

NORTHEAST NUCLEAR ENERGY COMPANY

MILLSTONE UNIT 2

DOCKET NUMBER 50-336

REACTOR CONTAINMENT BUILDING INTEGRATED LEAK RATE TEST

JUNE 14 - 16 1985

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I. INTRODUCTION

The Type A reactor containment building integrated Leak Rate Test is performed to demonstrate that leakage through the primary reactor containment and systems, and components penetrating the primary containment, do not exceed the allowable leakage rate specified in the Plant Technical Specifications.

The recent successful periodic Type A and supplemental verification tests were performed according to the requirements of the Millstone Technical Specification, Section 4.6.1.2.a. and 10CFR 50, Appendix J. The test method as required by the Technical Specifications is the absolute method as described in ANSI N45.1972, "Leakage Rate Testing of Containment Structures for Nuclear Reactors." The leakage rate was calculated using formulas from ANSI N45.4-1972 and BN-TOP-1, Rev. 1, "Testing Criteria for Integrated Leakage Rate Testing of Primary Containment Structures for Nuclear Power Plants (Total Time)." The durations of the Type A and verification tests were in accordance with the requirements of BN-TOP-1.

This test was performed using the methods employed for the last Integrated Leak Rate Test performed in December 1983. These test results are being reported in accordance with 10CFR50, Appendix J, Section V.B.3.

II. CONTAINMENT INTEGRATED LEAK RATE TEST

A. Plant Information

1. General

- | | |
|--------------------------------|--------------------------------------|
| a. Owner | Northeast Nuclear Energy Company |
| b. Plant | Millstone Unit 2 |
| c. Location | Waterford, Connecticut |
| d. Containment Type | Prestressed, Post Tensioned Concrete |
| e. Nuclear Steam Supply System | Combustion Engineering PWR |
| f. Date Test Completed | June 16, 1985 |

2. Technical Information

- | | |
|-----------------------------------------|--------------------------------------|
| a. Containment Net Free | Air Volume 1,920,000 FT ³ |
| b. Design Pressure | 54 PSIG |
| c. Design Temperature | 120°F |
| d. Calculated Peak Accident Pressure | |
| Pa | 54 PSIG |
| e. Containment ILRT Average Temperature | |
| Limits | 50-120°F |
| f. Calculated Peak Accident Temperature | 289°F |

B. Integrated Leakage Rate Measurement System

1. Absolute Pressure (1 Sensor)

- | | |
|-----------------------------------------------------------|-------------------|
| a. Readout: | 0-100,000 Counts |
| b. Accuracy: | 0.015% of Reading |
| c. Resolution: | 0.001% Full Scale |
| d. Range: | 0-100 PSI |
| e. Instrument | |
| - Texas Instrument Model 145-01 Precision Pressure Sensor | |

2. Drybulb Temperature (18 Sensors)
 - a. Range: 0-350°F
 - b. Accuracy: $\pm 0.6^{\circ}\text{F}$ at 100°F
 - c. Repeatability: $\pm 0.1\%$ Full Scale
 - d. Instruments (18):
 - Resistance Temperature Detectors - Rosemont Model 104 AHC
3. Dewpoint Temperature (4 Sensors)
 - a. Range: 0-120°F
 - b. Accuracy: $\pm 0.1^{\circ}\text{F}$
 - c. Repeatability: $\pm 0.1\%$ Full Scale
 - d. Instruments:
 - Three Foxboro Model 2701RG Dewcells
 - One Foxboro Model 2717G Dewcell
4. Verification Flow (1 Sensor)
 - a. Range: 3.5 - 35 SCFM
 - b. Accuracy: 1% Full Scale
 - c. Repeatability: $\pm 0.25\%$ Full Scale
 - d. Instrument:
 - Volumetrics Flowmeter Model 2010

- NOTE:
- 1) One dewpoint temperature sensor was declared inoperative during the test.
 - 2) The overall Instrument Figure of Merit is used as an acceptance criteria for instrument selection. However, when instruments fail and/or the test duration is less than 24 hours, the figure of merit should be checked to ensure that it is less than 0.25 La or 0.125%/day. For this test the Figure of Merit based on a test duration of 14.25 hours and 3 of 4 dewcells functional was 0.0364%/day, well below the allowed 0.125%/day.
 - 3) Sensor locations and volume fractions are listed in Appendix A.

C. Summary of Events

6/14/85

- 2220 Started air compressors.
- 2224 Fire water hose failed. Shut off water and compressors.
- 2238 Started air compressors. Pressure is 14.603 PSIA.
- 2248 Started pressurization. Containment temperature is 75°. One bank of air compressors is secured due to low oil level trip in refrigerator air dryer.
- 2247 Dewcell #4 dropped to 0°F, investigating.

6/15/85

- 0015 Dewcell ME 8064 (#4 on computer) volume fraction is changed to zero. Dewcell # ME 9772 volume fraction on the computer is increased to .616.
- 0111 Containment pressure is 21.517 PSIA, (6.817 PSIG).
- 0240 Containment pressure is 10.2 PSIG. Maintenance is working on air dryer. Refrigeration vendor was called but refused to come in.
- 0250 Due to the inoperable air dryer 7 air compressors were tied into the operable air dryer.
- 0255 The PEO's performed the 10PSIG survey. Nitrogen penetration 34 - the balloon on vent valve 2-SI-743 is about the size of a golf ball. The gages on the main steam headers read zero. Vent valve 2-IA-303 for containment isolation valve 2-IA-27.1 shows slight leakage. Valve 2-MS-347 is indicating a small amount of water. Vent on radiation monitor RM 8123 suction line is leaking. Drain valve 2-MS-259 for MISV bypass line is leaking.

0400 The inoperable air dryer was restarted. The operator was instructed to run the unit for 15 minutes, then valve in the other compressors to balance the load.

0430 Containment pressure is 17.5 PSIG. The air dryer has been fixed. Both air dryers are operating with 5 compressors each.

0530 Containment pressure is 21.9 PSIG. Called in a vendor for a fuel oil delivery.

0555 Requested security to open vap for fuel oil delivery expected at 0630 - 0700.

0615 Air dryer is not operating properly. Notified maintenance to shut it down and hook up 6 air compressors to the operable unit.

0630 Containment pressure is 26.3 PSIG.

0730 Containment pressure is 29.0 PSIG.

0800 Maintenance notified ILRT control that the air dryer and its associated compressors are back in-service.

0840 Containment pressure is 34.3 PSIG. Requested computer operations to change the dewcell weighting factors on the plant process computer.

1030 Containment pressure is 42.4 PSIG.

1130 Containment pressure is 46.7 PSIG.

1200 Containment pressure is 48.54 PSIG.

1230 Containment pressure is 51.3 PSIG. "C" CAR fan tripped due to thermal overload.

1300 Containment pressure is 52.76 PSIG and 53.0 on the Heise gage in the switchgear room. One bank of compressors (5) is secured, due to approach of desired pressure.

1315 Dewcell ME 8064 is reading 69.4°F and has been tracking well. It was restored to service with a weighting factor of .308.

1345 Called in the tendon end anchor inspection team. 3 more air compressors were isolated to allow a slow approach to test pressure with 2 air compressors.

1354 Isolated the last 2 air compressors at the after cooler.

1400 Containment pressure on the Heise gage is 54.2 PSIG. 53.9 PSIG on P 8115. 3 remaining CAR fans were secured. All 3 motor amps "running" were approximately 65 amps. Slightly above the "red line" values.

1425 Valve 2-AC-64 was closed.

1430 Valve TC was opened, the last air compressor was secured and the system bled to atmospheric pressure up to 2-AC-64.

1450 Valve 2-AC-39 was opened per procedure Step 7.5.7. ILRT control tag # 3784 required removal.

1545 The fittings on the flowmeter piping in the 480 volt switchgear room indicated leakage when checked with "SNOOP." Valves 2-AC-114 and 2-AC-115 were closed to isolate the flowmeter to allow tightening of the temporary piping for flowmeter.

1619 The tendon end anchor inspection team and 2 QC inspectors are starting their inspections.

1637 After tightening, the fittings on temporary piping for the flowmeter still show evidence of leakage. Valves 2-AC-114 and 2-AC-115 will be left closed and a procedure change initiated to open the valves just prior to the verification test.

Preparing to add more air to containment, pressure is below minimum test pressure.

1715 Adding air to containment using 1 air compressor.

1750 Compressor secured, pressure is 68.897 PSIA, (54.197 PSIG). Upper limit is 68.903 PSIA, (54.203 PSIG). Returning the system to test line-up.

1806 Valve line-up completed.

1808 Commenced stabilization period.

2100 Operations reported air leaking from 14'6" east penetration room nitrogen piping, investigating.

2120 Decided not to isolate leak since mass point and total time graphs look good. The leak should not affect the test.

2159 Secured the stabilization period due to dropping pressure.

2220 Commenced re-pressurization with 1 air compressor.

2223 Secured air compressor. Pressure is 68.900 PSIA (54.2 PSIG).

2230 Valve line-up restored to test line-up.

2243 Commenced stabilization period.

6/16/85

0044 Containment temperature has stabilized according to plant process computer.

0243 4 hour minimum stabilization criteria has been satisfied. Commenced test period.

<u>Time</u>	<u>Temperature</u>
2344	81.0282°F
0044	80.9400°F
0144	80.8449°F
0244	80.7710°F

0925 Re-examined the air leak reported at 2100.

1100 Conducted another leak check of penetrations for possible leaks, no significant findings. The nitrogen piping in the east electrical penetration room was still leaking. A check of the nitrogen piping in the west 14'6" penetration room revealed the piping was not disconnected. The system was left as is and after verification test, the line would be disconnected (while at pressure) to verify if a leak was present.

1415 Dewcell #4 (ME 8064) was removed from service. Its readings have been steadily increasing since 0800. The dewcell was approximately 10°F higher than the other dewcells for no apparent reason, and suddenly started

to act erratically. The dewcell was removed from the calculation and its data will not be used for any ILRT leakage rate calculations since the beginning of the test.

- 1630 Total time and mass point calculations on the HP 9826 (15 minute time intervals) are well below the limits and have been since 8 hours into the test. The mass point calculation on the HP 9836 is also well below the acceptable limit. The total time calculation is just slightly below the .75 La limit. The test will be continued to ensure the 95% UCL for total time is below the .75 La limit with some margin.
- 1700 Completed ILRT. Time duration is 14.25 hours. .75% UCL for total time is .363%/day. Mass point is .129%/day.
- 1715 Valves 2-AC-114 and 2-AC-115 were opened to allow air samples.
- 1720 HP technicians completed containment air sampling.
- 1815 Sample analysis indicates no activity. HP will be setting up a continuous air monitor to sample air vented during the flow verification test.
- 1830 Continuous air sample monitor set-up completed.
- 1835 Commenced flow verification leak test.
- 1845 Secured flow verification test due to flowmeter transmitter problems.
- 2045 A PORC meeting was called to approve change number 7 to ILRT procedure SP 2605B, Rev. 4, an intent change to allow input of manual signals to one computer for leak rate verification, into HP 9836. The change also directed that the second computer (HP 9826) will run the ILRT software program with the effect of the verification leak also being calculated.
- 2110 Commenced the flow verification test.
- 2122 Commenced 1 hour stabilization period.

