

BRUNSWICK STEAM ELECTRIC PLANT  
UNIT NO. 1

REACTOR CONTAINMENT BUILDING  
INTEGRATED LEAK RATE TEST

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CAROLINA POWER & LIGHT COMPANY

Prepared by: John J. Blessing  
Reviewed by: Robert E. Shirk  
ILRT Engineer  
Approved by: Mark A. Blinn

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PDR ADOCK 05000325  
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## 1.0 SYNOPSIS

The Brunswick Steam Electric Plant Unit No. 1 reactor containment building was subjected to a periodic integrated leak rate test during the period of September 24 to September 25, 1985. The purpose of this test was to demonstrate the acceptability of the building leakage rate at an internal pressure of 49.0 psig ( $P_a$ ). Testing was performed in accordance with the requirements of 10CFR50 Appendix J, ANSI N45.4-1972, Bechtel Topical Report BN-TOP-1 and Brunswick Steam Electric Plant Unit No. 1 Technical Specifications.

The Mass Point method of analysis resulted in a measured leakage rate of 0.270% by weight per day at 50 psig. The leakage rate at the upper bound of the 95% confidence interval was 0.276% by weight per day. A correction factor of 0.008 percent by weight per day for 11 penetrations which were not vented for the test must be added to the test results. Therefore, the leakage rate at the upper bound of the 95 percent confidence interval is 0.284 percent by weight per day which is below the allowable leakage rate of 0.375 percent by weight per day.

Utilizing the Total Time method of analysis, the calculated leakage rate was found to be 0.259% by weight per day and 0.356% by weight per day at the upper bound of the 95% confidence interval at the 50 psig pressure level. The mean of the measured leak rates based on the total time calculations for the last five hours of the test was 0.274% by weight per day. With the addition of the Type C penalty the leakage rate at the upper bound of the 95 percent confidence interval is 0.364 percent by weight per day. All total time analyses are below the allowable leakage rate of 0.375 percent by weight per day and meet the criteria set forth in Bechtel Topical Report BN-TOP-1 for conduct of a reduced duration integrated leakage rate test.

An equivalent leakage rate reduction of 0.081 by weight per day was achieved by performing Type B and C tests prior to the integrated leakage rate test (see Section 8.3). Therefore the "as found" reactor containment integrated leakage rate is the measured leakage rate of 0.284 by weight per day plus the 0.081 by weight per day or 0.365 by weight per day using the Mass Point method of analysis.

The supplemental instrumentation verification test at  $P_a$  demonstrated an agreement between measured reactor containment building<sup>a</sup> integrated leakage rates of 6.8% using the Mass Point method and 7.6% using the Total Time method which are within the 25% requirement of 10CFR50, Appendix J, Section III A.3.b.



Testing was performed by Carolina Power and Light Company with the technical assistance of United Energy Services Corporation. Procedural and calculational methods were witnessed by Nuclear Regulatory Commission personnel.

## 2.0 INTRODUCTION

The objective of the integrated leak rate test was the establishment of the degree of overall leak tightness of the reactor containment building at the calculated design basis accident pressure of 49.0 psig. The allowable leakage is defined by the design basis accident applied in the safety analysis in accordance with site exposure guidelines specified by 10CFR100. For Brunswick Steam Electric Plant Unit No. 1, the maximum allowable integrated leak rate at the design basis accident pressure of 49.0 psig ( $P_a$ ) is 0.5% by weight per day ( $L_a$ ).

Testing was performed in accordance with the procedural requirements as stated in Brunswick Steam Electric Plant Integrated Primary Containment Leak Rate Test Procedure PT-20.5. This procedure received two independent technical safety reviews and was approved by the Manager, Technical Support prior to the commencement of the test.

Leakage rate testing was accomplished at the pressure level of 50.0 psig for a period of 13.25 hours. The 13.25 hour period was followed by a one hour stabilization period and 6.75 hour supplemental test for a verification of test instrumentation.

### 3.0 GENERAL, TECHNICAL, AND TEST DATA

#### 3.1 GENERAL DATA

Owner: Carolina Power & Light

Docket No. 50-325

Location: Southport, North Carolina

Type: Mark 1, BWR-4

Containment Description: Steel lined, reinforced concrete, 'light bulb' shaped drywell with torus shaped suppression chamber connected by a vent system. Vacuum breakers are provided between the suppression chamber and both the drywell and reactor building.

Date Test Completed: September 25, 1985

#### 3.2 TECHNICAL DATA

Containment Net Free Volume: 294,981 cubic feet

Design Pressure: 62 psig

Design Temperature: 300°F (drywell), 220°F (suppression chamber)

Calculated Accident Peak Pressure: 49.0 psig

Calculated Accident Peak Temperature: 297°F

#### 3.3 TEST DATA

Test Method: Absolute

Data Analysis: Mass Point and Total Time

Test Pressure: 64.6 psia

Max Allowable Leakage Rate ( $L_a$ ): 0.500 wt % per day

## 3.3 TEST DATA (Cont'd)

## Measured Leakage Rate:

Mass Point	0.270 wt % per day
Total Time	0.259 wt % per day

## Measured Leakage Rate at UCL:

Mass Point	0.284 wt % per day
Total Time	0.364 wt % per day

Supplemental Test Flow Rate	0.495 wt % per day
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Supplemental Test Measured  
Leak Rate:

Mass Point	0.731 wt % per day
Total Time	0.716 wt % per day

Supplemental Test and L<sub>am</sub>  
Agreement:

Mass Point	6.8%
Total Time	7.6%

#### 4.0 ACCEPTANCE CRITERIA

##### 4.1 TECHNICAL SPECIFICATION ACCEPTANCE CRITERIA

Acceptance criteria established prior to the test and as specified by 10CFR50, Appendix J, ANSI N45.4-1972 and the Brunswick Steam Electric Plant Unit No. 1 Technical Specifications are as follows:

1. The measured leakage rate ( $L_a$ ) at the calculated design accident pressure of 49.0 psig ( $P_{am}$ ) shall be less than 75% of the maximum allowable leakage rate ( $L_a^a$ ), specified as 0.5% by weight of the building atmosphere per day. The acceptance criteria is determined as follows:

$$L_a = 0.5\%/day$$

$$0.75 L_a = 0.375\%/day$$

2. The test instrumentation shall be verified by means of a supplemental test. Agreement between the containment leakage measured during the Type A test and the containment leakage measured during the supplemental test shall be within 25% of  $L_a$ .

##### 4.2 REDUCED DURATION TESTING ACCEPTANCE CRITERIA

In addition to the acceptance criteria mentioned above, the following reduced duration testing acceptance criteria contained in Bechtel Topical Report BN-TOP-1, Revision 1 dated November 1, 1972, was used:

1. The trend report based on total time calculations shall indicate that the magnitude of the calculated leak rate is tending to stabilize at a value less than the maximum allowable leak rate ( $0.75 L_a^a$ ).
2. The end of test upper 95% confidence limit for the calculated leak rate based on total time calculations shall be less than the maximum allowable leak rate.
3. The mean of the measured leak rates based on total time calculations over the last five hours of test or last 20 data points, whichever provides the most data, shall be less than the maximum allowable leak rate.
4. At least 20 data points shall be provided for statistical analysis.

## 5.0 TEST INSTRUMENTATION

### 5.1 SUMMARY OF INSTRUMENTS

Test instruments employed are described, by system, in the following subsections.

#### 5.1.1 Temperature Indicating System

Components:

##### 1. Resistance Temperature Detectors:

Quantity	24
Manufacturer	Rosemount
Type	78-S 100 ohm platinum
Range, °F	0 to 400
Accuracy, °F	+0.1
Sensitivity, °F	+0.1

##### 2. Temperature Indicator:

Quantity	3
Manufacturer	Chromalox
Type	2510 process indicator
Accuracy, °F	+0.1
Repeatability, °F	+0.1

#### 5.1.2 Dewpoint Indicating System

##### 1. Dewcell Elements

Quantity	9
Manufacturer	Foxboro
Type	2701 RG Nickel RTD
Range, °F	0 - 150 dewpoint
Accuracy, °F	+2
Sensitivity, °F	+0.5

##### 2. Dewpoint Transmitters

Quantity	9
Manufacturer	Foxboro
Type	Model E94, 4-20 ma output
Accuracy, °F	+0.4
Repeatability, °F	+0.1

### 5.1.3 Pressure Monitoring System

#### Precision Pressure Gauges

Quantity	1
Manufacturer	Texas Instruments
Type	Model 145 (with direct readout)
Range, psia	0 - 75
Accuracy, psia	0.015% of full scale
Sensor sensitivity, psia	0.0013% of full scale
Repeatability, psia	0.001% of full scale

### 5.1.4 Supplemental Test Flow Monitoring System

#### Flowmeter

Quantity	1
Manufacturer	Brooks
Type	Model 1110
Range, scfm	0 - 5
Accuracy	+2% of full scale

## 5.2 SCHEMATIC ARRANGEMENT

The arrangement of the four measuring systems summarized in Section 5.1 is depicted in Appendix A.

Drybulb temperature sensors were placed throughout the reactor containment vessel volume to permit monitoring of internal temperature variations at 24 locations. Dewcells were placed at nine locations to permit monitoring of the reactor containment partial pressure of water vapor. A temperature survey was performed after the sensors were installed which verified there were no large areas of temperature variation.

## 5.3 CALIBRATION CHECKS

Temperature, dewpoint, and pressure measuring systems were checked for calibration before the test as recommended by ANSI N45.4-1972, Section 6.2 and 6.3. The results of the calibration checks are on file at Brunswick Steam Electric Plant. The supplemental test at 49.0 psig confirmed the instrumentation acceptability.

## 5.4 INSTRUMENTATION PERFORMANCE

During the pressurization phase, one dewcell exhibited abnormal behavior and was not used for the test. The remaining nine dewcells, 24 RTDs, one precision pressure gauge, and flow meter performed satisfactorily throughout the performance of the integrated leak rate test and provided more than adequate coverage of the containment.

## 5.5 VOLUME WEIGHTING FACTORS

Weighting factors were assigned to each drybulb temperature sensor and dewpoint temperature sensor based on the calculated volume of the reactor containment building each sensing device monitored. Drybulb and dewpoint temperature sensors elevation and weighting factors for the test were as follows:

<u>Elevation/ Azimuth</u>	<u>Temperature Element</u>	<u>Weighting Factor</u>
93/0°	TE 1	.0264
93/180°	TE 2	.0264
78/270°	TE 3	.0187
78/90°	TE 4	.0187
66/0°	TE 5	.0115
66/180°	TE 6	.0115
54/270°	TE 7	.0136
54/90°	TE 8	.0136
46/300°	TE 9	.0194
46/0°	TE 10	.0194
46/180°	TE 11	.0194
33/0°	TE 12	.0500
33/120°	TE 13	.0500
33/240°	TE 14	.0500
16/0°	TE 15	.0577
16/270°	TE 16	.0577
16/180°	TE 17	.0577
16/90°	TE 18	.0577
Torus/0°	TE 19	.0701
Torus/60°	TE 20	.0701
Torus/120°	TE 21	.0701
Torus/180°	TE 22	.0701
Torus/240°	TE 23	.0701
Torus/300°	TE 24	.0701
93/270°	DPE 1	.0527
78/90°	DPE 2	.0489
54/0°	DPE 3	.0386
46/180°	DPE 4	.0583
33/270°	DPE 5	.1502
16/90°	DPE 6	.2309
Torus/0°	DPE 7	.1402
Torus/180°	DPE 9	.1401
Torus/270°	DPE 10	.1401



## 5.6 SYSTEMATIC ERROR ANALYSIS

Systematic error, in this test, is induced by the operation of the temperature indicating system, dewpoint indicating system, and the pressure indicating system.

Justification of instrumentation selection was accomplished, using manufacturer's sensitivity and repeatability tolerances stated in Section 5.1, by computing the instrumentation selection guide (ISG) formula.

Containment leakage determined by the Absolute Method requires accurate measurement of small changes in containment pressure with suitable corrections for temperature and water vapor. Since the Absolute Method utilizes the change in a reading (i.e., pressure and temperature) to calculate leak rate, the repeatability, sensitivity, and readability of the instrument system is of more concern than the accuracy. To perform the ISG calculation, the sensitivity error of the sensor and the repeatability error of the measurement system must be used.

Sensitivity is defined as "the capability of a sensor to respond to change." Sensitivity is usually a function of the system measuring the sensor output. When the sensor energy state is raised or lowered an amount equal to the smallest value which the entire system will process, a change of indication will occur. To determine sensitivity for ILRT sensors, it is necessary to analyze the smallest value of the analog sensor output which will cause a one digit change in the digital display.

Repeatability is defined as "the capability of the measurement system to reproduce a given reading from a constant source."

Utilizing the methods, techniques, and assumptions in Appendix G to ANS 56.8-1981, the ISG formula was computed for the Absolute Method as follows:

### 1. Conditions:

$L_a$	=	0.5%/day
$P$	=	64.6 psia
$T$	=	548°R drybulb
$T_{dp}$	=	78°F dewpoint
$t$	=	13.25 hours

2. Total Absolute Pressure:  $e_p$

No. of sensors = 1

Range = 0 - 75 psia

Sensor sensitivity error ( $E_p$ ) =  $\pm 0.0013\%$  of full scale

Measurement system error ( $\epsilon_p$ ) =  $\pm 0.001\%$  of full scale

$$e_p = \pm \left[ (E_p)^2 + (\epsilon_p)^2 \right]^{1/2} / [\text{no. of sensors}]^{1/2}$$

$$e_p = \left[ (0.000975)^2 + (0.00075)^2 \right]^{1/2} / [1]^{1/2}$$

$$e_p = \pm 0.00123$$

3. Water Vapor Pressure:  $e_{pv}$

Nos. of sensors = 9

Sensor sensitivity error ( $E_{pv}$ ) =  $\pm 0.5^\circ\text{F}$

Measurement system error ( $\epsilon_{pv}$ ),  
excluding sensor =  $\pm 0.1^\circ\text{F}$

At a dewpoint temperature of  $78^\circ\text{F}$ , the equivalent water vapor pressure change (as determined from steam tables) is  $0.0157 \text{ psia}/^\circ\text{F}$

$$E_{pv} = \pm 0.5^\circ\text{F} (0.0157 \text{ psia}/^\circ\text{F})$$

$$E_{pv} = \pm 0.00785 \text{ psia}$$

$$\epsilon_{pv} = \pm 0.1^\circ\text{F} (0.0157 \text{ psia}/^\circ\text{F})$$

$$\epsilon_{pv} = \pm 0.00157 \text{ psia}$$

$$e_{pv} = \pm \left[ (E_{pv})^2 + (\epsilon_{pv})^2 \right]^{1/2} / [\text{no. of sensors}]^{1/2}$$

$$e_{pv} = \pm \left[ (0.00785)^2 + (0.00157)^2 \right]^{1/2} / [9]^{1/2}$$

$$e_{pv} = \pm 0.00267 \text{ psia}$$

4. Temperature:  $e_T$

No. of sensors = 24

Sensor sensitivity error ( $E_T$ ) =  $\pm 0.1^\circ\text{F}$  =  $\pm 0.1^\circ\text{R}$

Measurement system error ( $\epsilon_T$ ),  
excluding sensor =  $\pm 0.1^\circ\text{F}$  =  $\pm 0.1^\circ\text{R}$

$$e_T = \pm \left[ (E_T)^2 + (\epsilon_T)^2 \right]^{1/2} / [\text{no. of sensors}]^{1/2}$$

$$e_T = \pm \left[ (0.1)^2 + (0.1)^2 \right]^{1/2} / [24]^{1/2}$$

$$e_T = \pm 0.0289^\circ\text{R}$$

5. Instrument Selection Guide (ISG):

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

$$\text{ISG} = \pm \frac{2400}{13.25} \left[ 2\left(\frac{0.00123}{64.6}\right)^2 + 2\left(\frac{0.00267}{64.6}\right)^2 + 2\left(\frac{0.0289}{548}\right)^2 \right]^{1/2}$$

$$\text{ISG} = \pm 181 [7.251 \times 10^{-10} + 3.417 \times 10^{-9} + 5.562 \times 10^{-9}]^{1/2}$$

$$\text{ISG} = \pm 0.018\%/ \text{day}$$

The ISG value does not exceed  $0.25 L_a$  (0.125%/day) and it is therefore concluded that the instrumentation selected was acceptable for use in determining the reactor containment integrated leakage rate.

## 5.7 SUPPLEMENTAL VERIFICATION

In addition to the calibration checks described in Section 5.3, test instrumentation operation was verified by a supplemental test subsequent to the completion of the 13.25 hour leakage rate test. This test consisted of imposing a known calibrated leakage rate on the reactor containment building. After the flow rate was established, it was not altered for the duration of the test.

During the supplemental test, the measured leakage rate was:

$$L_c = L_v' + L_o$$

Where:

$L_c$  = Measured composite leakage rate consisting of the reactor containment building leakage rate plus the imposed leakage rate

$L_o$  = Imposed leakage rate

$L_v'$  = Leakage rate of the reactor containment building during the supplemental test phase

Rearranging the above equation,

$$L_v' = L_c - L_o$$

The reactor containment building leakage during the supplemental test can be calculated by subtracting the known superimposed leakage rate from the measured composite leakage rate.

