REACTOR CONTAINMENT BUILDING INTEGRATED

LEAK RATE TEST

UNIT 1

DONALD C. COOK PLANT
BRIDGMAN, MI

INDIANA AND MICHIGAN ELECTRIC COMPANY

AUGUST 1985

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1.0 Introduction

The 10th year containment Integrated Leak Rate Test (ILRT) for the Donald C. Cook Nuclear Plant Unit 1 reactor containment was successfully completed on August 30, 1985.

The ILRT was performed as specified in surveillance test procedure **1 THP 4030 STP.202, Rev. 0 in accordance with the requirements of American National Standard ANSI N45.4 - 1972, the Code of Federal Regulations 10 CFR 50 Appendix J, the plant FSAR, and Technical Specification 4.6.1.2.

The absolute method of testing was employed on the three compartment containment model developed for both the Unit One and Unit Two Preoperational Integrated Leak Rate Tests.

Data was collected at half hour intervals and was used to calculate the normalized weight of the initial dry air mass remaining in the containment at each half hour interval. The measured Type A leak rate, Lam, is the slope of a straight line determined for a linear least-squares fit of the calculated normalized weight vs. time.

Following the completion of the Type A test a supplemental test was performed by imposing a constant leak rate and analyzing the data with the method used for the Type A test.

All test results were found to meet the acceptance criteria.

2.0 INTEGRATED LEAK RATE TEST ACCEPTANCE CRITERIA

As per Unit 1 Technical Specifications, the containment allowable leakage, La, is defined as 0.25 percent by weight of the containment air per 24 hours at a pressure Pa (12.0 psig). The measured leakage rate, Lam, must be demonstrated to be less than 0.75 La (0.1875 %wt/day) as required by 10 CFR 50 Appendix J. In addition, the accuracy of the leakage measurement must be verified by performing a supplemental test, the results of which are acceptable provided the measured leakage is within .25 La of the measured containment leakage added to an imposed leak on the containment.

As specified in Section 5.0 of D.C. Cook Plant Surveillance Test Procedure 1-THP 4030 STP.202 and in accordance with 10 CFR 50 Appendix J Section III A, "Leakage Test Requirements, Type A Tests", the test was considered acceptable when the following had been verified:

NOTE: Leakage out of the containment is considered negative.

2.1 The duration of the Type A test has exceeded the minimum of 24 hours.

2.2 The leak rate, as determined by the 95% Upper Confidence Limit of the least squares fit, Lam/95, has converged to an acceptable level:

Lam/95 > (- 0.75 La - Type C Leakage Penalty - Sump Level Change during test).

2.3 The duration of the Type A Test has exceeded the minimum of 24 hours and the difference between the 95% Upper Confidence Limit of the leak rate, Lam/95, and the leak rate itself, Lam, is less than 0.25 La:

$|Lam/95| - |Lam| < 0.25\ La$

2.4 The changes in upper confidence level leakage, Lam/95, and the measured leakage, Lam, do not show a negative trend over the last two hours of the test.

The Supplemental Test was considered acceptable when the following had been verified:

2.5 The duration of the Supplemental Test has exceeded the minimum of 6 hours.

2.6 The sum of the imposed leak, Lo, and the leakage measured during the ILRT, Lam, is within ± 0.25 La of the composite leakage, Lc, measured in the supplemental test:

$$(Lo + Lam - 0.25\ La) < Lc < (Lo + Lam + 0.25\ La)$$

2.7 An additional acceptance, required by the NRC, adjusts the Type A test results for valves repaired during the outage but prior to the Type A test. This repaired valve penalty, Lrv, is an indication of the containment conditions at the end of the fuel cycle. The repaired valve penalty (discussed in Appendix A) is added to the 95% Upper Confidence Limit of the leak rate, Lam/95, for the Type A test. The acceptance criteria is that the combined leakages are less than .75 La.

Lam/95 > -.75La - Lrv - Type C Leakage Penalty - Sump Level Change During Test.

3.0 Analysis of Results

As indicated in Table 2, the Type A leak rate 95% Upper Confidence Limit (Lam/95) correlates with the actual leak rate (Lam) well within the limits established by 10 CFR 50 Apppendix J. Additionally, the correlation between the supplemental test and the Type A test is excellent. The "as found" condition of containment was also well within the acceptance criteria.

An analysis of the results follows:

3.1 Item A Of Table 1, Lam, is the measured containment leakage after 24 hours of taking data in one-half hour intervals. It was calculated using the "Absolute Method" as described in ANSI N45.4 - 1972. Lam is the slope of the linear regression line determined from the normalized remaining weight of the initial containment dry air mass calculated for each half hour data set. A tabulation of Lam is shown in Table I. A plot of the leakage rates along with a plot of the normalized air mass remaining in containment is shown in Graph I.

3.2 Item B Of Table 1, Lam/95, is the 95% Upper Confidence Limit of the leak rate. It is calculated from the variance of the slope of the least-squares line and the value of the t-distribution for a 95% confidence that Lam/95 is the upper limit of the actual leak rate. A tabulation of Lam/95 is shown in Table I. A plot of the leakage rates in shown in Graph 1.

3.3 Item C Of Table 1, Lv is the Type C leakage penalty for valves which could not be exposed to containment atmosphere during the Type A test because of plant conditions. This penalty is the Minimum Pathway Leakage for each penetration affected. A summary of the valves and the calculations are included in Appendix B.

The use of the Type C penalty to systems not vented to containment was part of commitments made to the NRC by Indiana and Michigan Electric Company and appears formally in Appendix Q Question 022. 14 of the Unit 2 FSAR.

3.4 Item D Of Table 1, Ls is the penalty assigned to changes in the sump levels in containment. Prior to the test, and immediately after the test, the sump levels in containment were measured. The level change was converted to a constant leakage rate by assuming it happened over the duration of the 24 test. The only significant sump level change was the annulus sump which is the collection point for the condensate from the Ice Condenser air handling units. This sump level increase is most likely a result of the dehumidification of containment during the test. Since containment pressure data is corrected for water vapor pressure it is likely that this penalty is not realistic, however, the total penalty does not significantly effect the results of the Type A test. The calculation of this penalty is shown in Appendix C.

3.5 Item E of Table 1, Lo is the imposed leak from containment during the supplemental test. This leak was established using a rotameter and a flow control valve. The flow rate was monitored at half hour intervals and held constant throughout the supplemental test.

3.6 Item F of Table 1, Lc is the measured, containment leakage during the supplemental test after 6 hours of data taking. The leak rate is calculated in the same manner as Lam (Item A of Table 1). A tabulation of Lc is shown in Table II. A plot of the leakage rate along with the normalized air mass remaining in containment is shown in Graph II.

3.7 Item G of Table 1, Lrv is the repaired valve penalty assigned to valves repaired during the outage in which the ILRT was run. It is completed by the Minimum Pathway Method for each penetration and is the difference between the as found and as left condition of the valves. This penalty is deducted from the allowable leakage from containment and corrects the ILRT acceptance criteria to reflect the condition of containment to pre-outage conditions. A calculation of the repaired valve penalty is shown in Appendix A.

3.8 Item A of Table 2, Lam/95 is well within the acceptance criteria established by 10 CFR 50 Appendix J with the appropriate penalties taken. Passing this criteria proves there is acceptable containment integrity to return to power after the refueling outage.

3.9 Item B of Table 2, the difference between the measured leak rate and the 95% Upper Confidence Limit is well within the acceptance criteria of .25 La. This correlation shows the tests results have a 95% confidence level that the next data point will be within the acceptance criteria stated by 10 CFR 50 Appendix J.

3.10 Item C of Table 2, Supplemental test correlation proves that the test instrumentation would have been adequate to measure a leak with an accuracy of ±.25 La. The correlation is well within the limits of 10 CFR 50 Appendix J.

3.11 Item D of Table 2, The "as found" type A test result compares the 95% Upper Confidence Limit on leakage to the 10 CFR 50 Appendix J containment leakage limit with a penalty for repaired valves included. The results were well within the acceptance criteria and demonstrates that the containment building would have been capable of containing the containment atmosphere if an accident would have occurred just prior to the start of the refueling outage.

TABLE 1

LEAKAGE RATE SUMMARY

		Leakage Rate % wt/24 hours
A.	Type A test Results (Lam)	- .00905
B.	95% Upper Confidence Limit Type A Test (Lam/95)	- .01677
C.	Type C Leakage Penalty (Lv)	- .00320
D.	Sump Level Change Penalty (Ls)	- .00250
E.	Supplemental Imposed Leak (Lo)	- .19270
F.	Measured Supplemental Composite Leakage (Lc)	- .19549
G.	Repaired Valve Penalty (Lrv)	- .08320

TABLE 2
TYPE A TEST RESULTS

		Measured Value % wt/day	Acceptance Criteria % wt/day
A.	95% Upper Confidence Limit For Type A Test (Lam/95)	-.01677	> -.75 La - Lv - Ls > -.1875 + .0032 + .0025 > -.1818
B.	Difference Between 95% Upper Confidence Limit (Lam/95) and the Actual Leak Rate (Lam)	|-.01677| - |-.00905| = .00772	< .25La
C.	Supplemental Test Results (Lc) and Correlation with Type A test + Imposed Leak.	-.19549	(Lam + Lo -.25 La) < Lc < (Lam + Lo + .25 La) -.26425 < Lc < -.13925
D.	"As Found" Type A Test Results	-.01677	> -.75 La - Lv - Ls - Lrv > -.1875 + .0032 + .0025 + .0832 > -.0986

La = Leakage rate of 0.25% weight of containment air mass at Pa/day

4.0 Conduct of Test

Organization of Test

The D.C. Cook Performance Engineering Section of the Technical Engineering Department was responsible for the leakage requirements of 10 CFR 50 Appendix J. Figures 4.1 and 4.2 show the personnel organization before and during the test.

4.1 Pre-Test Organization

Test Supervisor - Organized efforts required to ensure the readiness of Unit 1 containment systems and test instrumentation for the conduct of this test. This included arranging for instrument calibration, making arrangements inside and outside the plant, interfacing with the local leak test program, and completing test prerequisites.

Instrumentation Supervisor - Directed the installation, wiring, and channel verification of the test instrumentation system. Programmed the automated data acquisition system.

Instrument Technicians - Performed installation and channel verification of test instrument system.

Containment Inspection Coordinator - Organized and conducted an inspection of all accessible containment interior and exterior surfaces, penetrations and associated systems. Evaluated and reported inspection results and was responsible for initiating any corrective action required.

Corporate Interfaces - Maintained the ILRT Test Computer Program to analyze test data. Provided technical review of procedures, Tech. Specs, & FSAR. Evaluated Regulatory requirements as they would influence the test.

Local Leak Test Program Group - Performed Type B and C Leak Rate Test as per plant procedure 1 THP 4030 STP.203. Responsible for initiating corrective action as indicated by test results. Reported results to Test Supervisor.

Department Interfaces - Contacted as required to help satisfy test prerequisites.

4.2 Test Organization

Test Supervisor/Backshift Supervisor - Responsibility for the general conduct of the test.

Corporate Interfaces - These people assisted in evaluation of current problems and interpretation of codes and regulations. The corporate computer group assisted with any problems encountered with running the ILR Test program.

Data Collection Coordinator - This person was responsible for directing data collection, data entry, data processing, reviewing the results, verification of correct data entry, and plotting of the results. There were five additional personnel reporting to the data collection coordinator.

Departmental Interfaces - These people assisted the test effort when it affected their respective parts of the plant.

4.3 Test Chronology

The month prior to the start of the test was used to install the instrumentation inside of containment. The dew point hygrometers were installed one day before the test to avoid damage. The pressurization phase of the test began on August 17, 1985 at 0330.

Approximately six hours into the test, test personnel were notified by the NRC of possible valve line-up problems. A walkdown of the entire valve line-up outside containment was conducted while the test proceeded. A total of 16 misalligned valves were found. After a review of the situation with plant management, it was felt that the test should be rerun to eliminate any doubt of test validity which may be expressed at a later date.

The following is a summary of the events during the Unit 1, Summer 1985 Integrated Leak Rate Test.

DATE	TIME	
8/17/85	0330	Operations finished valve line-ups, inside containment inspection began.
8/17/85	1045	Pressurization began
8/17/85	1827	Stabilization started
8/18/85	0400	The stabilization period of the test was declared successfully completed when the following stabilization criteria were met 1) The weighted average containment temperature in the upper, and lower volumes has varied less than 0.1°F/hour for 4 consecutive hours. 2) The change in temperature indicated by each of the 46 individual containment temperature probes is less than 0.5°F for the last hour of the stabilization.
8/18/85	0400	ILRT Started
8/18/85	1950	Notified by NRC of possible valve line-up problems.
8/19/85	0645	Type A ends with a 95% Upper Confidence Leakage value of -0.02258% wt/day. The agreement between the actual measured leakage and the 95% Upper Confidence Leakage value was within .0625% wt/day showing that there was an acceptable convergence in the results.
8/19/85	0725	Supplemental test started.
8/19/85	1700	Supplemental ended and plans were made to restart test because of errors found outside containment in the valve line-up. The final composit leak rate during the supplemental test was -.20911% wt/day. The measured leak rate using Type A test equipment was -0.22975% wt/day.

DATE	TIME	
8/19/85		A cursory review of the valve line-up outside of containment showed 16 improperly lined up systems. After a review of the situation with plant management, it was decided to align the improperly positioned systems outside containment and rerun the test. A verification of valve positions inside containment would immediately follow the test.
8/20/85	0445	Increased containment pressure from ~12.1 to 12.5 PSIG to begin a second test.
8/20/85	0615	Stabilization began.
8/20/85	1430	The stabilization period of the test was declared successfully completed when the following stabilization criteria were met. 1) The weighted average containment temperature in the upper and lower volumes has varied less than .1°F/hr for 4 consecutive hours. 2) The change in temperature indicated by each of the 46 individual containment temperature probes is less than .5°F for the last hour of the stabilization.
8/20/85	1430	Began the second Type A Test.
8/20/85	2000	Error found in RUN 6 data, data set was deleted.
8/21/85	1455	Second Type A test ends with a 95% Upper Confidence Leakage Valve of -0.01677% wt/day. The agreement between the actual measured leakage and the 95% Upper Confidence Leakage Valve were within .0625% wt/day showing that there is an acceptable convergence in the results.

DATE	TIME	
8/21/85	1445	Notified by the NRC that a tubing fitting was found in the discharge of the rotameter. After it was determined that the fitting was not part of the calibration, it was removed and the test proceeded.
8/21/85	1700	Started supplemental test.
8/21/85	0045	Supplemental test terminated

Imposed leak = 0.1927% wt/day

\+ Type A results = 0.00905% wt/day

Total = 0.20175% wt/day

Leakage value measured = 0.19549% wt/day

8/22/85	0126	Started depressurizing
8/22/85	0730	Depressurization ended

After depressurization was complete, Operations and Performance personnel verified valve line-ups inside containment. The post test verification found 3 discrepancies:

1) Accumulator 1 - Vent not open (SI-164-1)
2) Accumulator 4 - Vent not open (SI-164-4)
3) NPX-300 - Loose pipe plug found in vent line.

An investigation of the accumulators found that prior to ILRT there was no pressure (Nitrogen) in the tanks and the tanks were filled with water. This was also the condition after the ILRT. It is concluded that the misaligned vents had no effect on the ILRT.

The loose fitting pipe plug at NPX-300 was not leak tight and it is concluded that it allowed the containment isolation valves to be challenged. To ensure that no questions remained, a local leak rate test of the containment isolation vented by NPX-300 was performed and the leakage was zero.

FIGURE 4.1

PRETEST ORGANIZATION

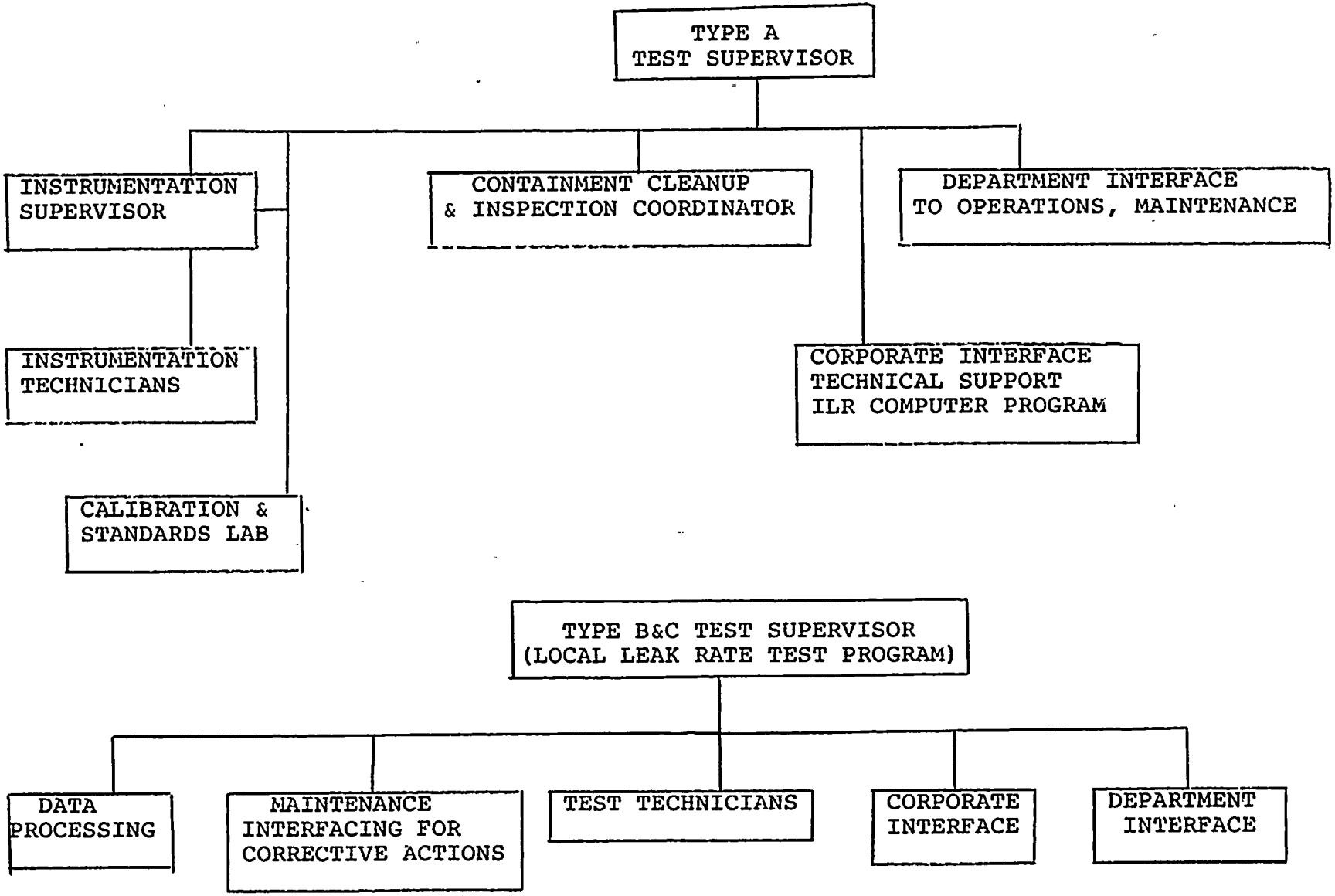
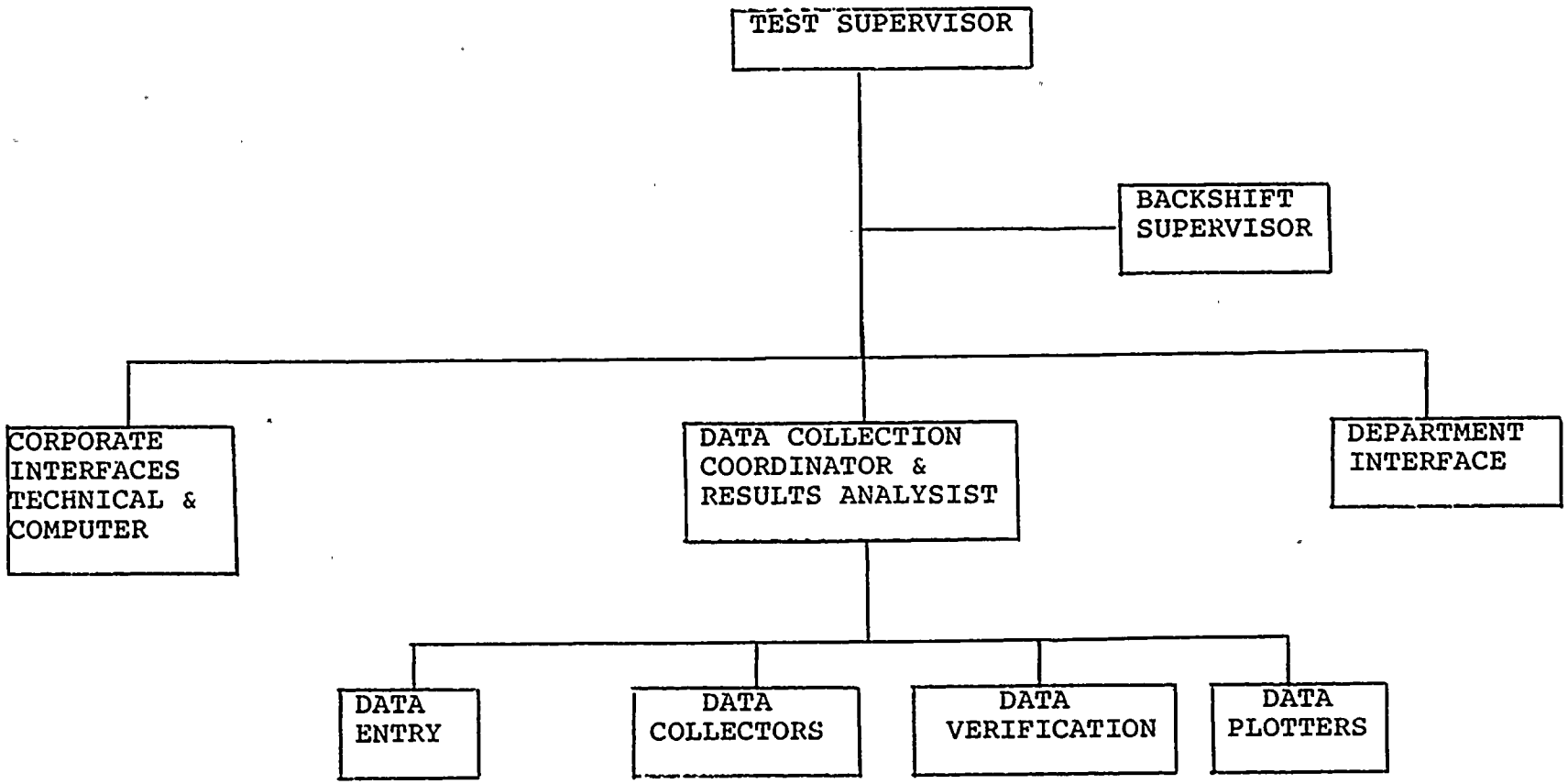


FIGURE 4.2

TEST ORGANIZATION



5.0 TEST INSTRUMENTATION AND EQUIPMENT

Table 5.1 Test Instrumentation

ITEM	MANUFACTURER	TYPE	MODEL	RANGE	TEST ID.
Pressure Measuring Instrument	Mensor	Quartz Manometer	10100-001	0-30 psia	PU-1, PU-2 PL-1, PL-2 PI-1, PI-2 PATM
Temperature Sensors	Hycal Engineering	100Ω Platinum 385 RTD's	RTS-4233-B	-360 to 270°F	ETR-101thru ETR-146 and Ambient Temperature
Dew Point Temperature Instrument	E.G. & G.	Chilled Mirror	660	-90 to + 180°F	VPU-1, VPU-2 VPL-1, VPL-2 VPI-1, VPI-2
Temperature Readout (Temp. and Dew Point Temperature)	Fluke	Data Logger	2240B	N/A	N/A
Supplemental Leak Test Flowmeter	Brooks	Rotameter	R-8M-25-4	.2 - 5.8 SCFM @ 14.7 psia 70°F	N/A
Supplemental Leak Test Pressure Gage	Mensor	Quartz Manometer	10100-001	0-30 psig	N/A
Supplemental Leak Test Temperature Gage	Omega	Dial	Model R	-40 to 160°F	N/A

Instrument Specifications

The instrumentation package used during the ILRT is shown in Table 5.1. Each of the instruments shown here was supplied with calibration data performed within 6 months of the test and traceable to the National Bureau of Standards. Calibration conversion formulas and corrections were preprogrammed into the leak rate computer program to allow direct input of all pressure, temperature and dew point temperature readings.

Two precision Mensor Quartz manometers were used for redundant measurement of the pressure in each of the upper, lower, and ice condenser compartments of the containment. A seventh was used to monitor atmospheric pressure during the test.

The drybulb temperatures for three containment compartments were instrumented with a total of forty-six (46) 100Ω platinum RTD sensors. The upper, lower, and ice condenser compartments contained 16, 23, and 7 sensors respectively. Each sensor is located to represent the temperature of a unique sub-volume within its compartment. The sub-volumes collectively represent the total volume of their respective compartment. Each temperature is weighted by the fraction of the total compartment volume contained in the sub-volume the RTD represents. The sum of the weighted temperatures in each compartment is the weighted average temperature of that compartment.

The locations of the sensors used for this test were identical to the locations originally specified for the Unit 1 and Unit 2 Preoperational ILRT's, Fig 5.1 shows the location in section views of the containment.

Six E.G.&G. Dew Point Hygrometers were used for monitoring compartment dew point temperatures for the determination of vapor pressure in the leak rate computer program. They provided two measurements of dew point in the lower containment, upper containment and ice condenser.

One hygrometer for lower containment was located between the containment lower ventilation units 1-4, the other was located between ventilation units 2-3. The hygrometers in upper containment were located together in bay 24 of the Upper Ice Condenser. This test was the first time the hygrometer sensors were located in the sampling area and not in the instrument room connected by sampling lines to the sampling area. This method, in general practice throughout the industry, proved to be reliable and the correlation with the redundant unit was good.

A Brooks rotameter was used in the Supplemental test to measure and maintain a constant flow rate for the imposed leak. It was calibrated in the range of .2 to 5.8 scfm at 14.7 psia and 70°F with an accuracy of ± 1.0% of Full Scale. To correct the rotameter to calibration conditions during the test, temperature at the inlet and pressure at the outlet of the rotameter was measured.

The temperature was measured using a dial thermometer. Pressure was measured at the outlet of the rotameter using a Mensor Quartz Manometer. The temperature and pressure readings were used to correct the indicated rotameter readings to standard conditions using the following relationship:

$$Wcorr = Wind * \sqrt{\frac{530}{460 + T_{inlet}}} * \sqrt{\frac{P_{disc}}{14.7}}$$

Wcorr = Corrected rotameter flow in scfm

Wind = indicated rotameter flow in cfm

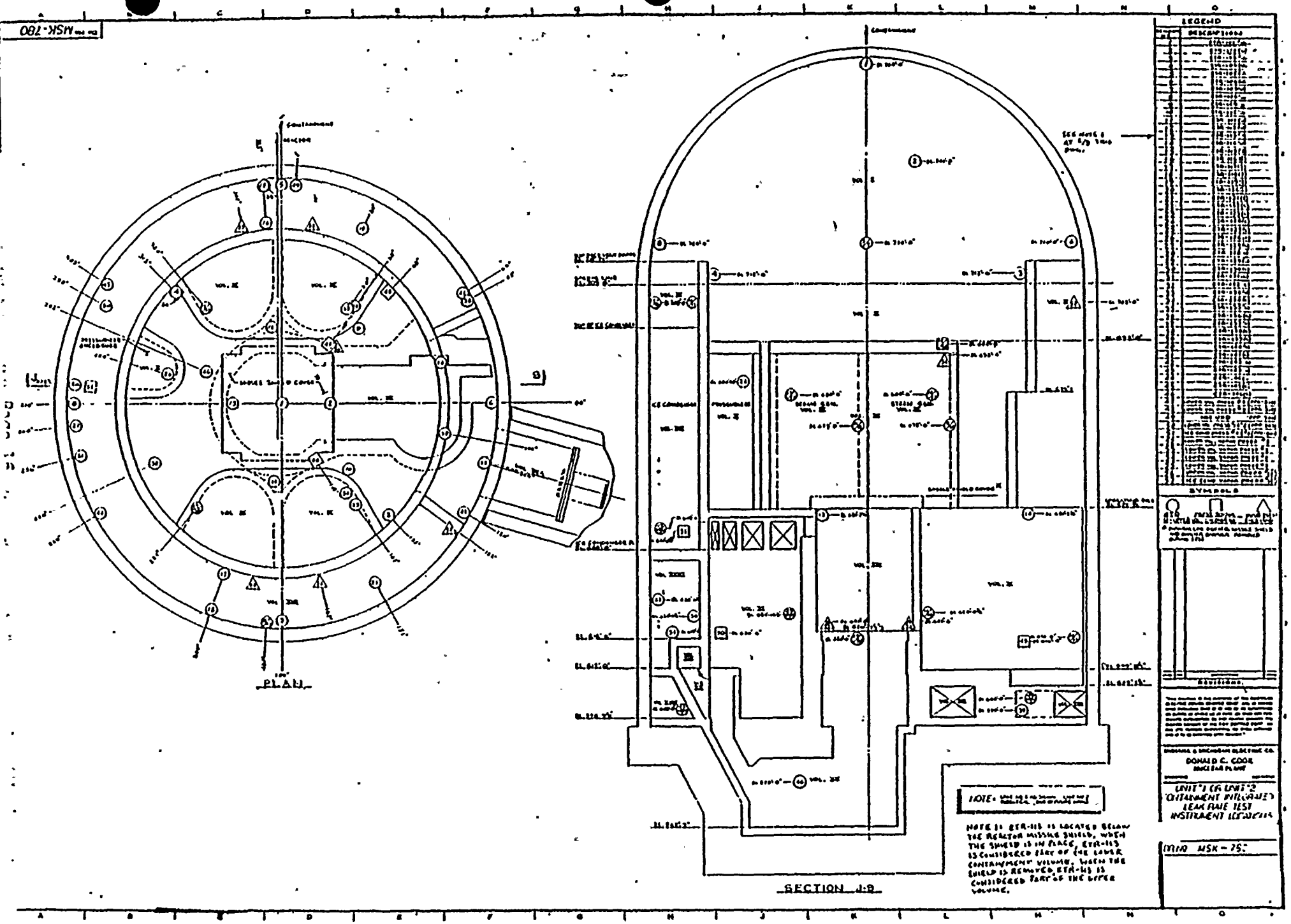
T_{inlet} = Rotameter inlet temperature, °F

P_{disc} = Rotameter discharge pressure psia.

During this test all RTD and Hygrometer data was taken by the Data Logger at one half hour intervals. The data logger was also the official time keeper for the test. The pressure readings were read by data takers. The information was entered by the data processing clerk into the ILR Test computer program. The computer tabulation for the input data was verified for correctness against the new data inputs.

An instrument selection guide was calculated for the equipment used and is shown in Appendix D.

FIGURE 5 .1


PLAN
SECTION J-9
LEGEND
SYMBOLS
DONALD C. COOK
UNIT 1 & UNIT 2
CONTAINMENT PURGE AND
LEAK RATE TEST
INSTRUMENT LOCATIONS
NOTE: ETR-115 IS LOCATED BELOW THE REACTOR MISSING SHIELD, WHEN THE SHIELD IS IN PLACE, ETR-115 IS CONSIDERED PART OF THE LOWER CONTAINMENT VOLUME, WHEN THE SHIELD IS REMOVED, ETR-115 IS CONSIDERED PART OF THE UPPER VOLUME.

6.0 Supplemental Verification Test

To verify the accuracy of the Type A test, a calibrated leak was superimposed on the existing leaks of containment. This involved establishing a 3.0 SCFM leak from containment and collecting data for a six hour period at one half hour intervals. The correlation between imposed leak data and the test data is discussed in detail in Section 3.0, Analysis of Results.

7.0 Containment Pressurization Apparatus

For this ILRT auxiliary pressurization equipment was rented from Atlas Copco consisting of:

(5) Diesel Driven Oiless Compressors Rated at a total of 5400 SCFM

Water Cooled After Cooler

Water Cooled Air Drier with Discharge Air at < -20°F Dew Point.

The air was supplied to containment at CPN -57 through approximately 400 ft. of 4" hose.

This was the first ILRT where auxiliary compressors were used. The majority of the pressurization was completed in four hours. The last two hours of pressurization was completed using one 1,200 CFM compressor. At no time did temperature gradients, dew points, or pressure gradients appear to be a problem. The use of auxiliary pressurization equipment will be considered for future ILRT's.

8.0 Containment Model and Leak Rate Calculations

The containment leak rate calculations were performed by the "absolute" method as described in ANSI-N45.4-1972. The containment design pressure is 12.0 psig and allowable leakage is 0.1875% wt/day (0.75 La). The containment model and leakage calculations used to perform this test were essentially the same as the ones used in Unit 1 and Unit 2 preoperational tests.

A 3-compartment model is employed for the calculation of the containment leak rate. It was developed to accommodate the distinct and widely varied environmental conditions existing in each of the Upper, Lower and Ice Condenser Volumes. The normalized fraction of the initial containment dry air mass, W_n, is calculated on a compartmental basis by dividing the sum of the volume weighted densities of dry air in each compartment at time, t_n, by the same values calculated at the start of the test, t_o.

Expressed in equation form:

$$Wn = \frac{\frac{1}{R} VWF_U \frac{P_{Un} - VP_{Un}}{T_{Un}} + VWF_L \frac{P_{Ln} - VP_{Ln}}{T_{Ln}} + VWF_I \frac{P_{In} - VP_{In}}{T_{In}}}{\frac{1}{R} VWF_u \frac{P_{Uo} - VP_{Uo}}{T_{Uo}} + VWF_L \frac{P_{Lo} - VP_{Lo}}{T_{Lo}} + VWF_I \frac{P_{Io} - VP_{Io}}{T_{Io}}}$$

Where: Wn = normalized weight remaining in containment at time t_n (dimensionless)

R = gas constant for dry air = 53.34 $\frac{\text{ft-lbs}}{\text{lbm-}^\circ\text{F}}$ (The terms cancel)

VWF = Volume Weighting Factor (Each compartment volume is ratioed to the Lower Compartment Volume) (dimensionless)

P = Compartment Total Pressure (psia)

VP = Compartment Vapor Pressure (psia)

T = Compartment Weighted Average Temperature (degrees Rankine)

Subscripts:

U = Upper Compartment
L = Lower Compartment
I = Ice Condenser
o = Initial Time
n = time at nth data collection

8.1 Volume Weighting Factors

Table 8.1 shows the compartment free volume distribution for normal operation:

Table 8.1*

Compartment	Free Volume (ft^3)
Upper	703,966
Lower	349,467
Ice Condenser	210,723
Total	1,264,156

The volume distribution existing at the time of the test may differ from the values indicated in Table 8.1 in two ways:

1. The total volume of the ice condenser in Table 8.1 does not include the volume of ice resident in the ice baskets.

2. The location of the movable sections of the reactor missile shield do not necessarily have to be in place during the test. For this test, the missile shields were removed.

The ice condenser volume was adjusted for the volume of ice in the ice condenser as determined by the Ice Basket Weighing Program, performed per plant procedure 12 THP 4030 STP.211 between April and July 1985. The total ice weight was 2.733×10^6 pounds. The standard density of ice, 56 lbs/ft3, is assumed to calculate the volume displaced, 48,894 ft3. This reduces the net free volume in the Ice Condenser to 161,919 ft3.

* Ref. AEPSC I&C Calculation 12-PI-05 "Volume Weighting Factors"

The containment volumes used in the calculations of the leak rate in this test are shown in Table 8.2.

Table 8.2

Containment Volume Adjusted For Conditions Existing During Unit 1 ILRT

Compartment	Free Volume (ft^3)
Upper	703,966
Lower	349,467
Ice Condenser	161,919
Total	1,215,352

Volume weighting factors were determined from the values in Table 8.2. The volume weighting factors express compartment volumes in per-unit using the lower volume as 'base'. Table 8.3 shows the volume weighting factors used for the calculation of the leak rate in this test.

Table 8.3

Containment Volume Weighting Factors (derived from Table 8.2)

Compartment		Volume Weighting Factor
Upper	$\frac{V_u}{V_L}$	2.0144
Lower	$\frac{V_L}{V_L}$	1.0000
Ice Condenser	$\frac{V_I}{V_L}$	0.4633

8.2 The Statistical Determination of the Leak Rate

There is inevitably a certain amount of random error associated with the leak rate measurements and the containment leakage itself that cause a variance in the calculated remaining weight, Wn, and the leak rate, Lam. In order to determine the leak rate from Wn after a test period of t_n, a first order (linear) least-squares fit of Wn vs t_n is performed.

8.3 The Upper Confidence Limit

The 95% Upper Confidence Limit of the leak rate is determined from the variance of the slope of the least-squares line, W(t), and the value of the t-distribution of n-2 degrees of freedom based on a one-sided 95% confidence interval.

8.4 The Leak Rate Computer Program, "ILRTEST"

"ILRTEST" accomodates the operator input of certain "fixed-data", the calibration conversion and correction coefficients of the present instrumentation system, and the volume and temperature weighting factors. The fixed data represents that which is fixed for the duration of one ILRT, but will vary from one ILRT to the next.

The raw test data collected for each test interval is entered into the data terminal. The data includes the data run number, the elapsed decimal time from run #1 in hours, the 46 containment temperatures, seven pressures (6 containment, 1 barometric) in psia and six dew point temperatures.

The program establishes a file for the raw data and computes from the file and the "fixed data", values expressed in the proper engineering units. The program computes the average compartment and containment pressures, the containment pressure relative to atmospheric, the weighted average compartment temperatures, and the average compartment dew point temperatures. From the average dew point, the vapor pressure is calculated using the Goff-Gratch forumulas for saturation vapor pressure over water or over ice.

For each run of the computer program, the raw input data and the above computed values are summarized for the most recent data run. This is a valuable aid to input data error checking and analysis. Also, at the option of the program operator this summary may be printed for an operator-specified range of runs ending with the last data run.

A separate summary of average compartment pressures, temperatures and vapor pressures is also printed for either all the runs entered into the program, or for all the runs in a range specified by the operator. The elapsed time printed for both the individual run summaries and the overall summary is controlled by the starting point of the range.

After three data runs have been made or three runs are available in the user specified range, (a minimum of three runs is required to perform the least-squares and statistical analysis) the program calculates the leak rate and 95% Upper Confidence Limit of the leak rate. In addition, the program calculates the remaining weight of the containment, and of each compartment. The remaining weights in a compartment 'c', is given by the following:

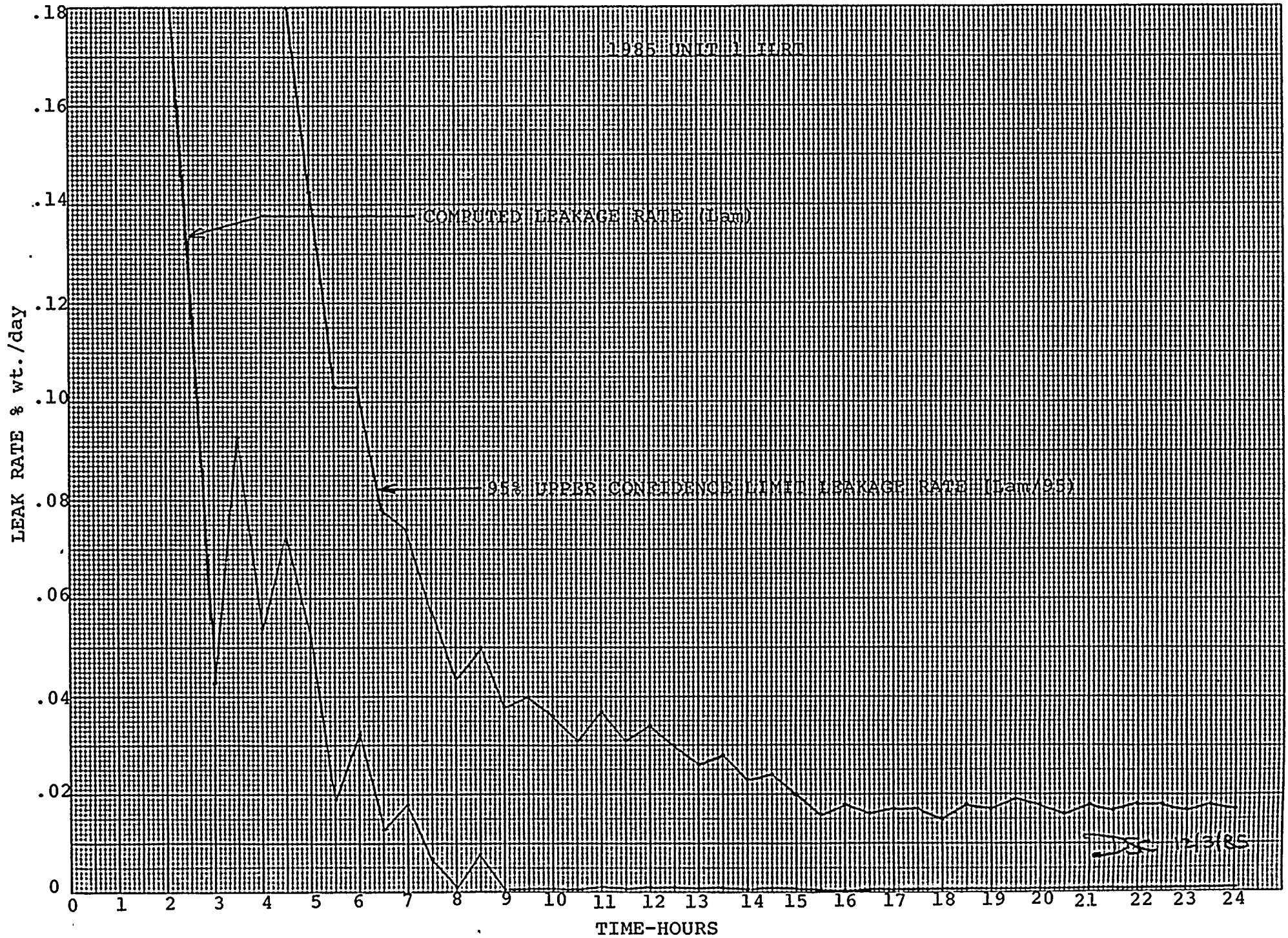
$$W_{cn} = \frac{\frac{P_{cn} - PV_{cn}}{T_{cn}}}{\frac{P_{co} - PV_{co}}{T_{co}}}$$

The individual compartment remaining weights are used only as an aid to data interpretation.

9.0 Conclusions

The 1985 Unit 1 Containment Integrated Leak Rate Test was completed on August 30, 1985. To verify the test data was correct, the data rejection criteria of ANSI/ANS-56.8-1981 Appendix D was applied to the air mass calculations. The standarized residual of the containment mass was well within the 5% rejection level criteria. The analysis is shown in Appendix E. All acceptance criteria, as discussed in Section 2 and 3, were successfully met. The next Unit 1 Containment Integrated Leak Rate Test is scheduled for January 1989.