2200 Valve 2-SSP-75 is reported to be leaking - local investigation revealed water dripping. HP reports it has been leaking for 3 or more days. The valve line-up will be maintained as is until after the verification test.

2222 Commenced verification test.

6/17/85

0222 Verification test completed.

0231 The voltmeter on the computer room floor may have been "kicked." It is now reading 32SCFM. The flowmeter in the switchgear room is still reading 29.76 SCFM.

0305 The nitrogen supply piping in the 14'6" elect. penetration room was disconnected, no air was escaping. Witnessed by a Control Room Operator and ISI Inspector.

0335 HP set up a continuous air monitor on the blowdown piping.

0339 Valves 2-AC-64 and HV-2 were opened to depressurize containment.

0410 Containment pressure is 49.8 PISG.

0439 Containment pressure is 46.6 PSIG.

0545 Containment pressure is 40.3 PSIG.

0642 Containment pressure is 35.5 PSIG.

0747 Containment pressure is 30.5 PSIG.

2155 Personnel access door unlocked.

D. Test Results

NOTE: Refer to Appendix C for Data Sheets

1. A number of systems were required to remain operational in order to maintain the plant in a safe condition during the ILRT. As a result the containment isolation valves for these systems were not tested by the ILRT. In accordance with Section III A.1.d. of Appendix J to 10CFR50 a Type C test was conducted for each of these penetrations. A list of these penetrations and the leak rate determined by the Type C tests are presented below.

<u>PENETRATION</u> <u>NUMBER</u>	<u>VALVES</u> <u>TESTED</u>	<u>VALVE DESCRIPTION</u>	<u>LEAKAGE RATE (%/DAY)</u>
2	2CH-516	Letdown Isolation	1.357×10^{-5}
10	2SI-651/709	Shutdown Cooling	1.6943×10^{-4}
24	2RB-30.1A	Reactor Building Component Cooling Water to Containment	3.4361×10^{-4}
25	2RB-28.1D	Reactor Building Component Cooling Supply/	3.4191×10^{-4}
	2RB-28.2D	Return to "D" Containment Air Recirc Cooler	
	2RB-28.3D		
26	2RB-28.1B	Reactor Building Component Cooling Supply/	6.784×10^{-5}
	2RB-28.2B	Return to "B" Containment Air Recirc Cooler	
	2RB-28.3B		
27	2RB-28.1A	Reactor Building Component Cooling Supply/	1.357×10^{-5}
	2RB-28.2A	Return to "A" Containment Air Recirc Cooler	
	2RB-28.3A		
28	2RB-28.1C	Reactor Building Component Cooling Supply/	1.357×10^{-5}
	2RB-28.2C	Return to "C" Containment Air Recirc Cooler	
	2RB-28.3C		
29	2RB-37.2A	Reactor Building Component Cooling Water Return from the Containment.	6.872×10^{-5}
53	2RB-30.1B	Reactor Building Component Cooling Water Supply to the Containment.	6.784×10^{-5}
54	2RB-37.2B	Reactor Building Component Cooling Water Supply to the Containment.	6.784×10^{-5}

<u>PENETRATION</u> <u>NUMBER</u>	<u>VALVES</u> <u>TESTED</u>	<u>VALVE DESCRIPTION</u>	<u>LEAKAGE RATE (%/DAY)</u>
85	Spectacle Flange	Pressurization Line For the ILRT	1.357×10^{-5}
63	2-AC-114 2-AC-117	ILRT Sample Connections	0.678×10^{-5}
64	2-AC-112 2-AC-116	ILRT Sample Connections	0.678×10^{-5}

Since these penetrations were not subject to the ILRT test pressure, the individual leakage is totalled and added to the leakage rate at the end of the test.

Total 1.195×10^{-3} %/day or .001195%/day

2. Test Durations

- a. Stabilization Period 4 Hours
- b. Peak Pressure Test, ILRT 14.25 Hours
- c. Verification Test Stabilization Period 1 Hour
- d. Verification Test 4 Hours

3. Leakage Rates Peak Pressure Test (ILRT)

Total Time Calculated Leakage Rate = .096 %/day

Total Time 95% UCL Leakage Rate = .363%/day

Total Time Measured Leakage Rate, Lam = .132%/day

Mean Total Time Leakage Rate = .1334%/day

Mass Point Least Squares Fit Leakage Rate = .127%/day

Mass Point 95% UCL Leakage Rate = .129%/day

NOTE: Graphs of the total time and mass point 95% UCL versus time are provided in Appendix B. Actual test data for total time and mass point is provided in Appendix C.

When the penetration "penalty" leakage rates are added to the above listed leakage rates the results are as follows:

Total Time Calculated Leakage Rate = .0980%/day

Total Time 95% UCL Leakage Rate = .3642%/day

Total Time Measured Leakage Rate, L_m = .1332%/day

Mean Total Time Leakage Rate = .1346%/day

Mass Point Least Squares Fit Leakage Rate = .1282%/day

Mass Point 95% UCL Leakage Rate = .1302%/day

- NOTE: 1. Per Technical Specification 3.6.1.2.a., the containment overall integrated leakage rate L_a is limited to .5% by weight of containment air per 24 hours at P_a or 54 PSIG.
2. Per 10CFR50 Appendix J paragraph III A.5 (b) (2) the leakage rate shall be less than .75 L_a or .375%/day.

When the acceptance criteria is compared with the test results it can be seen "As-Left" the Peak Pressure Test or ILRT is acceptable.

4. Verification Test

To confirm the accuracy of the test a supplemental test was performed. This test established a known leakage rate equal to L_a or .5%/day. The leakage rate is measured/calculated. Results are provided below.

NOTE: Actual Total Time and Mass Point Verification Test Data is provided in Appendix C.

Total Time Least Squares Fit Leakage Rate = .624%/day

Total Time 95% UCL Leakage Rate = .864%/day

Mass Point Least Squares Fit Leakage Rate = .667%/day

Mass Point 95% UCL Leakage Rate = .678%/day

A comparison of the verification test results is made with the peak pressure test results using the following formula:

Verification Test - Imposed Leak = Peak Pressure Test within $\pm .25 \text{ La}$.

NOTE: $.25 \text{ La} = .125\%/ \text{day}$.

Total Time Least Squares Fit

$.624 - .500 = .124 \pm .125$ which is compared to $.0968$

Total Time 95% UCL

$.864 - 500 = .364 \pm .125$ which is compared to $.363$

Mass Point Least Squares Fit

$.667 - .500 = .167 \pm .125$ which is compared to $.127$

Mass Point 95% UCL

$.678 - 500 = .178 \pm .125$ which is compared to $.129$

As shown above, the equation is satisfied for all the test methods, therefore, the accuracy of the test is verified and acceptable.

5. Conclusions

The overall integrated leakage rate has been shown to be less than the Technical Specification requirements by both, total time and mass point methods of calculating leakage rates. The test has also been verified to be satisfactory by successful verification testing using both total time and mass point methods. Based on the above the Containment Building "As-Left" Integrated Leakage Rate is acceptable. IE Information Notice No. 85-71 provides information regarding determination of "As-Found" containment integrated leak rate conditions when repairs or adjustments are made prior to performing a type "A" test. Since repairs were made to correct excessive type "B" and "C" leakage paths for this

type "A" test, adjustments are made in the following manner. From Appendix "E" the total "As-Found" and "As-Left" type "B" and "C" test results are obtained. The difference of these values is added to the type "A" test result with the following results:

$$\begin{array}{rcl} \text{As Found B + C Leakage Rate} & = & 10.107\%/ \text{Day} \\ \text{Minus As Left B + C Leakage Rate} & = & \underline{0.0104\%/ \text{Day}} \\ & & 10.0966\%/ \text{Day} \end{array}$$

Total Time Calculated Leakage Rate = $.0980 + 10.0966 = 10.1946\%/ \text{Day}$
 Total Time 95% UCL Leakage Rate = $.3642 + 10.0966 = 10.4608\%/ \text{Day}$
 Total Time Measured Leakage Rate, $L_{am} = .1332 + 10.0966 = 10.2290\%/ \text{Day}$
 Mean Total Time Leakage Rate = $.1346 + 10.0966 = 10.2312\%/ \text{Day}$
 Mass Point Least Squares Fit Leakage Rate = $.1282 + 10.0966 = 10.2248\%/ \text{Day}$
 Mass Point 95% UCL Leakage Rate = $.1302 + 10.0966 = 10.2268\%/ \text{Day}$

The above listed values are well above the allowable leakage rate of $.375\%/ \text{Day}$ therefore the "As-Found" type "A" test is considered a failure.

III. LOCAL LEAKAGE RATE TESTING

A. Description of Program

Type B and C Local Leakage Rate Testing of containment penetrations as outlined in Appendix J to 10CFR50 is performed in accordance with Technical Specification 4.6.1.2. (d,e and f) except for tests involving the containment air lock. The air lock is tested in accordance with Technical Specification 4.6.1.3.

Local leakage rate testing is normally performed using flow meters installed in test boxes that measure the actual leakage thru the penetration. In cases where the leakage rate exceeds

the range of the flowmeter a pressure decay type test is performed. In this instance the rate of pressure loss from the test volume is measured and a leakage rate is calculated.

B. Test Equipment

Appendix D shows a schematic diagram of the local leakage rate test equipment box. A test box contains a dual scale flowmeter with ranges of 0-1180/0-11400 or 0-280/0-2000cc per minute. The first increment on the scale is either 20, 25, or 100 cc/min. depending on the meter used. In the case where the indicated local leakage flow is zero, a value of 20, 25, or 100, depending on the meter used, is recorded as the test result.

C. Local Leakage Rate Evaluation

Appendix E provides a listing of containment penetrations and their respective minimum pathway leakage rates since the last ILRT.

NOTE: Minimum pathway leakage rates were determined using the criteria outlined in IE Information Notice 85-71.

Technical Specification 3.6.1.2.b. requires a combined leakage rate of less than or equal to .6 La or .300%/day for all penetrations and valves subject to type B and C tests when pressurized to Pa or 54 PSIG. When the valves in the table are converted to %/day and totalled the as - found, as - left, conditions are:

1983 as - left = .0133%/day
1985 as - found = 10.107%/day
1985 as - left = .010477%/day

The 1985 as - found condition exceeded the Technical Specification requirement and was the subject of Licensee Event Report 50-366/85-003/3L-0 submitted on April 4, 1985 and updated report submitted on July 17, 1985.