The reactor containment building leakage rate during the supplemental test ( $L_v'$ ) was then compared to the measured reactor containment building leakage rate during the preceding 13.25 hour test ( $L_{am}$ ) to determine instrumentation acceptability. Instrumentation is considered acceptable if the difference between the two building leakage rates is within 25% of the maximum allowable leakage rate ( $L_a$ ).

## 6.0 TEST PROCEDURE

### 6.1 PREREQUISITES

Prior to commencement of reactor containment building pressurization, the following prerequisites were satisfied:

1. Proper operation of all test instrumentation was verified.
2. All reactor containment building isolation valves were closed using the normal mode of operation. All associated system valves were placed in post-accident positions.
3. Equipment within the reactor containment building, subject to damage, was protected from external differential pressures.
4. Portions of fluid systems, which under post-accident conditions become extensions of the containment boundary, were drained and vented.
5. Type B and C testing was completed with a leakage value less than  $0.6 L_a$ .
6. Containment pressurization system was operational.
7. Four drywell cooling fans and six portable blowers were in operation.
8. Potential pressure sources were removed or isolated from the containment.
9. An inspection of the accessible interior and exterior surfaces of the containment was completed.

### 6.2 GENERAL DISCUSSION

Following the satisfaction of the prerequisites stated in Section 6.1, the reactor containment building pressurization was initiated at a rate of approximately 7.0 psi per hour. After the containment was stabilized, leak rate testing was initiated at the 49.0 psig pressure level. For the duration of the 13.25 hour leak test and the 6.75 hour supplemental test, average internal containment temperature remained within a band of  $\pm 0.40^\circ\text{F}$ .

During the test the following occurred at 15 minute intervals (see Appendix B - Reduced Leakage Data):

1. Readings indicated by the precision pressure gauge were recorded and entered into the computer.

2. Readings indicated by the 24 RTDs were recorded and entered into the computer. The computer program calculated the weighted average containment building drybulb temperature by use of a weighting factor that was assigned to each RTD. This value was subsequently converted to degrees Rankine for use in the ideal gas law equation to calculate containment building weight of air.
3. Readings indicated by the nine dewpoint temperature sensors were recorded and entered into the computer. The computer program converted the readings to dewpoint temperatures and then calculated the average containment dewpoint temperature by use of a weighting factor assigned to each sensor. This weighted average dewpoint temperature was then converted to a partial pressure of water vapor.

The use of water vapor pressure ( $P_{wy}$ ), temperature (T), and the total pressure ( $P_t$ ) is described in more detail in Section 7.1. All original data is on file at Brunswick Steam Electric Plant Unit No. 1.

Data was entered into an Atrona attache micro computer located in the plant computer room. The ILRT computer program utilized for the test had been previously checked with sample data of known results and certified prior to the test. The computer program then calculated the following at 15 minute intervals:

1. Total weight of containment air.
2. Mass point least squares fit leakage rate.
3. Mass point 95% upper confidence level leakage rate.
4. Observed total time leakage rate.
5. Total time mean leakage rate.
6. Total time least squares fit leakage rate.
7. Total time 95% upper confidence level leakage rate.

A plot of weighted average containment temperature, containment total pressure, containment average dewpoint temperature, and weight of air was performed for each 15 minute data set (see Appendix C).

Immediately following the 13.25 hour leak test, a superimposed leakage rate was established for a one hour stabilization period and 6.75 hour test period. During this time, temperature, pressure, and vapor pressure were monitored as described above.

### 6.3 TEST PERFORMANCE

#### 6.3.1 Pressurization and Stabilization Phase

Pressurization of the reactor containment building was started on September 23, 1985, at 2230. The pressurization rate was approximately 7 psi per hour. When containment internal pressure reached 50 psig at 0530 on September 24, pressurization was secured. By 0930 on September 24, temperature stabilization criteria had been met.

#### 6.3.2 Integrated Leak Rate Testing Phase

Fifteen minute frequency test data showed that relatively stable conditions existed within the containment. However, due to the added restrictions imposed upon a reduced duration test, the containment atmosphere was allowed to further stabilize until 1200 September 24 when data recording, reduction and analyses began. At approximately 1600 on September 24 a decision was made to add 30 inches of makeup water to the reactor vessel due to a slowly decreasing level. Upon completion of this evolution the start time for the integrated leakage rate test was moved to 1645 even though the previous 4.5 hours of data indicated a leakage rate of approximately 0.220% by weight per day. From 1645 on September 24 1985, until 0600 on September 25 an acceptable leakage rate of 0.270%/day with an associated 95% confidence interval of 0.006% by weight per day was obtained using the Mass Point method of analysis. Utilizing the Total Time method, the measured leakage rate was 0.259%/day and 0.356% by weight per day at the upper bound of the 95% confidence interval.

#### 6.3.3 Supplemental Leakage Rate Test Phase

Following completion of the 13.25 hour integrated leak rate test, a leakage rate of 4.27 scfm was imposed on the containment building through a calibrated flow meter at 0600 on September 25. After a one hour stabilization period, leakage rate data was again collected at 15 minute intervals for a period of 6.75 hours. With an imposed leak rate of 0.495% per day a measured composite leakage rate of 0.731% per day was obtained using the Mass Point method. This results in a containment building leakage rate agreement of 6.8% of  $L_a$  with the results of the 13.25 hour test. Using the Total Time method of analysis, the measured composite leakage rate was 0.716% per day, resulting in an agreement of 7.6% of  $L_a$  with the results of the 13.25 hour test. These values are both well within the acceptance limit of 25% of  $L_a$ .

#### 6.3.4 Depressurization Phase

After all required data was obtained and evaluated, containment building depressurization to 0 psig was started. A post test inspection of the drywell and torus revealed no unusual findings.

## 7.0 METHODS OF ANALYSIS

### 7.1 GENERAL DISCUSSION

The Absolute Method of leakage rate determination was employed during testing at the 49.0 psig pressure level. The Gilbert/Commonwealth, Inc. ILRT computer code calculates the percent per day leakage rate using both the mass point and total time methods.

The Mass Point method of computing leakage rates uses the following ideal gas law equation to calculate the weight of air inside containment for each 15 minute interval:

$$W = \frac{144 PV}{RT} = \frac{KP}{R}$$

Where:

W = Mass of air inside containment, lbm

$$K = 144 V/R = 7.06199 \times 10^5 \frac{\text{lbm} \cdot ^\circ\text{R} \cdot \text{in.}^2}{\text{lbm} \cdot \text{ft}}$$

P = Partial pressure of air, psia

T = Average internal containment temperature,  $^\circ\text{R}$

$$V = 294,981 \text{ ft}^3$$

$$R = 53.35 \frac{\text{lbm} \cdot \text{ft}}{\text{lbm} \cdot ^\circ\text{R}}$$

The partial pressure of air, P, is calculated as follows:

$$P = P_T - P_{wv}$$

Where:

$P_T$  = Total containment pressure

$P_{wv}$  = Partial pressure of water vapor determined by averaging the nine dewpoint temperatures and converting to partial pressure of water vapor, psia



The average internal containment temperature,  $T$ , is calculated as follows:

$$T = \frac{1}{\sum_i \frac{V f_i}{T_i}}$$

The weight of air is plotted versus time for the 13.25 hour test and for the 6.75 hour supplemental test. The Gilbert/Commonwealth, Inc. ILRT computer code fits the locus of these points to a straight line using a linear least squares fit. The equation of the linear least squares fit line is of the form  $W = A_t + B$ , where  $A$  is the slope in lbm per hour and  $B$  is the initial weight at time zero. The least squares parameters are calculated as follows:

$$A = \frac{N (\sum t_i W_i) - (\sum t_i) (\sum W_i)}{S_{xx}}$$

$$B = \frac{(\sum t_i^2) (\sum W_i) - (\sum t_i) (\sum t_i W_i)}{S_{xx}}$$

Where:

$$S_{xx} = N (\sum t_i^2) - (\sum t_i)^2$$

The weight percent leakage per day can then be determined from the following equation:

$$L_{am} = \frac{-2400 A}{B}$$

where the negative sign is used since  $A$  is a negative slope to express the leakage rate as a positive quantity.

#### 7.1.2 Total Time Analysis

The total time method utilizes the following equation to determine the leakage rate of the reactor containment building:

$$L = \frac{2400}{t} \left[ 1 - \frac{T_1 P_2}{T_2 P_1} \right]$$

Where:

$L$  = Measured leak rate in weight percent per day

$t$  = Time interval, in hours, between measurements

$T_1, T_2$  = Average internal containment temperature,  $^{\circ}R$ , at the beginning and the end of the test interval respectively.

$P_1, P_2$  = Average containment pressure (corrected for water vapor pressure) at the beginning and end of the test interval respectively.

The mean total time leakage rate is derived from the above individual total time calculations. The equation for the mean leakage rate is in the form:

$$\bar{L} = \frac{\sum L_i}{n}$$

Where:

$L_i$  = Individual total time leakage rates

$n$  = Number of total time leakage rates

The individual leakage rates are then plotted against time for the duration of the 13.25 hour test. The Gilbert/Commonwealth, Inc. ILRT computer code fits the locus of these points to a straight line using a linear least squares fit. The equation is of the form  $L = L_0 + L_1 t$  where  $L_1$  is the slope in percent per hour and  $L_0$  is the initial leakage rate at time zero. The least squares parameters are calculated as follows:

$$L_0 = \frac{\sum t_i^2 \sum L_i - \sum t_i \sum L_i t_i}{S_{xx}}$$

$$L_1 = \frac{N \sum t_i L_i - \sum t_i \sum L_i}{S_{xx}}$$

Where:

$$S_{xx} = N \sum t_i^2 - (\sum t_i)^2$$

## 7.2 STATISTICAL EVALUATION

### 7.2.1 General

After performing the least squares fit, the ILRT computer code calculates the following statistical parameters:

1. Limits of the 95% confidence interval for the mass point leakage rate ( $C_M$ ).
2. Limits of the 95% confidence interval for the total time leakage rate ( $C_L$ ).

These statistical parameters are then used to determine that the measured leakage rate plus the 95 UCL meet the acceptance criteria.

### 7.2.2 Mass Point Confidence

The upper 95% confidence limit for the mass point leakage rate is calculated as follows:

$$C_M = 2400 t_{95} (S_A/B)$$

Where:

$C_M$  = Upper 95% confidence limit

$t_{95}$  = Student's t distribution with N-2 degrees of freedom

$S_A$  = Standard deviation of the slope of the least squares fit line

B = Intercept of the least squares fit line

The standard deviation of the slope of the least squares fit line ( $S_A$ ) is calculated as follows:

$$S_A = \frac{S (N)^{1/2}}{[N(\sum t_i^2) - (\sum t_i)^2]^{1/2}}$$

Where:

S = Common standard deviation of the weighted from the least squares fit line

N = Number of data points

$t_i$  = Time interval of the ith data point

The common standard deviation (S) is defined by:

$$S = \left[ \frac{\sum (W_i - W)^2}{N-2} \right]^{1/2}$$

Where:

$W_i$  = Observed mass of air

$W$  = Least squares calculated mass of air

The ILRT computer code calculates an upper 95% confidence leakage rate as follows:

$$UCL = L_{am} + 2400 t_{95} (S_A/B)$$

This UCL value is then used to determine that the measured leakage rate at the upper 95% confidence limit meets the acceptance criteria.

### 7.2.3 Total Time Confidence

The 95% confidence limit for the total time leakage rate is calculated as follows:

$$C_L = t_{95} \text{ Se} \left[ 1 + \frac{1}{n} + \frac{(t - \bar{t})^2}{\sum (t_i - \bar{t})^2} \right]^{1/2}$$

Where:

$t$  = Total time interval

$$\bar{t} = \frac{\sum t_i}{n}$$

$t_i$  = Time interval for each data point

$n$  = Number of individual total time leakage rates

## 8.0 DISCUSSION OF RESULTS

### 8.1 RESULTS AT $P_a$

#### 8.1.1 Mass Point Method of Analysis

Data obtained during the leak rate test at  $P_a$  indicated the following changes (highest to lowest) during the 13.25<sup>a</sup> hour test.

<u>Variable</u>	<u>Maximum Change</u>
$P_T$	0.115 psia
$P_{wv}$	0.015 psia
$T$	0.224 <sup>o</sup> F

The method used in calculating the Mass Point leakage rate is described in Section 7.1.1. The results of this calculation is a mass point leakage rate of 0.270%/day (see Appendix D).

The 95% confidence limit associated with this leakage rate is 0.006% per day. Thus, the leakage rate at the upper bound of the 95% confidence level becomes:

$$UCL = .270 + .006$$

$$UCL = 0.276\%/day$$

Additional leakage rates must be applied to the measured leakage rate at the upper 95% confidence level to account for penetration paths not exposed to the test pressure and for changes in the net free volume of the containment due to water level changes. Penetration paths not exposed to the test pressure and the corresponding leakage rates based on analysis of minimum pathway local leakage rate testing are as follows:

<u>System</u>	<u>Containment Isolation Valves</u>	<u>Minimum Pathway Local Leakage Rate (SCFH)</u>
Drywell Drains	1-G16-F003/F004	1.393
Drywell Drains	1-G16-F019/F020	0
Feedwater (RCIC Injection Line B)	1-B21-F032B, 1-E51-V88, 1-E51-F013, 1-B21-F010B, 1-G31-F042	1.09

<u>System</u>	<u>Containment Isolation Valves</u>	<u>Minimum Pathway Local Leakage Rate (SCFH)</u>
Feedwater (HPCI Injection Line A)	1-B21-F032A, 1-E41-F006, 1-B21-F010A	0
Reactor Building Cooling Water	1-RCC-V28/V52 RXS-SV1222B/C	0 0
CRD Purge to Reactor Recirc Pumps	1-B32-V24/V22, V30 1-B32-V32/V22, V30	0 0
Recirc Sample	1-B32-F019/F020	1.636
RHR Suction	1-E11-F008/F009	0
Reactor Water Cleanup	1-G31-F001/F004	0

The total applicable local leakage rate is 4.119 scfh which is equivalent to a leakage rate of 0.008%/day.

Water level changes in the containment during the 13.25 hour integrated leakage rate test are summarized below:

Reactor Vessel Water Level:

1600	9-24-85	209.8 inches
0600	9-25-85	203.5 inches

Torus Water Level:

1600	9-24-85	-31.0 inches
0600	9-25-85	-31.0 inches

During the test, no makeup water was introduced into the reactor vessel. Therefore, the volume change associated with the change in reactor vessel water level showed an increase in the net free volume of 136.1 cubic feet. This corresponds to a reduction in the measured containment leakage rate of 0.084%/day. However, it is conservatively assumed that the water level decrease in the reactor vessel was not lost out of containment and therefore no change in net free volume occurred.

The total containment leakage rate at the upper 95% confidence level (UCL) is calculated as follows

$$\text{UCL} = L_{\text{am}} + 95\% \text{ confidence limit} + \text{Type C leakage} + \text{changes in net free volume}$$

$$\text{UCL} = 0.270\%/ \text{day} + 0.006\%/ \text{day} + 0.008\%/ \text{day} + 0.000\%/ \text{day}$$

$$\text{UCL} = 0.284\%/ \text{day}$$

This value is well below the acceptance criteria leakage rate of 0.375%/day ( $.75L_a$ ).

#### 8.1.2 Total Time Method of Analysis

The method used in calculating the total time leakage rates is defined in Section 7.1.2. The results of these calculations are as follows:

1. The measured total time leakage rate for the 13.25 hour test was 0.259% by weight per day.
2. The 95% confidence limit associated with this leakage rate is 0.097% per day. Thus, the leakage rate at the upper bound of the 95% confidence level becomes:

$$\text{UCL} = 0.259 + 0.097$$

$$\text{UCL} = 0.356\%/ \text{day}$$

3. The mean of the measured leakage rates based on the last five hours of the test was 0.274 percent by weight per day.

The corrected containment leakage rate at the upper 95% confidence level (UCL) for Type C penalties and changes in net free volume is calculated as follows:

$$\text{UCL} = L_{\text{am}} + 95\% \text{ confidence limit} + \text{Type C leakage} + \text{changes in net free volume.}$$

$$\text{UCL} = 0.259\%/ \text{day} + 0.097\%/ \text{day} + 0.008\%/ \text{day} + 0.000\%/ \text{day}$$

$$\text{UCL} = 0.364\%/ \text{day}$$

The total time measured leakage rate, the measured leakage rate at the upper bound of the 95% confidence level and the mean of the measured leakage rates based on the last five hours of testing are below the acceptance criteria of 0.375%/day.

Therefore, the reactor containment building leakage rate, based on both the mass point method and total time method of analysis, at the calculated design basis accident pressure ( $P_a$ ) of 49.0 psig is acceptable.

