GEORGIA POWER COMPANY

EDWIN. I HATCH NUCLEAR PLANT

UNIT 2

PRIMARY REACTOR CONTAINMENT

INTEGRATED LEAKAGE RATE TEST REPORT

MAY 1982

BECHTEL JOB NO. 6511–041

PREPARED BY

BECHTEL POWER CORPORATION

SAN FRANCISCO, CA

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ILRT REPORT FOR E. I. HATCH PLANT UNIT 2

1. INTRODUCTION

The reactor containment building Integrated Leakage Rate Test (Type A) is performed to demonstrate that leakage through the primary reactor containment and penetrations does not exceed allowable leakage rate values as specified in the Plant Technical Specifications.

This report describes the first periodic Integrated Leakage Rate Test at plant E. I. Hatch, Unit 2, per 10CFR50, Appendix J requirements. The preoperational ILRT was successfully completed on May 19, 1978.

Containment pressurization was initiated on May 2, 1982, at 11:20 a.m. ILRT duration was 10.75 hours, followed by a verification test, and a Drywell to Wetwell Bypass Area Test which were completed at 8:15 a.m. on May 4. Depressurization to atmospheric pressure was completed at 11:00 a.m. on May 4.

Prior to the test, a surveillance of reactor containment penetrations and isolation valves was performed to meet the requirements of Appendix J to 10CFR50, Sections III D.2 and III D.3. In addition, a general containment inspection was performed on the accessible surfaces in accordance with Section V of 10CFR50, Appendix J, before pressurization

The following documents contain the test requirements and acceptance criteria for this ILRT:

1. E. I. Hatch Unit 2 Technical Specifications

2. ANSI N45.4 - 1972, Leakage Rate Testing of Containment Structures for Nuclear Reactors.

3. Appendix J to 10CFR Part 50, "Reactor Containment Leakage Testing for Water Cooled Power Reactors".

4. U.S. Nuclear Regulatory Commission Regulatory Guide 1.68, "Pre-operational and Initial Startup Test Program for Water Cooled Power Reactors".

5. Bechtel Topical Report BN-TOP-1, "Testing Criteria for Integrated Leakage Rate Testing of Primary Containment Structures for Nuclear Power Plants".

6. ANSI/ANS 56.8-1981 - Containment System Leakage Testing Requirements.

7. E. I. Hatch Nuclear Plant Procedure HNP-2-10031, "Primary Reactor Containment Integrated Leakage Rate Test".

2. SUMMARY

The containment building integrated leakage rate test (Type A) was successfully completed meeting all acceptance criteria set forth in the governing documents. The test results are reported in accordance with the requirements of 10CFR50, Appendix J, Section V.B.3.

The calculated leakage rates were 0.704% per day using the Mass Point Analysis technique and 0.696% per day using the Total Time Analysis technique.

The 95% upper confidence limits were 0.722% per day for Mass Point and 0.789% per day for Total Time Analysis techniques. The acceptance criteria of 75% of La is 0.90% per day.

Following completion of the ILRT, a successful verification test was performed. The Mass Point calculated leakage rate was 1.350% per day with a lower limit of 1.304% per day and upper limit of 1.904% per day. The Total Time calculated leakage rate was 1.359% per day with a lower limit of 1.296% per day and upper limit of 1.896% per day.

Upon completion of the verification test, the containment was depressurized to 1.7 psig and a successful Drywell to Wetwell Bypass Area Test was performed in accordance with Appendix N of the Test Procedure. The test duration was four hours. The calculated equivalent bypass area was 0.054 square inch, or 7% of the allowable one inch diameter orifice size of 0.785 square inch.

Pressurization started on May 2, 1982, at 11:20. Test pressure was reached at 19:03 on the same day. The four hour stabilization period was followed by 4.5 hours of various perturbations caused by fans being stopped and chillers tripping off. Temperature and pressure were rising and two drywell ventings were required to keep pressure within test range. The air mass stabilized at 3:30 a.m. on May 3. This was followed by a 10.75 hour leakage rate test, completed at 14:15 on May 3. A verification flow was initiated and the five hour verification test was completed at 20:30 on May 3.

At 21:00 the Drywell depressurization to 1.7 psig for the bypass test was initiated. The Drywell to Wetwell Bypass Test started at 4:15 a.m. on May 4 after 2.5 hours of stabilization. The four hour bypass test was completed at 8:15 a.m. on May 4. Subsequently the drywell was depressurized to atmospheric pressure.

Test Data Summary Table

A. Plant Information

Owner	Georgia Power Company
Plant	Edwin I. Hatch Nuclear Plant Unit 2
Location	Baxley, Georgia
Containment Type	Mark I, BWR
Date Test Completed	May 4, 1982

B. Technical Data

1. Containment Net Free Air Volume (Min)	256,066 cu. ft.
Volume as tested*	228,486 cu. ft.
2. Design Pressure	56 psig
3. Design Temperature	340
4. Calculated Peak Accident Pressure, Pa	57.5 psig
5. Containment ILRT Average Temperature Limits	50-120°F

C. Test Results - Type A Test

1. Test Method	Absolute
2. Data Analysis Techniques	Leakage Rate (Total-Time per BN-TOP-1) and Mass Point (per ANS 56.8-1981)
3. Test Pressure	57.5 psig + 1.0 - 0
4. Maximum Allowable Leakage Rate, La	1.2%/day
5. 75% of La	0.9%/day

6. Integrated Leakage Rate

	Leakage Rate, %/day	
	From Regression Line (Lam)	At Upper 95% Confidence Limit
a. Total Time Analysis	0.696	0.789
b. Mass Point Analysis	0.704	0.722

* As tested condition is due to torus water level 35" above normal.

Test Data Summary Table (Cont'd)

7.	Verification Test Imposed Leakage Rate, Li.%/day	7.1 scfm 0.9%/day
8.	Verification Test Results	Leakage Rate,%/day
	a. Total Time Analysis	1.359
	b. Mass Point Analysis	1.350
9.	Verification Test Limits	Test Limit,%/day
	a. Total Time Analysis	
	(1) Upper Limit (Li + Lam + 0.25 La)	1.896
	(2) Lower Limit (Li + Lam - 0.25 La)	1.296
	b. Mass Point Analysis	
	(1) Upper Limit (Li + Lam + 0.25 La)	1.904
	(2) Lower Limit (Li + Lam - 0.25 La)	1.304

D. Test Results - Bypass Area Test

1.	Calculated Equivalent Bypass Area	0.054 $in.^2$
2.	Allowable Equivalent Bypass Area	0.785 $in.^2$
3.	Rate of Drywell-to-Wetwell Differential Pressure Decay	

Time	Drywell Pressure	Wetwell Pressure	Pressure
0800	16.363 psia	15.002 psia	1.36
0815	16.362 psia	15.019 psia	1.34

a. Calculated Rate	0.039 in H_2O/min. for 15 minutes
b. Allowable Rate (Technical Specification) 4.6.4.1)	0.25 in H_2O/min. for 10 minutes

Reports and Summary Data for the Drywell-to-Wetwell Bypass Area Test are found under Tab "Appendix G".

E. LLRT Adjustments and Other Penalties: None

F. ILRT Results

LLRT, Subtotal of Type C Tests: 6404 accm; 0.142%/day
Subtotal of Type B Tests: 3006 accm; 0.067%/day

TOTAL ILRT Leakage: 0.051%/day < .6 La = .72%/day

3. DISCUSSION

A few exceptions were made to the original procedure. The torus water level was recorded 35 inches above the 150 inch level, which is the basis for the torus free air volume calculation. Air volume adjustments increased the drywell volume fractions and decreased the torus volume fractions. At the end of the stabilization period the containment chillers tripped out causing an air temperature increase in the containment. All fans were turned off to reduce additional heat sources. As the pressure was increasing, the containment had to be vented twice in order to stay below the 58.0 psig maximum test pressure. Following an additional stabilization period, the maximum pressure limit was raised to 58.5 psig.

The containment was visually inspected per Appendix J requirements for cracks, corrosion, and general deterioration. No damage was found.

All valves were lined up in post LOCA condition in accordance with the ILRT Procedure, Appendix B, except as noted below.

The containment cooling and ventilation fans were not used during the leak test period. Fans and chillers were in operation through the pressurization and initial stabilization period, however, all fans were turned off at the beginning of the stabilization period after the chillers tripped and remained off for the remainder of the test.

The only containment penetration in service during the ILRT was the RHR system loop A, lined up for reactor cooling. The chillers and reactor cleanup were not in operation.

Deviations from the standard lineup were:

1. Core spray suction was lined up with the condensate storage tank because of the high torus water level which made the torus inoperable by Technical Specification standards.

2. Condensate transfer system lineup was changed as affected by the RHR lineup, however this had no influence on the ILRT.

The pressurization system consisted of two rented Ingersoll-Rand, oil-free, electric motor driven rotary compressors, 1800 cfm capacity each, with a refrigerated air dryer and moisture separator. The pressurization rate was 11.5 psi/hr. Containment depressurization was through the standby gas treatment system.

4. TEST SEQUENCE

Containment pressurization started on May 2, 1982, at 11:20 a.m. with both compressors running. At 12:30 the compressors stopped due to loss of outside power. Pressurization was resumed at 14:35. Test pressure was reached at 19:03. At the end of the four hour stabilization period

the chillers tripped out causing an air temperature increase. Subsequently the pressure exceeded the 58.0 psig maximum and the containment had to be vented at 00:25, and again at about 03:00 on May 3. After the perturbations from venting stabilized, a consistent set of ILRT data was collected. Further venting was prevented by revising the maximum allowable test pressure to 58.5 psig. A 5 hr. verification test followed at a 7.1 scfm imposed leakage. The containment was depressurized to 2.0 psig and the vaccum breakers closed between the torus and drywell. The torus was depressurized to atmospheric pressure and the drywell to 1.7 psig. At this pressure a 4 hour bypass test was conducted. The bypass test was completed and final depressurization started at 08:15 on May 4, 1982.

The Test Phases were as follows:

Test Phase	Time	Duration	Date
Pressurization	11:30 - 19:00	7.5 hr	May 2
Stabilization	19:00 - 03:00	8	May 2-3
ILRT	03:30 - 14:15	10.75	May 3
Verification	15:30 - 20:30	5	May 3
Depressurization to 1.7 psig	21:00 - 01:45	4.75	May 3-4
Stabilization	01:45 - 04:15	2.5	May 4
Bypass test	04:15 - 08:15	4	May 4
Depressurization to Atmosphere	08:15 -	N/A	May 4

5. INSTRUMENTATION AND DATA AQUISITION

The following instrument system was used:

No. Required	Description	Data	
A. Absolute Pressure			
2	Precision Pressure Gauge Mensor Model 10100-001	Range: Accuracy: Sensitivity: Repeatability: Calibration Date:	0-100 psia ± 0.02% F.S. .001 psia .0005% F.S. 4/15/82
B. Drybulb Temperature			
14	Temperature sensors, Rosemount 100 ohm, Platinum Model 78-65-17	Range: Accuracy: Sensitivity: Repeatability: Calibration Date:	0-150 °F ± 0.10 °F 0.01 °F 0.003 °F 4/14/82

C. Dewpoint Temperature

6	Dewpoint Detectors, EG&G, Model 660-52	Calibrated Range:	40-100 °F
		Accuracy:	± .54 °F
		Sensitivity:	0.10 °F
		Repeatability:	0.05 °F
		Calibration Date:	4/16/82

D. Flow Meters

2	Mass Flowmeter, Model 500-9	Range:	0-10 scfm
		Accuracy:	± 1% F.S.
		Sensitivity:	1% F.S.
		Repeatability:	0.0 scfm
		Calibration Date:	4/16/82

DRYBULB AND DEWPOINT TEMPERATURE SENSOR LOCATIONS

TE No.	Tag No.	Elevation (Ft)	Azimuth (Degress)	Distance From Center	Volume Fractions ILRT	Volume Fractions Bypass Test
			RTD - DRYWELL			
1	125067	120	345	28	.056	.088
2	125068	120	165	28	.056	.088
3	127899	130	90	28	.024	.036
4	125075	134	205	24	.111	.173
5	125071	134	345	20	.111	.173
6	125081	154	35	24	.054	.084
7	127901	154	270	20	.054	.084
8	127902	195	115	13	.087	.137
9	127913	195	295	13	.087	.137
			RTD - TORUS			
10	125039	108	250	65	.072	.200
11	125046	108	25	65	.072	.200
12	125092	108	90	65	.072	.200
13	125069	108	170	65	.072	.200
14	125070	108	315	65	.072	.200
			DEWCELL - DRYWELL			
ME No.						
7*	748	120	330	28	.124	.195
2	1016	134	165	24	.114	.180
3	1001	154	345	24	.109	.180
4	1036	134	330	20	.114	.170
5	659	195	40	13	.179	.275
			DEWCELL - TORUS			
6		108	135	65	.360	1.000

* Faulty Dewcell No. 1 was replaced with spare No. 7

The overall Instrumentation Selection Guide (ISG) value was calculated (see Appendix H) in accordance with ANSI/ANS 56.8-1981 based on above instrumentation and on an eight hour minimum test duration. The calculated ISG = .0054 < .25 La. There was no instrument failure, therefore post ILRT ISG calculation was not required.

The ILRT data collection system, consisting of drybulb and dewpoint temperature sensors and precision pressure gages, was connected to a Volumetrics, Model No. 14632, No. 1, Data Aquisition System (DAS). Pressure Gages were installed in the DAS panel and connected to the drywell and torus through flexible hoses. The dewcells were connected to the DAS through signal conditioning boards. The DAS panel was provided with an automatic scanner and the measured data were printed on paper tape. The data were processed and the leakage rate calculated by a minicomputer, Model Digital 1103 via direct data input from the DAS panel through an RS232 circuit board. Built in electronic mass flow meters provided the imposed leakage for the verification flow.

During the stablization and test period, data were recorded every 15 minutes. During other test periods, data were recorded at 30 minute intervals.

6. TEST METHOD

The containment leakage rate testing method applied is the Absolute Method as described in ANSI/ANS 56.8-1981. this is a direct application of the ideal gas law, PV=WRT. Two Data Analysis Techniques were used:

1. The Mass Point Analysis Technique

   This technique calculates the containment air mass at each time interval. A straight line least squares analysis is used, and the slope of the regression line represents the rate of change of air mass with respect to time, which is the leakage rate.

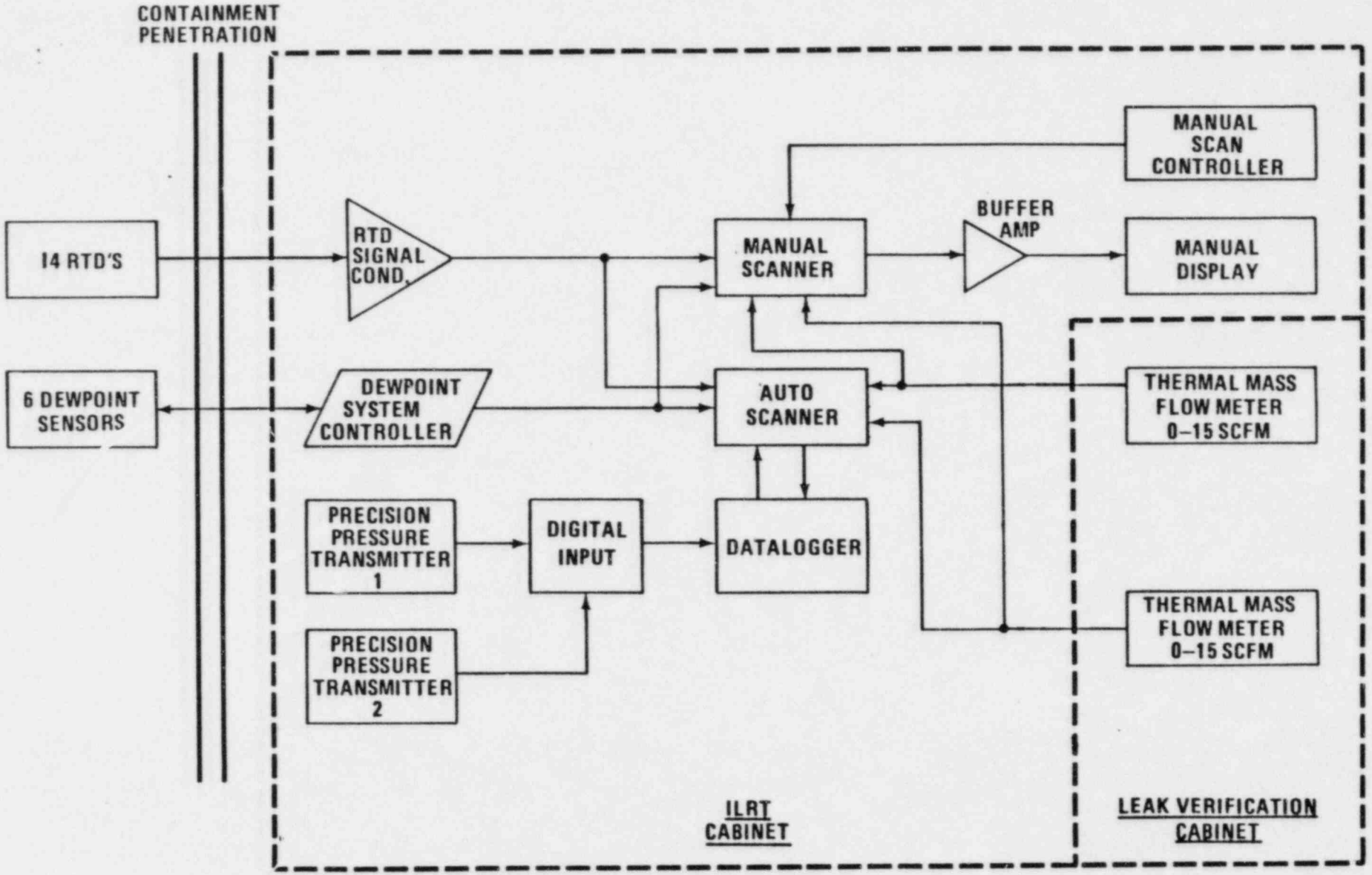
2. The Total Time Analysis Technique

   This technique calculates leakage rate based on the most recent data point and the data point taken at the start of the test. The overall leakage rate is determined by applying linear regression analysis to the leakage rates at each time point.

A 95% upper confidence level was calculated for leak rate data as required by ANSI/ANS 58.6-1981. This is to assure a 95% probability that the calculated leak rate value is within the acceptance limits. All calculations were done with Bechtel's ILRT computer program described in Appendix A.

The temperature and pressure history and the containment air mass variations were plotted by the computer program. These plots are in Appendix E.

TYPICAL ILRT DATA ACQUISITION SYSTEM



BECHTEL ILRT COMPUTER PROGRAM

A. Program and Report Description

1. The Bechtel ILRT computer program is used to determine the integrated leakage rate of a nuclear primary containment structure. The program is used to compute leakage rate based on input values of time, free air volume containment atmosphere total pressure, drybulb temperature, and dewpoint temperature (water vapor pressure). Leakage rate is computer using the Absolute Method as defined in ANSI/ANS 56.8-1981, "Containment System Leakage Testing Requirements" and BN-TOP-1, Rev 1, "Testing Criteria for Integrated Leakage Rate Testing of Primary Containment Structures for Nuclear Power Plants". The program is designed to allow the user to evaluate containment leakage rate test results at the jobsite during containment leakage testing. Current leakage rate values may be obtained at any time during the testing period using one of two computational methods, yielding three different report printouts.

2. In the first printout, the Total Time Report, leakage rate is computed from initial values of free air volume, containment atmosphere drybulb temperature and partial pressure of dry air, the latest values of the same parameters, and elapsed time. These individually computed leakage rates are statistically averaged using linear regression by the method of least squares. The Total-Time Method is the computational technique upon which the short duration test criteria of BN-TOP-1, Rev 1, "Testing Criteria for Integrated Leakage Rate Testing of Primary Containment Structures for Nuclear Power Plant," are based.

3. The second printout is the Mass Point Report and is based on the Mass-Point Analysis Technique described in ANSI/ANS 56.8-1981, "Containment System Leakage Testing Requirements." The mass of dry air in the containment is computed at each data point (time) using the Equation of State, from current values of containment atmosphere drybulb temperature and partial pressure of dry air. Contained mass is "plotted" versus time and a regression line is fit to the data using the method of least squares. Leakage rate is determined from the statistically derived slope and intercept of the regression line.

4. The third printout, the Trend Report, is a summary of leakage rate values based on Total time and Mass Point computations presented as a fuction of number of data points and elapsed time (test duration). The Trend Report provides all leakage rate values required for comparision to the acceptance criteria of BN-TOP-1 for conduct of a short duration test.

5. The program is written in a high level language and is designed for use on a mini-computer with direct data input from the data acquisition system, or on a mainframe via a remote data terminal. Brief descriptions of program use, formulae used for leakage rate computations, and program logic are provided in the following paragraphs.

B. Explanation of Program

1. The Bechtel ILRT computer program is written, for use by experienced ILRT personnel, to determine containment integrated leakage rates based on the Absolute Method described in ANSI/ANS 56.8-1981 and BN-TOP-1.

2. Information loaded into the program prior to the start of the test:

   a. Number of containment atmosphere drybulb temperature sensors and dewpoint temperature (water vapor pressure) sensors to be used in leakage rate computations for the specific test

   b. Volume fractions assigned to each of the above sensors

   c. Calibration data for above sensor, if required

   d. Calibration data for pressure sensor.

3. Information entered into the program at the start of the test:

   a. Test title

   b. Current test pressure and peak test pressure

   c. Maximum allowable leakage rate at peak test pressure

   d. If the test is a verification test:

      (1) Imposed leakage rate

      (2) Leakage rates determined using the two computational methods described in Paragraph A above during the ILRT.

4. Data received from the data acquistion system during the test, and used to compute leakage rates:

   a. Time and date

   b. Containment atmosphere drybulb temperatures

   c. Containment atmosphere pressure

   d. Containment atmosphere dewpoint temperatures

5. After all data at a given time are received , a Summary of Measured Data report (refer to "Program Logic," Paragraph D, "Data" option command) is printed on the data terminal. The date, containment atmosphere weighted average drybulb temperature, partial pressure of the dry air and water vapor pressure are stored on a data file.

6. If drybulb and dewpoint temperature sensors should fail during the test, the data from the sensor(s) are not used. The volume fractions for the remaining sensors are recomputed and reloaded into the program for use in ensuing leakage rate computations.

C. Leakage Rate Formulae

1. Computation using the Total Time Method:

a. Measured leakage rate, from data:

$$P_1 V_i = W_1 R T_1 \quad (1)$$

$$P_i V_i = W_i R T_i \quad (2)$$

$$L_i = \frac{2400\ (W_1 - W_i)}{\Delta t_i\ W_1} \quad (3)$$

Solving for W_1 and W_i and substituting equations (1) and (2) into (3) yields:

$$L_i = 2400/\Delta t_i (1 - T_1 P_i / T_i P_1) \quad (4)$$

where:

W_1, W_i = Weight of contained mass of dry air at times t_1 and t_i respectively, lbm.

T_1, T_i = Containment atmosphere drybulb temperature at times t_1 and t_i respectively, °R.

P_1, P_i = Partial pressure of the dry air component of the containment atmosphere at times t_1 and t_i respectively, psia.

V_i = Containment free air volume (constant or variable during the test), ft^3.

t_1, t_i = Time at 1^{st} and i^{th} data points respectively, hours.

Δt_i = Elapsed time from t_1 to t_i, hours.

R = Specific gas constant for air = 53.35 ft.lbf/lbm.°R.

L_i = Measured leakage rate computed during time interval t_1 to t_i, %/day.

b. Calculated leakage rate from regression analysis:

$$\overline{L} = a + b\Delta t_N \tag{5}$$

where:

$\overline{L}$ = Calculated leakage rate, %/day, as determined from the regression line.

$$a = \frac{\Sigma L_i(\Sigma \Delta t_i^2) - \Sigma \Delta t_i(\Sigma L_i \Delta t_i)}{N(\Sigma \Delta t_i^2) - (\Sigma \Delta t_i)^2} \tag{6}$$

$$b = \frac{N(\Sigma L_i \Delta t_i) - \Sigma L_i(\Sigma \Delta t_i)}{N(\Sigma \Delta t_i^2) - (\Sigma \Delta t_i)^2} \tag{7}$$

N = Number of data points

$$\Sigma = \sum_{i=1}^{N}$$

c. Calculated leakage rate at the 95% confidence level.

$$\overline{L}_{95} = a + b\Delta t_N + S_{\overline{L}} \tag{8}$$

where:

$\overline{L}_{95}$ = Calculated leakage rate at the 95% confidence level, %/day, at elapsed time Δt_N.

