one-time exemption from the test interval requirements of 10 CFR 50, Appendix J, Sections III.D.2(a) and III.D.3, for SQN Unit 2. Sections III.D.2(a) and III.D.3 require Types B and C tests to be performed at intervals no greater than two years during reactor shutdown for refueling.

The SQN Unit 2 Cycle 5 refueling outage began in March 1992 and lasted through mid-May 1992. Local leak-rate test (LLRT) performance during the Cycle 5 refueling outage started in March 1992 and ended in April 1992. All Types B and C tests were performed during the Cycle 5 refueling outage. SQN Unit 2 returned to service from the Cycle 5 refueling outage on May 17, 1992. On March 1, 1993, Unit 2 was taken offline because of an extraction steam leak. Unit 2 entered Mode 5 and has remained in Mode 5 (cold shutdown) pending repairs and NRC's approval for restart. Following restart, Unit 2 is not scheduled to shut down for refueling until April 1994. The expiration of the two-year time interval for some Types B and C tests would force the plant to shut down in March 1994 to perform Appendix J testing. Accordingly, TVA is requesting a one-time exemption from the two-year test interval of 10 CFR 50 Appendix J for Types B and C testing.

The components affected by this request are listed in the enclosed table. These components represent approximately 53 percent of the LLRT program. The components affected consist of electrical penetrations (5.5 percent), resilient seals (0.5 percent), and valves (47 percent).

The components listed in the table will be tested during the Unit 2 Cycle 6 refueling outage. This outage is scheduled to begin less than three weeks after the two-year time interval expires for the first LLRT performed during the Cycle 5 refueling outage. This relatively small increase in the test interval does not significantly increase the risk to the public health and safety based on the expected performance of the subject components. A review of past component performance indicates that any incremental increase in leakage that may result from the extension would not significantly contribute to the total Types B and C leakage limits. The components included in this request that have experienced degradation over the past operating cycle have been repaired or replaced. The cost associated with radiation exposure to plant test personnel when compared with the minimal gain to ensure that the affected components have not significantly degraded is considered unnecessary based upon the present test results and the small potential for incremental increases in component leak rates. The requested exemption would reduce personnel radiological exposure and the expenditure of resources that would be required to comply with the regulation without undue risk to the public health and safety.

Description

The first LLRT on Unit 2 that was conducted during the Cycle 5 refueling outage was performed on March 15, 1992; therefore, the maximum extension of the two-year interval that is requested is 18 days.

Components tested during the Unit 2 Cycle 5 refueling outage after April 2, 1992, are not affected by this request. The listing below provides a breakdown of the number and types of components included in the requested extension.

Air tested components (subject to 0.6 maximum allowable leakage rate [La])

Electrical Penetrations	20
Isolation Valves	164*
Flanges	2
Hydrogen Analyzer (A Train)	1
Containment Spray Header Valve (Water Tested)	1

* Eight of these 164 valves experienced American Society of Mechanical Engineers (ASME) Section XI leak testing following the Unit 2 shutdown on March 1, 1993, and were found to be acceptable under ASME Section XI leak-test criteria.

Technical Basis

The two-year interval specified in Appendix J is intended to be frequent enough to prevent significant degradation from occurring and long enough to permit LLRTs to be performed during refueling outages. At the time Appendix J was published (February 14, 1973), light-water reactors were nominally on annual refueling cycles with relatively short refueling outages. Today, most light water reactors are on an 18-month or two-year refueling cycle with extended refueling outages. The intent of the regulation is for isolation valves to be tested during refueling outages, not to require the unit to be shut down solely for LLRT testing.

A shutdown solely to perform leak tests is not consistent with the intent of Appendix J and would result in increased radiological exposure to test personnel. Since testing will be performed during the Unit 2 Cycle 6 refueling outage, the cost to personnel for performing tests during a forced outage (in terms of radiological exposure and personnel safety) is greater than the minimal increase in assurance that the components will not significantly degrade during the Unit 2 Cycle 6 operating cycle.

The enclosed table represents the historical local leak-rate data from Unit 2 Cycles 4 and 5 for the components affected by this extension. Based on the past performance of the affected components, there is reasonable assurance that no significant degradation would occur during the extension interval. The condition of the components is therefore not expected to change significantly over the extension period of 18 days. Furthermore, the two-year interval specified for Types B and C tests was based on two years of exposure to service conditions. For the months before Unit 2 restart, most of the subject components were not exposed to service conditions. This would further reduce any potential degradation of these components.