## 8.2 SUPPLEMENTAL TEST RESULTS

After conclusion of the 13.25 hour test at 49.0 psig ( $P_a$ ), the flowmeter was placed in service and a flow rate of 4.27 scfm was established. This flow rate is equivalent to a leakage rate of 0.495% per day. After the flow rate was established it was not altered for the duration of the supplemental test. The measured leakage rate ( $L_c$ ) during the supplemental test was calculated to be 0.731% per day using the Mass Point method of analysis and 0.716% per day using the Total Time method.

The building leakage rate during the supplemental test is then determined as follows:

### Mass Point

$$L_v' = L_c - L_o$$

$$L_v' = 0.731 - 0.495$$

$$L_v' = 0.236\%/day$$

### Total Time

$$L_v' = L_c - L_o$$

$$L_v' = 0.716 - 0.495$$

$$L_v' = 0.221\%/day$$

Comparing this leakage rate with the building leakage rate measured during the 13.25 hour test yields the following:

$$\text{Mass Point} = \frac{|L_{am} - L_v'|}{L_a} = \frac{|.270 - .236|}{0.5} = 0.068$$

$$\text{Total Time} = \frac{|L_{am} - L_v'|}{L} = \frac{|.259 - .221|}{0.5} = 0.076$$

The building leakage rates agree within 6.8% of  $L_a$  using the Mass Point method and 7.6% using Total Time which are well below the acceptance criteria of 25%.



Using the formulation of ANS 56.8-1981,

$$(L_o + L_{am} - 0.25L_a) \leq L_c \leq (L_o + L_{am} + 0.25L_a)$$

$$(0.495 + 0.270 - 0.125) \leq L_c \leq (0.495 + 0.270 + 0.125)$$

$$0.640 \leq L_c \leq 0.890$$

Since  $L_c$  was measured to be 0.731%/day, this value falls within the acceptable range of 0.640% to 0.890% per day. Therefore, the acceptability of the test instrumentation is considered to have been verified.

### 8.3 AS FOUND ANALYSIS

To determine the as-found containment leakage rate, an analysis was performed to evaluate any leakage savings from repairs or maintenance to containment isolation barriers. Leakage savings are realized when containment isolation barrier repairs or maintenance result in a lower minimum pathway leakage than that which existed prior to the repair or maintenance.

The results of the analysis are presented in Appendix F. The total leakage savings due to performing Type B and C tests prior to the Type A test was 41.93 scfh. This value is equivalent to 0.081% by weight per day.

## 9.0 REFERENCES

1. PT-20.5, Integrated Primary Containment Leak Rate Test.
2. Brunswick Steam Electric Plant Unit No. 2 Final Safety Analysis Report.
3. Code of Federal Regulations, Title 10, Part 50, Appendix J.
4. ANSI N5.4-1972, Leakage Rate Testing of Containment Structures for Nuclear Reactors, American Nuclear Society (March 16, 1972).
5. ANS-56.8-1981, Containment System Leakage Testing Requirements, American Nuclear Society.
6. ILRT Computer Code, Gilbert/Commonwealth, Inc.
7. Steam Tables, American Society of Mechanical Engineers, 1967.
8. BN-TOP-1, Testing Criteria for Integrated Leakage Rate Testing of Primary Containment Structures for Nuclear Power Plants, Revision 1, November 1, 1972.

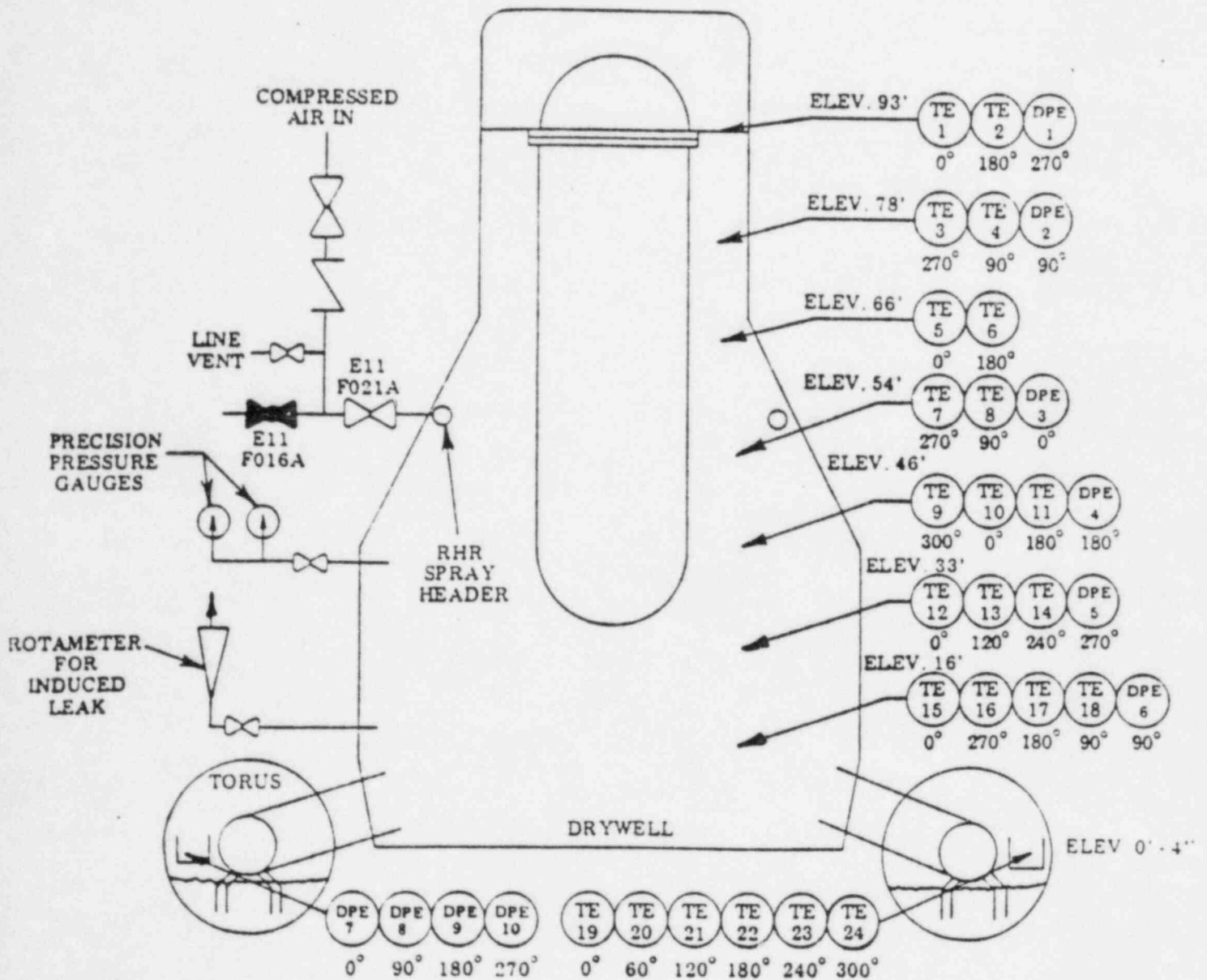
## APPENDICES

APPENDIX A

SCHEMATIC ARRANGEMENT OF TEST INSTRUMENTATION

# APPENDIX A

## SCHEMATIC ARRANGEMENT OF TEST INSTRUMENTATION



APPENDIX B  
REDUCED TEST DATA

APPENDIX B  
REDUCED TEST DATA

DATE	TIME	PAVG	PWV	TAVG	WEIGHT
9/24/85	1645	64.131	.522056	88.3562	93169.25
	1700	64.1262	.524786	88.3464	93164.0390625
	1715	64.1264	.520586	88.3548	93162.9140625
	1730	64.1218	.522216	88.3532	93156.4453125
	1745	64.1232	.519765	88.3441	93160.09375
	1800	64.1172	.524815	88.3511	93150.1328125
	1815	64.1189	.521061	88.346	93153.5390625
	1830	64.1156	.523437	88.351	93147.7890625
	1845	64.1166	.520451	88.348	93149.7265625
	1900	64.1138	.521243	88.3461	93146
	1915	64.1167	.518312	88.3489	93149.765625
	1930	64.1125	.520452	88.3528	93143.09375
	1945	64.1095	.523495	88.3765	93134.6328125
	2000	64.1117	.523333	88.3962	93134.4453125
	2015	64.1081	.525916	88.4067	93127.453125
	2030	64.1072	.52577	88.4202	93123.9140625
	2045	64.1093	.522742	88.4137	93127.9765625
	2100	64.1095	.520471	88.4126	93128.546875
	2115	64.1068	.521202	88.4161	93123.9921875
	2130	64.1033	.522702	88.4238	93117.6015625
	2145	64.0984	.525588	88.4111	93112.6640625
	2200	64.0969	.525132	88.4201	93108.8984375
	2215	64.0934	.526615	88.4176	93104.265625
	2230	64.0927	.526294	88.4218	93102.5703125
	2245	64.0965	.52146	88.4357	93105.7578125
	2300	64.0902	.525799	88.4377	93096.2265625
	2315	64.089	.526005	88.4437	93093.453125
	2330	64.087	.527023	88.4553	93088.546875
	2345	64.0879	.525139	88.45	93090.7265625
	0	64.0863	.524747	88.4563	93087.3125
	15	64.0848	.525221	88.4558	93085.2578125
	30	64.0819	.526061	88.4652	93079.53125
	45	64.0846	.521385	88.4501	93085.9921875
	100	64.0822	.521854	88.4498	93082.453125
	115	64.0729	.527056	88.4447	93069.9609375
	130	64.0747	.524328	88.4394	93073.3671875
	145	64.0778	.518205	88.4346	93078.7265625
	200	64.0677	.5243	88.4094	93068.3359375
	215	64.0697	.518263	88.4051	93072.015625
	230	64.0622	.522783	88.4019	93061.640625
	245	64.0603	.521657	88.3851	93061.7734375
	300	64.0551	.523912	88.3778	93055.3828125
	315	64.0546	.521374	88.3788	93054.5625
	330	64.0547	.518293	88.338	93058.1796875
	345	64.0504	.519648	88.3635	93050.9375
	400	64.0467	.521348	88.341	93049.3671875
	415	64.046	.518048	88.3388	93048.7265625
	430	64.042	.517039	88.3069	93048.34375
	445	64.0344	.520567	88.2982	93038.890625
	500	64.0352	.515852	88.2861	93041.984375
	515	64.031	.517029	88.2781	93037.2578125

APPENDIX B  
REDUCED TEST DATA

DATE	TIME	PAVG	PWV	TAVG	WEIGHT
9/25/84	530	64.0305	.51451	88.2596	93039.703125
	545	64.0294	.51158	88.2541	93039.09375
	600	64.0181	.519948	88.2406	93024.8515625
	615	64.0163	.513742	88.2317	93023.765625
	630	64.0124	.512631	88.2204	93020.046875
	645	64.0073	.511685	88.2172	93013.21875



APPENDIX B  
REDUCED VERIFICATION TEST DATA

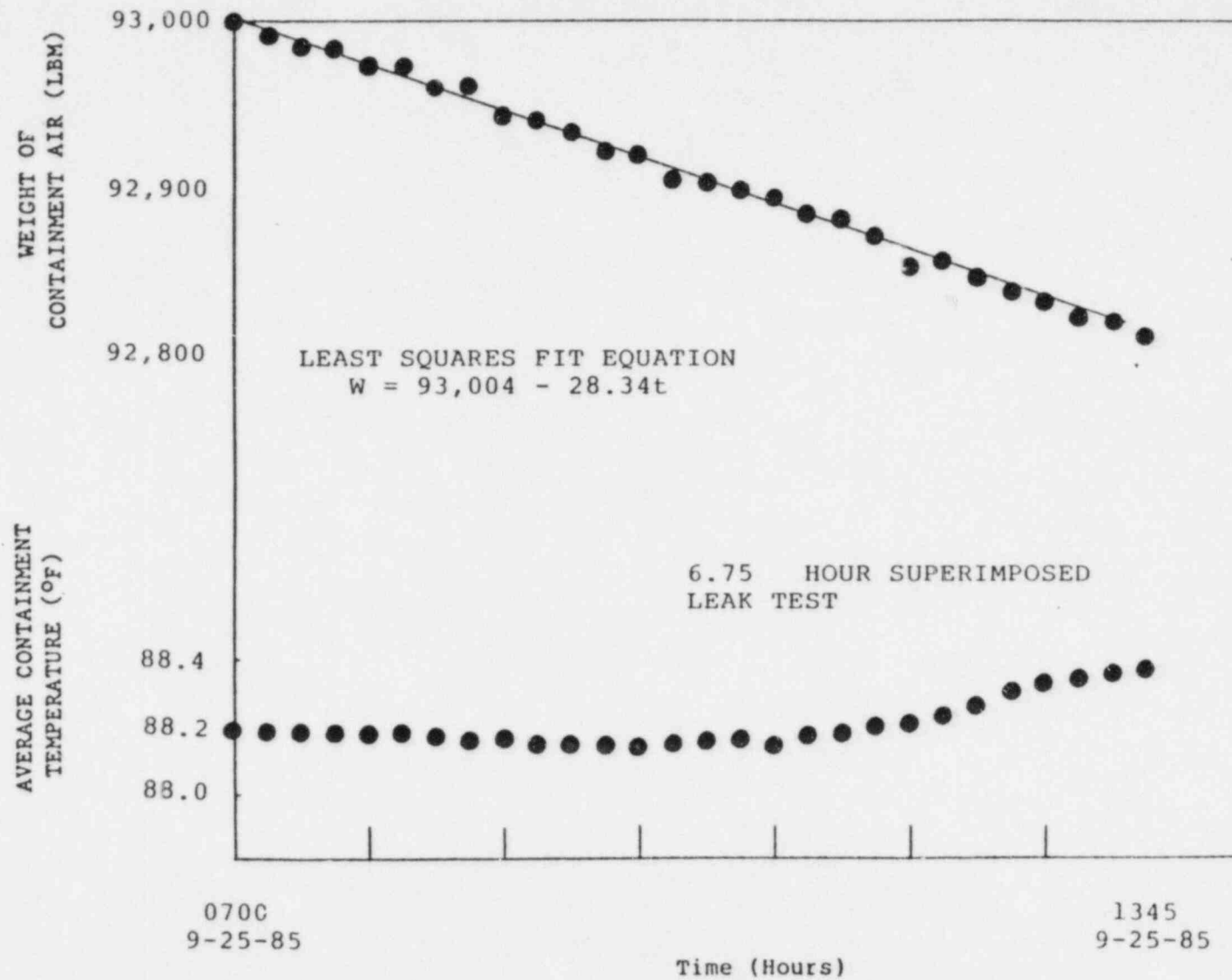
DATE	TIME	PAVG	PWV	TAVG	WEIGHT
9/25/85	700	63.997	.516021	88.1953	93001.9296875
	715	63.9899	.517126	88.1884	92992.78125
	730	63.9856	.516423	88.1864	92986.8671875
	745	63.982	.514006	88.1682	92984.75
	800	63.9731	.516948	88.1631	92972.640625
	815	63.9727	.512291	88.1624	92972.2421875
	830	63.9631	.516853	88.1464	92961.0546875
	845	63.9649	.511091	88.1512	92962.8203125
	900	63.9532	.51679	88.1658	92943.3359375
	915	63.95	.514977	88.1476	92941.796875
	930	63.9437	.518332	88.1447	92933.03125
	945	63.9359	.519077	88.1392	92922.71875
	1000	63.9343	.515747	88.138	92920.484375
	1015	63.9266	.518421	88.1467	92907.8671875
	1030	63.9253	.514737	88.1561	92904.3671875
	1045	63.9221	.514949	88.1497	92900.7734375
	1100	63.9184	.514574	88.1437	92896.5234375
	1115	63.9128	.518185	88.1631	92885.0703125
	1130	63.9111	.516933	88.1716	92881.0859375
	1145	63.9078	.518209	88.199	92871.703125
	1200	63.8949	.527156	88.2023	92852.328125
	1215	63.9025	.517539	88.2325	92858.2734375
	1230	63.8989	.521079	88.2573	92848.9140625
	1245	63.8973	.521722	88.2998	92839.3359375
	1300	63.8954	.522636	88.3232	92832.578125
	1315	63.8906	.524434	88.3359	92823.4765625
	1330	63.8901	.52085	88.3497	92820.5078125
	1345	63.8844	.522566	88.357	92810.96875