For $\Delta t_N < 24$

$$S_{\overline{L}} = t_{0}.025;N-2\ [\Sigma(L_i-\overline{L}_i)^2/(N-2)]^{1/2} \times [1 + \frac{1}{N} + (\Delta t_N-\overline{\Delta t})^2/\Sigma(\Delta t_i-\overline{\Delta t})^2]^{1/2} \tag{9a}$$

where, $t_{0}.025;N-2 = 1.95996 + \frac{2.37226}{N-2} + \frac{2.82250}{(N-2)^2}$;

For $\Delta t_N \geq 24$

$$S_{\overline{L}} = t_{0}.025;N-2\ [\Sigma(L_i - \overline{L}_i)^2/(N-2)]^{1/2} \times [\frac{1}{N} + (\Delta t_N - \overline{\Delta t})^2/\Sigma(\Delta t_i - \overline{\Delta t})^2]^{1/2} \tag{9b}$$

where, $t_{0}.025;N-2 = \dfrac{1.6449(N-2)^2 + 3.5283(N-2) + 0.85602}{(N-2)^2 + 1.2209(N-2) - 1.5162}$

$\overline{L}_i$ = Calculated leakage rate computed using equation (5) at total elapsed time Δt_i, %/day.

$$\overline{\Delta t} = \frac{\Sigma \Delta t_i}{N}$$

2. Computation using the Mass Point Method

a. Contained mass of dry air from data:

$$W_i = 144 \frac{P_i V_i}{R T_i} \tag{10}$$

where:

All symbols as previously defined.

b. Calculated leakage rate from regression analysis:

$$\overline{L} = -2400 \frac{b}{a} \tag{11}$$

where:

$\overline{L}$ = Calculated leakage rate, %/day, as determined from the regression line.

$$a = \frac{\Sigma W_i - b\Sigma\Delta t_i}{N} \tag{12}$$

$$b = \frac{\Sigma[(W_i - \Sigma W_i/N)\ (\Delta t_i - \overline{\Delta t})]}{\Sigma(\Delta t_i - \overline{\Delta t})^2} \tag{13}$$

Δt_i = Total elapsed time at time of i^{th} data point, hours

N = Number of data points

W_i = Contained mass of dry air at i^{th} data point, lbm, as computed from equation (10).

$$\Sigma = \sum_{i=1}^{N}$$

$$\overline{\Delta t} = \Sigma\Delta t_i / N$$

c. Calculated leakage rate at the 95% confidence level.

$$\overline{L}_{95} = \frac{-2400}{a} (b + S_b) \tag{14}$$

where:

$\overline{L}_{95}$ = Calculated leakage rate at the 95% confidence level, %/day.

$$S_b = t_{0.025;N-2} \left[\frac{\Sigma(W_i - \overline{W_i})^2}{(N-2)\Sigma(\Delta t_i - \overline{\Delta t})^2} \right]^{1/2} \quad (15)$$

where, $t_{0.025;N-2} = \dfrac{1.6449(N-2)^2 + 3.5283\,(N-2)^2 + 0.85602}{(N-2)^2 + 1.2209\,(N-2) - 1.5162}$

$\overline{W}_i$ = Contained mass of dry air, lbm, computed at the i^{th} data point from the regression equation (16)

$= a + b\Delta t_i$

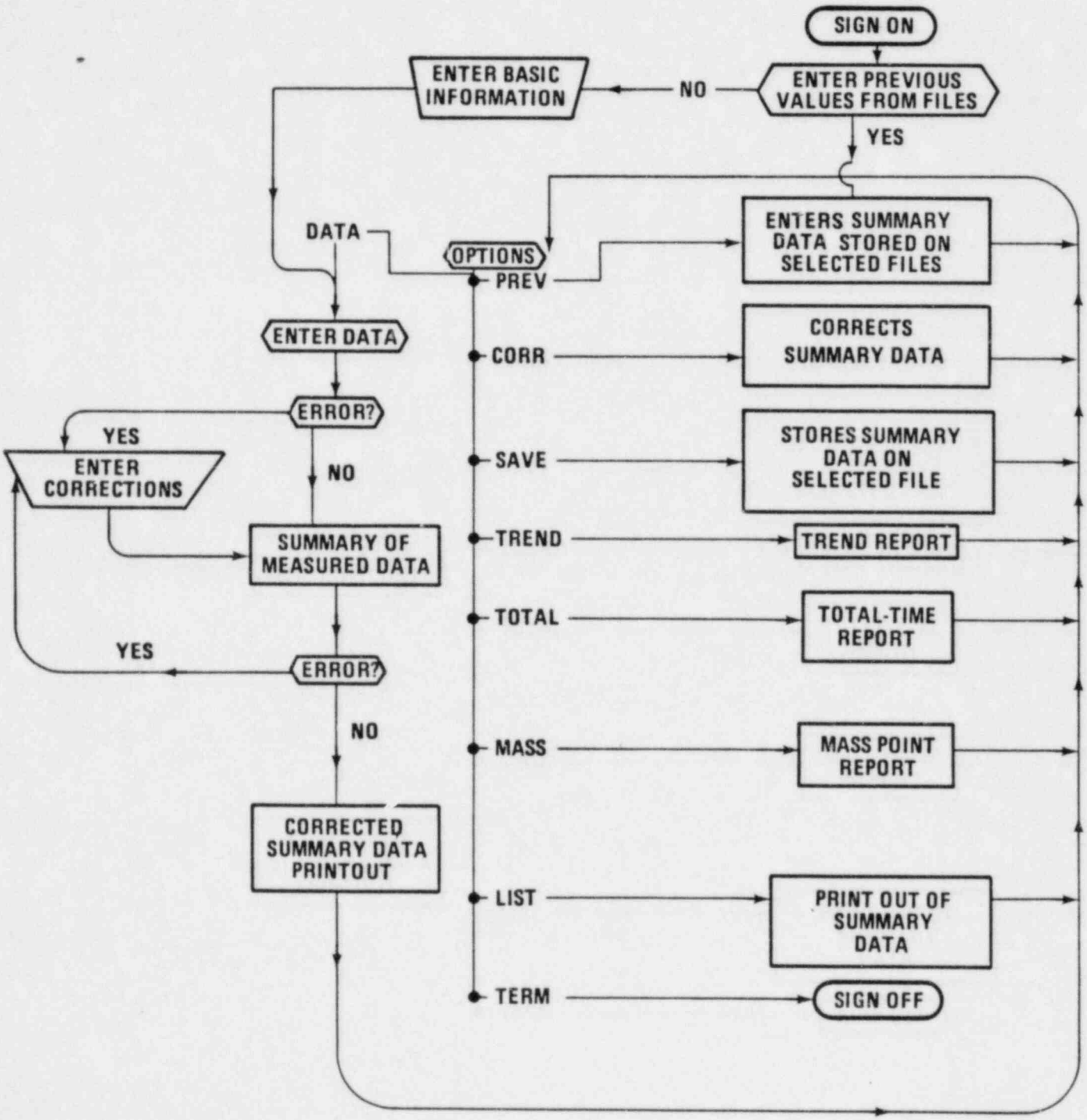
All other symbols are previously defined.

D. Program Logic

1. A flow chart of Bechtel ILRT computer program usage is presented in Figure 1, following. The various user options and a brief description of their associated function are presented below:

OPTION COMMAND	FUNCTION
DATA	Enables operator to enter raw data. When the system requests values of time, volume temperature, pressure and vapor pressure, the user enters the appropriate data. After completing the data entry, a summary is printed out. The user then verifies that the data were entered correctly. If errors are detected, the user will then be given the opportunity to correct the errors. After the user verifies that the data were entered correctly, a Corrected Data Summary Report of time, data, average temperature, partial pressure of dry air, and water vapor pressure is printed.
TREND	Terminal will print out a Trend Report.
TOTAL	Terminal will print out a Total Time Report.
MASS	Terminal will print out a Mass Point Report.
TERM	Enables operator to sign-off temporarily or permanently.
SAVE	Enables operator to store the Data Summary on a file.
PREV	Enables operator to call up an old, previously stored, file.
CORR	Enables operator to correct data stored on a file.
LIST	When used with a given file name, the printer will print out a list of the Summary Data stored on the file.
READ	Enable the computer to receive the next set of raw data from the data acquisition system directly.

BECHTEL CONTAINMENT INTEGRATED LEAKAGE RATE TEST COMPUTER PROGRAM FLOW CHART



E. COMPUTER REPORT AND DATA PRINTOUT

MASS POINT REPORT

The Mass Point Report presents leakage rate data (wt%/day) as determined by the Mass Point Method described in the "Computer Program" section of this report. The "Calculated Leakage Rate" is the value determined from the regression analysis. The "Containment Air Mass" values are the masses of dry air in the containment (lbm). These values, determined from the Equation of State, are used in the regression analysis.

TOTAL TIME REPORT

The Total Time Report presents data leakage rate (wt%/day) as determined by the Total Time Method. The "Calculated Leakage Rate" is the value determined from the regression analysis. The "Measured Leakage Rates" are the leakage rate values determined using Total Time calculations used in the above regression analysis.

TREND REPORT

The Trend Report presents leakage rates (as determined by the Mass Point and Total Time methods described in the "Computer Program" section of this report) in percent of the initial contained mass of dry air per day (wt%/day), elapsed time (hours), and number of data points.

SUMMARY DATA REPORT

The Summary Data report presents the actual data used to calculate leakage rates by the various methods described in the "Computer Program" section of this report. The five column headings are TIME, DATE, TEMP, PRESSURE, and VPRS, and contain data defined as follows:

1. TIME: Time in 24-hour notations (hours and minutes).

2. DATE: Calendar date (month and day).

3. TEMP: Containment weighted-average drybulb temperature in absolute units, degrees Rankine (°R).

4. PRESSURE: Partial pressure of the dry air component of the containment atmosphere in absolute units (psia).

5. VPRS: Partial pressure of water vapor of the containment atmosphere in absolute units (psia).

F. SUMMARY OF MEASURED DATA AND SUMMARY OF CORRECTED DATA

The Summary of Measured Data presents the individual containment atmosphere drybulb temperatures, dewpoint temperatures, and absolute total pressure measured at the time and date as indicated and is used to determine the temperature and pressure described in above.

1. TEMP 1 through TEMP N are the drybulb temperatures, where N = No. of RTD's. The values in the right-hand column are temperatures (°F), multiplied by 100, as read from the data acquisition system (DAS). The values in the left-hand column are the corrected temperatures expressed in absolute units (°R).

2. PRES 1 is the total pressure, absolute. The right-hand value, in parentheses, is a number in counts as read from the DAS. This count value is converted to a value in psia by the computer via the instrument's calibration table, counts versus psia. The left-hand column is the absolute total pressure, psia.

3. VPRS 1 through VPRS n are the dewpoint temperatures (water vapor pressures), where n = No. of dewpoint sensors. The values in the right-hand column are temperatures (°F), multiplied by 100 as read from the DAS. The values in the left-hand column are the water vapor pressures (psia) from the steam tables for saturated steam corresponding to the dewpoint (saturation) temperatures in the center column.

The Summary of Corrected Data presents corrected temperature and pressure values and calculated air mass determined as follows:

1. TEMPERATURE (°F) is the volume weighted average containment atmosphere drybulb temperature derived from TEMP 1 through TEMP N.

2. CORRECTED PRESSURE (psia) is the partial pressure of the dry air component of the containment atmosphere, absolute. The volume weighted average containment atmosphere water vapor pressure is subtracted from PRES 1, total pressure, yielding the partial pressure of the dry air.

3. VAPOR PRESSURE (psia) is the volume weighted average containment atmosphere water vapor pressure, absolute derived from VPRS 1 through VPRS n.

4. CONTAINMENT AIR MASS (lbm) is the calculated mass of dry air in the containment. The mass of dry air is calculated using the containment free air volume and the above TEMPERATURE and CORRRECTED PRESSURE of the dry air.

TABLE B

PRESSURIZATION AND STABILIZATION DATA

TEST.001

HATCH UNIT 2 ILRT

ALMAX = 1.200 VOL = 228486.00

VRATET = 0.000 VRATEM = 0.000 VRATEP = 0.000

TIME	DATE	TEMP	PRESSURE	VPRS	VOLUME
1100	502	547.71735	14.459339	0.44287539	229307.
1130	502	548.42651	15.427382	0.43596259	229307.
1200	502	546.96399	18.403946	0.33654901	229307.
1230	502	545.72003	22.792912	0.33683079	229307.
1300	502	544.26331	22.730215	0.33066311	229307.
1400	502	543.09332	22.695572	0.32139331	229307.
1430	502	542.65393	22.677931	0.31807700	229307.
1500	502	544.35486	28.153757	0.34244490	229307.
1530	502	544.25385	34.002525	0.35386461	228486.
1600	502	544.13831	39.804733	0.36193511	228486.
1630	502	544.01526	45.605942	0.37401891	228486.
1700	502	543.95642	51.394924	0.38010299	228486.
1800	502	543.74469	62.882561	0.39114559	228486.
1830	502	543.64429	68.636627	0.39886019	228486.
1846	502	543.55847	71.822182	0.40600589	228486.
1903	502	542.48248	72.137146	0.40409961	228486.
1915	502	541.95819	72.030785	0.39617220	228486.
1930	502	541.47192	71.965202	0.39218280	228486.
1945	502	541.12103	71.916214	0.38849589	228486.
2000	502	540.83911	71.873306	0.38469931	228486.
2015	502	540.57977	71.832298	0.38197219	228486.
2030	502	540.52258	72.219879	0.38099781	228486.
2045	502	540.23309	72.175156	0.37900731	228486.
2100	502	540.01398	72.140884	0.37651211	228486.
2115	502	539.81384	72.108971	0.37463400	228486.
2130	502	539.63232	72.078590	0.37321019	228486.
2145	502	539.46851	72.050423	0.37155879	228486.
2200	502	539.31647	72.028183	0.36994919	228486.
2215	502	539.21460	72.070366	0.36950359	228486.
2230	502	539.07117	72.062515	0.36741659	228486.
2245	502	538.99380	72.036385	0.36572549	228486.
2300	502	538.77081	72.012291	0.36497030	228486.
2315	502	538.63965	71.988556	0.36385739	228486.
2330	502	538.53088	71.969498	0.36303771	228486.
2345	502	538.44958	71.951454	0.36319950	228486.
0	503	540.58063	72.214996	0.40177920	228486.
15	503	542.00580	72.341408	0.42742589	228486.
30	503	542.67517	72.208992	0.44157159	228486.
45	503	543.27063	72.282509	0.45253891	228486.
100	503	544.07806	72.290253	0.45770860	228486.
115	503	544.60602	72.310699	0.45614380	228486.
130	503	544.87622	72.322525	0.45525321	228486.
145	503	545.07660	72.333915	0.45378581	228486.
200	503	545.28473	72.348167	0.45345730	228486.
215	503	545.45026	72.359879	0.45367521	228486.
230	503	545.63574	72.370636	0.45384711	228486.
245	503	545.77954	72.381027	0.45439190	228486.
300	503	545.92609	72.390541	0.45482111	228486.

TABLE B (CONT'D)

PRESSURIZATION AND STABILIZATION DATA (CONT'D)

300	503	545.92609	72.390541	0.45482111	228486.
315	503	545.89404	72.169464	0.45427051	228486.
330	503	546.12152	72.193130	0.45545331	228486.
345	503	546.24988	72.203964	0.45654660	228486.
400	503	546.38446	72.211227	0.45722711	228486.
415	503	546.50043	72.219299	0.45809990	228486.
430	503	546.61273	72.224503	0.45886070	228486.
445	503	546.70148	72.231148	0.45917800	228496.
500	503	546.79956	72.237091	0.46017921	228486.
515	503	546.89209	72.242599	0.46063709	228486.
530	503	546.99573	72.248093	0.46111241	228486.
545	503	547.08215	72.252647	0.46152201	228486.
600	503	547.16370	72.256508	0.46262860	228486.
615	503	547.23853	72.262131	0.46297511	228486.
630	503	547.32056	72.265434	0.46364659	228486.
645	503	547.37012	72.270103	0.46394089	228486.
700	503	547.46710	72.273514	0.46451089	228486.
715	503	547.51385	72.277626	0.46536711	228486.
730	503	547.60999	72.281334	0.46563989	228486.
745	503	547.67487	72.284157	0.46679050	228486.
800	503	547.74707	72.287987	0.46693715	228486.

HATCH UNIT 2 ILRT

TREND REPORT
LEAKAGE RATES (WEIGHT PERCENT/DAY)

TIME AND DATE AT START OF TEST: 330 0503
ELAPSED TIME: 10.75 HOURS

NO. DATA POINTS	ELAPSED TIME	TOTAL-TIME ANALYSIS MEAN	MASS-POINT ANALYSIS CALCULATED	MASS-POINT ANALYSIS 95% UCL
10	2.25	1.014	0.996	1.034
11	2.50	1.012	0.987	1.019
12	2.75	1.006	0.966	1.000
13	3.00	1.001	0.954	0.986
14	3.25	0.994	0.927	0.966
15	3.50	0.989	0.917	0.952
16	3.75	0.981	0.896	0.933
17	4.00	0.976	0.888	0.921
18	4.25	0.971	0.880	0.910
19	4.50	0.966	0.872	0.900
20	4.75	0.961	0.861	0.889
21	5.00	0.956	0.853	0.879
22	5.25	0.952	0.847	0.871
23	5.50	0.947	0.839	0.863
24	5.75	0.943	0.832	0.855
25	6.00	0.938	0.824	0.846
26	6.25	0.933	0.814	0.837
27	6.50	0.929	0.808	0.830
28	6.75	0.924	0.799	0.821
29	7.00	0.920	0.791	0.813
30	7.25	0.916	0.785	0.806
31	7.50	0.911	0.778	0.799
32	7.75	0.907	0.771	0.792
33	8.00	0.903	0.764	0.785
34	8.25	0.899	0.758	0.778
35	8.50	0.895	0.752	0.772
36	8.75	0.891	0.745	0.765
37	9.00	0.887	0.739	0.759
38	9.25	0.884	0.734	0.753
39	9.50	0.880	0.729	0.748
40	9.75	0.877	0.723	0.742
41	10.00	0.873	0.719	0.737
42	10.25	0.870	0.714	0.732
43	10.50	0.866	0.709	0.727
44	10.75	0.863	0.704	0.722

LEAKAGE RATE (WEIGHT PERCENT/DAY)
MASS-POINT ANALYSIS

TIME AND DATE AT START OF TEST: 330 0503
ELAPSED TIME: 10.75 HOURS

TIME	TEMP (R)	PRESSURE (PSIA)	CTMT. AIR MASS (LBM)	MASS LOSS (LBM)	TOT.AVG. MASS LOSS (LBM/HR)
330	546.122	72.1931	81526.		
345	546.250	72.2040	81519.	6.9	27.7
400	546.384	72.2112	81507.	11.9	37.6
415	546.500	72.2193	81499.	8.2	36.0
430	546.613	72.2245	81488.	10.9	37.9
445	546.701	72.2311	81482.	5.7	34.9
500	546.800	72.2371	81474.	7.9	34.3
515	546.892	72.2426	81467.	7.6	33.8
530	546.996	72.2481	81457.	9.2	34.2
545	547.082	72.2526	81450.	7.7	33.8
600	547.164	72.2565	81442.	7.8	33.5
615	547.239	72.2621	81437.	4.8	32.2
630	547.321	72.2654	81429.	8.5	32.4
645	547.370	72.2701	81426.	2.1	30.5
700	547.467	72.2735	81416.	10.6	31.4
715	547.514	72.2776	81414.	2.3	29.9
730	547.610	72.2813	81403.	10.1	30.6
745	547.675	72.2842	81397.	6.5	30.3
800	547.747	72.2880	81391.	6.4	30.0
815	547.801	72.2914	81386.	4.1	29.3
830	547.870	72.2938	81379.	7.6	29.4
845	547.945	72.2974	81372.	7.0	29.3
900	548.004	72.3008	81367.	5.0	28.9
915	548.062	72.3031	81361.	6.0	28.7
930	548.118	72.3063	81356.	4.7	28.3
945	548.173	72.3102	81352.	3.8	27.7
1000	548.238	72.3117	81344.	7.9	27.9
1015	548.283	72.3144	81341.	3.6	27.4
1030	548.336	72.3172	81336.	4.7	27.1
1045	548.397	72.3193	81329.	6.8	27.1
1100	548.449	72.3220	81325.	4.6	26.8
1115	548.500	72.3246	81320.	4.6	26.5
1130	548.555	72.3270	81314.	5.5	26.4
1145	548.600	72.3282	81309.	5.3	26.2
1200	548.651	72.3311	81305.	4.2	26.0
1215	548.692	72.3337	81302.	3.1	25.6
1230	548.749	72.3349	81295.	7.1	25.7
1245	548.794	72.3361	81289.	5.4	25.6
1300	548.838	72.3380	81285.	4.3	25.3
1315	548.880	72.3393	81280.	4.8	25.2
1330	548.927	72.3408	81275.	5.3	25.1
1345	548.971	72.3435	81271.	3.5	24.8
1400	549.007	72.3443	81267.	4.4	24.6
1415	549.061	72.3462	81261.	5.8	24.6

FREE AIR VOLUME USED (MILLIONS OF CU. FT.) = 0.229

REGRESSION LINE
INTERCEPT (LBM) = 81507.
SLOPE (LBM/HR) = -23.9

MAXIMUM ALLOWABLE LEAKAGE RATE = 1.200
75 % OF MAXIMUM ALLOWABLE LEAKAGE RATE = 0.900
THE UPPER 95% CONFIDENCE LIMIT = 0.722
THE CALCULATED LEAKAGE RATE = 0.704

HATCH UNIT 2 ILRT

LEAKAGE RATE (WEIGHT PERCENT/DAY)
TOTAL-TIME ANALYSIS

TIME AND DATE AT START OF TEST: 330 0503
ELAPSED TIME: 10.75 HOURS

TIME	TEMP. (R)	PRESSURE (PSIA)	MEASURED LEAKAGE RATE
330	546.122	72.1931	
345	546.250	72.2040	0.815
400	546.384	72.2112	1.107
415	546.500	72.2193	1.059
430	546.613	72.2245	1.115
445	546.701	72.2311	1.027
500	546.800	72.2371	1.011
515	546.892	72.2426	0.994
530	546.996	72.2481	1.006
545	547.082	72.2526	0.995
600	547.164	72.2565	0.987
615	547.239	72.2621	0.949
630	547.321	72.2654	0.953
645	547.370	72.2701	0.899
700	547.467	72.2735	0.924
715	547.514	72.2776	0.880
730	547.610	72.2813	0.900
745	547.675	72.2842	0.892
800	547.747	72.2880	0.884
815	547.801	72.2914	0.863
830	547.870	72.2938	0.865
845	547.945	72.2974	0.863
900	548.004	72.3008	0.850
915	548.062	72.3031	0.844
930	548.118	72.3063	0.832
945	548.173	72.3102	0.817
1000	548.238	72.3117	0.821
1015	548.283	72.3144	0.807
1030	548.336	72.3172	0.798
1045	548.397	72.3193	0.798
1100	548.449	72.3220	0.789
1115	548.500	72.3246	0.781
1130	548.555	72.3270	0.777
1145	548.600	72.3282	0.772
1200	548.651	72.3311	0.764
1215	548.692	72.3337	0.753
1230	548.749	72.3349	0.756
1245	548.794	72.3361	0.752
1300	548.838	72.3380	0.746
1315	548.880	72.3393	0.741
1330	548.927	72.3408	0.738
1345	548.971	72.3435	0.730
1400	549.007	72.3443	0.725
1415	549.061	72.3462	0.724

MEAN OF MEASURED LEAKAGE RATES	=	0.863
MAXIMUM ALLOWABLE LEAKAGE RATE	=	1.200
75 % OF MAXIMUM ALLOWABLE LEAKAGE RATE	=	0.900
THE UPPER 95% CONFIDENCE LIMIT	=	0.739
THE CALCULATED LEAKAGE RATE	=	0.696

ILRT.DAT

HATCH UNIT 2 ILRT

ALMAX = 1.200 VOL = 228486.00

VRATET = 0.000 VRATEM = 0.000 VRATEP = 0.000

TIME	DATE	TEMP	PRESSURE	VPRS	VOLUME
330	503	546.12152	72.193130	0.45545334	228486.
345	503	546.24988	72.203964	0.45654657	228486.
400	503	546.38446	72.211227	0.45722711	228486.
415	503	546.50043	72.219299	0.45809987	228486.
430	503	546.61273	72.224503	0.45886075	228486.
445	503	546.70148	72.231148	0.45917797	228486.
500	503	546.79956	72.237091	0.46017921	228486.
515	503	546.89209	72.242599	0.46063712	228486.
530	503	546.99573	72.248093	0.46111235	228486.
545	503	547.08215	72.252647	0.46152198	228486.
600	503	547.16370	72.256508	0.46262860	228486.
615	503	547.23853	72.262131	0.46297505	228486.
630	503	547.32056	72.265434	0.46364659	228486.
645	503	547.37012	72.270103	0.46394098	228486.
700	503	547.46710	72.273514	0.46451089	228486.
715	503	547.51392	72.277626	0.46536711	228486.
730	503	547.60999	72.281334	0.46563998	228486.
745	503	547.67487	72.284157	0.46679050	228486.
800	503	547.74707	72.287987	0.46693718	228486.
815	503	547.80072	72.291412	0.46748662	228486.
830	503	547.87018	72.293785	0.46809441	228486.
845	503	547.94513	72.297447	0.46840504	228486.
900	503	548.00403	72.300797	0.46902969	228486.
915	503	548.06201	72.303146	0.46966258	228486.
930	503	548.11755	72.306259	0.47052729	228486.
945	503	548.17291	72.310181	0.47057733	228486.
1000	503	548.23779	72.311684	0.47205111	228486.
1015	503	548.28284	72.314407	0.47231576	228486.
1030	503	548.33624	72.317230	0.47247368	228486.
1045	503	548.39728	72.319267	0.47342062	228486.
1100	503	548.44885	72.322014	0.47365400	228486.
1115	503	548.50012	72.324646	0.47399554	228486.
1130	503	548.55536	72.327049	0.47457597	228486.
1145	503	548.60022	72.328239	0.47538075	228486.
1200	503	548.65076	72.331131	0.47547323	228486.
1215	503	548.69165	72.333733	0.47584826	228486.
1230	503	548.74908	72.334946	0.47662181	228486.
1245	503	548.79407	72.336098	0.47745478	228486.
1300	503	548.83801	72.338036	0.47750655	228486.
1315	503	548.88013	72.339325	0.47820151	228486.
1330	503	548.92743	72.340820	0.47869778	228486.
1345	503	548.97144	72.343536	0.47896397	228486.
1400	503	549.00708	72.344330	0.48015821	228486.
1415	503	549.06067	72.346237	0.48023975	228486.