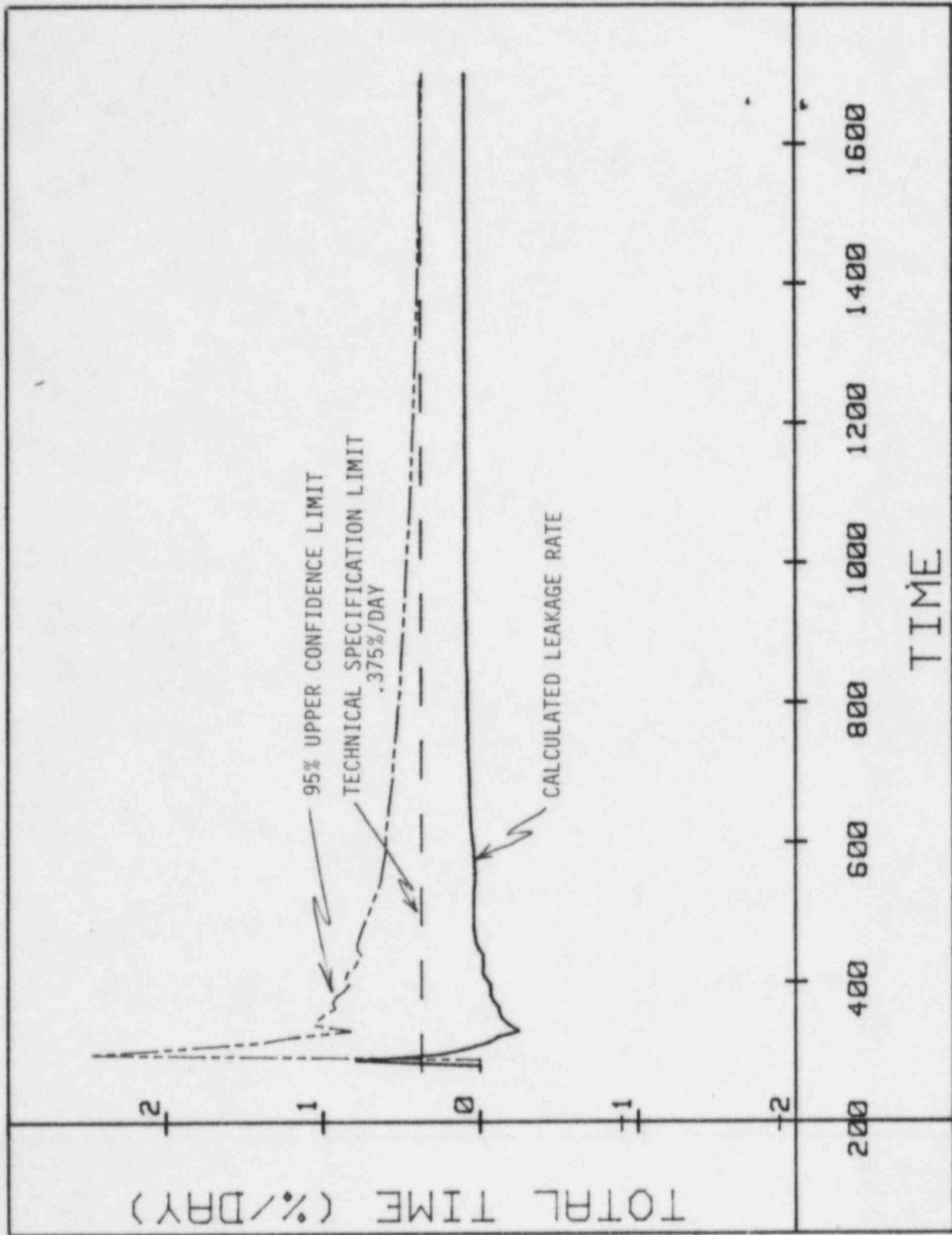
APPENDIX A

SENSOR VOLUME FRACTIONS
(and Locations)

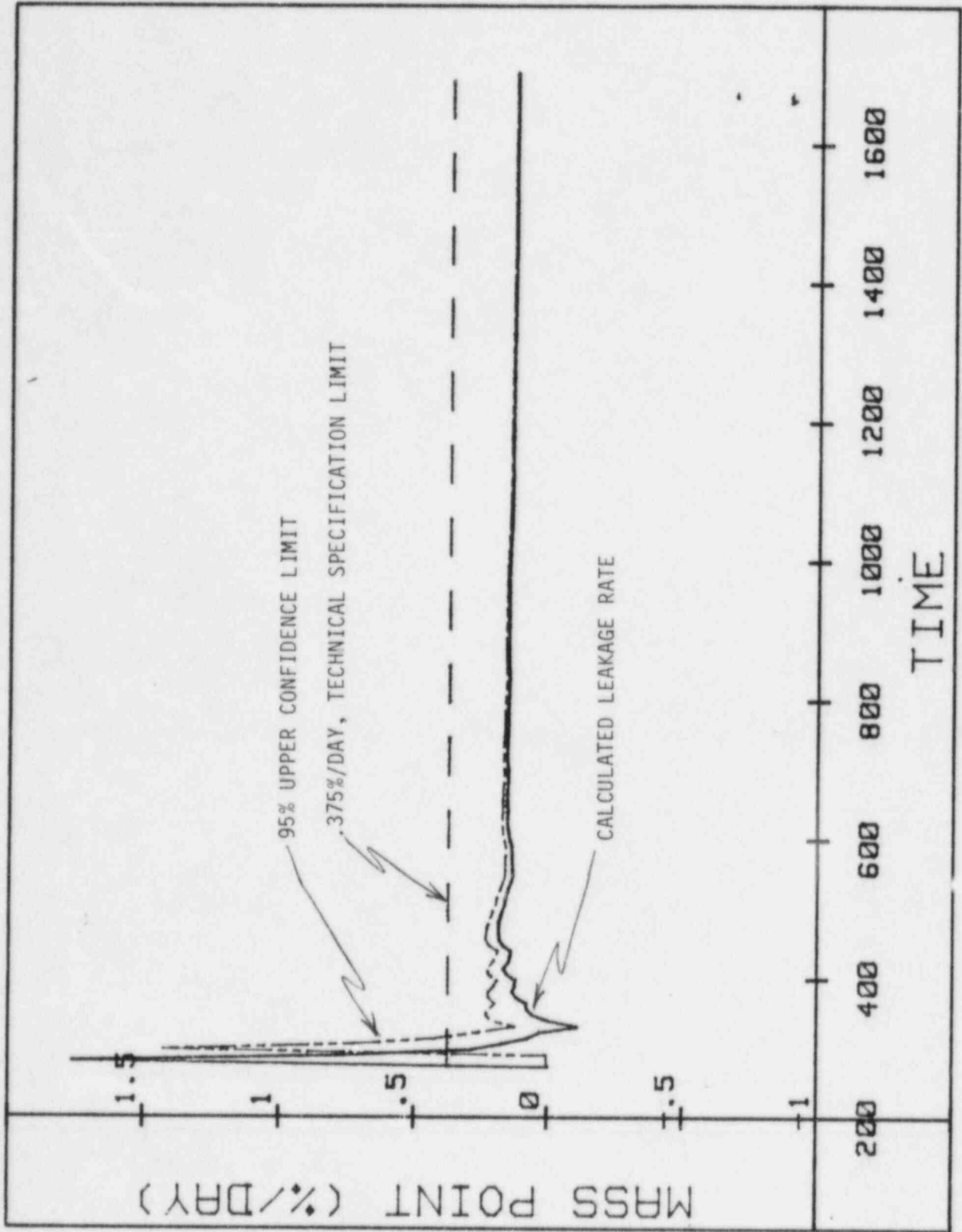
TEMPERATURE RID TE	ELVE (Ft.)	AZ (Deg.)	DIST. FROM CL (Ft.)	VOLUME FRACTION
9769	150	90	12	0.096
8110	105	220	40	0.086
9767	105	40	45	0.087
8111	90	320	60	0.086
8112	90	105	60	0.087
8084	44	5	45	0.058
8108	44	145	60	0.058
8109	44	263	58	0.058
8097	30	125	20	0.016
8098	30	235	20	0.014
8094	20	350	45	0.040
9770	18	220	55	0.040
9771	18	90	50	0.040
8087	3	5	32	0.032
9765	3	240	65	0.032
9766	3	125	65	0.032
8091	-15	330	35	0.069
9768	-18	135	50	0.069
TOTAL				1.000
DEWPOINT				
ME#				
9772	55	320	60	0.6160
8064	55	105	60	0.0000*
9773	-20	10	35	0.192
9774	-20	330	35	0.192
TOTAL				1.000