APPENDIX C

LEAKAGE RATE TEST GRAPHS

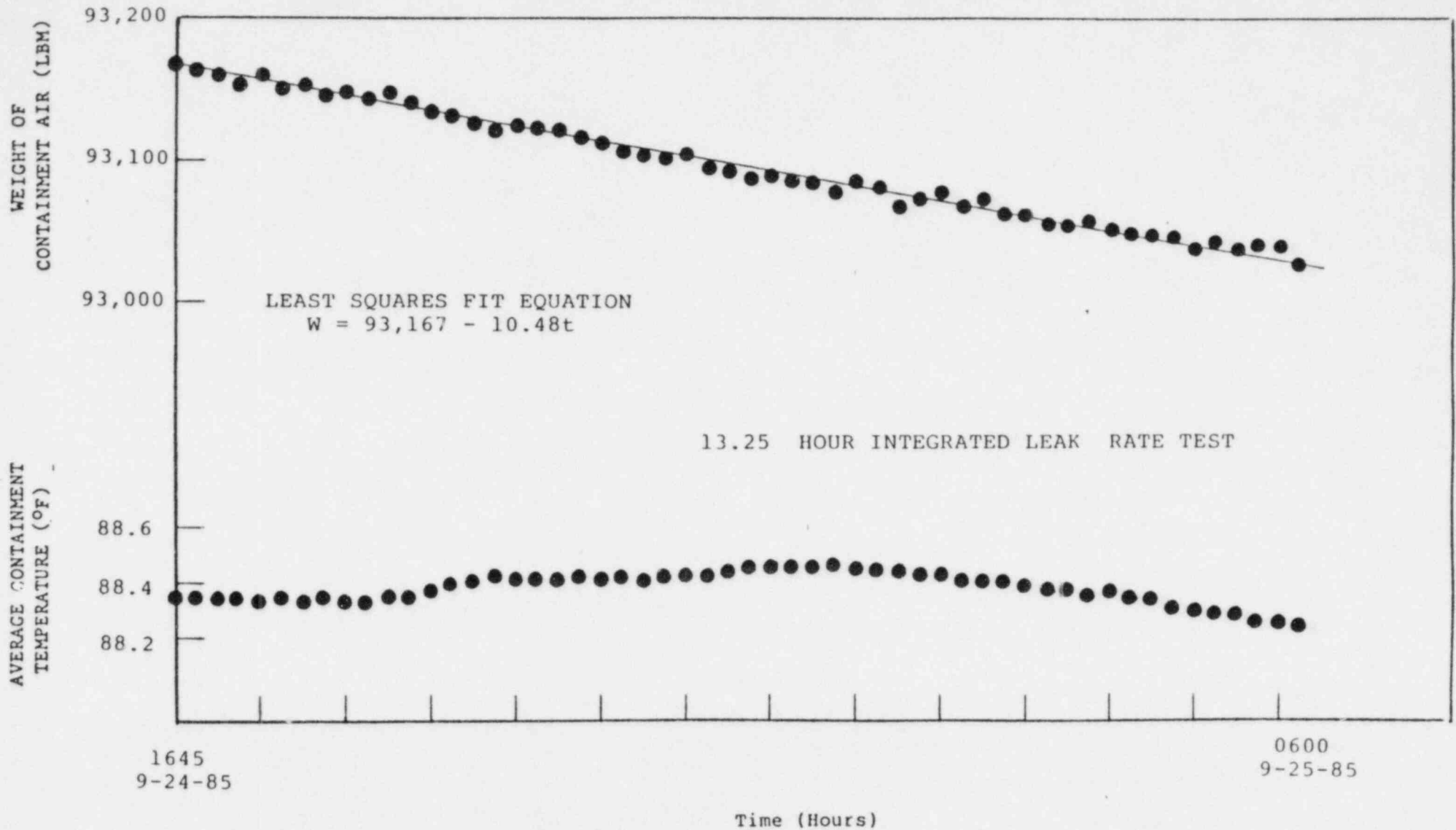
APPENDIX C

WEIGHT OF CONTAINMENT AIR AND  
AVERAGE CONTAINMENT TEMPERATURE VERSUS TIME



APPENDIX C

WEIGHT OF CONTAINMENT AIR AND  
AVERAGE CONTAINMENT TEMPERATURE VERSUS TIME



APPENDIX D  
COMPUTER RESULTS

## APPENDIX D

### COMPUTER RESULTS

#### 1. Mass Point Results

A = Slope of least squares line (Lbs/hr) is -10.48  
B = Intercept of least squares line (lbs) is 93167  
 $L_{am}$  = Measured leak rate is 0.270%/day  
UCL = 95% upper confidence leakage rate is 0.276%/day

#### 2. Total Time Results

A = Slope of least squares line (%/day/hr) is -0/0045  
B = Intercept of least squares line (%/day) is 0.319  
 $L_{am}$  = Measured leak rate is 0.259  
UCL = 95% upper confidence leakage rate is 0.356%/day  
Mean leakage rate for last five hours is 0.274%/day

#### 3. Verification Test - Mass Point

A = Slope of least squares line (lbs/hr) is -28.34  
B = Intercept of least squares line (lbs) is 93003.9  
 $L_c$  = Composite leakage rate is 0.731%/day

#### 4. Verification Test - Total Time

A = Slope of least squares line (%/day/hr) is 0.00036  
B = Intercept of test squares line (%/day) is 0.718  
 $L_c$  = Composite leakage rate is 0.716%/day

APPENDIX E

SUMMARY OF MEASURED DATA

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1645

DATE : 9/24/85

RTD 1	89.64	RTD 13	90
RTD 2	89.19	RTD 14	89.53
RTD 3	91.91	RTD 15	88.79
RTD 4	90.68	RTD 16	89.28
RTD 5	90.44	RTD 17	89.32
RTD 6	90.96	RTD 18	87.73
RTD 7	89.97	RTD 19	86.59
RTD 8	89.05	RTD 20	87.01
RTD 9	88.92	RTD 21	87.05
RTD 10	90.12	RTD 22	87.07
RTD 11	90.6	RTD 23	86.34
RTD 12	90.16	RTD 24	86.9

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3562 IN F  
= 548.046 IN R

PRESS 1 64.653

PRESS 2 64.653

THE AVE PRESSURE IS = 64.653 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.4004	DEWPT 6	79.7922
DEWPT 2	79.7384	DEWPT 7	80.4511
DEWPT 3	81.9991	DEWPT 9	82.9757
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9197  
THE PWV IS = .522056 PSIA

THE MASS WEIGHT IS = 93169.25 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1700

DATE : 9/24/85

RTD 1	89.64	RTD 13	90
RTD 2	89.19	RTD 14	89.53
RTD 3	92.03	RTD 15	88.84
RTD 4	90.68	RTD 16	89.4
RTD 5	90.48	RTD 17	89.24
RTD 6	90.96	RTD 18	87.73
RTD 7	89.97	RTD 19	86.51
RTD 8	89.05	RTD 20	87.01
RTD 9	88.92	RTD 21	87.01
RTD 10	90.2	RTD 22	87.03
RTD 11	90.68	RTD 23	86.34
RTD 12	90.16	RTD 24	86.78

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3464 IN F  
= 548.036 IN R

PRESS 1 64.651

PRESS 2 64.651

THE AVE PRESSURE IS = 64.651 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.7922
DEWPT 2	80.404	DEWPT 7	80.4511
DEWPT 3	81.9991	DEWPT 9	82.9757
DEWPT 4	81.7581	DEWPT 10	81.3316
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.08  
THE PWV IS = .524786 PSIA

THE MASS WEIGHT IS = 93164.0390625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1715

DATE : 9/24/85

RTD 1	89.76	RTD 13	90
RTD 2	89.28	RTD 14	89.49
RTD 3	91.91	RTD 15	88.88
RTD 4	90.76	RTD 16	89.28
RTD 5	90.48	RTD 17	89.36
RTD 6	90.96	RTD 18	87.73
RTD 7	89.89	RTD 19	86.55
RTD 8	89.05	RTD 20	86.97
RTD 9	88.92	RTD 21	87.01
RTD 10	90.24	RTD 22	87.03
RTD 11	90.72	RTD 23	86.26
RTD 12	90.16	RTD 24	86.9

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3548 IN F  
= 548.045 IN R

PRESS 1 64.647

PRESS 2 64.647

THE AVE PRESSURE IS = 64.647 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.5703
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	81.3934	DEWPT 9	82.7717
DEWPT 4	81.7581	DEWPT 10	81.0495
DEWPT. 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8331  
THE FWV IS = .520586 PSIA

THE MASS WEIGHT IS = 93162.9140625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1730

DATE : 9/24/85

RTD 1	89.76	RTD 13	89.96
RTD 2	89.28	RTD 14	89.45
RTD 3	91.91	RTD 15	88.88
RTD 4	90.72	RTD 16	89.32
RTD 5	90.44	RTD 17	89.36
RTD 6	91.04	RTD 18	87.73
RTD 7	89.85	RTD 19	86.51
RTD 8	89.05	RTD 20	86.97
RTD 9	88.92	RTD 21	87.01
RTD 10	90.28	RTD 22	86.99
RTD 11	90.72	RTD 23	86.34
RTD 12	90.16	RTD 24	86.9

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3532 IN F  
= 548.043 IN R

PRESS 1 64.644

PRESS 2 64.644

THE AVE PRESSURE IS = 64.644 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.3484
DEWPT 2	80.404	DEWPT 7	80.4511
DEWPT 3	81.5973	DEWPT 9	82.9757
DEWPT 4	81.962	DEWPT 10	81.9435
DEWPT 5	80.8881		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9291  
THE FWV IS = .522216 PSIA

THE MASS WEIGHT IS = 93156.4453125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1745

DATE : 9/24/85

RTD 1	89.8	RTD 13	89.96
RTD 2	89.28	RTD 14	89.45
RTD 3	91.91	RTD 15	88.88
RTD 4	90.72	RTD 16	89.24
RTD 5	90.44	RTD 17	89.36
RTD 6	90.96	RTD 18	87.73
RTD 7	89.81	RTD 19	86.51
RTD 8	89.01	RTD 20	86.97
RTD 9	88.92	RTD 21	87.01
RTD 10	90.28	RTD 22	86.99
RTD 11	90.68	RTD 23	86.34
RTD 12	90.16	RTD 24	86.86

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3441 IN F  
= 548.034 IN R

PRESS 1 64.643

PRESS 2 64.643

THE AVE PRESSURE IS = 64.643 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.1718	DEWPT 6	79.7922
DEWPT 2	79.9603	DEWPT 7	80.2292
DEWPT 3	81.3934	DEWPT 9	82.9757
DEWPT 4	81.962	DEWPT 10	81.0495
DEWPT 5	81.11		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.7847  
THE FWV IS = .519765 PSIA

THE MASS WEIGHT IS = 93160.09375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1800

DATE : 9/24/85

RTD 1	89.84	RTD 13	89.96
RTD 2	89.32	RTD 14	89.45
RTD 3	91.95	RTD 15	88.88
RTD 4	90.68	RTD 16	89.32
RTD 5	90.44	RTD 17	89.36
RTD 6	91	RTD 18	87.77
RTD 7	89.81	RTD 19	86.51
RTD 8	89.05	RTD 20	86.97
RTD 9	88.92	RTD 21	87.01
RTD 10	90.28	RTD 22	86.99
RTD 11	90.68	RTD 23	86.3
RTD 12	90.16	RTD 24	85.86

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3511 IN F  
= 548.041 IN R

PRESS 1 64.642

PRESS 2 64.642

THE AVE PRESSURE IS = 64.642 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.6259	DEWPT 6	79.7922
DEWPT 2	80.1821	DEWPT 7	80.4511
DEWPT 3	81.8013	DEWPT 9	82.9757
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0817  
THE PWV IS = .524815 PSIA

THE MASS WEIGHT IS = 93150.1328125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1815

DATE : 9/24/85

RTD 1	89.84	RTD 13	90
RTD 2	89.36	RTD 14	89.45
RTD 3	92.03	RTD 15	88.88
RTD 4	90.72	RTD 16	89.28
RTD 5	90.44	RTD 17	89.36
RTD 6	91.04	RTD 18	87.77
RTD 7	89.73	RTD 19	86.47
RTD 8	89.05	RTD 20	86.97
RTD 9	88.96	RTD 21	86.97
RTD 10	90.36	RTD 22	86.99
RTD 11	90.64	RTD 23	86.3
RTD 12	90.16	RTD 24	86.82

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.346 IN F  
= 548.036 IN R

PRESS 1 64.64

PRESS 2 64.64

THE AVE PRESSURE IS = 64.64 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.5703
DEWPT 2	80.1821	DEWPT 7	80.0073
DEWPT 3	82.2093	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	82.3514
DEWPT 5	80.6595		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8611  
THE PWV IS = .521061 PSIA

THE MASS WEIGHT IS = 93153.5390625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1830

DATE : 9/24/85

RTD 1	89.84	RTD 13	89.96
RTD 2	89.36	RTD 14	89.45
RTD 3	91.91	RTD 15	88.88
RTD 4	90.72	RTD 16	89.28
RTD 5	90.44	RTD 17	89.36
RTD 6	91.04	RTD 18	87.85
RTD 7	89.73	RTD 19	86.51
RTD 8	89.05	RTD 20	86.97
RTD 9	88.96	RTD 21	86.97
RTD 10	90.28	RTD 22	86.99
RTD 11	90.64	RTD 23	86.3
RTD 12	90.16	RTD 24	86.86

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.351 IN F  
= 548.041 IN R

PRESS 1 64.639

PRESS 2 64.639

THE AVE PRESSURE IS = 64.639 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.5703
DEWPT 2	80.404	DEWPT 7	80.2292
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.5355
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0008  
THE PWV IS = .523437 PSIA

THE MASS WEIGHT IS = 93147.7890625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1845

DATE : 9/24/85

RTD 1	89.88	RTD 13	90
RTD 2	89.4	RTD 14	89.45
RTD 3	92.07	RTD 15	88.88
RTD 4	90.72	RTD 16	89.28
RTD 5	90.44	RTD 17	89.36
RTD 6	91.04	RTD 18	87.85
RTD 7	89.81	RTD 19	86.47
RTD 8	89.05	RTD 20	86.93
RTD 9	88.96	RTD 21	86.97
RTD 10	90.4	RTD 22	86.95
RTD 11	90.72	RTD 23	86.3
RTD 12	90.16	RTD 24	86.78

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.348 IN F  
= 548.038 IN R

PRESS 1 64.637

PRESS 2 64.637

THE AVE PRESSURE IS = 64.637 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.5703
DEWPT 2	80.404	DEWPT 7	80.2292
DEWPT 3	81.3934	DEWPT 9	82.7717
DEWPT 4	81.962	DEWPT 10	81.0495
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8252  
THE PWV IS = .520451 PSIA

THE MASS WEIGHT IS = 93149.7265625 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1900

DATE : 9/24/85

RTD 1	89.92	RTD 13	90
RTD 2	89.4	RTD 14	89.45
RTD 3	91.91	RTD 15	88.88
RTD 4	90.72	RTD 16	89.28
RTD 5	90.48	RTD 17	89.36
RTD 6	91.08	RTD 18	87.85
RTD 7	89.73	RTD 19	86.47
RTD 8	89.05	RTD 20	86.93
RTD 9	88.96	RTD 21	86.97
RTD 10	90.4	RTD 22	86.95
RTD 11	90.72	RTD 23	86.3
RTD 12	90.16	RTD 24	86.78

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3461 IN F  
= 548.036 IN R

PRESS 1 64.635

PRESS 2 64.635

THE AVE PRESSURE IS = 64.635 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.5098	DEWPT 6	79.5703
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8719  
THE PWV IS = .521243 PSIA

THE MASS WEIGHT IS = 93146 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1915

DATE : 9/24/85

RTD 1	89.92	RTD 13	90
RTD 2	89.4	RTD 14	89.45
RTD 3	91.87	RTD 15	88.88
RTD 4	90.72	RTD 16	89.32
RTD 5	90.48	RTD 17	89.4
RTD 6	91.04	RTD 18	87.89
RTD 7	89.73	RTD 19	86.47
RTD 8	89.05	RTD 20	86.89
RTD 9	80.96	RTD 21	86.97
RTD 10	90.4	RTD 22	86.95
RTD 11	90.72	RTD 23	86.3
RTD 12	90.16	RTD 24	86.78

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3489 IN F  
= 548.039 IN R

PRESS 1 64.635

PRESS 2 64.635

THE AVE PRESSURE IS = 64.635 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.5703
DEWPT 2	80.1821	DEWPT 7	79.7922
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	80.8881		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6988  
THE PWV IS = .518312 PSIA

THE MASS WEIGHT IS = 93149.765625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1930

DATE : 9/24/85

RTD 1	89.96	RTD 13	90
RTD 2	89.48	RTD 14	89.45
RTD 3	92.03	RTD 15	88.92
RTD 4	90.76	RTD 16	89.28
RTD 5	90.48	RTD 17	89.4
RTD 6	91.04	RTD 18	87.93
RTD 7	89.73	RTD 19	86.43
RTD 8	89.13	RTD 20	86.89
RTD 9	89	RTD 21	86.97
RTD 10	90.4	RTD 22	86.95
RTD 11	90.72	RTD 23	86.26
RTD 12	90.2	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3528 IN F  
= 548.043 IN R

PRESS 1 64.633

PRESS 2 64.633

THE AVE PRESSURE IS = 64.633 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.5703
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	80.6124
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8252  
THE PWV IS = .520452 PSIA

THE MASS WEIGHT IS = 93143.09375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 1945

DATE : 9/24/85

RTD 1	89.96	RTD 13	90.08
RTD 2	89.52	RTD 14	89.53
RTD 3	92.11	RTD 15	88.92
RTD 4	90.76	RTD 16	89.32
RTD 5	90.48	RTD 17	89.4
RTD 6	91.04	RTD 18	88.01
RTD 7	89.81	RTD 19	86.43
RTD 8	89.13	RTD 20	86.89
RTD 9	89.04	RTD 21	86.97
RTD 10	90.4	RTD 22	86.95
RTD 11	90.72	RTD 23	86.26
RTD 12	90.24	RTD 24	86.78