SUMMARY OF MEASURED DATA AT 315 0503

TEMP	1 =	540.45001	(8078.)
TEMP	2 =	540.66003	(8099.)
TEMP	3 =	541.85004	(8218.)
TEMP	4 =	543.10004	(8343.)
TEMP	5 =	543.13000	(8346.)
TEMP	6 =	550.79004	(9112.)
TEMP	7 =	550.94000	(9127.)
TEMP	8 =	564.29999	(10463.)
TEMP	9 =	565.09003	(10542.)
TEMP	10 =	538.82001	(7915.)
TEMP	11 =	539.12000	(7945.)
TEMP	12 =	539.13000	(7946.)
TEMP	13 =	538.61003	(7894.)
TEMP	14 =	539.12000	(7945.)
PRES	1 =	72.623734	(72780.)
VPRS	1 =	0.40904689	(7353.)
VPRS	2 =	0.40753657	(7342.)
VPRS	3 =	[illegible]	[illegible]
VPRS	4 =	0.40973341	(7358.)
VPRS	5 =	0.47245121	(7786.)
VPRS	6 =	0.49048999	(7900.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 315
DATE = 0503

TEMPERATURE (DEGREES R.) = 545.89404

CORRECTED PRESSURE (PSIA) = 72.169464

VAPOR PRESSURE (PSIA) = 0.45427054

CTMT. AIR MASS (LBM) = 81533.

TEMP 2 = 540.97000 (8120.)
TEMP 3 = 542.10004 (8243.)
TEMP 4 = 543.33002 (8366.)
TEMP 5 = 543.38000 (8371.)
TEMP 6 = 551.17004 (9150.)
TEMP 7 = 551.29004 (9162.)
TEMP 8 = 564.75000 (10508.)
TEMP 9 = 565.54999 (10588.)
TEMP 10 = 538.87000 (7920.)
TEMP 11 = 539.22003 (7955.)
TEMP 12 = 539.20001 (7953.)
TEMP 13 = 538.66003 (7899.)
TEMP 14 = 539.19000 (7952.)

PRES 1 = 72.648582 (72805.)

VPRS 1 = 0.41000798 (7360.)
VPRS 2 = 0.40918422 (7354.)
VPRS 3 = 0.45274431 (7657.)
VPRS 4 = 0.41083184 (7366.)
VPRS 5 = 0.47337636 (7792.)
VPRS 6 = 0.49179721 (7908.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 330
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.12152

CORRECTED PRESSURE (PSIA) = 72.193130

VAPOR PRESSURE (PSIA) = 0.45545334

CTMT. AIR MASS (LBM) = 81526.

SUMMARY OF MEASURED DATA AT 345 0503

TEMP 1 =	540.79999	(8113.)
TEMP 2 =	541.00000	(8133.)
TEMP 3 =	542.23999	(8257.)
TEMP 4 =	543.46002	(8379.)
TEMP 5 =	543.48999	(8382.)
TEMP 6 =	551.41003	(9174.)
TEMP 7 =	551.53003	(9186.)
TEMP 8 =	565.09003	(10542.)
TEMP 9 =	565.83002	(10616.)
TEMP 10 =	538.88000	(7921.)
TEMP 11 =	539.26001	(7959.)
TEMP 12 =	539.22003	(7955.)
TEMP 13 =	538.64001	(7897.)
TEMP 14 =	539.21002	(7954.)
PRES 1 =	72.660507	(72817.)
VPRS 1 =	0.41316593	(7383.)
VPRS 2 =	0.41083184	(7366.)
VPRS 3 =	0.45454314	(7669.)
VPRS 4 =	0.41344047	(7385.)
VPRS 5 =	0.47414741	(7797.)
VPRS 6 =	0.49147049	(7906.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 345
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.24988

CORRECTED PRESSURE (PSIA) = 72.203964

VAPOR PRESSURE (PSIA) = 0.45654657

CTMT. AIR MASS (LBM) = 81319.

SUMMARY OF MEASURED DATA AT 400 0503

TEMP	1 =	540.96002	(8123.)
TEMP	2 =	541.12000	(8145.)
TEMP	3 =	542.35004	(8268.)
TEMP	4 =	543.59003	(8392.)
TEMP	5 =	543.58002	(8391.)
TEMP	6 =	551.67999	(9201.)
TEMP	7 =	551.76001	(9209.)
TEMP	8 =	565.41003	(10574.)
TEMP	9 =	566.26001	(10659.)
TEMP	10 =	538.99001	(7922.)
TEMP	11 =	539.27002	(7950.)
TEMP	12 =	539.23004	(7956.)
TEMP	13 =	538.65002	(7898.)
TEMP	14 =	539.21002	(7954.)
PRES	1 =	72.668457	(72825.)
VPRS	1 =	0.41440156	(7392.)
VPRS	2 =	0.41206750	(7375.)
VPRS	3 =	0.45649180	(7682.)
VPRS	4 =	0.41302860	(7382.)
VPRS	5 =	0.47603914	(7809.)
VPRS	6 =	0.49114361	(7904.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 400
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.38446

CORRECTED PRESSURE (PSIA) = 72.211227

VAPOR PRESSURE (PSIA) = 0.45722708

CTMT. AIR MASS (LBM) = 81507.

SUMMARY OF MEASURED DATA AT 415 0503

TEMP	1 =	540.98999	(8132.)
TEMP	2 =	541.19000	(8152.)
TEMP	3 =	542.45001	(8278.)
TEMP	4 =	543.67004	(8400.)
TEMP	5 =	543.70001	(8403.)
TEMP	6 =	551.91003	(9224.)
TEMP	7 =	551.98004	(9231.)
TEMP	8 =	565.81000	(10614.)
TEMP	9 =	566.57001	(10690.)
TEMP	10 =	538.86005	(7919.)
TEMP	11 =	539.27002	(7960.)
TEMP	12 =	539.22003	(7955.)
TEMP	13 =	538.66003	(7899.)
TEMP	14 =	539.19000	(7952.)
PRES	1 =	72.677399	(72834.)
VPRS	1 =	0.41634846	(7406.)
VPRS	2 =	0.41261670	(7379.)
VPRS	3 =	0.45799080	(7692.)
VPRS	4 =	0.41508812	(7397.)
VPRS	5 =	0.47699201	(7815.)
VPRS	6 =	0.49114361	(7904.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 415
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.50043

CORRECTED PRESSURE (PSIA) = 72.219299

VAPOR PRESSURE (PSIA) = 0.45809987

CTMT. AIR MASS (LBM) = 81499.

SUMMARY OF MEASURED DATA AT 430 0503

TEMP	1 =	541.06000	(8139.)
TEMP	2 =	541.29999	(8163.)
TEMP	3 =	542.54004	(8287.)
TEMP	4 =	543.78003	(8411.)
TEMP	5 =	543.78003	(8411.)
TEMP	6 =	552.12000	(9245.)
TEMP	7 =	552.17999	(9251.)
TEMP	8 =	566.08002	(10641.)
TEMP	9 =	566.97003	(10730.)
TEMP	10 =	538.87000	(7920.)
TEMP	11 =	539.25000	(7958.)
TEMP	12 =	539.22003	(7955.)
TEMP	13 =	538.65002	(7898.)
TEMP	14 =	539.19000	(7952.)
PRES	1 =	72.683365	(72840.)
VPRS	1 =	0.41705540	(7411.)
VPRS	2 =	0.41606560	(7404.)
VPRS	3 =	0.45965260	(7703.)
VPRS	4 =	0.41522545	(7398.)
VPRS	5 =	0.47778594	(7820.)
VPRS	6 =	0.49098018	(7903.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 430
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.61273

CORRECTED PRESSURE (PSIA) = 72.224503

VAPOR PRESSURE (PSIA) = 0.45886073

CTMT. AIR MASS (LBM) = 81488.

SUMMARY OF MEASURED DATA AT 445 0503

TEMP	1 =	541.16003	(8149.)
TEMP	2 =	541.37000	(8170.)
TEMP	3 =	542.62000	(8295.)
TEMP	4 =	543.86005	(8419.)
TEMP	5 =	543.89001	(8422.)
TEMP	6 =	552.33002	(9266.)
TEMP	7 =	552.38000	(9271.)
TEMP	8 =	566.27002	(10660.)
TEMP	9 =	567.23004	(10756.)
TEMP	10 =	538.84003	(7917.)
TEMP	11 =	539.23999	(7957.)
TEMP	12 =	539.20001	(7953.)
TEMP	13 =	538.66003	(7899.)
TEMP	14 =	539.17004	(7950.)
PRES	1 =	72.690323	(72647.)
VPRS	1 =	0.41790375	(7417.)
VPRS	2 =	0.41564143	(7401.)
VPRS	3 =	0.46088621	(7711.)
VPRS	4 =	0.41663122	(7408.)
VPRS	5 =	0.47858000	(7925.)
VPRS	6 =	0.49048999	(7900.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 445
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.70148

CORRECTED PRESSURE (PSIA) = 72.231148

VAPOR PRESSURE (PSIA) = 0.45917797

CTMT. AIR MASS (LBM) = 81482.

SUMMARY OF MEASURED DATA AT 500 0503

TEMP	1 =	541.22003	(8155.)
TEMP	2 =	541.46002	(8179.)
TEMP	3 =	542.71002	(8304.)
TEMP	4 =	543.94000	(8427.)
TEMP	5 =	543.97003	(8430.)
TEMP	6 =	552.54004	(9287.)
TEMP	7 =	552.58002	(9291.)
TEMP	8 =	566.57001	(10690.)
TEMP	9 =	567.51001	(10784.)
TEMP	10 =	538.84003	(7917.)
TEMP	11 =	539.23004	(7956.)
TEMP	12 =	539.20001	(7953.)
TEMP	13 =	538.64001	(7897.)
TEMP	14 =	539.16003	(7949.)
PRES	1 =	72.697273	(72854.)
VPRS	1 =	0.42016622	(7433.)
VPRS	2 =	0.41606560	(7404.)
VPRS	3 =	0.46242818	(7721.)
VPRS	4 =	0.41804519	(7418.)
VPRS	5 =	0.42016798	(7835.)
VPRS	6 =	0.49065343	(7901.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 500
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.79956

CORRECTED PRESSURE (PSIA) = 72.237091

VAPOR PRESSURE (PSIA) = 0.46017921

CTMT. AIR MASS (LBM) = 81474.

SUMMARY OF MEASURED DATA AT 515 0503

TEMP	1 =	541.32001	(8165.)
TEMP	2 =	541.53003	(8186.)
TEMP	3 =	542.78003	(8311.)
TEMP	4 =	544.05005	(8438.)
TEMP	5 =	544.08002	(8441.)
TEMP	6 =	552.75000	(9308.)
TEMP	7 =	552.77002	(9310.)
TEMP	8 =	566.85004	(10718.)
TEMP	9 =	567.76001	(10809.)
TEMP	10 =	538.81000	(7914.)
TEMP	11 =	539.21002	(7954.)
TEMP	12 =	539.17999	(7951.)
TEMP	13 =	538.58002	(7891.)
TEMP	14 =	539.14001	(7947.)
PRES	1 =	72.703239	(72860.)
VPRS	1 =	0.42129743	(7441.)
VPRS	2 =	0.41691396	(7410.)
VPRS	3 =	0.46350759	(7728.)
VPRS	4 =	0.41846937	(7421.)
VPRS	5 =	0.48080319	(7839.)
VPRS	6 =	0.49048999	(7900.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 515
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.89209

CORRECTED PRESSURE (PSIA) = 72.242599

VAPOR PRESSURE (PSIA) = 0.46063712

CTMT. AIR MASS (LBM) = 81467.

SUMMARY OF MEASURED DATA AT 530 0503

TEMP	1 =	541.40002	(8173.)
TEMP	2 =	541.61005	(8194.)
TEMP	3 =	542.86005	(8319.)
TEMP	4 =	544.16003	(8449.)
TEMP	5 =	544.17004	(8450.)
TEMP	6 =	552.95001	(9328.)
TEMP	7 =	552.97003	(9330.)
TEMP	8 =	567.10004	(10743.)
TEMP	9 =	568.08002	(10841.)
TEMP	10 =	538.82001	(7915.)
TEMP	11 =	539.19000	(7952.)
TEMP	12 =	539.16003	(7949.)
TEMP	13 =	538.61005	(7894.)
TEMP	14 =	539.13000	(7946.)
PRES	1 =	72.709206	(72866.)
VPRS	1 =	0.42143875	(7442.)
VPRS	2 =	0.41818663	(7419.)
VPRS	3 =	0.46474123	(7736.)
VPRS	4 =	0.41903499	(7425.)
VPRS	5 =	0.48143840	(7843.)
VPRS	6 =	0.49048999	(7900.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 530
DATE = 0503

TEMPERATURE (DEGREES R.) = 546.99573

CORRECTED PRESSURE (PSIA) = 72.248093

VAPOR PRESSURE (PSIA) = 0.46111235

CTMT. AIR MASS (LBM) = 81457.

SUMMARY OF MEASURED DATA AT 545 0503

TEMP	1 =	541.46002	(8179.)
TEMP	2 =	541.65002	(8198.)
TEMP	3 =	542.96002	(8329.)
TEMP	4 =	544.23999	(8457.)
TEMP	5 =	544.28003	(8461.)
TEMP	6 =	553.13000	(9346.)
TEMP	7 =	553.16003	(9349.)
TEMP	8 =	567.33002	(10766.)
TEMP	9 =	568.33002	(10866.)
TEMP	10 =	538.81000	(7914.)
TEMP	11 =	539.20001	(7953.)
TEMP	12 =	539.14001	(7947.)
TEMP	13 =	538.59003	(7892.)
TEMP	14 =	539.11005	(7944.)
PRES	1 =	72.714172	(72871.)
VPRS	1 =	0.42214581	(7447.)
VPRS	2 =	0.41917643	(7426.)
VPRS	3 =	0.46597484	(7744.)
VPRS	4 =	0.42044896	(7435.)
VPRS	5 =	0.48223245	(7948.)
VPRS	6 =	0.48985478	(7896.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 545
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.08215

CORRECTED PRESSURE (PSIA) = 72.252647

VAPOR PRESSURE (PSIA) = 0.46152198

CTMT. AIR MASS (LBM) = 81450.

SUMMARY OF MEASURED DATA AT 600 0503

TEMP	1 =	541.54004	(8187.)
TEMP	2 =	541.73004	(8206.)
TEMP	3 =	543.05005	(8338.)
TEMP	4 =	544.32001	(8465.)
TEMP	5 =	544.36005	(8469.)
TEMP	6 =	553.33002	(9366.)
TEMP	7 =	553.33002	(9366.)
TEMP	8 =	567.54999	(10788.)
TEMP	9 =	568.56000	(10889.)
TEMP	10 =	538.78003	(7911.)
TEMP	11 =	539.17004	(7950.)
TEMP	12 =	539.14001	(7947.)
TEMP	13 =	538.56000	(7889.)
TEMP	14 =	539.11005	(7944.)
PRES	1 =	72.719139	(72876.)
VPRS	2 =	0.42002478	(7432.)
VPRS	3 =	0.46736258	(7753.)
VPRS	4 =	0.42115602	(7440.)
VPRS	5 =	0.48366159	(7857.)
VPRS	6 =	0.49033129	(7899.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 600
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.16370

CORRECTED PRESSURE (PSIA) = 72.256508

VAPOR PRESSURE (PSIA) = 0.46262860

CTMT. AIR MASS (LBM) = 81442.

SUMMARY OF MEASURED DATA AT 615 0503

TEMP	1 =	541.62000	(8195.)
TEMP	2 =	541.82001	(8215.)
TEMP	3 =	543.13000	(8346.)
TEMP	4 =	544.41003	(8474.)
TEMP	5 =	544.44000	(8477.)
TEMP	6 =	553.47003	(9380.)
TEMP	7 =	553.50000	(9383.)
TEMP	8 =	567.73004	(10806.)
TEMP	9 =	568.79004	(10912.)
TEMP	10 =	538.76001	(7909.)
TEMP	11 =	539.15002	(7948.)
TEMP	12 =	539.11005	(7944.)
TEMP	13 =	538.54999	(7888.)
TEMP	14 =	539.08002	(7941.)
PRES	1 =	72.725105	(72882.)
VPRS	1 =	0.42398396	(7460.)
VPRS	2 =	0.42143875	(7442.)
VPRS	3 =	0.46875045	(7762.)
VPRS	4 =	0.42228723	(7448.)
VPRS	5 =	0.48445565	(7862.)
VPRS	6 =	0.49001360	(7897.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 615
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.23853

CORRECTED PRESSURE (PSIA) = 72.262131

VAPOR PRESSURE (PSIA) = 0.46297505

CTMT. AIR MASS (LBM) = 81437.

SUMMARY OF MEASURED DATA AT 630 0503

TEMP	1 =	541.67004	(8200.)
TEMP	2 =	541.89001	(8222.)
TEMP	3 =	543.21002	(8354.)
TEMP	4 =	544.47003	(8480.)
TEMP	5 =	544.51001	(8484.)
TEMP	6 =	553.67004	(9400.)
TEMP	7 =	553.67004	(9400.)
TEMP	8 =	568.00000	(10833.)
TEMP	9 =	568.96002	(10929.)
TEMP	10 =	538.76001	(7909.)
TEMP	11 =	539.16003	(7949.)
TEMP	12 =	539.10004	(7943.)
TEMP	13 =	538.57001	(7890.)
TEMP	14 =	539.07001	(7940.)
PRES	1 =	72.729080	(72886.)
VPRS	1 =	0.42638776	(7477.)
VPRS	2 =	0.42285275	(7452.)
VPRS	3 =	0.46982983	(7769.)
VPRS	4 =	0.42412540	(7461.)
VPRS	5 =	0.48509085	(7866.)
VPRS	6 =	0.48937839	(7893.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 630
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.32056

CORRECTED PRESSURE (PSIA) = 72.265434

VAPOR PRESSURE (PSIA) = 0.46364656

CTMT. AIR MASS (LBM) = 81429.

SUMMARY OF MEASURED DATA AT 645 0503

TEMP	1 =	541.71002	(8204.)
TEMP	2 =	541.91003	(8224.)
TEMP	3 =	543.26001	(8359.)
TEMP	4 =	544.52002	(8485.)
TEMP	5 =	544.56000	(8489.)
TEMP	6 =	553.80005	(9413.)
TEMP	7 =	553.84003	(9417.)
TEMP	8 =	568.06000	(10839.)
TEMP	9 =	569.17004	(10950.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.13000	(7946.)
TEMP	12 =	539.09003	(7942.)
TEMP	13 =	538.56000	(7889.)
TEMP	14 =	539.07001	(7940.)
PRES	1 =	72.734047	(72891.)
VPRS	1 =	0.42667061	(7479.)
VPRS	2 =	0.42228723	(7448.)
VPRS	3 =	0.47121757	(7778.)
VPRS	4 =	0.42539796	(7470.)
VPRS	5 =	0.48620245	(7873.)
VPRS	6 =	0.48890200	(7890.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 645
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.37012

CORRECTED PRESSURE (PSIA) = 72.270103

VAPOR PRESSURE (PSIA) = 0.46394095

CTMT. AIR MASS (LBM) = 81426.

SUMMARY OF MEASURED DATA AT 700 0503

TEMP	1 =	541.80005	(8213.)
TEMP	2 =	542.02002	(8235.)
TEMP	3 =	543.37000	(8370.)
TEMP	4 =	544.65002	(8498.)
TEMP	5 =	544.67004	(8500.)
TEMP	6 =	554.01001	(9434.)
TEMP	7 =	554.02002	(9435.)
TEMP	8 =	568.29999	(10863.)
TEMP	9 =	569.37000	(10970.)
TEMP	10 =	538.75000	(7908.)
TEMP	11 =	539.14001	(7947.)
TEMP	12 =	539.07001	(7940.)
TEMP	13 =	538.53003	(7886.)
TEMP	14 =	539.04999	(7938.)
PRES	1 =	72.738022	(72895.)
VPRS	1 =	0.42780185	(7487.)
VPRS	2 =	0.42412540	(7461.)
VPRS	3 =	0.47245121	(7786.)
VPRS	4 =	0.42539796	(7470.)
VPRS	5 =	0.48636129	(7874.)
VPRS	6 =	0.48906085	(7891.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 700
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.46710

CORRECTED PRESSURE (PSIA) = 72.273514

VAPOR PRESSURE (PSIA) = 0.46451089

CTMT. AIR MASS (LBM) = 81416.

SUMMARY OF MEASURED DATA AT 715 0503

TEMP	1 =	541.82001	(8215.)
TEMP	2 =	542.01001	(8234.)
TEMP	3 =	543.44000	(8377.)
TEMP	4 =	544.67999	(8501.)
TEMP	5 =	544.71002	(8504.)
TEMP	6 =	554.12000	(9445.)
TEMP	7 =	554.14001	(9447.)
TEMP	8 =	568.42999	(10876.)
TEMP	9 =	569.57001	(10990.)
TEMP	10 =	538.72003	(7905.)
TEMP	11 =	539.12000	(7945.)
TEMP	12 =	539.04999	(7938.)
TEMP	13 =	538.54004	(7887.)
TEMP	14 =	539.04999	(7938.)
PRES	1 =	72.742996	(72900.)
VPRS	1 =	0.42836744	(7491.)
VPRS	2 =	0.42511520	(7468.)
VPRS	3 =	0.47353062	(7793.)
VPRS	4 =	0.42652917	(7478.)
VPRS	5 =	0.48842564	(7887.)
VPRS	6 =	0.48921958	(7892.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 715
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.51385

CORRECTED PRESSURE (PSIA) = 72.277626

VAPOR PRESSURE (PSIA) = 0.46536711

CTMT. AIR MASS (LBM) = 81414.

SUMMARY OF MEASURED DATA AT 730 0503

TEMP 1 =	541.92999	(8226.)
TEMP 2 =	542.14001	(8247.)
TEMP 3 =	543.56000	(8389.)
TEMP 4 =	544.81000	(8514.)
TEMP 5 =	544.81000	(8514.)
TEMP 6 =	554.28003	(9461.)
TEMP 7 =	554.35004	(9468.)
TEMP 8 =	568.64001	(10897.)
TEMP 9 =	569.77002	(11010.)
TEMP 10 =	538.73004	(7906.)
TEMP 11 =	539.11005	(7944.)
TEMP 12 =	539.04004	(7937.)
TEMP 13 =	538.53003	(7886.)
TEMP 14 =	539.04999	(7938.)
PRES 1 =	72.746971	(72904.)
VPRS 1 =	0.42964000	(7500.)
VPRS 2 =	0.42610499	(7475.)
VPRS 3 =	0.47508639	(7803.)
VPRS 4 =	0.42681202	(7480.)
VPRS 5 =	0.48794913	(7884.)
VPRS 6 =	0.48890200	(7890.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 730
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.60999

CORRECTED PRESSURE (PSIA) = 72.281334

VAPOR PRESSURE (PSIA) = 0.46563995

CTMT. AIR MASS (LBM) = 81403.

SUMMARY OF MEASURED DATA AT 745 0503

TEMP	1 =	541.98999	(8232.)
TEMP	2 =	542.20001	(8253.)
TEMP	3 =	543.63000	(8396.)
TEMP	4 =	544.89001	(8522.)
TEMP	5 =	544.89001	(8522.)
TEMP	6 =	554.46002	(9479.)
TEMP	7 =	554.50000	(9483.)
TEMP	8 =	568.81000	(10914.)
TEMP	9 =	569.89001	(11022.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.10004	(7943.)
TEMP	12 =	539.03003	(7936.)
TEMP	13 =	538.51001	(7884.)
TEMP	14 =	539.03003	(7936.)
PRES	1 =	72.750946	(72908.)
VPRS	1 =	0.43109599	(7510.)
VPRS	2 =	0.42723623	(7483.)
VPRS	3 =	0.47651565	(7812.)
VPRS	4 =	0.42907438	(7496.)
VPRS	5 =	0.48937839	(7873.)
VPRS	6 =	0.48937839	(7893.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 745
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.67487

CORRECTED PRESSURE (PSIA) = 72.284157

VAPOR PRESSURE (PSIA) = 0.46679050

CTMT. AIR MASS (LBM) = 81397.

SUMMARY OF MEASURED DATA AT 800 0503

TEMP 1 =	542.03003	(8236.)
TEMP 2 =	542.26001	(8259.)
TEMP 3 =	543.67999	(8401.)
TEMP 4 =	544.97003	(8530.)
TEMP 5 =	544.96002	(8529.)
TEMP 6 =	554.58002	(9491.)
TEMP 7 =	554.66003	(9499.)
TEMP 8 =	568.96002	(10929.)
TEMP 9 =	570.11005	(11044.)
TEMP 10 =	538.76001	(7909.)
TEMP 11 =	539.10004	(7943.)
TEMP 12 =	539.02002	(7935.)
TEMP 13 =	538.51001	(7884.)
TEMP 14 =	539.03003	(7936.)
PRES 1 =	72.754921	(72912.)
VPRS 1 =	0.43226081	(7518.)
VPRS 2 =	0.42794317	(7488.)
VPRS 3 =	0.47794479	(7821.)
VPRS 4 =	0.42978564	(7501.)
VPRS 5 =	0.49017245	(7898.)
VPRS 6 =	0.48810798	(7885.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 800
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.74707

CORRECTED PRESSURE (PSIA) = 72.287987

VAPOR PRESSURE (PSIA) = 0.46693715

CTMT. AIR MASS (LBM) = 81391.