*Instrument Failed

APPENDIX B



APPENDIX B



***** TOTAL TIME CALCULATED RESULTS *****

TIME	TEMP	VAPOR PRESS	DEW PT	COUNT #1	COUNT #2	CONT AIR PRESS	LSF LEAK RATE	UPPER CONF LEVEL	MEASURED LEAK RATE
243	540.962	0.3360	67.689	69604	00000	68.473	0.00E+00	0.00E+00	6.56E+05
248	540.958	0.3359	67.678	69599	00000	68.468	0.00E+00	0.00E+00	1.77E+00
253	540.953	0.3361	67.692	69599	00000	68.468	7.94E-01	0.00E+00	7.94E-01
258	540.943	0.3360	67.686	69599	00000	68.468	2.54E-01	2.31E+00	3.40E-01
303	540.945	0.3362	67.701	69599	00000	68.468	7.66E-02	1.75E+00	3.07E-01
308	540.934	0.3359	67.680	69598	00000	68.467	-4.93E-02	1.30E+00	1.89E-01
313	540.932	0.3361	67.694	69598	00000	68.467	-1.17E-01	1.09E+00	1.52E-01
318	540.918	0.3336	67.475	69597	00000	68.469	-2.48E-01	7.97E-01	-7.07E-02
323	540.916	0.3359	67.678	69593	00000	68.462	-1.84E-01	9.37E-01	2.51E-01
328	540.914	0.3362	67.705	69593	00000	68.462	-1.46E-01	9.61E-01	2.25E-01
333	540.913	0.3360	67.686	69593	00000	68.462	-1.26E-01	9.37E-01	1.88E-01
338	540.900	0.3361	67.696	69592	00000	68.461	-1.20E-01	8.95E-01	1.51E-01
343	540.902	0.3357	67.663	69589	00000	68.459	-8.60E-02	9.04E-01	2.39E-01
348	540.899	0.3357	67.659	69589	00000	68.459	-6.71E-02	8.89E-01	2.05E-01
353	540.884	0.3360	67.685	69589	00000	68.458	-6.65E-02	8.49E-01	1.43E-01
358	540.882	0.3360	67.684	69583	00000	68.457	-6.20E-02	8.21E-01	1.53E-01
403	540.887	0.3359	67.680	69584	00000	68.454	-3.17E-02	8.35E-01	2.63E-01
408	540.882	0.3357	67.663	69584	00000	68.454	-1.39E-02	8.30E-01	2.27E-01
413	540.868	0.3334	67.462	69584	00000	68.456	-2.07E-02	7.94E-01	1.18E-01
418	540.861	0.3357	67.665	69584	00000	68.454	-2.03E-02	7.69E-01	1.44E-01
423	540.863	0.3361	67.698	69584	00000	68.453	-1.78E-02	7.50E-01	1.51E-01
428	540.866	0.3360	67.686	69577	00000	68.447	9.03E-03	7.68E-01	2.87E-01
433	540.857	0.3359	67.676	69577	00000	68.447	2.61E-02	7.71E-01	2.50E-01
438	540.857	0.3336	67.479	69577	00000	68.449	3.26E-02	7.61E-01	1.97E-01
443	540.841	0.3360	67.687	69577	00000	68.447	3.84E-02	7.51E-01	1.95E-01
448	540.841	0.3356	67.653	69577	00000	68.447	4.15E-02	7.38E-01	1.80E-01
453	540.833	0.3357	67.664	69577	00000	68.447	4.14E-02	7.23E-01	1.59E-01
458	540.825	0.3357	67.659	69576	00000	68.446	4.07E-02	7.07E-01	1.52E-01
503	540.828	0.3338	67.498	69575	00000	68.447	3.86E-02	6.91E-01	1.39E-01
508	540.826	0.3357	67.662	69575	00000	68.445	3.96E-02	6.80E-01	1.59E-01
513	540.809	0.3355	67.646	69574	00000	68.444	3.76E-02	6.66E-01	1.34E-01
518	540.813	0.3353	67.630	69574	00000	68.444	3.59E-02	6.53E-01	1.33E-01
523	540.799	0.3356	67.649	69574	00000	68.444	3.18E-02	6.37E-01	1.09E-01
528	540.800	0.3330	67.424	69570	00000	68.443	3.00E-02	6.25E-01	1.25E-01
533	540.798	0.3354	67.636	69569	00000	68.439	3.27E-02	6.19E-01	1.60E-01
538	540.805	0.3352	67.617	69569	00000	68.440	3.55E-02	6.14E-01	1.63E-01
543	540.794	0.3357	67.659	69568	00000	68.438	3.79E-02	6.08E-01	1.60E-01
548	540.787	0.3357	67.660	69568	00000	68.438	3.88E-02	6.01E-01	1.46E-01
553	540.791	0.3356	67.651	69567	00000	68.437	4.08E-02	5.95E-01	1.57E-01
558	540.777	0.3356	67.657	69561	00000	68.431	4.69E-02	5.96E-01	1.99E-01
603	540.779	0.3356	67.654	69561	00000	68.431	5.22E-02	5.95E-01	1.95E-01
608	540.774	0.3353	67.624	69561	00000	68.432	5.59E-02	5.93E-01	1.80E-01
613	540.775	0.3356	67.649	69561	00000	68.431	5.94E-02	5.90E-01	1.81E-01
618	540.763	0.3357	67.661	69561	00000	68.431	6.10E-02	5.86E-01	1.63E-01
623	540.753	0.3353	67.628	69561	00000	68.432	6.10E-02	5.79E-01	1.43E-01
628	540.756	0.3357	67.661	69558	00000	68.428	6.37E-02	5.76E-01	1.75E-01
633	540.758	0.3351	67.609	69558	00000	68.429	6.57E-02	5.73E-01	1.68E-01
638	540.745	0.3354	67.632	69558	00000	68.429	6.63E-02	5.68E-01	1.52E-01
643	540.752	0.3354	67.633	69558	00000	68.429	6.73E-02	5.64E-01	1.56E-01
648	540.736	0.3356	67.649	69558	00000	68.428	6.68E-02	5.58E-01	1.38E-01
653	540.746	0.3354	67.638	69557	00000	68.428	6.76E-02	5.53E-01	1.53E-01
658	540.737	0.3352	67.622	69553	00000	68.424	6.98E-02	5.51E-01	1.71E-01
703	540.735	0.3352	67.618	69552	00000	68.423	7.20E-02	5.49E-01	1.73E-01
708	540.743	0.3356	67.652	69552	00000	68.422	7.48E-02	5.48E-01	1.81E-01
713	540.733	0.3357	67.660	69552	00000	68.422	7.65E-02	5.45E-01	1.69E-01
718	540.717	0.3356	67.654	69552	00000	68.422	7.68E-02	5.41E-01	1.50E-01

723	540.718	0.3355	67.645	69551	00000	68.422	7.75E-02	5.37E-01	1.54E-01
728	540.716	0.3354	67.634	69551	00000	68.422	7.78E-02	5.33E-01	1.49E-01
733	540.713	0.3356	67.653	69551	00000	68.422	7.78E-02	5.29E-01	1.45E-01
738	540.707	0.3333	67.453	69546	00000	68.419	7.86E-02	5.26E-01	1.56E-01
743	540.699	0.3356	67.656	69546	00000	68.417	7.99E-02	5.24E-01	1.63E-01
748	540.701	0.3349	67.594	69546	00000	68.417	8.07E-02	5.21E-01	1.56E-01
753	540.710	0.3350	67.603	69546	00000	68.417	8.18E-02	5.19E-01	1.62E-01
758	540.699	0.3335	67.467	69546	00000	68.419	8.16E-02	5.15E-01	1.40E-01
803	540.690	0.3355	67.644	69545	00000	68.416	8.20E-02	5.12E-01	1.50E-01
808	540.694	0.3352	67.622	69545	00000	68.416	8.24E-02	5.09E-01	1.50E-01
813	540.690	0.3350	67.605	69545	00000	68.416	8.24E-02	5.06E-01	1.43E-01
818	540.682	0.3352	67.615	69544	00000	68.415	8.23E-02	5.02E-01	1.41E-01
823	540.677	0.3353	67.623	69539	00000	68.410	8.37E-02	5.01E-01	1.66E-01
828	540.688	0.3352	67.617	69539	00000	68.410	8.54E-02	5.00E-01	1.72E-01
833	540.682	0.3355	67.645	69538	00000	68.409	8.70E-02	4.98E-01	1.73E-01
838	540.675	0.3351	67.608	69538	00000	68.409	8.81E-02	4.97E-01	1.63E-01
843	540.675	0.3351	67.611	69538	00000	68.409	8.90E-02	4.95E-01	1.60E-01
848	540.667	0.3354	67.636	69538	00000	68.409	8.95E-02	4.93E-01	1.54E-01
853	540.670	0.3352	67.615	69538	00000	68.409	9.00E-02	4.90E-01	1.53E-01
858	540.663	0.3355	67.646	69538	00000	68.409	9.02E-02	4.88E-01	1.48E-01
903	540.656	0.3350	67.605	69538	00000	68.409	8.99E-02	4.85E-01	1.38E-01
908	540.654	0.3351	67.614	69533	00000	68.404	9.09E-02	4.83E-01	1.63E-01
913	540.656	0.3350	67.599	69533	00000	68.404	9.17E-02	4.82E-01	1.61E-01
918	540.649	0.3351	67.610	69533	00000	68.404	9.23E-02	4.80E-01	1.55E-01
923	540.655	0.3330	67.431	69533	00000	68.406	9.24E-02	4.77E-01	1.46E-01
928	540.652	0.3346	67.567	69533	00000	68.405	9.27E-02	4.75E-01	1.50E-01
933	540.642	0.3347	67.573	69533	00000	68.405	9.26E-02	4.73E-01	1.42E-01
938	540.630	0.3343	67.541	69529	00000	68.401	9.30E-02	4.71E-01	1.51E-01
943	540.636	0.3349	67.591	69529	00000	68.401	9.36E-02	4.69E-01	1.56E-01
948	540.638	0.3349	67.589	69529	00000	68.401	9.42E-02	4.68E-01	1.56E-01
953	540.633	0.3348	67.583	69529	00000	68.401	9.45E-02	4.66E-01	1.50E-01
958	540.636	0.3348	67.588	69529	00000	68.401	9.48E-02	4.64E-01	1.50E-01
1003	540.628	0.3328	67.407	69529	00000	68.403	9.44E-02	4.61E-01	1.34E-01
1008	540.623	0.3350	67.601	69529	00000	68.401	9.43E-02	4.59E-01	1.40E-01
1013	540.615	0.3346	67.564	69528	00000	68.400	9.40E-02	4.57E-01	1.36E-01
1018	540.610	0.3347	67.573	69528	00000	68.400	9.36E-02	4.54E-01	1.32E-01
1023	540.607	0.3348	67.585	69528	00000	68.400	9.31E-02	4.52E-01	1.30E-01
1028	540.605	0.3346	67.568	69528	00000	68.400	9.25E-02	4.49E-01	1.26E-01
1033	540.602	0.3351	67.606	69527	00000	68.399	9.20E-02	4.47E-01	1.29E-01
1038	540.601	0.3349	67.596	69522	00000	68.394	9.24E-02	4.45E-01	1.49E-01
1043	540.603	0.3328	67.409	69522	00000	68.396	9.24E-02	4.43E-01	1.39E-01
1048	540.592	0.3348	67.581	69522	00000	68.394	9.25E-02	4.42E-01	1.40E-01
1053	540.592	0.3351	67.611	69522	00000	68.394	9.25E-02	4.40E-01	1.40E-01
1058	540.599	0.3352	67.615	69522	00000	68.394	9.26E-02	4.38E-01	1.43E-01
1103	540.594	0.3349	67.596	69521	00000	68.393	9.28E-02	4.37E-01	1.42E-01
1108	540.588	0.3351	67.607	69521	00000	68.393	9.27E-02	4.35E-01	1.38E-01
1113	540.584	0.3350	67.604	69521	00000	68.393	9.26E-02	4.33E-01	1.34E-01
1118	540.588	0.3350	67.605	69517	00000	68.389	9.31E-02	4.32E-01	1.51E-01
1123	540.589	0.3351	67.610	69517	00000	68.389	9.36E-02	4.31E-01	1.50E-01
1128	540.583	0.3346	67.568	69517	00000	68.389	9.38E-02	4.30E-01	1.44E-01
1133	540.586	0.3350	67.597	69517	00000	68.389	9.41E-02	4.28E-01	1.46E-01
1138	540.582	0.3349	67.593	69517	00000	68.389	9.42E-02	4.27E-01	1.42E-01
1143	540.577	0.3335	67.467	69514	00000	68.387	9.44E-02	4.26E-01	1.44E-01
1148	540.572	0.3332	67.446	69514	00000	68.388	9.45E-02	4.24E-01	1.39E-01
1153	540.563	0.3334	67.460	69514	00000	68.387	9.43E-02	4.22E-01	1.34E-01
1158	540.573	0.3334	67.463	69514	00000	68.387	9.44E-02	4.21E-01	1.38E-01
1203	540.567	0.3357	67.662	69514	00000	68.385	9.45E-02	4.20E-01	1.43E-01
1208	540.566	0.3349	67.592	69512	00000	68.384	9.48E-02	4.19E-01	1.45E-01
1213	540.563	0.3328	67.412	69512	00000	68.386	9.47E-02	4.17E-01	1.35E-01
1218	540.563	0.3346	67.564	69512	00000	68.384	9.48E-02	4.16E-01	1.40E-01
1223	540.559	0.3349	67.591	69512	00000	68.384	9.49E-02	4.14E-01	1.38E-01