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3765 IN F  
= 548.067 IN R

PRESS 1 64.633

PRESS 2 64.633

THE AVE PRESSURE IS = 64.633 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	80.014
DEWPT 2	80.6259	DEWPT 7	80.2292
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0043  
THE PWV IS = .523495 PSIA

THE MASS WEIGHT IS = 93134.6328125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2000

DATE : 9/24/85

RTD 1	90	RTD 13	90.12
RTD 2	89.52	RTD 14	89.53
RTD 3	92.19	RTD 15	89
RTD 4	90.8	RTD 16	89.32
RTD 5	90.48	RTD 17	89.44
RTD 6	91.08	RTD 18	88.09
RTD 7	89.85	RTD 19	86.47
RTD 8	89.13	RTD 20	86.89
RTD 9	89.08	RTD 21	86.97
RTD 10	90.44	RTD 22	86.95
RTD 11	90.76	RTD 23	86.22
RTD 12	90.24	RTD 24	86.78

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3962 IN F  
= 548.086 IN R

PRESS 1 64.635

PRESS 2 64.635

THE AVE PRESSURE IS = 64.635 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.5703
DEWPT 2	79.7384	DEWPT 7	80.2292
DEWPT 3	82.4132	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.9435
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9947  
THE PWV IS = .523333 PSIA

THE MASS WEIGHT IS = 93134.4453125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2015

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.12
RTD 2	89.56	RTD 14	89.57
RTD 3	92.11	RTD 15	88.96
RTD 4	90.8	RTD 16	89.4
RTD 5	90.56	RTD 17	89.48
RTD 6	91.08	RTD 18	88.09
RTD 7	89.85	RTD 19	86.43
RTD 8	89.17	RTD 20	86.89
RTD 9	89.08	RTD 21	86.97
RTD 10	90.44	RTD 22	86.95
RTD 11	90.76	RTD 23	86.26
RTD 12	90.28	RTD 24	86.78

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4067 IN F  
= 548.097 IN R

PRESS 1 64.634

PRESS 2 64.634

THE AVE PRESSURE IS = 64.634 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	80.2359
DEWPT 2	80.404	DEWPT 7	79.5703
DEWPT 3	82.2093	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.5355
DEWPT 5	82.3947		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1461  
THE PWV IS = .525916 PSIA

THE MASS WEIGHT IS = 93127.453125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2030

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.12
RTD 2	89.56	RTD 14	89.57
RTD 3	92.23	RTD 15	89.04
RTD 4	90.8	RTD 16	89.48
RTD 5	90.56	RTD 17	89.52
RTD 6	91.12	RTD 18	88.09
RTD 7	89.85	RTD 19	86.43
RTD 8	89.22	RTD 20	86.89
RTD 9	89.12	RTD 21	86.93
RTD 10	90.48	RTD 22	86.95
RTD 11	90.84	RTD 23	86.26
RTD 12	90.32	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4202 IN F  
= 548.11 IN R

PRESS 1 64.633

PRESS 2 64.633

THE AVE PRESSURE IS = 64.633 PSIA

DEWCELLS WERE CONVERTED TO 0.001 IN

DEWPT 1	80.1821	DEWPT 6	80.2359
DEWPT 2	80.404	DEWPT 7	80.2292
DEWPT 3	82.4132	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	81.7828		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1376  
THE PWV IS = .52577 PSIA

THE MASS WEIGHT IS = 93123.9140625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2045

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.12
RTD 2	89.56	RTD 14	89.57
RTD 3	92.19	RTD 15	89.04
RTD 4	90.8	RTD 16	89.48
RTD 5	90.6	RTD 17	89.52
RTD 6	91.12	RTD 18	88.09
RTD 7	89.85	RTD 19	86.43
RTD 8	89.22	RTD 20	86.85
RTD 9	89.12	RTD 21	86.93
RTD 10	90.48	RTD 22	86.95
RTD 11	90.76	RTD 23	86.26
RTD 12	90.28	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4137 IN F  
= 548.104 IN R

PRESS 1 64.632

PRESS 2 64.632

THE AVE PRESSURE IS = 64.632 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	81.5541	DEWPT 6	79.7922
DEWPT 2	80.404	DEWPT 7	79.7922
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.0495
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.96  
THE PWV IS = .522742 PSIA

THE MASS WEIGHT IS = 93127.9765625 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2100

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.16
RTD 2	89.56	RTD 14	89.57
RTD 3	92.19	RTD 15	89.04
RTD 4	90.84	RTD 16	89.44
RTD 5	90.6	RTD 17	89.52
RTD 6	91.12	RTD 18	88.09
RTD 7	89.85	RTD 19	86.39
RTD 8	89.22	RTD 20	86.85
RTD 9	89.12	RTD 21	86.93
RTD 10	90.48	RTD 22	86.95
RTD 11	90.84	RTD 23	86.26
RTD 12	90.28	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4126 IN F  
= 548.103 IN R

PRESS 1 64.63

PRESS 2 64.63

THE AVE PRESSURE IS = 64.63 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	79.5703
DEWPT 2	80.404	DEWPT 7	80.4511
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	80.6595		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8263  
THE PWV IS = .520471 PSIA

THE MASS WEIGHT IS = 93128.546875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2115

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.16
RTD 2	89.56	RTD 14	89.61
RTD 3	92.11	RTD 15	89.04
RTD 4	90.84	RTD 16	89.44
RTD 5	90.6	RTD 17	89.56
RTD 6	91.17	RTD 18	88.13
RTD 7	89.85	RTD 19	86.35
RTD 8	89.22	RTD 20	86.85
RTD 9	89.12	RTD 21	86.93
RTD 10	90.52	RTD 22	86.95
RTD 11	90.84	RTD 23	86.26
RTD 12	90.28	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4161 IN F  
= 548.106 IN R

PRESS 1 64.628

PRESS 2 64.628

THE AVE PRESSURE IS = 64.628 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.404	DEWPT 6	79.7922
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	80.6124
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8695  
THE PWV IS = .521202 PSIA

THE MASS WEIGHT IS = 93123.9921875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2130

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.2
RTD 2	89.56	RTD 14	89.61
RTD 3	92.19	RTD 15	89.08
RTD 4	90.84	RTD 16	89.44
RTD 5	90.6	RTD 17	89.56
RTD 6	91.12	RTD 18	88.13
RTD 7	89.85	RTD 19	86.35
RTD 8	89.22	RTD 20	86.85
RTD 9	89.12	RTD 21	86.93
RTD 10	90.56	RTD 22	86.95
RTD 11	90.84	RTD 23	86.26
RTD 12	90.32	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4238 IN F  
= 548.114 IN R

PRESS 1 64.626

PRESS 2 64.626

THE AVE PRESSURE IS = 64.626 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.7922
DEWPT 2	80.404	DEWPT 7	80.2292
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9577  
THE PWV IS = .522702 PSIA

THE MASS WEIGHT IS = 93117.6015625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2145

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.12
RTD 2	89.56	RTD 14	89.61
RTD 3	92.11	RTD 15	89.04
RTD 4	90.84	RTD 16	89.48
RTD 5	90.56	RTD 17	89.52
RTD 6	91.17	RTD 18	88.13
RTD 7	89.85	RTD 19	86.35
RTD 8	89.26	RTD 20	86.85
RTD 9	89.12	RTD 21	86.93
RTD 10	90.56	RTD 22	86.91
RTD 11	90.84	RTD 23	86.22
RTD 12	90.32	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4111 IN F  
= 548.101 IN R

PRESS 1 64.624

PRESS 2 64.624

THE AVE PRESSURE IS = 64.624 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	80.4578
DEWPT 2	81.3501	DEWPT 7	80.4511
DEWPT 3	82.2093	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	80.6124
DEWPT 5	81.5789		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1269  
THE PWV IS = .525588 PSIA

THE MASS WEIGHT IS = 93112.6640625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2200

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.16
RTD 2	89.6	RTD 14	89.61
RTD 3	92.11	RTD 15	89.08
RTD 4	90.34	RTD 16	89.48
RTD 5	90.6	RTD 17	89.56
RTD 6	91.17	RTD 18	88.13
RTD 7	89.89	RTD 19	86.43
RTD 8	89.3	RTD 20	96.85
RTD 9	89.12	RTD 21	86.93
RTD 10	90.56	RTD 22	86.91
RTD 11	90.84	RTD 23	86.18
RTD 12	90.32	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4201 IN F  
= 548.11 IN R

PRESS 1 64.622

PRESS 2 64.622

THE AVE PRESSURE IS = 64.622 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.404	DEWPT 6	80.014
DEWPT 2	80.1821	DEWPT 7	80.0073
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	82.5739	DEWPT 10	81.9435
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1002  
THE PWV IS = .525132 PSIA

THE MASS WEIGHT IS = 93108.8984375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2215

DATE : 9/24/85

RTD 1	90.04	RTD 13	90.16
RTD 2	89.6	RTD 14	89.61
RTD 3	92.07	RTD 15	89.08
RTD 4	90.84	RTD 16	89.48
RTD 5	90.6	RTD 17	89.56
RTD 6	91.17	RTD 18	88.13
RTD 7	89.89	RTD 19	86.35
RTD 8	89.22	RTD 20	86.85
RTD 9	89.16	RTD 21	86.89
RTD 10	90.6	RTD 22	86.91
RTD 11	90.88	RTD 23	86.22
RTD 12	90.32	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4176 IN F  
= 548.108 IN R

PRESS 1 64.62

PRESS 2 64.62

THE AVE PRESSURE IS = 64.62 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.404	DEWPT 6	80.9083
DEWPT 2	80.404	DEWPT 7	79.7922
DEWPT 3	81.8013	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.5355
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1869  
THE PWV IS = .526615 PSIA

THE MASS WEIGHT IS = 93104.265625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2230

DATE : 9/24/85

RTD 1	90.12	RTD 13	90.2
RTD 2	89.64	RTD 14	89.61
RTD 3	92.23	RTD 15	89.08
RTD 4	90.84	RTD 16	89.44
RTD 5	90.6	RTD 17	89.56
RTD 6	91.17	RTD 18	88.13
RTD 7	89.93	RTD 19	86.35
RTD 8	89.3	RTD 20	86.85
RTD 9	89.16	RTD 21	86.89
RTD 10	90.6	RTD 22	86.91
RTD 11	90.88	RTD 23	86.22
RTD 12	90.32	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4218 IN F  
= 548.112 IN R

PRESS 1 64.619

PRESS 2 64.619

THE AVE PRESSURE IS = 64.619 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.066	DEWPT 6	80.2359
DEWPT 2	79.7384	DEWPT 7	80.4511
DEWPT 3	83.0251	DEWPT 9	82.5677
DEWPT 4	82.5739	DEWPT 10	81.3316
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1682  
THE PWV IS = .526294 PSIA

THE MASS WEIGHT IS = 93102.5703125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2245

DATE : 9/24/85

RTD 1	90.12	RTD 13	90.24
RTD 2	89.64	RTD 14	89.61
RTD 3	92.31	RTD 15	89.08
RTD 4	90.84	RTD 16	89.48
RTD 5	90.6	RTD 17	89.56
RTD 6	91.17	RTD 18	88.22
RTD 7	89.93	RTD 19	86.35
RTD 8	89.3	RTD 20	86.85
RTD 9	89.2	RTD 21	86.89
RTD 10	90.52	RTD 22	86.91
RTD 11	90.88	RTD 23	86.22
RTD 12	90.4	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4357 IN F  
= 548.126 IN R

PRESS 1 64.618

PRESS 2 64.618

THE AVE PRESSURE IS = 64.618 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	80.014
DEWPT 2	80.6259	DEWPT 7	79.5703
DEWPT 3	82.2093	DEWPT 9	82.5677
DEWPT 4	82.5739	DEWPT 10	81.0495
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8847  
THE PWV IS = .52146 PSIA

THE MASS WEIGHT IS = 93105.7578125 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2300

DATE : 9/24/85

RTD 1	90.12	RTD 13	90.24
RTD 2	89.64	RTD 14	89.61
RTD 3	92.23	RTD 15	89.08
RTD 4	90.92	RTD 16	89.48
RTD 5	90.6	RTD 17	89.56
RTD 6	91.17	RTD 18	88.22
RTD 7	89.89	RTD 19	86.35
RTD 8	89.3	RTD 20	86.85
RTD 9	89.2	RTD 21	86.93
RTD 10	90.6	RTD 22	86.91
RTD 11	90.88	RTD 23	86.22
RTD 12	90.36	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4377 IN F  
= 548.128 IN R

PRESS 1 64.616

PRESS 2 64.616

THE AVE PRESSURE IS = 64.616 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	81.5541	DEWPT 6	80.2359
DEWPT 2	80.404	DEWPT 7	79.5703
DEWPT 3	82.4132	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.0495
DEWPT 5	82.1907		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1392  
THE FWV IS = .525799 PSIA

THE MASS WEIGHT IS = 93096.2265625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2315

DATE : 9/24/85

RTD 1	90.16	RTD 13	90.24
RTD 2	89.64	RTD 14	89.69
RTD 3	92.11	RTD 15	89.08
RTD 4	90.84	RTD 16	89.52
RTD 5	90.6	RTD 17	89.56
RTD 6	91.25	RTD 18	88.22
RTD 7	89.93	RTD 19	86.35
RTD 8	89.3	RTD 20	86.85
RTD 9	89.2	RTD 21	86.89
RTD 10	90.6	RTD 22	86.91
RTD 11	90.88	RTD 23	86.22
RTD 12	90.44	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4437 IN F  
= 548.134 IN R

PRESS 1 64.615

PRESS 2 64.615

THE AVE PRESSURE IS = 64.615 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.7384	DEWPT 6	80.2359
DEWPT 2	79.9603	DEWPT 7	80.4511
DEWPT 3	82.4132	DEWPT 9	82.5677
DEWPT 4	82.5739	DEWPT 10	81.0495
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1513  
THE PWV IS = .526005 PSIA

THE MASS WEIGHT IS = 93093.453125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2330

DATE : 9/24/85

RTD 1	90.16	RTD 13	90.24
RTD 2	89.64	RTD 14	89.69
RTD 3	92.23	RTD 15	89.12
RTD 4	90.92	RTD 16	89.48
RTD 5	90.64	RTD 17	89.56
RTD 6	91.29	RTD 18	88.26
RTD 7	89.93	RTD 19	86.35
RTD 8	89.34	RTD 20	86.85
RTD 9	89.24	RTD 21	86.93
RTD 10	90.64	RTD 22	86.91
RTD 11	90.88	RTD 23	86.22
RTD 12	90.44	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4553 IN F  
= 548.145 IN R

PRESS 1 64.614

PRESS 2 64.614

THE AVE PRESSURE IS = 64.614 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	81.0764	DEWPT 6	79.7922
DEWPT 2	80.6259	DEWPT 7	80.2292
DEWPT 3	82.2093	DEWPT 9	82.5677
DEWPT 4	82.5739	DEWPT 10	81.5355
DEWPT 5	82.1907		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.2107  
THE PWV IS = .527023 PSIA

THE MASS WEIGHT IS = 93088.546875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 2345

DATE : 9/24/85

RTD 1	90.16	RTD 13	90.24
RTD 2	89.68	RTD 14	89.69
RTD 3	92.11	RTD 15	89.12
RTD 4	90.92	RTD 16	89.48
RTD 5	90.6	RTD 17	89.6
RTD 6	91.25	RTD 18	88.26
RTD 7	89.93	RTD 19	86.35
RTD 8	89.34	RTD 20	86.85
RTD 9	89.24	RTD 21	86.93
RTD 10	90.6	RTD 22	86.91
RTD 11	90.88	RTD 23	86.18
RTD 12	90.4	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.45 IN F  
= 548.14 IN R

PRESS 1 64.613

PRESS 2 64.613

THE AVE PRESSURE IS = 64.613 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.066	DEWPT 6	80.4578
DEWPT 2	80.6259	DEWPT 7	80.2292
DEWPT 3	82.2093	DEWPT 9	82.3638
DEWPT 4	82.5739	DEWPT 10	80.6124
DEWPT 5	82.1907		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1006  
THE PWV IS = .525139 PSIA

THE MASS WEIGHT IS = 93090.7265625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 0

DATE : 9/25/84

RTD 1	90.16	RTD 13	90.28
RTD 2	89.68	RTD 14	89.73
RTD 3	92.23	RTD 15	89.12
RTD 4	90.92	RTD 16	89.52
RTD 5	90.64	RTD 17	89.6
RTD 6	91.25	RTD 18	88.26
RTD 7	89.97	RTD 19	86.35
RTD 8	89.34	RTD 20	86.81
RTD 9	89.24	RTD 21	86.89
RTD 10	90.6	RTD 22	86.87
RTD 11	90.88	RTD 23	86.22
RTD 12	90.4	RTD 24	86.74

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4563 IN F  
= 548.146 IN R

PRESS 1 64.611

PRESS 2 64.611

THE AVE PRESSURE IS = 64.611 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	81.7581	DEWPT 6	80.014
DEWPT 2	80.1821	DEWPT 7	80.0073
DEWPT 3	82.4132	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0777  
THE PWV IS = .524747 PSIA