TYPE A TEST LEAK RATE PLOT



GRAPH 1

ILR#3039 NOV 20, 1985
RESULTS OF THE LINEAR REGRESSION ANALYSIS

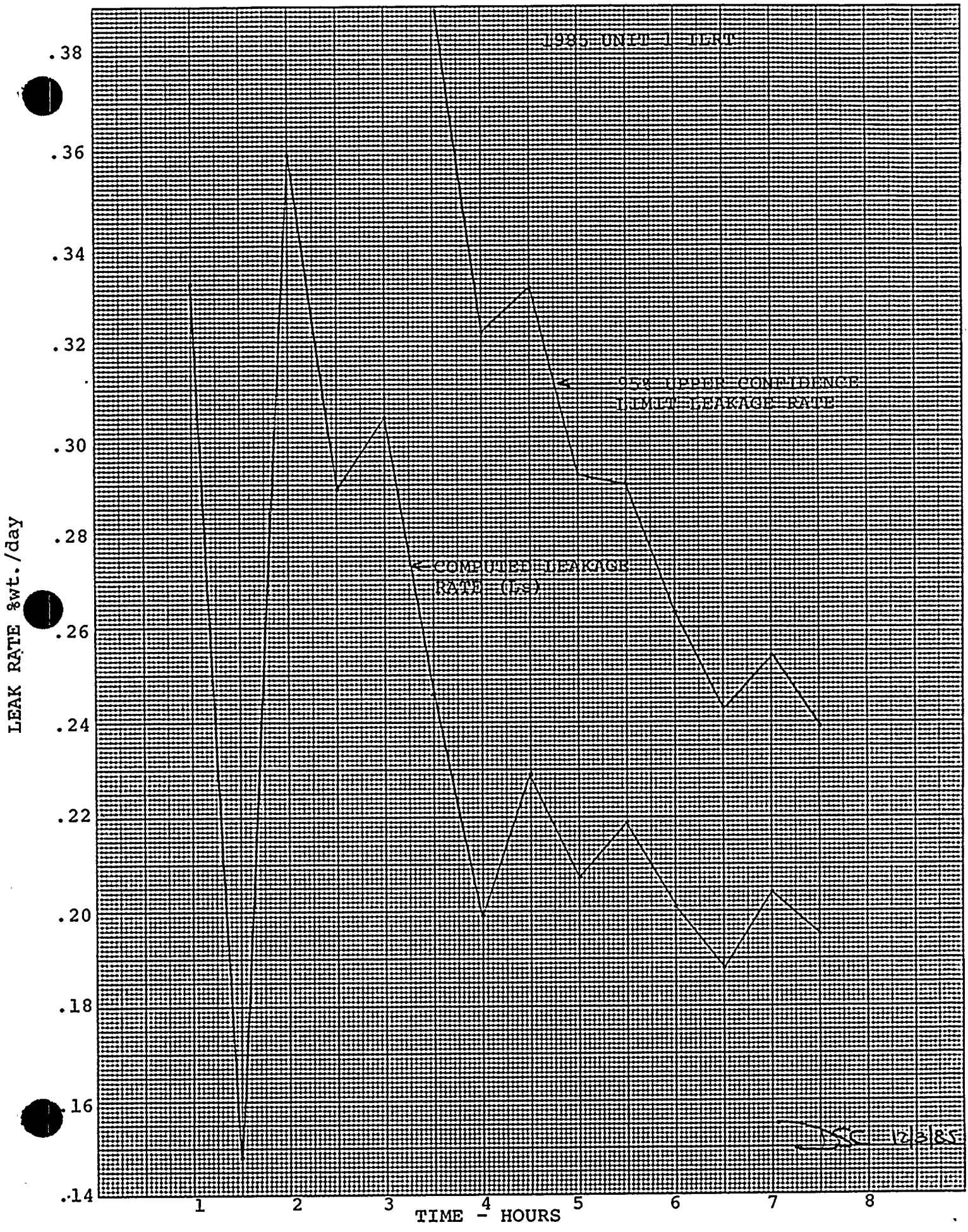
RUN #	H EXPERIMENTAL	LEAKAGE RATE UPPER LIMIT	LEAKAGE RATE	H UPPER CONTAINMENT	H LOWER CONTAINMENT	H ICE CONDENSER	INTERCEPT
1	1.00000						
2	0.99989						
3	0.99968	-1.72061	-0.76609	0.99960	0.99974	0.99988	1.00002
4	0.99993	-1.16959	-0.20763	0.99986	1.00003	1.00001	0.99994
5	0.99975	-0.67138	-0.22333	0.99971	0.99983	0.99978	0.99994
7	0.99993	-0.32694	-0.04274	0.99989	1.00002	0.99990	0.99989
8	0.99971	-0.28584	-0.09311	0.99968	0.99977	0.99975	0.99991
9	0.99987	-0.19937	-0.05351	0.99983	0.99994	0.99989	0.99989
10	0.99972	-0.18524	-0.07186	0.99969	0.99977	0.99974	0.99990
11	0.99984	-0.14500	-0.05232	0.99985	0.99985	0.99975	0.99989
12	0.99995	-0.10334	-0.01907	1.00000	1.00002	0.99961	0.99986
13	0.99973	-0.10364	-0.03199	0.99975	0.99977	0.99959	0.99987
14	0.99994	-0.07802	-0.01264	0.99997	0.99993	0.99984	0.99986
15	0.99978	-0.07430	-0.01805	0.99982	0.99977	0.99961	0.99986
16	0.99991	-0.05742	-0.00737	0.99992	0.99994	0.99981	0.99985
17	0.99992	-0.04359	0.00111	0.99996	0.99991	0.99976	0.99984
18	0.99973	-0.04956	-0.00875	0.99978	0.99970	0.99961	0.99986
19	0.99993	-0.03787	-0.00058	0.99998	0.99990	0.99980	0.99985
20	0.99977	-0.03987	-0.00601	0.99987	0.99972	0.99946	0.99985
21	0.99983	-0.03627	-0.00578	0.99992	0.99976	0.99962	0.99985
22	0.99987	-0.03121	-0.00350	0.99994	0.99981	0.99968	0.99985
23	0.99969	-0.03733	-0.01098	0.99977	0.99960	0.99955	0.99986
24	0.99989	-0.03134	-0.00691	1.00001	0.99988	0.99946	0.99985
25	0.99973	-0.03390	-0.01110	0.99987	0.99966	0.99931	0.99986
26	0.99985	-0.03036	-0.00928	0.99998	0.99974	0.99954	0.99986
27	0.99989	-0.02589	-0.00617	1.00001	0.99980	0.99958	0.99985
28	0.99972	-0.02827	-0.00967	0.99988	0.99957	0.99940	0.99986
29	0.99994	-0.02288	-0.00496	1.00008	0.99987	0.99955	0.99985
30	0.99976	-0.02367	-0.00688	0.99992	0.99967	0.99931	0.99985
31	0.99989	-0.02031	-0.00444	1.00002	0.99976	0.99967	0.99985
32	0.99997	-0.01578	-0.00039	1.00011	0.99984	0.99965	0.99984
33	0.99974	-0.01767	-0.00300	0.99989	0.99963	0.99935	0.99985
34	0.99986	-0.01593	-0.00213	1.00002	0.99973	0.99948	0.99984
35	0.99975	-0.01720	-0.00406	0.99992	0.99960	0.99935	0.99985
36	0.99982	-0.01650	-0.00411	0.99999	0.99972	0.99931	0.99985
37	0.99988	-0.01456	-0.00278	1.00012	0.99980	0.99912	0.99984
38	0.99965	-0.01799	-0.00632	0.99983	0.99955	0.99911	0.99985
39	0.99984	-0.01664	-0.00555	1.00004	0.99974	0.99928	0.99985
40	0.99967	-0.01879	-0.00800	0.99989	0.99955	0.99908	0.99986
41	0.99981	-0.01798	-0.00772	0.99999	0.99972	0.99927	0.99986
42	0.99986	-0.01642	-0.00660	1.00007	0.99975	0.99925	0.99985
43	0.99966	-0.01835	-0.00876	0.99987	0.99952	0.99910	0.99986
44	0.99986	-0.01678	-0.00755	1.00008	0.99973	0.99927	0.99986
45	0.99966	-0.01833	-0.00936	0.99994	0.99950	0.99889	0.99986
46	0.99975	-0.01826	-0.00968	0.99999	0.99962	0.99908	0.99986
47	0.99982	-0.01723	-0.00899	1.00010	0.99964	0.99912	0.99986
48	0.99968	-0.01814	-0.01017	0.99996	0.99945	0.99905	0.99987
49	0.99986	-0.01677	-0.00905	1.00018	0.99968	0.99895	0.99986

FINAL LEAKAGE RATE (% PER DAY) = -0.00905 INTERCEPT= 0.99986

UPPER CONFIDENCE LIMIT FOR THE RATE IS -0.01677

TABLE I

GRAPH II
SUPPLEMENTAL TEST LEAK RATE PLOT



ILR#3043 NOV 20, 1985
RESULTS OF THE LINEAR REGRESSION ANALYSIS

RUN #	H EXPERIMENTAL	LEAKAGE RATE UPPER LIMIT	LEAKAGE RATE	H UPPER CONTAINMENT	H LOWER CONTAINMENT	H ICE CONDENSER	INTERCEPT
1	1.00000						
2	0.99975						
3	0.99986	-3.41730	-0.33169	0.99985	0.99983	0.99995	0.99994
4	0.99986	-0.85735	-0.14806	0.99990	0.99984	0.99973	0.99992
5	0.99957	-0.79614	-0.35904	0.99960	0.99952	0.99956	0.99996
6	0.99969	-0.56233	-0.28917	0.99971	0.99965	0.99967	0.99994
7	0.99955	-0.48827	-0.30481	0.99960	0.99946	0.99951	0.99995
8	0.99965	-0.39350	-0.24611	0.99973	0.99957	0.99946	0.99992
9	0.99966	-0.32187	-0.19932	0.99977	0.99964	0.99923	0.99990
10	0.99941	-0.33062	-0.22938	0.99949	0.99935	0.99921	0.99992
11	0.99954	-0.29192	-0.20711	0.99963	0.99944	0.99940	0.99990
12	0.99936	-0.28981	-0.21897	0.99947	0.99928	0.99911	0.99991
13	0.99948	-0.26291	-0.20058	0.99958	0.99939	0.99927	0.99990
14	0.99944	-0.24289	-0.18848	0.99955	0.99935	0.99919	0.99989
15	0.99920	-0.25372	-0.20421	0.99931	0.99904	0.99909	0.99990
16	0.99934	-0.23944	-0.19549	0.99945	0.99921	0.99920	0.99989

FINAL LEAKAGE RATE (% PER DAY) = -0.19549 INTERCEPT= 0.99989

UPPER CONFIDENCE LIMIT FOR THE RATE IS -0.23944

TABLE II

SUPPLEMENTAL TEST COMPLETION CRITERIA MESSAGES
TYPE A LEAK RATE =-0.00905 (%WT/DAY) IMPOSED LEAK RATE = -3.0010 (SCFM) = -0.1927 (%WT/DAY)
TEST DURATION HAS EXCEEDED THE 6 HOUR MINIMUM
THE MEASURED COMPOSITE LEAKAGE MEETS RANGE REQUIREMENTS - SUPPLEMENTARY TESTING COMPLETED!

APPENDIX A

Repaired Valve Leakage Penalty

The following is a list of the valves which were repaired during the Unit 1 1985 Refueling Outage and prior to the ILRT. These figures represent the difference in Minimum Pathway Leakage for each isolation valve set (penetration).

B&C Test Step	SCCM	Description
31	181.4	VCR 103 & 203 Lower Purge Supply
33	263.0	VCR 105 & 205 Upper Purge Supply
50	17845.5	SI-189 Relief Valve Header to P.R.T.
62	14330.1	DCR 620 & 621 CLV & CUV Drain Hdr.
69	3413.9	ICM-306 RHR Recirc. 'W'
79	381.2	ECR-33 &35 Air Particulate Radiation Gas Monitor
80	29.7	IPX-260 (ICM-260) North Safety Injection Discharge
82	251.0	ECR-31 & 32 Air Particulate Radiation Gas Monitor
Total	35,695.8 SCCM	

$$36{,}695.8 \text{ sccm} \times \frac{1 \text{ La}}{110{,}220.74 \text{ SCCM}} = .3329 \text{ La}$$

$$.3329 \text{ La} \times \frac{.25\% \text{ wt/day}}{1 \text{ La}} = .0832 \% \text{ wt/day}$$

Repaired Valve Leakage Penalty (L_{rv}) = .0832% wt/day

APPENDIX B

TYPE C LEAKAGE PENALTY FORM

NESW System Leakage	CPN#	ISOLATION VALVES	LEAKAGE* (sccm)
CLV #1	17	WCR-900	0
	21	WCR-902	
	17	WCR-901	0
	21	WCR-903	
CLV #2	18	WCR-905	0
	22	WCR-907	
	18	WCR-904	0
	22	WCR-906	
CLV #3	19	WCR-908	0
	23	WCR-910	
	19	WCR-909	0
	23	WCR-911	
CLV #4	20	WCR-912	0
	24	WCR-914	
	20	WCR-913	0
	24	WCR-915	
CUV #1	26	WCR-921	0
	26	WCR-923	
	26	WCR-920	0
	26	WCR-922	
CUV #2	27	WCR-925	0
	27	WCR-927	
	27	WCR-924	0
	27	WCR-926	
CUV #3	85	WCR-929	
	85	WCR-931	
	85	WCR-928	50.6
	85	WCR-930	

APPENDIX B

TYPE C LEAKAGE PENALTY FORM

NESW System Leakage	CPN#	ISOLATION VALVES	LEAKAGE* (sccm)
CUV #4	84	WCR-933	0
	84	WCR-935	
	84	WCR-932	0
	84	WCR-934	
RCP #1 Motor Air Coolers	26	WCR-945	0
	26	WCR-941	
	26	WCR-951	0
	26	WCR-955	
RCP #2 Motor Air Coolers	27	WCR-946	0
	27	WCR-942	
	27	WCR-952	0
	27	WCR-956	
RCP #3 Motor Air Coolers	85	WCR-947	0
	85	WCR-943	
	85	WCR-953	0
	85	WCR-957	
RCP #4 Motor Air Coolers	84	WCR-948	0
	84	WCR-944	
	84	WCR-954	0
	84	WCR-958	
E. Inst. Room Vent	73	WCR-960	0
	73	WCR-962	
	73	WCR-961	0
	73	WCR-963	
W. Inst. Room Vent	73	WCR-964	0
	73	WCR-966	
	73	WCR-965	0
	73	WCR-967	

Total NESW System Type C Leakage = 50.6

APPENDIX B

TYPE C LEAKAGE PENALTY FORM

Type C Leakage Penalty for Undrained Systems:

DESCRIPTION	CPN#	ISOLATION VALVES	LEAKAGE* (sccm)
RCDT to RCDT pumps	40	DCR-205 DCR-206	0
RC System accumulator fill lines	68	ICM-265	0
Refueling water line to Refueling Cavity	36	SF-151 SF-153	0
Cont. Sump Line to Waste Hold-up Tanks	41	DCR-600 DCR-601	0
NESW to and from Containment (From Page 2 of this Appendix)	—	—	50.6
RCP Seal Water Lines	11 12 13 14	CS-442-1 CS-442-2 CS-442-3 CS-442-4	0
CVCS letdown	34	QCR-300 & 301	0
Seal Water Return	37	QCM-250 & 350	50.5
Sample Lines from Accumulators	81	ICR-5 ICR-6	0
Sample Lines from Pressurizer	66	NCR-109 & 110 NCR-107 & 108	0
CVCS Charging Line	35	CS-321	1264.6
Glycol lines to and from ice condenser AHU's	86 56	VCR-10 & 11 VCR-20 & 21	7.9

Total Type C Leakage Penalty (uncorrected) = 1373.6 sccm
Corrected Type C Leakage Penalty = 102% of above (see ECP 2-NO-09) 1401.072 sccm
Corrected Type C Penalty expressed in La (1La = 110,220.74 sccm) .0127 La

APPENDIX C
Sump Level Penalty

The sump levels were measured prior to closing containment before the test, and immediately upon re-entering containment after the test. The volumetric change is computed and applied as a leakage correction to the Type A test results. To be conservative, the sump change was converted to a constant leak rate for the same time period as the Type A test.

Sump Name	Dimensions (ft)	Level Change (ft)	Change (ft^3)
Reactor Cavity Sump	2.5 X 4.5	+ .021	+ .236
Lower Containment Sump	2.33 X 4.83	+ .021	+ .236
Annulus Sump	2.5 X 4.5	- .542	- 6.098
		Total	-5.626 ft^3

- $5.626\ ft^3 \times \frac{2.832 \times 10^4\ cc}{1\ ft^3} = 159{,}328\ cc$

- 159,328 cc @ 24 hrs. = 110.6 sccm

- $110.6\ sccm \times \frac{1\ La}{110{,}220.74\ sccm} = .001\ La$

- $.001\ La \times \frac{.25\%\ wt/day}{1\ La} = .0025\%\ wt/day$

APPENDIX D

Instrument Selection Guide

1. Containment Pressure
   Manufacturer: Mensor
   Type: Quartz Manometer model 10100-001
   No. of sensors:..... 6
   Range: ..... 0 - 30 psia
   Sensor sensitivity error:..... +/-0.01% of reading
   +/- .002% of full scale + 5 microns

   Thus error for pressure=eP
   eP=+[(present press. x .01%)+(.002% x 30)+.00009]/[no. of sensors]^.5

   0.0013949 =eP

2. Containment Temperature
   Manufacturer: Hy-Cal Engineering
   Type: 100 Platinum RTD 385
   No. of sensors:..... 46
   Range:..... -360 F to 270 F
   Sensor sensitivity + measure error:.....+/- 0.288 F

   Sensor error as per specifications from the Fluke 2280B
   Data Logger User Guide(Copyright Feb. 1985)is as follows:
   [(0.162)+lead Resis.x Q/ohms]. Typical lead resis.= 10 ohms

   Thus error for temperature= eT= +[0.288]/[no. of sensors]^.5

   0.0424633 =eT

3. Containment Vapor Pressure
   Manufacturer: EG&G
   Type: Mirror surface; model 660
   No. of sensors:..... 6
   Range:..... -90 F to 180 F
   Sensor sensitivity:..... +/- 0.75 F
   Measurement system error:..... +/- 0.711401 F

   *Worst case error for sensor +/- 0.75 F
   At a dewpoint temperature of 40 F the equivalent
   water vapor pressure change (as determined from the ASHRAE 1981
   Fundamentals handbook) is 0.0047401 psi/ F.

   Manufacturer: Fluke
   Type: 2280B Fluke Data Logger
   Range:..... +/- 8 V
   Accuracy:..... +/- 0.005 % input +
   +/- 0.0007 V
   These specifications being from the 2280B Data
   Logger User Guide(Copyright Feb. 1985).

   With a calibrated span of 0-2 V output from the dewpoint
   hygrometer, worst case error is 0.00075 V, using actual
   test data of 0.980 V. This being calculated by:

0.980 V x .005% + 700 micro V=
0.980 V * (.00005) + 0.0007 V= 0.00075 V

**Then introduced into the dewpoint correction curve calculation, using a difference of 0.98075 and 0.980, (hygrometer V error)the generated measurement system error is 0.711401 F.

ePv=+/- [(EPv)^2 +(aPv)^2]^.5 /[no. of sensors]^.5
Where:
EPv=+/- 0.75 F(0.0047401 psi/ F)=0.0035551 psi
aPv=+/- 0.711401 F(0.0047401 psi/ F)=0.0033721 psi

0.0020004 =ePv

4. ISG

ISG=+/- 2400/t[2(eP/p)^2 +2(ePv/p)^2 +2(eT/T)^2]^.5

24 =t (hrs.)
0.0013949 =eP
27.2 =p (PSIA)
0.0020004 =ePv
0.0424633 =eT
530 =T (Deg R)

0.0170045152 =ISG (% wt/day)

APPENDIX E

FINAL LEAK RATE (%wt/day) 0.00905
FINAL INTERCEPT 0.99986

ILRT2 DATA POINT	ELAPSED TIME FROM BEGINNING OF TEST	AIR MASS	LINEAR LEAST SQUARE FIT AIR MASS	RESIDUAL FROM LEAST SQUARE FIT	STANDARD ERROR OF RESIDUAL	STANDARD -IZED RESIDUAL
1	0.00	1.00000	0.99986	0.0001400	0.000135	1.03
2	0.50	0.99989	0.99986	0.0000281	0.000136	0.21
3	1.00	0.99968	0.99986	-0.0001838	0.000136	-1.35
4	1.50	0.99993	0.99987	0.0000643	0.000137	0.47
5	2.00	0.99975	0.99987	-0.0001175	0.000137	-0.86
7	3.00	0.99993	0.99987	0.0000587	0.000137	0.43
8	3.50	0.99971	0.99987	-0.0001632	0.000138	-1.18
9	4.00	0.99987	0.99988	-0.0000051	0.000138	-0.04
10	4.50	0.99972	0.99988	-0.0001570	0.000138	-1.14
11	5.00	0.99984	0.99988	-0.0000389	0.000138	-0.28
12	5.50	0.99995	0.99988	0.0000693	0.000139	0.50
13	6.00	0.99973	0.99988	-0.0001526	0.000139	-1.10
14	6.50	0.99994	0.99988	0.0000555	0.000139	0.40
15	7.00	0.99978	0.99989	-0.0001064	0.000139	-0.76
16	7.50	0.99991	0.99989	0.0000217	0.000139	0.16
17	8.00	0.99992	0.99989	0.0000298	0.000140	0.21
18	8.50	0.99973	0.99989	-0.0001621	0.000140	-1.16
19	9.00	0.99993	0.99989	0.0000361	0.000140	0.26
20	9.50	0.99977	0.99990	-0.0001258	0.000140	-0.90
21	10.00	0.99983	0.99990	-0.0000677	0.000140	-0.48
22	10.50	0.99987	0.99990	-0.0000296	0.000140	-0.21
23	11.00	0.99969	0.99990	-0.0002115	0.000140	-1.51
24	11.50	0.99989	0.99990	-0.0000134	0.000140	-0.10
25	12.00	0.99973	0.99991	-0.0001752	0.000140	-1.25
26	12.50	0.99985	0.99991	-0.0000571	0.000140	-0.41
27	13.00	0.99989	0.99991	-0.0000190	0.000140	-0.14
28	13.50	0.99972	0.99991	-0.0001909	0.000140	-1.36
29	14.00	0.99994	0.99991	0.0000272	0.000140	0.19
30	14.50	0.99976	0.99991	-0.0001547	0.000140	-1.11
31	15.00	0.99989	0.99992	-0.0000266	0.000140	-0.19
32	15.50	0.99997	0.99992	0.0000516	0.000140	0.37
33	16.00	0.99974	0.99992	-0.0001803	0.000140	-1.29
34	16.50	0.99986	0.99992	-0.0000622	0.000140	-0.45
35	17.00	0.99975	0.99992	-0.0001741	0.000139	-1.25
36	17.50	0.99982	0.99993	-0.0001060	0.000139	-0.76
37	18.00	0.99988	0.99993	-0.0000479	0.000139	-0.34
38	18.50	0.99965	0.99993	-0.0002798	0.000139	-2.01
39	19.00	0.99984	0.99993	-0.0000916	0.000139	-0.66
40	19.50	0.99967	0.99993	-0.0002635	0.000138	-1.90
41	20.00	0.99981	0.99994	-0.0001254	0.000138	-0.91
42	20.50	0.99986	0.99994	-0.0000773	0.000138	-0.56
43	21.00	0.99966	0.99994	-0.0002792	0.000138	-2.03
44	21.50	0.99986	0.99994	-0.0000811	0.000137	-0.59
45	22.00	0.99966	0.99994	-0.0002830	0.000137	-2.06
46	22.50	0.99975	0.99994	-0.0001948	0.000137	-1.42
47	23.00	0.99982	0.99995	-0.0001267	0.000136	-0.93
48	23.50	0.99968	0.99995	-0.0002686	0.000136	-1.97
49	24.00	0.99986	0.99995	-0.0000905	0.000136	-0.67

ILR#3039 NOV 20, 1985
*** ILR PROGRAM RE[illegible]G ***

SUMMARY OF AVERAGES

RUN #	ELAPSED TIME	AVG TEMP UPPER	AVG PRESS UPPER	AVG V PRESS UPPER	AVG TEMP LOWER	AVG PRESS LOWER	AVG V PRESS LOWER	AVG TEMP ICE	AVG PRESS ICE	AVG V PRESS ICE
1	0.00	75.3993	26.9464	0.0910	73.4875	26.9289	0.0856	16.1901	26.9438	0.0440
2	0.50	75.3997	26.9409	0.0910	73.4846	26.9286	0.0848	16.1684	26.9438	0.0442
3	1.00	75.3684	26.9337	0.0906	73.4730	26.9202	0.0846	16.1642	26.9372	0.0421
4	1.50	75.3435	26.9393	0.0906	73.4410	26.9261	0.0844	16.1523	26.9420	0.0440
5	2.00	75.2895	26.9324	0.0904	73.4128	26.9195	0.0846	16.1604	26.9351	0.0429
7	3.00	75.2690	26.9361	0.0902	73.3974	26.9234	0.0840	16.1516	26.9391	0.0441
8	3.50	75.2536	26.9297	0.0902	73.3931	26.9171	0.0848	16.1358	26.9324	0.0424
9	4.00	75.2422	26.9329	0.0900	73.3901	26.9205	0.0836	16.1075	26.9359	0.0436
10	4.50	75.2159	26.9277	0.0898	73.3793	26.9152	0.0834	16.0992	26.9311	0.0434
11	5.00	75.2251	26.9322	0.0894	73.4007	26.9189	0.0838	16.1709	26.9357	0.0437
12	5.50	75.1995	26.9345	0.0890	73.3737	26.9211	0.0831	16.2579	26.9372	0.0441
13	6.00	75.1762	26.9272	0.0896	73.3613	26.9143	0.0835	16.1539	26.9290	0.0422
14	6.30	75.1688	26.9320	0.0890	73.3692	26.9187	0.0831	16.1026	26.9338	0.0433
15	7.00	75.1344	26.9266	0.0892	73.3558	26.9137	0.0831	16.1298	26.9284	0.0425
16	7.50	75.1599	26.9298	0.0886	73.3413	26.9168	0.0825	16.0891	26.9319	0.0428
17	8.00	75.1400	26.9305	0.0890	73.3552	26.9171	0.0829	16.1111	26.9326	0.0437
18	8.50	75.0919	26.9226	0.0885	73.3155	26.9086	0.0819	16.0918	26.9245	0.0408
19	9.00	75.0989	26.9283	0.0885	73.3091	26.9141	0.0825	16.0617	26.9302	0.0431
20	9.50	75.0592	26.9231	0.0883	73.3146	26.9090	0.0819	16.1279	26.9244	0.0427
21	10.00	75.0618	26.9245	0.0881	73.3215	26.9108	0.0823	16.0794	26.9262	0.0430
22	10.50	75.0489	26.9244	0.0881	73.2907	26.9108	0.0825	16.0560	26.9261	0.0426
23	11.00	75.0303	26.9185	0.0877	73.2728	26.9042	0.0823	16.0273	26.9201	0.0416
24	11.50	75.0279	26.9247	0.0877	73.2675	26.9107	0.0817	16.1523	26.9264	0.0431
25	12.00	74.9702	26.9179	0.0875	73.2458	26.9037	0.0817	16.1140	26.9193	0.0424
26	12.50	74.9609	26.9204	0.0875	73.2516	26.9058	0.0814	16.0463	26.9219	0.0426
27	13.00	74.9641	26.9213	0.0873	73.2330	26.9068	0.0817	16.0381	26.9224	0.0426
28	13.50	74.9146	26.9150	0.0871	73.2188	26.9001	0.0817	16.0247	26.9158	0.0416
29	14.00	74.9225	26.9208	0.0871	73.2061	26.9065	0.0810	16.0393	26.9219	0.0427
30	14.50	74.8928	26.9146	0.0868	73.1913	26.9004	0.0808	16.0603	26.9153	0.0414
31	15.00	74.9041	26.9176	0.0866	73.1857	26.9027	0.0810	15.9456	26.9188	0.0418
32	15.50	74.8769	26.9189	0.0868	73.1702	26.9040	0.0808	16.0250	26.9199	0.0389
33	16.00	74.8562	26.9119	0.0866	73.1621	26.8973	0.0802	16.0064	26.9124	0.0406
34	16.50	74.8440	26.9148	0.0866	73.1507	26.9000	0.0808	15.9629	26.9159	0.0429
35	17.00	74.8045	26.9099	0.0864	73.1480	26.8964	0.0810	15.9581	26.9110	0.0417
36	17.50	74.8422	26.9135	0.0862	73.1544	26.8996	0.0804	16.0345	26.9152	0.0427
37	18.00	74.7943	26.9143	0.0860	73.1285	26.9007	0.0808	16.1136	26.9162	0.0445
38	18.50	74.7824	26.9061	0.0860	73.1134	26.8927	0.0804	16.0103	26.9080	0.0424
39	19.00	74.7608	26.9103	0.0858	73.0989	26.8968	0.0799	15.9667	26.9124	0.0446
40	19.50	74.7356	26.9049	0.0858	73.1000	26.8915	0.0799	16.0148	26.9068	0.0417
41	20.00	74.7427	26.9083	0.0860	73.0798	26.8952	0.0799	15.9577	26.9105	0.0436
42	20.50	74.7144	26.9091	0.0860	73.0773	26.8957	0.0797	15.9790	26.9114	0.0438
43	21.00	74.6878	26.9015	0.0852	73.0472	26.8877	0.0795	15.9546	26.9035	0.0412
44	21.50	74.6806	26.9070	0.0854	73.0566	26.8942	0.0797	15.9245	26.9088	0.0435
45	22.00	74.6413	26.9008	0.0850	73.0453	26.8874	0.0797	16.0056	26.9026	0.0430
46	22.50	74.6483	26.9025	0.0850	73.0206	26.8893	0.0797	15.9393	26.9039	0.0429
47	23.00	74.5953	26.9026	0.0848	73.0203	26.8891	0.0790	15.9130	26.9040	0.0436
48	23.50	74.5644	26.8972	0.0848	73.0136	26.8842	0.0795	15.8724	26.8985	0.0422
49	24.00	74.5632	26.9031	0.0848	73.0037	26.8898	0.0793	16.0006	26.9046	0.0439

ILR#3039 NOV 20, 1985
********** FIXED INPUT DATA **********

TEST START = RUN # 1 TEST END = RUN # 99

RTD MILLI-VOLT TO FAHRENHEIT CONVERSION COEFFICIENTS

UPPER		LOWER		ICE	
1.00	0.00	1.00	0.00	1.00	0.00

HYGROMETER MILLI-VOLT TO FAHRENHEIT CONVERSION COEFFICIENTS

	UPPER-1			LOWER-1			ICE-1	
0.00000	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000	1.00000	0.00000
	UPPER-2			LOWER-2			ICE-2	
0.00000	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000	1.00000	0.00000

MANOMETER PRESSURE CORRECTION COEFFICIENTS

W1	R1	W2	R2	W3	R3	W4	R4	W5	R5
				PU-1					
28.4542	28.4525	26.9566	26.9568	25.4590	25.4583	23.9614	23.9630	22.4638	22.4638
				PU-2					
28.4542	28.4550	26.9566	26.9600	25.4590	25.4597	23.9614	23.9590	22.4638	22.4603
				PL-1					
28.4542	28.4539	26.9566	26.9557	25.4590	25.4573	23.9614	23.9590	22.4638	22.4620
				PL-2					
28.4542	28.4561	26.9566	26.9607	25.4590	25.4620	23.9614	23.9637	22.4638	22.4637
				PI-1					
28.4542	28.4571	26.9566	26.9610	25.4590	25.4633	23.9614	23.9647	22.4638	22.4649
				PI-2					
28.4542	28.4536	26.9566	26.9555	25.4590	25.4570	23.9614	23.9601	22.4638	22.4623
				P-ATM					
28.4542	28.4574	26.9566	26.9583	25.4590	25.4611	23.9614	23.9635	13.4783	13.4801

RTD WEIGHTING FACTORS

UPPER

.0628 .1161 .0831 .0831 .0960 .0960 .0960 .0960 .0296 .0296
.0296 .0296 .0740 .0105 .0167 .0513

LOWER

.0415 .0415 .0415 .0415 .0102 .0284 .0586 .0086 .0266 .0586 .1037
.1037 .1037 .1037 .0500 .0092 .0244 .0145 .0170 .0249 .0219 .0240 .0423 .0000

ICE

.0738 .0738 .0714 .0714 .2227 .2784 .2085

VOLUME WEIGHTING FACTORS

UPPER	LOWER	ICE
2.0144	1.0000	0.4633

TYPE C LEAKAGE PENALTY= -1401.07(SCCM); TYPE A MEASURED LEAK RATE = -0.00905(%WT/DAY); IMPOSED LEAK RATE = -3.001 (SCFM)

RUN NUMBER 1
ELAPSED TIME 0.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.98	78.98	ETR-122	74.50	74.50	ETR-115	15.45	15.45
ETR-102	76.60	76.60	ETR-123	75.64	75.64	ETR-116	17.99	17.99
ETR-103	75.15	75.15	ETR-124	75.34	75.34	ETR-117	16.46	16.46
ETR-104	75.31	75.31	ETR-125	74.35	74.35	ETR-118	17.99	17.99
ETR-105	74.54	74.54	ETR-126	72.56	72.56	ETR-119	16.45	16.45
ETR-106	75.84	75.84	ETR-127	67.27	67.27	ETR-120	15.53	15.53
ETR-107	74.97	74.97	ETR-129	71.59	71.59	ETR-121	15.71	15.71
ETR-108	75.52	75.52	ETR-130	73.74	73.74			
ETR-109	74.77	74.77	ETR-131	69.65	69.65			
ETR-110	76.59	76.59	ETR-132	73.49	73.49			
ETR-111	75.27	75.27	ETR-134	73.93	73.93			
ETR-112	74.73	74.73	ETR-135	73.04	73.04			
ETR-114	71.75	71.75	ETR-136	74.11	74.11			
ETR-128	72.39	72.39	ETR-137	76.55	76.55			
ETR-133	70.90	70.90	ETR-138	72.21	72.21			
ETR-113	77.69	77.69	ETR-139	68.92	68.92			
			ETR-140	72.16	72.16			
			ETR-141	72.62	72.62			
			ETR-142	72.03	72.03			
			ETR-143	72.78	72.78			
			ETR-144	72.19	72.19			
			ETR-145	74.04	74.04			
			ETR-146	73.01	73.01			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.40	LOWER VOLUME (DEG. F.)	73.49	ICE CONDENSER (DEG. F.)	16.19
UPPER VOLUME (DEG. R.)	535.10	LOWER VOLUME (DEG. R.)	533.19	ICE CONDENSER (DEG. R.)	475.89

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.30	33.30	0.0933
VPU-2	32.00	32.00	0.0886
LOWER:			
VPL-1	31.40	31.40	0.0862
VPL-2	31.10	31.10	0.0850
ICE:			
VPI-1	17.00	17.00	0.0436
VPI-2	17.30	17.30	0.0443

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0910
LOWER CONTAINMENT	(PSIA)	0.0856
ICE CONDENSER	(PSIA)	0.0440

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9467	26.9465
PU-2	26.9497	26.9463
LOWER:		
PL-1	26.9300	26.9309
PL-2	26.9310	26.9269
ICE:		
PI-1	26.9504	26.9460
PI-2	26.9404	26.9415
AMBIENT	14.5035	14.5017

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9464
AVERAGE LOWER PRESSURE	(PSIA)	26.9289
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9438
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9397
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4380

RUN NUMBER 2
ELAPSED TIME 0.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.93	78.93	ETR-122	74.50	74.50	ETR-115	15.48	15.48
ETR-102	76.58	76.58	ETR-123	75.63	75.63	ETR-116	18.23	18.23
ETR-103	75.14	75.14	ETR-124	75.30	75.30	ETR-117	16.21	16.21
ETR-104	75.29	75.29	ETR-125	74.31	74.31	ETR-118	17.70	17.70
ETR-105	74.52	74.52	ETR-126	72.56	72.56	ETR-119	16.43	16.43
ETR-106	75.87	75.87	ETR-127	67.25	67.25	ETR-120	15.55	15.55
ETR-107	74.96	74.96	ETR-129	71.58	71.58	ETR-121	15.69	15.69
ETR-108	75.52	75.52	ETR-130	73.73	73.73			
ETR-109	74.80	74.80	ETR-131	69.63	69.63			
ETR-110	76.57	76.57	ETR-132	73.50	73.50			
ETR-111	75.27	75.27	ETR-134	73.97	73.97			
ETR-112	74.71	74.71	ETR-135	72.99	72.99			
ETR-114	71.88	71.88	ETR-136	74.07	74.07			
ETR-128	72.44	72.44	ETR-137	76.61	76.61			
ETR-133	70.87	70.87	ETR-138	72.20	72.20			
ETR-113	77.67	77.67	ETR-139	68.91	68.91			
			ETR-140	72.17	72.17			
			ETR-141	72.62	72.62			
			ETR-142	72.06	72.06			
			ETR-143	72.77	72.77			
			ETR-144	72.16	72.16			
			ETR-145	74.04	74.04			
			ETR-146	73.05	73.05			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.40	LOWER VOLUME (DEG. F.)	73.48	ICE CONDENSER (DEG. F.)	16.17
UPPER VOLUME (DEG. R.)	535.10	LOWER VOLUME (DEG. R.)	533.18	ICE CONDENSER (DEG. R.)	475.87

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.30	33.30	0.0933
VPU-2	32.00	32.00	0.0886
LOWER:			
VPL-1	31.10	31.10	0.0850
VPL-2	31.00	31.00	0.0846
ICE:			
VPI-1	17.20	17.20	0.0441
VPI-2	17.30	17.30	0.0443

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0910
LOWER CONTAINMENT (PSIA)	0.0848
ICE CONDENSER (PSIA)	0.0442

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9466	26.9464
PU-2	26.9388	26.9354
LOWER:		
PL-1	26.9293	26.9302
PL-2	26.9310	26.9269
ICE:		
PI-1	26.9503	26.9459
PI-2	26.9405	26.9416
AMBIENT	14.5026	14.5008

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9409
AVERAGE LOWER PRESSURE (PSIA)	26.9286
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9438
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9377
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4370

NUMBER 3
SED TIME 1.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.87	78.87	ETR-122	74.48	74.48	ETR-115	15.72	15.72
ETR-102	76.54	76.54	ETR-123	75.64	75.64	ETR-116	18.08	18.08
ETR-103	75.11	75.11	ETR-124	75.28	75.28	ETR-117	16.10	16.10
ETR-104	75.30	75.30	ETR-125	74.29	74.29	ETR-118	17.59	17.59
ETR-105	74.47	74.47	ETR-126	72.57	72.57	ETR-119	16.43	16.43
ETR-106	75.85	75.85	ETR-127	67.28	67.28	ETR-120	15.59	15.59
ETR-107	74.92	74.92	ETR-129	71.58	71.58	ETR-121	15.66	15.66
ETR-108	75.53	75.53	ETR-130	73.72	73.72			
ETR-109	74.69	74.69	ETR-131	69.65	69.65			
ETR-110	76.52	76.52	ETR-132	73.48	73.48			
ETR-111	75.24	75.24	ETR-134	73.96	73.96			
ETR-112	74.69	74.69	ETR-135	72.99	72.99			
ETR-114	71.73	71.73	ETR-136	74.03	74.03			
ETR-128	72.41	72.41	ETR-137	76.61	76.61			
ETR-133	70.89	70.89	ETR-138	72.17	72.17			
ETR-113	77.78	77.78	ETR-139	68.91	68.91			
			ETR-140	72.15	72.15			
			ETR-141	72.60	72.60			
			ETR-142	72.02	72.02			
			ETR-143	72.75	72.75			
			ETR-144	72.15	72.15			
			ETR-145	74.02	74.02			
			ETR-146	73.04	73.04			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.37	LOWER VOLUME (DEG. F.)	73.47	ICE CONDENSER (DEG. F.)	16.16
UPPER VOLUME (DEG. R.)	535.07	LOWER VOLUME (DEG. R.)	533.17	ICE CONDENSER (DEG. R.)	475.86

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.10	33.10	0.0926
VPU-2	32.00	32.00	0.0886
LOWER:			
VPL-1	31.10	31.10	0.0850
VPL-2	30.90	30.90	0.0842
ICE:			
VPI-1	16.20	16.20	0.0420
VPI-2	16.30	16.30	0.0422

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0906
LOWER CONTAINMENT	(PSIA)	0.0846
ICE CONDENSER	(PSIA)	0.0421

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9394	26.9392
PU-2	26.9316	26.9283
LOWER:		
PL-1	26.9197	26.9206
PL-2	26.9239	26.9198
ICE:		
PI-1	26.9435	26.9391
PI-2	26.9342	26.9353
AMBIENT	14.5020	14.5002

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9337
AVERAGE LOWER PRESSURE	(PSIA)	26.9202
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9372
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9304
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4302

RUN NUMBER 4
ELAPSED TIME 1.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.85	78.85	ETR-122	74.45	74.45	ETR-115	15.21	15.21
ETR-102	76.53	76.53	ETR-123	75.62	75.62	ETR-116	18.08	18.08
ETR-103	75.09	75.09	ETR-124	75.26	75.26	ETR-117	16.14	16.14
ETR-104	75.24	75.24	ETR-125	74.27	74.27	ETR-118	17.93	17.93
ETR-105	74.47	74.47	ETR-126	72.53	72.53	ETR-119	16.43	16.43
ETR-106	75.82	75.82	ETR-127	67.26	67.26	ETR-120	15.54	15.54
ETR-107	74.90	74.90	ETR-129	71.57	71.57	ETR-121	15.72	15.72
ETR-108	75.45	75.45	ETR-130	73.72	73.72			
ETR-109	74.72	74.72	ETR-131	69.60	69.60			
ETR-110	76.56	76.56	ETR-132	73.45	73.45			
ETR-111	75.20	75.20	ETR-134	73.87	73.87			
ETR-112	74.66	74.66	ETR-135	72.97	72.97			
ETR-114	71.80	71.80	ETR-136	73.95	73.95			
ETR-128	72.28	72.28	ETR-137	76.59	76.59			
ETR-133	70.86	70.86	ETR-138	72.15	72.15			
ETR-113	77.65	77.65	ETR-139	68.89	68.89			
			ETR-140	72.14	72.14			
			ETR-141	72.60	72.60			
			ETR-142	72.03	72.03			
			ETR-143	72.72	72.72			
			ETR-144	72.13	72.13			
			ETR-145	74.03	74.03			
			ETR-146	73.05	73.05			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.34	LOWER VOLUME (DEG. F.)	73.44	ICE CONDENSER (DEG. F.)	16.15
UPPER VOLUME (DEG. R.)	535.04	LOWER VOLUME (DEG. R.)	533.14	ICE CONDENSER (DEG. R.)	475.85

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.20	33.20	0.0930
VPU-2	31.90	31.90	0.0882
LOWER:			
VPL-1	31.00	31.00	0.0846
VPL-2	30.90	30.90	0.0842
ICE:			
VPI-1	17.00	17.00	0.0436
VPI-2	17.30	17.30	0.0443

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0906
LOWER CONTAINMENT (PSIA)	0.0844
ICE CONDENSER (PSIA)	0.0440

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9445	26.9443
PU-2	26.9377	26.9343
LOWER:		
PL-1	26.9264	26.9273
PL-2	26.9290	26.9249
ICE:		
PI-1	26.9485	26.9441
PI-2	26.9388	26.9399
AMBIENT	14.5016	14.4998

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9393
AVERAGE LOWER PRESSURE (PSIA)	26.9261
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9420
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9358
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4360

RUN NUMBER 5
ELAPSED TIME 2.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.82	78.82	ETR-122	74.43	74.43	ETR-115	15.59	15.59
ETR-102	76.48	76.48	ETR-123	75.58	75.58	ETR-116	17.91	17.91
ETR-103	75.06	75.06	ETR-124	75.25	75.25	ETR-117	16.40	16.40
ETR-104	75.24	75.24	ETR-125	74.25	74.25	ETR-118	17.73	17.73
ETR-105	74.41	74.41	ETR-126	72.47	72.47	ETR-119	16.39	16.39
ETR-106	75.75	75.75	ETR-127	67.26	67.26	ETR-120	15.53	15.53
ETR-107	74.86	74.86	ETR-129	71.54	71.54	ETR-121	15.72	15.72
ETR-108	75.38	75.38	ETR-130	73.71	73.71			
ETR-109	74.68	74.68	ETR-131	69.63	69.63			
ETR-110	76.49	76.49	ETR-132	73.44	73.44			
ETR-111	75.18	75.18	ETR-134	73.87	73.87			
ETR-112	74.65	74.65	ETR-135	72.92	72.92			
ETR-114	71.68	71.68	ETR-136	73.91	73.91			
ETR-128	72.41	72.41	ETR-137	76.52	76.52			
ETR-133	70.87	70.87	ETR-138	72.12	72.12			
ETR-113	77.47	77.47	ETR-139	68.89	68.89			
			ETR-140	72.14	72.14			
			ETR-141	72.58	72.58			
			ETR-142	71.96	71.96			
			ETR-143	72.69	72.69			
			ETR-144	72.11	72.11			
			ETR-145	74.02	74.02			
			ETR-146	73.02	73.02			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.29	LOWER VOLUME (DEG. F.)	73.41	ICE CONDENSER (DEG. F.)	16.16
UPPER VOLUME (DEG. R.)	534.99	LOWER VOLUME (DEG. R.)	533.11	ICE CONDENSER (DEG. R.)	475.86