1228	540.566	0.3348	67.583	69511	00000	68.383	9.51E-02	4.13E-01	1.43E-01
1233	540.564	0.3347	67.572	69511	00000	68.383	9.52E-02	4.12E-01	1.41E-01
1238	540.559	0.3343	67.540	69511	00000	68.384	9.52E-02	4.11E-01	1.36E-01
1243	540.552	0.3346	67.563	69511	00000	68.383	9.51E-02	4.09E-01	1.33E-01
1253	540.544	0.3345	67.560	69509	00000	68.381	9.37E-02	4.07E-01	1.34E-01
1300	540.551	0.3346	67.570	69509	00000	68.381	9.33E-02	4.05E-01	1.36E-01
1305	540.543	0.3347	67.574	69508	00000	68.380	9.33E-02	4.04E-01	1.35E-01
1310	540.542	0.3348	67.579	69508	00000	68.380	9.34E-02	4.03E-01	1.33E-01
1315	540.538	0.3349	67.588	69507	00000	68.379	9.34E-02	4.01E-01	1.34E-01
1320	540.534	0.3348	67.587	69505	00000	68.377	9.36E-02	4.00E-01	1.38E-01
1325	540.532	0.3344	67.548	69505	00000	68.378	9.36E-02	3.99E-01	1.34E-01
1330	540.524	0.3343	67.539	69505	00000	68.378	9.36E-02	3.98E-01	1.30E-01
1335	540.533	0.3347	67.573	69505	00000	68.377	9.36E-02	3.97E-01	1.34E-01
1340	540.530	0.3349	67.588	69504	00000	68.376	9.37E-02	3.96E-01	1.35E-01
1345	540.525	0.3348	67.584	69504	00000	68.376	9.37E-02	3.95E-01	1.32E-01
1350	540.534	0.3349	67.596	69504	00000	68.376	9.38E-02	3.94E-01	1.35E-01
1356	540.525	0.3344	67.548	69501	00000	68.374	9.37E-02	3.93E-01	1.38E-01
1400	540.523	0.3325	67.383	69501	00000	68.376	9.39E-02	3.92E-01	1.30E-01
1405	540.515	0.3343	67.543	69501	00000	68.374	9.39E-02	3.90E-01	1.32E-01
1410	540.515	0.3348	67.581	69501	00000	68.373	9.40E-02	3.89E-01	1.32E-01
1420	540.508	0.3349	67.593	69501	00000	68.373	9.28E-02	3.87E-01	1.28E-01
1425	540.506	0.3330	67.428	69501	00000	68.375	9.25E-02	3.86E-01	1.21E-01
1430	540.515	0.3348	67.585	69501	00000	68.373	9.25E-02	3.85E-01	1.29E-01
1435	540.515	0.3346	67.563	69494	00000	68.367	9.30E-02	3.84E-01	1.47E-01
1440	540.508	0.3341	67.522	69494	00000	68.367	9.34E-02	3.84E-01	1.42E-01
1445	540.505	0.3345	67.560	69494	00000	68.367	9.37E-02	3.83E-01	1.42E-01
1450	540.510	0.3348	67.583	69494	00000	68.366	9.41E-02	3.83E-01	1.43E-01
1455	540.509	0.3348	67.583	69494	00000	68.366	9.44E-02	3.82E-01	1.42E-01
1500	540.504	0.3347	67.577	69494	00000	68.366	9.47E-02	3.81E-01	1.39E-01
1505	540.501	0.3349	67.593	69494	00000	68.366	9.49E-02	3.80E-01	1.37E-01
1510	540.494	0.3346	67.563	69494	00000	68.367	9.49E-02	3.80E-01	1.33E-01
1515	540.496	0.3347	67.578	69494	00000	68.366	9.50E-02	3.79E-01	1.33E-01
1520	540.492	0.3347	67.572	69494	00000	68.367	9.50E-02	3.78E-01	1.31E-01
1525	540.500	0.3349	67.591	69494	00000	68.366	9.51E-02	3.77E-01	1.33E-01
1530	540.490	0.3350	67.600	69493	00000	68.365	9.52E-02	3.76E-01	1.32E-01
1535	540.486	0.3353	67.630	69491	00000	68.363	9.53E-02	3.75E-01	1.36E-01
1540	540.485	0.3348	67.586	69491	00000	68.363	9.54E-02	3.74E-01	1.33E-01
1545	540.485	0.3348	67.581	69491	00000	68.363	9.55E-02	3.74E-01	1.32E-01
1550	540.484	0.3345	67.556	69491	00000	68.364	9.55E-02	3.73E-01	1.30E-01
1555	540.487	0.3344	67.547	69491	00000	68.364	9.55E-02	3.72E-01	1.30E-01
1600	540.482	0.3350	67.597	69491	00000	68.363	9.55E-02	3.71E-01	1.30E-01
1605	540.475	0.3351	67.613	69491	00000	68.363	9.54E-02	3.70E-01	1.27E-01
1610	540.478	0.3354	67.636	69491	00000	68.363	9.53E-02	3.69E-01	1.28E-01
1615	540.481	0.3352	67.617	69491	00000	68.363	9.53E-02	3.68E-01	1.27E-01
1620	540.482	0.3348	67.583	69484	00000	68.357	9.56E-02	3.68E-01	1.43E-01
1625	540.481	0.3342	67.534	69484	00000	68.357	9.59E-02	3.67E-01	1.41E-01
1630	540.480	0.3340	67.513	69484	00000	68.357	9.61E-02	3.67E-01	1.39E-01
1635	540.473	0.3343	67.538	69484	00000	68.357	9.63E-02	3.66E-01	1.37E-01
1640	540.469	0.3344	67.549	69484	00000	68.357	9.64E-02	3.65E-01	1.35E-01
1645	540.466	0.3347	67.579	69484	00000	68.357	9.65E-02	3.65E-01	1.34E-01
1650	540.470	0.3354	67.638	69484	00000	68.356	9.67E-02	3.64E-01	1.36E-01
1655	540.461	0.3351	67.608	69484	00000	68.356	9.67E-02	3.63E-01	1.32E-01
1700	540.463	0.3354	67.639	69484	00000	68.356	9.68E-02	3.63E-01	1.32E-01

CALCULATED LEAK RATE USING TOTAL TIME: .0968

THE MEAN TOTAL TIME RATE OF .1334

IS LESS THAN THE ALLOWABLE MAXIMUM LEAK RATE OF .500

***** MASS POINT CALCULATED RESULTS *****

TIME	TEMP	VAPOR PRESS	DEW PT	COUNT #1	COUNT #2	CONT AIR PRESS	CONT AIR MASS	LSF LEAK RATE	UPPER CONF LEVEL
243	540.962	0.3360	67.689	69604	00000	68.473	656103	0.00E+00	0.00E+00
248	540.958	0.3359	67.678	69599	00000	68.468	656062	0.00E+00	0.00E+00
253	540.953	0.3361	67.692	69599	00000	68.468	656066	7.94E-01	0.00E+00
258	540.943	0.3360	67.686	69599	00000	68.468	656079	2.88E-01	1.42E+00
303	540.945	0.3362	67.701	69599	00000	68.468	656075	1.71E-01	7.18E-01
308	540.934	0.3359	67.680	69598	00000	68.467	656081	7.25E-02	4.19E-01
313	540.932	0.3361	67.694	69598	00000	68.467	656082	2.61E-02	2.64E-01
318	540.918	0.3336	67.475	69597	00000	68.469	656114	-1.13E-01	1.18E-01
323	540.916	0.3359	67.678	69593	00000	68.462	656057	-2.81E-03	2.09E-01
328	540.914	0.3362	67.705	69593	00000	68.462	656057	5.38E-02	2.31E-01
333	540.913	0.3360	67.686	69593	00000	68.462	656060	7.57E-02	2.20E-01
338	540.900	0.3361	67.696	69592	00000	68.461	656065	7.70E-02	1.96E-01
343	540.902	0.3357	67.663	69589	00000	68.459	656037	1.15E-01	2.22E-01
348	540.899	0.3357	67.659	69589	00000	68.459	656042	1.30E-01	2.22E-01
353	540.884	0.3360	67.685	69589	00000	68.458	656057	1.20E-01	2.00E-01
358	540.882	0.3360	67.684	69588	00000	68.457	656050	1.17E-01	1.86E-01
403	540.887	0.3359	67.680	69584	00000	68.454	656007	1.50E-01	2.20E-01
408	540.882	0.3357	67.663	69584	00000	68.454	656015	1.64E-01	2.28E-01
413	540.868	0.3334	67.462	69584	00000	68.456	656054	1.45E-01	2.05E-01
418	540.861	0.3357	67.665	69584	00000	68.454	656040	1.37E-01	1.91E-01
423	540.863	0.3361	67.698	69584	00000	68.453	656034	1.34E-01	1.83E-01
428	540.866	0.3360	67.686	69577	00000	68.447	655965	1.65E-01	2.19E-01
433	540.857	0.3359	67.676	69577	00000	68.447	655977	1.81E-01	2.33E-01
438	540.857	0.3336	67.479	69577	00000	68.449	655999	1.82E-01	2.30E-01
443	540.841	0.3360	67.687	69577	00000	68.447	655996	1.83E-01	2.26E-01
448	540.841	0.3356	67.653	69577	00000	68.447	656000	1.80E-01	2.20E-01
453	540.833	0.3357	67.664	69577	00000	68.447	656009	1.74E-01	2.11E-01
458	540.825	0.3357	67.659	69576	00000	68.446	656009	1.67E-01	2.03E-01
503	540.828	0.3338	67.498	69575	00000	68.447	656014	1.59E-01	1.93E-01
508	540.826	0.3357	67.662	69575	00000	68.445	655998	1.56E-01	1.88E-01
513	540.809	0.3355	67.646	69574	00000	68.444	656011	1.49E-01	1.80E-01
518	540.813	0.3353	67.630	69574	00000	68.444	656008	1.43E-01	1.72E-01
523	540.799	0.3356	67.649	69574	00000	68.444	656023	1.34E-01	1.63E-01
528	540.800	0.3330	67.424	69570	00000	68.443	656009	1.29E-01	1.56E-01
533	540.798	0.3354	67.636	69569	00000	68.439	655978	1.30E-01	1.56E-01
538	540.805	0.3352	67.617	69569	00000	68.440	655972	1.32E-01	1.57E-01
543	540.794	0.3357	67.659	69568	00000	68.438	655972	1.33E-01	1.57E-01
548	540.787	0.3357	67.660	69568	00000	68.438	655980	1.32E-01	1.54E-01
553	540.791	0.3356	67.651	69567	00000	68.437	655967	1.33E-01	1.54E-01
558	540.777	0.3356	67.657	69561	00000	68.431	655926	1.40E-01	1.61E-01
603	540.779	0.3356	67.654	69561	00000	68.431	655925	1.45E-01	1.66E-01
608	540.774	0.3353	67.624	69561	00000	68.432	655934	1.48E-01	1.68E-01
613	540.775	0.3356	67.649	69561	00000	68.431	655930	1.51E-01	1.70E-01
618	540.763	0.3357	67.661	69561	00000	68.431	655943	1.51E-01	1.69E-01
623	540.753	0.3353	67.628	69561	00000	68.432	655959	1.49E-01	1.66E-01
628	540.756	0.3357	67.661	69558	00000	68.428	655923	1.51E-01	1.67E-01
633	540.758	0.3351	67.609	69558	00000	68.429	655927	1.52E-01	1.68E-01
638	540.745	0.3354	67.632	69558	00000	68.429	655940	1.50E-01	1.66E-01
643	540.752	0.3354	67.633	69558	00000	68.429	655932	1.50E-01	1.65E-01
648	540.736	0.3356	67.649	69558	00000	68.428	655949	1.47E-01	1.62E-01
653	540.746	0.3354	67.638	69557	00000	68.428	655929	1.47E-01	1.61E-01
658	540.737	0.3352	67.622	69553	00000	68.424	655903	1.48E-01	1.62E-01
703	540.735	0.3352	67.618	69552	00000	68.423	655898	1.50E-01	1.63E-01
708	540.743	0.3356	67.652	69552	00000	68.422	655884	1.52E-01	1.65E-01
713	540.733	0.3357	67.660	69552	00000	68.422	655895	1.53E-01	1.65E-01
718	540.717	0.3356	67.654	69552	00000	68.422	655915	1.52E-01	1.64E-01