SUMMARY OF MEASURED DATA AT 815 0503

TEMP 1 =	542.10004	(8243.)
TEMP 2 =	542.32001	(8265.)
TEMP 3 =	543.75000	(8408.)
TEMP 4 =	545.03003	(8536.)
TEMP 5 =	545.01001	(8534.)
TEMP 6 =	554.72003	(9505.)
TEMP 7 =	554.81000	(9514.)
TEMP 8 =	569.04999	(10938.)
TEMP 9 =	570.23004	(11056.)
TEMP 10 =	538.75000	(7908.)
TEMP 11 =	539.09003	(7942.)
TEMP 12 =	539.00000	(7933.)
TEMP 13 =	538.53003	(7886.)
TEMP 14 =	539.03003	(7936.)
PRES 1 =	72.758896	(72916.)
VPRS 1 =	0.43167838	(7514.)
VPRS 2 =	0.42808458	(7489.)
VPRS 3 =	0.47873884	(7826.)
VPRS 4 =	0.43007678	(7503.)
VPRS 5 =	0.49033129	(7899.)
VPRS 6 =	0.48937839	(7893.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 815
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.80072

CORRECTED PRESSURE (PSIA) = 72.291412

VAPOR PRESSURE (PSIA) = 0.46748662

CTMT. AIR MASS (LBM) = 81386.

SUMMARY OF MEASURED DATA AT 830 0503

TEMP 1 =	542.17004	(8250.)
TEMP 2 =	542.35004	(8268.)
TEMP 3 =	543.82001	(8415.)
TEMP 4 =	545.09003	(8542.)
TEMP 5 =	545.07001	(8540.)
TEMP 6 =	554.85004	(9518.)
TEMP 7 =	554.97003	(9530.)
TEMP 8 =	569.27002	(10960.)
TEMP 9 =	570.35004	(11068.)
TEMP 10 =	538.78003	(7911.)
TEMP 11 =	539.10004	(7943.)
TEMP 12 =	539.00000	(7933.)
TEMP 13 =	538.54004	(7887.)
TEMP 14 =	539.03003	(7936.)
PRES 1 =	72.761879	(72919.)
VPRS 1 =	0.43327999	(7525.)
VPRS 2 =	0.42964000	(7500.)
VPRS 3 =	0.47969159	(7832.)
VPRS 4 =	0.43065920	(7507.)
VPRS 5 =	0.49163377	(7907.)
VPRS 6 =	0.48890200	(7890.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 830
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.87018

CORRECTED PRESSURE (PSIA) = 72.293785

VAPOR PRESSURE (PSIA) = 0.46809441

CTMT. AIR MASS (LBM) = 81379.

SUMMARY OF MEASURED DATA AT 845 0503

TEMP 1 =	542.20001	(8253.)
TEMP 2 =	542.40002	(8273.)
TEMP 3 =	543.88000	(8421.)
TEMP 4 =	545.17004	(8550.)
TEMP 5 =	545.16003	(8549.)
TEMP 6 =	554.98999	(9532.)
TEMP 7 =	555.12000	(9545.)
TEMP 8 =	569.42004	(10975.)
TEMP 9 =	570.58002	(11091.)
TEMP 10 =	538.79004	(7912.)
TEMP 11 =	539.08002	(7941.)
TEMP 12 =	539.00000	(7933.)
TEMP 13 =	538.57001	(7890.)
TEMP 14 =	539.03003	(7936.)
PRES 1 =	72.765854	(72923.)
VPRS 1 =	0.43386242	(7529.)
VPRS 2 =	0.43007678	(7503.)
VPRS 3 =	0.48080319	(7839.)
VPRS 4 =	0.43298885	(7503.)
VPRS 5 =	0.49212396	(7910.)
VPRS 6 =	0.48810798	(7885.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 845
DATE = 0503

TEMPERATURE (DEGREES R.) = 547.94513

CORRECTED PRESSURE (PSIA) = 72.297447

VAPOR PRESSURE (PSIA) = 0.46840504

CTMT. AIR MASS (LBM) = 81372.

SUMMARY OF MEASURED DATA AT 900 0503

TEMP 1 =	542.25000	(8258.)
TEMP 2 =	542.45001	(8278.)
TEMP 3 =	543.92999	(8426.)
TEMP 4 =	545.23004	(8556.)
TEMP 5 =	545.23999	(8557.)
TEMP 6 =	555.13000	(9546.)
TEMP 7 =	555.26001	(9559.)
TEMP 8 =	569.57001	(10990.)
TEMP 9 =	570.71002	(11104.)
TEMP 10 =	538.76001	(7909.)
TEMP 11 =	539.07001	(7940.)
TEMP 12 =	539.00000	(7933.)
TEMP 13 =	538.56000	(7889.)
TEMP 14 =	539.04004	(7937.)
PRES 1 =	72.769829	(72927.)
VPRS 1 =	0.43444481	(7533.)
VPRS 2 =	0.43109599	(7510.)
VPRS 3 =	0.48255000	(7850.)
VPRS 4 =	0.43386242	(7529.)
VPRS 5 =	0.49294102	(7915.)
VPRS 6 =	0.48810798	(7885.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 900
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.00403

CORRECTED PRESSURE (PSIA) = 72.300797

VAPOR PRESSURE (PSIA) = 0.46902969

CTMT. AIR MASS (LBM) = 81367.

SUMMARY OF MEASURED DATA AT 915 0503

TEMP 1 =	542.31000	(8264.)
TEMP 2 =	542.52002	(8285.)
TEMP 3 =	544.02002	(8435.)
TEMP 4 =	545.28003	(8561.)
TEMP 5 =	545.32001	(8565.)
TEMP 6 =	555.28003	(9561.)
TEMP 7 =	555.39001	(9572.)
TEMP 8 =	569.71002	(11004.)
TEMP 9 =	570.78003	(11111.)
TEMP 10 =	538.78003	(7911.)
TEMP 11 =	539.07001	(7940.)
TEMP 12 =	538.98999	(7932.)
TEMP 13 =	538.57001	(7890.)
TEMP 14 =	539.03003	(7936.)

PRES 1 =	72.772812	(72930.)

VPRS 1 =	0.43590081	(7543.)
VPRS 2 =	0.43153277	(7513.)
VPRS 3 =	0.48382044	(7858.)
VPRS 4 =	0.43313447	(7524.)
VPRS 5 =	0.49392137	(7921.)
VPRS 6 =	0.48858434	(7888.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 915
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.06201

CORRECTED PRESSURE (PSIA) = 72.303146

VAPOR PRESSURE (PSIA) = 0.46966252

CTMT. AIR MASS (LBM) = 81361.

SUMMARY OF MEASURED DATA AT 930 0503

TEMP	1 =	542.35004	(8268.)
TEMP	2 =	542.54004	(8287.)
TEMP	3 =	544.10004	(8443.)
TEMP	4 =	545.34003	(8567.)
TEMP	5 =	545.36005	(8569.)
TEMP	6 =	555.39001	(9572.)
TEMP	7 =	555.55005	(9588.)
TEMP	8 =	569.81000	(11014.)
TEMP	9 =	570.97003	(11130.)
TEMP	10 =	538.76001	(7909.)
TEMP	11 =	539.06000	(7939.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.58002	(7891.)
TEMP	14 =	539.03003	(7936.)
PRES	1 =	72.776787	(7934.)
VPRS	1 =	0.43648323	(7547.)
VPRS	2 =	0.43313447	(7524.)
VPRS	3 =	0.48477319	(7864.)
VPRS	4 =	0.43604645	(7544.)
VPRS	5 =	0.49457499	(7925.)
VPRS	6 =	0.48874319	(7889.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 930
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.11755

CORRECTED PRESSURE (PSIA) = 72.306259

VAPOR PRESSURE (PSIA) = 0.47052729

CTMT. AIR MASS (LBM) = 81356.

SUMMARY OF MEASURED DATA AT 945 0503

TEMP	1 =	542.40002	(8273.)
TEMP	2 =	542.62000	(8295.)
TEMP	3 =	544.15002	(8448.)
TEMP	4 =	545.41003	(8574.)
TEMP	5 =	545.45001	(8578.)
TEMP	6 =	555.54004	(9587.)
TEMP	7 =	555.67004	(9600.)
TEMP	8 =	569.92999	(11026.)
TEMP	9 =	571.01001	(11134.)
TEMP	10 =	538.75000	(7908.)
TEMP	11 =	539.09003	(7942.)
TEMP	12 =	539.01001	(7934.)
TEMP	13 =	538.57001	(7890.)
TEMP	14 =	539.02002	(7935.)
PRES	1 =	72.780762	(72938.)
VPRS	1 =	0.43750241	(7554.)
VPRS	2 =	0.43371677	(7528.)
VPRS	3 =	0.48588479	(7871.)
VPRS	4 =	0.43648323	(7547.)
VPRS	5 =	0.49473843	(7926.)
VPRS	6 =	0.48779044	(7883.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 945
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.17291

CORRECTED PRESSURE (PSIA) = 72.310181

VAPOR PRESSURE (PSIA) = 0.47057733

CTMT. AIR MASS (LBM) = 81352.

SUMMARY OF MEASURED DATA AT 1000 0503

TEMP	1 =	542.45001	(8278.)
TEMP	2 =	542.65002	(8298.)
TEMP	3 =	544.22003	(8455.)
TEMP	4 =	545.48004	(8581.)
TEMP	5 =	545.47003	(8580.)
TEMP	6 =	555.67999	(9601.)
TEMP	7 =	555.81000	(9614.)
TEMP	8 =	570.08002	(11041.)
TEMP	9 =	571.27002	(11160.)
TEMP	10 =	538.75000	(7908.)
TEMP	11 =	539.04999	(7938.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.58002	(7891.)
TEMP	14 =	539.03003	(7936.)
PRES	1 =	72.783737	(72941.)
VPRS	1 =	0.43895841	(7564.)
VPRS	2 =	0.43546402	(7540.)
VPRS	3 =	0.48667884	(7876.)
VPRS	4 =	0.43823034	(7559.)
VPRS	5 =	0.49669915	(7938.)
VPRS	6 =	0.48906085	(7891.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1000
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.23779

CORRECTED PRESSURE (PSIA) = 72.311684

VAPOR PRESSURE (PSIA) = 0.47205108

CTMT. AIR MASS (LBM) = 81344.

SUMMARY OF MEASURED DATA AT 1015 0503

TEMP	1 =	542.48999	(8282.)
TEMP	2 =	542.72003	(8305.)
TEMP	3 =	544.28003	(8461.)
TEMP	4 =	545.52002	(8585.)
TEMP	5 =	545.53003	(8586.)
TEMP	6 =	555.79004	(9612.)
TEMP	7 =	555.94000	(9627.)
TEMP	8 =	570.19000	(11052.)
TEMP	9 =	571.29004	(11162.)
TEMP	10 =	538.73999	(7907.)
TEMP	11 =	539.08002	(7941.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.60004	(7893.)
TEMP	14 =	539.02002	(7935.)
PRES	1 =	72.786720	(7294.)
VPRS	1 =	0.43968645	(7569.)
VPRS	2 =	0.43560967	(7541.)
VPRS	3 =	0.48826680	(7886.)
VPRS	4 =	0.43808484	(7558.)
VPRS	5 =	0.49702600	(7940.)
VPRS	6 =	0.48890200	(7890.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1015
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.28284

CORRECTED PRESSURE (PSIA) = 72.314407

VAPOR PRESSURE (PSIA) = 0.47231576

CTMT. AIR MASS (LBM) = 81341.

SUMMARY OF MEASURED DATA AT 1030 0503

TEMP	1 =	542.53003	(8286.)
TEMP	2 =	542.76001	(8309.)
TEMP	3 =	544.34003	(8467.)
TEMP	4 =	545.59003	(8592.)
TEMP	5 =	545.60004	(8593.)
TEMP	6 =	555.91003	(9624.)
TEMP	7 =	556.07001	(9640.)
TEMP	8 =	570.32001	(11065.)
TEMP	9 =	571.38000	(11171.)
TEMP	10 =	538.75000	(7908.)
TEMP	11 =	539.06000	(7939.)
TEMP	12 =	538.98999	(7932.)
TEMP	13 =	538.60004	(7893.)
TEMP	14 =	539.03003	(7936.)
PRES	1 =	72.789703	(72947.)
VPRS	1 =	0.43954080	(7568.)
VPRS	2 =	0.43677449	(7549.)
VPRS	3 =	0.48937839	(7893.)
VPRS	4 =	0.43939519	(7567.)
VPRS	5 =	0.49735275	(7942.)
VPRS	6 =	0.48810798	(7885.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1030
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.33624

CORRECTED PRESSURE (PSIA) = 72.317230

VAPOR PRESSURE (PSIA) = 0.47247368

CTMT. AIR MASS (LBM) = 81336.

SUMMARY OF MEASURED DATA AT 1045 0503

TEMP	1 =	542.57001	(8290.)
TEMP	2 =	542.81000	(8314.)
TEMP	3 =	544.40002	(8473.)
TEMP	4 =	545.63000	(8596.)
TEMP	5 =	545.66003	(8599.)
TEMP	6 =	556.04004	(9637.)
TEMP	7 =	556.20001	(9653.)
TEMP	8 =	570.42004	(11075.)
TEMP	9 =	571.61005	(11194.)
TEMP	10 =	538.73999	(7907.)
TEMP	11 =	539.09003	(7942.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.59003	(7892.)
TEMP	14 =	539.02002	(7935.)
PRES	1 =	72.792686	(72950.)
VPRS	1 =	0.44187036	(7584.)
VPRS	2 =	0.43764806	(7555.)
VPRS	3 =	0.49017245	(7898.)
VPRS	4 =	0.43997759	(7571.)
VPRS	5 =	0.49866000	(7950.)
VPRS	6 =	0.48858434	(7888.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1045
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.39728

CORRECTED PRESSURE (PSIA) = 72.319267

VAPOR PRESSURE (PSIA) = 0.47342056

CTMT. AIR MASS (LBM) = 81329.

SUMMARY OF MEASURED DATA AT 1100 0503

TEMP	1 =	542.61005	(8294.)
TEMP	2 =	542.86005	(8319.)
TEMP	3 =	544.46002	(8479.)
TEMP	4 =	545.69000	(8602.)
TEMP	5 =	545.70001	(8603.)
TEMP	6 =	556.15002	(9648.)
TEMP	7 =	556.33002	(9666.)
TEMP	8 =	570.54999	(11088.)
TEMP	9 =	571.73004	(11206.)
TEMP	10 =	538.75000	(7908.)
TEMP	11 =	539.06000	(7939.)
TEMP	12 =	538.98999	(7932.)
TEMP	13 =	538.61005	(7894.)
TEMP	14 =	539.02002	(7935.)
PRES	1 =	72.795670	(72953.)
VPRS	1 =	0.44143367	(7581.)
VPRS	2 =	0.43750241	(7554.)
VPRS	3 =	0.49163377	(7907.)
VPRS	4 =	0.43997759	(7571.)
VPRS	5 =	0.49915016	(7953.)
VPRS	6 =	0.48874319	(7889.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1100
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.44885

CORRELTED PRESSURE (PSIA) = 72.322014

VAPOR PRESSURE (PSIA) = 0.47365400

CTMT. AIR MASS (LBM) = 81325.

SUMMARY OF MEASURED DATA AT 1115 0503

TEMP	1 =	542.67004	(8300.)
TEMP	2 =	542.89001	(8322.)
TEMP	3 =	544.51001	(8484.)
TEMP	4 =	545.75000	(8608.)
TEMP	5 =	545.78003	(8611.)
TEMP	6 =	556.28003	(9661.)
TEMP	7 =	556.45001	(9678.)
TEMP	8 =	570.69000	(11102.)
TEMP	9 =	571.79004	(11212.)
TEMP	10 =	538.75000	(7908.)
TEMP	11 =	539.06000	(7939.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.59003	(7892.)
TEMP	14 =	539.01001	(7934.)
PRES	1 =	72.798645	(72956.)
VPRS	1 =	0.44201598	(7585.)
VPRS	2 =	0.43881276	(7563.)
VPRS	3 =	0.49294102	(7915.)
VPRS	4 =	0.44026884	(7573.)
VPRS	5 =	0.49947703	(7955.)
VPRS	6 =	0.48842564	(7887.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1115
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.50012

CORRECTED PRESSURE (PSIA) = 72.324646

VAPOR PRESSURE (PSIA) = 0.47399551

CTMT. AIR MASS (LBM) = 81320.

SUMMARY OF MEASURED DATA AT 1130 0503

TEMP	1 =	542.71002	(8304.)
TEMP	2 =	542.94000	(8327.)
TEMP	3 =	544.57001	(8490.)
TEMP	4 =	545.82001	(8615.)
TEMP	5 =	545.82001	(8615.)
TEMP	6 =	556.39001	(9672.)
TEMP	7 =	556.59003	(9692.)
TEMP	8 =	570.72003	(11105.)
TEMP	9 =	572.00000	(11233.)
TEMP	10 =	538.75000	(7908.)
TEMP	11 =	539.07001	(7940.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.61005	(7894.)
TEMP	14 =	539.01001	(7934.)
PRES	1 =	72.801628	(2959.)
VPRS	1 =	0.44216162	(7586.)
VPRS	2 =	0.44012323	(7572.)
VPRS	3 =	0.49392137	(7921.)
VPRS	4 =	0.44216162	(7586.)
VPRS	5 =	0.50062084	(7962.)
VPRS	6 =	0.48810798	(7885.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1130
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.55536

CORRECTED PRESSURE (PSIA) = 72.327049

VAPOR PRESSURE (PSIA) = 0.47457597

CTMT. AIR MASS (LBM) = 81314.

SUMMARY OF MEASURED DATA AT 1145 0503

TEMP	1 =	542.73004	(8306.)
TEMP	2 =	543.00000	(8333.)
TEMP	3 =	544.61005	(8494.)
TEMP	4 =	545.88000	(8621.)
TEMP	5 =	545.87000	(8620.)
TEMP	6 =	556.51001	(9684.)
TEMP	7 =	556.69000	(9702.)
TEMP	8 =	570.88000	(11121.)
TEMP	9 =	572.00000	(11233.)
TEMP	10 =	538.76001	(7909.)
TEMP	11 =	539.08002	(7941.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.60004	(7893.)
TEMP	14 =	539.02002	(7935.)
PRES	1 =	72.803619	(72961.)
VPRS	1 =	0.44318080	(7593.)
VPRS	2 =	0.44114241	(7579.)
VPRS	3 =	0.49473843	(7926.)
VPRS	4 =	0.44303519	(7592.)
VPRS	5 =	0.50111103	(7965.)
VPRS	6 =	0.48890200	(7890.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1145
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.60022

CORRECTED PRESSURE (PSIA) = 72.328239

VAPOR PRESSURE (PSIA) = 0.47538075

CTMT. AIR MASS (LBM) = 81309.

SUMMARY OF MEASURED DATA AT 1200 0503

TEMP	1 =	542.78003	(8311.)
TEMP	2 =	543.03003	(8336.)
TEMP	3 =	544.67999	(8501.)
TEMP	4 =	545.92999	(8626.)
TEMP	5 =	545.95001	(8628.)
TEMP	6 =	556.62000	(9695.)
TEMP	7 =	556.81000	(9714.)
TEMP	8 =	570.98004	(11131.)
TEMP	9 =	572.11005	(11244.)
TEMP	10 =	538.76001	(7909.)
TEMP	11 =	539.09003	(7942.)
TEMP	12 =	538.98999	(7932.)
TEMP	13 =	538.61005	(7894.)
TEMP	14 =	539.00000	(7933.)
PRES	1 =	72.806602	(72964.)
VPRS	1 =	0.44420001	(7600.)
VPRS	2 =	0.44143367	(7581.)
VPRS	3 =	0.49555546	(7931.)
VPRS	4 =	0.44288966	(7591.)
VPRS	5 =	0.50192791	(7970.)
VPRS	6 =	0.48810798	(7885.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1200
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.65076

CORRECTED PRESSURE (PSIA) = 72.331131

VAPOR PRESSURE (PSIA) = 0.47547320

CTMT. AIR MASS (LBM) = 81305.

SUMMARY OF MEASURED DATA AT 1215 0503

TEMP	1 =	542.83002	(8316.)
TEMP	2 =	543.09003	(8342.)
TEMP	3 =	544.72003	(8505.)
TEMP	4 =	545.98999	(8632.)
TEMP	5 =	545.98999	(8632.)
TEMP	6 =	556.73999	(9707.)
TEMP	7 =	556.94000	(9727.)
TEMP	8 =	571.04999	(11138.)
TEMP	9 =	572.17004	(11250.)
TEMP	10 =	538.73999	(7907.)
TEMP	11 =	539.09003	(7942.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.60004	(7893.)
TEMP	14 =	538.98999	(7932.)
PRES	1 =	72.809578	(72967.)
VPRS	1 =	0.44464970	(7603.)
VPRS	2 =	0.44172484	(7583.)
VPRS	3 =	0.49686256	(7939.)
VPRS	4 =	0.44288966	(7591.)
VPRS	5 =	0.50209135	(7971.)
VPRS	6 =	0.48842564	(7887.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1215
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.69165

CORRECTED PRESSURE (PSIA) = 72.333733

VAPOR PRESSURE (PSIA) = 0.47584826

CTMT. AIR MASS (LBM) = 81302.

SUMMARY OF MEASURED DATA AT 1230 0503

TEMP	1 =	542.88000	(8321.)
TEMP	2 =	543.13000	(8346.)
TEMP	3 =	544.77002	(8510.)
TEMP	4 =	546.06000	(8639.)
TEMP	5 =	546.05005	(8638.)
TEMP	6 =	556.85004	(9718.)
TEMP	7 =	557.04004	(9737.)
TEMP	8 =	571.20001	(11153.)
TEMP	9 =	572.32001	(11265.)
TEMP	10 =	538.73999	(7907.)
TEMP	11 =	539.10004	(7943.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.58002	(7891.)
TEMP	14 =	538.98999	(7932.)
PRES	1 =	72.811569	(72969.)
VPRS	1 =	0.44569898	(7610.)
VPRS	2 =	0.44318080	(7593.)
VPRS	3 =	0.49784294	(7945.)
VPRS	4 =	0.44584891	(7611.)
VPRS	5 =	0.50323516	(7978.)
VPRS	6 =	0.48794913	(7884.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1230
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.74908

CORRECTED PRESSURE (PSIA) = 72.334946

VAPOR PRESSURE (PSIA) = 0.47662175

CTMT. AIR MASS (LBM) = 81295.

SUMMARY OF MEASURED DATA AT 1245 0503

TEMP	1 =	542.91003	(8324.)
TEMP	2 =	543.16003	(8349.)
TEMP	3 =	544.83002	(8516.)
TEMP	4 =	546.12000	(8645.)
TEMP	5 =	546.10004	(8643.)
TEMP	6 =	556.95001	(9728.)
TEMP	7 =	557.16003	(9749.)
TEMP	8 =	571.27002	(11160.)
TEMP	9 =	572.46002	(11279.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.09003	(7942.)
TEMP	12 =	538.98999	(7932.)
TEMP	13 =	538.56000	(7889.)
TEMP	14 =	539.01001	(7934.)
PRES	1 =	72.813553	(72971.)
VPRS	1 =	0.44629860	(7614.)
VPRS	2 =	0.44449976	(7602.)
VPRS	3 =	0.49882340	(7951.)
VPRS	4 =	0.44569898	(7610.)
VPRS	5 =	0.50421554	(7984.)
VPRS	6 =	0.48890200	(7890.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1245
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.79407

CORRECTED PRESSURE (PSIA) = 72.336098

VAPOR PRESSURE (PSIA) = 0.47745475

CTMT. AIR MASS (LBM) = 81289.

SUMMARY OF MEASURED DATA AT 1300 0503

TEMP	1 =	542.95001	(8329.)
TEMP	2 =	543.22003	(8355.)
TEMP	3 =	544.86005	(8519.)
TEMP	4 =	546.17004	(8650.)
TEMP	5 =	546.12000	(8645.)
TEMP	6 =	557.06000	(9739.)
TEMP	7 =	557.27002	(9760.)
TEMP	8 =	571.36005	(11169.)
TEMP	9 =	572.56000	(11289.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.10004	(7943.)
TEMP	12 =	538.98999	(7932.)
TEMP	13 =	538.58002	(7891.)
TEMP	14 =	539.00000	(7933.)
PRES	1 =	72.815544	(72973.)
VPRS	1 =	0.44629860	(7614.)
VPRS	2 =	0.44539922	(7608.)
VPRS	3 =	0.49980378	(7957.)
VPRS	4 =	0.44629860	(7614.)
VPRS	5 =	0.50486916	(7988.)
VPRS	6 =	0.48794913	(7884.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1300
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.83801

CORRECTED PRESSURE (PSIA) = 72.338036

VAPOR PRESSURE (PSIA) = 0.47750649

CTMT. AIR MASS (LBM) = 81285.

SUMMARY OF MEASURED DATA AT 1315 0503

TEMP	1 =	542.98999	(8332.)
TEMP	2 =	543.26001	(8359.)
TEMP	3 =	544.91003	(8524.)
TEMP	4 =	546.22003	(8655.)
TEMP	5 =	546.17999	(8651.)
TEMP	6 =	557.17004	(9750.)
TEMP	7 =	557.38000	(9771.)
TEMP	8 =	571.46002	(11179.)
TEMP	9 =	572.61005	(11294.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.07001	(7940.)
TEMP	12 =	538.98999	(7932.)
TEMP	13 =	538.60004	(7893.)
TEMP	14 =	539.00000	(7933.)
PRES	1 =	72.817528	(72975.)
VPRS	1 =	0.44914675	(7633.)
VPRS	2 =	0.44659847	(7616.)
VPRS	3 =	0.50078416	(7963.)
VPRS	4 =	0.44539922	(7608.)
VPRS	5 =	0.50503254	(7989.)
VPRS	6 =	0.48842564	(7887.)

CTMT. FREE AIR VOL. = 228496.

SUMMARY OF CORRECTED DATA

TIME = 1315
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.88013

CORRECTED PRESSURE (PSIA) = 72.339325

VAPOR PRESSURE (PSIA) = 0.47820151

CTMT. AIR MASS (LBM) = 81280.