Justification

10 CFR 50.12 states that the commission may grant exemptions from the requirements of the regulations contained in 10 CFR 50 provided:

I. The Requested Exemption is Authorized by Law

The Commission is authorized by law to grant this exemption.

II. The Requested Exemption Does Not Present an Undue Risk to the Public Health And Safety

The intent of Sections III.D.2(a) and III.D.3 of Appendix J is to ensure containment integrity is maintained. Based on the following information, the exemption requested will not significantly affect the ability of the individual primary containment components to perform their safety functions.

1. The valves and components for which the extension of the two-year interval is being requested are considered to be leak tight and in good condition. The leak-tight condition of these components has been verified by Types B and C LLRTs and again by the Type A test conducted on Unit 2 in April 1992. Based on the present containment leak rate that accounts for less than 80 percent of the 0.6 percent La limit, TVA believes the remaining margin is sufficient to ensure any incremental increase in leakage resulting from the extension would not cause unacceptable as-found test results.

2. Based on historical data, any incremental increase in leakage because of the extension will be small. Improved maintenance practices implemented during the Unit 2 Cycle 5 outage, including motor operated testing (MOVATS) of containment isolation valves, provide increased assurance that these components will perform their safety function.

3. Many of the components for which the exemption is requested were included in the Type A test performed in April 1992. This test indicated a containment leak rate of 0.15 percent per day, which is below the 0.1875 percent per day limit.

III. The Requested Exemption is Consistent With the Common Defense and Security

The common defense and security are not affected by this request for exemption.

IV. Special Circumstances are Present Which Necessitate the Request for an Exemption to the Regulations of 10 CFR 50, Appendix J, Sections III.D.2(a) and III.D.3

In accordance with 10 CFR 50.12(a)(2), the following special circumstances are present.

1. The application of the regulation in the particular circumstances present would not serve the intent of the regulation. The intent of the regulation is to ensure containment integrity through component performance. Any incremental increase in component leakage because of the extension is expected to be small. Since operation would be allowed for two years with less margin than is currently present, the requested exemption does not conflict with the intent of the regulations. Thus, the exemption to defer testing of the subject components until the next scheduled refueling is considered appropriate.

2. Compliance with the regulation would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted. The intent of the regulation is that the required testing be performed during normal refueling outages to ensure containment integrity. When the regulation was adopted, provisions to accommodate an 18- or 24-month fuel cycle were not provided, thus increasing the likelihood of a plant shut down to perform LLRTs. However, it was not the intent of the regulation to force a shutdown solely to perform LLRT. A requirement to shut down to perform LLRTs would represent undue hardship and excessive costs in the form of increased personnel radiological exposure, lost revenues, and higher cost associated with two outages instead of one.

3. The exemption would provide only temporary relief from the regulation. This exemption is being requested as a one-time schedular exemption to allow Unit 2 to operate until the next refueling outage scheduled to begin April 2, 1994. This request is a result of a longer than anticipated return to power sequence.

Safety Impact

The extension of the LLRT interval does not impact the probability of the occurrence of any accident.

The present containment leak rate represents less than 80 percent of the maximum Types B and C leakage rate of 0.60 La allowed by technical specification (TS). Thus, a large amount of additional degradation would have to occur for the TS limit to be exceeded. The potential for a large amount of degradation to occur during the extension period is small.

Since the integrity of the containment boundary is not expected to be substantially diminished during the extension period, it is concluded that the proposed amendment does not involve a significant increase in the consequences of any accident previously evaluated.

Physical modifications are not being made and plant operations are not being changed. Consequently, the containment system's capability to perform its intended function will be maintained; no new accident precursors are generated; therefore, no new or different kind of accident scenarios are created.

The present margin between the most recent as-left total leak rate and the 0.60-La limit is sufficient to allow for any additional leakage that might result from the extension. Therefore, extending the LLRT interval will not result in a significant reduction in the margin of safety.

Conclusion

The valves and components for which the extension of the two-year interval is being requested are considered to be leak tight and in good condition. The leak-tight condition of these components has been verified by Types B and C local LLRTs and again by the Type A test conducted on Unit 2 in April 1992. Based on the present containment leak rate that accounts for less than 80 percent of the 0.6-La limit, TVA believes the remaining margin is sufficient to ensure any incremental increases in leakage because of the extension will not result in unacceptable as-found test results.