723	540.718	0.3355	67.645	69551	00000	68.422	655905	1.51E-01	1.63E-01
728	540.716	0.3354	67.634	69551	00000	68.422	655909	1.50E-01	1.61E-01
733	540.713	0.3356	67.653	69551	00000	68.422	655911	1.49E-01	1.60E-01
738	540.707	0.3333	67.453	69546	00000	68.419	655893	1.49E-01	1.59E-01
743	540.699	0.3356	67.656	69546	00000	68.417	655880	1.49E-01	1.60E-01
748	540.701	0.3349	67.594	69546	00000	68.417	655885	1.49E-01	1.59E-01
753	540.710	0.3350	67.603	69546	00000	68.417	655873	1.50E-01	1.59E-01
758	540.699	0.3335	67.467	69546	00000	68.419	655901	1.48E-01	1.57E-01
803	540.690	0.3355	67.644	69545	00000	68.416	655883	1.48E-01	1.57E-01
808	540.694	0.3352	67.622	69545	00000	68.416	655881	1.47E-01	1.56E-01
813	540.690	0.3350	67.605	69545	00000	68.416	655887	1.46E-01	1.55E-01
818	540.682	0.3352	67.615	69544	00000	68.415	655887	1.45E-01	1.53E-01
823	540.677	0.3353	67.623	69539	00000	68.410	655845	1.46E-01	1.54E-01
828	540.688	0.3352	67.617	69539	00000	68.410	655832	1.47E-01	1.56E-01
833	540.682	0.3355	67.645	69538	00000	68.409	655827	1.49E-01	1.57E-01
838	540.675	0.3351	67.608	69538	00000	68.409	655839	1.49E-01	1.57E-01
843	540.675	0.3351	67.611	69538	00000	68.409	655840	1.50E-01	1.57E-01
848	540.667	0.3354	67.636	69538	00000	68.409	655846	1.50E-01	1.57E-01
853	540.670	0.3352	67.615	69538	00000	68.409	655844	1.49E-01	1.57E-01
858	540.663	0.3355	67.646	69538	00000	68.409	655850	1.49E-01	1.56E-01
903	540.656	0.3350	67.605	69538	00000	68.409	655863	1.47E-01	1.54E-01
908	540.654	0.3351	67.614	69533	00000	68.404	655817	1.48E-01	1.55E-01
913	540.656	0.3350	67.599	69533	00000	68.404	655817	1.49E-01	1.55E-01
918	540.649	0.3351	67.610	69533	00000	68.404	655824	1.48E-01	1.55E-01
923	540.655	0.3330	67.431	69533	00000	68.406	655836	1.48E-01	1.54E-01
928	540.652	0.3346	67.567	69533	00000	68.405	655825	1.48E-01	1.54E-01
933	540.642	0.3347	67.573	69533	00000	68.405	655837	1.47E-01	1.53E-01
938	540.630	0.3343	67.541	69529	00000	68.401	655817	1.47E-01	1.53E-01
943	540.636	0.3349	67.591	69529	00000	68.401	655805	1.47E-01	1.53E-01
948	540.638	0.3349	67.589	69529	00000	68.401	655801	1.47E-01	1.53E-01
953	540.633	0.3348	67.583	69529	00000	68.401	655808	1.47E-01	1.52E-01
958	540.636	0.3348	67.588	69529	00000	68.401	655804	1.46E-01	1.52E-01
1003	540.628	0.3328	67.407	69529	00000	68.403	655835	1.45E-01	1.51E-01
1008	540.623	0.3350	67.601	69529	00000	68.401	655819	1.44E-01	1.50E-01
1013	540.615	0.3346	67.564	69528	00000	68.400	655823	1.43E-01	1.49E-01
1018	540.610	0.3347	67.573	69528	00000	68.400	655828	1.42E-01	1.48E-01
1023	540.607	0.3348	67.585	69528	00000	68.400	655830	1.41E-01	1.46E-01
1028	540.605	0.3346	67.568	69528	00000	68.400	655835	1.40E-01	1.45E-01
1033	540.602	0.3351	67.606	69527	00000	68.399	655825	1.38E-01	1.44E-01
1038	540.601	0.3349	67.596	69522	00000	68.394	655780	1.39E-01	1.44E-01
1043	540.603	0.3328	67.409	69522	00000	68.396	655798	1.38E-01	1.43E-01
1048	540.592	0.3348	67.581	69522	00000	68.394	655793	1.38E-01	1.43E-01
1053	540.592	0.3351	67.611	69522	00000	68.394	655790	1.37E-01	1.42E-01
1058	540.599	0.3352	67.615	69522	00000	68.394	655781	1.37E-01	1.42E-01
1103	540.594	0.3349	67.596	69521	00000	68.393	655780	1.37E-01	1.42E-01
1108	540.588	0.3351	67.607	69521	00000	68.393	655785	1.36E-01	1.41E-01
1113	540.584	0.3350	67.604	69521	00000	68.393	655790	1.36E-01	1.41E-01
1118	540.588	0.3350	67.605	69517	00000	68.389	655748	1.36E-01	1.41E-01
1123	540.589	0.3351	67.610	69517	00000	68.389	655747	1.37E-01	1.41E-01
1128	540.583	0.3346	67.568	69517	00000	68.389	655758	1.37E-01	1.41E-01
1133	540.586	0.3350	67.597	69517	00000	68.389	655751	1.37E-01	1.41E-01
1138	540.582	0.3349	67.593	69517	00000	68.389	655757	1.36E-01	1.41E-01
1143	540.577	0.3335	67.467	69514	00000	68.387	655748	1.36E-01	1.41E-01
1148	540.572	0.3332	67.446	69514	00000	68.388	655756	1.36E-01	1.40E-01
1153	540.563	0.3334	67.460	69514	00000	68.387	655766	1.36E-01	1.40E-01
1158	540.573	0.3334	67.463	69514	00000	68.387	655753	1.35E-01	1.39E-01
1203	540.567	0.3357	67.662	69514	00000	68.385	655739	1.35E-01	1.39E-01
1208	540.566	0.3349	67.592	69512	00000	68.384	655729	1.35E-01	1.39E-01
1213	540.563	0.3328	67.412	69512	00000	68.386	655753	1.35E-01	1.39E-01
1218	540.563	0.3346	67.564	69512	00000	68.384	655735	1.35E-01	1.39E-01
1223	540.559	0.3349	67.591	69512	00000	68.384	655737	1.34E-01	1.38E-01

1228	540.566	0.3348	67.583	69511	00000	68.383	655721	1.35E-01	1.38E-01
1233	540.564	0.3347	67.572	69511	00000	68.383	655725	1.34E-01	1.38E-01
1238	540.559	0.3343	67.540	69511	00000	68.384	655733	1.34E-01	1.38E-01
1243	540.552	0.3346	67.563	69511	00000	68.383	655740	1.34E-01	1.37E-01
1253	540.544	0.3345	67.560	69509	00000	68.381	655731	1.33E-01	1.37E-01
1300	540.551	0.3346	67.570	69509	00000	68.381	655722	1.33E-01	1.36E-01
1305	540.543	0.3347	67.574	69508	00000	68.380	655721	1.33E-01	1.36E-01
1310	540.542	0.3348	67.579	69508	00000	68.380	655721	1.32E-01	1.36E-01
1315	540.538	0.3349	67.588	69507	00000	68.379	655717	1.32E-01	1.35E-01
1320	540.534	0.3348	67.587	69505	00000	68.377	655702	1.32E-01	1.35E-01
1325	540.532	0.3344	67.548	69505	00000	68.378	655709	1.32E-01	1.35E-01
1330	540.524	0.3343	67.539	69505	00000	68.378	655720	1.31E-01	1.34E-01
1335	540.533	0.3347	67.573	69505	00000	68.377	655705	1.31E-01	1.34E-01
1340	540.530	0.3349	67.588	69504	00000	68.376	655697	1.31E-01	1.34E-01
1345	540.525	0.3348	67.584	69504	00000	68.376	655704	1.30E-01	1.33E-01
1350	540.534	0.3349	67.596	69504	00000	68.376	655692	1.30E-01	1.33E-01
1356	540.525	0.3344	67.548	69501	00000	68.374	655680	1.30E-01	1.33E-01
1400	540.523	0.3325	67.383	69501	00000	68.376	655701	1.30E-01	1.33E-01
1405	540.515	0.3343	67.543	69501	00000	68.374	655692	1.30E-01	1.32E-01
1410	540.515	0.3348	67.581	69501	00000	68.373	655688	1.29E-01	1.32E-01
1420	540.508	0.3349	67.593	69501	00000	68.373	655696	1.29E-01	1.32E-01
1425	540.506	0.3330	67.428	69501	00000	68.375	655716	1.28E-01	1.31E-01
1430	540.515	0.3348	67.585	69501	00000	68.373	655688	1.28E-01	1.31E-01
1435	540.515	0.3346	67.563	69494	00000	68.367	655625	1.28E-01	1.31E-01
1440	540.508	0.3341	67.522	69494	00000	68.367	655637	1.28E-01	1.31E-01
1445	540.505	0.3345	67.560	69494	00000	68.367	655637	1.29E-01	1.31E-01
1450	540.510	0.3348	67.583	69494	00000	68.366	655628	1.29E-01	1.32E-01
1455	540.509	0.3348	67.583	69494	00000	68.366	655630	1.29E-01	1.32E-01
1500	540.504	0.3347	67.577	69494	00000	68.366	655636	1.29E-01	1.32E-01
1505	540.501	0.3349	67.593	69494	00000	68.366	655638	1.29E-01	1.32E-01
1510	540.494	0.3346	67.563	69494	00000	68.367	655650	1.29E-01	1.32E-01
1515	540.496	0.3347	67.578	69494	00000	68.366	655646	1.29E-01	1.32E-01
1520	540.492	0.3347	67.572	69494	00000	68.367	655652	1.29E-01	1.31E-01
1525	540.500	0.3349	67.591	69494	00000	68.366	655640	1.29E-01	1.31E-01
1530	540.490	0.3350	67.600	69493	00000	68.365	655642	1.28E-01	1.31E-01
1535	540.486	0.3353	67.630	69491	00000	68.363	655624	1.28E-01	1.31E-01
1540	540.485	0.3348	67.586	69491	00000	68.363	655631	1.28E-01	1.31E-01
1545	540.485	0.3349	67.581	69491	00000	68.363	655631	1.28E-01	1.31E-01
1550	540.484	0.3345	67.556	69491	00000	68.364	655635	1.28E-01	1.30E-01
1555	540.487	0.3344	67.547	69491	00000	68.364	655633	1.28E-01	1.30E-01
1600	540.482	0.3350	67.597	69491	00000	68.363	655632	1.27E-01	1.30E-01
1605	540.475	0.3351	67.613	69491	00000	68.363	655640	1.27E-01	1.29E-01
1610	540.478	0.3354	67.636	69491	00000	68.363	655633	1.27E-01	1.29E-01
1615	540.481	0.3352	67.617	69491	00000	68.363	655632	1.27E-01	1.29E-01
1620	540.482	0.3348	67.583	69484	00000	68.357	655569	1.27E-01	1.29E-01
1625	540.481	0.3342	67.534	69484	00000	68.357	655575	1.27E-01	1.29E-01
1630	540.480	0.3340	67.513	69484	00000	68.357	655579	1.27E-01	1.30E-01
1635	540.473	0.3343	67.538	69484	00000	68.357	655584	1.27E-01	1.30E-01
1640	540.469	0.3344	67.549	69484	00000	68.357	655588	1.27E-01	1.30E-01
1645	540.466	0.3347	67.579	69484	00000	68.357	655588	1.27E-01	1.30E-01
1650	540.470	0.3354	67.638	69484	00000	68.356	655577	1.27E-01	1.30E-01
1655	540.461	0.3351	67.608	69484	00000	68.356	655591	1.27E-01	1.29E-01
1700	540.463	0.3354	67.639	69484	00000	68.356	655585	1.27E-01	1.29E-01