SUMMARY OF MEASURED DATA AT 1330 0503

TEMP	1 =	543.03003	(8336.)
TEMP	2 =	543.30005	(8363.)
TEMP	3 =	544.96002	(8529.)
TEMP	4 =	546.27002	(8660.)
TEMP	5 =	546.23004	(8656.)
TEMP	6 =	557.26001	(9759.)
TEMP	7 =	557.48004	(9781.)
TEMP	8 =	571.54999	(11188.)
TEMP	9 =	572.72003	(11305.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.10004	(7943.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.59003	(7892.)
TEMP	14 =	539.01001	(7934.)
PRES	1 =	72.819519	(72977.)
VPRS	1 =	0.44929668	(7634.)
VPRS	2 =	0.44569898	(7610.)
VPRS	3 =	0.50209135	(7971.)
VPRS	4 =	0.44719809	(7620.)
VPRS	5 =	0.50601304	(7995.)
VPRS	6 =	0.48858446	(7888.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1330
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.92743

CORRECTED PRESSURE (PSIA) = 72.340820

VAPOR PRESSURE (PSIA) = 0.47869778

CTMT. AIR MASS (LBM) = 81275.

SUMMARY OF MEASURED DATA AT 1345 0503

TEMP	1 =	543.05005	(8338.)
TEMP	2 =	543.33002	(8366.)
TEMP	3 =	545.02002	(8535.)
TEMP	4 =	546.33002	(8666.)
TEMP	5 =	546.30005	(8663.)
TEMP	6 =	557.36005	(9769.)
TEMP	7 =	557.58002	(9791.)
TEMP	8 =	571.66003	(11199.)
TEMP	9 =	572.86005	(11319.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.03003	(7936.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.57001	(7890.)
TEMP	14 =	539.00000	(7933.)
PRES	1 =	72.822502	(72980.)
VPRS	1 =	0.44899681	(7632.)
VPRS	2 =	0.44674829	(7617.)
VPRS	3 =	0.50307173	(7977.)
VPRS	4 =	0.44734791	(7621.)
VPRS	5 =	0.50666666	(7999.)
VPRS	6 =	0.48842564	(7887.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1345
DATE = 0503

TEMPERATURE (DEGREES R.) = 548.97144

CORRECTED PRESSURE (PSIA) = 72.343536

VAPOR PRESSURE (PSIA) = 0.47896397

CTMT. AIR MASS (LBM) = 81271.

SUMMARY OF MEASURED DATA AT 1400 0503

TEMP	1 =	543.09003	(8342.)
TEMP	2 =	543.37000	(8370.)
TEMP	3 =	545.06000	(8539.)
TEMP	4 =	546.38000	(8671.)
TEMP	5 =	546.34003	(8667.)
TEMP	6 =	557.48999	(9782.)
TEMP	7 =	557.69000	(9802.)
TEMP	8 =	571.70001	(11203.)
TEMP	9 =	572.87000	(11320.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.07001	(7940.)
TEMP	12 =	539.00000	(7933.)
TEMP	13 =	538.58002	(7891.)
TEMP	14 =	538.98999	(7932.)
PRES	1 =	72.824486	(72982.)
VPRS	1 =	0.44929656	(7634.)
VPRS	2 =	0.44854712	(7629.)
VPRS	3 =	0.50405222	(7983.)
VPRS	4 =	0.44914675	(7633.)
VPRS	5 =	0.50800669	(8007.)
VPRS	6 =	0.48953724	(7894.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1400
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.00708

CORRECTED PRESSURE (PSIA) = 72.344330

VAPOR PRESSURE (PSIA) = 0.48015821

CTMT. AIR MASS (LBM) = 81267.

SUMMARY OF MEASURED DATA AT 1415 0503

TEMP 1 =	543.14001	(8347.)
TEMP 2 =	543.41003	(8374.)
TEMP 3 =	545.11005	(8544.)
TEMP 4 =	546.42999	(8676.)
TEMP 5 =	546.40002	(8673.)
TEMP 6 =	557.58002	(9791.)
TEMP 7 =	557.79999	(9813.)
TEMP 8 =	571.82001	(11215.)
TEMP 9 =	573.03003	(11336.)
TEMP 10 =	538.72003	(7905.)
TEMP 11 =	539.07001	(7940.)
TEMP 12 =	538.98999	(7932.)
TEMP 13 =	538.60004	(7893.)
TEMP 14 =	538.98999	(7932.)

PRES 1 =	72.826477	(72984.)

VPRS 1 =	0.45064571	(7643.)
VPRS 2 =	0.44764775	(7623.)
VPRS 3 =	0.50503254	(7989.)
VPRS 4 =	0.45004609	(7639.)
VPRS 5 =	0.50884724	(8012.)
VPRS 6 =	0.48858434	(7888.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1415
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.06067

CORRECTED PRESSURE (PSIA) = 72.346[illegible]7

VAPOR PRESSURE (PSIA) = 0.48023975

CTMT. AIR MASS (LBM) = 81261.

TABLE E-1
ILRT AIRMASS PLOT

TABLE E-2
ILRT TEMPERATURE PLOT

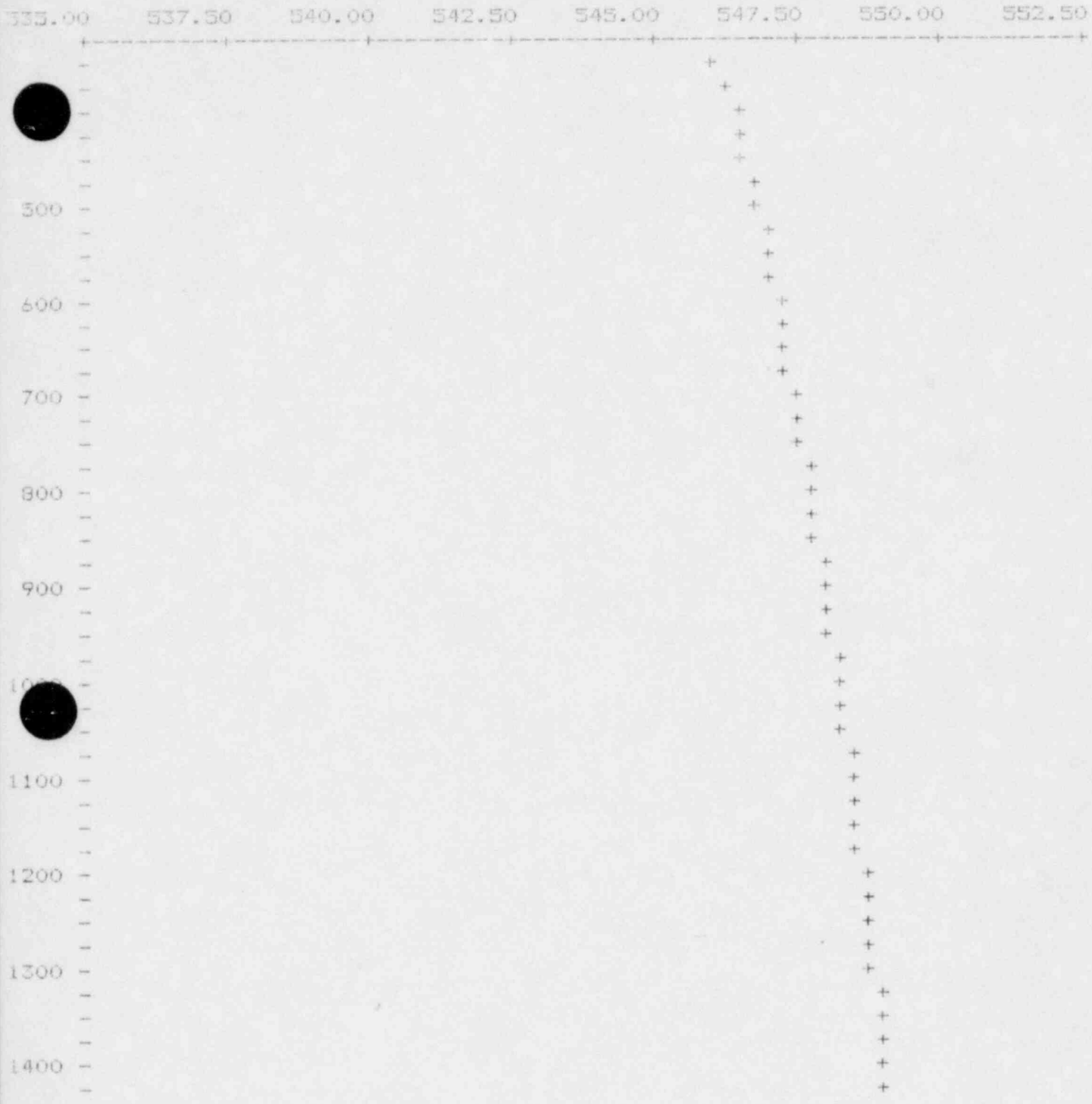


TABLE E-3
ILRT PRESSURE PLOT

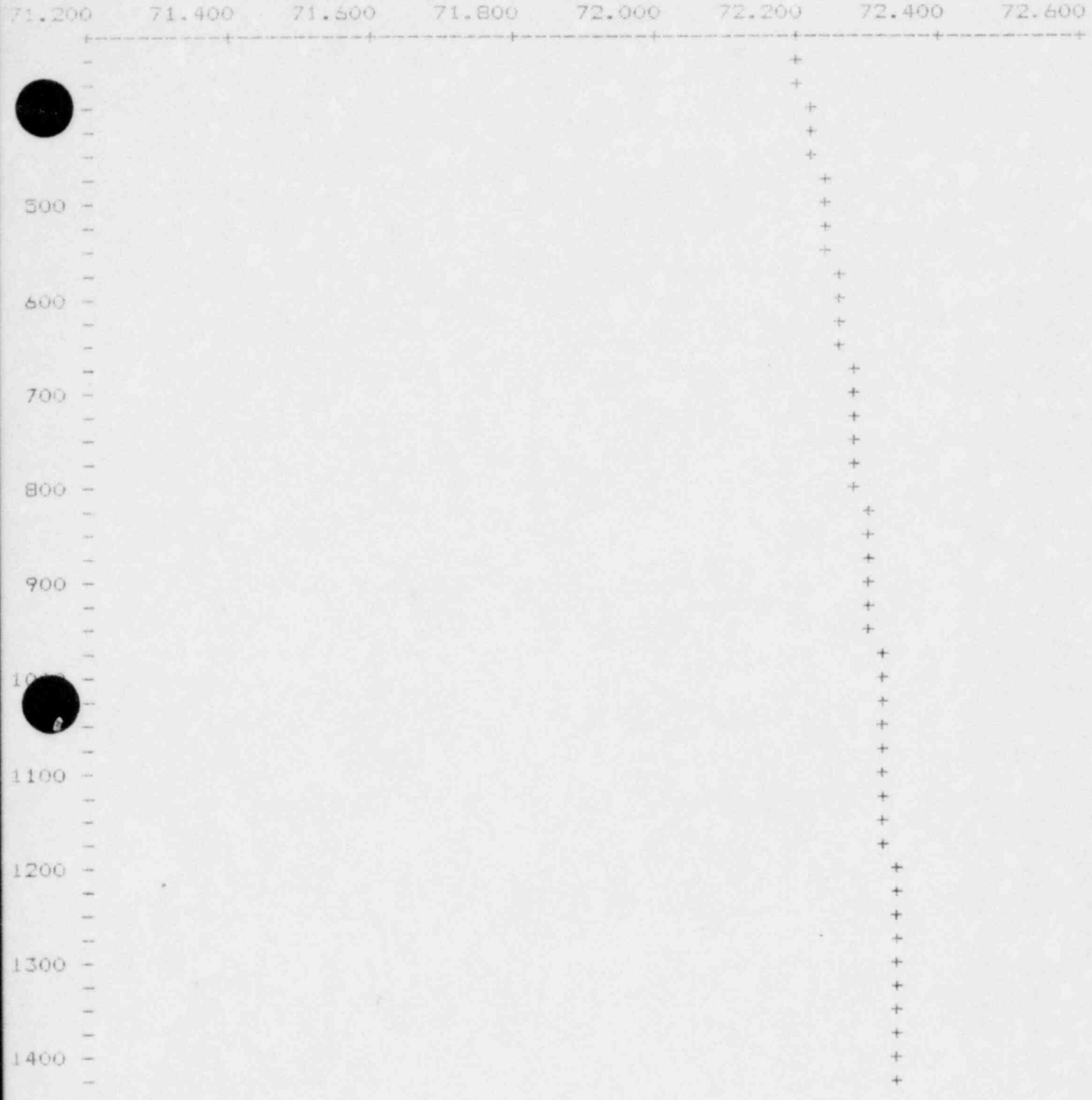


TABLE E-4

ILRT VAPOR PRESSURE PLOT

HATCH UNIT 2 VERIFICATION

LEAKAGE RATE (WEIGHT PERCENT/DAY)
MASS-POINT ANALYSIS

TIME AND DATE AT START OF TEST: 1530 0503
ELAPSED TIME: 5.00 HOURS

TIME	TEMP (R)	PRESSURE (PSIA)	CTMT. AIR MASS (LBM)	MASS LOSS (LBM)	TOT.AVG. MASS LOSS (LBM/HR)
1530	549.259	72.3231	81206.		
1545	549.294	72.3181	81195.	10.8	43.0
1600	549.343	72.3127	81182.	13.2	47.9
1615	549.366	72.3070	81172.	9.8	45.0
1630	549.411	72.3070	81165.	6.7	40.5
1645	549.450	72.2958	81147.	18.3	47.0
1700	549.483	72.2894	81135.	12.0	47.2
1715	549.510	72.2839	81125.	10.2	46.3
1730	549.548	72.2777	81112.	12.5	46.8
1745	549.563	72.2720	81104.	8.6	45.4
1800	549.604	72.2664	81091.	12.3	45.8
1815	549.641	72.2602	81079.	12.4	46.1
1830	549.669	72.2539	81068.	11.2	46.0
1845	549.696	72.2477	81057.	10.9	45.8
1900	549.728	72.2415	81045.	11.7	45.9
1915	549.760	72.2363	81035.	10.6	45.7
1930	549.784	72.2294	81023.	11.3	45.6
1945	549.824	72.2239	81011.	12.0	45.8
2000	549.849	72.2176	81000.	10.8	45.6
2015	549.870	72.2111	80990.	10.5	45.4
2030	549.907	72.2051	80978.	12.1	45.6

FREE AIR VOLUME USED (MILLIONS OF CU. FT.) = 0.228

REGRESSION LINE
INTERCEPT (LBM) = 81206.
SLOPE (LBM/HR) = -45.7

VERIFICATION TEST LEAKAGE RATE UPPER LIMIT = 1.904
VERIFICATION TEST LEAKAGE RATE LOWER LIMIT = 1.304
THE CALCULATED LEAKAGE RATE = 1.350

CONT. FREE AIR VOLUME AT TIME 2030 = 228486.

HATCH UNIT 2 VERIFICATION

LEAKAGE RATE (WEIGHT PERCENT/DAY)
TOTAL-TIME ANALYSIS

TIME AND DATE AT START OF TEST: 1530 0503
ELAPSED TIME: 5.00 HOURS

TIME	TEMP. (R)	PRESSURE (PSIA)	MEASURED LEAKAGE RATE
1530	549.259	72.3231	
1545	549.294	72.3181	1.273
1600	549.343	72.3127	1.416
1615	549.366	72.3070	1.331
1630	549.411	72.3070	1.196
1645	549.450	72.2958	1.390
1700	549.483	72.2894	1.396
1715	549.510	72.2839	1.369
1730	549.548	72.2777	1.382
1745	549.563	72.2720	1.342
1800	549.604	72.2664	1.353
1815	549.641	72.2602	1.364
1830	549.669	72.2539	1.361
1845	549.696	72.2477	1.355
1900	549.728	72.2415	1.357
1915	549.760	72.2363	1.350
1930	549.784	72.2294	1.349
1945	549.824	72.2239	1.353
2000	549.849	72.2176	1.349
2015	549.870	72.2111	1.343
2030	549.907	72.2051	1.347

MEAN OF MEASURED LEAKAGE RATES = 1.349

VERIFICATION TEST LEAKAGE RATE UPPER LIMIT = 1.896
VERIFICATION TEST LEAKAGE RATE LOWER LIMIT = 1.296
THE CALCULATED LEAKAGE RATE = 1.359

V521-

VERF.DAT

HATCH UNIT 2 VERIFICATION

ALMAX = 1.200 VOL = 228486.00

VRATET = 1.596 VRATEM = 1.604 VRATEP = 0.900

TIME	DATE	TEMP	PRESSURE	VPRS	VOLUME
1430	503	549.09088	72.342827	0.48066470	228486.
1445	503	549.13684	72.338615	0.48090371	228486.
1500	503	549.18396	72.333138	0.48141104	228436.
1515	503	549.22253	72.329079	0.48150232	228486.
1530	503	549.25940	72.323067	0.48253500	228486.
1545	503	549.29413	72.318054	0.48257872	228486.
1600	503	549.34271	72.312698	0.48296803	228486.
1615	503	549.36609	72.307045	0.48364702	228486.
1630	503	549.41138	72.307030	0.48366541	228486.
1645	503	549.45038	72.295830	0.48393437	228486.
1700	503	549.48260	72.289352	0.48445386	228486.
1715	503	549.51019	72.283867	0.48496881	228486.
1730	503	549.54803	72.277718	0.48515290	228486.
1745	503	549.56317	72.272003	0.48490065	228486.
1800	503	549.60382	72.266418	0.48551816	228486.
1815	503	549.64111	72.260231	0.48573765	228486.
1830	503	549.66919	72.253906	0.48610336	228486.
1845	503	549.69568	72.247704	0.48634434	228486.
1900	503	549.72803	72.241508	0.48658341	228486.
1915	503	549.76001	72.236305	0.48681200	2284C
1930	503	549.78412	72.229431	0.48672915	228486.
1945	503	549.82379	72.223938	0.48725057	228486.
2000	503	549.84912	72.217636	0.48759496	228486.
2015	503	549.87012	72.211060	0.48820779	228486.
2030	503	549.90692	72.205086	0.48821190	228486.
2045	503	549.93091	72.199120	0.48822179	228486.

SUMMARY OF MEASURED DATA AT 1430 0503

TEMP	1 =	543.16003	(8349.)
TEMP	2 =	543.45001	(8379.)
TEMP	3 =	545.16003	(8547.)
TEMP	4 =	546.48004	(8681.)
TEMP	5 =	546.37001	(8672.)
TEMP	6 =	557.67004	(9799.)
TEMP	7 =	557.90002	(9823.)
TEMP	8 =	571.93103	(11224.)
TEMP	9 =	573.04999	(11338.)
TEMP	10 =	538.73004	(7906.)
TEMP	11 =	539.08002	(7941.)
TEMP	12 =	538.98999	(7932.)
TEMP	13 =	538.59003	(7892.)
TEMP	14 =	539.00000	(7933.)
PRES	1 =	72.823494	(72981.)
VPRS	1 =	0.45154518	(7649.)
VPRS	2 =	0.44764775	(7623.)
VPRS	3 =	0.50633979	(7997.)
VPRS	4 =	0.45154518	(7649.)
VPRS	5 =	0.50884724	(8012.)
VPRS	6 =	0.48858434	(7888.)

CTMT. FREE AIR VOL. = 229486.

SUMMARY OF CORRECTED DATA

TIME = 1430
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.09088

CORRECTED PRESSURE (PSIA) = 72.342827

VAPOR PRESSURE (PSIA) = 0.48066470

CTMT. AIR MASS (LBM) = 81253.

SUMMARY OF MEASURED DATA AT 1445 0503

TEMP	1 =	543.19000	(8352.)
TEMP	2 =	543.48004	(9381.)
TEMP	3 =	545.23004	(9556.)
TEMP	4 =	546.53003	(8686.)
TEMP	5 =	546.46002	(8679.)
TEMP	6 =	557.77002	(9010.)
TEMP	7 =	560.01001	(9034.)
TEMP	8 =	572.00000	(11233.)
TEMP	9 =	573.17999	(11351.)
TEMP	10 =	538.72003	(7905.)
TEMP	11 =	539.07001	(7940.)
TEMP	12 =	538.98004	(7931.)
TEMP	13 =	538.59003	(7892.)
TEMP	14 =	538.98999	(7932.)
PRES	1 =	72.819519	(72977.)
VPRS	1 =	0.45169502	(7650.)
VPRS	2 =	0.44899681	(7632.)
VPRS	3 =	0.50699812	(8001.)
VPRS	4 =	0.45094547	(7645.)
VPRS	5 =	0.50951964	(8016.)
VPRS	6 =	0.48842564	(7887.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1445
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.13684

CORRECTED PRESSURE (PSIA) = 72.338615

VAPOR PRESSURE (PSIA) = 0.48090369

CTMT. AIR MASS (LBM) = 81241.

SUMMARY OF MEASURED DATA AT 1500 0503

TEMP 1 =	543.25000	(8358.)
TEMP 2 =	543.52002	(8385.)
TEMP 3 =	545.26001	(8559.)
TEMP 4 =	546.59003	(8692.)
TEMP 5 =	546.53003	(8686.)
TEMP 6 =	557.98000	(9821.)
TEMP 7 =	558.09003	(9842.)
TEMP 8 =	572.10004	(11243.)
TEMP 9 =	573.29004	(11362.)
TEMP 10 =	538.72003	(7905.)
TEMP 11 =	539.06000	(7939.)
TEMP 12 =	538.98999	(7932.)
TEMP 13 =	538.57001	(7890.)
TEMP 14 =	538.98004	(7931.)
PRES 1 =	72.814552	(72972.)
VPRS 1 =	0.45259449	(7656.)
VPRS 2 =	0.44399681	(7632.)
VPRS 3 =	0.50800669	(8007.)
VPRS 4 =	0.45139527	(7648.)
VPRS 5 =	0.51019192	(8020.)
VPRS 6 =	0.48874319	(7889.)

CTMT. FREE AIR VOL. = 229486.

SUMMARY OF CORRECTED DATA

TIME = 1500
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.18396

CORRECTED PRESSURE (PSIA) = 72.333138

VAPOR PRESSURE (PSIA) = 0.48141104

CTMT. AIR MASS (LBM) = 81228.

SUMMARY OF MEASURED DATA AT 1515 0503

TEMP	1 =	543.28003	(8361.)
TEMP	2 =	543.56000	(8389.)
TEMP	3 =	545.32001	(8565.)
TEMP	4 =	546.63000	(8696.)
TEMP	5 =	546.56000	(8689.)
TEMP	6 =	558.00000	(9833.)
TEMP	7 =	558.22003	(9855.)
TEMP	8 =	372.17999	(1251.)
TEMP	9 =	573.38000	(11371.)
TEMP	10 =	538.71002	(7904.)
TEMP	11 =	539.04004	(7937.)
TEMP	12 =	538.98004	(7931.)
TEMP	13 =	538.57001	(7890.)
TEMP	14 =	538.98004	(7931.)
PRES	1 =	72.810577	(72968.)
VPRS	1 =	0.45124534	(7647.)
VPRS	2 =	0.44989616	(7638.)
VPRS	3 =	0.50884724	(8012.)
VPRS	4 =	0.45214468	(7653.)
VPRS	5 =	0.51103246	(8025.)
VPRS	6 =	0.48826680	(7886.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1515
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.22253

CORRECTED PRESSURE (PSIA) = 72.329079

VAPOR PRESSURE (PSIA) = 0.48150232

CTMT. AIR MASS (LBM) = 81218.

SUMMARY OF MEASURED DATA AT 1530 0503

TEMP	1 =	543.33002	(8366.)
TEMP	2 =	543.58002	(8391.)
TEMP	3 =	545.36005	(8569.)
TEMP	4 =	546.67999	(8701.)
TEMP	5 =	546.62000	(8695.)
TEMP	6 =	558.07001	(9810.)
TEMP	7 =	558.31000	(9834.)
TEMP	8 =	572.28003	(11231.)
TEMP	9 =	573.40002	(11373.)
TEMP	10 =	538.71002	(7904.)
TEMP	11 =	539.06000	(7939.)
TEMP	12 =	538.98004	(7931.)
TEMP	13 =	538.57001	(7890.)
TEMP	14 =	538.97003	(7930.)

PRES	1 =	72.803603	(72963.)

VPRS	1 =	0.45379362	(7664.)
VPRS	2 =	0.45064571	(7643.)
VPRS	3 =	0.51002389	(8019.)
VPRS	4 =	0.45394352	(7665.)
VPRS	5 =	0.51237732	(8033.)
VPRS	6 =	0.48842564	(7887.)

CTMT. FREE AIR VOL. = 229486.

SUMMARY OF CORRECTED DATA

TIME = 1530
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.25940

CORRECTED PRESSURE (PSIA) = 72.323067

VAPOR PRESSURE (PSIA) = 0.48253500

CTMT. AIR MASS (LBM) = 81206.

SUMMARY OF MEASURED DATA AT 1545 0503

TEMP	1 =	543.38000	(8371.)
TEMP	2 =	543.62000	(8395.)
TEMP	3 =	545.40002	(8573.)
TEMP	4 =	546.72003	(8705.)
TEMP	5 =	546.65002	(8699.)
TEMP	6 =	558.17004	(9850.)
TEMP	7 =	558.41003	(9874.)
TEMP	8 =	572.33002	(11266.)
TEMP	9 =	573.50000	(11383.)
TEMP	10 =	538.70001	(7903.)
TEMP	11 =	539.04004	(7937.)
TEMP	12 =	538.98004	(7931.)
TEMP	13 =	538.56000	(7889.)
TEMP	14 =	538.97003	(7930.)

PRES	1 =	72.800636	(72958.)