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.10	33.10	0.0926
VPU-2	31.90	31.90	0.0882
LOWER:			
VPL-1	31.10	31.10	0.0850
VPL-2	30.90	30.90	0.0842
ICE:			
VPI-1	16.50	16.50	0.0426
VPI-2	16.80	16.80	0.0432

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0904
LOWER CONTAINMENT (PSIA)	0.0846
ICE CONDENSER (PSIA)	0.0429

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9379	26.9377
PU-2	26.9305	26.9272
LOWER:		
PL-1	26.9200	26.9209
PL-2	26.9222	26.9181
ICE:		
PI-1	26.9414	26.9370
PI-2	26.9321	26.9332
AMBIENT	14.4981	14.4963

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9324
AVERAGE LOWER PRESSURE (PSIA)	26.9195
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9351
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9290
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4328

RUN NUMBER 7
ELAPSED TIME 3.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.75	78.75	ETR-122	74.43	74.43	ETR-115	15.28	15.28
ETR-102	76.44	76.44	ETR-123	75.58	75.58	ETR-116	17.24	17.24
ETR-103	75.04	75.04	ETR-124	75.23	75.23	ETR-117	16.10	16.10
ETR-104	75.22	75.22	ETR-125	74.22	74.22	ETR-118	18.93	18.93
ETR-105	74.40	74.40	ETR-126	72.46	72.46	ETR-119	16.39	16.39
ETR-106	75.74	75.74	ETR-127	67.22	67.22	ETR-120	15.52	15.52
ETR-107	74.82	74.82	ETR-129	71.52	71.52	ETR-121	15.73	15.73
ETR-108	75.39	75.39	ETR-130	73.70	73.70			
ETR-109	74.67	74.67	ETR-131	69.61	69.61			
ETR-110	76.49	76.49	ETR-132	73.48	73.48			
ETR-111	75.14	75.14	ETR-134	73.82	73.82			
ETR-112	74.59	74.59	ETR-135	72.92	72.92			
ETR-114	71.67	71.67	ETR-136	73.92	73.92			
ETR-128	72.37	72.37	ETR-137	76.45	76.45			
ETR-133	70.87	70.87	ETR-138	72.13	72.13			
ETR-113	77.49	77.49	ETR-139	68.89	68.89			
			ETR-140	72.13	72.13			
			ETR-141	72.56	72.56			
			ETR-142	71.98	71.98			
			ETR-143	72.70	72.70			
			ETR-144	72.09	72.09			
			ETR-145	74.00	74.00			
			ETR-146	73.00	73.00			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.27	LOWER VOLUME (DEG. F.)	73.40	ICE CONDENSER (DEG. F.)	16.15
UPPER VOLUME (DEG. R.)	534.97	LOWER VOLUME (DEG. R.)	533.10	ICE CONDENSER (DEG. R.)	475.85

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG, F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.10	33.10	0.0926
VPU-2	31.80	31.80	0.0878
LOWER:			
VPL-1	31.00	31.00	0.0846
VPL-2	30.70	30.70	0.0834
ICE:			
VPI-1	17.30	17.30	0.0443
VPI-2	17.10	17.10	0.0438

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0902
LOWER CONTAINMENT	(PSIA)	0.0840
ICE CONDENSER	(PSIA)	0.0441

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9416	26.9414
PU-2	26.9341	26.9307
LOWER:		
PL-1	26.9235	26.9244
PL-2	26.9265	26.9224
ICE:		
PI-1	26.9454	26.9410
PI-2	26.9360	26.9371
AMBIENT	14.4941	14.4923

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9361
AVERAGE LOWER PRESSURE	(PSIA)	26.9234
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9391
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9329
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4406

RUN NUMBER 8
ELAPSED TIME 3.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.75	78.75	ETR-122	74.41	74.41	ETR-115	15.29	15.29
ETR-102	76.40	76.40	ETR-123	75.55	75.55	ETR-116	17.44	17.44
ETR-103	74.98	74.98	ETR-124	75.23	75.23	ETR-117	16.18	16.18
ETR-104	75.19	75.19	ETR-125	74.21	74.21	ETR-118	18.37	18.37
ETR-105	74.38	74.38	ETR-126	72.42	72.42	ETR-119	16.40	16.40
ETR-106	75.72	75.72	ETR-127	67.23	67.23	ETR-120	15.53	15.53
ETR-107	74.84	74.84	ETR-129	71.53	71.53	ETR-121	15.72	15.72
ETR-108	75.33	75.33	ETR-130	73.70	73.70			
ETR-109	74.71	74.71	ETR-131	69.60	69.60			
ETR-110	76.50	76.50	ETR-132	73.43	73.43			
ETR-111	75.12	75.12	ETR-134	73.83	73.83			
ETR-112	74.58	74.58	ETR-135	72.90	72.90			
ETR-114	71.73	71.73	ETR-136	73.94	73.94			
ETR-128	72.33	72.33	ETR-137	76.45	76.45			
ETR-133	70.83	70.83	ETR-138	72.09	72.09			
ETR-113	77.50	77.50	ETR-139	68.87	68.87			
			ETR-140	72.12	72.12			
			ETR-141	72.58	72.58			
			ETR-142	71.99	71.99			
			ETR-143	72.72	72.72			
			ETR-144	72.11	72.11			
			ETR-145	74.00	74.00			
			ETR-146	73.02	73.02			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.25	LOWER VOLUME (DEG. F.)	73.39	ICE CONDENSER (DEG. F.)	16.14
UPPER VOLUME (DEG. R.)	534.95	LOWER VOLUME (DEG. R.)	533.09	ICE CONDENSER (DEG. R.)	475.84

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.10	33.10	0.0926
VPU-2	31.80	31.80	0.0878
LOWER:			
VPL-1	31.20	31.20	0.0854
VPL-2	30.90	30.90	0.0842
ICE:			
VPI-1	16.40	16.40	0.0424
VPI-2	16.40	16.40	0.0424

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0902
LOWER CONTAINMENT (PSIA)	0.0848
ICE CONDENSER (PSIA)	0.0424

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9354	26.9352
PU-2	26.9275	26.9242
LOWER:		
PL-1	26.9177	26.9186
PL-2	26.9196	26.9155
ICE:		
PI-1	26.9385	26.9341
PI-2	26.9296	26.9307
AMBIENT	14.4958	14.4940

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9297
AVERAGE LOWER PRESSURE (PSIA)	26.9171
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9324
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9264
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4324

RUN NUMBER 9
ELAPSED TIME 4.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.70	78.70	ETR-122	74.41	74.41	ETR-115	15.28	15.28
ETR-102	76.38	76.38	ETR-123	75.54	75.54	ETR-116	17.38	17.38
ETR-103	75.01	75.01	ETR-124	75.23	75.23	ETR-117	15.98	15.98
ETR-104	75.18	75.18	ETR-125	74.22	74.22	ETR-118	18.30	18.30
ETR-105	74.39	74.39	ETR-126	72.47	72.47	ETR-119	16.42	16.42
ETR-106	75.69	75.69	ETR-127	67.25	67.25	ETR-120	15.50	15.50
ETR-107	74.80	74.80	ETR-129	71.47	71.47	ETR-121	15.72	15.72
ETR-108	75.32	75.32	ETR-130	73.70	73.70			
ETR-109	74.61	74.61	ETR-131	69.57	69.57			
ETR-110	76.43	76.43	ETR-132	73.44	73.44			
ETR-111	75.14	75.14	ETR-134	73.82	73.82			
ETR-112	74.56	74.56	ETR-135	72.85	72.85			
ETR-114	71.69	71.69	ETR-136	73.93	73.93			
ETR-128	72.36	72.36	ETR-137	76.50	76.50			
ETR-133	70.87	70.87	ETR-138	72.13	72.13			
ETR-113	77.62	77.62	ETR-139	68.88	68.88			
			ETR-140	72.12	72.12			
			ETR-141	72.57	72.57			
			ETR-142	71.97	71.97			
			ETR-143	72.72	72.72			
			ETR-144	72.11	72.11			
			ETR-145	73.97	73.97			
			ETR-146	73.04	73.04			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.24	LOWER VOLUME (DEG. F.)	73.39	ICE CONDENSER (DEG. F.)	16.11
UPPER VOLUME (DEG. R.)	534.94	LOWER VOLUME (DEG. R.)	533.09	ICE CONDENSER (DEG. R.)	475.81

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.00	33.00	0.0922
VPU-2	31.80	31.80	0.0878
LOWER:			
VPL-1	30.80	30.80	0.0838
VPL-2	30.70	30.70	0.0834
ICE:			
VPI-1	17.00	17.00	0.0436
VPI-2	17.00	17.00	0.0436

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0900
LOWER CONTAINMENT (PSIA)	0.0836
ICE CONDENSER (PSIA)	0.0436

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9388	26.9386
PU-2	26.9305	26.9272
LOWER:		
PL-1	26.9210	26.9219
PL-2	26.9232	26.9191
ICE:		
PI-1	26.9420	26.9376
PI-2	26.9330	26.9341
AMBIENT	14.4937	14.4919

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9329
AVERAGE LOWER PRESSURE (PSIA)	26.9205
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9359
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9298
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4379

RUN NUMBER 10
ELAPSED TIME 4.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.65	78.65	ETR-122	74.38	74.38	ETR-115	15.28	15.28
ETR-102	76.35	76.35	ETR-123	75.52	75.52	ETR-116	17.49	17.49
ETR-103	75.00	75.00	ETR-124	75.18	75.18	ETR-117	16.04	16.04
ETR-104	75.19	75.19	ETR-125	74.20	74.20	ETR-118	18.19	18.19
ETR-105	74.33	74.33	ETR-126	72.46	72.46	ETR-119	16.40	16.40
ETR-106	75.66	75.66	ETR-127	67.22	67.22	ETR-120	15.47	15.47
ETR-107	74.79	74.79	ETR-129	71.51	71.51	ETR-121	15.72	15.72
ETR-108	75.29	75.29	ETR-130	73.69	73.69			
ETR-109	74.61	74.61	ETR-131	69.57	69.57			
ETR-110	76.43	76.43	ETR-132	73.43	73.43			
ETR-111	75.14	75.14	ETR-134	73.79	73.79			
ETR-112	74.56	74.56	ETR-135	72.84	72.84			
ETR-114	71.60	71.60	ETR-136	73.96	73.96			
ETR-128	72.37	72.37	ETR-137	76.47	76.47			
ETR-133	70.83	70.83	ETR-138	72.12	72.12			
ETR-113	77.62	77.62	ETR-139	68.86	68.86			
			ETR-140	72.11	72.11			
			ETR-141	72.54	72.54			
			ETR-142	71.97	71.97			
			ETR-143	72.73	72.73			
			ETR-144	72.08	72.08			
			ETR-145	73.98	73.98			
			ETR-146	73.02	73.02			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.22	LOWER VOLUME (DEG. F.)	73.38	ICE CONDENSER (DEG. F.)	16.10
UPPER VOLUME (DEG. R.)	534.92	LOWER VOLUME (DEG. R.)	533.08	ICE CONDENSER (DEG. R.)	475.80

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	33.00	33.00	0.0922
VPU-2	31.70	31.70	0.0874
LOWER:			
VPL-1	30.70	30.70	0.0834
VPL-2	30.70	30.70	0.0834
ICE:			
VPI-1	16.70	16.70	0.0430
VPI-2	17.10	17.10	0.0438

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0898
LOWER CONTAINMENT	(PSIA)	0.0834
ICE CONDENSER	(PSIA)	0.0434

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9339	26.9337
PU-2	26.9250	26.9217
LOWER:		
PL-1	26.9151	26.9160
PL-2	26.9184	26.9143
ICE:		
PI-1	26.9370	26.9326
PI-2	26.9284	26.9295
AMBIENT	14.4954	14.4936

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9277
AVERAGE LOWER PRESSURE	(PSIA)	26.9152
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9311
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9246
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4311

RUN NUMBER 11
ELAPSED TIME 5.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.66	78.66	ETR-122	74.39	74.39	ETR-115	15.64	15.64
ETR-102	76.32	76.32	ETR-123	75.54	75.54	ETR-116	17.39	17.39
ETR-103	75.03	75.03	ETR-124	75.23	75.23	ETR-117	16.88	16.88
ETR-104	75.20	75.20	ETR-125	74.19	74.19	ETR-118	17.94	17.94
ETR-105	74.37	74.37	ETR-126	72.45	72.45	ETR-119	16.40	16.40
ETR-106	75.68	75.68	ETR-127	67.20	67.20	ETR-120	15.47	15.47
ETR-107	74.79	74.79	ETR-129	71.51	71.51	ETR-121	15.77	15.77
ETR-108	75.28	75.28	ETR-130	73.69	73.69			
ETR-109	74.65	74.65	ETR-131	69.58	69.58			
ETR-110	76.42	76.42	ETR-132	73.43	73.43			
ETR-111	75.11	75.11	ETR-134	74.00	74.00			
ETR-112	74.58	74.58	ETR-135	72.87	72.87			
ETR-114	71.65	71.65	ETR-136	73.93	73.93			
ETR-128	72.27	72.27	ETR-137	76.45	76.45			
ETR-133	70.81	70.81	ETR-138	72.10	72.10			
ETR-113	77.64	77.64	ETR-139	68.85	68.85			
			ETR-140	72.12	72.12			
			ETR-141	72.56	72.56			
			ETR-142	71.99	71.99			
			ETR-143	72.71	72.71			
			ETR-144	72.11	72.11			
			ETR-145	73.95	73.95			
			ETR-146	73.02	73.02			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.23	LOWER VOLUME (DEG. F.)	73.40	ICE CONDENSER (DEG. F.)	16.17
UPPER VOLUME (DEG. R.)	534.93	LOWER VOLUME (DEG. R.)	533.10	ICE CONDENSER (DEG. R.)	475.87

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.90	32.90	0.0919
VPU-2	31.60	31.60	0.0870
LOWER:			
VPL-1	30.80	30.80	0.0838
VPL-2	30.80	30.80	0.0838
ICE:			
VPI-1	17.00	17.00	0.0436
VPI-2	17.10	17.10	0.0438

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0894
LOWER CONTAINMENT	(PSIA)	0.0838
ICE CONDENSER	(PSIA)	0.0437

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9379	26.9377
PU-2	26.9300	26.9267
LOWER:		
PL-1	26.9183	26.9192
PL-2	26.9226	26.9185
ICE:		
PI-1	26.9419	26.9375
PI-2	26.9327	26.9338
AMBIENT	14.4930	14.4912

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9322
AVERAGE LOWER PRESSURE	(PSIA)	26.9189
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9357
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9289
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4377

N NUMBER 12
APSED TIME 5.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.61	78.61	ETR-122	74.37	74.37	ETR-115	16.19	16.19
ETR-102	76.29	76.29	ETR-123	75.51	75.51	ETR-116	17.66	17.66
ETR-103	74.98	74.98	ETR-124	75.20	75.20	ETR-117	17.38	17.38
ETR-104	75.18	75.18	ETR-125	74.18	74.18	ETR-118	17.92	17.92
ETR-105	74.32	74.32	ETR-126	72.41	72.41	ETR-119	16.44	16.44
ETR-106	75.64	75.64	ETR-127	67.19	67.19	ETR-120	15.44	15.44
ETR-107	74.76	74.76	ETR-129	71.49	71.49	ETR-121	15.73	15.73
ETR-108	75.34	75.34	ETR-130	73.67	73.67			
ETR-109	74.64	74.64	ETR-131	69.55	69.55			
ETR-110	76.41	76.41	ETR-132	73.42	73.42			
ETR-111	75.12	75.12	ETR-134	73.79	73.79			
ETR-112	74.57	74.57	ETR-135	72.86	72.86			
ETR-114	71.59	71.59	ETR-136	73.96	73.96			
ETR-128	72.38	72.38	ETR-137	76.48	76.48			
ETR-133	70.81	70.81	ETR-138	72.08	72.08			
ETR-113	77.57	77.57	ETR-139	68.86	68.86			
			ETR-140	72.07	72.07			
			ETR-141	72.55	72.55			
			ETR-142	71.97	71.97			
			ETR-143	72.70	72.70			
			ETR-144	72.09	72.09			
			ETR-145	73.95	73.95			
			ETR-146	73.02	73.02			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.20	LOWER VOLUME (DEG. F.)	73.37	ICE CONDENSER (DEG. F.)	16.26
UPPER VOLUME (DEG. R.)	534.90	LOWER VOLUME (DEG. R.)	533.07	ICE CONDENSER (DEG. R.)	475.96

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.80	32.80	0.0915
VPU-2	31.50	31.50	0.0866
LOWER:			
VPL-1	30.70	30.70	0.0834
VPL-2	30.50	30.50	0.0827
ICE:			
VPI-1	17.20	17.20	0.0441
VPI-2	17.20	17.20	0.0441

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0890
LOWER CONTAINMENT	(PSIA)	0.0831
ICE CONDENSER	(PSIA)	0.0441

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9395	26.9393
PU-2	26.9330	26.9296
LOWER:		
PL-1	26.9215	26.9224
PL-2	26.9239	26.9198
ICE:		
PI-1	26.9435	26.9391
PI-2	26.9342	26.9353
AMBIENT	14.4895	14.4877

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9345
AVERAGE LOWER PRESSURE	(PSIA)	26.9211
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9372
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9309
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4433

RUN NUMBER 13
ELAPSED TIME 6.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.60	78.60	ETR-122	74.35	74.35	ETR-115	15.66	15.66
ETR-102	76.26	76.26	ETR-123	75.50	75.50	ETR-116	17.69	17.69
ETR-103	74.94	74.94	ETR-124	75.23	75.23	ETR-117	16.40	16.40
ETR-104	75.12	75.12	ETR-125	74.17	74.17	ETR-118	17.95	17.95
ETR-105	74.31	74.31	ETR-126	72.44	72.44	ETR-119	16.44	16.44
ETR-106	75.64	75.64	ETR-127	67.20	67.20	ETR-120	15.48	15.48
ETR-107	74.76	74.76	ETR-129	71.48	71.48	ETR-121	15.68	15.68
ETR-108	75.33	75.33	ETR-130	73.67	73.67			
ETR-109	74.51	74.51	ETR-131	69.57	69.57			
ETR-110	76.44	76.44	ETR-132	73.44	73.44			
ETR-111	75.11	75.11	ETR-134	73.77	73.77			
ETR-112	74.55	74.55	ETR-135	72.84	72.84			
ETR-114	71.58	71.58	ETR-136	73.93	73.93			
ETR-128	72.39	72.39	ETR-137	76.43	76.43			
ETR-133	70.79	70.79	ETR-138	72.09	72.09			
ETR-113	77.49	77.49	ETR-139	68.85	68.85			
			ETR-140	72.08	72.08			
			ETR-141	72.53	72.53			
			ETR-142	71.95	71.95			
			ETR-143	72.70	72.70			
			ETR-144	72.08	72.08			
			ETR-145	73.96	73.96			
			ETR-146	72.99	72.99			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.18	LOWER VOLUME (DEG. F.)	73.36	ICE CONDENSER (DEG. F.)	16.15
UPPER VOLUME (DEG. R.)	534.88	LOWER VOLUME (DEG. R.)	533.06	ICE CONDENSER (DEG. R.)	475.85

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.90	32.90	0.0919
VPU-2	31.70	31.70	0.0874
LOWER:			
VPL-1	30.90	30.90	0.0842
VPL-2	30.50	30.50	0.0827
ICE:			
VPI-1	15.80	15.80	0.0411
VPI-2	16.80	16.80	0.0432

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0896
LOWER CONTAINMENT	(PSIA)	0.0835
ICE CONDENSER	(PSIA)	0.0422

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9321	26.9319
PU-2	26.9259	26.9226
LOWER:		
PL-1	26.9153	26.9162
PL-2	26.9164	26.9123
ICE:		
PI-1	26.9353	26.9309
PI-2	26.9260	26.9271
AMBIENT	14.4903	14.4885

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9272
AVERAGE LOWER PRESSURE	(PSIA)	26.9143
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9290
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9235
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4350

RUN NUMBER 14
ELAPSED TIME 6.30

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.59	78.59	ETR-122	74.32	74.32	ETR-115	15.28	15.28
ETR-102	76.23	76.23	ETR-123	75.52	75.52	ETR-116	17.91	17.91
ETR-103	74.94	74.94	ETR-124	75.17	75.17	ETR-117	16.09	16.09
ETR-104	75.12	75.12	ETR-125	74.15	74.15	ETR-118	17.60	17.60
ETR-105	74.32	74.32	ETR-126	72.41	72.41	ETR-119	16.44	16.44
ETR-106	75.60	75.60	ETR-127	67.18	67.18	ETR-120	15.50	15.50
ETR-107	74.72	74.72	ETR-129	71.50	71.50	ETR-121	15.69	15.69
ETR-108	75.29	75.29	ETR-130	73.67	73.67			
ETR-109	74.67	74.67	ETR-131	69.57	69.57			
ETR-110	76.43	76.43	ETR-132	73.42	73.42			
ETR-111	75.14	75.14	ETR-134	73.86	73.86			
ETR-112	74.51	74.51	ETR-135	72.87	72.87			
ETR-114	71.57	71.57	ETR-136	73.94	73.94			
ETR-128	72.35	72.35	ETR-137	76.44	76.44			
ETR-133	70.80	70.80	ETR-138	72.08	72.08			
ETR-113	77.57	77.57	ETR-139	68.85	68.85			
			ETR-140	72.08	72.08			
			ETR-141	72.54	72.54			
			ETR-142	71.98	71.98			
			ETR-143	72.72	72.72			
			ETR-144	72.08	72.08			
			ETR-145	73.94	73.94			
			ETR-146	72.94	72.94			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.17	LOWER VOLUME (DEG. F.)	73.37	ICE CONDENSER (DEG. F.)	16.10
UPPER VOLUME (DEG. R.)	534.87	LOWER VOLUME (DEG. R.)	533.07	ICE CONDENSER (DEG. R.)	475.80

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.80	32.80	0.0915
VPU-2	31.50	31.50	0.0866
LOWER:			
VPL-1	30.70	30.70	0.0834
VPL-2	30.50	30.50	0.0827
ICE:			
VPI-1	16.70	16.70	0.0430
VPI-2	17.00	17.00	0.0436

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0890
LOWER CONTAINMENT (PSIA)	0.0831
ICE CONDENSER (PSIA)	0.0433

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9369	26.9367
PU-2	26.9306	26.9273
LOWER:		
PL-1	26.9197	26.9206
PL-2	26.9208	26.9167
ICE:		
PI-1	26.9401	26.9357
PI-2	26.9308	26.9319
AMBIENT	14.4935	14.4917

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9320
AVERAGE LOWER PRESSURE (PSIA)	26.9187
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9338
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9282
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4365

RUN NUMBER 15
ELAPSED TIME 7.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME RTD	MILLI-VOLTS	DEG. F.	LOWER VOLUME RTD	MILLI-VOLTS	DEG. F.	ICE CONDENSER RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.57	78.57	ETR-122	74.31	74.31	ETR-115	15.78	15.78
ETR-102	76.20	76.20	ETR-123	75.46	75.46	ETR-116	18.05	18.05
ETR-103	74.92	74.92	ETR-124	75.17	75.17	ETR-117	16.01	16.01
ETR-104	75.09	75.09	ETR-125	74.15	74.15	ETR-118	17.49	17.49
ETR-105	74.27	74.27	ETR-126	72.40	72.40	ETR-119	16.42	16.42
ETR-106	75.60	75.60	ETR-127	67.18	67.18	ETR-120	15.53	15.53
ETR-107	74.72	74.72	ETR-129	71.46	71.46	ETR-121	15.64	15.64
ETR-108	75.20	75.20	ETR-130	73.66	73.66			
ETR-109	74.57	74.57	ETR-131	69.55	69.55			
ETR-110	76.43	76.43	ETR-132	73.41	73.41			
ETR-111	75.10	75.10	ETR-134	73.74	73.74			
ETR-112	74.51	74.51	ETR-135	72.86	72.86			
ETR-114	71.58	71.58	ETR-136	73.97	73.97			
ETR-128	72.29	72.29	ETR-137	76.46	76.46			
ETR-133	70.75	70.75	ETR-138	72.08	72.08			
ETR-113	77.43	77.43	ETR-139	68.85	68.85			
			ETR-140	72.08	72.08			
			ETR-141	72.55	72.55			
			ETR-142	71.97	71.97			
			ETR-143	72.71	72.71			
			ETR-144	72.08	72.08			
			ETR-145	73.94	73.94			
			ETR-146	72.98	72.98			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.13	LOWER VOLUME (DEG. F.)	73.36	ICE CONDENSER (DEG. F.)	16.13
UPPER VOLUME (DEG. R.)	534.83	LOWER VOLUME (DEG. R.)	533.06	ICE CONDENSER (DEG. R.)	475.83

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.80	32.80	0.0915
VPU-2	31.60	31.60	0.0870
LOWER:			
VPL-1	30.70	30.70	0.0834
VPL-2	30.50	30.50	0.0827
ICE:			
VPI-1	16.50	16.50	0.0426
VPI-2	16.40	16.40	0.0424

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0892
LOWER CONTAINMENT	(PSIA)	0.0831
ICE CONDENSER	(PSIA)	0.0425

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9317	26.9315
PU-2	26.9251	26.9218
LOWER:		
PL-1	26.9147	26.9156
PL-2	26.9158	26.9117
ICE:		
PI-1	26.9346	26.9302
PI-2	26.9255	26.9266
AMBIENT	14.4986	14.4968

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9266
AVERAGE LOWER PRESSURE	(PSIA)	26.9137
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9284
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9229
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4261

RUN NUMBER 16
ELAPSED TIME 7.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.56	78.56	ETR-122	74.32	74.32	ETR-115	15.10	15.10
ETR-102	76.18	76.18	ETR-123	75.46	75.46	ETR-116	17.71	17.71
ETR-103	74.97	74.97	ETR-124	75.12	75.12	ETR-117	16.03	16.03
ETR-104	75.11	75.11	ETR-125	74.15	74.15	ETR-118	17.74	17.74
ETR-105	74.29	74.29	ETR-126	72.40	72.40	ETR-119	16.42	16.42
ETR-106	75.59	75.59	ETR-127	67.17	67.17	ETR-120	15.54	15.54
ETR-107	74.70	74.70	ETR-129	71.50	71.50	ETR-121	15.70	15.70
ETR-108	75.33	75.33	ETR-130	73.66	73.66			
ETR-109	74.55	74.55	ETR-131	69.54	69.54			
ETR-110	76.39	76.39	ETR-132	73.42	73.42			
ETR-111	75.08	75.08	ETR-134	73.74	73.74			
ETR-112	74.53	74.53	ETR-135	72.83	72.83			
ETR-114	71.65	71.65	ETR-136	73.92	73.92			
ETR-128	72.36	72.36	ETR-137	76.41	76.41			
ETR-133	70.74	70.74	ETR-138	72.07	72.07			
ETR-113	77.57	77.57	ETR-139	68.84	68.84			
			ETR-140	72.05	72.05			
			ETR-141	72.52	72.52			
			ETR-142	71.93	71.93			
			ETR-143	72.71	72.71			
			ETR-144	72.10	72.10			
			ETR-145	73.95	73.95			
			ETR-146	72.98	72.98			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.16	LOWER VOLUME (DEG. F.)	73.34	ICE CONDENSER (DEG. F.)	16.09
UPPER VOLUME (DEG. R.)	534.86	LOWER VOLUME (DEG. R.)	533.04	ICE CONDENSER (DEG. R.)	475.79

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG, F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.70	32.70	0.0911
VPU-2	31.40	31.40	0.0862
LOWER:			
VPL-1	30.50	30.50	0.0827
VPL-2	30.40	30.40	0.0823
ICE:			
VPI-1	16.50	16.50	0.0426
VPI-2	16.70	16.70	0.0430

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0886
LOWER CONTAINMENT	(PSIA)	0.0825
ICE CONDENSER	(PSIA)	0.0428

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9348	26.9346
PU-2	26.9284	26.9251
LOWER:		
PL-1	26.9177	26.9186
PL-2	26.9190	26.9149
ICE:		
PI-1	26.9380	26.9336
PI-2	26.9290	26.9301
AMBIENT	14.5043	14.5025

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9298
AVERAGE LOWER PRESSURE	(PSIA)	26.9168
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9319
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9262
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4237

RUN NUMBER 17
ELAPSED TIME 8.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.52	78.52	ETR-122	74.32	74.32	ETR-115	15.16	15.16
ETR-102	76.16	76.16	ETR-123	75.46	75.46	ETR-116	17.92	17.92
ETR-103	74.93	74.93	ETR-124	75.13	75.13	ETR-117	16.20	16.20
ETR-104	75.09	75.09	ETR-125	74.14	74.14	ETR-118	17.82	17.82
ETR-105	74.28	74.28	ETR-126	72.36	72.36	ETR-119	16.39	16.39
ETR-106	75.61	75.61	ETR-127	67.17	67.17	ETR-120	15.50	15.50
ETR-107	74.72	74.72	ETR-129	71.48	71.48	ETR-121	15.71	15.71
ETR-108	75.25	75.25	ETR-130	73.65	73.65			
ETR-109	74.53	74.53	ETR-131	69.54	69.54			
ETR-110	76.43	76.43	ETR-132	73.40	73.40			
ETR-111	75.11	75.11	ETR-134	73.83	73.83			
ETR-112	74.53	74.53	ETR-135	72.86	72.86			
ETR-114	71.63	71.63	ETR-136	73.92	73.92			
ETR-128	72.31	72.31	ETR-137	76.46	76.46			
ETR-133	70.76	70.76	ETR-138	72.07	72.07			
ETR-113	77.47	77.47	ETR-139	68.83	68.83			
			ETR-140	72.08	72.08			
			ETR-141	72.52	72.52			
			ETR-142	71.97	71.97			
			ETR-143	72.67	72.67			
			ETR-144	72.08	72.08			
			ETR-145	73.92	73.92			
			ETR-146	72.98	72.98			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.14	LOWER VOLUME (DEG. F.)	73.36	ICE CONDENSER (DEG. F.)	16.11
UPPER VOLUME (DEG. R.)	534.84	LOWER VOLUME (DEG. R.)	533.06	ICE CONDENSER (DEG. R.)	475.81

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.70	32.70	0.0911
VPU-2	31.60	31.60	0.0870
LOWER:			
VPL-1	30.70	30.70	0.0834
VPL-2	30.40	30.40	0.0823
ICE:			
VPI-1	17.10	17.10	0.0438
VPI-2	17.00	17.00	0.0436

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0890
LOWER CONTAINMENT (PSIA)	0.0829
ICE CONDENSER (PSIA)	0.0437

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9356	26.9354
PU-2	26.9289	26.9256
LOWER:		
PL-1	26.9179	26.9188
PL-2	26.9195	26.9154
ICE:		
PI-1	26.9389	26.9345
PI-2	26.9296	26.9307
AMBIENT	14.5049	14.5031

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9305
AVERAGE LOWER PRESSURE (PSIA)	26.9171
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9326
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9267
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4237

RUN NUMBER 18
ELAPSED TIME 8.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.52	78.52	ETR-122	74.30	74.30	ETR-115	15.44	15.44
ETR-102	76.13	76.13	ETR-123	75.43	75.43	ETR-116	17.66	17.66
ETR-103	74.90	74.90	ETR-124	75.11	75.11	ETR-117	16.24	16.24
ETR-104	75.08	75.08	ETR-125	74.13	74.13	ETR-118	17.61	17.61
ETR-105	74.23	74.23	ETR-126	72.38	72.38	ETR-119	16.37	16.37
ETR-106	75.48	75.48	ETR-127	67.18	67.18	ETR-120	15.50	15.50
ETR-107	74.67	74.67	ETR-129	71.43	71.43	ETR-121	15.69	15.69
ETR-108	75.23	75.23	ETR-130	73.65	73.65			
ETR-109	74.59	74.59	ETR-131	69.53	69.53			
ETR-110	76.32	76.32	ETR-132	73.40	73.40			
ETR-111	75.03	75.03	ETR-134	73.70	73.70			
ETR-112	74.48	74.48	ETR-135	72.81	72.81			
ETR-114	71.54	71.54	ETR-136	73.84	73.84			
ETR-128	72.31	72.31	ETR-137	76.43	76.43			
ETR-133	70.72	70.72	ETR-138	72.06	72.06			
ETR-113	77.38	77.38	ETR-139	68.83	68.83			
			ETR-140	72.04	72.04			
			ETR-141	72.52	72.52			
			ETR-142	71.93	71.93			
			ETR-143	72.66	72.66			
			ETR-144	72.04	72.04			
			ETR-145	73.94	73.94			
			ETR-146	72.96	72.96			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.09	LOWER VOLUME (DEG. F.)	73.32	ICE CONDENSER (DEG. F.)	16.09
UPPER VOLUME (DEG. R.)	534.79	LOWER VOLUME (DEG. R.)	533.02	ICE CONDENSER (DEG. R.)	475.79

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.70	32.70	0.0911
VPU-2	31.30	31.30	0.0858
LOWER:			
VPL-1	30.40	30.40	0.0823
VPL-2	30.20	30.20	0.0815
ICE:			
VPI-1	15.40	15.40	0.0404
VPI-2	15.80	15.80	0.0411

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0885
LOWER CONTAINMENT (PSIA)	0.0819
ICE CONDENSER (PSIA)	0.0408

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9276	26.9274
PU-2	26.9211	26.9178
LOWER:		
PL-1	26.9087	26.9096
PL-2	26.9116	26.9075
ICE:		
PI-1	26.9307	26.9263
PI-2	26.9215	26.9226
AMBIENT	14.5039	14.5021

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9226
AVERAGE LOWER PRESSURE (PSIA)	26.9086
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9245
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9185
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4165

RUN NUMBER 19
ELAPSED TIME 9.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.53	78.53	ETR-122	74.29	74.29	ETR-115	15.17	15.17
ETR-102	76.12	76.12	ETR-123	75.43	75.43	ETR-116	17.21	17.21
ETR-103	74.90	74.90	ETR-124	75.11	75.11	ETR-117	15.96	15.96
ETR-104	75.07	75.07	ETR-125	74.12	74.12	ETR-118	18.29	18.29
ETR-105	74.27	74.27	ETR-126	72.35	72.35	ETR-119	16.37	16.37
ETR-106	75.58	75.58	ETR-127	67.15	67.15	ETR-120	15.48	15.48
ETR-107	74.66	74.66	ETR-129	71.40	71.40	ETR-121	15.69	15.69
ETR-108	75.19	75.19	ETR-130	73.65	73.65			
ETR-109	74.53	74.53	ETR-131	69.51	69.51			
ETR-110	76.31	76.31	ETR-132	73.38	73.38			
ETR-111	75.00	75.00	ETR-134	73.69	73.69			
ETR-112	74.46	74.46	ETR-135	72.80	72.80			
ETR-114	71.58	71.58	ETR-136	73.83	73.83			
ETR-128	72.29	72.29	ETR-137	76.44	76.44			
ETR-133	70.72	70.72	ETR-138	72.05	72.05			
ETR-113	77.39	77.39	ETR-139	68.83	68.83			
			ETR-140	72.05	72.05			
			ETR-141	72.51	72.51			
			ETR-142	71.94	71.94			
			ETR-143	72.64	72.64			
			ETR-144	72.05	72.05			
			ETR-145	73.92	73.92			
			ETR-146	73.01	73.01			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.10	LOWER VOLUME (DEG. F.)	73.31	ICE CONDENSER (DEG. F.)	16.06
UPPER VOLUME (DEG. R.)	534.80	LOWER VOLUME (DEG. R.)	533.01	ICE CONDENSER (DEG. R.)	475.76

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.60	32.60	0.0908
VPU-2	31.40	31.40	0.0862
LOWER:			
VPL-1	30.50	30.50	0.0827
VPL-2	30.40	30.40	0.0823
ICE:			
VPI-1	16.80	16.80	0.0432
VPI-2	16.70	16.70	0.0430

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0885
LOWER CONTAINMENT (PSIA)	0.0825
ICE CONDENSER (PSIA)	0.0431

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9329	26.9327
PU-2	26.9272	26.9239
LOWER:		
PL-1	26.9143	26.9152
PL-2	26.9170	26.9129
ICE:		
PI-1	26.9365	26.9321
PI-2	26.9272	26.9283
AMBIENT	14.5045	14.5027

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9283
AVERAGE LOWER PRESSURE (PSIA)	26.9141
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9302
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9242
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4215

RUN NUMBER 20
ELAPSED TIME 9.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.52	78.52	ETR-122	74.25	74.25	ETR-115	15.31	15.31
ETR-102	76.09	76.09	ETR-123	75.44	75.44	ETR-116	17.48	17.48
ETR-103	74.85	74.85	ETR-124	75.10	75.10	ETR-117	16.13	16.13
ETR-104	75.05	75.05	ETR-125	74.09	74.09	ETR-118	18.58	18.58
ETR-105	74.21	74.21	ETR-126	72.35	72.35	ETR-119	16.39	16.39
ETR-106	75.52	75.52	ETR-127	67.15	67.15	ETR-120	15.49	15.49
ETR-107	74.60	74.60	ETR-129	71.45	71.45	ETR-121	15.67	15.67
ETR-108	75.14	75.14	ETR-130	73.63	73.63			
ETR-109	74.49	74.49	ETR-131	69.50	69.50			
ETR-110	76.29	76.29	ETR-132	73.38	73.38			
ETR-111	75.00	75.00	ETR-134	73.70	73.70			
ETR-112	74.44	74.44	ETR-135	72.83	72.83			
ETR-114	71.50	71.50	ETR-136	73.89	73.89			
ETR-128	72.32	72.32	ETR-137	76.40	76.40			
ETR-133	70.77	70.77	ETR-138	72.03	72.03			
ETR-113	77.38	77.38	ETR-139	68.81	68.81			
			ETR-140	72.04	72.04			
			ETR-141	72.49	72.49			
			ETR-142	71.93	71.93			
			ETR-143	72.68	72.68			
			ETR-144	72.04	72.04			
			ETR-145	73.92	73.92			
			ETR-146	73.03	73.03			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.06	LOWER VOLUME (DEG. F.)	73.31	ICE CONDENSER (DEG. F.)	16.13
UPPER VOLUME (DEG. R.)	534.76	LOWER VOLUME (DEG. R.)	533.01	ICE CONDENSER (DEG. R.)	475.83

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.60	32.60	0.0908
VPU-2	31.30	31.30	0.0858
LOWER:			
VPL-1	30.30	30.30	0.0819
VPL-2	30.30	30.30	0.0819
ICE:			
VPI-1	16.40	16.40	0.0424
VPI-2	16.70	16.70	0.0430

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0883
LOWER CONTAINMENT	(PSIA)	0.0819
ICE CONDENSER	(PSIA)	0.0427

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9278	26.9276
PU-2	26.9220	26.9187
LOWER:		
PL-1	26.9093	26.9102
PL-2	26.9118	26.9077
ICE:		
PI-1	26.9308	26.9264
PI-2	26.9212	26.9223
AMBIENT	14.5043	14.5025

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9231
AVERAGE LOWER PRESSURE	(PSIA)	26.9090
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9244
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9188
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4164

RUN NUMBER 21
ELAPSED TIME 10.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.53	78.53	ETR-122	74.27	74.27	ETR-115	15.25	15.25
ETR-102	76.08	76.08	ETR-123	75.40	75.40	ETR-116	17.35	17.35
ETR-103	74.84	74.84	ETR-124	75.10	75.10	ETR-117	16.01	16.01
ETR-104	75.07	75.07	ETR-125	74.12	74.12	ETR-118	18.19	18.19
ETR-105	74.23	74.23	ETR-126	72.34	72.34	ETR-119	16.38	16.38
ETR-106	75.47	75.47	ETR-127	67.15	67.15	ETR-120	15.49	15.49
ETR-107	74.63	74.63	ETR-129	71.46	71.46	ETR-121	15.69	15.69
ETR-108	75.16	75.16	ETR-130	73.63	73.63			
ETR-109	74.62	74.62	ETR-131	69.49	69.49			
ETR-110	76.32	76.32	ETR-132	73.38	73.38			
ETR-111	75.05	75.05	ETR-134	73.84	73.84			
ETR-112	74.46	74.46	ETR-135	72.80	72.80			
ETR-114	71.56	71.56	ETR-136	73.89	73.89			
ETR-128	72.24	72.24	ETR-137	76.37	76.37			
ETR-133	70.72	70.72	ETR-138	72.03	72.03			
ETR-113	77.20	77.20	ETR-139	68.81	68.81			
			ETR-140	72.04	72.04			
			ETR-141	72.49	72.49			
			ETR-142	71.92	71.92			
			ETR-143	72.69	72.69			
			ETR-144	72.06	72.06			
			ETR-145	73.92	73.92			
			ETR-146	72.97	72.97			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.06	LOWER VOLUME (DEG. F.)	73.32	ICE CONDENSER (DEG. F.)	16.08
UPPER VOLUME (DEG. R.)	534.76	LOWER VOLUME (DEG. R.)	533.02	ICE CONDENSER (DEG. R.)	475.78

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.60	32.60	0.0908
VPU-2	31.20	31.20	0.0854
LOWER:			
VPL-1	30.50	30.50	0.0827
VPL-2	30.30	30.30	0.0819
ICE:			
VPI-1	16.50	16.50	0.0426
VPI-2	16.90	16.90	0.0434

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0881
LOWER CONTAINMENT (PSIA)	0.0823
ICE CONDENSER (PSIA)	0.0430

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9292	26.9290
PU-2	26.9234	26.9201
LOWER:		
PL-1	26.9115	26.9124
PL-2	26.9132	26.9091
ICE:		
PI-1	26.9324	26.9280
PI-2	26.9233	26.9244
AMBIENT	14.5057	14.5039

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9245
AVERAGE LOWER PRESSURE (PSIA)	26.9108
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9262
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9205
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4166

RUN NUMBER 22
ELAPSED TIME 10.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.54	78.54	ETR-122	74.26	74.26	ETR-115	15.24	15.24
ETR-102	76.06	76.06	ETR-123	75.40	75.40	ETR-116	17.27	17.27
ETR-103	74.85	74.85	ETR-124	75.11	75.11	ETR-117	15.87	15.87
ETR-104	74.98	74.98	ETR-125	74.09	74.09	ETR-118	18.26	18.26
ETR-105	74.20	74.20	ETR-126	72.32	72.32	ETR-119	16.39	16.39
ETR-106	75.44	75.44	ETR-127	67.14	67.14	ETR-120	15.44	15.44
ETR-107	74.61	74.61	ETR-129	71.47	71.47	ETR-121	15.69	15.69
ETR-108	75.23	75.23	ETR-130	73.62	73.62			
ETR-109	74.42	74.42	ETR-131	69.49	69.49			
ETR-110	76.33	76.33	ETR-132	73.37	73.37			
ETR-111	74.99	74.99	ETR-134	73.67	73.67			
ETR-112	74.45	74.45	ETR-135	72.78	72.78			
ETR-114	71.49	71.49	ETR-136	73.89	73.89			
ETR-128	72.23	72.23	ETR-137	76.33	76.33			
ETR-133	70.73	70.73	ETR-138	72.02	72.02			
ETR-113	77.38	77.38	ETR-139	68.81	68.81			
			ETR-140	72.02	72.02			
			ETR-141	72.49	72.49			
			ETR-142	71.94	71.94			
			ETR-143	72.63	72.63			
			ETR-144	72.04	72.04			
			ETR-145	73.90	73.90			
			ETR-146	72.92	72.92			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.05	LOWER VOLUME (DEG. F.)	73.29	ICE CONDENSER (DEG. F.)	16.06
UPPER VOLUME (DEG. R.)	534.75	LOWER VOLUME (DEG. R.)	532.99	ICE CONDENSER (DEG. R.)	475.76

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.50	32.50	0.0904
VPU-2	31.30	31.30	0.0858
LOWER:			
VPL-1	30.60	30.60	0.0831
VPL-2	30.30	30.30	0.0819
ICE:			
VPI-1	16.40	16.40	0.0424
VPI-2	16.60	16.60	0.0428