MAX ALLOWABLE LEAK RATE :

.5

75% OF MAX ALLOWABLE LEAK RATE .375

EPRI EQUATION #6 IS SATISFIED.

EPRI EQUATION #7 IS SATISFIED

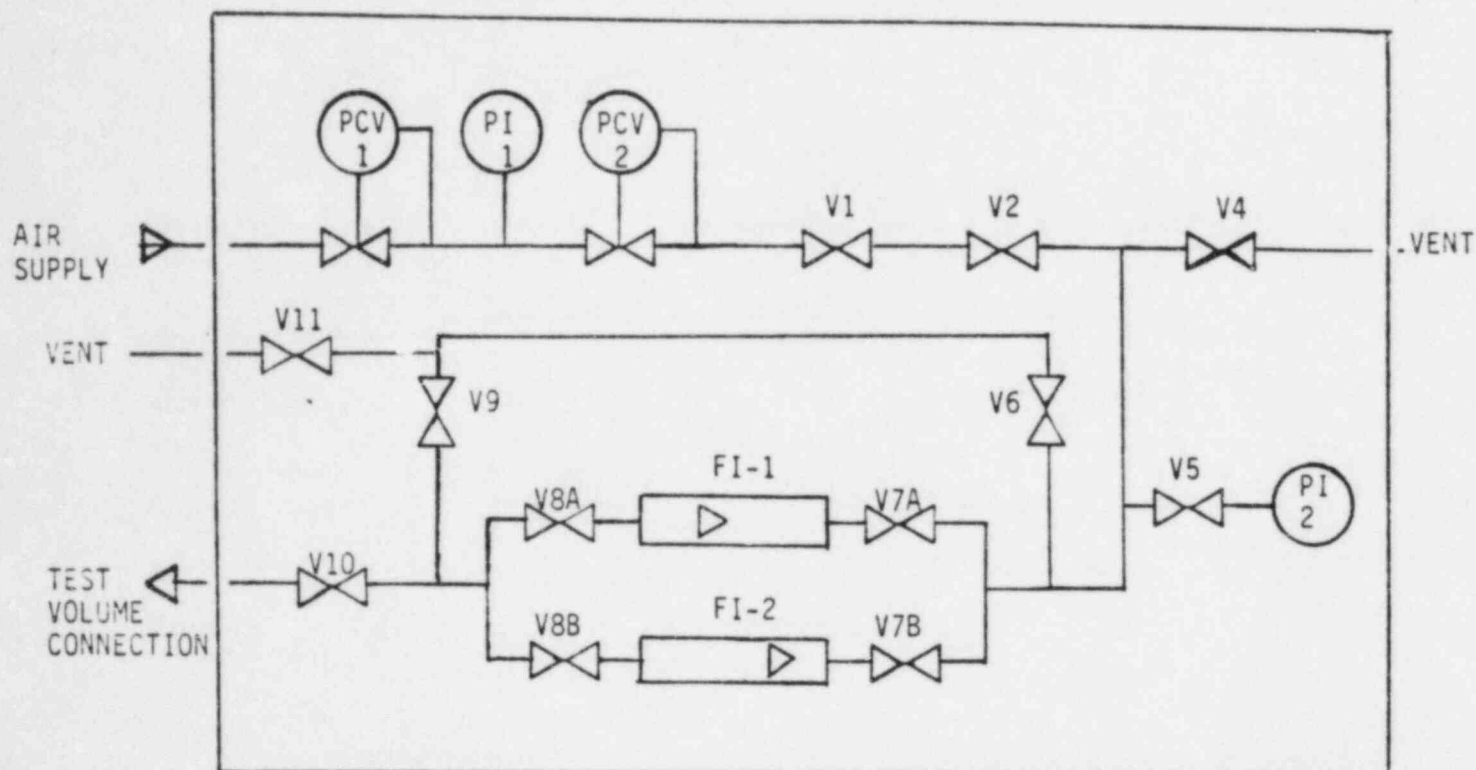
TOTAL TIME WITH VERIFICATION TEST

TIME	MASS	TOTAL TIME		SCFM	VERIFICATION	
		GROSS LSF	GROSS 95% UCL		NET LSF	NET 95% UCL
2222	655195	0.00E+00	0.00E+00	29.76	0.00E+00	0.00E+00
2227	655164	0.00E+00	0.00E+00	29.77	0.00E+00	0.00E+00
2232	655158	8.18E-01	0.00E+00	29.76	3.27E-01	-4.91E-01
2237	655151	5.80E-01	2.08E+00	29.76	8.90E-02	1.59E+00
2242	655102	7.84E-01	2.46E+00	29.76	2.94E-01	1.97E+00
2247	655113	6.98E-01	1.76E+00	29.77	2.08E-01	1.27E+00
2252	655105	6.25E-01	1.43E+00	29.77	1.35E-01	9.36E-01
2257	655042	7.29E-01	1.52E+00	29.76	2.38E-01	1.03E+00
2302	655050	7.26E-01	1.41E+00	29.77	2.35E-01	9.22E-01
2307	655056	6.82E-01	1.29E+00	29.76	1.92E-01	7.98E-01
2312	655056	6.30E-01	1.18E+00	29.76	1.40E-01	6.88E-01
2317	655013	6.31E-01	1.14E+00	29.76	1.40E-01	6.52E-01
2322	655001	6.28E-01	1.11E+00	29.76	1.37E-01	6.18E-01
2327	655005	6.08E-01	1.06E+00	29.76	1.17E-01	5.68E-01
2332	655001	5.85E-01	1.01E+00	29.76	9.43E-02	5.19E-01
2337	654950	5.94E-01	1.01E+00	29.76	1.03E-01	5.16E-01
2342	654961	5.85E-01	9.80E-01	29.76	9.41E-02	4.90E-01
2347	654973	5.63E-01	9.41E-01	29.76	7.23E-02	4.50E-01
2352	654913	5.69E-01	9.40E-01	29.76	7.82E-02	4.49E-01
2357	654915	5.67E-01	9.27E-01	29.76	7.60E-02	4.36E-01
0002	654887	5.71E-01	9.24E-01	29.76	7.99E-02	4.33E-01
0007	654858	5.79E-01	9.28E-01	29.76	8.86E-02	4.37E-01
0012	654864	5.80E-01	9.20E-01	29.77	8.87E-02	4.29E-01
0017	654852	5.79E-01	9.12E-01	29.76	8.83E-02	4.21E-01
0022	654808	5.87E-01	9.17E-01	29.76	9.66E-02	4.26E-01
0027	654809	5.90E-01	9.14E-01	29.76	9.95E-02	4.23E-01
0032	654793	5.93E-01	9.12E-01	29.76	1.02E-01	4.21E-01
0037	654782	5.95E-01	9.08E-01	29.76	1.04E-01	4.17E-01
0042	654777	5.94E-01	9.01E-01	29.76	1.03E-01	4.10E-01
0047	654722	6.02E-01	9.06E-01	29.76	1.11E-01	4.15E-01
0052	654718	6.06E-01	9.07E-01	29.76	1.15E-01	4.16E-01
0057	654723	6.07E-01	9.03E-01	29.76	1.16E-01	4.12E-01
0102	654720	6.05E-01	8.96E-01	29.76	1.15E-01	4.05E-01
0107	654689	6.07E-01	8.93E-01	29.76	1.16E-01	4.02E-01
0112	654669	6.09E-01	8.92E-01	29.76	1.18E-01	4.01E-01
0117	654654	6.11E-01	8.90E-01	29.76	1.20E-01	3.99E-01
0122	654656	6.10E-01	8.85E-01	29.76	1.19E-01	3.94E-01
0127	654616	6.13E-01	8.85E-01	29.76	1.22E-01	3.94E-01
0132	654603	6.15E-01	8.84E-01	29.76	1.24E-01	3.93E-01
0137	654590	6.17E-01	8.82E-01	29.75	1.26E-01	3.91E-01
0142	654595	6.16E-01	8.78E-01	29.76	1.25E-01	3.87E-01
0147	654548	6.19E-01	8.78E-01	29.75	1.28E-01	3.87E-01
0152	654543	6.21E-01	8.77E-01	29.75	1.30E-01	3.86E-01
0157	654548	6.20E-01	8.74E-01	29.76	1.29E-01	3.83E-01
0202	654510	6.22E-01	8.73E-01	29.76	1.31E-01	3.82E-01
0207	654512	6.22E-01	8.70E-01	29.76	1.31E-01	3.79E-01
0212	654509	6.21E-01	8.67E-01	29.76	1.30E-01	3.76E-01
0217	654465	6.23E-01	8.66E-01	29.76	1.32E-01	3.75E-01
0222	654456	6.24E-01	8.64E-01	29.76	1.33E-01	3.73E-01