VPRS	1 =	0.45484290	(7671.)
VPRS	2 =	0.45049578	(7642.)
VPRS	3 =	0.51120061	(8026.)
VPRS	4 =	0.45424327	(7667.)
VPRS	5 =	0.51204115	(9031.)
VPRS	6 =	0.48794913	(7884.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1545
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.29413

CORRECTED PRESSURE (PSIA) = 72.318054

VAPOR PRESSURE (PSIA) = 0.48257872

CTMT. AIR MASS (LBM) = 81195.

SUMMARY OF MEASURED DATA AT 1600 0503

TEMP	1 =	543.40002	(8373.)
TEMP	2 =	543.66003	(8399.)
TEMP	3 =	545.46002	(8579.)
TEMP	4 =	546.77002	(8710.)
TEMP	5 =	546.71002	(8704.)
TEMP	6 =	558.29004	(9862.)
TEMP	7 =	558.52002	(9885.)
TEMP	8 =	572.42004	(11275.)
TEMP	9 =	573.63000	(11396.)
TEMP	10 =	538.71002	(7904.)
TEMP	11 =	539.04004	(7937.)
TEMP	12 =	538.96002	(7929.)
TEMP	13 =	538.57001	(7890.)
TEMP	14 =	538.97003	(7930.)
PRES	1 =	72.795670	(72953.)
VPRS	1 =	0.45544252	(7675.)
VPRS	2 =	0.45109540	(7646.)
VPRS	3 =	0.51170492	(8029.)
VPRS	4 =	0.45439321	(7668.)
VPRS	5 =	0.51237732	(8033.)
VPRS	6 =	0.48826680	(7886.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1600
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.34271

CORRECTED PRESSURE (PSIA) = 72.312698

VAPOR PRESSURE (PSIA) = 0.48296803

CTMT. AIR MASS (LBM) = 81182.

SUMMARY OF MEASURED DATA AT 1615 0503

TEMP	1 =	543.45001	(8379.)
TEMP	2 =	543.69000	(8402.)
TEMP	3 =	545.51001	(8584.)
TEMP	4 =	546.80005	(8713.)
TEMP	5 =	546.76001	(8709.)
TEMP	6 =	558.37000	(9870.)
TEMP	7 =	558.60004	(9893.)
TEMP	8 =	572.46002	(11279.)
TEMP	9 =	573.65002	(11398.)
TEMP	10 =	538.71002	(7904.)
TEMP	11 =	539.01001	(7934.)
TEMP	12 =	538.95001	(7928.)
TEMP	13 =	538.54004	(7887.)
TEMP	14 =	538.97003	(7930.)
PRES	1 =	72.790695	(72948.)
VPRS	1 =	0.45529270	(7674.)
VPRS	2 =	0.45154518	(7649.)
VPRS	3 =	0.51237732	(8033.)
VPRS	4 =	0.45559245	(7676.)
VPRS	5 =	0.51321775	(8038.)
VPRS	6 =	0.48906085	(7891.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1615
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.36609

CORRECTED PRESSURE (PSIA) = 72.307045

VAPOR PRESSURE (PSIA) = 0.48364702

CTMT. AIR MASS (LBM) = 81172.

SUMMARY OF MEASURED DATA AT 1630 0503

TEMP	1 =	543.48999	(8382.)
TEMP	2 =	543.71002	(8404.)
TEMP	3 =	545.55005	(8588.)
TEMP	4 =	546.84003	(8717.)
TEMP	5 =	546.78003	(8711.)
TEMP	6 =	558.44000	(9877.)
TEMP	7 =	558.70001	(9903.)
TEMP	8 =	572.56000	(11289.)
TEMP	9 =	573.88000	(11421.)
TEMP	10 =	538.67004	(7900.)
TEMP	11 =	539.05005	(7938.)
TEMP	12 =	538.94000	(7927.)
TEMP	13 =	538.52002	(7885.)
TEMP	14 =	538.95001	(7928.)
PRES	1 =	72.790695	(72948.)
VPRS	1 =	0.45589221	(7678.)
VPRS	2 =	0.45214468	(7653.)
VPRS	3 =	0.51372212	(8041.)
VPRS	4 =	0.45514277	(7673.)
VPRS	5 =	0.51422644	(8044.)
VPRS	6 =	0.48794925	(7884.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1630
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.41138

CORRECTED PRESSURE (PSIA) = 72.307030

VAPOR PRESSURE (PSIA) = 0.49366541

CTMT. AIR MASS (LBM) = 81165.

SUMMARY OF MEASURED DATA AT 1645 0503

TEMP	1 =	543.53003	(8386.)
TEMP	2 =	543.73999	(8407.)
TEMP	3 =	545.59003	(8592.)
TEMP	4 =	546.90002	(8723.)
TEMP	5 =	546.84003	(8717.)
TEMP	6 =	553.34999	(9368.)
TEMP	7 =	553.79999	(9413.)
TEMP	8 =	572.67999	(11301.)
TEMP	9 =	573.91003	(11424.)
TEMP	10 =	538.66003	(7899.)
TEMP	11 =	539.03003	(7936.)
TEMP	12 =	538.94000	(7927.)
TEMP	13 =	538.50000	(7883.)
TEMP	14 =	538.95001	(7928.)
PRES	1 =	72.779762	(72937.)
VPRS	1 =	0.45619205	(7680.)
VPRS	2 =	0.45259449	(7656.)
VPRS	3 =	0.51439440	(8045.)
VPRS	4 =	0.45484290	(7671.)
VPRS	5 =	0.51405829	(8043.)
VPRS	6 =	0.48842564	(7897.)

CTMT. FREE AIR VOL. = 229486.

SUMMARY OF CORRECTED DATA

TIME = 1645
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.45038

CORRECTED PRESSURE (PSIA) = 72.295830

VAPOR PRESSURE (PSIA) = 0.48393437

CTMT. AIR MASS (LBM) = 81147.

SUMMARY OF MEASURED DATA AT 1700 0503

TEMP	1 =	543.58002	(8391.)
TEMP	2 =	543.78003	(8411.)
TEMP	3 =	545.62000	(8595.)
TEMP	4 =	546.94000	(8727.)
TEMP	5 =	546.88000	(8721.)
TEMP	6 =	588.65002	(9898.)
TEMP	7 =	588.89000	(9921.)
TEMP	8 =	572.73999	(11307.)
TEMP	9 =	573.98999	(11432.)
TEMP	10 =	538.64001	(7897.)
TEMP	11 =	539.03003	(7936.)
TEMP	12 =	538.94000	(7927.)
TEMP	13 =	538.48004	(7881.)
TEMP	14 =	538.92999	(7926.)
PRES	1 =	72.773804	(72931.)
VPRS	1 =	0.45649180	(7682.)
VPRS	2 =	0.45364368	(7663.)
VPRS	3 =	0.51506698	(8049.)
VPRS	4 =	0.45709142	(7686.)
VPRS	5 =	0.51456255	(8046.)
VPRS	6 =	0.48826680	(7886.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1700
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.48260

CORRECTED PRESSURE (PSIA) = 72.289352

VAPOR PRESSURE (PSIA) = 0.45445386

CTMT. AIR MASS (LBM) = 81135.

SUMMARY OF MEASURED DATA AT 1715 0503

TEMP	1 =	543.61005	(8394.)
TEMP	2 =	543.80005	(8413.)
TEMP	3 =	545.65002	(8598.)
TEMP	4 =	546.98004	(8731.)
TEMP	5 =	546.91003	(8724.)
TEMP	6 =	558.73004	(9906.)
TEMP	7 =	559.98004	(9931.)
TEMP	8 =	572.83002	(11316.)
TEMP	9 =	574.04999	(11436.)
TEMP	10 =	538.63000	(7896.)
TEMP	11 =	539.00000	(7933.)
TEMP	12 =	538.92999	(7926.)
TEMP	13 =	538.45001	(7878.)
TEMP	14 =	538.92004	(7925.)
PRES	1 =	72.768837	(72926.)
VPRS	1 =	0.45709142	(7686.)
VPRS	2 =	0.43499283	(7672.)
VPRS	3 =	0.51573926	(8053.)
VPRS	4 =	0.45664173	(7683.)
VPRS	5 =	0.51540309	(8051.)
VPRS	6 =	0.48858434	(7888.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1715
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.51019

CORRECTED PRESSURE (PSIA) = 72.283867

VAPOR PRESSURE (PSIA) = 0.48496881

CTMT. AIR MASS (LBM) = 81125.

SUMMARY OF MEASURED DATA AT 1730 0503

TEMP	1 =	543.65002	(8398.)
TEMP	2 =	543.83002	(8416.)
TEMP	3 =	545.67999	(8601.)
TEMP	4 =	547.02002	(8735.)
TEMP	5 =	546.97003	(8730.)
TEMP	6 =	558.83002	(9916.)
TEMP	7 =	559.08000	(9939.)
TEMP	8 =	572.90002	(11323.)
TEMP	9 =	574.17999	(11451.)
TEMP	10 =	538.59003	(7892.)
TEMP	11 =	539.00000	(7933.)
TEMP	12 =	538.92999	(7926.)
TEMP	13 =	538.42999	(7876.)
TEMP	14 =	538.91003	(7924.)
PRES	1 =	72.762871	(72920.)
VPRS	1 =	0.45784098	(7691.)
VPRS	2 =	0.45469296	(7670.)
VPRS	3 =	0.51674783	(8059.)
VPRS	4 =	0.45799080	(7692.)
VPRS	5 =	0.51590741	(8054.)
VPRS	6 =	0.48794913	(7884.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1730
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.54803

CORRECTED PRESSURE (PSIA) = 72.277718

VAPOR PRESSURE (PSIA) = 0.48515290

CTMT. AIR MASS (LBM) = 81112.

SUMMARY OF MEASURED DATA AT 1745 0503

TEMP	1 =	543.67999	(8401.)
TEMP	2 =	543.88000	(8421.)
TEMP	3 =	545.72003	(8605.)
TEMP	4 =	547.05005	(8738.)
TEMP	5 =	546.98999	(8732.)
TEMP	6 =	559.94000	(9927.)
TEMP	7 =	559.16003	(9949.)
TEMP	8 =	572.94000	(11327.)
TEMP	9 =	574.14001	(11447.)
TEMP	10 =	538.59003	(7892.)
TEMP	11 =	538.97003	(7930.)
TEMP	12 =	538.91003	(7924.)
TEMP	13 =	538.41003	(7874.)
TEMP	14 =	538.88000	(7921.)
PRES	1 =	72.756905	(72914.)
VPRS	1 =	0.45814070	(7693.)
VPRS	2 =	0.45544252	(7675.)
VPRS	3 =	0.51691598	(8060.)
VPRS	4 =	0.45784098	(7691.)
VPRS	5 =	0.51540309	(8051.)
VPRS	6 =	0.48715520	(7879.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1745
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.56317

CORRECTED PRESSURE (PSIA) = 72.272003

VAPOR PRESSURE (PSIA) = 0.48490065

CTMT. AIR MASS (LBM) = 81104.

SUMMARY OF MEASURED DATA AT 1800 0503

TEMP	1 =	543.75000	(8408.)
TEMP	2 =	543.90002	(8423.)
TEMP	3 =	545.75000	(8608.)
TEMP	4 =	547.09003	(8742.)
TEMP	5 =	547.04004	(8737.)
TEMP	6 =	559.01001	(9934.)
TEMP	7 =	559.25000	(9958.)
TEMP	8 =	573.04999	(11338.)
TEMP	9 =	574.25000	(11458.)
TEMP	10 =	538.58002	(7891.)
TEMP	11 =	538.98999	(7932.)
TEMP	12 =	538.90002	(7923.)
TEMP	13 =	538.36005	(7869.)
TEMP	14 =	538.89001	(7922.)

PRES	1 =	72.751938	(72909.)

VPRS	1 =	0.45844045	(7695.)
VPRS	2 =	0.45619205	(7680.)
VPRS	3 =	0.51758838	(8064.)
VPRS	4 =	0.45919001	(7700.)
VPRS	5 =	0.51657981	(8058.)
VPRS	6 =	0.48731405	(7880.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1800
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.60382

CORRECTED PRESSURE (PSIA) = 72.266418

VAPOR PRESSURE (PSIA) = 0.48551816

CTMT. AIR MASS (LBM) = 81091.

SUMMARY OF MEASURED DATA AT 1815 0503

TEMP	1 =	543.79004	(8412.)
TEMP	2 =	543.94000	(8427.)
TEMP	3 =	545.80005	(8613.)
TEMP	4 =	547.13000	(8746.)
TEMP	5 =	547.08002	(8741.)
TEMP	6 =	559.09003	(9942.)
TEMP	7 =	559.32001	(9965.)
TEMP	8 =	573.14001	(11347.)
TEMP	9 =	574.37000	(11470.)
TEMP	10 =	538.57001	(7890.)
TEMP	11 =	538.96002	(7929.)
TEMP	12 =	538.90002	(7923.)
TEMP	13 =	538.37000	(7870.)
TEMP	14 =	538.87000	(7920.)

PRES	1 =	72.745972	(72903.)

VPRS	1 =	0.45980683	(7704.)
VPRS	2 =	0.45544252	(7675.)
VPRS	3 =	0.51893318	(8072.)
VPRS	4 =	0.45904019	(7699.)
VPRS	5 =	0.51725221	(8062.)
VPRS	6 =	0.48699638	(7878.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1815
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.64111

CORRECTED PRESSURE (PSIA) = 72.260231

VAPOR PRESSURE (PSIA) = 0.48573765

CTMT. AIR MASS (LBM) = 81079.

SUMMARY OF MEASURED DATA AT 1830 0503

TEMP 1 =	543.81000	(8414.)
TEMP 2 =	543.97003	(8430.)
TEMP 3 =	545.83002	(8616.)
TEMP 4 =	547.17999	(8751.)
TEMP 5 =	547.09003	(8742.)
TEMP 6 =	559.16003	(9949.)
TEMP 7 =	559.41003	(9974.)
TEMP 8 =	573.21002	(11354.)
TEMP 9 =	574.44000	(11477.)
TEMP 10 =	538.54004	(7887.)
TEMP 11 =	538.95001	(7928.)
TEMP 12 =	538.90002	(7923.)
TEMP 13 =	538.37000	(7870.)
TEMP 14 =	538.87000	(7920.)

PRES 1 =	72.740013	(72897.)

VPRS 1 =	0.46073198	(7710.)
VPRS 2 =	0.45694149	(7685.)
VPRS 3 =	0.51943749	(8075.)
VPRS 4 =	0.45949835	(7702.)
VPRS 5 =	0.51742023	(8063.)
VPRS 6 =	0.48683754	(7877.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1830
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.66919

CORRECTED PRESSURE (PSIA) = 72.253906

VAPOR PRESSURE (PSIA) = 0.48610336

CTMT. AIR MASS (LBM) = 81068.

SUMMARY OF MEASURED DATA AT 1845 0503

TEMP	1 =	543.85004	(8418.)
TEMP	2 =	543.98999	(8432.)
TEMP	3 =	543.86005	(8619.)
TEMP	4 =	547.21002	(8754.)
TEMP	5 =	547.15002	(8748.)
TEMP	6 =	559.27002	(9960.)
TEMP	7 =	559.50000	(9933.)
TEMP	8 =	573.25000	(11358.)
TEMP	9 =	574.41003	(11474.)
TEMP	10 =	538.54999	(7888.)
TEMP	11 =	538.97003	(7930.)
TEMP	12 =	538.89001	(7922.)
TEMP	13 =	538.36005	(7869.)
TEMP	14 =	538.87000	(7920.)
PRES	1 =	72.734047	(72891.)
VPRS	1 =	0.46011528	(7706.)
VPRS	2 =	0.45694149	(7685.)
VPRS	3 =	0.52027804	(8080.)
VPRS	4 =	0.46042365	(7708.)
VPRS	5 =	0.51809263	(8067.)
VPRS	6 =	0.48683754	(7877.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1845
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.69568

CORRECTED PRESSURE (PSIA) = 72.247704

VAPOR PRESSURE (PSIA) = 0.48634434

CTMT. AIR MASS (LBM) = 81057.

SUMMARY OF MEASURED DATA AT 1900 0503

TEMP 1 =	543.89001	(8122.)
TEMP 2 =	544.01001	(8434.)
TEMP 3 =	545.90002	(9623.)
TEMP 4 =	547.23999	(8757.)
TEMP 5 =	547.20001	(8755.)
TEMP 6 =	559.34003	(9967.)
TEMP 7 =	559.52002	(9991.)
TEMP 8 =	573.36005	(11369.)
TEMP 9 =	574.46002	(11479.)
TEMP 10 =	538.53003	(7886.)
TEMP 11 =	538.95001	(7928.)
TEMP 12 =	538.89001	(7922.)
TEMP 13 =	538.36005	(7869.)
TEMP 14 =	538.87000	(7920.)
PRES 1 =	72.728088	(72385.)
VPRS 1 =	0.46073198	(7710.)
VPRS 2 =	0.45649190	(7682.)
VPRS 3 =	0.52061415	(8082.)
VPRS 4 =	0.46150303	(7715.)
VPRS 5 =	0.51775652	(8065.)
VPRS 6 =	0.48715520	(7879.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1900
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.72803

CORRECTED PRESSURE (PSIA) = 72.241508

VAPOR PRESSURE (PSIA) = 0.48658341

CTMT. AIR MASS (LBM) = 81045.

SUMMARY OF MEASURED DATA AT 1915 0503

TEMP	1 =	543.92004	(8425.)
TEMP	2 =	544.04004	(8437.)
TEMP	3 =	545.96002	(8629.)
TEMP	4 =	547.28003	(8761.)
TEMP	5 =	547.22003	(8755.)
TEMP	6 =	559.42004	(9975.)
TEMP	7 =	559.67999	(10001.)
TEMP	8 =	573.41003	(11374.)
TEMP	9 =	574.60004	(11493.)
TEMP	10 =	538.52002	(7885.)
TEMP	11 =	538.95001	(7928.)
TEMP	12 =	538.87000	(7920.)
TEMP	13 =	538.33002	(7866.)
TEMP	14 =	538.85004	(7918.)
PRES	1 =	72.723114	(72880.)
VPRS	1 =	0.46119457	(7713.)
VPRS	2 =	0.45799080	(7692.)
VPRS	3 =	0.52162272	(8088.)
VPRS	4 =	0.45996106	(7705.)
VPRS	5 =	0.51876503	(8071.)
VPRS	6 =	0.48683754	(7877.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1915
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.76001

CORRECTED PRESSURE (PSIA) = 72.236305

VAPOR PRESSURE (PSIA) = 0.48681200

CTMT. AIR MASS (LBM) = 81035.

SUMMARY OF MEASURED DATA AT 1930 0503

TEMP	1 =	543.94000	(8427.)
TEMP	2 =	544.09002	(8441.)
TEMP	3 =	545.98004	(8631.)
TEMP	4 =	547.31000	(8764.)
TEMP	5 =	547.25000	(8758.)
TEMP	6 =	559.54004	(9987.)
TEMP	7 =	559.75000	(10008.)
TEMP	8 =	573.46002	(11379.)
TEMP	9 =	574.63000	(11496.)
TEMP	10 =	538.51001	(7884.)
TEMP	11 =	538.92999	(7926.)
TEMP	12 =	538.87000	(7920.)
TEMP	13 =	538.32001	(7865.)
TEMP	14 =	538.84003	(7917.)
PRES	1 =	72.716164	(72873.)
VPRS	1 =	0.46211985	(7719.)
VPRS	2 =	0.45769104	(7690.)
VPRS	3 =	0.52229512	(8092.)
VPRS	4 =	0.45965260	(7703.)
VPRS	5 =	0.51859695	(8070.)
VPRS	6 =	0.48636129	(7874.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1930
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.78412

CORRECTED PRESSURE (PSIA) = 72.229431

VAPOR PRESSURE (PSIA) = 0.48672915

CTMT. AIR MASS (LBM) = 81023.

SUMMARY OF MEASURED DATA AT 1945 0503

TEMP 1 =	544.00000	(8433.)
TEMP 2 =	544.11003	(8444.)
TEMP 3 =	546.01001	(8634.)
TEMP 4 =	547.37000	(8770.)
TEMP 5 =	547.32001	(8765.)
TEMP 6 =	559.59003	(9992.)
TEMP 7 =	559.84003	(10017.)
TEMP 8 =	573.52002	(11385.)
TEMP 9 =	574.73999	(11507.)
TEMP 10 =	538.51001	(7884.)
TEMP 11 =	538.92999	(7926.)
TEMP 12 =	538.87000	(7920.)
TEMP 13 =	538.29004	(7862.)
TEMP 14 =	538.83002	(7916.)
PRES 1 =	72.711189	(72868.)
VPRS 1 =	0.46211985	(7719.)
VPRS 2 =	0.45889026	(7698.)
VPRS 3 =	0.52313572	(8097.)
VPRS 4 =	0.46119457	(7713.)
VPRS 5 =	0.51893318	(8072.)
VPRS 6 =	0.48651999	(7875.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 1945
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.82379

CORRECTED PRESSURE (PSIA) = 72.223938

VAPOR PRESSURE (PSIA) = 0.48725057

CTMT. AIR MASS (LBM) = 81011.

SUMMARY OF MEASURED DATA AT 2000 0503

TEMP	1 =	543.98999	(8432.)
TEMP	2 =	544.13000	(8446.)
TEMP	3 =	546.06000	(8639.)
TEMP	4 =	547.38000	(8771.)
TEMP	5 =	547.33002	(8766.)
TEMP	6 =	559.67999	(10001.)
TEMP	7 =	559.92004	(10025.)
TEMP	8 =	573.61005	(11394.)
TEMP	9 =	574.79004	(11512.)
TEMP	10 =	538.50000	(7883.)
TEMP	11 =	538.94000	(7927.)
TEMP	12 =	538.88000	(.7921.)
TEMP	13 =	538.28003	(7861.)
TEMP	14 =	538.83002	(7916.)
PRES	1 =	72.705231	(72862.)
VPRS	1 =	0.46211985	(7719.)
VPRS	2 =	0.45965260	(7703.)
VPRS	3 =	0.52330381	(8098.)
VPRS	4 =	0.46073198	(7710.)
VPRS	5 =	0.51960564	(8076.)
VPRS	6 =	0.48699638	(7878.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 2000
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.84912

CORRECTED PRESSURE (PSIA) = 72.217636

VAPOR PRESSURE (PSIA) = 0.48759496

CTMT. AIR MASS (LBM) = 81000.

SUMMARY OF MEASURED DATA AT 2015 0503

TEMP	1 =	544.01001	(8434.)
TEMP	2 =	544.16003	(8449.)
TEMP	3 =	546.10004	(8643.)
TEMP	4 =	547.42004	(8775.)
TEMP	5 =	547.35004	(8768.)
TEMP	6 =	559.76001	(10009.)
TEMP	7 =	560.03003	(10036.)
TEMP	8 =	573.63000	(11396.)
TEMP	9 =	574.79004	(11512.)
TEMP	10 =	538.50000	(7883.)
TEMP	11 =	538.92004	(7925.)
TEMP	12 =	538.87000	(7920.)
TEMP	13 =	538.29004	(7862.)
TEMP	14 =	538.83002	(7916.)
PRES	1 =	72.699265	(72856.)
VPRS	1 =	0.46366182	(7729.)
VPRS	2 =	0.46026939	(7707.)
VPRS	3 =	0.52450454	(8105.)
VPRS	4 =	0.46242818	(7721.)
VPRS	5 =	0.51943749	(8075.)
VPRS	6 =	0.48715520	(7879.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 2015
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.87012

CORRECTED PRESSURE (PSIA) = 72.211060

VAPOR PRESSURE (PSIA) = 0.48820779

CTMT. AIR MASS (LBM) = 80990.

SUMMARY OF MEASURED DATA AT 2030 0503

TEMP	1 =	544.06000	(8439.)
TEMP	2 =	544.17999	(8451.)
TEMP	3 =	546.12000	(8645.)
TEMP	4 =	547.47003	(8780.)
TEMP	5 =	547.42004	(8775.)
TEMP	6 =	559.84003	(10017.)
TEMP	7 =	560.08002	(10041.)
TEMP	8 =	573.73004	(11406.)
TEMP	9 =	574.87000	(11520.)
TEMP	10 =	538.48999	(7882.)
TEMP	11 =	538.91003	(7924.)
TEMP	12 =	538.85004	(7918.)
TEMP	13 =	538.29004	(7862.)
TEMP	14 =	538.82001	(7915.)
PRES	1 =	72.693298	(72850.)
VPRS	1 =	0.46381605	(7730.)
VPRS	2 =	0.46026939	(7707.)
VPRS	3 =	0.52502322	(8108.)
VPRS	4 =	0.46319923	(7726.)
VPRS	5 =	0.52078229	(8083.)
VPRS	6 =	0.48604360	(7872.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 2030
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.90692

CORRECTED PRESSURE (PSIA) = 72.205086

VAPOR PRESSURE (PSIA) = 0.48821190

CTMT. AIR MASS (LBM) = 80979.

SUMMARY OF MEASURED DATA AT 2045 0503

TEMP	1 =	544.04004	(8437.)
TEMP	2 =	544.23004	(8456.)
TEMP	3 =	546.15002	(8648.)
TEMP	4 =	547.50000	(8783.)
TEMP	5 =	547.44000	(8777.)
TEMP	6 =	559.92999	(10026.)
TEMP	7 =	560.17999	(10051.)
TEMP	8 =	573.78003	(11411.)
TEMP	9 =	574.92004	(11525.)
TEMP	10 =	538.48004	(7881.)
TEMP	11 =	538.90002	(7923.)
TEMP	12 =	538.86005	(7919.)
TEMP	13 =	538.27002	(7860.)
TEMP	14 =	538.81000	(7914.)
PRES	1 =	72.687340	(72844.)
VPRS	1 =	0.46350759	(7728.)
VPRS	2 =	0.45965260	(7703.)
VPRS	3 =	0.52571481	(8112.)
VPRS	4 =	0.46289089	(7724.)
VPRS	5 =	0.51994175	(8078.)
VPRS	6 =	0.48667884	(7876.)