Based on historical data, any incremental increase in leakage because of the extension will be small. Improved maintenance practices implemented during the Unit 2 Cycle 5 outage, including MOVATS of containment isolation valves, provide increased assurance that these components will perform their safety function.

On the average, as-left leak rates are less than 25 percent of the established reference leak rates for the components listed in the table. Since the maximum extension requested is relatively short in comparison with the two-year test interval (approximately 2 percent), it is unlikely that substantial degradation of containment components leading to the failure of the containment to perform its safety function would occur.

ENCLOSURE 2

TABLE

COMPONENTS REQUIRING EXTENSION AND

HISTORICAL LEAK-RATE DATA

TYPE B TESTED COMPONENTS

Component	Penetration	U2C4 AF/AL[2] SCFH[1]	U2C5 AF/AL SCFH	Expiration Date
Electrical	X-122E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-132E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-133E	0.0000/0.0000	0.0799/0.0799	03/28/94
Electrical	X-134E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-136E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-137E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-138E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-140E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-142E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-143E	0.0085/0.0000	0.0000/0.0000	03/27/94
Electrical	X-144E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-150E	0.0000/0.0000	0.0000/0.0000	04/02/94
Electrical	X-154E	0.0000/0.0000	0.0000/0.0000	03/26/94
Electrical	X-157E	0.0000/0.0000	0.0000/0.0000	03/26/94
Electrical	X-158E	0.0000/0.0000	0.0000/0.0000	03/26/94
Electrical	X-159E	0.0000/0.0000	0.0000/0.0000	03/25/94
Electrical	X-161E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-164E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-165E	0.0000/0.0000	0.0000/0.0000	03/25/94
Electrical	X-166E	0.0000/0.0000	0.0000/0.0000	03/26/94
Resilient Seal	X-108	0.0000/0.0000	0.0000/0.0000	03/17/94
Resilient Seal	X-109	0.0000/0.0000	0.0000/0.0000	03/17/94

1. Standard Cubic Feet Per Hour = SCFH
2. As-Found/As-Left = AF/AL

TYPE B TESTED COMPONENTS

Component	Penetration	U2C4 AF/AL[2] SCFH[1]	U2C5 AF/AL SCFH	Expiration Date
Electrical	X-122E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-132E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-133E	0.0000/0.0000	0.0799/0.0799	03/28/94
Electrical	X-134E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-136E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-137E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-138E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-140E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-142E	0.0000/0.0000	0.0000/0.0000	03/31/94
Electrical	X-143E	0.0085/0.0000	0.0000/0.0000	03/27/94
Electrical	X-144E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-15[illegible]E	0.0000/0.0000	0.0000/0.0000	04/02/94
Electrical	X-1[illegible]	0.0000/0.0000	0.0000/0.0000	03/26/94
Electrical	X-1[illegible]/E	0.0000/0.0000	0.0000/0.0000	03/26/94
Electrical	X-158E	0.0000/0.0000	0.0000/0.0000	03/26/94
Electrical	X-159E	0.0000/0.0000	0.0000/0.0000	03/25/94
Electrical	X-161E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-164E	0.0000/0.0000	0.0000/0.0000	03/27/94
Electrical	X-165E	0.0000/0.0000	0.0000/0.0000	03/25/94
Electrical	X-166E	0.0000/0.0000	0.0000/0.0000	03/26/94
Resilient Seal	X-108	0.0000/0.0000	0.0000/0.0000	03/17/94
Resilient Seal	X-109	0.0000/0.0000	0.0000/0.0000	03/17/94