*** MASS POINT WITH VERIFICATION TEST ***

TIME	MASS	MASS POINT		SCFM	VERIFICATION	
		GROSS LSF	GROSS 95% UCL		NET LSF	NET 95% UCL
2222	655195	0.00E+00	0.00E+00	29.76	0.00E+00	0.00E+00
2227	655164	0.00E+00	0.00E+00	29.77	0.00E+00	0.00E+00
2232	655158	8.18E-01	0.00E+00	29.76	3.27E-01	-4.91E-01
2237	655151	6.05E-01	1.16E+00	29.76	1.14E-01	6.70E-01
2242	655102	8.78E-01	1.33E+00	29.76	3.88E-01	8.39E-01
2247	655113	7.59E-01	1.06E+00	29.77	2.68E-01	5.73E-01
2252	655105	6.71E-01	8.99E-01	29.77	1.81E-01	4.09E-01
2257	655042	8.12E-01	1.04E+00	29.76	3.21E-01	5.48E-01
2302	655050	7.98E-01	9.70E-01	29.77	3.07E-01	4.79E-01
2307	655056	7.34E-01	8.85E-01	29.76	2.43E-01	3.95E-01
2312	655056	6.66E-01	8.08E-01	29.76	1.76E-01	3.17E-01
2317	655013	6.74E-01	7.90E-01	29.76	1.83E-01	2.99E-01
2322	655001	6.73E-01	7.71E-01	29.76	1.83E-01	2.80E-01
2327	655005	6.49E-01	7.36E-01	29.76	1.58E-01	2.45E-01
2332	655001	6.21E-01	7.01E-01	29.76	1.31E-01	2.10E-01
2337	654950	6.38E-01	7.10E-01	29.76	1.48E-01	2.19E-01
2342	654961	6.29E-01	6.92E-01	29.76	1.38E-01	2.01E-01
2347	654973	6.01E-01	6.64E-01	29.76	1.10E-01	1.73E-01
2352	654913	6.13E-01	6.70E-01	29.76	1.22E-01	1.80E-01
2357	654915	6.12E-01	6.64E-01	29.76	1.22E-01	1.73E-01
0002	654887	6.20E-01	6.67E-01	29.76	1.29E-01	1.76E-01
0007	654858	6.33E-01	6.78E-01	29.76	1.42E-01	1.87E-01
0012	654864	6.33E-01	6.74E-01	29.77	1.43E-01	1.83E-01
0017	654852	6.33E-01	6.70E-01	29.76	1.42E-01	1.79E-01
0022	654808	6.44E-01	6.80E-01	29.76	1.53E-01	1.89E-01
0027	654809	6.47E-01	6.81E-01	29.76	1.57E-01	1.90E-01
0032	654793	6.50E-01	6.81E-01	29.76	1.60E-01	1.90E-01
0037	654782	6.51E-01	6.80E-01	29.76	1.61E-01	1.89E-01
0042	654777	6.49E-01	6.76E-01	29.76	1.58E-01	1.85E-01
0047	654722	6.59E-01	6.86E-01	29.76	1.68E-01	1.95E-01
0052	654718	6.64E-01	6.89E-01	29.76	1.73E-01	1.99E-01
0057	654723	6.63E-01	6.87E-01	29.76	1.72E-01	1.96E-01
0102	654720	6.60E-01	6.82E-01	29.76	1.69E-01	1.91E-01
0107	654689	6.60E-01	6.81E-01	29.76	1.69E-01	1.91E-01
0112	654669	6.62E-01	6.82E-01	29.76	1.71E-01	1.91E-01
0117	654654	6.63E-01	6.82E-01	29.76	1.72E-01	1.91E-01
0122	654656	6.61E-01	6.79E-01	29.76	1.70E-01	1.88E-01
0127	654616	6.64E-01	6.81E-01	29.76	1.73E-01	1.90E-01
0132	654603	6.65E-01	6.82E-01	29.76	1.74E-01	1.91E-01
0137	654590	6.67E-01	6.82E-01	29.75	1.76E-01	1.91E-01
0142	654595	6.65E-01	6.80E-01	29.76	1.74E-01	1.89E-01
0147	654548	6.67E-01	6.82E-01	29.75	1.76E-01	1.91E-01
0152	654543	6.69E-01	6.83E-01	29.75	1.78E-01	1.92E-01
0157	654548	6.67E-01	6.80E-01	29.76	1.76E-01	1.89E-01
0202	654510	6.68E-01	6.81E-01	29.76	1.77E-01	1.90E-01
0207	654512	6.67E-01	6.80E-01	29.76	1.76E-01	1.89E-01
0212	654509	6.65E-01	6.77E-01	29.76	1.74E-01	1.86E-01
0217	654465	6.67E-01	6.78E-01	29.76	1.76E-01	1.87E-01
0222	654456	6.67E-01	6.78E-01	29.76	1.76E-01	1.87E-01

APPENDIX D



LOCAL LEAK TEST PANEL

<u>INSTR</u>	<u>DESCRIPTION</u>
PCV-1, PCV-2	Pressure Regulator, Range 0-100 psig
PI-1	Pressure Gauge, 0-100 psig, 2 psig increments
PI-2	*Pressure Gauge, Wallace & Tiernan Absolute Pressure Gauge Model 61A-1A-0100, Range 0-100 psia, accuracy 0.1% full scale, sensitivity .01% full scale.
FI-1, FI-2	Flow Indicator, Brooks full view rotameter, model 1370-00F2AAS, Dual Scale, Range : Various

* Alternate gauge, Heise - range 0-100 psig

APPENDIX E
CONTAINMENT PENETRATION LOCAL LEAKAGE

LOCAL LEAKAGE RATES
STANDARD CUBIC CENTIMETERS
PER MINUTE SCCM

PENETRATION NUMBER	DESCRIPTION	1983 AS LEFT	1985 AS FOUND	1985 AS FOUND
SEX A5	ELECTRICAL	20	20	20
SEX A6	ELECTRICAL	20	20	20
SEX B2	ELECTRICAL	20	20	20
SEX B4	ELECTRICAL	20	20	20
SEX B5	ELECTRICAL	20	20	20
SEX B6	ELECTRICAL	20	20	20
SEX B7	ELECTRICAL	20	20	20
SEX B8	ELECTRICAL	20	20	20
SEX B9	ELECTRICAL	20	20	20
SEX B9	ELECTRICAL	20	20	20
SEX C1	ELECTRICAL	20	20	20
SEX C3	ELECTRICAL	20	20	20
SEX D1	ELECTRICAL	20	20	20
SEX D3	ELECTRICAL	25	20	20
SEX D6	ELECTRICAL	20	20	20
SEX D8	ELECTRICAL	20	20	20
SEX D9	ELECTRICAL	20	20	20
SEX E6	ELECTRICAL	20	20	20
SEX E9	ELECTRICAL	20	20	20
SWX B1	ELECTRICAL	20	20	20
SWX B2	ELECTRICAL	20	20	20
SWX B3	ELECTRICAL	20	20	20
SWX B4	ELECTRICAL	20	20	20
SWX B5	ELECTRICAL	20	20	20
SWX B6	ELECTRICAL	25	20	20
SWX B7	ELECTRICAL	20	20	20
SWX B8	ELECTRICAL	20	20	20
SWX B9	ELECTRICAL	20	20	20
SWX C3	ELECTRICAL	20	20	20
SWX C5	ELECTRICAL	20	20	20
SWX D1	ELECTRICAL	168	169.5	169.5
SWX D3	ELECTRICAL	20	20	20
SWX D5	ELECTRICAL	20	20	20
SWX D8	ELECTRICAL	44	20	20
SWX D9	ELECTRICAL	20	20	20
SWX E5	ELECTRICAL	20	20	20
SWX E9	ELECTRICAL	20	20	20
SEX A4-1	ELECTRICAL	20	20	20
SEX A4-2	ELECTRICAL	20	20	20
SEX A4-3	ELECTRICAL	9930	160.8	160.8
SEX A8-1	ELECTRICAL	20	20	20
SEX A8-2	ELECTRICAL	20	20	20
SEX A8-3	ELECTRICAL	20	20	20
SWX A2-1	ELECTRICAL	20	20	20
SWX A2-2	ELECTRICAL	20	20	20
SWX A2-3	ELECTRICAL	20	20	20
SWX A8-1	ELECTRICAL	20	20	20
SWX A8-3	ELECTRICAL	20	20	20
		11052	1250.3	1250.3

APPENDIX E
CONTAINMENT PENETRATION LOCAL LEAKAGE

LOCAL LEAKAGE RATES
STANDARD CUBIC CENTIMETERS
PER MINUTE SCCM

PENETRATION NUMBER	DESCRIPTION	1983 AS LEFT	1985 AS FOUND	1985 AS LEFT
1	PRIMARY MAKE-UP WATER	20	20	20
2	LETDOWN	20	20	20
3	CHEMICAL VOLUME AND CONTROL	10	50	10
4	CONTAINMENT SPRAY	20	100	100
5	CONTAINMENT SPRAY	20	100	221.3
10	SHUTDOWN COOLING	59	76.15	249.75
11	SAFETY INJECTION TEST LINE	20	152.7	152.7
14	CONTAINMENT SUMP	1398.6	4161.7	100
21	PRIMARY COOLANT SAMPLE	20	575.7	20
22/65	#1 STEAM GENERATOR BLOWDOWN	69	1320.9	1014.0
23/72	#2 STEAM GENERATOR BLOWDOWN	20	100	20
24	REACTOR BLDG. COMPONENT COOLING	89	506.5	506.5
25/30	REACTOR BLDG. COMPONENT COOLING	20	504	504
26/31	REACTOR BLDG. COMPONENT COOLING	108	*122599.87	100
27/32	REACTOR BLDG. COMPONENT COOLING	99	*791984	20
28/33	REACTOR BLDG. COMPONENT COOLING	20	*717600	20
29	REACTOR BLDG. COMPONENT COOLING	89	101.3	101.3
34	NITROGEN SUPPLY	276	*27346.6	745.4
35	LIQUID RADWASTE	10	17.85	17.85
37	INSTRUMENT AIR	182	90.4	90.4
38	STATION AIR	20	20	20
39	CONTAINMENT PURGE	494	*103640.46	1063.7
40	CONTAINMENT PURGE	493.5	*91672.5	808
43	CHEMICAL VOLUME AND CONTROL	20	20	20
49	FIRE PROTECTION WATER	98	20	20
51	GASEOUS RADWASTE	108.5	2800.56	413.5
53	REACTOR BLDG. COMPONENT COOLING	30	100	100
54	REACTOR BLDG. COMPONENT COOLING	99	100	100
61	RADIATION MONITORING	20	20	20
62	HYDROGEN MONITORING	45	20	20
63	ILRT SAMPLE CONNECTIONS	12.5	10	10
64	ILRT SAMPLE CONNECTIONS	10	10	10
67	REFUELING WATER PURIFICATION	10	29.97	29.97
68	REFUELING WATER	10	50	50
82	HYDROGEN PURGE	10	*15943031	149.55
83	HYDROGEN PURGE	10	741.75	10
85	ILRT PRESSURIZATION	20	20	20
86	RADIATION MONITORING	20	20	20
87	HYDROGEN MONITORING	28	20	20
88	HYDROGEN MONITORING	20	20	20
89	HYDROGEN MONITORING	20	55.9	55.9
FUEL TRANSFER TUBE		40	250	250
EQUIPMENT HATCH		20	20	20
PERSONNEL AIR LOCK		4325	6865.5	6865.4

* = PRESSURE DECAY TYPE TEST