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0881
LOWER CONTAINMENT	(PSIA)	0.0825
ICE CONDENSER	(PSIA)	0.0426

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9294	26.9292
PU-2	26.9230	26.9197
LOWER:		
PL-1	26.9115	26.9124
PL-2	26.9133	26.9092
ICE:		
PI-1	26.9323	26.9279
PI-2	26.9232	26.9243
AMBIENT	14.5065	14.5047

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9244
AVERAGE LOWER PRESSURE	(PSIA)	26.9108
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9261
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9205
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4158

RUN NUMBER 23
ELAPSED TIME 11.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.54	78.54	ETR-122	74.25	74.25	ETR-115	15.13	15.13
ETR-102	76.03	76.03	ETR-123	75.38	75.38	ETR-116	17.33	17.33
ETR-103	74.84	74.84	ETR-124	75.05	75.05	ETR-117	15.92	15.92
ETR-104	74.99	74.99	ETR-125	74.07	74.07	ETR-118	17.83	17.83
ETR-105	74.14	74.14	ETR-126	72.32	72.32	ETR-119	16.39	16.39
ETR-106	75.49	75.49	ETR-127	67.12	67.12	ETR-120	15.44	15.44
ETR-107	74.58	74.58	ETR-129	71.40	71.40	ETR-121	15.70	15.70
ETR-108	75.17	75.17	ETR-130	73.61	73.61			
ETR-109	74.45	74.45	ETR-131	69.48	69.48			
ETR-110	76.31	76.31	ETR-132	73.37	73.37			
ETR-111	74.99	74.99	ETR-134	73.70	73.70			
ETR-112	74.42	74.42	ETR-135	72.79	72.79			
ETR-114	71.52	71.52	ETR-136	73.80	73.80			
ETR-128	72.25	72.25	ETR-137	76.32	76.32			
ETR-133	70.72	70.72	ETR-138	72.00	72.00			
ETR-113	77.24	77.24	ETR-139	68.80	68.80			
			ETR-140	72.02	72.02			
			ETR-141	72.47	72.47			
			ETR-142	71.92	71.92			
			ETR-143	72.60	72.60			
			ETR-144	72.04	72.04			
			ETR-145	73.88	73.88			
			ETR-146	72.94	72.94			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.03	LOWER VOLUME (DEG. F.)	73.27	ICE CONDENSER (DEG. F.)	16.03
UPPER VOLUME (DEG. R.)	534.73	LOWER VOLUME (DEG. R.)	532.97	ICE CONDENSER (DEG. R.)	475.73

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.40	32.40	0.0900
VPU-2	31.20	31.20	0.0854
LOWER:			
VPL-1	30.60	30.60	0.0831
VPL-2	30.20	30.20	0.0815
ICE:			
VPI-1	16.00	16.00	0.0416
VPI-2	16.00	16.00	0.0416

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0877
LOWER CONTAINMENT	(PSIA)	0.0823
ICE CONDENSER	(PSIA)	0.0416

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9232	26.9230
PU-2	26.9174	26.9141
LOWER:		
PL-1	26.9043	26.9052
PL-2	26.9072	26.9031
ICE:		
PI-1	26.9261	26.9217
PI-2	26.9173	26.9184
AMBIENT	14.5077	14.5059

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9185
AVERAGE LOWER PRESSURE	(PSIA)	26.9042
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9201
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9143
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4084

RUN NUMBER 24
ELAPSED TIME 11.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.51	78.51	ETR-122	74.25	74.25	ETR-115	15.81	15.81
ETR-102	76.04	76.04	ETR-123	75.38	75.38	ETR-116	17.43	17.43
ETR-103	74.82	74.82	ETR-124	75.04	75.04	ETR-117	17.04	17.04
ETR-104	75.00	75.00	ETR-125	74.05	74.05	ETR-118	17.81	17.81
ETR-105	74.17	74.17	ETR-126	72.31	72.31	ETR-119	16.39	16.39
ETR-106	75.44	75.44	ETR-127	67.11	67.11	ETR-120	15.40	15.40
ETR-107	74.62	74.62	ETR-129	71.41	71.41	ETR-121	15.70	15.70
ETR-108	75.16	75.16	ETR-130	73.61	73.61			
ETR-109	74.51	74.51	ETR-131	69.49	69.49			
ETR-110	76.30	76.30	ETR-132	73.35	73.35			
ETR-111	74.96	74.96	ETR-134	73.66	73.66			
ETR-112	74.38	74.38	ETR-135	72.76	72.76			
ETR-114	71.50	71.50	ETR-136	73.78	73.78			
ETR-128	72.27	72.27	ETR-137	76.38	76.38			
ETR-133	70.72	70.72	ETR-138	72.00	72.00			
ETR-113	77.24	77.24	ETR-139	68.79	68.79			
			ETR-140	71.99	71.99			
			ETR-141	72.48	72.48			
			ETR-142	71.88	71.88			
			ETR-143	72.56	72.56			
			ETR-144	72.05	72.05			
			ETR-145	73.87	73.87			
			ETR-146	72.99	72.99			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	75.03	LOWER VOLUME (DEG. F.)	73.27	ICE CONDENSER (DEG. F.)	16.15
UPPER VOLUME (DEG. R.)	534.73	LOWER VOLUME (DEG. R.)	532.97	ICE CONDENSER (DEG. R.)	475.85

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.50	32.50	0.0904
VPU-2	31.10	31.10	0.0850
LOWER:			
VPL-1	30.30	30.30	0.0819
VPL-2	30.20	30.20	0.0815
ICE:			
VPI-1	16.60	16.60	0.0428
VPI-2	16.90	16.90	0.0434

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0877
LOWER CONTAINMENT	(PSIA)	0.0817
ICE CONDENSER	(PSIA)	0.0431

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9294	26.9292
PU-2	26.9236	26.9203
LOWER:		
PL-1	26.9111	26.9120
PL-2	26.9134	26.9093
ICE:		
PI-1	26.9325	26.9281
PI-2	26.9235	26.9246
AMBIENT	14.5080	14.5062

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9247
AVERAGE LOWER PRESSURE	(PSIA)	26.9107
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9264
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9206
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4144

NUMBER 25
PSED TIME 12.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.50	78.50	ETR-122	74.20	74.20	ETR-115	15.68	15.68
ETR-102	76.00	76.00	ETR-123	75.34	75.34	ETR-116	17.51	17.51
ETR-103	74.74	74.74	ETR-124	75.06	75.06	ETR-117	16.54	16.54
ETR-104	74.92	74.92	ETR-125	74.03	74.03	ETR-118	17.80	17.80
ETR-105	74.11	74.11	ETR-126	72.28	72.28	ETR-119	16.42	16.42
ETR-106	75.45	75.45	ETR-127	67.11	67.11	ETR-120	15.42	15.42
ETR-107	74.52	74.52	ETR-129	71.39	71.39	ETR-121	15.65	15.65
ETR-108	75.08	75.08	ETR-130	73.60	73.60			
ETR-109	74.40	74.40	ETR-131	69.46	69.46			
ETR-110	76.24	76.24	ETR-132	73.35	73.35			
ETR-111	74.92	74.92	ETR-134	73.62	73.62			
ETR-112	74.38	74.38	ETR-135	72.70	72.70			
ETR-114	71.34	71.34	ETR-136	73.78	73.78			
ETR-128	72.27	72.27	ETR-137	76.37	76.37			
ETR-133	70.63	70.63	ETR-138	71.97	71.97			
ETR-113	77.29	77.29	ETR-139	68.79	68.79			
			ETR-140	71.98	71.98			
			ETR-141	72.45	72.45			
			ETR-142	71.90	71.90			
			ETR-143	72.56	72.56			
			ETR-144	72.03	72.03			
			ETR-145	73.88	73.88			
			ETR-146	72.94	72.94			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.97	LOWER VOLUME (DEG. F.)	73.25	ICE CONDENSER (DEG. F.)	16.11
UPPER VOLUME (DEG. R.)	534.67	LOWER VOLUME (DEG. R.)	532.95	ICE CONDENSER (DEG. R.)	475.81

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG, F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.40	32.40	0.0900
VPU-2	31.10	31.10	0.0850
LOWER:			
VPL-1	30.40	30.40	0.0823
VPL-2	30.10	30.10	0.0812
ICE:			
VPI-1	16.20	16.20	0.0420
VPI-2	16.60	16.60	0.0428

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0875
LOWER CONTAINMENT	(PSIA)	0.0817
ICE CONDENSER	(PSIA)	0.0424

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9226	26.9224
PU-2	26.9167	26.9134
LOWER:		
PL-1	26.9040	26.9049
PL-2	26.9066	26.9025
ICE:		
PI-1	26.9254	26.9210
PI-2	26.9165	26.9176
AMBIENT	14.5080	14.5062

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9179
AVERAGE LOWER PRESSURE	(PSIA)	26.9037
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9193
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9136
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4075

RUN NUMBER 26
ELAPSED TIME 12.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.47	78.47	ETR-122	74.19	74.19	ETR-115	15.15	15.15
ETR-102	75.99	75.99	ETR-123	75.37	75.37	ETR-116	17.66	17.66
ETR-103	74.78	74.78	ETR-124	75.03	75.03	ETR-117	16.09	16.09
ETR-104	74.94	74.94	ETR-125	74.03	74.03	ETR-118	17.56	17.56
ETR-105	74.10	74.10	ETR-126	72.26	72.26	ETR-119	16.41	16.41
ETR-106	75.39	75.39	ETR-127	67.11	67.11	ETR-120	15.44	15.44
ETR-107	74.53	74.53	ETR-129	71.39	71.39	ETR-121	15.68	15.68
ETR-108	75.12	75.12	ETR-130	73.61	73.61			
ETR-109	74.41	74.41	ETR-131	69.48	69.48			
ETR-110	76.24	76.24	ETR-132	73.34	73.34			
ETR-111	74.88	74.88	ETR-134	73.75	73.75			
ETR-112	74.38	74.38	ETR-135	72.75	72.75			
ETR-114	71.27	71.27	ETR-136	73.74	73.74			
ETR-128	72.27	72.27	ETR-137	76.29	76.29			
ETR-133	70.68	70.68	ETR-138	71.98	71.98			
ETR-113	77.21	77.21	ETR-139	68.79	68.79			
			ETR-140	71.99	71.99			
			ETR-141	72.48	72.48			
			ETR-142	71.87	71.87			
			ETR-143	72.56	72.56			
			ETR-144	72.03	72.03			
			ETR-145	73.86	73.86			
			ETR-146	72.94	72.94			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.96	LOWER VOLUME (DEG. F.)	73.25	ICE CONDENSER (DEG. F.)	16.05
UPPER VOLUME (DEG. R.)	534.66	LOWER VOLUME (DEG. R.)	532.95	ICE CONDENSER (DEG. R.)	475.75

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.40	32.40	0.0900
VPU-2	31.10	31.10	0.0850
LOWER:			
VPL-1	30.20	30.20	0.0815
VPL-2	30.10	30.10	0.0812
ICE:			
VPI-1	16.70	16.70	0.0430
VPI-2	16.30	16.30	0.0422

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0875
LOWER CONTAINMENT (PSIA)	0.0814
ICE CONDENSER (PSIA)	0.0426

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9249	26.9247
PU-2	26.9194	26.9161
LOWER:		
PL-1	26.9060	26.9069
PL-2	26.9088	26.9047
ICE:		
PI-1	26.9281	26.9237
PI-2	26.9190	26.9201
AMBIENT	14.5074	14.5056

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9204
AVERAGE LOWER PRESSURE (PSIA)	26.9058
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9219
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9160
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4105

RUN NUMBER 27
ELAPSED TIME 13.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME RTD	MILLI-VOLTS	DEG. F.	LOWER VOLUME RTD	MILLI-VOLTS	DEG. F.	ICE CONDENSER RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.50	78.50	ETR-122	74.18	74.18	ETR-115	15.23	15.23
ETR-102	75.99	75.99	ETR-123	75.35	75.35	ETR-116	17.99	17.99
ETR-103	74.74	74.74	ETR-124	75.04	75.04	ETR-117	15.94	15.94
ETR-104	74.92	74.92	ETR-125	74.01	74.01	ETR-118	17.36	17.36
ETR-105	74.07	74.07	ETR-126	72.25	72.25	ETR-119	16.39	16.39
ETR-106	75.41	75.41	ETR-127	67.08	67.08	ETR-120	15.46	15.46
ETR-107	74.54	74.54	ETR-129	71.39	71.39	ETR-121	15.61	15.61
ETR-108	75.09	75.09	ETR-130	73.58	73.58			
ETR-109	74.42	74.42	ETR-131	69.46	69.46			
ETR-110	76.24	76.24	ETR-132	73.33	73.33			
ETR-111	74.92	74.92	ETR-134	73.65	73.65			
ETR-112	74.35	74.35	ETR-135	72.71	72.71			
ETR-114	71.34	71.34	ETR-136	73.72	73.72			
ETR-128	72.22	72.22	ETR-137	76.34	76.34			
ETR-133	70.58	70.58	ETR-138	71.93	71.93			
ETR-113	77.32	77.32	ETR-139	68.77	68.77			
			ETR-140	71.99	71.99			
			ETR-141	72.45	72.45			
			ETR-142	71.85	71.85			
			ETR-143	72.54	72.54			
			ETR-144	72.02	72.02			
			ETR-145	73.88	73.88			
			ETR-146	72.95	72.95			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.96	LOWER VOLUME (DEG. F.)	73.23	ICE CONDENSER (DEG. F.)	16.04
UPPER VOLUME (DEG. R.)	534.66	LOWER VOLUME (DEG. R.)	532.93	ICE CONDENSER (DEG. R.)	475.74

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.40	32.40	0.0900
VPU-2	31.00	31.00	0.0846
LOWER:			
VPL-1	30.20	30.20	0.0815
VPL-2	30.30	30.30	0.0819
ICE:			
VPI-1	16.40	16.40	0.0424
VPI-2	16.60	16.60	0.0428

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0873
LOWER CONTAINMENT	(PSIA)	0.0817
ICE CONDENSER	(PSIA)	0.0426

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9256	26.9254
PU-2	26.9205	26.9172
LOWER:		
PL-1	26.9072	26.9081
PL-2	26.9095	26.9054
ICE:		
PI-1	26.9286	26.9242
PI-2	26.9195	26.9206
AMBIENT	14.5100	14.5082

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9213
AVERAGE LOWER PRESSURE	(PSIA)	26.9068
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9224
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9168
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4087

RUN NUMBER 28
ELAPSED TIME 13.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.45	78.45	ETR-122	74.17	74.17	ETR-115	15.48	15.48
ETR-102	75.95	75.95	ETR-123	75.32	75.32	ETR-116	17.68	17.68
ETR-103	74.70	74.70	ETR-124	74.99	74.99	ETR-117	15.83	15.83
ETR-104	74.88	74.88	ETR-125	73.98	73.98	ETR-118	17.25	17.25
ETR-105	74.07	74.07	ETR-126	72.26	72.26	ETR-119	16.38	16.38
ETR-106	75.37	75.37	ETR-127	67.08	67.08	ETR-120	15.50	15.50
ETR-107	74.48	74.48	ETR-129	71.37	71.37	ETR-121	15.60	15.60
ETR-108	75.01	75.01	ETR-130	73.58	73.58			
ETR-109	74.36	74.36	ETR-131	69.46	69.46			
ETR-110	76.18	76.18	ETR-132	73.33	73.33			
ETR-111	74.85	74.85	ETR-134	73.62	73.62			
ETR-112	74.32	74.32	ETR-135	72.71	72.71			
ETR-114	71.27	71.27	ETR-136	73.72	73.72			
ETR-128	72.24	72.24	ETR-137	76.32	76.32			
ETR-133	70.63	70.63	ETR-138	71.96	71.96			
ETR-113	77.18	77.18	ETR-139	68.77	68.77			
			ETR-140	71.98	71.98			
			ETR-141	72.45	72.45			
			ETR-142	71.85	71.85			
			ETR-143	72.56	72.56			
			ETR-144	71.99	71.99			
			ETR-145	73.82	73.82			
			ETR-146	72.89	72.89			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.91	LOWER VOLUME (DEG. F.)	73.22	ICE CONDENSER (DEG. F.)	16.02
UPPER VOLUME (DEG. R.)	534.61	LOWER VOLUME (DEG. R.)	532.92	ICE CONDENSER (DEG. R.)	475.72

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.30	32.30	0.0897
VPU-2	31.00	31.00	0.0846
LOWER:			
VPL-1	30.20	30.20	0.0815
VPL-2	30.30	30.30	0.0819
ICE:			
VPI-1	15.80	15.80	0.0411
VPI-2	16.20	16.20	0.0420

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0871
LOWER CONTAINMENT (PSIA)	0.0817
ICE CONDENSER (PSIA)	0.0416

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9191	26.9189
PU-2	26.9144	26.9111
LOWER:		
PL-1	26.9003	26.9012
PL-2	26.9030	26.8989
ICE:		
PI-1	26.9218	26.9174
PI-2	26.9130	26.9141
AMBIENT	14.5130	14.5112

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9150
AVERAGE LOWER PRESSURE (PSIA)	26.9001
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9158
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9103
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3991

RUN NUMBER 29
ELAPSED TIME 14.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.47	78.47	ETR-122	74.16	74.16	ETR-115	14.98	14.98
ETR-102	75.96	75.96	ETR-123	75.31	75.31	ETR-116	17.72	17.72
ETR-103	74.73	74.73	ETR-124	74.96	74.96	ETR-117	15.99	15.99
ETR-104	74.90	74.90	ETR-125	73.98	73.98	ETR-118	17.69	17.69
ETR-105	74.06	74.06	ETR-126	72.22	72.22	ETR-119	16.39	16.39
ETR-106	75.37	75.37	ETR-127	67.09	67.09	ETR-120	15.46	15.46
ETR-107	74.50	74.50	ETR-129	71.38	71.38	ETR-121	15.67	15.67
ETR-108	75.01	75.01	ETR-130	73.58	73.58			
ETR-109	74.33	74.33	ETR-131	69.46	69.46			
ETR-110	76.20	76.20	ETR-132	73.32	73.32			
ETR-111	74.85	74.85	ETR-134	73.62	73.62			
ETR-112	74.34	74.34	ETR-135	72.72	72.72			
ETR-114	71.28	71.28	ETR-136	73.70	73.70			
ETR-128	72.31	72.31	ETR-137	76.24	76.24			
ETR-133	70.67	70.67	ETR-138	71.92	71.92			
ETR-113	77.14	77.14	ETR-139	68.76	68.76			
			ETR-140	71.97	71.97			
			ETR-141	72.44	72.44			
			ETR-142	71.83	71.83			
			ETR-143	72.56	72.56			
			ETR-144	71.99	71.99			
			ETR-145	73.85	73.85			
			ETR-146	72.91	72.91			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.92	LOWER VOLUME (DEG. F.)	73.21	ICE CONDENSER (DEG. F.)	16.04
UPPER VOLUME (DEG. R.)	534.62	LOWER VOLUME (DEG. R.)	532.91	ICE CONDENSER (DEG. R.)	475.74

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.30	32.30	0.0897
VPU-2	31.00	31.00	0.0846
LOWER:			
VPL-1	30.10	30.10	0.0812
VPL-2	30.00	30.00	0.0808
ICE:			
VPI-1	16.70	16.70	0.0430
VPI-2	16.40	16.40	0.0424

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0871
LOWER CONTAINMENT (PSIA)	0.0810
ICE CONDENSER (PSIA)	0.0427

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9252	26.9250
PU-2	26.9200	26.9167
LOWER:		
PL-1	26.9072	26.9081
PL-2	26.9090	26.9049
ICE:		
PI-1	26.9280	26.9236
PI-2	26.9190	26.9201
AMBIENT	14.5134	14.5116

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9208
AVERAGE LOWER PRESSURE (PSIA)	26.9065
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9219
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9164
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.4048

RUN NUMBER 30
ELAPSED TIME 14.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.45	78.45	ETR-122	74.12	74.12	ETR-115	15.49	15.49
ETR-102	75.93	75.93	ETR-123	75.29	75.29	ETR-116	17.75	17.75
ETR-103	74.70	74.70	ETR-124	74.99	74.99	ETR-117	16.20	16.20
ETR-104	74.88	74.88	ETR-125	73.96	73.96	ETR-118	17.51	17.51
ETR-105	74.03	74.03	ETR-126	72.24	72.24	ETR-119	16.33	16.33
ETR-106	75.34	75.34	ETR-127	67.07	67.07	ETR-120	15.44	15.44
ETR-107	74.45	74.45	ETR-129	71.33	71.33	ETR-121	15.66	15.66
ETR-108	74.98	74.98	ETR-130	73.56	73.56			
ETR-109	74.30	74.30	ETR-131	69.44	69.44			
ETR-110	76.08	76.08	ETR-132	73.33	73.33			
ETR-111	74.84	74.84	ETR-134	73.62	73.62			
ETR-112	74.30	74.30	ETR-135	72.67	72.67			
ETR-114	71.27	71.27	ETR-136	73.66	73.66			
ETR-128	72.27	72.27	ETR-137	76.26	76.26			
ETR-133	70.62	70.62	ETR-138	71.92	71.92			
ETR-113	77.15	77.15	ETR-139	68.75	68.75			
			ETR-140	71.94	71.94			
			ETR-141	72.44	72.44			
			ETR-142	71.83	71.83			
			ETR-143	72.54	72.54			
			ETR-144	71.97	71.97			
			ETR-145	73.84	73.84			
			ETR-146	72.91	72.91			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.89	LOWER VOLUME (DEG. F.)	73.19	ICE CONDENSER (DEG. F.)	16.06
UPPER VOLUME (DEG. R.)	534.59	LOWER VOLUME (DEG. R.)	532.89	ICE CONDENSER (DEG. R.)	475.76

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.20	32.20	0.0893
VPU-2	30.90	30.90	0.0842
LOWER:			
VPL-1	30.00	30.00	0.0808
VPL-2	30.00	30.00	0.0808
ICE:			
VPI-1	15.80	15.80	0.0411
VPI-2	16.00	16.00	0.0416

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0868
LOWER CONTAINMENT	(PSIA)	0.0808
ICE CONDENSER	(PSIA)	0.0414

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9190	26.9188
PU-2	26.9137	26.9104
LOWER:		
PL-1	26.9012	26.9021
PL-2	26.9027	26.8986
ICE:		
PI-1	26.9214	26.9170
PI-2	26.9125	26.9136
AMBIENT	14.5126	14.5108

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9146
AVERAGE LOWER PRESSURE	(PSIA)	26.9004
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9153
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9101
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3993

RUN NUMBER 31
ELAPSED TIME 15.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.45	78.45	ETR-122	74.14	74.14	ETR-115	15.14	15.14
ETR-102	75.92	75.92	ETR-123	75.28	75.28	ETR-116	17.18	17.18
ETR-103	74.69	74.69	ETR-124	74.94	74.94	ETR-117	15.85	15.85
ETR-104	74.88	74.88	ETR-125	73.96	73.96	ETR-118	17.31	17.31
ETR-105	74.01	74.01	ETR-126	72.20	72.20	ETR-119	16.34	16.34
ETR-106	75.35	75.35	ETR-127	67.07	67.07	ETR-120	15.42	15.42
ETR-107	74.46	74.46	ETR-129	71.37	71.37	ETR-121	15.64	15.64
ETR-108	75.06	75.06	ETR-130	73.57	73.57			
ETR-109	74.39	74.39	ETR-131	69.45	69.45			
ETR-110	76.18	76.18	ETR-132	73.32	73.32			
ETR-111	74.87	74.87	ETR-134	73.64	73.64			
ETR-112	74.29	74.29	ETR-135	72.66	72.66			
ETR-114	71.22	71.22	ETR-136	73.64	73.64			
ETR-128	72.22	72.22	ETR-137	76.21	76.21			
ETR-133	70.59	70.59	ETR-138	71.91	71.91			
ETR-113	77.23	77.23	ETR-139	68.76	68.76			
			ETR-140	71.94	71.94			
			ETR-141	72.43	72.43			
			ETR-142	71.83	71.83			
			ETR-143	72.55	72.55			
			ETR-144	71.98	71.98			
			ETR-145	73.83	73.83			
			ETR-146	72.93	72.93			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.90	LOWER VOLUME (DEG. F.)	73.19	ICE CONDENSER (DEG. F.)	15.95
UPPER VOLUME (DEG. R.)	534.60	LOWER VOLUME (DEG. R.)	532.89	ICE CONDENSER (DEG. R.)	475.65

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.10	32.10	0.0889
VPU-2	30.90	30.90	0.0842
LOWER:			
VPL-1	30.10	30.10	0.0812
VPL-2	30.00	30.00	0.0808
ICE:			
VPI-1	16.10	16.10	0.0418
VPI-2	16.10	16.10	0.0418

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0866
LOWER CONTAINMENT	(PSIA)	0.0810
ICE CONDENSER	(PSIA)	0.0418

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9221	26.9219
PU-2	26.9167	26.9134
LOWER:		
PL-1	26.9028	26.9037
PL-2	26.9057	26.9016
ICE:		
PI-1	26.9248	26.9204
PI-2	26.9160	26.9171
AMBIENT	14.5085	14.5067

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9176
AVERAGE LOWER PRESSURE	(PSIA)	26.9027
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9188
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9130
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4064

RUN NUMBER 32
ELAPSED TIME 15.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.42	78.42	ETR-122	74.12	74.12	ETR-115	15.08	15.08
ETR-102	75.91	75.91	ETR-123	75.26	75.26	ETR-116	17.00	17.00
ETR-103	74.66	74.66	ETR-124	74.94	74.94	ETR-117	15.82	15.82
ETR-104	74.85	74.85	ETR-125	73.94	73.94	ETR-118	18.71	18.71
ETR-105	74.03	74.03	ETR-126	72.19	72.19	ETR-119	16.34	16.34
ETR-106	75.33	75.33	ETR-127	67.06	67.06	ETR-120	15.41	15.41
ETR-107	74.46	74.46	ETR-129	71.35	71.35	ETR-121	15.65	15.65
ETR-108	74.97	74.97	ETR-130	73.56	73.56			
ETR-109	74.38	74.38	ETR-131	69.43	69.43			
ETR-110	76.16	76.16	ETR-132	73.33	73.33			
ETR-111	74.84	74.84	ETR-134	73.50	73.50			
ETR-112	74.26	74.26	ETR-135	72.68	72.68			
ETR-114	71.18	71.18	ETR-136	73.63	73.63			
ETR-128	72.16	72.16	ETR-137	76.23	76.23			
ETR-133	70.58	70.58	ETR-138	71.92	71.92			
ETR-113	77.15	77.15	ETR-139	68.74	68.74			
			ETR-140	71.92	71.92			
			ETR-141	72.42	72.42			
			ETR-142	71.83	71.83			
			ETR-143	72.53	72.53			
			ETR-144	71.98	71.98			
			ETR-145	73.83	73.83			
			ETR-146	72.95	72.95			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.88	LOWER VOLUME (DEG. F.)	73.17	ICE CONDENSER (DEG. F.)	16.03
UPPER VOLUME (DEG. R.)	534.58	LOWER VOLUME (DEG. R.)	532.87	ICE CONDENSER (DEG. R.)	475.72

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.20	32.20	0.0893
VPU-2	30.90	30.90	0.0842
LOWER:			
VPL-1	30.10	30.10	0.0812
VPL-2	29.90	29.90	0.0804
ICE:			
VPI-1	16.40	16.40	0.0424
VPI-2	12.80	12.80	0.0355

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0868
LOWER CONTAINMENT	(PSIA)	0.0808
ICE CONDENSER	(PSIA)	0.0389

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9233	26.9231
PU-2	26.9180	26.9147
LOWER:		
PL-1	26.9043	26.9052
PL-2	26.9068	26.9027
ICE:		
PI-1	26.9260	26.9216
PI-2	26.9170	26.9181
AMBIENT	14.5102	14.5084

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9189
AVERAGE LOWER PRESSURE	(PSIA)	26.9040
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9199
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9142
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.4059

RUN NUMBER 33
ELAPSED TIME 16.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.39	78.39	ETR-122	74.11	74.11	ETR-115	15.09	15.09
ETR-102	75.89	75.89	ETR-123	75.26	75.26	ETR-116	17.26	17.26
ETR-103	74.66	74.66	ETR-124	74.97	74.97	ETR-117	15.92	15.92
ETR-104	74.83	74.83	ETR-125	73.92	73.92	ETR-118	18.09	18.09
ETR-105	73.99	73.99	ETR-126	72.17	72.17	ETR-119	16.34	16.34
ETR-106	75.32	75.32	ETR-127	67.06	67.06	ETR-120	15.42	15.42
ETR-107	74.43	74.43	ETR-129	71.30	71.30	ETR-121	15.63	15.63
ETR-108	75.00	75.00	ETR-130	73.55	73.55			
ETR-109	74.29	74.29	ETR-131	69.42	69.42			
ETR-110	76.16	76.16	ETR-132	73.32	73.32			
ETR-111	74.79	74.79	ETR-134	73.57	73.57			
ETR-112	74.25	74.25	ETR-135	72.59	72.59			
ETR-114	71.08	71.08	ETR-136	73.62	73.62			
ETR-128	72.20	72.20	ETR-137	76.26	76.26			
ETR-133	70.57	70.57	ETR-138	71.90	71.90			
ETR-113	77.18	77.18	ETR-139	68.74	68.74			
			ETR-140	71.93	71.93			
			ETR-141	72.42	72.42			
			ETR-142	71.80	71.80			
			ETR-143	72.53	72.53			
			ETR-144	71.96	71.96			
			ETR-145	73.82	73.82			
			ETR-146	72.90	72.90			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.86	LOWER VOLUME (DEG. F.)	73.16	ICE CONDENSER (DEG. F.)	16.01
UPPER VOLUME (DEG. R.)	534.56	LOWER VOLUME (DEG. R.)	532.86	ICE CONDENSER (DEG. R.)	475.71

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.20	32.20	0.0893
VPU-2	30.80	30.80	0.0838
LOWER:			
VPL-1	29.80	29.80	0.0801
VPL-2	29.90	29.90	0.0804
ICE:			
VPI-1	15.30	15.30	0.0402
VPI-2	15.70	15.70	0.0409

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0866
LOWER CONTAINMENT	(PSIA)	0.0802
ICE CONDENSER	(PSIA)	0.0406

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9162	26.9160
PU-2	26.9110	26.9077
LOWER:		
PL-1	26.8979	26.8988
PL-2	26.8998	26.8957
ICE:		
PI-1	26.9184	26.9140
PI-2	26.9097	26.9108
AMBIENT	14.5110	14.5092

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9119
AVERAGE LOWER PRESSURE	(PSIA)	26.8973
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9124
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9072
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3980

RUN NUMBER 34
ELAPSED TIME 16.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.38	78.38	ETR-122	74.10	74.10	ETR-115	15.06	15.06
ETR-102	75.89	75.89	ETR-123	75.24	75.24	ETR-116	17.14	17.14
ETR-103	74.66	74.66	ETR-124	74.95	74.95	ETR-117	15.75	15.75
ETR-104	74.79	74.79	ETR-125	73.91	73.91	ETR-118	18.02	18.02
ETR-105	74.00	74.00	ETR-126	72.13	72.13	ETR-119	16.34	16.34
ETR-106	75.32	75.32	ETR-127	67.06	67.06	ETR-120	15.38	15.38
ETR-107	74.40	74.40	ETR-129	71.33	71.33	ETR-121	15.61	15.61
ETR-108	74.98	74.98	ETR-130	73.55	73.55			
ETR-109	74.25	74.25	ETR-131	69.43	69.43			
ETR-110	76.09	76.09	ETR-132	73.31	73.31			
ETR-111	74.79	74.79	ETR-134	73.47	73.47			
ETR-112	74.25	74.25	ETR-135	72.68	72.68			
ETR-114	71.14	71.14	ETR-136	73.62	73.62			
ETR-128	72.13	72.13	ETR-137	76.18	76.18			
ETR-133	70.59	70.59	ETR-138	71.90	71.90			
ETR-113	77.08	77.08	ETR-139	68.73	68.73			
			ETR-140	71.93	71.93			
			ETR-141	72.43	72.43			
			ETR-142	71.80	71.80			
			ETR-143	72.54	72.54			
			ETR-144	71.96	71.96			
			ETR-145	73.80	73.80			
			ETR-146	72.89	72.89			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.84	LOWER VOLUME (DEG. F.)	73.15	ICE CONDENSER (DEG. F.)	15.96
UPPER VOLUME (DEG. R.)	534.54	LOWER VOLUME (DEG. R.)	532.85	ICE CONDENSER (DEG. R.)	475.66

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.10	32.10	0.0889
VPU-2	30.90	30.90	0.0842
LOWER:			
VPL-1	30.10	30.10	0.0812
VPL-2	29.90	29.90	0.0804
ICE:			
VPI-1	16.60	16.60	0.0428
VPI-2	16.70	16.70	0.0430

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0866
LOWER CONTAINMENT	(PSIA)	0.0808
ICE CONDENSER	(PSIA)	0.0429

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9193	26.9191
PU-2	26.9137	26.9104
LOWER:		
PL-1	26.9003	26.9012
PL-2	26.9029	26.8988
ICE:		
PI-1	26.9219	26.9175
PI-2	26.9131	26.9142
AMBIENT	14.5139	14.5121

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9148
AVERAGE LOWER PRESSURE	(PSIA)	26.9000
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9159
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9102
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3981

RUN NUMBER 35
ELAPSED TIME 17.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME RTD	MILLI-VOLTS	DEG. F.	LOWER VOLUME RTD	MILLI-VOLTS	DEG. F.	ICE CONDENSER RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.36	78.36	ETR-122	74.08	74.08	ETR-115	15.07	15.07
ETR-102	75.84	75.84	ETR-123	75.24	75.24	ETR-116	17.25	17.25
ETR-103	74.58	74.58	ETR-124	74.91	74.91	ETR-117	15.76	15.76
ETR-104	74.74	74.74	ETR-125	73.89	73.89	ETR-118	17.82	17.82
ETR-105	73.95	73.95	ETR-126	72.16	72.16	ETR-119	16.33	16.33
ETR-106	75.28	75.28	ETR-127	67.01	67.01	ETR-120	15.35	15.35
ETR-107	74.36	74.36	ETR-129	71.32	71.32	ETR-121	15.66	15.66
ETR-108	74.96	74.96	ETR-130	73.54	73.54			
ETR-109	74.22	74.22	ETR-131	69.40	69.40			
ETR-110	76.06	76.06	ETR-132	73.31	73.31			
ETR-111	74.77	74.77	ETR-134	73.55	73.55			
ETR-112	74.21	74.21	ETR-135	72.61	72.61			
ETR-114	71.08	71.08	ETR-136	73.63	73.63			
ETR-128	72.18	72.18	ETR-137	76.22	76.22			
ETR-133	70.54	70.54	ETR-138	71.87	71.87			
ETR-113	77.10	77.10	ETR-139	68.73	68.73			
			ETR-140	71.93	71.93			
			ETR-141	72.39	72.39			
			ETR-142	71.79	71.79			
			ETR-143	72.49	72.49			
			ETR-144	71.97	71.97			
			ETR-145	73.81	73.81			
			ETR-146	72.89	72.89			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.80	LOWER VOLUME (DEG. F.)	73.15	ICE CONDENSER (DEG. F.)	15.96
UPPER VOLUME (DEG. R.)	534.50	LOWER VOLUME (DEG. R.)	532.85	ICE CONDENSER (DEG. R.)	475.66

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.10	32.10	0.0889
VPU-2	30.80	30.80	0.0838
LOWER:			
VPL-1	30.10	30.10	0.0812
VPL-2	30.00	30.00	0.0808
ICE:			
VPI-1	15.50	15.50	0.0405
VPI-2	16.60	16.60	0.0428

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0864
LOWER CONTAINMENT (PSIA)	0.0810
ICE CONDENSER (PSIA)	0.0417

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9151	26.9149
PU-2	26.9081	26.9048
LOWER:		
PL-1	26.8974	26.8983
PL-2	26.8986	26.8945
ICE:		
PI-1	26.9168	26.9124
PI-2	26.9084	26.9095
AMBIENT	14.5152	14.5134

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9099
AVERAGE LOWER PRESSURE (PSIA)	26.8964
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9110
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9058
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3924

RUN NUMBER 36
ELAPSED TIME 17.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.36	78.36	ETR-122	74.10	74.10	ETR-115	15.46	15.46
ETR-102	75.87	75.87	ETR-123	75.23	75.23	ETR-116	17.13	17.13
ETR-103	74.64	74.64	ETR-124	74.90	74.90	ETR-117	16.67	16.67
ETR-104	74.79	74.79	ETR-125	73.89	73.89	ETR-118	17.73	17.73
ETR-105	73.98	73.98	ETR-126	72.13	72.13	ETR-119	16.33	16.33
ETR-106	75.32	75.32	ETR-127	67.03	67.03	ETR-120	15.35	15.35
ETR-107	74.41	74.41	ETR-129	71.30	71.30	ETR-121	15.65	15.65
ETR-108	75.02	75.02	ETR-130	73.54	73.54			
ETR-109	74.29	74.29	ETR-131	69.42	69.42			
ETR-110	76.05	76.05	ETR-132	73.33	73.33			
ETR-111	74.81	74.81	ETR-134	73.61	73.61			
ETR-112	74.23	74.23	ETR-135	72.66	72.66			
ETR-114	71.08	71.08	ETR-136	73.59	73.59			
ETR-128	72.21	72.21	ETR-137	76.19	76.19			
ETR-133	70.56	70.56	ETR-138	71.86	71.86			
ETR-113	77.17	77.17	ETR-139	68.72	68.72			
			ETR-140	71.93	71.93			
			ETR-141	72.41	72.41			
			ETR-142	71.78	71.78			
			ETR-143	72.52	72.52			
			ETR-144	71.97	71.97			
			ETR-145	73.81	73.81			
			ETR-146	72.92	72.92			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.84	LOWER VOLUME (DEG. F.)	73.15	ICE CONDENSER (DEG. F.)	16.03
UPPER VOLUME (DEG. R.)	534.54	LOWER VOLUME (DEG. R.)	532.85	ICE CONDENSER (DEG. R.)	475.73

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.00	32.00	0.0886
VPU-2	30.80	30.80	0.0838
LOWER:			
VPL-1	29.90	29.90	0.0804
VPL-2	29.90	29.90	0.0804
ICE:			
VPI-1	16.40	16.40	0.0424
VPI-2	16.70	16.70	0.0430

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0862
LOWER CONTAINMENT	(PSIA)	0.0804
ICE CONDENSER	(PSIA)	0.0427

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9190	26.9188
PU-2	26.9115	26.9082
LOWER:		
PL-1	26.8996	26.9005
PL-2	26.9027	26.8986
ICE:		
PI-1	26.9209	26.9165
PI-2	26.9128	26.9139
AMBIENT	14.5148	14.5130

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9135
AVERAGE LOWER PRESSURE	(PSIA)	26.8996
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9152
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9094
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3965

RUN NUMBER 37
ELAPSED TIME 18.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.34	78.34	ETR-122	74.06	74.06	ETR-115	16.04	16.04
ETR-102	75.85	75.85	ETR-123	75.21	75.21	ETR-116	17.48	17.48
ETR-103	74.61	74.61	ETR-124	74.91	74.91	ETR-117	16.91	16.91
ETR-104	74.76	74.76	ETR-125	73.86	73.86	ETR-118	17.69	17.69
ETR-105	73.94	73.94	ETR-126	72.14	72.14	ETR-119	16.36	16.36
ETR-106	75.29	75.29	ETR-127	67.01	67.01	ETR-120	15.32	15.32
ETR-107	74.35	74.35	ETR-129	71.29	71.29	ETR-121	15.64	15.64
ETR-108	74.89	74.89	ETR-130	73.53	73.53			
ETR-109	74.24	74.24	ETR-131	69.43	69.43			
ETR-110	76.08	76.08	ETR-132	73.31	73.31			
ETR-111	74.79	74.79	ETR-134	73.52	73.52			
ETR-112	74.23	74.23	ETR-135	72.61	72.61			
ETR-114	71.03	71.03	ETR-136	73.57	73.57			
ETR-128	72.17	72.17	ETR-137	76.17	76.17			
ETR-133	70.57	70.57	ETR-138	71.87	71.87			
ETR-113	76.99	76.99	ETR-139	68.71	68.71			
			ETR-140	71.93	71.93			
			ETR-141	72.39	72.39			
			ETR-142	71.76	71.76			
			ETR-143	72.47	72.47			
			ETR-144	71.97	71.97			
			ETR-145	73.81	73.81			
			ETR-146	72.91	72.91			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.79	LOWER VOLUME (DEG. F.)	73.13	ICE CONDENSER (DEG. F.)	16.11
UPPER VOLUME (DEG. R.)	534.49	LOWER VOLUME (DEG. R.)	532.83	ICE CONDENSER (DEG. R.)	475.81

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.00	32.00	0.0886
VPU-2	30.70	30.70	0.0834
LOWER:			
VPL-1	30.00	30.00	0.0808
VPL-2	30.00	30.00	0.0808
ICE:			
VPI-1	17.10	17.10	0.0438
VPI-2	17.70	17.70	0.0451

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0860
LOWER CONTAINMENT	(PSIA)	0.0808
ICE CONDENSER	(PSIA)	0.0445

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9201	26.9199
PU-2	26.9120	26.9087
LOWER:		
PL-1	26.9006	26.9015
PL-2	26.9039	26.8998
ICE:		
PI-1	26.9219	26.9175
PI-2	26.9138	26.9149
AMBIENT	14.5140	14.5122

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9143
AVERAGE LOWER PRESSURE	(PSIA)	26.9007
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9162
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9104
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3982

RUN NUMBER 38
ELAPSED TIME 18.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.30	78.30	ETR-122	74.03	74.03	ETR-115	15.37	15.37
ETR-102	75.81	75.81	ETR-123	75.20	75.20	ETR-116	17.41	17.41
ETR-103	74.60	74.60	ETR-124	74.90	74.90	ETR-117	16.14	16.14
ETR-104	74.75	74.75	ETR-125	73.86	73.86	ETR-118	17.71	17.71
ETR-105	73.93	73.93	ETR-126	72.10	72.10	ETR-119	16.36	16.36
ETR-106	75.26	75.26	ETR-127	66.99	66.99	ETR-120	15.36	15.36
ETR-107	74.39	74.39	ETR-129	71.27	71.27	ETR-121	15.61	15.61
ETR-108	74.93	74.93	ETR-130	73.52	73.52			
ETR-109	74.21	74.21	ETR-131	69.39	69.39			
ETR-110	76.04	76.04	ETR-132	73.29	73.29			
ETR-111	74.75	74.75	ETR-134	73.59	73.59			
ETR-112	74.18	74.18	ETR-135	72.56	72.56			
ETR-114	71.03	71.03	ETR-136	73.56	73.56			
ETR-128	72.11	72.11	ETR-137	76.15	76.15			
ETR-133	70.54	70.54	ETR-138	71.83	71.83			
ETR-113	76.97	76.97	ETR-139	68.70	68.70			
			ETR-140	71.92	71.92			
			ETR-141	72.36	72.36			
			ETR-142	71.77	71.77			
			ETR-143	72.47	72.47			
			ETR-144	71.96	71.96			
			ETR-145	73.77	73.77			
			ETR-146	72.82	72.82			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.78	LOWER VOLUME (DEG. F.)	73.11	ICE CONDENSER (DEG. F.)	16.01
UPPER VOLUME (DEG. R.)	534.48	LOWER VOLUME (DEG. R.)	532.81	ICE CONDENSER (DEG. R.)	475.71

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.00	32.00	0.0886
VPU-2	30.70	30.70	0.0834
LOWER:			
VPL-1	30.00	30.00	0.0808
VPL-2	29.80	29.80	0.0801
ICE:			
VPI-1	15.80	15.80	0.0411
VPI-2	17.00	17.00	0.0436

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0860
LOWER CONTAINMENT	(PSIA)	0.0804
ICE CONDENSER	(PSIA)	0.0424

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9119	26.9117
PU-2	26.9037	26.9004
LOWER:		
PL-1	26.8927	26.8936
PL-2	26.8959	26.8918
ICE:		
PI-1	26.9136	26.9092
PI-2	26.9057	26.9068
AMBIENT	14.5135	14.5117