THE MASS WEIGHT IS = 93087.3125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 15

DATE : 9/25/84

RTD 1	90.16	RTD 13	90.28
RTD 2	89.68	RTD 14	89.69
RTD 3	92.23	RTD 15	89.16
RTD 4	90.92	RTD 16	89.52
RTD 5	90.64	RTD 17	89.6
RTD 6	91.25	RTD 18	88.26
RTD 7	89.93	RTD 19	86.35
RTD 8	89.34	RTD 20	86.81
RTD 9	89.24	RTD 21	86.89
RTD 10	90.6	RTD 22	86.91
RTD 11	90.92	RTD 23	86.18
RTD 12	90.44	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4558 IN F  
= 548.146 IN R

PRESS 1 64.61

PRESS 2 64.61

THE AVE PRESSURE IS = 64.61 PS

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.6259	DEWPT 6	80.2359
DEWPT 2	80.404	DEWPT 7	80.2292
DEWPT 3	82.2093	DEWPT 9	82.3638
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1054  
THE FWV IS = .525221 PSIA

THE MASS WEIGHT IS = 93085.2578125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 30

DATE : 9/25/84

RTD 1	90.16	RTD 13	90.28
RTD 2	89.68	RTD 14	89.73
RTD 3	92.15	RTD 15	89.16
RTD 4	90.92	RTD 16	89.56
RTD 5	90.64	RTD 17	89.6
RTD 6	91.29	RTD 18	88.26
RTD 7	89.97	RTD 19	86.35
RTD 8	89.34	RTD 20	86.81
RTD 9	89.24	RTD 21	86.89
RTD 10	90.64	RTD 22	86.91
RTD 11	90.92	RTD 23	86.22
RTD 12	90.48	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4652 IN F  
= 548.155 IN R

PRESS 1 64.608

PRESS 2 64.608

THE AVE PRESSURE IS = 64.608 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	81.0764	DEWPT 6	80.2359
DEWPT 2	80.404	DEWPT 7	80.4511
DEWPT 3	82.4132	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.1545  
THE PWV IS = .526061 PSIA

THE MASS WEIGHT IS = 93079.53125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 45

DATE : 9/25/84

RTD 1	90.16	RTD 13	90.28
RTD 2	89.68	RTD 14	89.73
RTD 3	92.23	RTD 15	89.16
RTD 4	90.97	RTD 16	89.48
RTD 5	90.64	RTD 17	89.6
RTD 6	91.29	RTD 18	88.26
RTD 7	90.09	RTD 19	86.31
RTD 8	89.34	RTD 20	86.81
RTD 9	89.24	RTD 21	86.89
RTD 10	90.6	RTD 22	86.87
RTD 11	90.92	RTD 23	86.14
RTD 12	90.44	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4501 IN F  
= 548.14 IN R

PRESS 1 64.606

PRESS 2 64.606

THE AVE PRESSURE IS = 64.606 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.404	DEWPT 6	80.014
DEWPT 2	80.404	DEWPT 7	79.7922
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.0495
DEWPT 5	81.11		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8802  
THE PWV IS = .521385 PSIA

THE MASS WEIGHT IS = 93085.9921875 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 100

DATE : 9/25/84

RTD 1	90.16	RTD 13	90.28
RTD 2	89.68	RTD 14	89.73
RTD 3	92.31	RTD 15	89.16
RTD 4	90.92	RTD 16	89.48
RTD 5	90.64	RTD 17	89.6
RTD 6	91.29	RTD 18	88.26
RTD 7	89.97	RTD 19	86.35
RTD 8	89.34	RTD 20	86.81
RTD 9	89.24	RTD 21	86.89
RTD 10	90.64	RTD 22	86.83
RTD 11	90.92	RTD 23	86.14
RTD 12	90.44	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4498 IN F  
= 548.14 IN R

PRESS 1 64.604

PRESS 2 64.604

THE AVE PRESSURE IS = 64.604 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.6223	DEWPT 6	80.2359
DEWPT 2	79.7384	DEWPT 7	80.4511
DEWPT 3	82.2093	DEWPT 9	82.5677
DEWPT 4	82.37	DEWPT 10	80.6124
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9078  
THE PWV IS = .521854 PSIA

THE MASS WEIGHT IS = 93082.453125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 115

DATE : 9/25/84

RTD 1	90.16	RTD 13	90.24
RTD 2	89.68	RTD 14	89.73
RTD 3	92.23	RTD 15	89.16
RTD 4	90.92	RTD 16	89.52
RTD 5	90.64	RTD 17	89.6
RTD 6	91.29	RTD 18	88.26
RTD 7	89.97	RTD 19	86.31
RTD 8	89.34	RTD 20	86.81
RTD 9	89.24	RTD 21	86.85
RTD 10	90.64	RTD 22	86.83
RTD 11	90.96	RTD 23	86.18
RTD 12	90.4	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4447 IN F  
= 548.135 IN R

PRESS 1 64.6

PRESS 2 64.6

THE AVE PRESSURE IS = 64.6 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	80.2359
DEWPT 2	80.6259	DEWPT 7	80.2292
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	82.3947		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.2127  
THE PWV IS = .527056 PSIA

THE MASS WEIGHT IS = 93069.9609375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 130

DATE : 9/25/84

RTD 1	90.16	RTD 13	90.28
RTD 2	89.64	RTD 14	89.69
RTD 3	92.11	RTD 15	89.16
RTD 4	90.92	RTD 16	89.48
RTD 5	90.6	RTD 17	89.6
RTD 6	91.29	RTD 18	88.22
RTD 7	89.93	RTD 19	86.31
RTD 8	89.34	RTD 20	86.81
RTD 9	89.24	RTD 21	86.89
RTD 10	90.6	RTD 22	86.83
RTD 11	90.92	RTD 23	86.18
RTD 12	90.44	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4394 IN F  
= 548.129 IN R

PRESS 1 64.599

PRESS 2 64.599

THE AVE PRESSURE IS = 64.599 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	81.5541	DEWPT 6	80.014
DEWPT 2	80.6259	DEWPT 7	79.3484
DEWPT 3	82.4132	DEWPT 9	82.3638
DEWPT 4	82.5739	DEWPT 10	81.3316
DEWPT 5	81.7828		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0531  
THE PWV IS = .524328 PSIA

THE MASS WEIGHT IS = 93073.3671875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 145

DATE : 9/25/84

RTD 1	90.12	RTD 13	90.24
RTD 2	89.64	RTD 14	89.69
RTD 3	92.23	RTD 15	89.16
RTD 4	90.92	RTD 16	89.52
RTD 5	90.64	RTD 17	89.6
RTD 6	91.29	RTD 18	88.22
RTD 7	89.93	RTD 19	86.31
RTD 8	89.34	RTD 20	86.81
RTD 9	89.2	RTD 21	86.85
RTD 10	90.6	RTD 22	86.83
RTD 11	90.92	RTD 23	86.14
RTD 12	90.44	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4346 IN F  
= 548.125 IN R

PRESS 1 64.596

PRESS 2 64.596

THE AVE PRESSURE IS = 64.596 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	79.7922
DEWPT 2	80.404	DEWPT 7	79.5703
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	80.2225		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6924  
THE PWV IS = .518205 PSIA

THE MASS WEIGHT IS = 93078.7265625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 200

DATE : 9/25/84

RTD 1	90.12	RTD 13	90.24
RTD 2	89.64	RTD 14	89.61
RTD 3	92.19	RTD 15	89.08
RTD 4	90.92	RTD 16	89.48
RTD 5	90.64	RTD 17	89.6
RTD 6	91.29	RTD 18	88.13
RTD 7	89.93	RTD 19	86.31
RTD 8	89.34	RTD 20	86.81
RTD 9	89.2	RTD 21	86.89
RTD 10	90.6	RTD 22	86.83
RTD 11	90.88	RTD 23	86.1
RTD 12	90.4	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4094 IN F  
= 548.099 IN R

PRESS 1 64.592

PRESS 2 64.592

THE AVE PRESSURE IS = 64.592 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.5098	DEWPT 6	80.2359
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	82.6172	DEWPT 9	82.3638
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0515  
THE PWV IS = .5243 PSIA

THE MASS WEIGHT IS = 93068.3359375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 215

DATE : 9/25/84

RTD	1	90.08	RTD	13	90.2
RTD	2	89.64	RTD	14	89.61
RTD	3	92.27	RTD	15	89.08
RTD	4	90.84	RTD	16	89.48
RTD	5	90.64	RTD	17	89.56
RTD	6	91.25	RTD	18	88.09
RTD	7	89.93	RTD	19	86.31
RTD	8	89.3	RTD	20	86.81
RTD	9	89.16	RTD	21	86.81
RTD	10	90.6	RTD	22	86.83
RTD	11	90.88	RTD	23	86.14
RTD	12	90.44	RTD	24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4051 IN F  
= 548.095 IN R

PRESS 1 64.588

PRESS 2 64.588

THE AVE PRESSURE IS = 64.588 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	79.5703
DEWPT 2	79.9603	DEWPT 7	79.5703
DEWPT 3	82.4132	DEWPT 9	82.5677
DEWPT 4	81.7581	DEWPT 10	80.6124
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6959  
THE PWV IS = .518263 PSIA

THE MASS WEIGHT IS = 93072.015625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 230

DATE : 9/25/84

RTD 1	90.04	RTD 13	90.16
RTD 2	89.56	RTD 14	89.61
RTD 3	92.31	RTD 15	89.08
RTD 4	90.84	RTD 16	89.44
RTD 5	90.6	RTD 17	89.56
RTD 6	91.25	RTD 18	88.09
RTD 7	89.93	RTD 19	86.31
RTD 8	89.3	RTD 20	86.81
RTD 9	89.12	RTD 21	86.89
RTD 10	90.6	RTD 22	86.83
RTD 11	90.92	RTD 23	86.14
RTD 12	90.4	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.4019 IN F  
= 548.092 IN R

PRESS 1 64.585

PRESS 2 64.585

THE AVE PRESSURE IS = 64.585 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.6259	DEWPT 6	79.3484
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	81.9991	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	81.0495
DEWPT 5	82.1907		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9625  
THE PWV IS = .522783 PSIA

THE MASS WEIGHT IS = 93061.640625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 245

DATE : 9/25/84

RTD 1	90.04	RTD 13	90.16
RTD 2	89.56	RTD 14	89.61
RTD 3	92.23	RTD 15	89.08
RTD 4	90.88	RTD 16	89.4
RTD 5	90.6	RTD 17	89.56
RTD 6	91.25	RTD 18	88.09
RTD 7	89.85	RTD 19	86.31
RTD 8	89.26	RTD 20	86.81
RTD 9	89.12	RTD 21	86.81
RTD 10	90.6	RTD 22	86.83
RTD 11	90.88	RTD 23	86.14
RTD 12	90.4	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3851 IN F  
= 548.075 IN R

PRESS 1 64.582

PRESS 2 64.582

THE AVE PRESSURE IS = 64.582 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.404	DEWPT 6	80.014
DEWPT 2	80.1821	DEWPT 7	80.4511
DEWPT 3	81.5973	DEWPT 9	82.3638
DEWPT 4	81.962	DEWPT 10	80.6124
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8962  
THE PWV IS = .521657 PSIA

THE MASS WEIGHT IS = 93061.7734375 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 300

DATE : 9/25/84

RTD 1	90	RTD 13	90.12
RTD 2	89.56	RTD 14	89.57
RTD 3	92.07	RTD 15	89.08
RTD 4	90.8	RTD 16	89.4
RTD 5	90.6	RTD 17	89.56
RTD 6	91.21	RTD 18	88.05
RTD 7	89.85	RTD 19	86.31
RTD 8	89.22	RTD 20	86.81
RTD 9	89.08	RTD 21	86.81
RTD 10	90.6	RTD 22	86.83
RTD 11	90.88	RTD 23	86.14
RTD 12	90.4	RTD 24	86.7

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3778 IN F  
= 548.068 IN R

PRESS 1 64.579

PRESS 2 64.579

THE AVE PRESSURE IS = 64.579 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	81.0764	DEWPT 6	80.2359
DEWPT 2	79.7384	DEWPT 7	79.7922
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0288  
THE PWV IS = .523912 PSIA

THE MASS WEIGHT IS = 93055.3828125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 315

DATE : 9/25/84

RTD 1	90	RTD 13	90.12
RTD 2	89.52	RTD 14	89.57
RTD 3	92.39	RTD 15	89.08
RTD 4	90.8	RTD 16	89.44
RTD 5	90.6	RTD 17	89.56
RTD 6	91.17	RTD 18	88.05
RTD 7	89.85	RTD 19	86.31
RTD 8	89.22	RTD 20	86.81
RTD 9	89.08	RTD 21	86.85
RTD 10	90.56	RTD 22	86.83
RTD 11	90.84	RTD 23	86.14
RTD 12	90.32	RTD 24	86.66

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3788 IN F  
= 548.069 IN R

PRESS 1 64.576

PRESS 2 64.576

THE AVE PRESSURE IS = 64.576 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	79.5703
DEWPT 2	79.9603	DEWPT 7	80.4511
DEWPT 3	81.9991	DEWPT 9	82.3638
DEWPT 4	81.962	DEWPT 10	80.6124
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8795  
THE PWV IS = .521374 PSIA

THE MASS WEIGHT IS = 93054.5625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 330

DATE : 9/25/84

RTD 1	90	RTD 13	90.12
RTD 2	89.52	RTD 14	89.53
RTD 3	92.23	RTD 15	89.04
RTD 4	90.8	RTD 16	89.32
RTD 5	90.56	RTD 17	89.56
RTD 6	91.17	RTD 18	88.05
RTD 7	89.85	RTD 19	86.31
RTD 8	89.22	RTD 20	86.81
RTD 9	89.08	RTD 21	86.81
RTD 10	90.48	RTD 22	86.83
RTD 11	90.88	RTD 23	86.14
RTD 12	90.32	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.358 IN F  
= 548.048 IN R

PRESS 1 64.573

PRESS 2 64.573

THE AVE PRESSURE IS = 64.573 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.5703
DEWPT 2	79.7384	DEWPT 7	80.2292
DEWPT 3	81.9991	DEWPT 9	82.3638
DEWPT 4	81.962	DEWPT 10	80.6124
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6976  
THE PWV IS = .518293 PSIA

THE MASS WEIGHT IS = 93058.1796875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 345

DATE : 9/25/84

RTD 1	89.96	RTD 13	90.12
RTD 2	89.52	RTD 14	89.53
RTD 3	92.07	RTD 15	89.08
RTD 4	90.8	RTD 16	89.4
RTD 5	90.56	RTD 17	89.56
RTD 6	91.17	RTD 18	88.05
RTD 7	89.81	RTD 19	86.31
RTD 8	89.17	RTD 20	86.81
RTD 9	89.08	RTD 21	86.85
RTD 10	90.56	RTD 22	86.83
RTD 11	90.84	RTD 23	86.14
RTD 12	90.32	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3635 IN F  
= 548.054 IN R

PRESS 1 64.57

PRESS 2 64.57

THE AVE PRESSURE IS = 64.57 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.7922
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	81.9991	DEWPT 9	82.3638
DEWPT 4	82.1598	DEWPT 10	80.6124
DEWPT 5	81.11		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.7777  
THE PWV IS = .519648 PSIA

THE MASS WEIGHT IS = 93050.9375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 400

DATE : 9/25/84

RTD 1	89.96	RTD 13	90.12
RTD 2	89.52	RTD 14	89.53
RTD 3	92.23	RTD 15	89.08
RTD 4	90.8	RTD 16	89.32
RTD 5	90.52	RTD 17	89.52
RTD 6	91.17	RTD 18	87.97
RTD 7	89.85	RTD 19	86.31
RTD 8	89.17	RTD 20	86.77
RTD 9	89.08	RTD 21	86.81
RTD 10	90.48	RTD 22	86.83
RTD 11	90.84	RTD 23	86.05
RTD 12	90.32	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.341 IN F  
= 548.031 IN R

PRESS 1 64.568

PRESS 2 64.568

THE AVE PRESSURE IS = 64.568 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.8478	DEWPT 6	80.014
DEWPT 2	80.1821	DEWPT 7	79.5703
DEWPT 3	81.3934	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.0495
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.878  
THE PWV IS = .521348 PSIA

THE MASS WEIGHT IS = 93049.3671875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 415

DATE : 9/25/84

RTD 1	89.96	RTD 13	90.08
RTD 2	89.52	RTD 14	89.53
RTD 3	92.07	RTD 15	89.04
RTD 4	90.76	RTD 16	89.32
RTD 5	90.56	RTD 17	89.52
RTD 6	91.12	RTD 18	87.97
RTD 7	89.81	RTD 19	86.31
RTD 8	89.17	RTD 20	86.81
RTD 9	89	RTD 21	86.81
RTD 10	90.48	RTD 22	86.83
RTD 11	90.84	RTD 23	86.14
RTD 12	90.28	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3388 IN F  
= 548.029 IN R