1. Standard Cubic Feet Per Hour = SCFH
2. As-Found/As-Left = AF/AL

TYPE C TESTED COMPONENTS

Component	Penetration	U2C4 AF/AL SCFH	U2C5 AF/AL SCFH	Expiration Date
Valve 62-72/73/74	X-15	43.9243/0.0000	0.0000/0.0000	03/20/94
Valve 43-309	X-23	1.8093/0.0000	0.0000/0.0000	03/18/94
Valve 43-310	X-23	0.0000/0.0000	0.0000/0.0000	03/18/94
Valve 43-2	X-25A	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-3	X-25A	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 30-44X	X-25B	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 30-44Y	X-25B	0.4040/0.4040	0.0000/0.0000	03/16/94
Valve 30-311X	X-25B	0.0772/0.0772	0.0000/0.0000	03/16/94
Valve 30-311Y	X-25B	0.1817/0.1817	0.0000/0.0000	03/16/94
Valve 43-11	X-25D	0.0000/0.0624	0.0000/0.0000	03/24/94
Valve 43-12	X-25D	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 30-43X	X-26A	0.1501/0.1501	0.0000/0.0000	03/16/94
Valve 30-43Y	X-26A	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 30-310X	X-26A	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 30-310Y	X-26A	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 30-30CX	X-27A	0.1499/0.1499	0.0000/0.0000	03/16/94
Valve 30-30CY	X-27A	0.0971/0.0971	0.0000/0.0000	03/16/94
Valve 30-42Y	X-27B	0.0625/0.0625	0.0000/0.0000	03/16/94
Valve 30-42X	X-27B	0.0625/0.0625	0.0000/0.0000	03/16/94
Valve 52-504	X-27C	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 52-505	X-27C	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 70-89/698	X-29	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 70-92	X-29	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 63-71	X-30	4.8089/0.0000	0.0000/0.0000	03/27/94
Valve 70-85/143/703	X-35/53	0.0000/0.0000	0.3545/0.3545	03/19/94
Valve 63-64	X-39A	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 77-868	X-39A	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 68-305	X-39B	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 77-849	X-39B	0.0000/0.0000	486.42/0.0000	04/02/94
Valve 77-127	X-41	0.0000/0.0000	0.0000/0.0000	03/27/94
Valve 77-128	X-41	0.0000/0.0000	0.0000/0.0000	03/27/94
Valve 32-103/341	X-26B	0.0000/0.0000	0.0000/0.0000	03/23/94
Valve 32-348	X-26B	0.0000/0.0000	0.0000/0.0000	03/23/94
Valve 81-12	X-42	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 81-502	X-42	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 61-191	X-47A	0.0000/0.0000	526.6563/0.0000	04/02/94
Valve 61-192/533	X-47A	0.0000/0.0000	211.1943/0.0000	04/02/94
Valve 61-194/680	X-47B	0.0000/0.0000	0.0000/0.0000	04/01/94
Valve 26-240	X-51	7.7436/0.3004	0.1877/0.1877	03/27/94
Valve 70-140	X-52	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 70-141/791	X-52	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 67-83	X-56	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 67-89/1523D	X-56	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 67-111/575D	X-57	0.0000/0.0000	0.0000/0.0000	03/31/94

TYPE C TESTED COMPONENTS

Component	Penetration	U2C4 AF/AL SCFH	U2C5 AF/AL SCFH	Expiration Date
Valve 67-112	X-57	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 67-107	X-58	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 67-88	X-59	0.0000/0.0000	0.0000/0.0000	03/23/94
Valve 67-91	X-60	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 67-90/1523B	X-60	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 67-103/575B	X-61	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 67-104	X-61	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 67-99	X-62	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 67-96	X-63	0.0000/0.0000	0.0000/0.0000	03/25/94
Valve 31C-222	X-64	0.0000/0.0000	0.0856/0.0000	04/02/94
Valve 31C-223/752	X-64	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 31C-224	X-65	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 31C-225/734	X-65	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 31C-229	X-66	0.0000/0.0000	0.0000/0.0000	03/26/94
Valve 31C-230/715	X-66	0.0000/0.0000	0.0000/0.0000	03/26/94
Valve 31C-231	X-67	0.0000/0.0000	0.0000/0.0000	03/26/94
Valve 67-141	X-68	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 67-580D	X-68	374.3522/0.0000	0.0000/0.0000	03/21/94
Valve 67-130	X-69	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 67-139	X-70	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 67-297/585B	X-70	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 67-134	X-71	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 67-296/585C	X-71	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 67-142	X-72	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 67-298/585D	X-72	0.2644/0.2644	0.0000/0.0000	03/21/94
Valve 67-295/585A	X-73	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 67-138	X-74	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 67-580B	X-74	0.0000/0.0000	0.0000/0.0000	03/21/94
Valve 67-133	X-75	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 67-580C	X-75	0.0000/0.0000	0.0000/0.0000	03/19/94
Valve 33-722	X-76	0.0000/0.0000	0.0000/0.0000	03/15/94
Valve 33-739	X-76	0.0000/0.0000	0.0993/0.0993	03/15/94
Valve 59-522/529	X-77	0.0000/0.0000	0.0000/0.0000	03/15/94
Valve 59-633	X-77	0.0000/0.0000	0.0000/0.0000	03/15/94
Valve 26-243	X-78	0.0000/0.0000	0.0000/0.0000	03/26/94
Valve 26-1296	X-78	1.8127/0.2933	0.0392/0.0392	03/26/94
Valve 78-561	X-82	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 78-557	X-83	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 78-558	X-83	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 68-307	X-84A	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 68-308	X-84A	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 43-75	X-85A	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-77	X-85A	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 30-45Y	X-85B	0.0625/0.0625	0.0000/0.0000	03/17/94
Valve 30-45X	X-85B	0.1501/0.1501	0.0000/0.0000	03/17/94
Valve 52-502	X-87A	0.0000/0.0000	0.0000/0.0000	03/16/94