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9061
AVERAGE LOWER PRESSURE	(PSIA)	26.8927
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9080
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9023
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3906

RUN NUMBER 39
ELAPSED TIME 19.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.26	78.26	ETR-122	74.03	74.03	ETR-115	15.09	15.09
ETR-102	75.81	75.81	ETR-123	75.17	75.17	ETR-116	17.69	17.69
ETR-103	74.57	74.57	ETR-124	74.87	74.87	ETR-117	15.88	15.88
ETR-104	74.66	74.66	ETR-125	73.86	73.86	ETR-118	17.38	17.38
ETR-105	73.91	73.91	ETR-126	72.09	72.09	ETR-119	16.35	16.35
ETR-106	75.26	75.26	ETR-127	67.02	67.02	ETR-120	15.37	15.37
ETR-107	74.34	74.34	ETR-129	71.27	71.27	ETR-121	15.60	15.60
ETR-108	74.94	74.94	ETR-130	73.52	73.52			
ETR-109	74.17	74.17	ETR-131	69.41	69.41			
ETR-110	76.08	76.08	ETR-132	73.29	73.29			
ETR-111	74.71	74.71	ETR-134	73.40	73.40			
ETR-112	74.15	74.15	ETR-135	72.60	72.60			
ETR-114	71.02	71.02	ETR-136	73.55	73.55			
ETR-128	72.14	72.14	ETR-137	76.18	76.18			
ETR-133	70.55	70.55	ETR-138	71.83	71.83			
ETR-113	76.95	76.95	ETR-139	68.70	68.70			
			ETR-140	71.89	71.89			
			ETR-141	72.37	72.37			
			ETR-142	71.77	71.77			
			ETR-143	72.47	72.47			
			ETR-144	71.94	71.94			
			ETR-145	73.75	73.75			
			ETR-146	72.86	72.86			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.76	LOWER VOLUME (DEG. F.)	73.10	ICE CONDENSER (DEG. F.)	15.97
UPPER VOLUME (DEG. R.)	534.46	LOWER VOLUME (DEG. R.)	532.80	ICE CONDENSER (DEG. R.)	475.67

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.90	31.90	0.0882
VPU-2	30.70	30.70	0.0834
LOWER:			
VPL-1	29.70	29.70	0.0797
VPL-2	29.80	29.80	0.0801
ICE:			
VPI-1	16.70	16.70	0.0430
VPI-2	18.20	18.20	0.0463

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0858
LOWER CONTAINMENT	(PSIA)	0.0799
ICE CONDENSER	(PSIA)	0.0446

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9163	26.9161
PU-2	26.9078	26.9045
LOWER:		
PL-1	26.8966	26.8975
PL-2	26.9001	26.8960
ICE:		
PI-1	26.9180	26.9136
PI-2	26.9101	26.9112
AMBIENT	14.5177	14.5159

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9103
AVERAGE LOWER PRESSURE	(PSIA)	26.8968
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9124
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9065
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3906

RUN NUMBER 40
ELAPSED TIME 19.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.24	78.24	ETR-122	74.01	74.01	ETR-115	15.66	15.66
ETR-102	75.77	75.77	ETR-123	75.17	75.17	ETR-116	17.92	17.92
ETR-103	74.56	74.56	ETR-124	74.87	74.87	ETR-117	15.83	15.83
ETR-104	74.68	74.68	ETR-125	73.83	73.83	ETR-118	17.30	17.30
ETR-105	73.88	73.88	ETR-126	72.09	72.09	ETR-119	16.33	16.33
ETR-106	75.21	75.21	ETR-127	66.99	66.99	ETR-120	15.41	15.41
ETR-107	74.30	74.30	ETR-129	71.28	71.28	ETR-121	15.56	15.56
ETR-108	74.91	74.91	ETR-130	73.51	73.51			
ETR-109	74.21	74.21	ETR-131	69.38	69.38			
ETR-110	75.97	75.97	ETR-132	73.27	73.27			
ETR-111	74.71	74.71	ETR-134	73.50	73.50			
ETR-112	74.13	74.13	ETR-135	72.59	72.59			
ETR-114	71.00	71.00	ETR-136	73.55	73.55			
ETR-128	72.08	72.08	ETR-137	76.16	76.16			
ETR-133	70.49	70.49	ETR-138	71.82	71.82			
ETR-113	76.95	76.95	ETR-139	68.69	68.69			
			ETR-140	71.88	71.88			
			ETR-141	72.36	72.36			
			ETR-142	71.73	71.73			
			ETR-143	72.45	72.45			
			ETR-144	71.94	71.94			
			ETR-145	73.77	73.77			
			ETR-146	72.86	72.86			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.74	LOWER VOLUME (DEG. F.)	73.10	ICE CONDENSER (DEG. F.)	16.01
UPPER VOLUME (DEG. R.)	534.44	LOWER VOLUME (DEG. R.)	532.80	ICE CONDENSER (DEG. R.)	475.71

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.90	31.90	0.0882
VPU-2	30.70	30.70	0.0834
LOWER:			
VPL-1	29.80	29.80	0.0801
VPL-2	29.70	29.70	0.0797
ICE:			
VPI-1	15.90	15.90	0.0414
VPI-2	16.20	16.20	0.0420

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0858
LOWER CONTAINMENT (PSIA)	0.0799
ICE CONDENSER (PSIA)	0.0417

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9108	26.9106
PU-2	26.9024	26.8991
LOWER:		
PL-1	26.8914	26.8923
PL-2	26.8948	26.8907
ICE:		
PI-1	26.9124	26.9080
PI-2	26.9045	26.9056
AMBIENT	14.5174	14.5156

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)		26.9049
AVERAGE LOWER PRESSURE (PSIA)		26.8915
AVERAGE ICE CONDENSER PRESSURE (PSIA)		26.9068
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.9011
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3855

RUN NUMBER 41
ELAPSED TIME 20.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.21	78.21	ETR-122	74.02	74.02	ETR-115	14.99	14.99
ETR-102	75.76	75.76	ETR-123	75.18	75.18	ETR-116	17.53	17.53
ETR-103	74.54	74.54	ETR-124	74.84	74.84	ETR-117	15.83	15.83
ETR-104	74.68	74.68	ETR-125	73.80	73.80	ETR-118	17.38	17.38
ETR-105	73.91	73.91	ETR-126	72.06	72.06	ETR-119	16.34	16.34
ETR-106	75.21	75.21	ETR-127	66.99	66.99	ETR-120	15.42	15.42
ETR-107	74.30	74.30	ETR-129	71.17	71.17	ETR-121	15.61	15.61
ETR-108	74.91	74.91	ETR-130	73.51	73.51			
ETR-109	74.31	74.31	ETR-131	69.38	69.38			
ETR-110	75.99	75.99	ETR-132	73.28	73.28			
ETR-111	74.69	74.69	ETR-134	73.45	73.45			
ETR-112	74.15	74.15	ETR-135	72.56	72.56			
ETR-114	70.98	70.98	ETR-136	73.52	73.52			
ETR-128	72.13	72.18	ETR-137	76.14	76.14			
ETR-133	70.50	70.50	ETR-138	71.82	71.82			
ETR-113	77.06	77.06	ETR-139	68.69	68.69			
			ETR-140	71.87	71.87			
			ETR-141	72.37	72.37			
			ETR-142	71.75	71.75			
			ETR-143	72.45	72.45			
			ETR-144	71.94	71.94			
			ETR-145	73.77	73.77			
			ETR-146	72.88	72.88			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.74	LOWER VOLUME (DEG. F.)	73.08	ICE CONDENSER (DEG. F.)	15.96
UPPER VOLUME (DEG. R.)	534.44	LOWER VOLUME (DEG. R.)	532.78	ICE CONDENSER (DEG. R.)	475.66

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.00	32.00	0.0886
VPU-2	30.70	30.70	0.0834
LOWER:			
VPL-1	29.80	29.80	0.0801
VPL-2	29.70	29.70	0.0797
ICE:			
VPI-1	16.10	16.10	0.0418
VPI-2	17.80	17.80	0.0454

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0860
LOWER CONTAINMENT (PSIA)	0.0799
ICE CONDENSER (PSIA)	0.0436

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9142	26.9140
PU-2	26.9059	26.9026
LOWER:		
PL-1	26.8951	26.8960
PL-2	26.8984	26.8943
ICE:		
PI-1	26.9161	26.9117
PI-2	26.9081	26.9092
AMBIENT	14.5201	14.5183

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9083
AVERAGE LOWER PRESSURE (PSIA)	26.8952
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9105
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9047
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3864

RUN NUMBER 42
ELAPSED TIME 20.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.17	78.17	ETR-122	73.99	73.99	ETR-115	15.02	15.02
ETR-102	75.73	75.73	ETR-123	75.15	75.15	ETR-116	17.77	17.77
ETR-103	74.51	74.51	ETR-124	74.82	74.82	ETR-117	15.89	15.89
ETR-104	74.67	74.67	ETR-125	73.82	73.82	ETR-118	17.62	17.62
ETR-105	73.87	73.87	ETR-126	72.06	72.06	ETR-119	16.30	16.30
ETR-106	75.19	75.19	ETR-127	66.99	66.99	ETR-120	15.38	15.38
ETR-107	74.27	74.27	ETR-129	71.24	71.24	ETR-121	15.61	15.61
ETR-108	74.89	74.89	ETR-130	73.51	73.51			
ETR-109	74.10	74.10	ETR-131	69.36	69.36			
ETR-110	75.99	75.99	ETR-132	73.27	73.27			
ETR-111	74.68	74.68	ETR-134	73.50	73.50			
ETR-112	74.09	74.09	ETR-135	72.54	72.54			
ETR-114	71.02	71.02	ETR-136	73.53	73.53			
ETR-128	72.17	72.17	ETR-137	76.11	76.11			
ETR-133	70.54	70.54	ETR-138	71.82	71.82			
ETR-113	76.99	76.99	ETR-139	68.68	68.68			
			ETR-140	71.89	71.89			
			ETR-141	72.35	72.35			
			ETR-142	71.71	71.71			
			ETR-143	72.45	72.45			
			ETR-144	71.92	71.92			
			ETR-145	73.75	73.75			
			ETR-146	72.82	72.82			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.71	LOWER VOLUME (DEG. F.)	73.08	ICE CONDENSER (DEG. F.)	15.98
UPPER VOLUME (DEG. R.)	534.41	LOWER VOLUME (DEG. R.)	532.78	ICE CONDENSER (DEG. R.)	475.68

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	32.00	32.00	0.0886
VPU-2	30.70	30.70	0.0834
LOWER:			
VPL-1	29.60	29.60	0.0793
VPL-2	29.80	29.80	0.0801
ICE:			
VPI-1	16.50	16.50	0.0426
VPI-2	17.60	17.60	0.0449

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0860
LOWER CONTAINMENT (PSIA)	0.0797
ICE CONDENSER (PSIA)	0.0438

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9150	26.9148
PU-2	26.9066	26.9033
LOWER:		
PL-1	26.8956	26.8965
PL-2	26.8990	26.8949
ICE:		
PI-1	26.9170	26.9126
PI-2	26.9090	26.9101
AMBIENT	14.5205	14.5187

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9091
AVERAGE LOWER PRESSURE (PSIA)	26.8957
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9114
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9054
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3867

RUN NUMBER 43
ELAPSED TIME 21.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.14	78.14	ETR-122	73.97	73.97	ETR-115	15.30	15.30
ETR-102	75.71	75.71	ETR-123	75.09	75.09	ETR-116	17.43	17.43
ETR-103	74.47	74.47	ETR-124	74.78	74.78	ETR-117	16.04	16.04
ETR-104	74.67	74.67	ETR-125	73.78	73.78	ETR-118	17.34	17.34
ETR-105	73.83	73.83	ETR-126	72.03	72.03	ETR-119	16.28	16.28
ETR-106	75.13	75.13	ETR-127	66.99	66.99	ETR-120	15.38	15.38
ETR-107	74.27	74.27	ETR-129	71.20	71.20	ETR-121	15.58	15.58
ETR-108	74.85	74.85	ETR-130	73.49	73.49			
ETR-109	74.08	74.08	ETR-131	69.37	69.37			
ETR-110	75.99	75.99	ETR-132	73.25	73.25			
ETR-111	74.63	74.63	ETR-134	73.45	73.45			
ETR-112	74.11	74.11	ETR-135	72.49	72.49			
ETR-114	70.99	70.99	ETR-136	73.50	73.50			
ETR-128	72.09	72.09	ETR-137	76.10	76.10			
ETR-133	70.41	70.41	ETR-138	71.74	71.74			
ETR-113	77.01	77.01	ETR-139	68.66	68.66			
			ETR-140	71.88	71.88			
			ETR-141	72.34	72.34			
			ETR-142	71.72	71.72			
			ETR-143	72.44	72.44			
			ETR-144	71.92	71.92			
			ETR-145	73.76	73.76			
			ETR-146	72.80	72.80			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.69	LOWER VOLUME (DEG. F.)	73.05	ICE CONDENSER (DEG. F.)	15.95
UPPER VOLUME (DEG. R.)	534.39	LOWER VOLUME (DEG. R.)	532.75	ICE CONDENSER (DEG. R.)	475.65

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.80	31.80	0.0878
VPU-2	30.50	30.50	0.0827
LOWER:			
VPL-1	29.70	29.70	0.0797
VPL-2	29.60	29.60	0.0793
ICE:			
VPI-1	15.30	15.30	0.0402
VPI-2	16.30	16.30	0.0422

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0852
LOWER CONTAINMENT	(PSIA)	0.0795
ICE CONDENSER	(PSIA)	0.0412

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9074	26.9072
PU-2	26.8991	26.8958
LOWER:		
PL-1	26.8871	26.8880
PL-2	26.8915	26.8875
ICE:		
PI-1	26.9092	26.9048
PI-2	26.9011	26.9022
AMBIENT	14.5207	14.5189

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9015
AVERAGE LOWER PRESSURE	(PSIA)	26.8877
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9035
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8976
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3787

RUN NUMBER 44
ELAPSED TIME 21.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.10	78.10	ETR-122	73.96	73.96	ETR-115	15.02	15.02
ETR-102	75.69	75.69	ETR-123	75.13	75.13	ETR-116	17.03	17.03
ETR-103	74.49	74.49	ETR-124	74.82	74.82	ETR-117	15.72	15.72
ETR-104	74.64	74.64	ETR-125	73.77	73.77	ETR-118	18.00	18.00
ETR-105	73.82	73.82	ETR-126	72.02	72.02	ETR-119	16.28	16.28
ETR-106	75.13	75.13	ETR-127	66.97	66.97	ETR-120	15.35	15.35
ETR-107	74.23	74.23	ETR-129	71.20	71.20	ETR-121	15.60	15.60
ETR-108	74.87	74.87	ETR-130	73.49	73.49			
ETR-109	74.13	74.13	ETR-131	69.37	69.37			
ETR-110	75.99	75.99	ETR-132	73.25	73.25			
ETR-111	74.65	74.65	ETR-134	73.47	73.47			
ETR-112	74.11	74.11	ETR-135	72.52	72.52			
ETR-114	71.01	71.01	ETR-136	73.48	73.48			
ETR-128	72.08	72.08	ETR-137	76.12	76.12			
ETR-133	70.44	70.44	ETR-138	71.77	71.77			
ETR-113	76.96	76.96	ETR-139	68.66	68.66			
			ETR-140	71.89	71.89			
			ETR-141	72.33	72.33			
			ETR-142	71.72	71.72			
			ETR-143	72.44	72.44			
			ETR-144	71.91	71.91			
			ETR-145	73.75	73.75			
			ETR-146	72.83	72.83			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.68	LOWER VOLUME (DEG. F.)	73.06	ICE CONDENSER (DEG. F.)	15.92
UPPER VOLUME (DEG. R.)	534.38	LOWER VOLUME (DEG. R.)	532.76	ICE CONDENSER (DEG. R.)	475.62

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.80	31.80	0.0878
VPU-2	30.60	30.60	0.0831
LOWER:			
VPL-1	29.70	29.70	0.0797
VPL-2	29.70	29.70	0.0797
ICE:			
VPI-1	16.50	16.50	0.0426
VPI-2	17.40	17.40	0.0445

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0854
LOWER CONTAINMENT (PSIA)	0.0797
ICE CONDENSER (PSIA)	0.0435

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9126	26.9124
PU-2	26.9048	26.9015
LOWER:		
PL-1	26.8946	26.8955
PL-2	26.8969	26.8928
ICE:		
PI-1	26.9145	26.9101
PI-2	26.9064	26.9075
AMBIENT	14.5198	14.5180

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9070
AVERAGE LOWER PRESSURE (PSIA)	26.8942
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9088
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.9033
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3854

RUN NUMBER 45
ELAPSED TIME 22.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.05	78.05	ETR-122	73.94	73.94	ETR-115	15.17	15.17
ETR-102	75.65	75.65	ETR-123	75.11	75.11	ETR-116	17.40	17.40
ETR-103	74.44	74.44	ETR-124	74.81	74.81	ETR-117	15.91	15.91
ETR-104	74.61	74.61	ETR-125	73.76	73.76	ETR-118	18.33	18.33
ETR-105	73.82	73.82	ETR-126	72.02	72.02	ETR-119	16.28	16.28
ETR-106	75.09	75.09	ETR-127	66.95	66.95	ETR-120	15.37	15.37
ETR-107	74.23	74.23	ETR-129	71.18	71.18	ETR-121	15.60	15.60
ETR-108	74.80	74.80	ETR-130	73.47	73.47			
ETR-109	74.15	74.15	ETR-131	69.34	69.34			
ETR-110	75.97	75.97	ETR-132	73.25	73.25			
ETR-111	74.61	74.61	ETR-134	73.53	73.53			
ETR-112	74.06	74.06	ETR-135	72.45	72.45			
ETR-114	70.94	70.94	ETR-136	73.50	73.50			
ETR-128	72.06	72.06	ETR-137	76.12	76.12			
ETR-133	70.40	70.40	ETR-138	71.76	71.76			
ETR-113	76.85	76.85	ETR-139	68.65	68.65			
			ETR-140	71.83	71.83			
			ETR-141	72.34	72.34			
			ETR-142	71.69	71.69			
			ETR-143	72.41	72.41			
			ETR-144	71.91	71.91			
			ETR-145	73.71	73.71			
			ETR-146	72.76	72.76			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.64	LOWER VOLUME (DEG. F.)	73.05	ICE CONDENSER (DEG. F.)	16.01
UPPER VOLUME (DEG. R.)	534.34	LOWER VOLUME (DEG. R.)	532.75	ICE CONDENSER (DEG. R.)	475.71

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.70	31.70	0.0874
VPU-2	30.50	30.50	0.0827
LOWER:			
VPL-1	29.80	29.80	0.0801
VPL-2	29.60	29.60	0.0793
ICE:			
VPI-1	16.20	16.20	0.0420
VPI-2	17.20	17.20	0.0441

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0850
LOWER CONTAINMENT (PSIA)	0.0797
ICE CONDENSER (PSIA)	0.0430

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9061	26.9059
PU-2	26.8990	26.8957
LOWER:		
PL-1	26.8873	26.8882
PL-2	26.8906	26.8866
ICE:		
PI-1	26.9083	26.9039
PI-2	26.9002	26.9013
AMBIENT	14.5191	14.5173

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9008
AVERAGE LOWER PRESSURE (PSIA)	26.8874
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9026
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8969
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3797

RUN NUMBER 46
ELAPSED TIME 22.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME RTD	MILLI-VOLTS	DEG. F.	LOWER VOLUME RTD	MILLI-VOLTS	DEG. F.	ICE CONDENSER RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.03	78.03	ETR-122	73.94	73.94	ETR-115	15.07	15.07
ETR-102	75.64	75.64	ETR-123	75.08	75.08	ETR-116	17.08	17.08
ETR-103	74.49	74.49	ETR-124	74.79	74.79	ETR-117	15.75	15.75
ETR-104	74.61	74.61	ETR-125	73.76	73.76	ETR-118	17.98	17.98
ETR-105	73.78	73.78	ETR-126	72.00	72.00	ETR-119	16.31	16.31
ETR-106	75.13	75.13	ETR-127	66.94	66.94	ETR-120	15.35	15.35
ETR-107	74.23	74.23	ETR-129	71.18	71.18	ETR-121	15.60	15.60
ETR-108	74.82	74.82	ETR-130	73.47	73.47			
ETR-109	74.13	74.13	ETR-131	69.37	69.37			
ETR-110	75.92	75.92	ETR-132	73.23	73.23			
ETR-111	74.65	74.65	ETR-134	73.35	73.35			
ETR-112	74.05	74.05	ETR-135	72.46	72.46			
ETR-114	70.94	70.94	ETR-136	73.48	73.48			
ETR-128	72.07	72.07	ETR-137	76.07	76.07			
ETR-133	70.45	70.45	ETR-138	71.76	71.76			
ETR-113	76.92	76.92	ETR-139	68.66	68.66			
			ETR-140	71.83	71.83			
			ETR-141	72.33	72.33			
			ETR-142	71.67	71.67			
			ETR-143	72.43	72.43			
			ETR-144	71.89	71.89			
			ETR-145	73.71	73.71			
			ETR-146	72.84	72.84			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.65	LOWER VOLUME (DEG. F.)	73.02	ICE CONDENSER (DEG. F.)	15.94
UPPER VOLUME (DEG. R.)	534.35	LOWER VOLUME (DEG. R.)	532.72	ICE CONDENSER (DEG. R.)	475.64

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.70	31.70	0.0874
VPU-2	30.50	30.50	0.0827
LOWER:			
VPL-1	29.70	29.70	0.0797
VPL-2	29.70	29.70	0.0797
ICE:			
VPI-1	16.20	16.20	0.0420
VPI-2	17.10	17.10	0.0438

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0850
LOWER CONTAINMENT	(PSIA)	0.0797
ICE CONDENSER	(PSIA)	0.0429

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9079	26.9077
PU-2	26.9006	26.8973
LOWER:		
PL-1	26.8897	26.8906
PL-2	26.8920	26.8880
ICE:		
PI-1	26.9096	26.9052
PI-2	26.9015	26.9026
AMBIENT	14.5186	14.5168

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9025
AVERAGE LOWER PRESSURE	(PSIA)	26.8893
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9039
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8986
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3818

RUN NUMBER 47
ELAPSED TIME 23.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	78.01	78.01	ETR-122	73.92	73.92	ETR-115	15.04	15.04
ETR-102	75.62	75.62	ETR-123	75.08	75.08	ETR-116	17.01	17.01
ETR-103	74.42	74.42	ETR-124	74.77	74.77	ETR-117	15.59	15.59
ETR-104	74.60	74.60	ETR-125	73.75	73.75	ETR-118	18.06	18.06
ETR-105	73.77	73.77	ETR-126	72.00	72.00	ETR-119	16.31	16.31
ETR-106	75.08	75.08	ETR-127	66.94	66.94	ETR-120	15.31	15.31
ETR-107	74.19	74.19	ETR-129	71.19	71.19	ETR-121	15.59	15.59
ETR-108	74.78	74.78	ETR-130	73.47	73.47			
ETR-109	74.10	74.10	ETR-131	69.34	69.34			
ETR-110	75.90	75.90	ETR-132	73.23	73.23			
ETR-111	74.62	74.62	ETR-134	73.42	73.42			
ETR-112	74.05	74.05	ETR-135	72.46	72.46			
ETR-114	70.59	70.59	ETR-136	73.45	73.45			
ETR-128	71.95	71.95	ETR-137	76.09	76.09			
ETR-133	70.34	70.34	ETR-138	71.73	71.73			
ETR-113	76.96	76.96	ETR-139	68.65	68.65			
			ETR-140	71.82	71.82			
			ETR-141	72.30	72.30			
			ETR-142	71.67	71.67			
			ETR-143	72.41	72.41			
			ETR-144	71.88	71.88			
			ETR-145	73.73	73.73			
			ETR-146	72.80	72.80			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.60	LOWER VOLUME (DEG. F.)	73.02	ICE CONDENSER (DEG. F.)	15.91
UPPER VOLUME (DEG. R.)	534.30	LOWER VOLUME (DEG. R.)	532.72	ICE CONDENSER (DEG. R.)	475.61

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.70	31.70	0.0874
VPU-2	30.40	30.40	0.0823
LOWER:			
VPL-1	29.40	29.40	0.0786
VPL-2	29.60	29.60	0.0793
ICE:			
VPI-1	16.20	16.20	0.0420
VPI-2	17.70	17.70	0.0451

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0848
LOWER CONTAINMENT (PSIA)	0.0790
ICE CONDENSER (PSIA)	0.0436

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9080	26.9078
PU-2	26.9006	26.8973
LOWER:		
PL-1	26.8893	26.8902
PL-2	26.8920	26.8880
ICE:		
PI-1	26.9097	26.9053
PI-2	26.9016	26.9027
AMBIENT	14.5165	14.5147

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.9026
AVERAGE LOWER PRESSURE (PSIA)	26.8891
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.9040
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8986
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3839

RUN NUMBER 48
ELAPSED TIME 23.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.97	77.97	ETR-122	73.90	73.90	ETR-115	14.98	14.98
ETR-102	75.58	75.58	ETR-123	75.05	75.05	ETR-116	17.16	17.16
ETR-103	74.41	74.41	ETR-124	74.71	74.71	ETR-117	15.65	15.65
ETR-104	74.58	74.58	ETR-125	73.72	73.72	ETR-118	17.54	17.54
ETR-105	73.74	73.74	ETR-126	71.96	71.96	ETR-119	16.28	16.28
ETR-106	75.06	75.06	ETR-127	66.93	66.93	ETR-120	15.29	15.29
ETR-107	74.15	74.15	ETR-129	71.20	71.20	ETR-121	15.58	15.58
ETR-108	74.76	74.76	ETR-130	73.45	73.45			
ETR-109	74.11	74.11	ETR-131	69.32	69.32			
ETR-110	75.87	75.87	ETR-132	73.22	73.22			
ETR-111	74.62	74.62	ETR-134	73.41	73.41			
ETR-112	74.05	74.05	ETR-135	72.46	72.46			
ETR-114	70.56	70.56	ETR-136	73.46	73.46			
ETR-128	72.06	72.06	ETR-137	76.09	76.09			
ETR-133	70.35	70.35	ETR-138	71.75	71.75			
ETR-113	76.78	76.78	ETR-139	68.63	68.63			
			ETR-140	71.83	71.83			
			ETR-141	72.30	72.30			
			ETR-142	71.68	71.68			
			ETR-143	72.42	72.42			
			ETR-144	71.89	71.89			
			ETR-145	73.70	73.70			
			ETR-146	72.79	72.79			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.56	LOWER VOLUME (DEG. F.)	73.01	ICE CONDENSER (DEG. F.)	15.87
UPPER VOLUME (DEG. R.)	534.26	LOWER VOLUME (DEG. R.)	532.71	ICE CONDENSER (DEG. R.)	475.57

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.70	31.70	0.0874
VPU-2	30.40	30.40	0.0823
LOWER:			
VPL-1	29.70	29.70	0.0797
VPL-2	29.60	29.60	0.0793
ICE:			
VPI-1	15.60	15.60	0.0407
VPI-2	17.00	17.00	0.0436

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0848
LOWER CONTAINMENT (PSIA)	0.0795
ICE CONDENSER (PSIA)	0.0422

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9029	26.9027
PU-2	26.8950	26.8917
LOWER:		
PL-1	26.8848	26.8857
PL-2	26.8868	26.8828
ICE:		
PI-1	26.9042	26.8998
PI-2	26.8960	26.8971
AMBIENT	14.5190	14.5172

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.8972
AVERAGE LOWER PRESSURE (PSIA)	26.8842
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.8985
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8933
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3761

RUN NUMBER 49
ELAPSED TIME 24.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.91	77.91	ETR-122	73.88	73.88	ETR-115	15.65	15.65
ETR-102	75.56	75.56	ETR-123	75.04	75.04	ETR-116	17.17	17.17
ETR-103	74.42	74.42	ETR-124	74.75	74.75	ETR-117	16.72	16.72
ETR-104	74.59	74.59	ETR-125	73.73	73.73	ETR-118	17.59	17.59
ETR-105	73.74	73.74	ETR-126	71.98	71.98	ETR-119	16.29	16.29
ETR-106	75.06	75.06	ETR-127	66.95	66.95	ETR-120	15.26	15.26
ETR-107	74.22	74.22	ETR-129	71.14	71.14	ETR-121	15.60	15.60
ETR-108	74.75	74.75	ETR-130	73.44	73.44			
ETR-109	74.05	74.05	ETR-131	69.32	69.32			
ETR-110	75.93	75.93	ETR-132	73.21	73.21			
ETR-111	74.56	74.56	ETR-134	73.46	73.46			
ETR-112	74.00	74.00	ETR-135	72.40	72.40			
ETR-114	70.56	70.56	ETR-136	73.45	73.45			
ETR-128	72.02	72.02	ETR-137	76.07	76.07			
ETR-133	70.42	70.42	ETR-138	71.70	71.70			
ETR-113	76.78	76.78	ETR-139	68.63	68.63			
			ETR-140	71.83	71.83			
			ETR-141	72.30	72.30			
			ETR-142	71.67	71.67			
			ETR-143	72.40	72.40			
			ETR-144	71.89	71.89			
			ETR-145	73.68	73.68			
			ETR-146	72.80	72.80			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.56	LOWER VOLUME (DEG. F.)	73.00	ICE CONDENSER (DEG. F.)	16.00
UPPER VOLUME (DEG. R.)	534.26	LOWER VOLUME (DEG. R.)	532.70	ICE CONDENSER (DEG. R.)	475.70

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.70	31.70	0.0874
VPU-2	30.40	30.40	0.0823
LOWER:			
VPL-1	29.60	29.60	0.0793
VPL-2	29.60	29.60	0.0793
ICE:			
VPI-1	16.50	16.50	0.0426
VPI-2	17.70	17.70	0.0451

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0848
LOWER CONTAINMENT	(PSIA)	0.0793
ICE CONDENSER	(PSIA)	0.0439

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9084	26.9082
PU-2	26.9013	26.8980
LOWER:		
PL-1	26.8901	26.8910
PL-2	26.8926	26.8885
ICE:		
PI-1	26.9104	26.9060
PI-2	26.9021	26.9032
AMBIENT	14.5152	14.5134

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.9031
AVERAGE LOWER PRESSURE	(PSIA)	26.8898
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.9046
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8992
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3858

ILR#3043 NOV 20, 1985
*** ILR PROGRAM RESULTS ***

SUMMARY OF AVERAGES

RUN #	ELAPSED TIME	AVG TEMP UPPER	AVG PRESS UPPER	AVG V PRESS UPPER	AVG TEMP LOWER	AVG PRESS LOWER	AVG V PRESS LOWER	AVG TEMP ICE	AVG PRESS ICE	AVG V PRESS ICE
1	0.00	74.4533	26.8971	0.0844	72.9573	26.8840	0.0790	15.8986	26.8983	0.0433
2	0.50	74.4227	26.8894	0.0844	72.9563	26.8767	0.0786	15.9189	26.8904	0.0421
3	1.00	74.4303	26.8916	0.0841	72.9403	26.8785	0.0788	15.8355	26.8930	0.0429
4	1.50	74.3928	26.8911	0.0841	72.9345	26.8781	0.0784	15.9211	26.8929	0.0439
5	2.00	74.3828	26.8825	0.0841	72.9438	26.8699	0.0784	15.9163	26.8853	0.0412
6	2.50	74.3787	26.8850	0.0839	72.9163	26.8716	0.0780	15.8715	26.8871	0.0426
7	3.00	74.3442	26.8800	0.0835	72.9131	26.8665	0.0782	15.8572	26.8813	0.0418
8	3.50	74.3500	26.8838	0.0835	72.9257	26.8703	0.0782	15.9274	26.8845	0.0425
9	4.00	74.3382	26.8841	0.0833	72.9033	26.8709	0.0780	16.0169	26.8845	0.0435
10	4.50	74.3097	26.8751	0.0833	72.8840	26.8621	0.0780	15.9137	26.8761	0.0415
11	5.00	74.2996	26.8782	0.0833	72.8988	26.8646	0.0775	15.8639	26.8794	0.0426
12	5.50	74.2608	26.8718	0.0831	72.8584	26.8586	0.0777	15.9081	26.8731	0.0416
13	6.00	74.2612	26.8747	0.0831	72.8596	26.8616	0.0777	15.8626	26.8759	0.0427
14	6.50	74.2707	26.8745	0.0831	72.8795	26.8611	0.0773	15.8919	26.8760	0.0432
15	7.00	74.2362	26.8665	0.0831	72.8633	26.8526	0.0779	15.8633	26.8676	0.0391
16	7.50	74.2543	26.8710	0.0831	72.8727	26.8575	0.0779	15.8324	26.8722	0.0426

ILR#3043 NOV 20, 1985
********** FIXED INPUT DATA **********

TEST START = RUN # 1 TEST END = RUN # 99

RTD MILLI-VOLT TO FAHRENHEIT CONVERSION COEFFICIENTS

UPPER		LOWER		ICE	
1.00	0.00	1.00	0.00	1.00	0.00

HYGROMETER MILLI-VOLT TO FAHRENHEIT CONVERSION COEFFICIENTS

	UPPER-1			LOWER-1			ICE-1	
0.00000	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000	1.00000	0.00000
	UPPER-2			LOWER-2			ICE-2	
0.00000	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000	1.00000	0.00000

MANOMETER PRESSURE CORRECTION COEFFICIENTS

W1	R1	W2	R2	W3	R3	W4	R4	W5	R5
				PU-1					
28.4542	28.4525	26.9566	26.9568	25.4590	25.4583	23.9614	23.9630	22.4638	22.4638
				PU-2					
28.4542	28.4550	26.9566	26.9600	25.4590	25.4597	23.9614	23.9590	22.4638	22.4603
				PL-1					
28.4542	28.4539	26.9566	26.9557	25.4590	25.4573	23.9614	23.9590	22.4638	22.4620
				PL-2					
28.4542	28.4561	26.9566	26.9607	25.4590	25.4620	23.9614	23.9637	22.4638	22.4637
				PI-1					
28.4542	28.4571	26.9566	26.9610	25.4590	25.4633	23.9614	23.9647	22.4638	22.4649
				PI-2					
28.4542	28.4536	26.9566	26.9555	25.4590	25.4570	23.9614	23.9601	22.4638	22.4623
				P-ATM					
28.4542	28.4574	26.9566	26.9583	25.4590	25.4611	23.9614	23.9635	13.4783	13.4801

RTD WEIGHTING FACTORS

UPPER

.0628 .1161 .0831 .0831 .0960 .0960 .0960 .0960 .0296 .0296
.0296 .0296 .0740 .0105 .0167 .0513

LOWER

.0415 .0415 .0415 .0415 .0102 .0284 .0586 .0086 .0266 .0586 .1037
.1037 .1037 .1037 .0500 .0092 .0244 .0145 .0170 .0249 .0219 .0240 .0423 .0000

ICE

.0738 .0738 .0714 .0714 .2227 .2784 .2085

VOLUME WEIGHTING FACTORS

UPPER	LOWER	ICE
2.0144	1.0000	0.4633

TYPE C LEAKAGE PENALTY= -1401.07(SCCM); TYPE A MEASURED LEAK RATE = -0.00905 (%WT/DAY); IMPOSED LEAK RATE = -3.001 (SCFM)

RUN NUMBER 1
ELAPSED TIME 0.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.74	77.74	ETR-122	73.84	73.84	ETR-115	14.88	14.88
ETR-102	75.42	75.42	ETR-123	75.00	75.00	ETR-116	17.62	17.62
ETR-103	74.33	74.33	ETR-124	74.67	74.67	ETR-117	15.80	15.80
ETR-104	74.48	74.48	ETR-125	73.67	73.67	ETR-118	17.34	17.34
ETR-105	73.64	73.64	ETR-126	71.90	71.90	ETR-119	16.26	16.26
ETR-106	74.93	74.93	ETR-127	66.89	66.89	ETR-120	15.34	15.34
ETR-107	74.05	74.05	ETR-129	71.09	71.09	ETR-121	15.55	15.55
ETR-108	74.64	74.64	ETR-130	73.42	73.42			
ETR-109	74.00	74.00	ETR-131	69.30	69.30			
ETR-110	75.79	75.79	ETR-132	73.19	73.19			
ETR-111	74.52	74.52	ETR-134	73.25	73.25			
ETR-112	73.93	73.93	ETR-135	72.42	72.42			
ETR-114	70.48	70.48	ETR-136	73.42	73.42			
ETR-128	71.97	71.97	ETR-137	76.07	76.07			
ETR-133	70.36	70.36	ETR-138	71.67	71.67			
ETR-113	76.76	76.76	ETR-139	68.59	68.59			
			ETR-140	71.81	71.81			
			ETR-141	72.27	72.27			
			ETR-142	71.64	71.64			
			ETR-143	72.39	72.39			
			ETR-144	71.85	71.85			
			ETR-145	73.64	73.64			
			ETR-146	72.76	72.76			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.45	LOWER VOLUME (DEG. F.)	72.96	ICE CONDENSER (DEG. F.)	15.90
UPPER VOLUME (DEG. R.)	534.15	LOWER VOLUME (DEG. R.)	532.66	ICE CONDENSER (DEG. R.)	475.60

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.60	31.60	0.0870
VPU-2	30.30	30.30	0.0819
LOWER:			
VPL-1	29.50	29.50	0.0790
VPL-2	29.50	29.50	0.0790
ICE:			
VPI-1	16.30	16.30	0.0422
VPI-2	17.40	17.40	0.0445

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0844
LOWER CONTAINMENT	(PSIA)	0.0790
ICE CONDENSER	(PSIA)	0.0433

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.9027	26.9025
PU-2	26.8949	26.8916
LOWER:		
PL-1	26.8847	26.8856
PL-2	26.8865	26.8825
ICE:		
PI-1	26.9040	26.8996
PI-2	26.8958	26.8969
AMBIENT	14.5070	14.5052

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8971
AVERAGE LOWER PRESSURE	(PSIA)	26.8840
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8983
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8931
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3880

RUN NUMBER 2
ELAPSED TIME 0.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.73	77.73	ETR-122	73.82	73.82	ETR-115	15.37	15.37
ETR-102	75.37	75.37	ETR-123	74.97	74.97	ETR-116	17.50	17.50
ETR-103	74.30	74.30	ETR-124	74.68	74.68	ETR-117	16.02	16.02
ETR-104	74.43	74.43	ETR-125	73.66	73.66	ETR-118	17.29	17.29
ETR-105	73.61	73.61	ETR-126	71.90	71.90	ETR-119	16.23	16.23
ETR-106	74.93	74.93	ETR-127	66.89	66.89	ETR-120	15.31	15.31
ETR-107	74.04	74.04	ETR-129	71.12	71.12	ETR-121	15.53	15.53
ETR-108	74.62	74.62	ETR-130	73.41	73.41			
ETR-109	73.98	73.98	ETR-131	69.27	69.27			
ETR-110	75.80	75.80	ETR-132	73.16	73.16			
ETR-111	74.47	74.47	ETR-134	73.36	73.36			
ETR-112	73.90	73.90	ETR-135	72.40	72.40			
ETR-114	70.44	70.44	ETR-136	73.38	73.38			
ETR-128	71.94	71.94	ETR-137	76.02	76.02			
ETR-133	70.32	70.32	ETR-138	71.69	71.69			
ETR-113	76.66	76.66	ETR-139	68.60	68.60			
			ETR-140	71.82	71.82			
			ETR-141	72.26	72.26			
			ETR-142	71.63	71.63			
			ETR-143	72.35	72.35			
			ETR-144	71.85	71.85			
			ETR-145	73.65	73.65			
			ETR-146	72.80	72.80			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.42	LOWER VOLUME (DEG. F.)	72.96	ICE CONDENSER (DEG. F.)	15.92
UPPER VOLUME (DEG. R.)	534.12	LOWER VOLUME (DEG. R.)	532.66	ICE CONDENSER (DEG. R.)	475.62

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.60	31.60	0.0870
VPU-2	30.30	30.30	0.0819
LOWER:			
VPL-1	29.40	29.40	0.0786
VPL-2	29.40	29.40	0.0786
ICE:			
VPI-1	15.50	15.50	0.0405
VPI-2	17.00	17.00	0.0436

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0844
LOWER CONTAINMENT	(PSIA)	0.0786
ICE CONDENSER	(PSIA)	0.0421

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8951	26.8949
PU-2	26.8872	26.8839
LOWER:		
PL-1	26.8772	26.8781
PL-2	26.8793	26.8753
ICE:		
PI-1	26.8963	26.8919
PI-2	26.8878	26.8889
AMBIENT	14.5038	14.5020

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8894
AVERAGE LOWER PRESSURE	(PSIA)	26.8767
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8904
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8855
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3835

RUN NUMBER 3
ELAPSED TIME 1.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME RTD	MILLI-VOLTS	DEG. F.	LOWER VOLUME RTD	MILLI-VOLTS	DEG. F.	ICE CONDENSER RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.71	77.71	ETR-122	73.82	73.82	ETR-115	14.99	14.99
ETR-102	75.34	75.34	ETR-123	74.96	74.96	ETR-116	17.02	17.02
ETR-103	74.33	74.33	ETR-124	74.66	74.66	ETR-117	15.72	15.72
ETR-104	74.45	74.45	ETR-125	73.65	73.65	ETR-118	17.23	17.23
ETR-105	73.62	73.62	ETR-126	71.90	71.90	ETR-119	16.25	16.25
ETR-106	74.93	74.93	ETR-127	66.87	66.87	ETR-120	15.30	15.30
ETR-107	74.03	74.03	ETR-129	71.12	71.12	ETR-121	15.55	15.55
ETR-108	74.64	74.64	ETR-130	73.41	73.41			
ETR-109	73.85	73.85	ETR-131	69.29	69.29			
ETR-110	75.81	75.81	ETR-132	73.18	73.18			
ETR-111	74.51	74.51	ETR-134	73.33	73.33			
ETR-112	73.94	73.94	ETR-135	72.34	72.34			
ETR-114	70.46	70.46	ETR-136	73.38	73.38			
ETR-128	72.02	72.02	ETR-137	75.99	75.99			
ETR-133	70.38	70.38	ETR-138	71.69	71.69			
ETR-113	76.74	76.74	ETR-139	68.58	68.58			
			ETR-140	71.80	71.80			
			ETR-141	72.25	72.25			
			ETR-142	71.62	71.62			
			ETR-143	72.37	72.37			
			ETR-144	71.85	71.85			
			ETR-145	73.65	73.65			
			ETR-146	72.74	72.74			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.43	LOWER VOLUME (DEG. F.)	72.94	ICE CONDENSER (DEG. F.)	15.84
UPPER VOLUME (DEG. R.)	534.13	LOWER VOLUME (DEG. R.)	532.64	ICE CONDENSER (DEG. R.)	475.54

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.50	31.50	0.0866
VPU-2	30.20	30.20	0.0815
LOWER:			
VPL-1	29.40	29.40	0.0786
VPL-2	29.50	29.50	0.0790
ICE:			
VPI-1	16.40	16.40	0.0424
VPI-2	16.90	16.90	0.0434

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0841
LOWER CONTAINMENT (PSIA)	0.0788
ICE CONDENSER (PSIA)	0.0429

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8975	26.8973
PU-2	26.8891	26.8858
LOWER:		
PL-1	26.8787	26.8796
PL-2	26.8815	26.8775
ICE:		
PI-1	26.8988	26.8944
PI-2	26.8904	26.8915
AMBIENT	14.5028	14.5010

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.8916
AVERAGE LOWER PRESSURE (PSIA)	26.8785
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.8930
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8877
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3867