PRESS 1 64.564

PRESS 2 64.564

THE AVE PRESSURE IS = 64.564 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.5703
DEWPT 2	79.7384	DEWPT 7	79.5703
DEWPT 3	81.8013	DEWPT 9	82.5677
DEWPT 4	81.962	DEWPT 10	81.0495
DEWPT 5	81.11		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6831  
THE PWV IS = .518048 PSIA

THE MASS WEIGHT IS = 93048.7265625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 430

DATE : 9/25/85

RTD 1	89.92	RTD 13	90
RTD 2	89.4	RTD 14	89.45
RTD 3	92.19	RTD 15	89
RTD 4	90.76	RTD 16	89.32
RTD 5	90.48	RTD 17	89.48
RTD 6	91.12	RTD 18	87.89
RTD 7	89.77	RTD 19	86.23
RTD 8	89.13	RTD 20	86.77
RTD 9	88.96	RTD 21	86.81
RTD 10	90.48	RTD 22	86.83
RTD 11	90.76	RTD 23	86.14
RTD 12	90.28	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3069 IN F  
= 547.997 IN R

PRESS 1 64.559

PRESS 2 64.559

THE AVE PRESSURE IS = 64.559 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.3484
DEWPT 2	79.7384	DEWPT 7	79.5703
DEWPT 3	81.5973	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	81.0495
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6233  
THE PWV IS = .517039 PSIA

THE MASS WEIGHT IS = 93048.34375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 445

DATE : 9/25/85

RTD 1	89.92	RTD 13	90
RTD 2	89.4	RTD 14	89.45
RTD 3	92.11	RTD 15	88.92
RTD 4	90.72	RTD 16	89.28
RTD 5	90.48	RTD 17	89.44
RTD 6	91.12	RTD 18	87.89
RTD 7	89.73	RTD 19	86.27
RTD 8	89.13	RTD 20	86.77
RTD 9	88.96	RTD 21	86.81
RTD 10	90.44	RTD 22	86.83
RTD 11	90.8	RTD 23	86.14
RTD 12	90.28	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2982 IN F  
= 547.988 IN R

PRESS 1 64.555

PRESS 2 64.555

THE AVE PRESSURE IS = 64.555 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.8478	DEWPT 6	79.3484
DEWPT 2	80.1821	DEWPT 7	80.0073
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.5541	DEWPT 10	81.5355
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.832  
THE PWV IS = .520567 PSIA

THE MASS WEIGHT IS = 93038.890625 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 500

DATE : 9/25/85

RTD 1	89.84	RTD 13	90
RTD 2	89.36	RTD 14	89.41
RTD 3	92.11	RTD 15	88.92
RTD 4	90.76	RTD 16	89.28
RTD 5	90.48	RTD 17	89.4
RTD 6	91.08	RTD 18	87.85
RTD 7	89.69	RTD 19	86.31
RTD 8	89.13	RTD 20	86.77
RTD 9	88.96	RTD 21	86.81
RTD 10	90.4	RTD 22	86.83
RTD 11	90.76	RTD 23	86.05
RTD 12	90.28	RTD 24	86.66

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2861 IN F  
= 547.976 IN R

PRESS 1 64.551

PRESS 2 64.551

THE AVE PRESSURE IS = 64.551 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.066	DEWPT 6	79.5703
DEWPT 2	80.1821	DEWPT 7	80.0073
DEWPT 3	81.9991	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	81.0495
DEWPT 5	80.2225		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.5528  
THE PWV IS = .515852 PSIA

THE MASS WEIGHT IS = 93041.984375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 515

DATE : 9/25/85

RTD 1	89.84	RTD 13	90
RTD 2	89.36	RTD 14	89.41
RTD 3	92.11	RTD 15	88.88
RTD 4	90.76	RTD 16	89.24
RTD 5	90.44	RTD 17	89.4
RTD 6	91.08	RTD 18	87.85
RTD 7	89.69	RTD 19	86.27
RTD 8	89.05	RTD 20	86.77
RTD 9	88.92	RTD 21	86.81
RTD 10	90.4	RTD 22	86.83
RTD 11	90.76	RTD 23	86.14
RTD 12	90.24	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2781 IN F  
= 547.968 IN R

PRESS 1 64.548

PRESS 2 64.548

THE AVE PRESSURE IS = 64.548 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.5098	DEWPT 6	79.5703
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	80.6124
DEWPT 5	80.8881		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6226  
THE PWV IS = .517029 PSIA

THE MASS WEIGHT IS = 93037.2578125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 530

DATE : 9/25 '5

RTD 1	89.84	RTD 13	89.96
RTD 2	89.36	RTD 14	89.41
RTD 3	92.11	RTD 15	88.92
RTD 4	90.72	RTD 16	89.16
RTD 5	90.44	RTD 17	89.4
RTD 6	91.08	RTD 18	87.77
RTD 7	89.69	RTD 19	86.23
RTD 8	89.05	RTD 20	86.77
RTD 9	88.92	RTD 21	86.81
RTD 10	90.36	RTD 22	86.83
RTD 11	90.68	RTD 23	86.14
RTD 12	90.16	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2596 IN F  
= 547.95 IN R

PRESS 1 64.545

PRESS 2 64.545

THE AVE PRESSURE IS = 64.545 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.1718	DEWPT 6	79.3484
DEWPT 2	79.9603	DEWPT 7	79.7922
DEWPT 3	81.1234	DEWPT 9	82.3638
DEWPT 4	81.5541	DEWPT 10	81.3316
DEWPT 5	80.6595		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.4729  
THE PWV IS = .51451 PSIA

THE MASS WEIGHT IS = 93039.703125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 545

DATE : 9/23/85

RTD	1	89.84	RTD	13	89.88
RTD	2	89.32	RTD	14	89.37
RTD	3	92.19	RTD	15	88.88
RTD	4	90.72	RTD	16	89.24
RTD	5	90.44	RTD	17	89.36
RTD	6	91.08	RTD	18	87.77
RTD	7	89.73	RTD	19	86.23
RTD	8	89.01	RTD	20	86.77
RTD	9	88.88	RTD	21	86.81
RTD	10	90.36	RTD	22	86.83
RTD	11	90.72	RTD	23	86.14
RTD	12	90.16	RTD	24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2541 IN F  
= 547.944 IN R

PRESS 1 64.541

PRESS 2 64.541

THE AVE PRESSURE IS = 64.541 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	77.9499	DEWPT 6	79.3484
DEWPT 2	79.7384	DEWPT 7	79.3484
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.0764	DEWPT 10	81.0495
DEWPT 5	80.4376		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.2978  
THE PWV IS = .51158 PSIA

THE MASS WEIGHT IS = 93039.09375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

READINGS TAKEN AT TIME PERIOD : 600

DATE : 9/25/85

RTD 1	89.8	RTD 13	89.88
RTD 2	89.32	RTD 14	89.33
RTD 3	92.03	RTD 15	88.88
RTD 4	90.64	RTD 16	89.16
RTD 5	90.36	RTD 17	89.36
RTD 6	91.04	RTD 18	87.77
RTD 7	89.65	RTD 19	86.31
RTD 8	89.05	RTD 20	86.77
RTD 9	88.88	RTD 21	86.77
RTD 10	90.36	RTD 22	86.83
RTD 11	90.72	RTD 23	86.1
RTD 12	90.16	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2406 IN F  
= 547.931 IN R

PRESS 1 64.538

PRESS 2 64.538

THE AVE PRESSURE IS = 64.538 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.8478	DEWPT 6	79.3484
DEWPT 2	79.5098	DEWPT 7	79.7922
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.5541	DEWPT 10	81.9435
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.7955  
THE PWV IS = .519948 PSIA

THE MASS WEIGHT IS = 93024.8515625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 700

DATE : 9/25/85

RTD 1	89.72	RTD 13	89.84
RTD 2	89.28	RTD 14	89.25
RTD 3	92.07	RTD 15	88.79
RTD 4	90.6	RTD 16	89.04
RTD 5	90.32	RTD 17	89.32
RTD 6	90.96	RTD 18	87.73
RTD 7	89.57	RTD 19	86.23
RTD 8	89.01	RTD 20	86.77
RTD 9	88.79	RTD 21	86.81
RTD 10	90.28	RTD 22	86.79
RTD 11	90.6	RTD 23	86.1
RTD 12	90.04	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1953 IN F  
= 547.885 IN R

PRESS 1 64.513

PRESS 2 64.513

THE AVE PRESSURE IS = 64.513 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.404	DEWPT 6	79.3484
DEWPT 2	79.7384	DEWPT 7	80.0073
DEWPT 3	80.6797	DEWPT 9	82.3638
DEWPT 4	81.0764	DEWPT 10	80.8343
DEWPT 5	81.11		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.5628  
THE PWV IS = .516021 PSIA

THE MASS WEIGHT IS = 93001.9296875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 715

DATE : 9/25/85

RTD 1	89.72	RTD 13	89.8
RTD 2	89.24	RTD 14	89.25
RTD 3	91.95	RTD 15	88.79
RTD 4	90.6	RTD 16	89.12
RTD 5	90.32	RTD 17	89.32
RTD 6	90.96	RTD 18	87.69
RTD 7	89.57	RTD 19	86.27
RTD 8	88.97	RTD 20	86.77
RTD 9	88.75	RTD 21	86.77
RTD 10	90.28	RTD 22	86.79
RTD 11	90.6	RTD 23	86.01
RTD 12	90.12	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1884 IN F  
= 547.878 IN R

PRESS 1 64.507

PRESS 2 64.507

THE AVE PRESSURE IS = 64.507 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.3484
DEWPT 2	79.7384	DEWPT 7	79.3484
DEWPT 3	81.8013	DEWPT 9	82.5677
DEWPT 4	81.0764	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6284  
THE FWV IS = .517126 PSIA

THE MASS WEIGHT IS = 92992.78125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 730

DATE : 9/25/85

RTD 1	89.64	RTD 13	89.8
RTD 2	89.19	RTD 14	89.25
RTD 3	92.19	RTD 15	88.79
RTD 4	90.6	RTD 16	89.16
RTD 5	90.32	RTD 17	89.32
RTD 6	90.96	RTD 18	87.69
RTD 7	89.57	RTD 19	86.31
RTD 8	88.97	RTD 20	86.73
RTD 9	88.75	RTD 21	86.73
RTD 10	90.28	RTD 22	86.79
RTD 11	90.48	RTD 23	86.01
RTD 12	90.12	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1864 IN F  
= 547.876 IN R

PRESS 1 64.502

PRESS 2 64.502

THE AVE PRESSURE IS = 64.502 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.6259	DEWPT 6	79.3484
DEWPT 2	79.066	DEWPT 7	79.5703
DEWPT 3	80.9016	DEWPT 9	82.3638
DEWPT 4	81.5541	DEWPT 10	81.0495
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.5867  
THE PWV IS = .516423 PSIA

THE MASS WEIGHT IS = 92986.8671875 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 745

DATE : 9/25/85

RTD 1	89.6	RTD 13	89.8
RTD 2	89.19	RTD 14	89.25
RTD 3	92.07	RTD 15	88.75
RTD 4	90.6	RTD 16	89.12
RTD 5	90.28	RTD 17	89.28
RTD 6	90.96	RTD 18	87.69
RTD 7	89.53	RTD 19	86.23
RTD 8	88.97	RTD 20	86.77
RTD 9	88.75	RTD 21	86.69
RTD 10	90.2	RTD 22	86.79
RTD 11	90.48	RTD 23	86.01
RTD 12	90.12	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1682 IN F  
= 547.858 IN R

PRESS 1 64.496

PRESS 2 64.496

THE AVE PRESSURE IS = 64.496 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.6223	DEWPT 6	78.8979
DEWPT 2	79.7384	DEWPT 7	79.5703
DEWPT 3	81.1234	DEWPT 9	82.3638
DEWPT 4	81.962	DEWPT 10	80.8343
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.4428  
THE PWV IS = .514006 PSIA

THE MASS WEIGHT IS = 92984.75 LBM

\*\*\* VERIFICATION TEST \*\*\*

DATE : 9/25/85

RTD	13	89.8
RTD	14	89.21
RTD	15	88.75
RTD	16	89.12
RTD	17	89.28
RTD	18	87.69
RTD	19	86.23
RTD	20	86.77
RTD	21	86.73
RTD	22	86.79
RTD	23	86.01
RTD	24	86.62

PRESS 2 64.49

DEWPT	6	79.1198
DEWPT	7	80.0073
DEWPT	9	82.3638
DEWPT	10	81.3316

THE MASS WEIGHT IS = 92972.40675 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 815

DATE : 9/25/85

RTD 1	89.56	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	91.95	RTD 15	88.75
RTD 4	90.52	RTD 16	89.12
RTD 5	90.28	RTD 17	89.24
RTD 6	90.92	RTD 18	87.69
RTD 7	89.49	RTD 19	86.27
RTD 8	88.93	RTD 20	86.77
RTD 9	88.75	RTD 21	86.69
RTD 10	90.28	RTD 22	86.79
RTD 11	90.48	RTD 23	86.01
RTD 12	90.12	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1624 IN F  
= 547.852 IN R

PRESS 1 64.485

PRESS 2 64.485

THE AVE PRESSURE IS = 64.485 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	78.8979
DEWPT 2	79.7384	DEWPT 7	79.7922
DEWPT 3	78.8979	DEWPT 9	82.3638
DEWPT 4	81.0764	DEWPT 10	80.6124
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.3404  
THE FWV IS = .512291 PSIA

THE MASS WEIGHT IS = 92972.2421875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 830

DATE : 9/25/85

RTD 1	89.56	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	91.91	RTD 15	88.75
RTD 4	90.56	RTD 16	89
RTD 5	90.28	RTD 17	89.24
RTD 6	90.92	RTD 18	87.69
RTD 7	89.49	RTD 19	86.23
RTD 8	88.93	RTD 20	86.77
RTD 9	88.75	RTD 21	86.73
RTD 10	90.24	RTD 22	86.79
RTD 11	90.44	RTD 23	85.97
RTD 12	90.08	RTD 24	86.58

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1464 IN F  
= 547.836 IN R

PRESS 1 64.48

PRESS 2 64.48

THE AVE PRESSURE IS = 64.48 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.066	DEWPT 6	79.5703
DEWPT 2	79.7384	DEWPT 7	79.3484
DEWPT 3	80.6797	DEWPT 9	82.3638
DEWPT 4	81.962	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6123  
THE PWV IS = .516853 PSIA

THE MASS WEIGHT IS = 92961.0546875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 845

DATE : 9/25/85

RTD 1	89.56	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	91.95	RTD 15	88.75
RTD 4	90.52	RTD 16	89.12
RTD 5	90.28	RTD 17	89.24
RTD 6	90.92	RTD 18	87.69
RTD 7	89.53	RTD 19	86.23
RTD 8	88.88	RTD 20	86.77
RTD 9	88.75	RTD 21	86.65
RTD 10	90.24	RTD 22	86.79
RTD 11	90.44	RTD 23	86.01
RTD 12	90.04	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1512 IN F  
= 547.841 IN R

PRESS 1 64.476

PRESS 2 64.476

THE AVE PRESSURE IS = 64.476 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.4004	DEWPT 6	78.8979
DEWPT 2	79.5098	DEWPT 7	79.7922
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.5541	DEWPT 10	80.6124
DEWPT 5	80.6595		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.2686  
THE PWV IS = .511091 PSIA

THE MASS WEIGHT IS = 92962.8203125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 900

DATE : 9/25/85

RTD 1	89.56	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	92.07	RTD 15	88.79
RTD 4	90.48	RTD 16	89.16
RTD 5	90.28	RTD 17	89.24
RTD 6	90.92	RTD 18	87.69
RTD 7	89.53	RTD 19	86.23
RTD 8	88.88	RTD 20	86.77
RTD 9	88.75	RTD 21	86.73
RTD 10	90.24	RTD 22	86.79
RTD 11	90.44	RTD 23	86.05
RTD 12	90.04	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1658 IN F  
= 547.856 IN R

PRESS 1 64.47

PRESS 2 64.47

THE AVE PRESSURE IS = 64.47 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.3484
DEWPT 2	79.5098	DEWPT 7	80.4511
DEWPT 3	81.1234	DEWPT 9	82.3638
DEWPT 4	81.0764	DEWPT 10	81.3316
DEWPT 5	80.6881		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6085  
THE PWV IS = .51679 PSIA

THE MASS WEIGHT IS = 92943.3359375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 915

DATE : 9/25/85

RTD 1	89.56	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	91.91	RTD 15	88.75
RTD 4	90.52	RTD 16	89.04
RTD 5	90.28	RTD 17	89.24
RTD 6	90.92	RTD 18	87.69
RTD 7	89.49	RTD 19	86.23
RTD 8	88.97	RTD 20	86.73
RTD 9	88.75	RTD 21	86.73
RTD 10	90.24	RTD 22	86.79
RTD 11	90.44	RTD 23	86.01
RTD 12	90	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1476 IN F  
= 547.858 IN R

PRESS 1 64.465

PRESS 2 64.465

THE AVE PRESSURE IS = 64.465 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.3484
DEWPT 2	80.1821	DEWPT 7	79.5703
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.0764	DEWPT 10	80.6124
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.5007  
THE PWV IS = .514977 PSIA