CTMT. FREE AIR VOL. = 228486.

SUMMARY OF CORRECTED DATA

TIME = 2045
DATE = 0503

TEMPERATURE (DEGREES R.) = 549.93091

CORRECTED PRESSURE (PSIA) = 72.199120

VAPOR PRESSURE (PSIA) = 0.48822179

CTMT. AIR MASS (LBM) = 80968.

HATCH 2 DRYWELL BYPASS AREA TEST

BYPASS AREA (SQUARE INCHES)
TOTAL-TIME ANALYSIS

TIME AND DATE AT START OF TEST: 415 0504
ELAPSED TIME: 4.00 HOURS

TIME	DRYTMP	DRYPRS	DRYVAP	TORTMP	TORPRS	TORVAP	AREA
415	554.484	16.390	0.273	536.224	14.708	0.453	
430	554.617	16.399	0.281	536.740	14.743	0.458	0.05837
445	554.679	16.392	0.289	536.980	14.764	0.462	0.04764
500	554.755	16.397	0.296	537.124	14.785	0.466	0.04756
515	554.796	16.388	0.302	537.226	14.803	0.469	0.04717
530	554.857	16.392	0.308	537.298	14.824	0.471	0.04901
545	554.907	16.395	0.313	537.382	14.843	0.473	0.04977
600	554.947	16.398	0.318	537.462	14.862	0.473	0.05101
615	554.975	16.360	0.322	537.520	14.876	0.474	0.05006
630	555.029	16.362	0.327	537.584	14.895	0.475	0.05106
645	555.065	16.363	0.331	537.640	14.913	0.475	0.05210
700	555.106	16.363	0.335	537.690	14.931	0.476	0.05273
715	555.159	16.364	0.339	537.732	14.950	0.476	0.05357
730	555.192	16.364	0.343	537.768	14.966	0.476	0.05357
745	555.228	16.363	0.346	537.810	14.983	0.477	0.05385
800	555.245	16.363	0.349	537.844	15.002	0.476	0.05435
815	555.290	16.362	0.352	537.870	15.019	0.477	0.05511

TORUS FREE AIR VOLUME (CU. FT.) = 82220.00
COEFFICIENT OF DISCHARGE = 0.60

MEAN MEASURED BYPASS AREA (SQ. IN.) = 0.05172

THE LOWER 95% CONFIDENCE LIMIT = 0.04748
THE UPPER 95% CONFIDENCE LIMIT = 0.06036
THE CALCULATED BYPASS AREA = 0.05417

SUMMARY OF MEASURED DATA AT 415 0504

TEMP	1 =	542.010	(8234.)
TEMP	2 =	542.220	(8255.)
TEMP	3 =	544.310	(8464.)
TEMP	4 =	545.700	(8603.)
TEMP	5 =	546.110	(8644.)
TEMP	6 =	556.390	(9722.)
TEMP	7 =	557.070	(9740.)
TEMP	8 =	572.130	(11251.)
TEMP	9 =	573.960	(11423.)
TEMP	10 =	535.970	(7630.)
TEMP	11 =	536.410	(7674.)
TEMP	12 =	536.350	(7668.)
TEMP	13 =	535.770	(7610.)
TEMP	14 =	536.620	(7695.)
PRES	1 =	16.390	(16403.)
PRES	2 =	14.708	(14610.)
VPRS	1 =	0.263	(6068.)
VPRS	2 =	0.256	(5994.)
VPRS	3 =	0.289	(6344.)
VPRS	4 =	0.253	(5963.)
VPRS	5 =	0.296	(6408.)
VPRS	6 =	0.453	(7659.)

SUMMARY OF CORRECTED DATA

TIME = 415
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.484	536.224
PRESSURE (PSIA)	16.390	14.708
VAPOR PRESSURE (PSIA)	0.273	0.453

SUMMARY OF MEASURED DATA AT 430 0504

TEMP	1 =	543.130	(8246.)
TEMP	2 =	542.390	(8172.)
TEMP	3 =	544.500	(8383.)
TEMP	4 =	545.830	(8621.)
TEMP	5 =	546.260	(8659.)
TEMP	6 =	556.930	(9731.)
TEMP	7 =	557.150	(9748.)
TEMP	8 =	572.290	(11262.)
TEMP	9 =	574.060	(11439.)
TEMP	10 =	536.350	(7668.)
TEMP	11 =	537.120	(7745.)
TEMP	12 =	536.890	(7723.)
TEMP	13 =	536.240	(7657.)
TEMP	14 =	537.100	(7743.)
PRES	1 =	16.399	(16412.)
PRES	2 =	14.743	(14645.)
VPRS	1 =	0.276	(6205.)
VPRS	2 =	0.261	(6051.)
VPRS	3 =	0.297	(6420.)
VPRS	4 =	0.259	(6033.)
VPRS	5 =	0.302	(6468.)
VPRS	6 =	0.458	(7691.)

SUMMARY OF CORRECTED DATA

TIME = 430
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES F.)	554.617	536.740
PRESSURE (PSIA)	16.399	14.743
VAPOR PRESSURE (PSIA)	0.281	0.458

SUMMARY OF MEASURED DATA AT 445 0504

TEMP	1 =	542.170	(8250.)
TEMP	2 =	542.500	(8283.)
TEMP	3 =	544.590	(8492.)
TEMP	4 =	546.010	(8634.)
TEMP	5 =	546.340	(8667.)
TEMP	6 =	557.010	(9734.)
TEMP	7 =	557.190	(9752.)
TEMP	8 =	572.350	(11268.)
TEMP	9 =	574.020	(11435.)
TEMP	10 =	536.560	(7689.)
TEMP	11 =	537.440	(7777.)
TEMP	12 =	537.190	(7752.)
TEMP	13 =	536.470	(7680.)
TEMP	14 =	537.240	(7757.)
PRES	1 =	16.392	(16405.)
PRES	2 =	14.764	(14666.)
VPRS	1 =	0.289	(6335.)
VPRS	2 =	0.266	(6109.)
VPRS	3 =	0.305	(6495.)
VPRS	4 =	0.267	(6120.)
VPRS	5 =	0.309	(6536.)
VPRS	6 =	0.462	(7719.)

SUMMARY OF CORRECTED DATA

TIME = 445
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.678	536.980
PRESSURE (PSIA)	16.392	14.764
VAPOR PRESSURE (PSIA)	0.289	0.462

SUMMARY OF MEASURED DATA AT 500 0504

TEMP	1 =	542.230	(8256.)
TEMP	2 =	542.590	(8292.)
TEMP	3 =	544.690	(8502.)
TEMP	4 =	546.110	(8644.)
TEMP	5 =	546.430	(8676.)
TEMP	6 =	557.050	(9733.)
TEMP	7 =	557.250	(9753.)
TEMP	8 =	572.410	(11274.)
TEMP	9 =	574.100	(11443.)
TEMP	10 =	536.720	(7705.)
TEMP	11 =	537.630	(7796.)
TEMP	12 =	537.340	(7767.)
TEMP	13 =	536.580	(7691.)
TEMP	14 =	537.350	(7768.)
PRES	1 =	16.397	(16410.)
PRES	2 =	14.785	(14687.)
VPRS	1 =	0.294	(6339.)
VPRS	2 =	0.272	(6171.)
VPRS	3 =	0.313	(6568.)
VPRS	4 =	0.274	(6192.)
VPRS	5 =	0.317	(6607.)
VPRS	6 =	0.466	(7744.)

SUMMARY OF CORRECTED DATA

TIME = 500
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.755	537.124
PRESSURE (PSIA)	16.397	14.785
VAPOR PRESSURE (PSIA)	0.296	0.466

SUMMARY OF MEASURED DATA AT 515 0504

TEMP	1	=	542.290	(8262.)
TEMP	2	=	542.650	(8298.)
TEMP	3	=	544.740	(8507.)
TEMP	4	=	546.210	(8654.)
TEMP	5	=	546.490	(8682.)
TEMP	6	=	557.050	(9738.)
TEMP	7	=	557.260	(9759.)
TEMP	8	=	572.420	(11275.)
TEMP	9	=	574.090	(11442.)
TEMP	10	=	536.820	(7715.)
TEMP	11	=	537.730	(7811.)
TEMP	12	=	537.410	(7774.)
TEMP	13	=	536.650	(7698.)
TEMP	14	=	537.470	(7780.)
PRES	1	=	16.388	(16401.)
PRES	2	=	14.803	(14705.)
VPRS	1	=	0.296	(6413.)
VPRS	2	=	0.278	(6233.)
VPRS	3	=	0.320	(6628.)
VPRS	4	=	0.279	(6244.)
VPRS	5	=	0.324	(6668.)
VPRS	6	=	0.469	(7760.)

SUMMARY OF CORRECTED DATA

TIME = 515
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.796	537.226
PRESSURE (PSIA)	16.388	14.803
VAPOR PRESSURE (PSIA)	0.302	0.469

SUMMARY OF MEASURED DATA AT 530 0504

TEMP	1 =	542.350	(8268.)
TEMP	2 =	542.700	(8303.)
TEMP	3 =	544.300	(8513.)
TEMP	4 =	546.290	(8662.)
TEMP	5 =	546.590	(8692.)
TEMP	6 =	557.070	(9740.)
TEMP	7 =	557.290	(9762.)
TEMP	8 =	572.450	(11278.)
TEMP	9 =	574.160	(11449.)
TEMP	10 =	536.890	(7722.)
TEMP	11 =	537.900	(7823.)
TEMP	12 =	537.480	(7781.)
TEMP	13 =	536.730	(7706.)
TEMP	14 =	537.490	(7782.)

PRES	1 =	16.392	(16405.)
PRES	2 =	14.824	(14725.)

VPRS	1 =	0.302	(6462.)
VPRS	2 =	0.285	(6299.)
VPRS	3 =	0.326	(6687.)
VPRS	4 =	0.286	(6314.)
VPRS	5 =	0.330	(6724.)
VPRS	6 =	0.471	(7775.)

SUMMARY OF CORRECTED DATA

TIME = 530
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.857	537.293
PRESSURE (PSIA)	16.392	14.824
VAPOR PRESSURE (PSIA)	0.303	0.471

SUMMARY OF MEASURED DATA AT 545 0504

TEMP	1 =	542.410	(8274.)
TEMP	2 =	543.770	(8310.)
TEMP	3 =	544.360	(8313.)
TEMP	4 =	546.360	(8669.)
TEMP	5 =	546.650	(8693.)
TEMP	6 =	557.110	(9744.)
TEMP	7 =	557.330	(9766.)
TEMP	8 =	572.490	(11232.)
TEMP	9 =	574.170	(11450.)
TEMP	10 =	536.970	(7730.)
TEMP	11 =	537.920	(7825.)
TEMP	12 =	537.600	(7793.)
TEMP	13 =	536.810	(7714.)
TEMP	14 =	537.610	(7794.)
PRES	1 =	16.395	(16403.)
PRES	2 =	14.843	(14744.)
VPRS	1 =	0.302	(6466.)
VPRS	2 =	0.291	(6359.)
VPRS	3 =	0.333	(6743.)
VPRS	4 =	0.292	(6369.)
VPRS	5 =	0.336	(6775.)
VPRS	6 =	0.473	(7787.)

SUMMARY OF CORRECTED DATA

TIME = 545
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.907	537.382
PRESSURE (PSIA)	16.395	14.843
VAPOR PRESSURE (PSIA)	0.313	0.473

SUMMARY OF MEASURED DATA AT 600 0504

TEMP	1 =	542.470	(8330.)
TEMP	2 =	542.820	(8315.)
TEMP	3 =	544.930	(8526.)
TEMP	4 =	546.420	(8675.)
TEMP	5 =	546.730	(8706.)
TEMP	6 =	557.110	(9744.)
TEMP	7 =	557.360	(9769.)
TEMP	8 =	572.490	(11282.)
TEMP	9 =	574.180	(11451.)
TEMP	10 =	537.040	(7737.)
TEMP	11 =	538.060	(7839.)
TEMP	12 =	537.680	(7801.)
TEMP	13 =	536.860	(7719.)
TEMP	14 =	537.670	(7800.)
PRES	1 =	16.398	(16411.)
PRES	2 =	14.862	(14763.)
VPRS	1 =	0.306	(6503.)
VPRS	2 =	0.296	(6412.)
VPRS	3 =	0.338	(6788.)
VPRS	4 =	0.297	(6420.)
VPRS	5 =	0.342	(6827.)
VPRS	6 =	0.473	(7791.)

SUMMARY OF CORRECTED DATA

TIME = 600
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.947	537.462
PRESSURE (PSIA)	16.398	14.862
VAPOR PRESSURE (PSIA)	0.318	0.473

SUMMARY OF MEASURED DATA AT 615 0504

TEMP	1 =	543.480	(8231.)
TEMP	2 =	542.350	(8318.)
TEMP	3 =	544.970	(8530.)
TEMP	4 =	546.450	(8678.)
TEMP	5 =	546.790	(8712.)
TEMP	6 =	557.110	(9744.)
TEMP	7 =	557.370	(9770.)
TEMP	8 =	572.550	(11238.)
TEMP	9 =	574.170	(11450.)
TEMP	10 =	537.120	(7745.)
TEMP	11 =	538.120	(7845.)
TEMP	12 =	537.770	(7810.)
TEMP	13 =	536.920	(7725.)
TEMP	14 =	537.670	(7800.)
PRES	1 =	16.360	(16373.)
PRES	2 =	14.876	(14777.)
VPRS	1 =	0.309	(6533.)
VPRS	2 =	0.301	(6455.)
VPRS	3 =	0.342	(6828.)
VPRS	4 =	0.302	(6462.)
VPRS	5 =	0.347	(6865.)
VPRS	6 =	0.474	(7798.)

SUMMARY OF CORRECTED DATA

TIME = 615
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	554.975	537.520
PRESSURE (PSIA)	16.360	14.876
VAPOR PRESSURE (PSIA)	0.322	0.474

SUMMARY OF MEASURED DATA AT 630 0504

TEMP	1 =	542.560	(8289.)
TEMP	2 =	542.920	(8325.)
TEMP	3 =	545.040	(8537.)
TEMP	4 =	546.510	(8684.)
TEMP	5 =	546.870	(8720.)
TEMP	6 =	557.140	(9747.)
TEMP	7 =	557.400	(9773.)
TEMP	8 =	572.560	(11289.)
TEMP	9 =	574.220	(11455.)
TEMP	10 =	537.170	(7750.)
TEMP	11 =	538.190	(7852.)
TEMP	12 =	537.880	(7821.)
TEMP	13 =	536.970	(7730.)
TEMP	14 =	537.710	(7804.)
PRES	1 =	16.362	(16375.)
PRES	2 =	14.895	(14796.)
VPRS	1 =	0.313	(6572.)
VPRS	2 =	0.306	(6503.)
VPRS	3 =	0.347	(6869.)
VPRS	4 =	0.306	(6502.)
VPRS	5 =	0.351	(6904.)
VPRS	6 =	0.475	(7805.)

SUMMARY OF CORRECTED DATA

TIME = 630
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.029	537.584
PRESSURE (PSIA)	16.362	14.895
VAPOR PRESSURE (PSIA)	0.327	0.475

SUMMARY OF MEASURED DATA AT 645 0504

TEMP	1 =	542.650	(8293.)
TEMP	2 =	543.970	(8330.)
TEMP	3 =	545.090	(8542.)
TEMP	4 =	546.580	(8691.)
TEMP	5 =	546.910	(8724.)
TEMP	6 =	557.170	(9750.)
TEMP	7 =	557.420	(9775.)
TEMP	8 =	572.610	(11294.)
TEMP	9 =	574.160	(11449.)
TEMP	10 =	537.220	(7755.)
TEMP	11 =	538.250	(7858.)
TEMP	12 =	537.940	(7827.)
TEMP	13 =	537.010	(7734.)
TEMP	14 =	537.780	(7811.)
PRES	1 =	16.363	(16376.)
PRES	2 =	14.913	(14814.)
VPRS	1 =	0.317	(6607.)
VPRS	2 =	0.310	(6544.)
VPRS	3 =	0.352	(6903.)
VPRS	4 =	0.310	(6543.)
VPRS	5 =	0.356	(6944.)
VPRS	6 =	0.475	(7803.)

SUMMARY OF CORRECTED DATA

TIME = 645
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.065	537.640
PRESSURE (PSIA)	16.363	14.913
VAPOR PRESSURE (PSIA)	0.331	0.475

SUMMARY OF MEASURED DATA AT 700 0504

TEMP	1 =	542.700	(8303.)
TEMP	2 =	543.010	(8334.)
TEMP	3 =	545.160	(8549.)
TEMP	4 =	546.620	(8695.)
TEMP	5 =	546.960	(8729.)
TEMP	6 =	557.130	(9751.)
TEMP	7 =	557.430	(9776.)
TEMP	8 =	572.610	(11294.)
TEMP	9 =	574.260	(11459.)
TEMP	10 =	537.260	(7759.)
TEMP	11 =	538.300	(7863.)
TEMP	12 =	538.040	(7837.)
TEMP	13 =	537.050	(7738.)
TEMP	14 =	537.800	(7813.)
PRES	1 =	16.363	(16376.)
PRES	2 =	14.931	(14832.)
VPRS	1 =	0.320	(6633.)
VPRS	2 =	0.315	(6585.)
VPRS	3 =	0.356	(6940.)
VPRS	4 =	0.315	(6589.)
VPRS	5 =	0.360	(6975.)
VPRS	6 =	0.476	(7807.)

SUMMARY OF CORRECTED DATA

TYPE = 700
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.106	537.690
PRESSURE (PSIA)	16.363	14.931
VAPOR PRESSURE (PSIA)	0.335	0.476

SUMMARY OF MEASURED DATA AT 715 0504

TEMP	1 =	542.750	(9308.)
TEMP	2 =	543.060	(9339.)
TEMP	3 =	545.220	(9555.)
TEMP	4 =	546.690	(9702.)
TEMP	5 =	547.060	(9739.)
TEMP	6 =	557.190	(9752.)
TEMP	7 =	557.470	(9780.)
TEMP	8 =	572.630	(11296.)
TEMP	9 =	574.300	(11463.)
TEMP	10 =	537.300	(7763.)
TEMP	11 =	538.340	(7867.)
TEMP	12 =	538.090	(7842.)
TEMP	13 =	537.070	(7740.)
TEMP	14 =	537.860	(7819.)
PRES	1 =	16.364	(16377.)
PRES	2 =	14.950	(14850.)
VPRS	1 =	0.323	(6663.)
VPRS	2 =	0.319	(6623.)
VPRS	3 =	0.359	(6970.)
VPRS	4 =	0.318	(6612.)
VPRS	5 =	0.364	(7008.)
VPRS	6 =	0.476	(7806.)

SUMMARY OF CORRECTED DATA

TIME = 715
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.159	537.732
PRESSURE (PSIA)	16.364	14.950
VAPOR PRESSURE (PSIA)	0.339	0.476

SUMMARY OF MEASURED DATA AT 730 0504

TEMP	1 =	542.790	(8312.)
TEMP	2 =	543.100	(8343.)
TEMP	3 =	545.270	(8560.)
TEMP	4 =	546.730	(8706.)
TEMP	5 =	547.120	(8745.)
TEMP	6 =	557.200	(9753.)
TEMP	7 =	557.480	(9781.)
TEMP	8 =	572.670	(11300.)
TEMP	9 =	574.300	(11463.)
TEMP	10 =	537.340	(7767.)
TEMP	11 =	538.390	(7872.)
TEMP	12 =	538.110	(7844.)
TEMP	13 =	537.120	(7745.)
TEMP	14 =	537.880	(7821.)
PRES	1 =	16.364	(16377.)
PRES	2 =	14.966	(14866.)
VPRS	1 =	0.327	(6697.)
VPRS	2 =	0.322	(6654.)
VPRS	3 =	0.363	(6997.)
VPRS	4 =	0.322	(6646.)
VPRS	5 =	0.368	(7037.)
VPRS	6 =	0.476	(7810.)

SUMMARY OF CORRECTED DATA

TIME = 730
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.192	537.768
PRESSURE (PSIA)	16.364	14.966
VAPOR PRESSURE (PSIA)	0.343	0.476

UMMARY OF MEASURED DATA AT 745 0504

TEMP	1 =	542.820	(8315.)
TEMP	2 =	543.140	(8347.)
TEMP	3 =	545.320	(8565.)
TEMP	4 =	546.780	(8711.)
TEMP	5 =	547.150	(8748.)
TEMP	6 =	557.220	(9755.)
TEMP	7 =	557.500	(9783.)
TEMP	8 =	572.710	(11304.)
TEMP	9 =	574.340	(11467.)
TEMP	10 =	537.380	(7771.)
TEMP	11 =	538.400	(7873.)
TEMP	12 =	538.180	(7851.)
TEMP	13 =	537.160	(7749.)
TEMP	14 =	537.930	(7826.)
PRES	1 =	16.363	(16376.)
PRES	2 =	14.983	(14883.)
VPRS	1 =	0.330	(6723.)
VPRS	2 =	0.326	(6687.)
VPRS	3 =	0.366	(7025.)
VPRS	4 =	0.325	(6677.)
VPRS	5 =	0.371	(7060.)
VPRS	6 =	0.477	(7813.)

SUMMARY OF CORRECTED DATA

TIME = 745
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.228	537.810
PRESSURE (PSIA)	16.363	14.983
VAPOR PRESSURE (PSIA)	0.346	0.477

SUMMARY OF MEASURED DATA AT 800 0504

TEMP	1 =	542.370	(3320.)
TEMP	2 =	543.170	(8350.)
TEMP	3 =	545.360	(8569.)
TEMP	4 =	546.820	(8715.)
TEMP	5 =	547.220	(8755.)
TEMP	6 =	557.230	(9756.)
TEMP	7 =	557.520	(9785.)
TEMP	8 =	572.700	(11303.)
TEMP	9 =	574.250	(11458.)
TEMP	10 =	537.430	(7776.)
TEMP	11 =	538.410	(7874.)
TEMP	12 =	538.220	(7855.)
TEMP	13 =	537.170	(7750.)
TEMP	14 =	537.990	(7832.)
PRES	1 =	16.363	(16376.)
PRES	2 =	15.002	(14902.)
VPRS	1 =	0.334	(6752.)
VPRS	2 =	0.329	(6714.)
VPRS	3 =	0.369	(7050.)
VPRS	4 =	0.328	(6702.)
VPRS	5 =	0.373	(7083.)
VPRS	6 =	0.476	(7811.)

SUMMARY OF CORRECTED DATA

TIME = 800
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.245	537.844
PRESSURE (PSIA)	16.363	15.002
VAPOR PRESSURE (PSIA)	0.349	0.476

SUMMARY OF MEASURED DATA AT 815 0504

TEMP	1 =	542.920	(8325.)
TEMP	2 =	543.220	(8355.)
TEMP	3 =	545.400	(8573.)
TEMP	4 =	546.860	(8719.)
TEMP	5 =	547.270	(8760.)
TEMP	6 =	557.260	(9759.)
TEMP	7 =	557.530	(9786.)
TEMP	8 =	572.730	(11306.)
TEMP	9 =	574.340	(11467.)
TEMP	10 =	537.430	(7776.)
TEMP	11 =	538.450	(7878.)
TEMP	12 =	538.250	(7858.)
TEMP	13 =	537.210	(7754.)
TEMP	14 =	538.010	(7834.)
PRES	1 =	16.362	(16375.)
PRES	2 =	15.019	(14919.)
VPRS	1 =	0.336	(6770.)
VPRS	2 =	0.332	(6740.)
VPRS	3 =	0.372	(7070.)
VPRS	4 =	0.331	(6731.)
VPRS	5 =	0.377	(7107.)
VPRS	6 =	0.477	(7815.)

SUMMARY OF CORRECTED DATA

TIME = 815
DATE = 0504

	DRYWELL	TORUS
TEMPERATURE (DEGREES R.)	555.290	537.870
PRESSURE (PSIA)	16.362	15.019
VAPOR PRESSURE (PSIA)	0.352	0.477

ISG Calculations

Reference ANSI/ANS 56.8-1981, Appendix G

A. Test Parameters

La	= 1.2 %/day	leakage rate
P	= 72.3 psia	containment pressure
T	= 548 °R	drybulb, average temperature
Tdp	= 78 °F	dewpoint temperature
t	= 10.75 Hr.	test duration

B. Instrument Parameters

1. Total Absolute Pressure

No. of sensors: 1
Range: 0-100 psia
Sensitivity error (E_{Pv}): .001 psia
Repeatability (εP_v): .0005 % of full scale

$$e_P = \pm \sqrt{\frac{(EP)^2 + (\varepsilon_P)^2}{\text{No. of sensors}}} = \sqrt{\frac{.000001 + .00000025}{1}} = \pm .00118$$

2. Water Vapor Pressure

No. of sensors: 6
Sensitivity error (E_{Pv}): $\pm$ .10 °F
Repeatability error (ε_{Pv}): $\pm$ .05 °F
Dewpoint temperature 78 °F
Vapor pressure change @ 78 °F: .0094 psia/°F

E_{Pv} = (.10) (.0094) = .00094
ε_{Pv} = (.05) (.0094) = .00047

$$e_{pv} = \pm \sqrt{\frac{EPv^2 + \varepsilon_{pv}^2}{\text{No of sensors}}} = \sqrt{\frac{.0000008836 + .0000002209}{6}} = .000429$$

3. Temperature

No. of sensors : 14
Sensitivity error (E_T) : .01 °F
Repeatability error (ε_T): .003 °F

$$e_T = \pm \sqrt{\frac{E_T^2 + \varepsilon_T^2}{\text{No of sensors}}} = \pm\sqrt{\frac{.0001 + .000009}{14}} = .002790$$

C. ISG

$$ISG = \pm \frac{2400}{t} \left[2\left(\frac{e_p}{P}\right)^2 + 2\left(\frac{e_{pv}}{P}\right)^2 + \left(\frac{e_T}{T}\right)^2 \right]^{1/2}$$

$$= \pm \frac{2400}{10.75} \sqrt{2\left(\frac{.001118}{72.3}\right)^2 + 2\left(\frac{.000429}{72.3}\right)^2 + 2\left(\frac{.002790}{548}\right)^2} =$$

$$ISG = \pm \frac{2400}{10.75} \quad (.0000245) = .00547 \ \%/day$$

.25 La = (.25) (1.2) = .30 > .00547 (= .0045 La)

SUMMARY OF LOCAL LEAKAGE RATE TESTING

1. General

The major prerequisite to the containment integrated leakage rate test is the satisfactory completion of a series of local leakage rate tests. This involves subjecting potential leakage paths through the containment boundary, i.e., containment penetrations, to the same test conditions occurring during the integrated leakage rate test. Conducting Type B, Type C, and Special Isolation Valve Tests as defined in 10CFR Part 50, Appendix J, Article III, C., permits discovery and elimination of leakage paths through the containment without pressurizing the entire containment structure (Type A test).