RUN NUMBER 4
ELAPSED TIME 1.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.73	77.73	ETR-122	73.81	73.81	ETR-115	15.02	15.02
ETR-102	75.32	75.32	ETR-123	74.95	74.95	ETR-116	16.96	16.96
ETR-103	74.28	74.28	ETR-124	74.69	74.69	ETR-117	15.72	15.72
ETR-104	74.44	74.44	ETR-125	73.63	73.63	ETR-118	18.49	18.49
ETR-105	73.57	73.57	ETR-126	71.88	71.88	ETR-119	16.24	16.24
ETR-106	74.88	74.88	ETR-127	66.89	66.89	ETR-120	15.30	15.30
ETR-107	74.01	74.01	ETR-129	71.07	71.07	ETR-121	15.55	15.55
ETR-108	74.57	74.57	ETR-130	73.40	73.40			
ETR-109	73.96	73.96	ETR-131	69.26	69.26			
ETR-110	75.73	75.73	ETR-132	73.17	73.17			
ETR-111	74.51	74.51	ETR-134	73.22	73.22			
ETR-112	73.93	73.93	ETR-135	72.41	72.41			
ETR-114	70.42	70.42	ETR-136	73.36	73.36			
ETR-128	71.91	71.91	ETR-137	76.04	76.04			
ETR-133	70.32	70.32	ETR-138	71.65	71.65			
ETR-113	76.57	76.57	ETR-139	68.59	68.59			
			ETR-140	71.79	71.79			
			ETR-141	72.26	72.26			
			ETR-142	71.62	71.62			
			ETR-143	72.36	72.36			
			ETR-144	71.84	71.84			
			ETR-145	73.65	73.65			
			ETR-146	72.79	72.79			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.39	LOWER VOLUME (DEG. F.)	72.93	ICE CONDENSER (DEG. F.)	15.92
UPPER VOLUME (DEG. R.)	534.09	LOWER VOLUME (DEG. R.)	532.63	ICE CONDENSER (DEG. R.)	475.62

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.50	31.50	0.0866
VPU-2	30.20	30.20	0.0815
LOWER:			
VPL-1	29.30	29.30	0.0782
VPL-2	29.40	29.40	0.0786
ICE:			
VPI-1	16.10	16.10	0.0418
VPI-2	18.10	18.10	0.0460

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0841
LOWER CONTAINMENT (PSIA)	0.0784
ICE CONDENSER (PSIA)	0.0439

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8971	26.8969
PU-2	26.8885	26.8852
LOWER:		
PL-1	26.8782	26.8791
PL-2	26.8812	26.8772
ICE:		
PI-1	26.8987	26.8943
PI-2	26.8903	26.8914
AMBIENT	14.5003	14.4985

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.8911
AVERAGE LOWER PRESSURE (PSIA)	26.8781
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.8929
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8874
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3889

RUN NUMBER 5
ELAPSED TIME 2.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.68	77.68	ETR-122	73.82	73.82	ETR-115	15.16	15.16
ETR-102	75.28	75.28	ETR-123	74.96	74.96	ETR-116	17.18	17.18
ETR-103	74.27	74.27	ETR-124	74.64	74.64	ETR-117	15.81	15.81
ETR-104	74.46	74.46	ETR-125	73.64	73.64	ETR-118	17.98	17.98
ETR-105	73.58	73.58	ETR-126	71.88	71.88	ETR-119	16.24	16.24
ETR-106	74.84	74.84	ETR-127	66.86	66.86	ETR-120	15.31	15.31
ETR-107	74.00	74.00	ETR-129	71.10	71.10	ETR-121	15.53	15.53
ETR-108	74.58	74.58	ETR-130	73.40	73.40			
ETR-109	73.98	73.98	ETR-131	69.26	69.26			
ETR-110	75.79	75.79	ETR-132	73.16	73.16			
ETR-111	74.46	74.46	ETR-134	73.38	73.38			
ETR-112	73.90	73.90	ETR-135	72.36	72.36			
ETR-114	70.37	70.37	ETR-136	73.38	73.38			
ETR-128	71.99	71.99	ETR-137	76.02	76.02			
ETR-133	70.33	70.33	ETR-138	71.66	71.66			
ETR-113	76.62	76.62	ETR-139	68.58	68.58			
			ETR-140	71.79	71.79			
			ETR-141	72.22	72.22			
			ETR-142	71.59	71.59			
			ETR-143	72.36	72.36			
			ETR-144	71.83	71.83			
			ETR-145	73.64	73.64			
			ETR-146	72.78	72.78			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.38	LOWER VOLUME (DEG. F.)	72.94	ICE CONDENSER (DEG. F.)	15.92
UPPER VOLUME (DEG. R.)	534.08	LOWER VOLUME (DEG. R.)	532.64	ICE CONDENSER (DEG. R.)	475.62

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.50	31.50	0.0866
VPU-2	30.20	30.20	0.0815
LOWER:			
VPL-1	29.40	29.40	0.0786
VPL-2	29.30	29.30	0.0782
ICE:			
VPI-1	15.20	15.20	0.0400
VPI-2	16.40	16.40	0.0424

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0841
LOWER CONTAINMENT (PSIA)	0.0784
ICE CONDENSER (PSIA)	0.0412

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8881	26.8879
PU-2	26.8803	26.8770
LOWER:		
PL-1	26.8695	26.8704
PL-2	26.8734	26.8694
ICE:		
PI-1	26.8910	26.8866
PI-2	26.8829	26.8840
AMBIENT	14.4965	14.4947

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.8825
AVERAGE LOWER PRESSURE (PSIA)	26.8699
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.8853
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8792
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3846

RUN NUMBER 6
ELAPSED TIME 2.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.69	77.69	ETR-122	73.79	73.79	ETR-115	15.01	15.01
ETR-102	75.26	75.26	ETR-123	74.91	74.91	ETR-116	16.99	16.99
ETR-103	74.27	74.27	ETR-124	74.64	74.64	ETR-117	15.63	15.63
ETR-104	74.43	74.43	ETR-125	73.61	73.61	ETR-118	17.98	17.98
ETR-105	73.57	73.57	ETR-126	71.87	71.87	ETR-119	16.25	16.25
ETR-106	74.83	74.83	ETR-127	66.87	66.87	ETR-120	15.27	15.27
ETR-107	73.96	73.96	ETR-129	71.11	71.11	ETR-121	15.54	15.54
ETR-108	74.58	74.58	ETR-130	73.38	73.38			
ETR-109	74.00	74.00	ETR-131	69.24	69.24			
ETR-110	75.74	75.74	ETR-132	73.17	73.17			
ETR-111	74.46	74.46	ETR-134	73.24	73.24			
ETR-112	73.87	73.87	ETR-135	72.34	72.34			
ETR-114	70.45	70.45	ETR-136	73.33	73.33			
ETR-128	71.97	71.97	ETR-137	76.02	76.02			
ETR-133	70.29	70.29	ETR-138	71.64	71.64			
ETR-113	76.67	76.67	ETR-139	68.56	68.56			
			ETR-140	71.76	71.76			
			ETR-141	72.23	72.23			
			ETR-142	71.58	71.58			
			ETR-143	72.36	72.36			
			ETR-144	71.83	71.83			
			ETR-145	73.61	73.61			
			ETR-146	72.80	72.80			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.38	LOWER VOLUME (DEG. F.)	72.92	ICE CONDENSER (DEG. F.)	15.87
UPPER VOLUME (DEG. R.)	534.08	LOWER VOLUME (DEG. R.)	532.62	ICE CONDENSER (DEG. R.)	475.57

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.40	31.40	0.0862
VPU-2	30.20	30.20	0.0815
LOWER:			
VPL-1	29.20	29.20	0.0779
VPL-2	29.30	29.30	0.0782
ICE:			
VPI-1	16.10	16.10	0.0418
VPI-2	16.90	16.90	0.0434

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0839
LOWER CONTAINMENT	(PSIA)	0.0780
ICE CONDENSER	(PSIA)	0.0426

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8905	26.8903
PU-2	26.8830	26.8797
LOWER:		
PL-1	26.8709	26.8718
PL-2	26.8754	26.8714
ICE:		
PI-1	26.8930	26.8886
PI-2	26.8845	26.8856
AMBIENT	14.4907	14.4889

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8850
AVERAGE LOWER PRESSURE	(PSIA)	26.8716
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8871
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8813
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3924

RUN NUMBER 7
ELAPSED TIME 3.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.68	77.68	ETR-122	73.77	73.77	ETR-115	15.00	15.00
ETR-102	75.22	75.22	ETR-123	74.92	74.92	ETR-116	17.15	17.15
ETR-103	74.25	74.25	ETR-124	74.62	74.62	ETR-117	15.66	15.66
ETR-104	74.40	74.40	ETR-125	73.60	73.60	ETR-118	17.77	17.77
ETR-105	73.52	73.52	ETR-126	71.84	71.84	ETR-119	16.25	16.25
ETR-106	74.85	74.85	ETR-127	66.86	66.86	ETR-120	15.24	15.24
ETR-107	73.95	73.95	ETR-129	71.08	71.08	ETR-121	15.52	15.52
ETR-108	74.54	74.54	ETR-130	73.37	73.37			
ETR-109	73.84	73.84	ETR-131	69.23	69.23			
ETR-110	75.70	75.70	ETR-132	73.14	73.14			
ETR-111	74.39	74.39	ETR-134	73.32	73.32			
ETR-112	73.82	73.82	ETR-135	72.36	72.36			
ETR-114	70.37	70.37	ETR-136	73.34	73.34			
ETR-128	71.91	71.91	ETR-137	75.96	75.96			
ETR-133	70.33	70.33	ETR-138	71.64	71.64			
ETR-113	76.63	76.63	ETR-139	68.54	68.54			
			ETR-140	71.77	71.77			
			ETR-141	72.23	72.23			
			ETR-142	71.61	71.61			
			ETR-143	72.35	72.35			
			ETR-144	71.84	71.84			
			ETR-145	73.58	73.58			
			ETR-146	72.75	72.75			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.34	LOWER VOLUME (DEG. F.)	72.91	ICE CONDENSER (DEG. F.)	15.86
UPPER VOLUME (DEG. R.)	534.04	LOWER VOLUME (DEG. R.)	532.61	ICE CONDENSER (DEG. R.)	475.56

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	30.10	30.10	0.0812
LOWER:			
VPL-1	29.30	29.30	0.0782
VPL-2	29.30	29.30	0.0782
ICE:			
VPI-1	15.40	15.40	0.0404
VPI-2	16.80	16.80	0.0432

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0835
LOWER CONTAINMENT	(PSIA)	0.0782
ICE CONDENSER	(PSIA)	0.0418

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8850	26.8848
PU-2	26.8784	26.8751
LOWER:		
PL-1	26.8663	26.8672
PL-2	26.8698	26.8658
ICE:		
PI-1	26.8876	26.8832
PI-2	26.8783	26.8794
AMBIENT	14.4898	14.4880

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8800
AVERAGE LOWER PRESSURE	(PSIA)	26.8665
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8813
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8759
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3880

RUN NUMBER 8
ELAPSED TIME 3.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.69	77.69	ETR-122	73.77	73.77	ETR-115	15.33	15.33
ETR-102	75.21	75.21	ETR-123	74.92	74.92	ETR-116	17.06	17.06
ETR-103	74.21	74.21	ETR-124	74.64	74.64	ETR-117	16.50	16.50
ETR-104	74.40	74.40	ETR-125	73.59	73.59	ETR-118	17.52	17.52
ETR-105	73.56	73.56	ETR-126	71.84	71.84	ETR-119	16.25	16.25
ETR-106	74.84	74.84	ETR-127	66.86	66.86	ETR-120	15.24	15.24
ETR-107	73.96	73.96	ETR-129	71.09	71.09	ETR-121	15.57	15.57
ETR-108	74.55	74.55	ETR-130	73.38	73.38			
ETR-109	73.88	73.88	ETR-131	69.24	69.24			
ETR-110	75.69	75.69	ETR-132	73.14	73.14			
ETR-111	74.45	74.45	ETR-134	73.32	73.32			
ETR-112	73.86	73.86	ETR-135	72.38	72.38			
ETR-114	70.37	70.37	ETR-136	73.35	73.35			
ETR-128	71.89	71.89	ETR-137	76.02	76.02			
ETR-133	70.31	70.31	ETR-138	71.65	71.65			
ETR-113	76.66	76.66	ETR-139	68.56	68.56			
			ETR-140	71.77	71.77			
			ETR-141	72.23	72.23			
			ETR-142	71.57	71.57			
			ETR-143	72.35	72.35			
			ETR-144	71.83	71.83			
			ETR-145	73.65	73.65			
			ETR-146	72.76	72.76			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.35	LOWER VOLUME (DEG. F.)	72.93	ICE CONDENSER (DEG. F.)	15.93
UPPER VOLUME (DEG. R.)	534.05	LOWER VOLUME (DEG. R.)	532.63	ICE CONDENSER (DEG. R.)	475.63

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	30.10	30.10	0.0812
LOWER:			
VPL-1	29.30	29.30	0.0782
VPL-2	29.30	29.30	0.0782
ICE:			
VPI-1	16.00	16.00	0.0416
VPI-2	16.90	16.90	0.0434

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0835
LOWER CONTAINMENT (PSIA)	0.0782
ICE CONDENSER (PSIA)	0.0425

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8888	26.8886
PU-2	26.8822	26.8789
LOWER:		
PL-1	26.8705	26.8714
PL-2	26.8732	26.8692
ICE:		
PI-1	26.8907	26.8863
PI-2	26.8815	26.8826
AMBIENT	14.4930	14.4912

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.8838
AVERAGE LOWER PRESSURE (PSIA)	26.8703
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.8845
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8795
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3884

RUN NUMBER 9
ELAPSED TIME 4.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.67	77.67	ETR-122	73.74	73.74	ETR-115	15.86	15.86
ETR-102	75.19	75.19	ETR-123	74.90	74.90	ETR-116	17.31	17.31
ETR-103	74.21	74.21	ETR-124	74.63	74.63	ETR-117	16.96	16.96
ETR-104	74.37	74.37	ETR-125	73.60	73.60	ETR-118	17.58	17.58
ETR-105	73.48	73.48	ETR-126	71.83	71.83	ETR-119	16.27	16.27
ETR-106	74.82	74.82	ETR-127	66.82	66.82	ETR-120	15.22	15.22
ETR-107	73.93	73.93	ETR-129	71.09	71.09	ETR-121	15.55	15.55
ETR-108	74.54	74.54	ETR-130	73.37	73.37			
ETR-109	73.94	73.94	ETR-131	69.25	69.25			
ETR-110	75.70	75.70	ETR-132	73.14	73.14			
ETR-111	74.42	74.42	ETR-134	73.28	73.28			
ETR-112	73.88	73.88	ETR-135	72.35	72.35			
ETR-114	70.46	70.46	ETR-136	73.32	73.32			
ETR-128	71.98	71.98	ETR-137	75.99	75.99			
ETR-133	70.24	70.24	ETR-138	71.63	71.63			
ETR-113	76.65	76.65	ETR-139	68.54	68.54			
			ETR-140	71.75	71.75			
			ETR-141	72.21	72.21			
			ETR-142	71.59	71.59			
			ETR-143	72.34	72.34			
			ETR-144	71.80	71.80			
			ETR-145	73.62	73.62			
			ETR-146	72.70	72.70			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.34	LOWER VOLUME (DEG. F.)	72.90	ICE CONDENSER (DEG. F.)	16.02
UPPER VOLUME (DEG. R.)	534.04	LOWER VOLUME (DEG. R.)	532.60	ICE CONDENSER (DEG. R.)	475.72

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	30.00	30.00	0.0808
LOWER:			
VPL-1	29.30	29.30	0.0782
VPL-2	29.20	29.20	0.0779
ICE:			
VPI-1	16.30	16.30	0.0422
VPI-2	17.60	17.60	0.0449

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0833
LOWER CONTAINMENT	(PSIA)	0.0780
ICE CONDENSER	(PSIA)	0.0435

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8890	26.8888
PU-2	26.8826	26.8793
LOWER:		
PL-1	26.8715	26.8724
PL-2	26.8733	26.8693
ICE:		
PI-1	26.8908	26.8864
PI-2	26.8815	26.8826
AMBIENT	14.4951	14.4933

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8841
AVERAGE LOWER PRESSURE	(PSIA)	26.8709
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8845
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8798
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3866

RUN NUMBER 10
ELAPSED TIME 4.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.65	77.65	ETR-122	73.72	73.72	ETR-115	15.38	15.38
ETR-102	75.15	75.15	ETR-123	74.89	74.89	ETR-116	17.34	17.34
ETR-103	74.21	74.21	ETR-124	74.63	74.63	ETR-117	16.02	16.02
ETR-104	74.34	74.34	ETR-125	73.58	73.58	ETR-118	17.56	17.56
ETR-105	73.48	73.48	ETR-126	71.82	71.82	ETR-119	16.27	16.27
ETR-106	74.79	74.79	ETR-127	66.84	66.84	ETR-120	15.26	15.26
ETR-107	73.91	73.91	ETR-129	71.06	71.06	ETR-121	15.49	15.49
ETR-108	74.47	74.47	ETR-130	73.37	73.37			
ETR-109	73.82	73.82	ETR-131	69.25	69.25			
ETR-110	75.71	75.71	ETR-132	73.14	73.14			
ETR-111	74.37	74.37	ETR-134	73.22	73.22			
ETR-112	73.81	73.81	ETR-135	72.29	72.29			
ETR-114	70.49	70.49	ETR-136	73.32	73.32			
ETR-128	71.91	71.91	ETR-137	75.95	75.95			
ETR-133	70.26	70.26	ETR-138	71.63	71.63			
ETR-113	76.58	76.58	ETR-139	68.55	68.55			
			ETR-140	71.76	71.76			
			ETR-141	72.19	72.19			
			ETR-142	71.57	71.57			
			ETR-143	72.34	72.34			
			ETR-144	71.81	71.81			
			ETR-145	73.58	73.58			
			ETR-146	72.74	72.74			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.31	LOWER VOLUME (DEG. F.)	72.88	ICE CONDENSER (DEG. F.)	15.91
UPPER VOLUME (DEG. R.)	534.01	LOWER VOLUME (DEG. R.)	532.58	ICE CONDENSER (DEG. R.)	475.61

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	30.00	30.00	0.0808
LOWER:			
VPL-1	29.30	29.30	0.0782
VPL-2	29.20	29.20	0.0779
ICE:			
VPI-1	15.40	15.40	0.0404
VPI-2	16.50	16.50	0.0426

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0833
LOWER CONTAINMENT	(PSIA)	0.0780
ICE CONDENSER	(PSIA)	0.0415

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8802	26.8800
PU-2	26.8733	26.8701
LOWER:		
PL-1	26.8624	26.8633
PL-2	26.8648	26.8608
ICE:		
PI-1	26.8825	26.8781
PI-2	26.8729	26.8740
AMBIENT	14.5093	14.5075

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8751
AVERAGE LOWER PRESSURE	(PSIA)	26.8621
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8761
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8711
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3636

RUN NUMBER 11
ELAPSED TIME 5.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.68	77.68	ETR-122	73.72	73.72	ETR-115	14.95	14.95
ETR-102	75.14	75.14	ETR-123	74.89	74.89	ETR-116	17.65	17.65
ETR-103	74.20	74.20	ETR-124	74.62	74.62	ETR-117	15.71	15.71
ETR-104	74.34	74.34	ETR-125	73.55	73.55	ETR-118	17.29	17.29
ETR-105	73.47	73.47	ETR-126	71.81	71.81	ETR-119	16.25	16.25
ETR-106	74.74	74.74	ETR-127	66.82	66.82	ETR-120	15.27	15.27
ETR-107	73.91	73.91	ETR-129	71.06	71.06	ETR-121	15.50	15.50
ETR-108	74.47	74.47	ETR-130	73.36	73.36			
ETR-109	73.80	73.80	ETR-131	69.23	69.23			
ETR-110	75.62	75.62	ETR-132	73.12	73.12			
ETR-111	74.39	74.39	ETR-134	73.37	73.37			
ETR-112	73.84	73.84	ETR-135	72.35	72.35			
ETR-114	70.47	70.47	ETR-136	73.33	73.33			
ETR-128	71.82	71.82	ETR-137	75.95	75.95			
ETR-133	70.26	70.26	ETR-138	71.60	71.60			
ETR-113	76.58	76.58	ETR-139	68.54	68.54			
			ETR-140	71.75	71.75			
			ETR-141	72.20	72.20			
			ETR-142	71.55	71.55			
			ETR-143	72.31	72.31			
			ETR-144	71.79	71.79			
			ETR-145	73.57	73.57			
			ETR-146	72.73	72.73			

SUMMARY OF HEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.30	LOWER VOLUME (DEG. F.)	72.90	ICE CONDENSER (DEG. F.)	15.86
UPPER VOLUME (DEG. R.)	534.00	LOWER VOLUME (DEG. R.)	532.60	ICE CONDENSER (DEG. R.)	475.56

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	30.00	30.00	0.0808
LOWER:			
VPL-1	29.10	29.10	0.0775
VPL-2	29.10	29.10	0.0775
ICE:			
VPI-1	16.00	16.00	0.0416
VPI-2	17.00	17.00	0.0436

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0833
LOWER CONTAINMENT	(PSIA)	0.0775
ICE CONDENSER	(PSIA)	0.0426

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8834	26.8832
PU-2	26.8764	26.8732
LOWER:		
PL-1	26.8643	26.8652
PL-2	26.8679	26.8639
ICE:		
PI-1	26.8857	26.8813
PI-2	26.8764	26.8775
AMBIENT	14.5056	14.5038

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8782
AVERAGE LOWER PRESSURE	(PSIA)	26.8646
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8794
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8741
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3703

RUN NUMBER 12
ELAPSED TIME 5.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.68	77.68	ETR-122	73.72	73.72	ETR-115	15.49	15.49
ETR-102	75.09	75.09	ETR-123	74.87	74.87	ETR-116	17.76	17.76
ETR-103	74.18	74.18	ETR-124	74.60	74.60	ETR-117	15.68	15.68
ETR-104	74.30	74.30	ETR-125	73.54	73.54	ETR-118	17.16	17.16
ETR-105	73.43	73.43	ETR-126	71.80	71.80	ETR-119	16.25	16.25
ETR-106	74.73	74.73	ETR-127	66.80	66.80	ETR-120	15.32	15.32
ETR-107	73.86	73.86	ETR-129	71.03	71.03	ETR-121	15.47	15.47
ETR-108	74.43	74.43	ETR-130	73.36	73.36			
ETR-109	73.80	73.80	ETR-131	69.23	69.23			
ETR-110	75.66	75.66	ETR-132	73.12	73.12			
ETR-111	74.34	74.34	ETR-134	73.15	73.15			
ETR-112	73.81	73.81	ETR-135	72.26	72.26			
ETR-114	70.32	70.32	ETR-136	73.31	73.31			
ETR-128	71.91	71.91	ETR-137	75.94	75.94			
ETR-133	70.25	70.25	ETR-138	71.60	71.60			
ETR-113	76.52	76.52	ETR-139	68.53	68.53			
			ETR-140	71.71	71.71			
			ETR-141	72.21	72.21			
			ETR-142	71.56	71.56			
			ETR-143	72.32	72.32			
			ETR-144	71.78	71.78			
			ETR-145	73.59	73.59			
			ETR-146	72.72	72.72			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.26	LOWER VOLUME (DEG. F.)	72.86	ICE CONDENSER (DEG. F.)	15.91
UPPER VOLUME (DEG. R.)	533.96	LOWER VOLUME (DEG. R.)	532.56	ICE CONDENSER (DEG. R.)	475.61

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.20	31.20	0.0854
VPU-2	30.00	30.00	0.0808
LOWER:			
VPL-1	29.20	29.20	0.0779
VPL-2	29.10	29.10	0.0775
ICE:			
VPI-1	15.40	15.40	0.0404
VPI-2	16.60	16.60	0.0428

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT (PSIA)	0.0831
LOWER CONTAINMENT (PSIA)	0.0777
ICE CONDENSER (PSIA)	0.0416

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8770	26.8768
PU-2	26.8700	26.8668
LOWER:		
PL-1	26.8584	26.8594
PL-2	26.8618	26.8578
ICE:		
PI-1	26.8796	26.8752
PI-2	26.8698	26.8710
AMBIENT	14.5054	14.5036

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE (PSIA)	26.8718
AVERAGE LOWER PRESSURE (PSIA)	26.8586
AVERAGE ICE CONDENSER PRESSURE (PSIA)	26.8731
AVERAGE CONTAINMENT PRESSURE (PSIA)	26.8678
AVERAGE CONTAINMENT PRESSURE (PSIG)	12.3642

RUN NUMBER 13
ELAPSED TIME 6.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME RTD	MILLI-VOLTS	DEG. F.	LOWER VOLUME RTD	MILLI-VOLTS	DEG. F.	ICE CONDENSER RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.69	77.69	ETR-122	73.72	73.72	ETR-115	14.88	14.88
ETR-102	75.11	75.11	ETR-123	74.86	74.86	ETR-116	17.45	17.45
ETR-103	74.16	74.16	ETR-124	74.55	74.55	ETR-117	15.67	15.67
ETR-104	74.34	74.34	ETR-125	73.53	73.53	ETR-118	17.27	17.27
ETR-105	73.42	73.42	ETR-126	71.79	71.79	ETR-119	16.25	16.25
ETR-106	74.73	74.73	ETR-127	66.81	66.81	ETR-120	15.33	15.33
ETR-107	73.87	73.87	ETR-129	71.04	71.04	ETR-121	15.53	15.53
ETR-108	74.40	74.40	ETR-130	73.35	73.35			
ETR-109	73.77	73.77	ETR-131	69.23	69.23			
ETR-110	75.66	75.66	ETR-132	73.12	73.12			
ETR-111	74.36	74.36	ETR-134	73.17	73.17			
ETR-112	73.80	73.80	ETR-135	72.28	72.28			
ETR-114	70.32	70.32	ETR-136	73.29	73.29			
ETR-128	71.89	71.89	ETR-137	75.95	75.95			
ETR-133	70.25	70.25	ETR-138	71.58	71.58			
ETR-113	76.51	76.51	ETR-139	68.54	68.54			
			ETR-140	71.72	71.72			
			ETR-141	72.19	72.19			
			ETR-142	71.60	71.60			
			ETR-143	72.34	72.34			
			ETR-144	71.79	71.79			
			ETR-145	73.57	73.57			
			ETR-146	72.73	72.73			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.26	LOWER VOLUME (DEG. F.)	72.86	ICE CONDENSER (DEG. F.)	15.86
UPPER VOLUME (DEG. R.)	533.96	LOWER VOLUME (DEG. R.)	532.56	ICE CONDENSER (DEG. R.)	475.56

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	29.90	29.90	0.0804
LOWER:			
VPL-1	29.10	29.10	0.0775
VPL-2	29.20	29.20	0.0779
ICE:			
VPI-1	15.90	15.90	0.0414
VPI-2	17.20	17.20	0.0441

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0831
LOWER CONTAINMENT	(PSIA)	0.0777
ICE CONDENSER	(PSIA)	0.0427

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8800	26.8798
PU-2	26.8728	26.8696
LOWER:		
PL-1	26.8616	26.8626
PL-2	26.8647	26.8607
ICE:		
PI-1	26.8823	26.8779
PI-2	26.8728	26.8739
AMBIENT	14.5079	14.5061

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8747
AVERAGE LOWER PRESSURE	(PSIA)	26.8616
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8759
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8707
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3647

RUN NUMBER 14
ELAPSED TIME 6.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.74	77.74	ETR-122	73.70	73.70	ETR-115	14.94	14.94
ETR-102	75.10	75.10	ETR-123	74.86	74.86	ETR-116	17.67	17.67
ETR-103	74.18	74.18	ETR-124	74.58	74.58	ETR-117	15.76	15.76
ETR-104	74.32	74.32	ETR-125	73.53	73.53	ETR-118	17.58	17.58
ETR-105	73.45	73.45	ETR-126	71.78	71.78	ETR-119	16.22	16.22
ETR-106	74.74	74.74	ETR-127	66.80	66.80	ETR-120	15.29	15.29
ETR-107	73.87	73.87	ETR-129	71.06	71.06	ETR-121	15.52	15.52
ETR-108	74.39	74.39	ETR-130	73.34	73.34			
ETR-109	73.84	73.84	ETR-131	69.23	69.23			
ETR-110	75.68	75.68	ETR-132	73.12	73.12			
ETR-111	74.32	74.32	ETR-134	73.38	73.38			
ETR-112	73.79	73.79	ETR-135	72.23	72.23			
ETR-114	70.38	70.38	ETR-136	73.31	73.31			
ETR-128	71.93	71.93	ETR-137	75.94	75.94			
ETR-133	70.23	70.23	ETR-138	71.60	71.60			
ETR-113	76.49	76.49	ETR-139	68.54	68.54			
			ETR-140	71.74	71.74			
			ETR-141	72.19	72.19			
			ETR-142	71.56	71.56			
			ETR-143	72.32	72.32			
			ETR-144	71.79	71.79			
			ETR-145	73.57	73.57			
			ETR-146	72.75	72.75			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.27	LOWER VOLUME (DEG. F.)	72.88	ICE CONDENSER (DEG. F.)	15.89
UPPER VOLUME (DEG. R.)	533.97	LOWER VOLUME (DEG. R.)	532.58	ICE CONDENSER (DEG. R.)	475.59

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	29.90	29.90	0.0804
LOWER:			
VPL-1	28.90	28.90	0.0768
VPL-2	29.20	29.20	0.0779
ICE:			
VPI-1	16.20	16.20	0.0420
VPI-2	17.40	17.40	0.0445

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0831
LOWER CONTAINMENT	(PSIA)	0.0773
ICE CONDENSER	(PSIA)	0.0432

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8798	26.8796
PU-2	26.8726	26.8694
LOWER:		
PL-1	26.8608	26.8618
PL-2	26.8645	26.8605
ICE:		
PI-1	26.8823	26.8779
PI-2	26.8730	26.8741
AMBIENT	14.5076	14.5058

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8745
AVERAGE LOWER PRESSURE	(PSIA)	26.8611
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8760
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8705
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3648

RUN NUMBER 15
ELAPSED TIME 7.00

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.74	77.74	ETR-122	73.67	73.67	ETR-115	15.26	15.26
ETR-102	75.06	75.06	ETR-123	74.81	74.81	ETR-116	17.37	17.37
ETR-103	74.13	74.13	ETR-124	74.52	74.52	ETR-117	15.89	15.89
ETR-104	74.28	74.28	ETR-125	73.52	73.52	ETR-118	17.18	17.18
ETR-105	73.40	73.40	ETR-126	71.78	71.78	ETR-119	16.19	16.19
ETR-106	74.70	74.70	ETR-127	66.80	66.80	ETR-120	15.29	15.29
ETR-107	73.84	73.84	ETR-129	71.05	71.05	ETR-121	15.50	15.50
ETR-108	74.34	74.34	ETR-130	73.33	73.33			
ETR-109	73.80	73.80	ETR-131	69.22	69.22			
ETR-110	75.59	75.59	ETR-132	73.12	73.12			
ETR-111	74.33	74.33	ETR-134	73.32	73.32			
ETR-112	73.76	73.76	ETR-135	72.25	72.25			
ETR-114	70.39	70.39	ETR-136	73.29	73.29			
ETR-128	71.85	71.85	ETR-137	75.92	75.92			
ETR-133	70.23	70.23	ETR-138	71.59	71.59			
ETR-113	76.46	76.46	ETR-139	68.52	68.52			
			ETR-140	71.72	71.72			
			ETR-141	72.18	72.18			
			ETR-142	71.59	71.59			
			ETR-143	72.33	72.33			
			ETR-144	71.78	71.78			
			ETR-145	73.57	73.57			
			ETR-146	72.75	72.75			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.24	LOWER VOLUME (DEG. F.)	72.86	ICE CONDENSER (DEG. F.)	15.86
UPPER VOLUME (DEG. R.)	533.94	LOWER VOLUME (DEG. R.)	532.56	ICE CONDENSER (DEG. R.)	475.56

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.30	31.30	0.0858
VPU-2	29.90	29.90	0.0804
LOWER:			
VPL-1	29.30	29.30	0.0782
VPL-2	29.10	29.10	0.0775
ICE:			
VPI-1	13.70	13.70	0.0371
VPI-2	15.80	15.80	0.0411

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0831
LOWER CONTAINMENT	(PSIA)	0.0779
ICE CONDENSER	(PSIA)	0.0391

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8715	26.8714
PU-2	26.8648	26.8616
LOWER:		
PL-1	26.8517	26.8527
PL-2	26.8566	26.8526
ICE:		
PI-1	26.8740	26.8696
PI-2	26.8644	26.8656
AMBIENT	14.5056	14.5038

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8665
AVERAGE LOWER PRESSURE	(PSIA)	26.8526
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8676
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8622
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3584

RUN NUMBER 16
ELAPSED TIME 7.50

CONTAINMENT TEMPERATURES DATA CHECK

UPPER VOLUME			LOWER VOLUME			ICE CONDENSER		
RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.	RTD	MILLI-VOLTS	DEG. F.
ETR-101	77.78	77.78	ETR-122	73.66	73.66	ETR-115	14.93	14.93
ETR-102	75.05	75.05	ETR-123	74.82	74.82	ETR-116	16.93	16.93
ETR-103	74.12	74.12	ETR-124	74.54	74.54	ETR-117	15.58	15.58
ETR-104	74.30	74.30	ETR-125	73.51	73.51	ETR-118	17.85	17.85
ETR-105	73.42	73.42	ETR-126	71.78	71.78	ETR-119	16.21	16.21
ETR-106	74.71	74.71	ETR-127	66.78	66.78	ETR-120	15.26	15.26
ETR-107	73.83	73.83	ETR-129	71.06	71.06	ETR-121	15.52	15.52
ETR-108	74.44	74.44	ETR-130	73.34	73.34			
ETR-109	73.78	73.78	ETR-131	69.21	69.21			
ETR-110	75.57	75.57	ETR-132	73.14	73.14			
ETR-111	74.34	74.34	ETR-134	73.41	73.41			
ETR-112	73.76	73.76	ETR-135	72.22	72.22			
ETR-114	70.45	70.45	ETR-136	73.32	73.32			
ETR-128	71.91	71.91	ETR-137	75.91	75.91			
ETR-133	70.21	70.21	ETR-138	71.60	71.60			
ETR-113	76.47	76.47	ETR-139	68.53	68.53			
			ETR-140	71.73	71.73			
			ETR-141	72.17	72.17			
			ETR-142	71.59	71.59			
			ETR-143	72.35	72.35			
			ETR-144	71.79	71.79			
			ETR-145	73.55	73.55			
			ETR-146	72.72	72.72			

SUMMARY OF WEIGHTED AVERAGE TEMPERATURES

UPPER VOLUME (DEG. F.)	74.25	LOWER VOLUME (DEG. F.)	72.87	ICE CONDENSER (DEG. F.)	15.83
UPPER VOLUME (DEG. R.)	533.95	LOWER VOLUME (DEG. R.)	532.57	ICE CONDENSER (DEG. R.)	475.53

CONTAINMENT VAPOR PRESSURE DATA CHECK

HYGROMETER	MILLI-VOLTS	DEW POINT (DEG. F.)	VAPOR PRESSURE (PSIA)
UPPER:			
VPU-1	31.20	31.20	0.0854
VPU-2	30.00	30.00	0.0808
LOWER:			
VPL-1	29.30	29.30	0.0782
VPL-2	29.10	29.10	0.0775
ICE:			
VPI-1	15.90	15.90	0.0414
VPI-2	17.10	17.10	0.0438

AVERAGE VAPOR PRESSURES

UPPER CONTAINMENT	(PSIA)	0.0831
LOWER CONTAINMENT	(PSIA)	0.0779
ICE CONDENSER	(PSIA)	0.0426

CONTAINMENT PRESSURES DATA CHECK

MANOMETER	UNCORRECTED READING (PSIA)	CORRECTED READING (PSIA)
UPPER:		
PU-1	26.8762	26.8760
PU-2	26.8691	26.8659
LOWER:		
PL-1	26.8571	26.8581
PL-2	26.8610	26.8570
ICE:		
PI-1	26.8786	26.8742
PI-2	26.8691	26.8703
AMBIENT	14.5041	14.5023

SUMMARY OF CORRECTED AVERAGE PRESSURES

AVERAGE UPPER PRESSURE	(PSIA)	26.8710
AVERAGE LOWER PRESSURE	(PSIA)	26.8575
AVERAGE ICE CONDENSER PRESSURE	(PSIA)	26.8722
AVERAGE CONTAINMENT PRESSURE	(PSIA)	26.8669
AVERAGE CONTAINMENT PRESSURE	(PSIG)	12.3646

APPENDIX H

LOCAL LEAK TEST PROGRAM

H.1.0 Overview

Local leak tests are conducted periodically on Unit 1 in accordance with guidelines specified in 10 CFR 50 Appendix J, the FSAR, and the Plant Technical Specifications. Testing was performed under plant procedure 1 THP 4030 STP.203, 'Type B and C Leak Rate Test'. The program consists of 'Type B' tests designed to determine leakage through the containment electrical and pipe penetrations, air lock door seals and overall air lock leakage, and 'Type C' tests designed to determine leakage through containment isolation valves.

The leakage detection instrumentation used in the conduct of the 'Type B and C' tests was certified, traceable to NBS, and calibrated prior to the tests. The instruments consist of 4 calibrated flow meters of different ranges, connected in parallel. A test is performed by isolating a test volume bound by the containment isolation barriers under examination. The test volume is pressurized to 12.0 psig. A regulator in the air supply line to the leak rate monitor maintains the test volume pressure at 12.0 psig while the flowmeters measure the air flow required to maintain this pressure. This flow is equivalent to the leakage out of the test volume. Exact test pressure and temperature is recorded and used to convert the measure leakage to standard conditions.

H.2.0 1985 B & C Results

Table H-1 summarizes the results obtained during the 1985 Unit 1 B & C Leakage Testing. This computer output shows the initial valve leakage as well as the leak rate of the valves after they were repaired.

The volumes where As-Found leakage exceeded the guideline is shown in Table H-2. The final As-Left leakage is also given. Valves marked with an "*" were repaired during the 1985 outage. It should be noted that the guideline leakage is not an acceptance criteria. It is strictly a guide for the Test Engineer to use in determining whether repairs should be made to the valve in question.

Table H-3 lists those valves which were repaired during the 1985 outage along with a short synopsis of the repair.

A shown in Tables H-2 and H-3 a total of 23 valves were repaired for excessive leakage found during testing. Various check valves (7 leakers out of 23) and 1" Hammel-Dahl globe valves (5 leakers out of 23) were the two groups of valves which accounted for most of the leakage.

Check Valves

During the 1985 test, seven check valves on various plant systems proved to be a problem. The reason for failure was found to be dirt/grit collected on the sealing surfaces of the valve flappers and/or seats and normal wear on the valve. The valves were cleaned, blued, relapped and successfully retested. This was true for all the valves except N-159 (Nitrogen to PRT check valve). Several attempts were made to clean and repair this valve, but it could not be demonstrated leak tight. The valve was subsequently replaced and retested. Of all these check valves, there seemed to be no specific size or service common to the leakers.

1" Hammel-Dahl Valves

Five of the 23 repaired valves were 1" Hammel-Dahl globe valves. These valves have been a constant problem requiring repair since the 1977 testing. These valves will be evaluated for design change or replacement based on their constant failure rate.

Containment Purge

When initially testing VCR-105 and 205, the As-Found leakage was not able to be quantified. Upon finding this condition a representative from Clow Valves was contacted. Under his direction both valves were "bubble" checked to find the larger leaker. Valve VCR-105 was found to leak more that VCR-205. Only valve VCR-105 was repaired. The seal ring on VCR-105 was "floated" by the Clow representative. The first retest resulted in an acceptable leakage of 263 sccm. VCR-105 is assumed to leak 0 after repair thus the 263 sccm leak is attributed to VCR-205.

The disc-to-stem dowel pin was found to be loose on VCR-203. This resulted in a downward shift of the valve on its seat. The Clow Valve representative was called in to inspect this condition. He stated that excessive wear and strain was being put on the dowel pin by the valve being mounted in the non-horizontal position. The same problem was found in other non-horizontal position valves in both Unit 1 and 2. A design change was suggested by Clow which called for installation of thicker dowels to prevent the downward shift of the valve seat. The design was incorporated and installed on Unit 1 valves VCR-103, VCR-203, VCR-204, VCR-107 and Unit 2 valves VCR-202 and VCR-204. The remaining three Unit 2 valves (VCR-105, 203 and 205) are scheduled to be modified during the next Unit 2 refueling outage. This change should prevent reoccurance of this problem. All the modified VCR valves were successfully retested.

Other Valves

On the RCDT Drain Header volume the leaking valve was found to be DPX-205 the Leak Rate Monitor (LRM) test connection valve. The associated containment isolation valves DCR-205 and DCR-206 did not leak. The packing on valve DPX-205 was replaced. Upon retest the leakage was 0 sccm. The same situation existed on the North SI Discharge Volume. The leaking valve was found to be the LRM test connection IPX-260, not ICM-260.

H.3.0 Past Test Results Summary

Table H-4 provides a summary of the total B & C results since 1981. It can be seen that the 1985 results show a 52% decrease from the 1983 results. This can be attributed to improved valve maintenance and stricter attention payed to valve guideline acceptance criteria.

Maintenance of containment isolation valves has not been ignored. Over the life of the plant substantial numbers of valves have been replaced or reworked. Table H-5 provides a summary of all valves which have required repair or replacement since the first set of periodic tests in 1976. The summary was compiled by AEPSC but the matrix has been updated via plant repair records. Please note that of the 210 valves tested, 106 have leaked at some time. Of these 106 valves, 52 have been successfully replaced or reworked to eliminate leakage. The remaining 54 valves, only 10 have leaked on 3 or more occasions. Of these 10 valves, 5 are check valves, 3 are globe valves on air or air sample systems, and 2 are globe valves on the containment ventilation unit drain lines. When compared with identical valves in the same services these failures are random except for valves CA-181-N and DCR-620 and 621. Valves DCR-620 and 621 were tight on the 2 previous outages. The Internals were replaced this outage. We will continue to monitor these valves to determine if further action is required. There is currently a study in process to decide the best method for correcting the problems with CA-181-N which is part of the Containment Penetration and weld channel pressurization system.