TYPE C TESTED COMPONENTS

Component	Penetration	U2C4 AF/AL SCFH	U2C5 AF/AL SCFH	Expiration Date
Valve 52-503	X-87A	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 52-500	X-87D	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 52-501	X-87D	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 32-81/353	X-90	0.0547/0.0547	0.0000/0.0000	03/25/94
Valve 32-358	X-90	0.0000/0.0000	0.0000/0.0000	03/25/94
Valve 43-250	X-91	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 43-251	X-91	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 43-207	X-92A	0.0000/0.0000	0.0390/0.0390	03/25/94
Valve 43-210A	X-92A	0.0000/0.0000	0.0000/0.0000	03/25/94
Valve 43-210I	X-92A	0.0000/0.0000	0.0000/0.0000	03/25/94
Valve 43-208	X-92B	0.0000/0.0000	0.0390/0.0390	03/25/94
Valve 43-210A	X-92B	0.0000/0.0000	0.0000/0.0000	03/25/94
Valve 43-210I	X-92B	0.0000/0.0000	0.0000/0.0000	03/25/94
Valve 43-34	X-93	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-35	X-93	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 90-107/108/109	X-94A/B	0.0000/0.0000	0.0000/0.0000	03/30/94
Valve 90-110/111	X-94C	0.0000/0.0000	0.0000/0.0000	03/30/94
Valve 90-114/115	X-95A/B	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 90-113	X-95A/B	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 90-116/117	X-95C	0.0000/0.0000	0.0000/0.0000	03/31/94
Valve 43-22	X-96C	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-23	X-96C	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 30-134	X-97	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 30-135	X-97	0.0000/0.0550	0.0000/0.0000	03/20/94
Valve 52-506	X-98	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 52-507	X-98	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 43-202	X-99	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-200A	X-99	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-200I	X-99	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-201	X-100	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-200A	X-100	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-200I	X-100	0.0000/0.0000	0.0000/0.0000	03/24/94
Valve 43-318	X-101	0.0544/0.0544	0.0000/0.0000	03/18/94
Valve 43-319	X-101	0.0544/0.0544	0.0389/0.0389	03/18/94
Valve 43-317/341	X-103	0.0000/0.0000	0.0000/0.0000	03/18/94
Valve 43-325/307	X-106	0.0000/0.0000	0.0000/0.0000	03/18/94
Valve 30-46/571	X-111	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 30-46AY	X-111	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 30-46AX	X-111	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 30-47/572	X-112	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 30-47AY	X-112	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 30-47AX	X-112	0.0000/0.0000	0.0000/0.0000	03/17/94
Valve 30-48/573	X-113	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 30-48AY	X-113	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 30-48AX	X-113	0.0000/0.0000	0.0000/0.0000	03/16/94
Valve 61-110	X-114	0.0000/0.0000	0.0000/0.0000	04/01/94

TYPE C TESTED COMPONENTS

Component	Penetration	U2C4 AF/AL SCFH	U2C5 AF/AL SCFH	Expiration Date
Valve 61-122/745	X-114	0.0000/0.0000	0.0000/0.0000	04/01/94
Valve 61-96	X-115	0.0000/0.0000	0.0000/0.0000	04/01/94
Valve 61-97/692	X-115	0.3558/0.3558	0.6786/0.0000	04/02/94
Valve 43-287	X-116	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 43-288	X-116	0.0000/0.0000	0.0000/0.0000	03/20/94
Valve 72-2	X-48B	Passed	Passed	03/18/94
A Train H_2 Analyzer		Passed	Passed	03/28/94