2. Acceptance Criteria

A. The combined leakage rate of components subject to Type B and C tests (except for MSIV's) shall not exceed 0.60La.

B. The combined Type C leakage rate from Penetrations 8, 9A, 9B, 14, 18, 19, 55, and 234A shall not exceed .009 La.

C. Main steam isolation valve leakage rate shall not exceed 11.5 scfh for any one valve.

D. The personel air lock leakage rate shall not exceed 0.05 La (lock Barrel Test Total Leakage).

3. Test Pressures

A. Test pressure for all Type B and C tests shall be 57.5 psig +3, -0, except as noted in Items below.

B. Test pressure for Isolation Valves tested with water shall be at a pressure equal to the height of the highest opposing water column plus 63.3 psig (1.10Pa), +3.-0.

C. Main steam isolation valves are tested at 28 psig.

D. Double "O" ring door seals are tested at 10 psig.

E. Air lock barrel is tested at 57.5 psig.

4. Results

A. Measured Leakage Rate of Type B and C Test.

3006 + 6424 = 9430 accm = .175 La

Allowable Limit: (.6 La)

The sum of Type B and C leakage rate limited to .6 La

A. Measured Leakage Rate of Type B and C Test (Cont'd).

.6 La = (.6) (1.2%) (Containment Free Air Volume)/1 day =
= (.6) (.012) (228,486)/24 = 68.55 Ft^3/hr =
= 32,354 accm

The required limits per Appendix J are satisfied, since 9430 accm < 32,354 accm.

B. Measured Leakage Rate of Special Penetrations

The sum of Type C leakage rates of Penetrations 8, 9A, 9B, 14, 18, 19, 55, and 234A is as follows:

Penetration 8 :	0
9A:	175
9B:	45
14:	45
18:	20
19:	50
55:	20
234A:	60
TOTAL:	415 accm

Allowable Limit: (.009 La)

.009 La = (.009) (.012) (228,486)/24 = 1.028 ft^3/hr =

= 485 accm

The required limit is satisfied since 415 accm < 485 accm

C. Measured Leakage Rate of Main Steam Isolation Valves

Penetration 7A	0
Penetration 7B	3 scfh
Penetration 7C	0
Penetration 7D	9.5 scfh

Allowable Limit (11.5 scfh/valve)

The leakage rate of each valve is limited to 11.5 scfh.

The required limits are satisfied.

D. Measured Leakage Rate of the Personnel Air Lock

1700 accm = 0.0378 %/day = .032 La

Allowable Limit: (0.05 La)

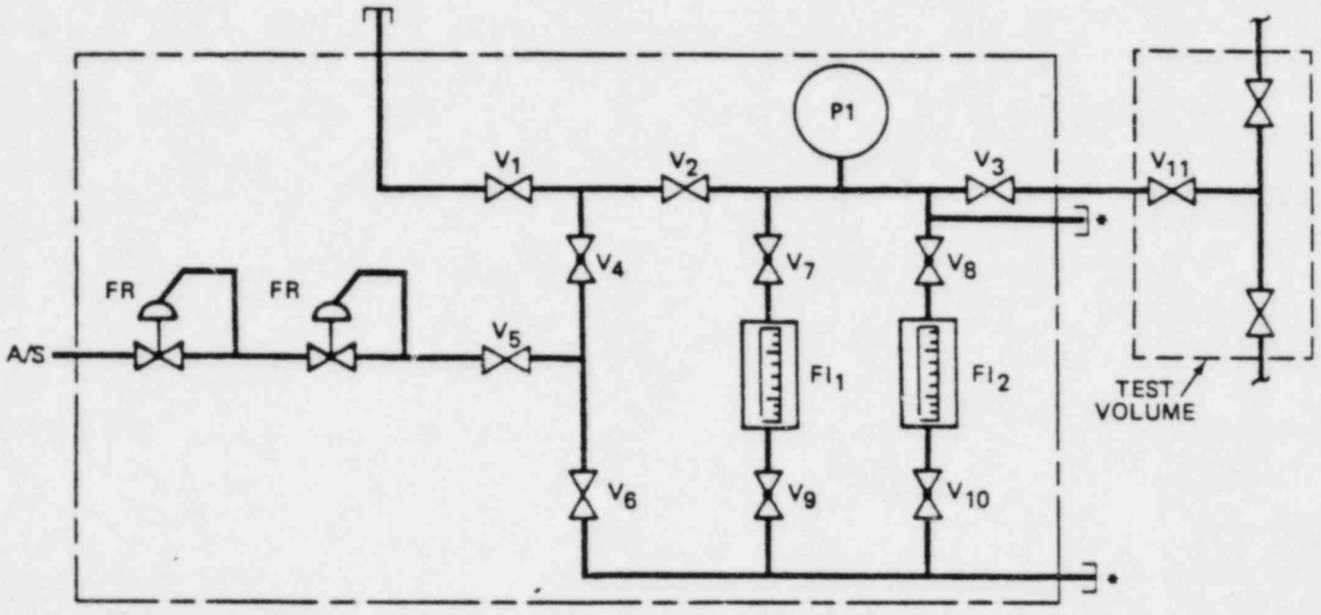
.05 La = (.05)(.012)(228,486)/24 = 5.71 ft^3/hr =

= 2696 accm

The required limit is satisfied since .032 La < .05 La.

Local Leakage Rate Testing

Test Equipment



Ident.	Description
A/S	Air or nitrogen supply – used to pressurize test volume
PR	Pressure Regulator
FI	Dual Flowmeters – Brooks Rotameters, for air at 59.0 psig, 70°F. Scale 1 – Range 20-200 acc/min Scale 2 – Range 200-2000 acc/min
PI	Pressure Gage – Roylyn Precision Pressure Gauge. Range 0-100 psia, Accuracy 0.25%

* Optional Hi range flowmeter.

TYPE B TEST

Penetration Number	System	Leakage (accm @ 57.5 psig)
1A	Equipment Hatch	0
1B	Equipment Hatch	20
2	Personnel Lock ("O" rings @ 10 psig)	1700
4	Head Acess Hatch	0
5A/201A	Vent Line	0
5B/201B	Vent Line	0
5C/201C	Vent Line	0
5D/201D	Vent Line	0
5E/201E	Vent Line	0
5F/201F	Vent Line	0
5G/201G	Vent Line	0
5H/201H	Vent Line	0
6	CRD Removal Hatch	0
7A	Main Steam Line	0
7B	Main Steam Line	0
7C	Main Steam Line	0
7D	Main Steam Line	0
8	Condensate drain	376
9A	Primary Feedwater	0
9B	Primary Feedwater	0
10	Steam to RCIC Turbine	0
11	Steam to HPCI Turbine	200
12	RHR Shutdown Cooling Suction	125
13A	RHR Return to Recirculation	0
13B	RHR Return to Recirculation	0
14	RWCU Supply	0
16A	Core Spray	0
17	RPV Head Spray	0
25	Vent Purge Supply	0
26	Vent Purge Outlet	0
35A	TIP Drives	0
35B	TIP Drives	0
35C	TIP Drives	0
35D	TIP Drives	0
35E	TIP N_2 Purge	0
42	SBLC	80
43	Drywell Test and Fill	0
100A	Electrical	0
100B	Electrical	0
100E	Electrical	0
100F	Electrical	0
101A	Electrical	0
101C	Electrical	0
101D	Electrical	0
101E	Electrical	0
101F	Electrical	0

TYPE B TEST (CONT'D)

Penetration Number	System	Leakage (accm @ 57.5 psig)
102A	Electrical	0
103A	Electrical	0
104A	Electrical	0
104B	Electrical	0
104C	Electrical	0
104F	Electrical	0
104G	Electrical	0
104H	Electrical	0
105A	Electrical	0
105C	Electrical	430
106A	Electrical	0
200A	Torus Access Hatch	0
200B	Torus Access Hatch	0
202	Electrical	0
205	Vacuum Relief/Torus Purge	45
218B	Construction Drain	0
220	Vent Purge Outlet	30
228A	Electrical	0
228C	Electrical	0
	Drywell Head Flange	0
	RPV Stabilizer Access Hatches (8)	0
223A	Spare	0
223B	Spare	0
236	Torus Access Hatch	0
	SUBTOTAL OF TYPE B LEAKAGE:	3006 accm

TYPE C TEST

Penetration Number	Description System	Leakage, accm (Part of .6 La)	Leakage, accm (Not Part of .6 La)
3	H_2/O_2 sample (2P33)	0	
7A	Main Steam (2B21, 2E32)		0
7B	Main Steam (2B21, 2E32)		335
7C	Main Steam (2B21, 2E32)		0
7D	Main Steam (2B21, 2E32)		896
8	Condensate Drain (2B21)	0	
9A	Primary Feedwater (2B21)		175*
9B	Primary Feedwater (2B21)		9,003*
10	Steam to RCIC Turbine (2E51)	30	
11	Steam to HPCI Turbine (2E41)	80	
12	RHR Shutdown Cooling Suction (2E11)		69
13A	RHR Return to Recirculation (2E11)		2,462
13B	RHR Return to Recirculation (2E11)		5,400
14	RWCU Supply (2G31)	45	
15	H_2 Recombiner System B Supply (2T49)	230	
16A	Core Spray (2E21)		27,549
16B	Core Spray (2E21)		5,059
17	RPV Headspray (2E11)		0
18	CRW Pump Discharge (2G11)	20	
19	DRW Pump Discharge (2G11)	50	
21	Service Air (2P51)	440	

TYPE C TEST (CONT'D)

Penetration Number	Description System	Leakage, accm (Part of .6 La)	Leakage, accm (Not Part of .6 La)
22	Drywell Pneumatic Return (2P270)	2,820	
23 & 24	RBCCW Supply and Return (2P42)		20*
25/205	Drywell/torus normal N_2 makeup (2T48)	0	
25/205	Drywell/torus purge supply and inerting (2T48)	500	
26	Drywell purge exhaust (2T48)	38	
26	Drywell purge exhaust (2T48)	0	
27C	RCP C001A seal purge from CRD (2B31)	0	
28	H_2/O_2 sample return (2P33)	0	
32A	Drywell pressure (2E11)		20
32C	Drywell pressure (2E11)		20
34C	ILRT Verification flow (2T23)	0	
34D	Drywell pressure (2T48)		35
35A	TIP Drive (2C51)	20	
35B	TIP Drive (2C51)	34	
35C	TIP Drive (2C51)	20	
35D	TIP Drive (2C51)	20	
35E	TIP nitrogen purge (2C51)	20	
39A	Containment Spray (2E11)		1,050
39B	Containment Spray (2E11)		99
41	Recirculate Loop Sample (2B31)	20	
42	Standby Liquid Control (C241)	0	

TYPE C TEST (CONT'D)

Penetration Number	Description System	Leakage, accm (Part of .6 La)	Leakage, accm (Not Part of .6 La)
44	Drywell N_2 Makeup LOCA (2T48)	0	
46	Demineralized Water (2P21)	0	
47 & 48	Chilled Water Supply and Return (2P64)		445*
51D	Drywell pressure (2T48)		0
54A	Drywell pressure (2E11)		0
54C	Drywell pressure (2E11)		0
55	Chemical pump discharge (2G11)	20	
57C	RCP C001B seal purge from CRD (2B31)	0	
60A	H_2/O_2 sample (2P33)	18	
60B	FPM Sample return (2D11)	0	
61A	H_2 Recombine system A supply (2T49)	335	
62	FPM Sample (2D11)	10	
63	Drywell pneumatic system suction (2P70)	28	
64	H_2/O_2 sample return (2P33)	20	
67	Drywell nitorgen vent LOCA (2T48)	110	
69	Drywell to torus dP system return to drywell (2T48)	260	
76	Recirculate Pump fire protection (2T43)		
80	Drywell nitrogen vent LOCA (2T48)	90	
81	Drywell N_2 makeup LOCA (2T48)	20	

TYPE C TEST (CONT'D)

Penetration Number	Description System	Leakage, accm (Part of .6 La)	Leakage, accm (Not Part of .6 La)
203	RCIC pump suction (2E51)		20*
204A	RHR pump suction (2E11)		1,100*
204B	RHR pump suction (2E11)		225*
204C	RHR pump suction (2E11)		0*
204D	RHR pump suction (2E11)		40*
205	Torus pressure (2T48)	30	
205	Vaccum relief (2T48)	0	
205	Vaccum relief (2T48)	0	
206A	Torus water level (2T48)		0
206C	Torus water level (2T48)		0
206F	Torus water level (2T48)		0*
206H	Torus water level (2T48)		0*
207	HPCI pump suction (2E41)		1,700*
208A	Core spray pump suction (2E21)		0*
210A and 211A	RHR test line and torus spray (2E11 and 2E41)		1,587
210B and 211B	RHR test line and torus spray (2E11 and 2E41)		818
212	RCIC turbine exhaust (2E51)		200
213	RCIC turbine vacuum pump discharge (2E51)		20
214	HPCI turbine exhaust (2E41)		160
215	HPCI turbine exhaust drain (2E41)		0
217A	H_2/O_2 sample (2P33)	38	

TYPE C TEST (CONT'D)

Penetration Number	Description System	Leakage, accm (Part of .6 La)	Leakage, accm (Not Part of .6 La)
217B	H_2/O_2 sample (2P33)	0	
217C	FPM sample (2D11)	30	
218A	Torus purification suction (2G51)		40*
220	Torus pressure (2T48)	80	
220	Torus purge exhaust (2T48)		35
220	Torus purge exhaust (2T48)	65	
221A	H_2 Recombiner system A return (2T49)	30	
221B	HPCI turbine exhaust vacuum breaker (2E41)	65	
221C	RCIC turbine exhaust vacuum breaker (2E51)	0	
222B	H_2 recombiner system B return (2T49)	20	
224A	RHR heat exchanger relief (2E11)		0
224B	RHR heat exchanger relief (2E11)		257
225A-H	Control air to vacuum breakers (2T48)	68	
225I-M	Control air to vacuum breakers (2T48)	0	
226A	Core spray test line (2E21)		0
226A	Jockey pump minimum flow (2E21)		0
226A	RHR pump minimum flow (2E11)		70
226A	RHR A heat exchanger discharge to torus (2E11)		20

TYPE C TEST (CONT'D)

Penetration Number	Description System	Leakage, accm (Part of .6 La)	Leakage, accm (Not Part of .6 La)
226B	Core spray test line (2E21)		54
226B	Jockey pump minimum flow (2E21)		0
226B	RHR pump minimum flow (2E11)		0
226B	RHR heat exchanger discharge to torus (2E11)		0
230	Torus N_2 makeup LOCA (2T48)	0	
231	Torus N_2 vent LOCA (2T48)	30	
233	Drywell to torus dP system suction from torus (2T48)	640	
234A	Condensate pump suction from torus (2G51)		60*
235A	Torus N_2 vent LOCA (2T48)	30	
235B	Torus N_2 makeup LOCA (2T48)	0	

SUBTOTAL OF TYPE C LEAKAGE PART OF .6 La 6,424 accm

SUBTOTAL OF TYPE C LEAKAGE, NOT PART OF .6La

TESTED WITH WATER 12,828 accm

TEST WITH AIR 46,215 accm

*Tested with water

PENETRATION INDEX

Penetration Number	System	Drawing
1A	Equipment Hatch	CB&I 30
1B	Equipment Hatch	CB&I 30
2	Personnel Lock	CB&I 100
3	H_2/O_2 Sample	H-26048
4	Head Access Hatch	CB&I 19
5A thru H	Vent Line	CB&I 15
6	CRD Removal Hatch	CB&I 89
7A thru D	Main Steam	H-26000
8	Condensate Drain	H-26000
9A and B	Primary Feedwater	H-26000
10	Steam to RCIC Turbine	H-26023
11	Steam to HPCI Turbine	H-26020
12	RHR Shutdown Cooling Suction	H-26015
13A	RHR Return to Recirculation	H-26015
13B	RHR Return to Recirculation	H-26014
14	RWCU Supply	H-26036
15	Post LOCA H_2 Recombiner 'B' Supply from Drywell	H-26068
16A and B	Core Spray	H-26018
17	RPV Head Spray	H-26014
18	CRW Pump Discharge	H-26026
19	DRW Pump Discharge	H-26026
20	Spare	
21	Service Air	H-26058
22	Drywell Pneumatic System Return	H26066
23	Closed Cooling Water Supply	H-26055
24	Closed Cooling Water Return	H-26055
25	Vent Purge Supply/ILRT Pres'n	H-26084
26	Vent Purge Outlet	H-26084
27A,B	Recirc. Line A Flow	H-26003
27C	Pump C001A Seal Purge from CRD	H-26003
28	H_2/O_2 Sample Return	H-26048
29A,B	Recirc. Line B Flow	H-26003
29C	Spare	
30A	Recirc. Line B Pressure	H-26003
30B	Pump B Discharge	H-26003
30C	Pump B Suction	H-26003
30D	Pump B Seal No. 2	H-26003
30E	Pump B Seal No. 1	H-26003
30F	Spare	
31A	Recirc. Line A Pressure	H-26003
31B	Pump A Discharge	H-26003

Penetration Number	System	Drawing
31C	Pump A Suction	H-26003
31D	Pump A Seal No. 2	H-26003
31E	Pump A Seal No. 1	H-26003
31F	Spare	
32A	Drywell Pressure	H-26014
32B	Spare	
32C	Drywell Pressure	H-26014
33A	Main Steam A Flow	H-26000
33B,C	Main Steam B Flow	H-26000
33D	Main Steam A Flow	H-26000
33E,F	Main Steam C Flow	H-26000
34A,B	Main Steam D Flow	H-26000
34C	ILRT Verification Flow	H-26057
34D	Drywell Pressure/ILRT Drywell Pressure	H-26084/26057
34E,F	Steam Line to RCIC Turbine Inst.	H-26023
35A thru D	TIP Drives	S-28757
35E	TIP N_2 Purge	S-28757
36	Spare	H-26006
37A thru D	CRD Insert	H-26006
38A thru D	CRD Withdraw	H-26006
39A	Containment Spray	H-26015
39B	Containment Spray	H-26014
40A-A	Recirc. Loop Instr.	H-26003
40A-B	Recirc. Loop Instr.	H-26003
40A-C	Pres. Above Core Plate	H-26001,26018
40A-D	Pres. Below Core Plate	H-26001
40A-E	Recirc. Loop Instr.	H-26003
40A-F	Recirc. Loop Instr.	H-26003
40B-A thru 40B-F	Jet Pump Instr.	H-26001
40C-A,B	Recirc. Loop Instr.	H-26003
40C-C	Pres. Above Core Plate	H-26001
40C-D	Pres. Below Core Plate	H-26001
40C-E,F	Recirc. Loop Instr.	H-26003
40D-A,B	Steam Line to HPCI Turbine Inst.	H-26020
40D-C thru 40D-E	Spare	
40D-F	Cores Spray Diff. Pres. Inst.	H-26018
41	Recirc. Loop Sample	H-26003
42	Standby Liquid Control	H-26009
43	Drywell Test and Fill	CB&I 89
44	N_2 Makeup Inlet LOCA	H-26083
45A thru F	Jet Pump Inst.	H-26001

Penetration Number	System	Drawing
46	Demineralized Water	H-26047
47	Chilled Water Supply	H-26081
48	Chilled Water Return	H-26081
49A thru F	Jet Pump Inst.	H-26001
50A thru F	Jet Pump Inst.	H-26001
51A,B	Steam Line to RCIC Turbine Inst.	H-26023
51C	Spare	
51D	Drywell Pressure	H-26084
51E,F	Main Steam D Flow	H-26000
52A	Main Steam A Flow	H-26000
52B,C	Main Steam C Flow	H-26000
52D	Main Steam A Flow	H-26000
52E,F	Main Steam B Flow	H-26000
53A thru F	Power Test	CB&I 91
54A,C	Drywell Pressure	H-26015
54B	Spare	
55	Chem. Pump Discharge	H-26026
56A	Spare	
56B thru F	RPV Level Inst.	H-26001
57A,B	Recirc. Line B Flow	H-26003
57C	Pump C001B Seal Purge from CRD	H-26003
58	Spare	
59A	Spare	
59B thru E	RPV Level Inst.	H-26001
59F	Spare	
60A	H_2/O_2 Sample	H-26048
60B	FPM Sample Return	H-26016
61A	Post LOCA H_2 Recombiner System A Supply from Drywell	H-26068
61B	Spare	
62	FPM Sample	H-26016
63	Drywell Pneumatic System Suction	H-26066
64	H_2/O_2 Sample Return	H-26048
65	Spare	
66A,B	Recirc. Line A Flow	H-26003
66C	Spare	
67	N_2 Vent (LOCA)	H-26084
68	Spare	
69	Drywell/Torus ΔP	H-26079
70	Spare	
71	Spare	
72	Spare	
73	Post LOCA Radiation Monitor	Welded Cap
74	Post LOCA Radiation Monitor	Welded Cap

Penetration Number	System	Drawing
75	Spare	
76	Fire Protection	H-21017
77	Spare	
78A thru F	Spare	
79A	Core Spray Diff. Pres. Inst.	H-26018
79B thru D	Spare	
79E,F	Steam Line to HPCI Turbine Inst.	H-26020
80	N_2 Vent (LOCA)	H-26084
81	N_2 Makeup Inlet (LOCA)	H-26083
100A,B,E,F	Neutron Monitoring System	
100C,D	Spare	
101A thru F	Recirc. Pump Power	
102A	Indication and Control	
102B	Spare	
103A	Indication and Control/ILRT Drywell ME's	
103B	Spare	
104A,B,C,F, G,H	CRD Rod Position Indicator	
104D,E,I,J	Spare	
105A,C	600 Volt Power	
105B,D	Spare	
106A	Thermocouples/ILRT Drywell TE's	
106B	Spare	
107A,B	Spare	
108A,B	Grounding Rod	
200A,B	Torus Access Hatch	CB&I 222
201A thru H	Vent Line	
202	Control & Indication/ILRT Torus TE's and ME's	
203	RCIC Pump Suction	H-26023
204A thru D	RHR Pump Suction	H-26014,15
205	Vacuum Relief/Torus Purge/ILRT	H-26084
205	Torus Pressure	H-26084
206A,C	Torus Water Level	H-26084
206F,H	Torus Water Level	H-26084
207	HPCI Pump Suction	H-26020
208A,B	Core Spray Pump Suction	H-26018
209A thru D	Torus Water Temp	H-26084
210A	RHR Test Line	H-26015
210B	RHR Test Line	H-26014
211A	Torus Spray	H-26015
211B	Torus Spray	H-26014
212	RCIC Turbine Exhaust	H-26023
213	RCIC Turbine Vac. Pump Disch.	H-26023

Penetration Number	System	Drawing
214	HPCI Turbine Exhaust	H-26020
215	HPCI Turbine Drain	H-26020
216A thru D	Torus Air Temp	H-26084
217A	H_2/O_2 Sample	H-26048
217B	H_2/O_2 Sample	H-26048
217C	FPM Sample	H-26016
217D	Spare	
218A	Pump 2G51-C001 Suction from Torus	H-26042
218B	Construction Drain	CB&I 226
220	Vent Purge Outlet	H-26084
220	Pressure (ILRT and Torus)	H-26084
221A	Post LOCA H_2 Recombiner System A Return to Torus	H-26068
221B	HPCI Turbine Exhaust Vac. Relief	H-26020
221C	RCIC Turbine Exhaust Vac. Relief	H-26023
222A	Spare	
222B	Post LOCA H Recombiner System B Return to Torus	H-26068
206B,D,E,G	Spare	
223A,B	Spare double O ring flange	
224A	Relief Valve Discharge (RHR)	H-26015
224B	Relief Valve Discharge (RHR)	H-26014
225A thru H	Control Air to Vac. Breaker Valves	H-26084
225J thru M	Control Air to Vac. Breaker Valves	H-26084
226A,B	Core Spray Test Lines	H-26018
227A	Spare	
227B	Spare	
228A	Low Voltage Power	
228B	Spare	
228C	Low Voltage Power	
229	Spare	
230	N_2 Makeup Inlet (LOCA)	H-26083
231	N_2 Vent (LOCA)	H-26084
232	Spare	
233	Drywell/Torus dp	H-26079
234A	Condensate Pump Suction from Torus	H-26042
234B	Spare	
235A	N_2 Vent (LOCA)	H-26084
235B	N_2 Makeup Inlet (LOCA)	H-26083
	Drywell Head Flange	
	RPV Stabilizer Access Hatches (8)	