TABLE

********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********
TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES

TYPE "C" DATA INFORMATION

RUN OF 4- 8-85

FIXED POINT DATA:

(1) LEAK RATE MONITOR TEMPERATURE CALIBRATION -

LRM	TEMPERATURE POINT 1 TRUE	POINT 1 INDICATED	POINT 2 TRUE	POINT 2 INDICATED	POINT 3 TRUE	POINT 3 INDICATED
165	30.0	29.5	100.4	99.5	147.8	147.0
193	32.0	33.0	75.0	74.0	100.0	99.0
194	30.0	30.0	100.4	99.0	147.8	145.0

(2) NUMBER OF TYPE "B" TEST STEPS - 11

(3) NUMBER OF TYPE "C" TEST STEPS - 127

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP		DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
1	CLV #1	WCR-900 & WCR-902	720.0	0.0	0.0	60.7	12.5	165
2	CLV #1	WCR-901 & WCR-903	720.0	0.0	0.0	60.7	12.4	165
3	CLV #4	WCR-912 & WCR-914	720.0	0.0	0.0	60.7	12.3	165
4	CLV #4	WCR-913 & WCR-915	720.0	0.0	0.0	60.7	12.3	165
5	CUV #1	WCR-920 & WCR-922	480.0	2.0	2.0	59.7	12.2	165
6	CUV #1	WCR-921 & WCR-923	480.0	0.0	0.0	59.7	12.4	165
7	CUV #4	WCR-932 & WCR-934	480.0	0.0	0.0	62.7	12.2	165
8	CUV #4	WCR-933 & WCR-935	480.0	0.0	0.0	62.7	12.2	165
9	RCP #1	WCR-941 & WCR-945	360.0	10.0	10.0	70.8	12.1	193
10	RCP #1,	WCR-951 & WCR-955	360.0	0.0	0.0	70.8	12.1	193
11	RCP #4	WCR-944 & WCR-948	360.0	0.0	0.0	64.7	12.5	165
12	RCP #4	WCR-954 & WCR-958	360.0	0.0	0.0	63.7	12.4	165

TYPE "B" AND "C" LEAK RATE TESTING OF CONTAINMENT ISOLATION VALVES

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP		DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
13	CLV #2	WCR-904 & WCR-906	720.0	0.0	0.0	63.7	12.3	165
14	CLV #2	WCR-905 & WCR-907	720.0	270.0	272.9	64.7	12.3	165
15	CLV #3	WCR-908 & WCR-910	720.0	0.0	0.0	63.7	12.3	165
				125.0	124.7	72.9	12.0	194
16	CLV #3	WCR-909 & WCR-911	720.0	0.0	0.0	63.7	12.3	165
				210.0	209.8	81.0	12:5	194
				0.0	0.0	72.9	12.0	194
17	CUV #2	WCR-924 & WCR-926	480.0	0.0	0.0	58.7	12.2	165
18	CUV #2	WCR-925 & WCR-927	480.0	0.0	0.0	58.7	12.3	165
19	CUV #3	WCR-928 & WCR-930	480.0	50.0	50.6	61.7	12.2	165
20	CUV #3	WCR-929 & WCR-931	480.0	120.0	121.3	62.7	12.2	165
21	RCP #2	WCR-942 & WCR-946	360.0	0.0	0.0	71.9	12.4	193
22	RCP #2	WCR-952 & WCR-956	360.0	0.0	0.0	70.8	12.4	193
23	RCP #3	WCR-943 & WCR-947	360.0	0.0	0.0	71.9	12.5	193
24	RCP #3	WCR-953 & WCR-957	360.0	0.0	0.0	70.8	12.5	193

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
25	INST. RM. EAST	WCR-960 & WCR-962	240.0	0.0	0.0	78.0	12.1	194
26	INST. RM. EAST	WCR-961 & WCR-963	240.0	0.0	0.0	76.9	12.0	194
27	INST. RM. WEST	WCR-964 & WCR-966	240.0	0.0	0.0	74.9	12.0	194
28	INST. RM. WEST	WCR-965 & WCR-967	240.0	0.0	0.0	74.9	12.3	194
29	INST. RM. VENT. SUPPLY	VCR-101 & VCR-201	1680.0	380.0	382.6	66.7	12.2	194
30	INST. RM. VENT. SUPPLY	VCR-102 & VCR-202	1680.0	1000.0	1005.0	66.7	12.1	194
31	LOWER VENT. SUPPLY	VCR-103 & VCR-203	2880.0	6500.0	6475.6	76.0	12.1	193
				7000.0	6981.2	72.9	12.0	194
				180.0	181.4	65.7	12.2	165
				60.0	60.1	76.9	12.4	194
32	LOWER VENT. EXH.	VCR-104 & VCR-204	3600.0	0.0	0.0	76.0	12.1	193
				650.0	655.1	65.7	12.2	165
				500.0	501.1	67.7	12.0	165
33	UPPER VENT. SUPPLY	VCR-105 & VCR-205	3600.0	99999.9	*******	69.7	12.2	165
				260.0	263.0	65.7	12.4	165
34	UPPER VENT. EXH.	VCR-106 & VCR-206	2880.0	3.0	3.0	77.0	12.1	193
35	PRESS. EQUALIZATION	VCR-107 & VCR-207	1440.0	0.0	0.0	78.0	12.1	193
				5.0	5.0	79.0	12.2	194

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
36	HYDROGEN RETURN LINE ECR-10 & ECR-20	60.0	0.0	0.0	63.7	12.0	165
37	ESR-1 ECR-11 & ECR 21	60.0	0.0	0.0	75.9	12.0	194
38	ESR-2 ECR-12 & ECR 22	60.0	0.0	0.0	75.9	12.4	194
39	ESR-3 ECR-13 & ECR 23	60.0	0.0	0.0	76.9	12.5	194
40	ESR-4 ECR-14 & ECR 24	60.0	0.0	0.0	66.7	12.2	165
41	ESR-5 ECR-15 & ECR 25	60.0	0.0	0.0	75.9	12.0	194
42	ESR-6 ECR-16 & ECR 26	60.0	0.0	0.0	64.7	12.1	165
43	ESR-7 ECR-17 & ECR 27	60.0	0.0	0.0	63.7	12.4	165
44	ESR-8 ECR-18 & ECR 28	60.0	0.0	0.0	63.7	12.2	165
45	ESR-9 ECR-19 & ECR 29	60.0	0.0	0.0	63.7	12.0	165
46	RCP #1 SEAL WATER CS-442-1	120.0	0.0	0.0	69.8	12.3	193
47	RCP #4 SEAL WATER CS-442-4	120.0	0.0	0.0	69.8	12.3	193

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
48	RCP #2 SEAL WATER CS-442-2	120.0	0.0	0.0	69.8	12.1	193
49	RCP #3 SEAL WATER CS-442-3	120.0	0.0	0.0	70.8	12.4	193
50	RELIEF VALVE HEADER TO PRT	120.0	18000.0	18002.2	71.9	12.1	193
			155.0	156.7	64.5	12.3	193
51	AIR PART. RAD GAS MONITOR SM-1	60.0	19000.0	19128.6	68.8	12.3	194
			50.0	49.9	72.9	12.0	193
52	NITROGEN TO ACCUMULATORS N-102	60.0	280.0	281.9	70.8	12.4	193
53	NITROGEN TO PRT N-159	45.0	460.0	463.6	67.7	12.3	193
			310.0	315.8	60.3	12.5	193
			1280.0	1294.8	67.7	12.5	193
			670.0	671.5	67.7	12.0	193
			9000.0	9053.7	67.7	12.2	193
			22000.0	21983.3	70.8	12.0	193
			46200.0	46687.6	68.7	12.5	193
			30.0	29.9	72.9	12.0	193
54	PRIMARY WATER TO PRT PW-275	180.0	0.0	0.0	74.0	12.3	193
55	CHARGING TO REGEN. HX. CS-321	180.0	1250.0	1264.6	65.6	12.4	193
56	DEAD WEIGHT CALIBRATOR NPX-151-V1	30.0	0.0	0.0	77.0	12.1	193
57	GLYCOL SUPPLY VCR-10 & VCR-11	480.0	15.0	21.2	60.7	37.8	165

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
58	GLYCOL RETURN VCR-20 & VCR-21	480.0	2.0	2.4	61.7	24.5	165
59	RCDT VENT HEADER DCR-203 & DCR-207	120.0	0.0	0.0	56.7	12.5	165
60	RCDT VENT HEADER N-160 & DCR-201	120.0	120.0	122.2	56.7	12.3	165
61	I/C AHU DRAIN HDR. DCR-610 & DCR-611	300.0	0.0	0.0	55.6	12.5	165
			0.0	0.0	58.7	12.4	165
62	CLV AND CUV DRAIN HDR. DCR-620 & DCR-621	120.0	66500.0	67849.3	58.7	12.5	165
			68200.0	69590.9	56.7	12.4	165
			14400.0	14440.1	76.9	12.5	194
			2400.0	2406.0	71.3	12.2	194
			4800.0	4805.3	70.8	12.1	194
			1550.0	1551.8	68.8	12.0	194
			1350.0	1350.3	69.8	12.0	194
			560.0	561.2	69.8	12.1	194
			3900.0	3882.1	74.9	12.0	194
			70.0	70.0	75.9	12.3	194
63	RCDT DRAIN HDR. DCR-205 & DCR-206	480.0	3200.0	3243.5	61.7	12.3	165
			0.0	0.0	60.7	12.5	165
64	CONT. SUMP TO HUT DCR-600 & DCR-601	360.0	0.0	0.0	65.7	12.3	165
			0.0	0.0	60.7	12.1	165
65	LETDOWN QCR-300	120.0	0.0	0.0	66.7	12.3	165
			0.0	0.0	60.7	12.5	165
66	LETDOWN QCR-301	120.0	0.0	0.0	66.7	12.3	165

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
67	RCP SEAL WATER RETURN	QCM-250 & QCM-350	480.0	150.0	151.6	62.7	12.2	165
68	RHR RECIRC. 'E'	ICM-305	1080.0	1700.0	1713.3	65.7	12.2	165
69	RHR RECIRC. 'W'	ICM-306	1080.0	3400.0	3413.9	65.7	12.0	165
				0.0	0.0	68.8	12.5	194
70	PW FOR RX CAV. SCRUB	QCR-919 & QCR-920	120.0	0.0	0.0	65.7	12.4	165
71	REFUEL. WATER TO RX CAV.	SF-151 & SF-153	300.0	0.0	0.0	58.7	12.0	165
72	REFUEL CAV. DRAIN	SF-159 & SF-160	360.0	76000.0	76668.6	64.7	12.2	165
				0.0	0.0	71.8	12.5	194
73	HOT LEG SAMPLES	NCR-105 & NCR-106	60.0	0.0	0.0	66.7	12.2	165
74	PRESS. LIQ. SAMPLES	NCR-107 & NCR-108	60.0	0.0	0.0	66.7	12.1	165
75	STEAM SAMPLE	NCR-109 & NCR-110	60.0	0.0	0.0	66.7	12.1	165
76	RCDT SAMPLE	RCR-100 & RCR-101	60.0	0.0	0.0	65.7	12.2	165
77	PRT SAMPLE	DCR-202 & DCR-204	60.0	0.0	0.0	62.7	12.4	165
78	ACCUM. SAMPLE	ICR-5 & ICR-6	60.0	0.0	0.0	74.0	12.4	193

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
79	AIR PART. RAD. GAS MON.	ECR-33 & ECR-35	60.0	750.0	762.4	58.7	12.3	165
				4000.0	4011.9	70.8	12.2	194
				600.0	603.0	66.7	12.1	194
				90.0	90.6	66.7	12.2	194
				180.0	180.2	68.8	12.0	194
				40.0	40.4	69.8	12.5	194
80	NORTH SI DISCH.	ICM-260	240.0	400.0	400.4	75.0	12.3	193
				19000.0	18805.6	81.0	12.0	194
				150.0	149.2	84.1	12.4	194
				30.0	29.7	84.1	12.1	194
81	SOUTH SI DISCH.	ICM-265	240.0	0.0	0.0	72.9	12.4	193
82	AIR PART. RAD GAS MON.	ECR-31 & ECR-32	120.0	500.0	502.0	69.7	12.2	165
				37500.0	37435.4	71.8	12.0	194
				25500.0	25480.5	70.8	12.0	194
				3700.0	3672.5	80.0	12.1	194
				20000.0	20294.6	56.7	12.1	165
				24000.0	23983.5	70.7	12.0	165
				1000.0	1003.0	70.7	12.2	165
				720.0	722.9	65.7	12.0	165
				40.0	39.9	75.0	12.1	193
83	CONTROL AIR TO CONT.	XCR-100 & XCR-101	120.0	60.0	60.2	70.8	12.2	193
84	CONTROL AIR TO CONT.	XCR-102 & XCR-103	120.0	1100.0	1114.0	60.7	12.2	165
				0.0	0.0	59.7	12.5	165
85	NITROGEN TO PRT	GCR-301	45.0	0.0	0.0	64.5	12.3	193
86	NITROGEN TO ACCUM.	GCR-314	60.0	0.0	0.0	62.7	12.5	165

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
87	SAFETY INJ. TEST LINE SI-171,172,194	60.0	0.0	0.0	62.7	12.1	165
88	PW TO PRT NCR-252	180.0	0.0	0.0	66.7	12.5	165
89	RCP OIL CLRS. CCW CCM-452,454,458	1200.0	380.0	383.4	60.7	12.0	165
90	RCP OIL CLRS. CCW CCM-451,453,459	1200.0	60000.0	60535.0	60.7	12.0	165
			1550.0	1551.8	68.8	12.0	194
91	EXCESS LETDOWN HX CCW CCR-460 & CCR-462	360.0	120.0	121.1	60.7	12.0	165
92	RX SUPPORTS CCW CCR-457 & CCW-135	240.0	640.0	640.7	70.8	12.1	193
			80.0	80.8	67.8	12.4	194
93	RX SUPPORTS CCW CCR-455 & CCR-456	240.0	280.0	281.9	70.8	12.4	193
94	GRAB SAMPLE SM-4 & SM-6	60.0	0.0	0.0	76.0	12.0	193
95	CONT. PRESS. ALARM PPP-300	0.0	0.0	0.0	74.9	12.3	194
96	CONT. PRESS. ALARM PPP-301	0.0	0.0	0.0	74.9	12.5	194
97	CONT. PRESS. ALARM PPP-302	0.0	0.0	0.0	74.9	12.3	194
98	CONT. PRESS. ALARM PPP-303	0.0	37500.0	37537.2	74.9	12.3	194
			0.0	0.0	70.8	12.2	194

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
99	CONT. PRESS. ALARM PPA-310 & PPA-311	0.0	0.0	0.0	63.7	12.4	165
100	CONT. PRESS. ALARM PPA-312 & PPA-313	0.0	0.0	0.0	62.7	12.2	165
101	BORON INJECTION ICM-251	240.0	50.0	50.3	64.7	12.1	165
102	BORON INJECTION ICM-250	240.0	60.0	60.4	64.7	12.1	165
103	WELD CHANNEL PRESS. CA-181S	30.0	0.0	0.0	77.0	12.5	193
104	WELD CHANNEL PRESS. CA-181N	30.0	0.0	0.0	77.0	12.3	193
105	GRAB SAMPLE SM-8 & SM-10	60.0	20.0	19.9	75.0	12.1	193
106	CPN COILS 265 CCW CCW-243-25	60.0	650.0	656.3	65.7	12.3	194
			22000.0	22068.1	68.7	12.1	193
			10.0	10.1	70.8	12.4	193
107	CPN COILS 265 CCW CCW-244-25	60.0	50.0	50.6	64.7	12.4	194
108	CPN COILS 364 CCW CCW-243-72	60.0	0.0	0.0	69.8	12.1	193
109	CPN COILS 364 CCW CCW-244-72	60.0	700.0	702.8	69.8	12.2	193
			350.0	352.5	64.5	12.1	193
110	CCW TO CEQ-1 CCM-430	90.0	40.0	40.6	58.7	12.2	165

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
111	CCW FROM CEQ-1 CCM-431	90.0	0.0	0.0	58.7	12.1	165
112	CPN COILS 2&5 CCW CCR-440	90.0	0.0	0.0	54.6	12.4	165
113	CCW TO CEQ-2 CCM-432	90.0	0.0	0.0	75.0	12.2	193
114	CCW TO CEQ-2 CCM-433	90.0	0.0	0.0	75.0	12.3	193
115	CPN COILS 3&4 CCW CCR-441	90.0	40.0	40.6	60.7	12.3	165
116	GLYCOL SUPPLY EXPANSION R-156 & R-159	60.0	0.0	0.0	61.7	12.3	165
117	GLYCOL RETURN EXPANSION R-157 & R-158	60.0	0.0	0.0	60.7	12.2	165
118	POST ACC. SAMPLE RET. NS-357	15.0	25000.0	25170.8	68.7	12.3	193
			4500.0	4566.4	62.4	12.4	193
			19000.0	19023.2	68.7	12.0	193
			1925.0	1935.0	64.5	12.0	193
			200.0	200.2	68.7	12.0	193
			60.0	60.2	72.9	12.3	193
119	POST ACC. SAMPLE RET. ECR-496 & ECR-497	15.0	0.0	0.0	66.7	12.5	165
120	POST ACC. SAMPLE SUPPLY ECR-416	15.0	0.0	0.0	76.9	12.5	194
121	POST ACC. SAMPLE SUPPLY ECR-417	15.0	400.0	401.5	71.8	12.3	194
			0.0	0.0	70.8	12.4	194

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
122	CONTAINMENT SAMPLING	ECP-535	30.0	0.0	0.0	70.8	12.2	193
123	CONTAINMENT SAMPLING	ECR-536	30.0	15.0	15.1	71.9	12.3	193
124	LOWER RMS RETURN	ECR-36	120.0	0.0	0.0	60.7	12.5	165
125	PLANT AIR TO CONT	PCR-40	120.0	2.0	2.0	71.9	12.4	193
126	PLANT AIR TO CONT	CHECK VALVE PA-343	120.0	360.0	361.7	70.8	12.3	194
127	H2 SAMPLE RETURN LINE	CHK VLV NS-283	60.0	0.0	0.0	67.7	12.5	193

********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********
TYPE "B" AND "C" LEAK RATE TEST - CONTAINMENT ISOLATION VALVES

TYPE "B" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
1	612' AIRLOCK	5511.0	50.0	50.0	72.0	12.1	194
2	650' AIRLOCK	5511.0	760.0	754.3	78.0	12.0	194
3	ZONE 3 PENETRATIONS	1173.0	0.0	0.0	75.0	12.5	193
			80.0	80.2	70.7	12.2	165
4	ZONE 4 PENETRATIONS	1173.0	0.0	0.0	66.7	12.0	165
			230.0	229.1	74.0	12.0	193
			0.0	0.0	62.4	12.2	193
5	FUEL TRANSFER BLIND FLANGE	1200.0	0.0	0.0	72.9	12.4	193
			0.0	0.0	70.7	12.4	165
6	PLANT AIR TO CON. BLIND FLANGE & PA-145	1200.0	0.0	0.0	72.9	12.3	193
			20.0	20.2	62.7	12.2	165
			0.0	0.0	62.7	12.1	165
7	ICE LOADING BLIND FLANGE CPN-57	480.0	0.0	0.0	77.0	12.3	193
			0.0	0.0	78.0	12.2	193
8	ICE LOADING BLIND FLANGE CPN-80	720.0	0.0	0.0	77.0	12.3	193
			60.0	59.8	78.0	12.2	193
			0.0	0.0	79.0	12.4	193
9	FLUX THIMBLE FLANGE	960.0	0.0	0.0	82.0	12.4	193
			60.0	61.1	58.7	12.4	165
10	650' EQUIP. HATCH RING BODY FLANGE SEAL	55.0	0.0	0.0	72.9	12.5	193
			0.0	0.0	82.0	12.1	194

TYPE "B" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
11	650' AIRLOCK EQUIP. HATCH COVER FLG SEAL	55.0	0.0	0.0	72.9	12.5	193
			0.0	0.0	82.0	12.1	194

TABLE H-2

AS-FOUND AND AS-LEFT LEAKAGES FOR VALVES IN EXCESS OF GUIDLINE

	VOLUME DESCRIPTION	LEAKAGE GUIDELINE (SCCM)	LEAKAGE AS FOUND (SCCM)	LEAKAGE AS LEFT (SCCM)
*Lower Vent. Supply	VCR-103 & VCR-203	2880.00	6475.61	60.06
*Upper Vent. Supply	VCR-105 & VCR-205	3600.00	*******	263.01
*Relief Valve Header to PRT	SI-189	120.00	18002.23	156.68
*Air Part. Rad Gas Monitor	SM-1	60.00	19128.63	49.86
Nitrogen to Accumulators	N-102	60.00	281.88	281.88
*Nitrogen to PRT	N-159	45.00	463.60	29.92
Charging to Regen. HX.	CS-321	180.00	1264.64	1264.64
RCDT Vent. Header	N-160 & DCR-201	120.00	122.22	122.22
CLV & CUV Drain HDR.	DCR-620 & DCR-621	120.00	67849.31	70.00
*RCDT Drain HDR.	DCR-205 & DCR-206 DPX-205	480.00	3243.49	0.0
RHR RECIRC. 'E'	ICM-305	1080.00	1713.32	1713.32
*RHR RECIRC. 'W'	ICM-306	1080.00	3413.87	0.0

NOTE: Underlined valves are the repaired valves.

Table H-2 continued

	VOLUME DESCRIPTION	LEAKAGE GUIDELINE (SCCM)	LEAKAGE AS FOUND (SCCM)	LEAKAGE AS LEFT (SCCM)
*Refuel Cav. Drain	SF-159 & SF-160	360.00	76668.56	0.0
*Air Part. RaD. Gas Mun.	ECR-33 & ECR-35	60.00	762.40	40.38
*North SI Disch.	ICM-260 & IPX-260	240.00	400.36	29.66
*Air Part. Rad Gas Mon.	ECR-31 & ECR-32	120.00	502.00	39.89
*Control Air to Cont.	XCR-102 & XCR-103	120.00	1113.96	0.0
*RCP Oil CLRS. CCW	CCM-451, 453,459	1200.00	60534.95	1551.80
*Rx Supports CCW	CCR-457 & CCW-135	240.00	640.71	80.77
RX Supports CCW	CCR-455 & CCR-456	240.00	281.88	281.88
*Cont. Press. Alarm	PPP-303	0.0	37537.23	0.0
*CPN Coils 2&5 CCW	CCW-243-25	60.00	656.30	10.07
*CPN Coils 3&4 CCW	CCW-244-72	60.00	702.78	352.48
*Post ACC. Sample RET.	NS-357	15.00	25170.8	60.2
Plant Air to Cont. Check Valve	PA-343	120.00	361.7	361.7
*Post Acc. Sample Supply	ECR-417	15.0	401.5	0.0

NOTE: Underlined valves are the repaired valves.

TABLE H-3

CORRECTIVE ACTIONS TAKEN FOR REPAIRED CONTAINMENT ISOLATION VALVES

Valve	Volume Description	J.O.#	Corrective Action
VCR-203	Lower Vent Purge Supply	97833	Replaced dowel pin per RFC 2877, Replaced seal ring, stem bushing, packing, lapped seat
VCR-105	Upper Vent. Purge Supply	88646	Floated seal ring
SI-189	Relief Valve Hdr to PRT	97847	Cleaned valve, blued seat to disc to verify fit
SM-1	Air Part. Rad Gas Monitor	97832	Cleaned, lapped seat and disc, replaced gaskets
N-159	Nitrogen to PRT	97848	Replaced valve
DCR-620 & DCR-621	CLV & CUV Drain Header	98023	Cleaned valve, replaced seats, plugs, gaskets,lapped seats
DPX-205	LRM Test Connection to RCDT Drain HDR.	97849	Cleaned valve
ICM-306	RHR "W" Recirc	98026	Cleaned valve and replaced gaskets
SF-160	Refuel Cavity Drain	98027	Cleaned valve, replaced diaphragm as a precaution, replaced gaskets
ECR-33 & ECR-35	Air Part Rad Gas Monitor	97829	Cleaned both valves, replaced gaskets, replaced diaphragm in ECR-33
IPX-260	LRM Test Connection to N. SI Discharge	97834	Repacked valve, cleaned valve

TABLE H-3 Continued

Valve	Volume Description	J.O.#	Corrective Action
ECR-31 & ECR-32	Air Part RAD Gas Monitor	97830	Replaced stems, seats, plugs, gaskets and cages, Lapped seats
XCR-103	Control Air to Cont.	98024	Cleaned valve and replaced gaskets
CCM-451	RCP Oil CLRS. CCW	97850	Rubber seat was distorted replaced valve
CCW-135	Rx Supports CCW	97837	Cleaned and blued valve seat
PPP-303	Cont. Press. Alarm	97846	Cleaned valve, replaced gaskets and valve bonnet
CCW-243-25	CPN Coils 2&5 CCW	98025	Cleaned valve
CCW-244-72	CPN Coils 3&4 CCW	97851	Cleaned valve, lapped seat, installed new gaskets.
NS-357	Post ACC Sampl. Ret.	97845	Cleaned valve, replaced disc
ECR-417	Post ACC Sampl. Supply	97844	Valve cleaned, plug was lapped replaced gaskets and packing

TABLE H-4

Type B and C As-Left Test Results Summary

(Leakage Expressed as a Fraction of La)

TEST DATE	TYPE B	TYPE C	TYPE B&C
Allowable	0.147	0.443	0.6
June 1981	0.0050	0.2022	0.2072
July 1982	0.0617	0.0661	0.1278
July 1983	0.0120	0.2015	0.2135
April 1985	0.0086	0.0936	0.1022

TABLE H-5

Unit #1 - Leak Rate Test Failures

Valve	76	77	78	79	80	81	82	83	85
NSW-415-1	X	XD		X	X	XD			
NSW-415-2	X	XD		X	X	XD			
NSW-415-3	X	XD		X	X	XD			
NSW-415-4	X	XD		X		XD			
NSW-417-3	X	XD	X			XD			
NSW-417-4	X	XD	X	X		XD			
NSW-419-1		XD		X	X	XD			
NSW-419-2		D	X	X	X	D			
NSW-419-3		XD	X	X	X	XD			
NSW-419-4		D				XD			
NSW-244-1	X	XD		X	X	XD			
NSW-244-2	X	XD		X	X	XD			
NSW-244-3	X	XD		X	X	XD			
NSW-244-4	X	XD		X	X	XD			
WCR-902			X			D			
WCR-903						XD			
WCR-905	X	X	X			XD			
WCR-906		X		X	X	XD			

TABLE H-5 (cont'd)

Valve	76	77	78	79	80	81	82	83	85
WCR-907				X	X	D			
WCR-909				X		XD			
WCR-910				X		XD			
WCR-911				X		XD			
WCR-913				X	X	XD			
WCR-914			X	X	X	XD			
WCR-915					X	XD			
WCR-921	X				X	XD			
WCR-922	X	X	X	X	X	XD			
WCR-923						XD			
WCR-925					X	D			
WCR-926				X	X	D			
WCR-929						XD			
WCR-930				X		D			
WCR-931						XD			
WCR-933						XD			
WCR-934				X		XD			
WCR-935						XD			

TABLE H-5 (cont'd)

Valve	76	77	78	79	80	81	82	83	85
WCR-945					X	D			
WCR-946			X	X	X	XD			
WCR-947					X	XD			
WCR-958	X					XD			
WCR-965		X				XD			
WCR-966						XD			
WCR-967						XD			
VCR-103					X	XD			D
VCR-203					X	XD			XD
VCR-104		X	X	X		D			
VCR-204		X	X	X		D			D
VCR-105		X	X		X	D			X
VCR-205		X	X		X	D			
VCR-106	X	X	X			D			
VCR-206	X	X	X			D			
VCR-10				X					
VCR-11				X					
VCR-20				X					
VCR-21				X					

TABLE H-5(cont'd)

Valve	76	77	78	79	80	81	82	83	85
ECR-15	X		X						
* ECR-31		X	X	X					XR
* ECR-32		X		X					XR
ECR-33				X					X
DCR-611							X		
* DCR-620		X		X		X			XR
* DCR-621	X	X		X	X	X			XR
DCR-205				X				X	
DCR-206				X				X	
NCR-105	X								
NCR-106	X								
NCR-252						X			
XCR-101		X	X						
XCR-102					X				
XCR-103							X		X
* XCR-100		X	X		X				
GCR-314	X								
GCR-301						X			
* CA-181-N						X	X	X	

TABLE II-5 (cont'd)

Valve	76	77	78	79	80	81	82	83	85
CA-181-S								X	
* SI-189	X			X			X		X
ICM-260		X							
ICM-265						X			
ICM-306								X	X
CCR-457							X		X
CCR-460						X			
CCR-462						X			
* CCW-135					X		X		X
CCR-440					X				
CCR-441					X				
CCW-243-72					X		X		
CCW-244-72					X				
CCW-243-25									X
R-156				X					
R-159				X					
R-157				X					
R-158				X					
N-102	X			X					

TABLE H-5 (cont'd)

Valve	76	77	78	79	80	81	82	83	85
* N-159		X		X	X				XR
N-160						X	XR	XP	
QCM-250							X		
QCM-350							X		
SF-159							X		
SF-160							X		X
CS-321				X					
CS-442-3								X	
DW-275				X					
PPP-303									X
NS-357									X
* SM-1	X			X			X		X
SM-2					X				

NOTE: X Denotes valve repaired
R Denotes valve replaced or valve internals replaced
D Denotes valve replaced with valve of different design or design change to existing valve
P Denotes change to piping
* Denotes problem valves

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP		DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRD
1	CLV #1	WCR-900 & WCR-902	720.0	0.0	0.0	78.0	12.4	193
2	CLV #1	WCR-901 & WCR-903	720.0	660.0	655.7	77.0	12.0	193
3	CLV #4	WCR-912 & WCR-914	720.0	0.0	0.0	77.0	12.1	193
4	CLV #4	WCR-913 & WCR-915	720.0	0.0	0.0	77.0	12.1	193
5	CUV #1	WCR-920 & WCR-922	480.0	80.0	80.0	80.0	12.5	193
6	CUV #1	WCR-921 & WCR-923	480.0	0.0	0.0	80.0	12.5	193
7	CUV #4	WCR-932 & WCR-934	480.0	300.0	295.3	86.9	12.0	193
8	CUV #4	WCR-933 & WCR-935	480.0	200.0	197.1	85.9	12.0	193
9	RCP #1	WCR-941 & WCR-945	360.0	0.0	0.0	85.9	12.5	193
10	RCP #1	WCR-951 & WCR-955	360.0	0.0	0.0	85.9	12.4	193
11	RCP #4	WCR-944 & WCR-948	360.0	30.0	29.6	85.9	12.1	193
12	RCP #4	WCR-954 & WCR-958	360.0	20.0	19.8	85.9	12.2	193

[illegible] U. S. CODE [illegible] UNIT NO. [illegible]
TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1983 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP		DESCRIPTION	GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM	
13	CLV #2	WCR-904 & WCR-906	720.0	0.0	0.0	83.9	12.5	193	
14	CLV #2	WCR-905 & WCR-907	720.0	0.0	0.0	84.9	12.4	193	,
15	CLV #3	WCR-908 & WCR-910	720.0	20.0	20.1	75.0	12.5	193	,
16	CLV #3	WCR-909 & WCR-911	720.0	40.0	39.9	75.0	12.1	193	,
17	CUV #2	WCR-924 & WCR-926	480.0	0.0	0.0	83.3	12.3	194	,
18	CUV #2	WCR-925 & WCR-927	480.0	0.0	0.0	82.2	12.1	194	,
19	CUV #3	WCR-928 & WCR-930	480.0	200.0	198.0	82.9	12.1	193	
20	CUV #3	WCR-929 & WCR-931	480.0	180.0	178.8	82.9	12.3	193	
21	RCP #2	WCR-942 & WCR-946	360.0	0.0	0.0	83.9	12.3	193	
22	RCP #2	WCR-952 & WCR-956	360.0	0.0	0.0	83.9	12.5	193	,
23	RCP #3	WCR-943 & WCR-947	360.0	10.0	9.9	82.2	12.1	194	,
24	RCP #3	WCR-953 & WCR-957	360.0	0.0	0.0	82.2	12.5	194	,

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LPM
25	INST. RM. EAST	VCR-960 & VCR-966	240.0	50.0	49.7	83.9	12.4	193
26	INST. RM. EAST	VCR-961 & VCR-963	240.0	50.0	49.7	83.9	12.4	193
27	INST. RM. WEST	VCR-964 & VCR-966	240.0	0.0	0.0	83.9	12.3	193
28	INST. RM. WEST	VCR-965 & VCR-967	240.0	0.0	0.0	85.9	12.5	193
29	INST. RM. VENT. SUPPLY	VCR-101 & VCR-201	1680.0	50.0	49.5	87.9	12.4	193
30	INST. RM. VENT. SUPPLY	VCR-102 & VCR-202	1680.0	300.0	297.5	81.0	12.1	193
31	LOWER VENT. SUPPLY	VCR-103 & VCR-203	2880.0	170.0	167.9	91.7	12.4	194
32	LOWER VENT. EXH.	VCR-104 & VCR-204	3600.0	270.0	267.1	91.7	12.5	194
33	UPPER VENT. SUPPLY	VCR-105 & VCR-205	3600.0	120.0	118.8	90.8	12.5	193
34	UPPER VENT. EXH.	VCR-106 & VCR-206	2880.0	130.0	128.2	90.8	12.3	193
35	PRESS. EQUALIZATION	VCR-107 & VCR-207	1440.0	100.0	99.2	88.9	12.5	193
36	HYDROGEN RETURN LINE	ECR-10 & ECR-20	60.0	20.0	19.8	81.0	12.1	193

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	L/M
37	ESR-1	FCR-11 & FCR 21	60.0	0.0	0.0	82.9	12.2	193
38	ESR-2	FCR-12 & FCR 22	60.0	0.0	0.0	82.9	12.2	193
39	ESR-3	FCR-13 & FCR 23	60.0	0.0	0.0	82.9	12.2	193
40	ESR-4	FCR-14 & FCR 24	60.0	0.0	0.0	82.9	12.2	193
41	ESR-5	FCR-15 & FCR 25	60.0	0.0	0.0	82.9	12.2	193
42	ESR-6	FCR-16 & FCR 26	60.0	0.0	0.0	81.9	12.2	193
43	ESR-7	FCR-17 & FCR 27	60.0	0.0	0.0	82.9	12.2	193
44	ESR-8	FCR-18 & FCR 28	60.0	0.0	0.0	81.9	12.4	193
45	ESR-9	FCR-19 & FCR 29	60.0	0.0	0.0	81.9	12.4	193
46	RCP #1 SEAL WATER	CS-442-1	120.0	0.0	0.0	84.2	12.0	165
47	RCP #4 SEAL WATER	CS-442-4	120.0	0.0	0.0	83.1	12.1	165
48	RCP #2 SEAL WATER	CS-442-2	120.0	0.0	0.0	85.2	12.3	165

TYPE "C" DATA TABULATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LBM
49	RCP #3 SEAL WATER	CS-442-1	120.0	12000.0	11909.1	84.2	12.3	165
				0.0	0.0	82.1	12.5	165
50	RELIEF VALVE HEADER TO PRT	SI-169	120.0	280.0	278.7	83.1	12.4	165
51	AIR PART. RAD GAS MONITOR	SM-1	60.0	0.0	0.0	77.0	12.0	165
52	NITROGEN TO ACCUMULATORS	N-102	60.0	1500.0	1485.9	84.2	12.2	165
53	NITROGEN TO PRT	N-159	45.0	500.0	493.4	84.2	12.0	165
54	PRIMARY WATER TO PRT	PW-275	180.0	0.0	0.0	84.2	12.5	165
55	CHARGING TO REGEN. HX.	CS-321	180.0	100.0	100.0	80.1	12.5	165
56	DEAD WEIGHT CALIBRATOR	RPX-151-V1	30.0	380.0	376.9	82.9	12.2	193
57	GLYCOL SUPPLY	VCR-10 & VCR-11	480.0	65.0	64.5	78.0	12.0	165
58	GLYCOL RETURN	VCR-20 & VCR-21	480.0	0.0	0.0	90.0	12.5	193
59	RCDT VENT HEADER	DCR-203 & DCR-401	120.0	0.0	0.0	85.4	12.0	194
60	RCDT VENT HEADER	N-160 & DCR-201	120.0	15000.0	14786.8	85.4	12.0	194
				650.0	650.6	77.0	12.4	165

[redacted] H. B. Robinson Steam Electric Plant, Unit No. 2 [redacted]
TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1981 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LPM
61	ICE COND. AND DRAIN HDR. HCR-611	300.0	0.0	0.0	86.4	12.3	194
62	CLV AND CUV DRAIN HDR. HCR-620 & HCR-621	120.0	0.0	0.0	86.4	12.5	194
63	RCDT DRAIN HDR. HCR-205 & HCR-206	480.0	3000.0 180.0	2968.4 178.0	85.4 82.2	12.2 12.0	194 194
64	CONT. SUMP TO HUT HCR-600 & HCR-601	360.0	0.0	0.0	85.4	12.2	194
65	LETDOWN HCP-100	120.0	320.0	315.4	87.5	12.1	194
66	LETDOWN HCR-301	120.0	0.0	0.0	86.4	12.5	194
67	RCP SEAL WATER RETURN HCR-250 & HCM-350	480.0	50.0	49.5	85.4	12.2	194
68	RHR RECIRC. "B" HCM-305	1080.0	460.0	459.6	70.9	12.0	165
69	RHR RECIRC. "A" HCM-306	1080.0	6000.0	5886.1	94.8	12.2	194
70	PW FOR RX CAV. SCRUB HCR-919 & HCR-920	120.0	0.0	0.0	81.0	12.5	193
71	REFUEL. WATER TO RX CAV. SI-152 & SI-154	300.0	110.0	108.2	95.9	12.4	194
72	REFUEL CAV. DRAIN SI-159 & SI-160	360.0	75.0	73.5	95.9	12.2	194

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LBH
73	HOT LEG SAMPLES	HCR-105 & HCR-106	60.0	0.0	0.0	83.3	12.5	194
74	PRESS. LIQ. SAMPLES	HCR-107 & HCR-108	60.0	0.0	0.0	85.4	12.2	194
75	STEAM SAMPLE	HCR-109 & HCR-110	60.0	0.0	0.0	85.4	12.0	194
76	RCDT SAMPLE	RCR-100 & RCR-101	60.0	0.0	0.0	85.4	12.2	194
77	PRT SAMPLE	DCR-202 & DCR-204	60.0	0.0	0.0	79.1	12.4	194
78	ACCUM. SAMPLE	ICR-5 & ICR-6	60.0	0.0	0.0	84.3	12.5	194
79	LOWER CONT. HDR.	ECR-33 & ECR-35	180.0	550.0	543.2	83.3	12.0	194
80	NORTH SI DISCH.	ICM-260	240.0	60.0	59.5	84.9	12.3	193
81	SOUTH SI DISCH.	ICM-265	240.0	0.0	0.0	84.9	12.3	193
82	AIR PART. RAD GAS MON.	ECR-31 & ECR-32	120.0	750.0	740.8	83.3	12.0	194
83	CONTROL AIR TO CONT.	XCR-100 & XCR-101	120.0	200.0	198.7	81.0	12.2	193
84	CONTROL AIR TO CONT.	XCR-102 & XCR-103	120.0	440.0	437.2	81.0	12.2	193

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LAM
85	NITROGEN TO PRT	GCR-101	45.0	0.0	0.0	83.3	12.4	194
86	NITROGEN TO ACCUM.	GCR-314	60.0	0.0	0.0	83.3	12.4	194
87	SAFETY INJ. TEST LINE	SI-171,172,194	270.0	0.0	0.0	85.9	12.3	191
88	PX TO PRT	RCP-252	180.0	0.0	0.0	84.3	12.2	194
89	RCP OIL CLRS. CCW	CCW-452,454,456	1200.0	610.0	624.2	85.9	12.3	193
90	RCP OIL CLRS. CCW	CCW-451,453,459	1200.0	3400.0	3350.1	85.9	12.0	193
91	EXCESS LETDOWN HX CCW	CCR-460 & CCR-462	360.0	360.0	355.0	84.9	12.0	193
92	RX SUPPORTS CCW	CCP-467 & CCW-135	240.0	50.0	49.1	94.8	12.2	194
93	RX SUPPORTS CCW	CCP-455 & CCR-456	240.0	60.0	58.9	95.9	12.3	194
94	GRAB SAMPLE	SM-4 & SM-6	60.0	0.0	0.0	78.0	12.5	193
95	CONT. PRESS. ALARM	PPP-100	0.0	0.0	0.0	79.0	12.1	193
96	CONT. PRESS. ALARM	PPP-101	0.0	0.0	0.0	79.0	12.0	193

TYPE "C" DATA PRESENTATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
97	CONT. PRESS. ALARM	PPP-102	0.0	120.0	119.9	79.0	12.4	193
98	CONT. PRESS. ALARM	PPP-103	0.0	0.0	0.0	79.0	12.3	193
99	CONT. PRESS. ALARM	PPA-310 & PPA-311	0.0	100.0	99.5	79.0	12.2	193
100	CONT. PRESS. ALARM	PPA-312 & PPA-313	0.0	0.0	0.0	79.0	12.2	193
101	BORON INJECTION	ICM-251	240.0	40.0	39.7	87.9	12.5	193
102	BORON INJECTION	ICM-250	240.0	0.0	0.0	88.9	12.4	193
103	WELD CHANNEL PRESS.	CA-181S	30.0	30000.0 1500.0	29560.0 1491.3	65.9 82.2	12.0 12.3	193 196
104	WELD CHANNEL PRESS.	CA-181H	30.0	28000.0 80.0	27589.3 79.4	85.9 84.3	12.0 12.3	193 196
105	GPAB SAMPLE	SM-8 & SM-10	60.0	40.0	39.6	90.8	12.5	193
106	CPN COILS 265 CCW	CCW-244-25	60.0	0.0	0.0	88.3	12.3	165
107	CPN COILS 265 CCW	CCW-244-25	60.0	70.0	69.2	88.3	12.3	165
108	CPN COILS 364 CCW	CCW-243-72	60.0	0.0	0.0	90.3	12.3	165

[illegible] D. C. COOK NUCLEAR PLANT, UNIT NO. 1 [illegible]
TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1981 OUTAGE

TYPE "C" DATA INFORMATION

COMPLETED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GOTTLIB LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
109	CPN COILS 3&4 CCW	CCW-244-72	60.0	260.0	256.1	90.3	12.2	165
110	CCW TO CEO-1	CCW-430	90.0	10.0	9.9	81.2	12.0	194
111	CCW FROM CEO-1	CCW-431	90.0	0.0	0.0	82.2	12.2	194
112	CPN COILS 2&5 CCW	CCW-440	60.0	0.0	0.0	83.9	12.1	193
113	CCW TO CEO-2	CCW-432	90.0	0.0	0.0	82.9	12.4	193
114	CCW FROM CEO-2	CCW-433	90.0	0.0	0.0	82.9	12.4	193
115	CPN COILS 3&4 CCW	CCW-441	60.0	0.0	0.0	86.9	12.5	193
116	GLYCOL SUPPLY EXPANSION	R-156 & R-159	60.0	0.0	0.0	85.9	12.2	193
117	GLYCOL RETURN EXPANSION	R-157 & R-158	60.0	0.0	0.0	90.0	12.5	193
118	POST ACC. SAMPLE RET.	RS-357	15.0	100.0	99.4	82.1	12.3	165
119	POST ACC. SAMPLE RET.	ECR-496 & ECR-497	15.0	0.0	0.0	84.3	12.5	194
120	POST ACC. SAMPLE SUPPLY	ECR-416	15.0	0.0	0.0	81.2	12.4	194

TYPE "C" DATA TABULATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LPM
121	POST ACC. SAMPLE SUPPLY	FCR-417	15.0	0.0	0.0	81.2	12.5	194
122	CONTAINMENT SAMPLING	FCR-516	30.0	0.0	0.0	81.2	12.5	194
123	CONTAINMENT SAMPLING	FCR-516	30.0	0.0	0.0	81.2	12.5	194
124	LOWER RMS RETURN	FCR-36	120.0	0.0	0.0	83.3	12.5	194

TYPE "C" DATA INFORMATION:

COMPLETED TEST VOLUMES

TEST VOLUME	DESCRIPTION	GUIDELINE LEAKAGE	CORRECTED LEAKAGE	TOTAL NO WHEN VOLUME PASSED
1	CLV #1 WCR-900 & WCR-902	720.0	0.0	1
2	CLV #1 WCR-901 & WCR-903	720.0	655.7	1
3	CLV #4 WCR-912 & WCR-914	720.0	0.0	1
4	CLV #4 WCR-913 & WCR-915	720.0	0.0	1
5	CUV #1 WCR-920 & WCR-922	480.0	80.0	1
6	CUV #1 WCR-921 & WCR-923	480.0	0.0	1
7	CUV #4 WCR-932 & WCR-934	480.0	295.3	1
8	CUV #4 WCR-933 & WCR-935	480.0	197.1	1
9	RCP #1 WCR-941 & WCR-945	360.0	0.0	1
10	RCP #1 WCR-951 & WCR-955	360.0	0.0	1
11	RCP #4 WCR-944 & WCR-948	360.0	29.6	1
12	RCP #4 WCR-954 & WCR-958	360.0	19.8	1
13	CLV #2 WCR-904 & WCR-906	720.0	0.0	1
14	CLV #2 WCR-905 & WCR-907	720.0	0.0	1
15	CLV #3 WCR-908 & WCR-910	720.0	20.1	1
16	CLV #3 WCR-909 & WCR-911	720.0	39.9	1
17	CUV #2 WCR-924 & WCR-926	480.0	0.0	1
18	CUV #2 WCR-925 & WCR-927	480.0	0.0	1
19	CUV #3 WCR-928 & WCR-930	480.0	198.0	1
20	CUV #3 WCR-929 & WCR-931	480.0	178.8	1
21	RCP #2 WCR-942 & WCR-946	360.0	0.0	1
22	RCP #2 WCR-952 & WCR-956	360.0	0.0	1
23	RCP #3 WCR-943 & WCR-947	360.0	9.9	1
24	RCP #3 WCR-953 & WCR-957	360.0	0.0	1
25	INST. RM. EAST WCR-960 & WCR-962	240.0	49.7	1
26	INST. RM. EAST WCR-961 & WCR-963	240.0	49.7	1
27	INST. RM. WEST WCR-964 & WCR-966	240.0	0.0	1
28	INST. RM. WEST WCR-965 & WCR-967	240.0	0.0	1
29	INST. RM. VENT. SUPPLY VCR-101 & VCR-201	1680.0	49.5	1
30	INST. RM. VENT. SUPPLY VCR-102 & VCR-202	1680.0	297.5	1
31	LOWER VENT. SUPPLY VCR-103 & VCR-203	2880.0	167.9	1
32	LOWER VENT. EXH. VCR-104 & VCR-204	3600.0	267.1	1
33	UPPER VENT. SUPPLY VCR-105 & VCR-205	3600.0	118.8	1
34	UPPER VENT. EXH. VCR-106 & VCR-206	2880.0	128.2	1
35	PRESS. EQUALIZATION VCR-107 & VCR-207	1440.0	99.2	1
36	HYDROGEN RETURN LINE ECR-10 & ECR-20	60.0	19.8	1
37	ESR-1 ECR-11 & ECR 21	60.0	0.0	1
38	ESR-2 ECR-12 & ECR 22	60.0	0.0	1
39	ESR-3 ECR-13 & ECR 23	60.0	0.0	1
40	ESR-4 ECR-14 & ECR 24	60.0	0.0	1
41	ESR-5 ECR-15 & ECR 25	60.0	0.0	1
42	ESR-6 ECR-16 & ECR 26	60.0	0.0	1
43	ESR-7 ECR-17 & ECR 27	60.0	0.0	1

TYPE "C" DATA INFORMATION

COMPLETED TEST VOLUMES.

TEST VOLUME	DESCRIPTION	CORRECTED LEAKAGE	CORRECTED LEAKAGE	TRIAL NO WHEN VOLUME PASSED
44	ESR-8 ECR-18 & ECR 28	60.0	0.0	1
45	ESR-9 ECR-19 & ECR 29	60.0	0.0	1
46	RCP #1 SEAL WATER CS-442-1	120.0	0.0	1
47	RCP #4 SEAL WATER CS-442-4	120.0	0.0	1
48	RCP #2 SEAL WATER CS-442-2	120.0	0.0	1
49	RCP #3 SEAL WATER CS-442-3	120.0	0.0	2
50	RELIEF VALVE HEADER TO PRT SI-189	120.0	278.7	1
51	AIR PART. RAD GAS MONITOR SM-1	60.0	0.0	1
52	NITROGEN TO ACCUMULATORS N-162	60.0	1485.9	1
53	NITROGEN TO PRT N-159	45.0	493.4	1
54	PRIMARY WATER TO PRT PW-275	180.0	0.0	1
55	CHARGING TO REGEN. HX. CS-321	180.0	100.0	1
56	DEAD WEIGHT CALIBRATOR GPA-151-V1	30.0	376.9	1
57	GLYCOL SUPPLY VCR-10 & VCR-11	480.0	64.5	1
58	GLYCOL RETURN VCR-20 & VCR-21	480.0	0.0	1
59	RCDT VENT HEADER DCR-203 & DCR-207	120.0	0.0	1
60	PCDT VENT HEADER N-160 & DCR-201	120.0	650.6	2
61	ICE COND. AND DRAIN HDR. DCR-611	300.0	0.0	1
62	CLV AND CUV DRAIN HDR. DCR-620 & DCR-621	120.0	0.0	1
63	PCDT DRAIN HDR. DCR-205 & DCR-206	480.0	178.6	2
64	CONT. SUMP TO RHT DCR-600 & DCR-601	360.0	0.0	1
65	LETDOWN DCR-300	120.0	315.4	1
66	LETDOWN DCR-301	120.0	0.0	1
67	RCP SEAL WATER RETURN DCR-250 & DCR-350	480.0	49.5	1
68	RHR RECIRC. "B" ICR-305	1080.0	459.6	1
69	RHR RECIRC. "A" ICR-306	1080.0	5886.1	1
70	PW FOR RX CAV. SCRUB DCR-919 & DCR-920	120.0	0.0	1
71	REFUEL. WATER TO RX CAV. SF-152 & SF-154	300.0	108.2	1
72	REFUEL CAV. DRAIN SF-159 & SF-160	360.0	73.5	1
73	HOT LEG SAMPLES DCR-105 & DCR-106	60.0	0.0	1
74	PRESS. LIQ. SAMPLES DCR-107 & DCR-108	60.0	0.0	1
75	STEAM SAMPLE DCR-109 & DCR-110	60.0	0.0	1
76	RCDT SAMPLE DCR-100 & DCR-101	60.0	0.0	1
77	PRT SAMPLE DCR-202 & DCR-204	60.0	0.0	1
78	ACCUM. SAMPLE ICR-5 & ICR-6	60.0	0.0	1
79	LOWER CONT. PEN. ECR-33 & ECR-35	180.0	543.2	1
80	NORTH SI DISCH. ICM-260	240.0	59.5	1
81	SOUTH SI DISCH. ICM-265	240.0	0.0	1
82	AIR PART. RAD GAS MON. ECR-31 & ECR-32	120.0	740.8	1
83	CONTROL AIR TO CONT. XCR-100 & XCR-101	120.0	198.7	1
84	CONTROL AIR TO CONT. XCR-102 & XCR-103	120.0	437.2	1
85	NITROGEN TO PRT GCR-301	45.0	0.0	1
86	NITROGEN TO ACCUM. GCR-314	60.0	0.0	1

TYPE "C" DATA INFORMATION

COMPLETED TEST VOLUMES

TEST VOLUME	DESCRIPTION		COMPLETED LEAKAGE	CORRECTED LEAKAGE	TRIAL NO WHEN VOLUME PASSED
87	SAFETY INJ. TEST LINE	SI-171,172,194	270.0	0.0	1
88	P6 TO P-1	ECP-252	180.0	0.0	1
89	RCP OIL CLRS. CCW	CCW-452,454,458	1200.0	624.2	1
90	RCP OIL CLRS. CCW	CCW-451,453,459	1200.0	3350.1	1
91	EXCESS LETDOWN HX CCW	CCW-460 & CCW-462	360.0	155.0	1
92	RX SUPPORTS CCW	CCW-457 & CCW-135	240.0	49.1	1
93	RX SUPPORTS CCW	CCW-455 & CCW-456	240.0	58.9	1
94	GRAB SAMPLE	SM-6 & SM-6	60.0	0.0	1
95	CONT. PRESS. ALARM	PPP-100	0.0	0.0	1
96	CONT. PRESS. ALARM	PPP-301	0.0	0.0	1
97	CONT. PRESS. ALARM	PPP-102	0.0	119.9	1
98	CONT. PRESS. ALARM	PPP-303	0.0	0.0	1
99	CONT. PRESS. ALARM	PPA-310 & PPA-311	0.0	99.5	1
100	CONT. PRESS. ALARM	PPA-312 & PPA-313	0.0	0.0	1
101	BORON INJECTION	ECP-251	240.0	39.7	1
102	BORON INJECTION	ECP-250	240.0	0.0	1
103	WELD CHANNEL PRESS.	CA-1815	30.0	1491.3	2
104	WELD CHANNEL PRESS.	CA-1818	30.0	79.4	2
105	GRAB SAMPLE	SM-8 & SM-10	60.0	39.6	1
106	CRN COILS 265 CCW	CCW-243-25	60.0	0.0	1
107	CRN COILS 265 CCW	CCW-244-25	60.0	69.2	1
108	CRN COILS 364 CCW	CCW-243-72	60.0	0.0	1
109	CRN COILS 364 CCW	CCW-244-72	60.0	256.1	1
110	CCW TO CFO-1	CCW-430	90.0	9.9	1
111	CCW FROM CFO-1	CCW-431	90.0	0.0	1
112	CRN COILS 265 CCW	CCW-440	60.0	0.0	1
113	CCW TO CFO-2	CCW-432	90.0	0.0	1
114	CCW FROM CFO-2	CCW-433	90.0	0.0	1
115	CRN COILS 364 CCW	CCW-441	60.0	0.0	1
116	GLYCOL SUPPLY EXPANSION	R-156 & R-159	60.0	0.0	1
117	GLYCOL RETURN EXPANSION	R-157 & R-158	60.0	0.0	1
118	POST ACC. SAMPLE RET.	RS-357	15.0	99.4	1
119	POST ACC. SAMPLE RET.	ECR-496 & ECR-497	15.0	0.0	1
120	POST ACC. SAMPLE SUPPLY	ECP-416	15.0	0.0	1
121	POST ACC. SAMPLE SUPPLY	ECP-417	15.0	0.0	1
122	CONTAINMENT SAMPLING	ECR-535	30.0	0.0	1
123	CONTAINMENT SAMPLING	ECR-536	30.0	0.0	1
124	LOWER PMS RETURN	ECR-36	120.0	0.0	1

TABLE NO. [illegible]: VALVES [illegible] LEAKAGE IN EXCESS
---------- OF THE [illegible] LEAKAGE

VOLUME DESCRIPTION	LEAKAGE GUIDELINE (SCCM)	LEAKAGE AS FOUND (SCCM)	LEAKAGE AS LEFT (SCCM)
RCP #3 SEAL WATER CS-442-3	120.00	11909.12	0.0
RELIEF VALVE HEADER TO PRT SI-189	120.00	278.66	278.66
NITROGEN TO ACCUMULATORS N-102	60.00	1485.88	1485.88
NITROGEN TO PRT N-159	45.00	493.45	493.45
DEAD WEIGHT CALIBRATOR NPX-151-V1	30.00	376.85	376.85
RCDT VENT HEADER N-160 & DCR-201	120.00	14786.84	650.57
RCDT DRAIN HDR. DCR-205 & DCR-206	480.00	2968.42	177.96
LETDOWN OCR-300	120.00	315.44	315.44
RHR RECIRC. 'H' ICM-306	1080.00	5886.13	5886.13
LOWER CONT. MON. ECR-33 & ECR-35	180.00	543.23	543.23
AIR PART. RAD GAS MON. ECR-31 & ECR-32	120.00	740.77	740.77
CONTROL AIR TO CONT. XCR-100 & XCR-101	120.00	198.70	198.70
CONTROL AIR TO CONT. XCR-102 & XCR-103	120.00	437.15	437.15
RCP OIL CLRS. CCW CCW-451,453,459	1200.00	3350.13	3350.13
CONT. PRESS. ALARM PPF-302	0.0	119.88	119.88
CONT. PRESS. ALARM PPA-310 & PPA-311	0.0	99.53	99.53
WELD CHANNEL PRESS. CA-181S	30.00	29559.97	1491.28
WELD CHANNEL PRESS. CA-181N	30.00	27589.30	79.38
CPN COILS 2&5 CCW CCW-244-25	60.00	69.21	69.21
CPN COILS 3&4 CCW CCW-244-72	60.00	256.11	256.11

TYPE "B" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LPM
1	ELEVATION 612 AIRLOCK	5511.0	50.0	49.2	90.0	12.1	194
2	ELEVATION 650 AIRLOCK	5511.0	210.0	207.1	90.0	12.3	193
3	ZONE 3 PENETRATIONS	1171.0	300.0	299.7	81.0	12.5	193
4	ZONE 4 PENETRATIONS	1173.0	0.0	0.0	71.9	12.5	165
5	FUEL TRANSFER BLIND FLANGE CPN-1	1200.0	20.0	19.9	75.0	12.0	165
6	PLANT AIR BLIND FLANGE	1200.0	640.0	642.4	71.9	12.3	165
7	ICE LOADING FLANGE CPN-57	480.0	0.0	0.0	73.9	12.3	165
8	ICE LOADING BLIND FLANGE CPN-80	720.0	50.0	50.0	72.9	12.1	165
9	FLUX THIMBLE HANDLING CPN-76	960.0	50.0	49.6	79.0	12.0	193
10	EQUIPMENT HATCH FLANGE	55.0	0.0	0.0	85.2	12.4	165
11	PERSONNEL AIRLOCK COVER FLANGE	55.0	0.0	0.0	85.2	12.4	165

TOP "B" DATA INCORPORATION

CORRECTED TEST VOLUMES

TEST VOLUME	DESCRIPTION	GUIDELINE LEAKAGE	CORRECTED LEAKAGE	TIMES TO BE VOLUME PASSED
1.	ELEVATION 612 AIRLOCK	5511.0	49.2	1
2	ELEVATION 650 AIRLOCK	5511.0	207.3	1
3	ZONE 3 PENETRATIONS	1173.0	299.7	1
4	ZONE 4 PENETRATIONS	1173.0	0.0	1
5	FUEL TRANSFER BLIND FLANGE CPN-1	1200.0	19.9	1
6	PLANT AIR BLIND FLANGE	1200.0	642.4	1
7	ICE LOADING FLANGE CPN-57	480.0	0.0	1
8	ICE LOADING BLIND FLANGE CPN-80	720.0	50.0	1
9	FLUX THIMBLE HANDLING CPN-76	960.0	49.6	1
10	EQUIPMENT HATCH FLANGE	55.0	0.0	1
11	PERSONNEL AIRLOCK COVER FLANGE	55.0	0.0	1

TYPE "B" DATA INFORMATION

L E A K R A T E S U M M A R Y

	SCCM	%LA
TYPE "B"	1316.08	0.0120
TYPE "C"	22212.64	0.2015
TOTAL	23530.72	0.2135

C O M P L E T I O N R A T E S U M M A R Y

TOTAL TESTED INITIALLY-	135	TOTAL RETESTED-	5
FAILED-	5	FAILED-	0
PASSED-	130	PASSED-	5

OUT OF 135 VOLUMES TO TEST, 0 STILL HAVE TO BE TESTED

OVERALL COMPLETION RATE IS 100.00%

********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********
TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP		DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
1	CLV #1	WCR-900 & WCR-902	720.0	0.0	0.0	71.1	12.2	193
2	CLV #1	WCR-901 & WCR-903	720.0	0.0	0.0	71.1	12.2	193
3	CLV #4	WCR-912 & WCR-914	720.0	0.0	0.0	71.1	12.2	193
4	CLV #4	WCR-913 & WCR-915	720.0	0.0	0.0	71.1	12.2	193
5	CUV #1	WCR-920 & WCR-922	480.0	0.0	0.0	71.1	12.2	193
6	CUV #1	WCR-921 & WCR-923	480.0	0.0	0.0	71.1	12.2	193
7	CUV #4	WCR-932 & WCR-934	480.0	0.0	0.0	79.5	12.0	193
8	CUV #4	WCR-933 & WCR-935	480.0	0.0	0.0	79.5	12.0	193
9	RCP #1	WCR-941 & WCR-945	360.0	0.0	0.0	72.4	12.1	194
10	RCP #1	WCR-951 & WCR-955	360.0	0.0	0.0	72.4	12.1	194
11	RCP #4	WCR-944 & WCR-948	360.0	0.0	0.0	75.4	12.0	193
12	RCP #4	WCR-954 & WCR-958	360.0	0.0	0.0	75.4	12.0	193

UNCONTROLLED DOCUMENT

********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LAM
13	CLV #2 WCR-90 & WCR-906	720.0	0.0	0.0	77.5	12.0	193
14	CLV #2 WCR-90 & WCR-907	720.0	0.0	0.0	77.5	12.0	193
15	CLV #3 WCR-908 & WCR-910	720.0	0.0	0.0	78.5	12.0	193
16	CLV #3 WCR-909 & WCR-911	720.0	0.0	0.0	78.5	12.0	193
17	CUV #2 WCR-924 & WCR-926	480.0	0.0	0.0	78.5	12.0	193
18	CUV #2 WCR-925 & WCR-927	480.0	0.0	0.0	78.5	12.0	193
19	CUV #3 WCR-928 & WCR-930	480.0	0.0	0.0	79.5	12.2	193
20	CUV #3 WCR-929 & WCR-931	480.0	0.0	0.0	79.5	12.2	193
21	RCP #2 WCR-942 & WCR-946	360.0	0.0	0.0	75.4	12.2	193
22	RCP #2 WCR-952 & WCR-956	360.0	0.0	0.0	75.4	12.0	193
23	RCP #3 WCR-943 & WCR-947	360.0	0.0	0.0	75.4	12.0	193
24	RCP #3 WCR-953 & WCR-957	360.0	0.0	0.0	75.4	12.0	193

UNCONTROLLED DOCUMENT

********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B&C" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION		GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
25	INST. RM. EAST	VCR-960 & VCR-962	240.0	0.0	0.0	75.4	12.1	193
26	INST. RM. EAST	VCR-961 & VCR-963	240.0	0.0	0.0	79.4	12.1	193
27	INST. RM. WEST	VCR-964 & VCR-966	240.0	0.0	0.0	77.5	12.1	193
28	INST. RM. WEST	VCR-965 & VCR-967	240.0	0.0	0.0	77.5	12.1	193
29	INST. RM. VENT. SUPPLY	VCR-101 & VCR-201	1680.0	0.0	0.0	69.0	12.2	193
30	INST. RM. VENT. SUPPLY	VCR-102 & VCR-202	1680.0	0.0	0.0	78.5	12.2	193
31	LOWER VENT. SUPPLY	VCR-103 & VCR-203	2880.0	670.0	664.7	78.5	12.0	193
32	LOWER VENT. EXH.	VCR-104 & VCR-204	3600.0	130.0	129.7	78.5	12.1	193
33	UPPER VENT. SUPPLY	VCR-105 & VCR-205	3600.0	290.0	285.0	90.7	12.1	193
34	UPPER VENT. EXH.	VCR-106 & VCR-206	2880.0	108.0	106.9	90.7	12.1	193
35	PRESS. EQUALIZATION	VCR-107 & VCR-207	1440.0	80.0	79.4	84.3	12.3	193
36	HYDROGEN RETURN LINE	ECR-10 & ECR-20	60.0	0.0	0.0	78.5	12.2	193

UNCONTROLLED DOCUMENT

********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********
TYPE "B&V" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LAM
37	FSR-1 ECR-11 & ECR 21	60.0	0.0	0.0	78.5	12.2	193
38	FSR-2 ECR-12 & ECR 22	60.0	0.0	0.0	78.5	12.2	193
39	FSR-3 ECR-13 & ECR 23	60.0	0.0	0.0	78.5	12.2	193
40	FSR-4 ECR-14 & ECR 24	60.0	0.0	0.0	78.5	12.2	193
41	FSR-5 ECR-15 & ECR 25	60.0	0.0	0.0	78.5	12.2	193
42	ESR-6 ECR-16 & ECR 26	60.0	0.0	0.0	78.5	12.2	193
43	ESR-7 ECR-17 & ECR 27	60.0	0.0	0.0	78.5	12.2	193
44	SR-8 ECR-18 & ECR 28	60.0	0.0	0.0	78.5	12.2	193
45	SR-9 ECR-19 & ECR 29	60.0	0.0	0.0	78.5	12.2	193
46	RCP #1 SEAL WATER CS-442-1	120.0	0.0	0.0	82.6	12.2	165
47	RCP #4 SEAL WATER CS-442-4	120.0	0.0	0.0	82.6	12.2	165
48	RCP #2 SEAL WATER CS-442-2	120.0	0.0	0.0	82.6	12.2	165

UNCONTROLLED DOCUMENT

********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********
TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDELINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LAR
49	RCP #3 SEAL WATER CS-442-3	120.0	0.0	0.0	82.6	12.2	165
50	RELIEF VALVE HEADER TO PRT	120.0	11400.0	11330.3	82.6	12.0	165
			2400.0	2596.2	71.6	12.0	165
			440.0	434.1	84.6	12.0	165
51	AIR PART. PAD GAS MONITOR SM-1	60.0	0.0	0.0	82.6	12.2	165
52	NITROGEN TO ACCUMULATORS N-102	60.0	0.0	0.0	86.6	12.2	165
53	NITROGEN TO PRT N-159	45.0	0.0	0.0	82.6	12.2	165
54	PRIMARY WATER TO PRT PW-275	180.0	0.0	0.0	82.6	12.2	165
55	CHARGING TO REGEN. HX CS-321	180.0	0.0	0.0	82.6	12.2	165
56	DEAD WEIGHT CALIBRATOR NPX-151-V1	30.0	0.0	0.0	82.6	12.2	165
57	GLYCOL SUPPLY VCR-10 & VCR-11	480.0	0.0	0.0	88.6	12.3	165
58	GLYCOL RETURN VCR-20 & VCR-21	480.0	0.0	0.0	89.6	12.3	165
59	RCDT VENT HEADER DCR-203 & DCR-207	120.0	25.0	24.8	83.4	12.3	165
60	RCDT VENT HEADER N-160 & DCR-201	120.0	40000.0	39726.8	83.4	12.3	194
			17500.0	17556.7	74.5	12.4	194
			20500.0	20568.3	70.4	12.2	194
			0.0	0.0	78.5	12.0	194

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRAT
61	ICE COND. AND DRAIN HDR. DCR-611	300.0	1750.0 1050.0	1732.9 1042.6	84.6 77.5	12.2 12.0	165 165
62	CLV AND CUV DRAIN HDR: DCR-620 & DCR-621	120.0	0.0	0.0	78.5	12.2	194
63	PCDT DRAIN HDR: DCR-205 & DCR-206	480.0	0.0	0.0	84.6	12.2	165
64	CONT. SUMP TO HUT DCR-600 & DCR-601	360.0	0.0	0.0	84.6	12.2	165
65	LETDOWN DCR-300	120.0	0.0	0.0	78.5	12.0	194
66	LETDOWN DCR-301	120.0	0.0	0.0	78.5	12.0	194
67	RCP SEAL WATER RETURN DCM-250 & DCM-350	480.0	1700.0 0.0	1690.1 0.0	84.6 78.5	12.2 12.0	165 194
	RHR RECIRC. "B" ICM-305	1080.0	0.0	0.0	78.5	12.0	194
	RHR RECIRC. "A" ICM-306	1080.0	1000.0	999.5	84.6	12.2	165
	PW FOR RX CAV. SCRUB DCR-919 & DCR-920	120.0	0.0	0.0	78.5	12.0	194
71	REFUEL. WATER TO RX CAV. SF-151 & SF-153	300.0	60.0	59.5	83.4	12.2	165
72	REFUEL CAV. DRAIN SF-159 & SF-160	360.0	18000.0 0.0	17894.9 0.0	86.3 77.5	12.5 12.1	194 194

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LRM
73	HOT LEG SAMPLES NCR-105 & NCR-106	60.0	0.0	0.0	82.6	12.2	165
74	PRESS. LIQ. SAMPLES NCR-107 & NCR-108	60.0	0.0	0.0	85.3	[illegible]	[illegible]
75	STEAM SAMPLE NCR-109 & NCR-110	60.0	0.0	0.0	85.3	12.4	194
76	RCDT SAMPLE RCR-100 & RCR-101	60.0	0.0	0.0	87.6	[illegible]	[illegible]
77	PRT SAMPLE DCR-202 & DCR-204	60.0	0.0	0.0	74.5	12.2	194
78	ACCUM. SAMPLE ICR-5 & ICR-6	60.0	0.0	0.0	[illegible]	[illegible]	[illegible]
79	LOWER CONT. MON. ECR-33 & ECR-35	180.0	0.0	0.0	76.5	12.0	194
80	NORTH SI DISCH. ICM-260	240.0	160.0	158.9	[illegible]	[illegible]	[illegible]
[illegible]	SOUTH SI DISCH. ICM-265	240.0	110.0	109.2	81.4	12.2	194
[illegible]	AIR PART. RAD GAS MON. ECR-31 & ECR-32	120.0	1350.0	1344.3	[illegible]	[illegible]	[illegible]
83	CONTROL AIR TO CONT. XCR-100 & XCR-101	120.0	130.0	127.8	92.7	12.2	165
84	CONTROL AIR TO CONT. XCR-102 & XCR-103	120.0	650.0	644.2	83.6	12.2	165
			23500.0	23232.0	84.3	12.1	194
			23800.0	23548.1	81.4	12.0	194
			340.0	341.4	71.4	12.3	194

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	[illegible]
85	NITROGEN TO PRT GCR-301	45.0	0.0	0.0	84.3	12.5	[illegible]
86	NITROGEN TO ACCUM. GCR-314	60.0	0.0	0.0	[illegible]	[illegible]	[illegible]
87	SAFETY INJ. TEST LINE SI-171,172,194	270.0	0.0	0.0	84.3	12.1	[illegible]
88	PW TO PRT NCR-252	180.0	50.0	49.4	[illegible]	[illegible]	[illegible]
89	RCP OIL CLRS. CCW CCM-452,454,458	1200.0	0.0	0.0	83.4	[illegible]	[illegible]
90	RCP OIL CLRS. CCW CCM-451,453,459	1200.0	0.0	0.0	[illegible]	[illegible]	[illegible]
91	EXCESS LETDOWN HX CCW CCR-460 & CCR-462	360.0	0.0	0.0	83.4	12.1	[illegible]
92	RX SUPPORTS CCW CCR-457 & CCW-135	240.0	25000.0 600.0	24658.7 598.6	[illegible] 76.5	[illegible] 12.2	[illegible]
93	RX SUPPORTS CCW CCR-455 & CCR-456	240.0	0.0	0.0	[illegible]	[illegible]	[illegible]
94	GPAR SAMPLE SM-4 & SM-6	60.0	0.0	0.0	86.3	12.0	[illegible]
95	CONT. PRESS. ALARM PPP-300	0.0	0.0	0.0	[illegible]	[illegible]	[illegible]
96	CONT. PRESS. ALARM PPP-301	0.0	0.0	0.0	82.8	12.2	[illegible]

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LOW
97	CONT. PRESS. ALARM PPP-302	0.0	0.0	0.0	82.6	12.3	193
98	CONT. PRESS. ALARM PPP-303	0.0	0.0	0.0	82.6	12.1	193
99	CONT. PRESS. ALARM PPA-310 & PPA-311	0.0	0.0	0.0	77.5	12.1	193
100	CONT. PRESS. ALARM PPA-312 & PPA-313	0.0	0.0	0.0	77.5	12.1	193
101	BORON INJECTION ICM-251	240.0	0.0	0.0	78.5	12.8	194
102	BORON INJECTION ICM-250.	240.0	0.0	0.0	78.5	12.8	194
103	WELD CHANNEL PRESS. CA-181S	30.0	0.0	0.0	85.3	12.3	194
104	WELD CHANNEL PRESS. CA-181N	30.0	5000.0 0.0	4993.7 0.0	85.3 80.3	12.2 12.2	194 194
105	GRAB SAMPLE SM-8-A-SM-10	60.0	0.0	0.0	78.5	12.1	193
106	CPN COILS 245 CCW CCW-247-25	60.0	0.0	0.0	80.6	12.4	193
107	CPN COILS 245 CCW CCW-244-25	60.0	140.0	138.4	80.6	12.4	193
108	CPN COILS 384 CCW CCW-247-72	60.0	360.0 50.0	357.8 49.6	80.5 79.5	12.2 12.0	165 165

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********
TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	TIME
109	CPN COILS 3&4 CCW CCW-244-72	60.0	0.0	0.0	82.6	12.2	165
110	CCW TO CEQ-1 CCM-430	90.0	0.0	0.0	71.1	12.0	165
111	CCW FROM CEQ-1 CCM-431	90.0	0.0	0.0	71.1	12.0	165
112	CPN COILS 2&5 CCW CCR-440	60.0	0.0	0.0	71.1	12.0	165
113	CCW TO CEQ-2 CCM-432	90.0	50.0	49.9	74.3	12.1	165
114	CCW TO CEQ-2 CCM-433	90.0	40.0	39.9	74.3	12.1	165
115	CPN COILS 3&4 CCW CCR-441	60.0	0.0	0.0	78.5	12.1	165
116	GLYCOL SUPPLY EXPANSION R-156 & R-159	60.0	0.0	0.0	86.6	12.2	165
117	GLYCOL RETURN EXPANSION R-157 & R-158	60.0	0.0	0.0	86.6	12.2	165
118	POST ACC. SAMPLE RET. NS-357	15.0	0.0	0.0	85.6	12.1	165
119	POST ACC. SAMPLE RET. ECR-496 & ECR-497	15.0	30.0	29.8	85.3	12.4	194
120	POST ACC. SAMPLE SUPPLY ECR-416	15.0	0.0	0.0	82.6	12.2	165

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********** D. C. COOK NUCL[illegible]NT. UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAIN[illegible] ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	LAM
121	POST ACC. SAMPLE SUPPLY ECR-417	15.0	0.0	0.0	82.6	12.5	165
122	CONTAINMENT SAMPLING ECR-535	30.0	0.0	0.0	83.4	12[illegible]	[illegible]
123	CONTAINMENT SAMPLING ECR-536	30.0	75.0	74.0	84.3	12.0	194
124	LOWER RHS RETURN ECR-36	120.0	0.0	0.0	[illegible]	[illegible]	[illegible]
125	LOWER CONT. RHS RETURN CHECK VLV.	60.0	17500.0 340.0	17549.9 342.9	69.0 [illegible]	12.1 [illegible]	191 [illegible]

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

COMPLETED TEST VOLUMES

TEST VOLUME	DESCRIPTION	GUIDELINE LEAKAGE	CORRECTED LEAKAGE	TRIAL NO. WHEN VOLUME PASSED
1	CLV #1 WCR-900 & WCR-902	720.0	0.0	1
2	CLV #1 WCR-901 & WCR-903	720.0	0.0	1
3	CLV #4 WCR-912 & WCR-914	720.0	0.0	1
4	CLV #4 WCR-913 & WCR-915	720.0	0.0	1
5	CUV #1 WCR-920 & WCR-922	480.0	0.0	1
6	CUV #1 WCR-921 & WCR-923	480.0	0.0	1
7	CUV #4 WCR-932 & WCR-934	480.0	0.0	1
8	CUV #4 WCR-933 & WCR-935	480.0	0.0	1
9	RCP #1 WCR-941 & WCR-945	360.0	0.0	1
10	RCP #1 WCR-951 & WCR-959	360.0	0.0	1
11	RCP #4 WCR-944 & WCR-948	360.0	0.0	1
12	RCP #4 WCR-954 & WCR-958	360.0	0.0	1
13	CLV #2 WCR-904 & WCR-906	720.0	0.0	1
14	CLV #2 WCR-905 & WCR-907	720.0	0.0	1
15	CLV #3 WCR-908 & WCR-910	720.0	0.0	1
16	CLV #3 WCR-909 & WCR-911	720.0	0.0	1
17	CUV #2 WCR-924 & WCR-926	480.0	0.0	1
18	CUV #2 WCR-925 & WCR-927	480.0	0.0	1
19	CUV #3 WCR-928 & WCR-930	480.0	0.0	1
20	CUV #3 WCR-929 & WCR-931	480.0	0.0	1
21	RCP #2 WCR-942 & WCR-946	360.0	0.0	1
22	RCP #2 WCR-952 & WCR-956	360.0	0.0	1
23	RCP #3 WCR-943 & WCR-947	360.0	0.0	1
24	RCP #3 WCR-953 & WCR-957	360.0	0.0	1
25	INST. RM. EAST WCR-960 & WCR-962	240.0	0.0	1
26	INST. RM. EAST WCR-961 & WCR-963	240.0	0.0	1
27	INST. RM. WEST WCR-964 & WCR-966	240.0	0.0	1
28	INST. RM. WEST WCR-965 & WCR-967	240.0	0.0	1
29	INST. RM. VENT. SUPPLY VCR-101 & VCR-201	1680.0	0.0	1
30	INST. RM. VENT. SUPPLY VCR-102 & VCR-202	1680.0	0.0	1
31	LOWER VENT. SUPPLY VCR-103 & VCR-203	2880.0	664.7	1
32	LOWER VENT. EXH. VCR-104 & VCR-204	3600.0	129.7	1
33	UPPER VENT. SUPPLY VCR-105 & VCR-205	3600.0	285.0	1
34	UPPER VENT. EXH. VCR-106 & VCR-206	2880.0	108.9	1
35	PRESS. EQUALIZATION VCR-107 & VCR-207	1440.0	79.4	1
36	HYDROGEN RETURN LINE ECR-10 & ECR-20	60.0	0.0	1
37	ESR-1 ECR-11 & ECR 21	60.0	0.0	1
38	ESR-2 ECR-12 & ECR 22	60.0	0.0	1
39	ESR-3 ECR-13 & ECR 23	60.0	0.0	1
40	ESR-4 ECR-14 & ECR 24	60.0	0.0	1
41	ESR-5 ECR-15 & ECR 25	60.0	0.0	1
42	ESR-6 ECR-16 & ECR 26	60.0	0.0	1
43	ESR-7 ECR-17 & ECR 27	60.0	0.0	1

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

COMPLETED TEST VOLUMES

TEST VOLUME	DESCRIPTION	GUIDELINE LEAKAGE	CORRECTED LEAKAGE	TRIAL NO. WHERE VOLUME PASSED
44	ESP-8 ECR-18 & ECR-28	60.0	0.0	
45	ESP-9 ECR-19 & ECR 29	60.0	0.0	
46	RCP #1 SEAL WATER CS-442-1	120.0	0.0	
47	RCP #4 SEAL WATER CS-442-4	120.0	0.0	
48	RCP #2 SEAL WATER CS-442-2	120.0	0.0	
49	RCP #3 SEAL WATER CS-442-3	120.0	0.0	
50	RELIEF VALVE HEADER TO PRT	120.0	11.1	
51	AIR PART. RAD GAS MONITOR SH-1	60.0	0.0	
52	NITROGEN TO ACCUMULATORS N-102	60.0	0.0	
53	NITROGEN TO PRT N-159	45.0	0.0	
54	PRIMARY WATER TO PRT PW-275	180.0	0.0	
55	CHARGING TO REGEN. HX. CS-321	180.0	0.0	
56	DEAD-WEIGHT CALIBRATOR NPK-151-V1	30.0	0.0	
57	GLYCOL SUPPLY VCR-10 & VCR-11	480.0	0.0	
58	GLYCOL RETURN VCR-20 & VCR-21	480.0	0.0	
59	RCDT VENT HEADER DCR-203 & DCR-207	120.0	24.8	
60	RCDT VENT HEADER N-160 & DCR-201	120.0	0.0	
61	ICF COND. AHU DRAIN HDR. DCR-611	300.0	1042.6	
62	CCV AND CVV DRAIN HDRS DCR-620 & DCR-621	120.0	0.0	
63	RCDT DRAIN HDR. DCR-205 & DCR-206	480.0	0.0	
64	CONT. SUMP TO HUT DCR-600 & DCR-601	360.0	0.0	
65	LETDOWN DCR-300	120.0	0.0	
66	LETDOWN DCR-301	120.0	0.0	
67	RCP SEAL WATER RETURN DCM-250 & DCM-350	480.0	0.0	
68	RHR RECIRC. "E" ICM-305	1080.0	0.0	
69	RHR RECIRC. "W" ICM-306	1080.0	999.9	
70	PW FOR RX CAV. SCRUB DCR-919 & DCR-920	120.0	0.0	
71	REFUEL WATER TO RX CAV. SF-151 & SF-153	300.0	39.5	
72	REFUEL CAV. DRAIN SF-159 & SF-160	360.0	0.0	
73	HOT LEG SAMPLES NCR-105 & NCR-106	60.0	0.0	
74	PRESS. LIQ. SAMPLES NCR-107 & NCR-108	60.0	0.0	
75	STEAM SAMPLE NCR-109 & NCR-110	60.0	0.0	
76	RCDT SAMPLE RCR-100 & RCR-101	60.0	0.0	
77	PRT SAMPLE DCR-202 & DCR-204	60.0	0.0	
78	ACCUM. SAMPLE ICR-5 & ICR-6	60.0	0.0	
79	LOWER CONT. HDR. ECR-33 & ECR-35	180.0	0.0	
80	NORTH SI DISCH. ICM-260	240.0	158.9	
81	SOUTH SI DISCH. ICM-265	240.0	109.2	
82	AIR PART. RAD GAS MON. ECR-31 & ECR-32	120.0	1344.3	
83	CONTROL AIR TO CONT. XCR-100 & XCR-101	120.0	127.8	
84	CONTROL AIR TO CONT. XCR-102 & XCR-103	120.0	341.4	
85	NITROGEN TO PRT GCR-301	45.0	0.0	
86	NITROGEN TO ACCUM. GCR-314	60.0	0.0	

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "C" DATA INFORMATION

COMPLETED TEST VOLUMES

TEST VOLUME	DESCRIPTION	GUIDELINE LEAKAGE	CORRECTED LEAKAGE	TRIAL NO. WHEN VOLUME PASSED
87	SAFETY INJ. TEST LINE SI-171,172,194	270.0	0.0	1
88	PW TO PPT NCR-252	180.0	49.4	1
89	RCP OIL CLRS. CCW CCM-452,454,458	1200.0	0.0	1
90	RCP OIL CLRS. CCW CCM-451,453,459	1200.0	0.0	1
91	EXCESS LETDOWN HX CCW CCR-460 & CCR-462	360.0	0.0	1
92	RX SUPPORTS CCW CCR-457 & CCW-135	240.0	598.6	2
93	RX SUPPORTS CCW CCR-455 & CCR-456	240.0	0.0	1
94	GRAB SAMPLE SM-4 & SM-6	60.0	0.0	1
95	CONT. PRESS. ALARM PPP-300	0.0	0.0	1
96	CONT. PRESS. ALARM PPP-301	0.0	0.0	1
97	CONT. PRESS. ALARM PPP-302	0.0	0.0	1
98	CONT. PRESS. ALARM PPP-303	0.0	0.0	1
99	CONT. PRESS. ALARM PPA-310 & PPA-311	0.0	0.0	1
100	CONT. PRESS. ALARM PPA-312 & PPA-313	0.0	0.0	1
101	BORON INJECTION ICM-251	240.0	0.0	1
102	BORON INJECTION ICM-250	240.0	0.0	1
103	WELD CHANNEL PRESS. CA-181S	30.0	0.0	1
104	WELD CHANNEL PRESS. CA-181N	30.0	0.0	1
105	GRAB SAMPLE SM-8 & SM-10	60.0	0.0	1
106	CPN COILS 265 CCW CCW-243-25	60.0	0.0	1
107	CPN COILS 265 CCW CCW-244-25	60.0	138.4	2
108	CPN COILS 364 CCW CCW-243-72	60.0	49.6	1
109	CPN COILS 364 CCW CCW-244-72	60.0	0.0	1
110	CCW TO CEQ-1 CCM-430	90.0	0.0	1
111	CCW FROM CEQ-1 CCM-431	90.0	0.0	1
112	CPN COILS 265 CCW CCR-440	60.0	0.0	1
113	CCW TO CEQ-2 CCM-432	90.0	49.9	1
114	CCW TO CEQ-2 CCM-433	90.0	39.9	1
115	CPN COILS 364 CCW CCR-441	60.0	0.0	1
116	GLYCOL SUPPLY EXPANSION R-156 & R-159	60.0	0.0	1
117	GLYCOL RETURN EXPANSION R-157 & R-158	60.0	0.0	1
118	POST ACC. SAMPLE RET. NS-357	15.0	0.0	1
119	POST ACC. SAMPLE RET. ECR-496 & ECR-497	15.0	29.8	2
120	POST ACC. SAMPLE SUPPLY ECR-416	15.0	0.0	1
121	POST ACC. SAMPLE SUPPLY ECR-417	15.0	0.0	1
122	CONTAINMENT SAMPLING ECR-535	30.0	0.0	1
123	CONTAINMENT SAMPLING ECR-536	30.0	74.0	1
124	LOWER PMS RETURN ECR-36	120.0	0.0	1
125	LOWER CONT. RMS RETURN CHECK VLV.	60.0	342.9	2

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TABLE NO. 21 VALVES SHOWING LEAKAGE IN EXCESS OF THE GUIDELINE LEAKAGE

VOLUME DESCRIPTION	LEAKAGE GUIDELINE (SCCM)	LEAKAGE AS FOUND (SCCM)	LEAKAGE AS LEFT (SCCM)
PELIEF VALVE HEADER TO PRT	120.00	11330.35	414.07
PCDT VENT HEADER N-160 & DCR-201	120.00	>40000.00	0.0
ICE COND. AHU DRAIN HDR. DCR-611	300.00	1732.86	1042.84
RCP SEAL WATER RETURN QCM-250 & QCM-350	480.00	1690.08	0.0
REFUEL CAV. DRAIN SF-159 & SF-160	360.00	17894.93	0.0
AIR PART. RAD-GAS-MON. FCR-31-6-ECR-32	120.00	1344.34	1344.34
CONTROL AIR TO CONT. XCR-100 & XCR-101	120.00	127.78	127.78
CONTROL AIR TO CONT. XCR-102 & XCR-103	120.00	644.23	341.44
RX SUPPORTS CCW CCR-457 & CCW-135	240.00	24868.74	0.0
WELD CHANNEL PRESS. CA-181N	30.00	4947.75	0.0
CPN COILS 2&5 CCW CCW-244-25	60.00	138.37	138.37
CPN COILS 3&4 CCW CCW-243-72	60.00	357.80	0.0

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "B" DATA INFORMATION

CORRECTED RESULTS OF VALVE TESTING

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	INDICATED LEAKAGE	CORRECTED LEAKAGE	TEMPERATURE	PRESSURE	[illegible]
1	ELEVATION 612 AIR LOCK	5511.0	425.0	422.6	80.0	12.2	191
2	ELEVATION 650 AIR LOCK	5511.0	4200.0	4176.5	80.0	[illegible]	[illegible]
3	ZONE 3 PENETRATIONS	1173.0	0.0	0.0	77.5	12.0	194
4	ZONE 4 PENETRATIONS	1173.0	950.0	944.2	[illegible]	[illegible]	[illegible]
5	FUEL TRANSFER BLIND FLANGE CPN-1	1200.0	1000.0	991.1	79.5	[illegible]	[illegible]
6	PLANT AIR BLIND FLANGE CPN-29	1200.0	0.0	0.0	[illegible]	[illegible]	[illegible]
[illegible]	ICE LOADING BLIND FLANGE CPN-57	480.0	100.0	100.1	78.5	12.5	194
[illegible]	ICE LOADING BLIND FLANGE CPN-80	720.0	95.0	95.1	[illegible]	[illegible]	[illegible]
[illegible]	FLUX THIMPLE HANDLING CPN-76	960.0	0.0	0.0	79.4	12.0	194
[illegible]	EQUIPMENT HATCH FLANGE	55.0	75.0	74.6	[illegible]	[illegible]	[illegible]
[illegible]	PERSONNEL AIRLOCK COVER FLANGE	55.0	825.0	814.1	80.3	12.1	194
			880.0	870.8	80.3	12.2	194
			0.0	0.0	80.3	12.1	194

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "B" DATA INFORMATION

VOLUMES WHERE GUIDLINE LEAKAGE HAS BEEN EXCEEDED

TEST STEP	DESCRIPTION	GUIDLINE LEAKAGE	CORRECTED LEAKAGE
10	EQUIPMENT HATCH FLANGE	5530	[redacted]

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "B" DATA INFORMATION

COMPLETED TEST VOLUMES

TEST VOLUME	DESCRIPTION	GUIDELINE LEAKAGE	CORRECTED LEAKAGE	TRIAL NO. IN WHICH VOLUME PASSED
1	ELEVATION 612 AIR LOCK	5511.0	422.6	
2	ELEVATION 650 AIR LOCK	5511.0	4176.5	
3	ZONE 3 PENETRATIONS	1173.0	0.0	
4	ZONE 4 PENETRATIONS	1173.0	944.2	
5	FUEL TRANSFER BLIND FLANGE CPN-1	1200.0	991.1	1
6	PLANT AIR BLIND FLANGE CPN-29	1200.0	0.0	1
7	ICE LOADING BLIND FLANGE CPN-57	480.0	100.1	
8	ICE LOADING BLIND FLANGE CPN-80	720.0	95.1	
9	FLUX THIMBLE HANDLING CPN-76	960.0	0.0	
10	EQUIPMENT HATCH FLANGE	55.0	74.8	
11	PERSONNEL AIRLOCK COVER FLANGE	55.0	0.0	1

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********** D. C. COOK NUCLEAR PLANT, UNIT NO. 1 **********

TYPE "B" AND "C" LEAK RATE TEST OF CONTAINMENT ISOLATION VALVES DURING JULY 1982 OUTAGE

TYPE "B" DATA INFORMATION

LEAK RATE SUMMARY

	SCCM	LA
TYPE "B"	6804.26	0.0617
TYPE "C"	7280.38	0.0661
TOTAL	14084.64	0.1278

COMPLETION RATE SUMMARY

TOTAL TESTED INITIALLY=	136	TOTAL RETESTED=	11
FAILED=	11	FAILED=	0
PASSED=	125	PASSED=	11

OUT OF 136 VOLUMES TO TEST, 0 STILL HAVE TO BE TESTED

OVERALL COMPLETION RATE IS 100.00%

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