THE MASS WEIGHT IS = 92941.796875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 930

DATE : 9/25/85

RTD 1	89.6	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	92.03	RTD 15	88.75
RTD 4	90.52	RTD 16	89.04
RTD 5	90.2	RTD 17	89.24
RTD 6	90.92	RTD 18	87.69
RTD 7	89.49	RTD 19	86.23
RTD 8	88.83	RTD 20	86.69
RTD 9	88.75	RTD 21	86.69
RTD 10	90.24	RTD 22	86.79
RTD 11	90.44	RTD 23	86.01
RTD 12	90.04	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1447 IN F  
= 547.835 IN R

PRESS 1 64.462

PRESS 2 64.462

THE AVE PRESSURE IS = 64.462 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.7384	DEWPT 6	78.8979
DEWPT 2	79.7384	DEWPT 7	80.2292
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	80.8478	DEWPT 10	81.5355
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6999  
THE PWV IS = .518332 PSIA

THE MASS WEIGHT IS = 92933.03125 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 945

DATE : 9/25/85

RTD 1	89.6	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	91.87	RTD 15	88.75
RTD 4	90.48	RTD 16	89
RTD 5	90.28	RTD 17	89.24
RTD 6	90.84	RTD 18	87.69
RTD 7	89.49	RTD 19	86.23
RTD 8	88.93	RTD 20	86.73
RTD 9	88.75	RTD 21	86.65
RTD 10	90.16	RTD 22	86.79
RTD 11	90.44	RTD 23	86.05
RTD 12	90	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1392 IN F  
= 547.829 IN R

PRESS 1 64.455

PRESS 2 64.455

THE AVE PRESSURE IS = 64.455 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	79.5703
DEWPT 2	79.7384	DEWPT 7	80.2292
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	81.3501	DEWPT 10	81.5355
DEWPT 5	80.6595		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.744  
THE PWV IS = .519077 PSIA

THE MASS WEIGHT IS = 92922.71875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1000

DATE : 9/25/85

RTD 1	89.56	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	92.03	RTD 15	88.75
RTD 4	90.48	RTD 16	89.04
RTD 5	90.2	RTD 17	89.24
RTD 6	90.84	RTD 18	87.69
RTD 7	89.49	RTD 19	86.23
RTD 8	88.88	RTD 20	86.73
RTD 9	88.75	RTD 21	86.69
RTD 10	90.12	RTD 22	86.79
RTD 11	90.44	RTD 23	86.01
RTD 12	90	RTD 24	86.58

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.138 IN F  
= 547.828 IN R

PRESS 1 64.45

PRESS 2 64.45

THE AVE PRESSURE IS = 64.45 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.7384	DEWPT 6	78.8979
DEWPT 2	79.7384	DEWPT 7	79.7922
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.3501	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.5465  
THE PWV IS = .515747 PSIA

THE MASS WEIGHT IS = 92920.484375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1015

DATE : 9/25/85

RTD 1	89.6	RTD 13	89.8
RTD 2	89.19	RTD 14	89.21
RTD 3	91.91	RTD 15	88.75
RTD 4	90.48	RTD 16	89.04
RTD 5	90.2	RTD 17	89.24
RTD 6	90.84	RTD 18	87.69
RTD 7	89.45	RTD 19	86.23
RTD 8	88.88	RTD 20	86.73
RTD 9	88.75	RTD 21	86.69
RTD 10	90.16	RTD 22	86.79
RTD 11	90.44	RTD 23	86.1
RTD 12	90	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1467 IN F  
= 547.837 IN R

PRESS 1 64.445

PRESS 2 64.445

THE AVE PRESSURE IS = 64.445 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.066	DEWPT 6	79.1198
DEWPT 2	79.7384	DEWPT 7	79.7922
DEWPT 3	81.5973	DEWPT 9	82.5677
DEWPT 4	82.1598	DEWPT 10	81.5355
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.7052  
THE PWV IS = .518421 PSIA

THE MASS WEIGHT IS = 92907.8671875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1030

DATE : 9/25/85

RTD 1	89.64	RTD 13	89.76
RTD 2	89.24	RTD 14	89.21
RTD 3	92.03	RTD 15	88.75
RTD 4	90.48	RTD 16	89.08
RTD 5	90.28	RTD 17	89.24
RTD 6	90.84	RTD 18	87.73
RTD 7	89.49	RTD 19	86.23
RTD 8	88.84	RTD 20	86.73
RTD 9	88.75	RTD 21	86.69
RTD 10	90.24	RTD 22	86.79
RTD 11	90.44	RTD 23	86.1
RTD 12	90	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1561 IN F  
= 547.846 IN R

PRESS 1 64.44

PRESS 2 64.44

THE AVE PRESSURE IS = 64.44 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.6223	DEWPT 6	79.1198
DEWPT 2	79.7384	DEWPT 7	79.5703
DEWPT 3	81.5973	DEWPT 9	82.3638
DEWPT 4	80.8478	DEWPT 10	81.3316
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.4864  
THE PWV IS = .514737 PSIA

THE MASS WEIGHT IS = 92904.3671875 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1045

DATE : 9/25/85

RTD 1	89.64	RTD 13	89.8
RTD 2	89.28	RTD 14	89.21
RTD 3	91.87	RTD 15	88.75
RTD 4	90.48	RTD 16	89.04
RTD 5	90.24	RTD 17	89.24
RTD 6	90.84	RTD 18	87.73
RTD 7	89.49	RTD 19	86.23
RTD 8	88.88	RTD 20	86.73
RTD 9	88.75	RTD 21	86.73
RTD 10	90.2	RTD 22	86.79
RTD 11	90.44	RTD 23	86.01
RTD 12	90	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1497 IN F  
= 547.84 IN R

PRESS 1 64.437

PRESS 2 64.437

THE AVE PRESSURE IS = 64.437 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	78.1718	DEWPT 6	79.1198
DEWPT 2	79.7384	DEWPT 7	80.0073
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	80.6124
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.499  
THE PWV IS = .514949 PSIA

THE MASS WEIGHT IS = 92900.7734375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1100

DATE : 9/25/85

RTD 1	89.64	RTD 13	89.8
RTD 2	89.32	RTD 14	89.21
RTD 3	91.91	RTD 15	88.75
RTD 4	90.52	RTD 16	89.04
RTD 5	90.2	RTD 17	89.24
RTD 6	90.84	RTD 18	87.77
RTD 7	89.49	RTD 19	86.23
RTD 8	88.93	RTD 20	86.73
RTD 9	88.75	RTD 21	86.65
RTD 10	90.24	RTD 22	86.79
RTD 11	90.44	RTD 23	85.97
RTD 12	90	RTD 24	86.58

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1437 IN F  
= 547.834 IN R

PRESS 1 64.433 PRESS 2 64.433

THE AVE PRESSURE IS = 64.433 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	78.8979
DEWPT 2	79.7384	DEWPT 7	80.0073
DEWPT 3	81.3934	DEWPT 9	82.3638
DEWPT 4	81.0764	DEWPT 10	81.3316
DEWPT 5	80.6595		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.4767  
THE PWV IS = .514574 PSIA

THE MASS WEIGHT IS = 92896.5234375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1115

DATE : 9/25/85

RTD 1	89.68	RTD 13	89.8
RTD 2	89.32	RTD 14	89.25
RTD 3	91.91	RTD 15	88.75
RTD 4	90.52	RTD 16	89.12
RTD 5	90.28	RTD 17	89.24
RTD 6	90.34	RTD 18	87.85
RTD 7	89.49	RTD 19	86.23
RTD 8	88.93	RTD 20	86.69
RTD 9	88.79	RTD 21	86.65
RTD 10	90.28	RTD 22	86.79
RTD 11	90.44	RTD 23	86.01
RTD 12	90.04	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1631 IN F  
= 547.853 IN R

PRESS 1 64.431

PRESS 2 64.431

THE AVE PRESSURE IS = 64.431 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.9603	DEWPT 6	79.1198
DEWPT 2	79.7384	DEWPT 7	80.2292
DEWPT 3	81.5973	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	81.5355
DEWPT 5	81.11		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6912  
THE PWV IS = .518185 PSIA

THE MASS WEIGHT IS = 92885.0703125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1130

DATE : 9/25/85

RTD 1	89.76	RTD 13	89.84
RTD 2	89.36	RTD 14	89.25
RTD 3	91.91	RTD 15	88.79
RTD 4	90.52	RTD 16	89.16
RTD 5	90.28	RTD 17	89.24
RTD 6	90.88	RTD 18	87.89
RTD 7	89.53	RTD 19	86.23
RTD 8	88.97	RTD 20	86.69
RTD 9	88.79	RTD 21	86.65
RTD 10	90.28	RTD 22	86.79
RTD 11	90.44	RTD 23	85.97
RTD 12	90	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.1716 IN F  
= 547.862 IN R

PRESS 1 64.428

PRESS 2 64.428

THE AVE PRESSURE IS = 64.428 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.5098	DEWPT 6	79.5703
DEWPT 2	79.7384	DEWPT 7	79.5703
DEWPT 3	81.9991	DEWPT 9	82.3638
DEWPT 4	81.962	DEWPT 10	80.6124
DEWPT 5	81.3748		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6169  
THE PWV IS = .516933 PSIA

THE MASS WEIGHT IS = 92881.0859375 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1145

DATE : 9/25/85

RTD 1	89.8	RTD 13	89.84
RTD 2	89.36	RTD 14	89.29
RTD 3	92.11	RTD 15	88.79
RTD 4	90.52	RTD 16	89.16
RTD 5	90.28	RTD 17	89.32
RTD 6	90.92	RTD 18	87.93
RTD 7	89.53	RTD 19	86.23
RTD 8	89.01	RTD 20	86.73
RTD 9	88.88	RTD 21	86.65
RTD 10	90.28	RTD 22	86.79
RTD 11	90.48	RTD 23	86.05
RTD 12	90.04	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.199 IN F  
= 547.889 IN R

PRESS 1 64.426

PRESS 2 64.426

THE AVE PRESSURE IS = 64.426 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.066	DEWPT 6	79.3484
DEWPT 2	79.7384	DEWPT 7	80.2292
DEWPT 3	82.2093	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	80.3906
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6927  
THE PWV IS = .518209 PSIA

THE MASS WEIGHT IS = 92871.703125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1200

DATE : 9/25/85

RTD 1	89.8	RTD 13	89.88
RTD 2	89.4	RTD 14	89.29
RTD 3	91.95	RTD 15	88.79
RTD 4	90.6	RTD 16	89.2
RTD 5	90.28	RTD 17	89.32
RTD 6	90.96	RTD 18	87.93
RTD 7	89.53	RTD 19	86.23
RTD 8	89.01	RTD 20	86.73
RTD 9	88.88	RTD 21	86.65
RTD 10	90.28	RTD 22	86.79
RTD 11	90.48	RTD 23	86.01
RTD 12	90.08	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2023 IN F  
= 547.892 IN R

PRESS 1 64.422

PRESS 2 64.422

THE AVE PRESSURE IS = 64.422 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	81.4119
DEWPT 2	80.1821	DEWPT 7	80.0073
DEWPT 3	82.2093	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	80.8343
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.2185  
THE PWV IS = .527156 PSIA

THE MASS WEIGHT IS = 92852.328125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1215

DATE : 9/25/85

RTD 1	89.84	RTD 13	89.96
RTD 2	89.48	RTD 14	89.37
RTD 3	91.95	RTD 15	88.88
RTD 4	90.6	RTD 16	89.2
RTD 5	90.32	RTD 17	89.32
RTD 6	90.96	RTD 18	88.05
RTD 7	89.53	RTD 19	86.23
RTD 8	89.01	RTD 20	86.73
RTD 9	88.96	RTD 21	86.65
RTD 10	90.28	RTD 22	86.79
RTD 11	90.56	RTD 23	86.01
RTD 12	90.16	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2325 IN F  
= 547.922 IN R

PRESS 1 64.42

PRESS 2 64.42

THE AVE PRESSURE IS = 64.42 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.2879	DEWPT 6	79.3484
DEWPT 2	79.5098	DEWPT 7	80.2292
DEWPT 3	82.2093	DEWPT 9	82.3638
DEWPT 4	81.7581	DEWPT 10	81.0495
DEWPT 5	81.11		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.6529  
THE PWV IS = .517539 PSIA

THE MASS WEIGHT IS = 92858.2734375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1230

DATE : 9/25/85

RTD 1	89.96	RTD 13	90
RTD 2	89.52	RTD 14	89.41
RTD 3	91.91	RTD 15	88.88
RTD 4	90.64	RTD 16	89.28
RTD 5	90.36	RTD 17	89.36
RTD 6	90.96	RTD 18	88.13
RTD 7	89.65	RTD 19	86.23
RTD 8	89.05	RTD 20	86.73
RTD 9	89	RTD 21	86.69
RTD 10	90.4	RTD 22	86.79
RTD 11	90.56	RTD 23	85.97
RTD 12	90.16	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2573 IN F  
= 547.947 IN R

PRESS 1 64.42

PRESS 2 64.42

THE AVE PRESSURE IS = 64.42 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	79.5703
DEWPT 2	79.9603	DEWPT 7	80.0073
DEWPT 3	81.5973	DEWPT 9	82.3638
DEWPT 4	81.962	DEWPT 10	80.6124
DEWPT 5	82.3947		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8622  
THE PWV IS = .521079 PSIA

THE MASS WEIGHT IS = 92848.9140625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1245

DATE : 9/25/85

RTD 1	90	RTD 13	90.04
RTD 2	89.64	RTD 14	89.45
RTD 3	92.07	RTD 15	88.96
RTD 4	90.72	RTD 16	89.36
RTD 5	90.44	RTD 17	89.4
RTD 6	90.96	RTD 18	88.26
RTD 7	89.69	RTD 19	86.23
RTD 8	89.13	RTD 20	86.73
RTD 9	89.08	RTD 21	86.69
RTD 10	90.4	RTD 22	86.79
RTD 11	90.6	RTD 23	86.01
RTD 12	90.24	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.2998 IN F  
= 547.99 IN R

PRESS 1 64.419

PRESS 2 64.419

THE AVE PRESSURE IS = 64.419 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.6259	DEWPT 6	80.014
DEWPT 2	80.1821	DEWPT 7	79.5703
DEWPT 3	81.5973	DEWPT 9	82.3638
DEWPT 4	82.37	DEWPT 10	81.0495
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9001  
THE PWV IS = .521722 PSIA

THE MASS WEIGHT IS = 92839.3359375 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1300

DATE : 9/25/85

RTD 1	90.04	RTD 13	90.12
RTD 2	89.68	RTD 14	89.53
RTD 3	91.95	RTD 15	89.04
RTD 4	90.72	RTD 16	89.44
RTD 5	90.44	RTD 17	89.44
RTD 6	91.08	RTD 18	88.3
RTD 7	89.73	RTD 19	86.19
RTD 8	89.17	RTD 20	86.69
RTD 9	89.12	RTD 21	86.73
RTD 10	90.4	RTD 22	86.79
RTD 11	90.6	RTD 23	86.01
RTD 12	90.28	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3232 IN F  
= 548.013 IN R

PRESS 1 64.418

PRESS 2 64.418

THE AVE PRESSURE IS = 64.418 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.1821	DEWPT 6	80.2359
DEWPT 2	80.404	DEWPT 7	79.3484
DEWPT 3	81.9991	DEWPT 9	82.3638
DEWPT 4	82.37	DEWPT 10	80.6124
DEWPT 5	82.1907		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9538  
THE PWV IS = .522636 PSIA

THE MASS WEIGHT IS = 92832.578125 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILPT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1315

DATE : 9/25/85

RTD 1	90.12	RTD 13	90.16
RTD 2	89.68	RTD 14	89.57
RTD 3	92.11	RTD 15	89.04
RTD 4	90.76	RTD 16	89.44
RTD 5	90.48	RTD 17	89.44
RTD 6	91.08	RTD 18	88.34
RTD 7	89.77	RTD 19	86.23
RTD 8	89.22	RTD 20	86.69
RTD 9	89.2	RTD 21	86.65
RTD 10	90.4	RTD 22	86.79
RTD 11	90.64	RTD 23	86.01
RTD 12	90.28	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3359 IN F  
= 548.026 IN R

PRESS 1 64.413

PRESS 2 64.415

THE AVE PRESSURE IS = 64.415 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.5098	DEWPT 6	80.2359
DEWPT 2	80.1821	DEWPT 7	80.4511
DEWPT 3	82.4132	DEWPT 9	82.3638
DEWPT 4	82.5739	DEWPT 10	81.0495
DEWPT 5	81.5788		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 81.0593  
THE PWV IS = .524434 PSIA

THE MASS WEIGHT IS = 92823.4765625 LBM

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1330

DATE : 9/25/85

RTD 1	90.16	RTD 13	90.16
RTD 2	89.72	RTD 14	89.57
RTD 3	92.11	RTD 15	89.08
RTD 4	90.76	RTD 16	89.48
RTD 5	90.48	RTD 17	89.52
RTD 6	91.08	RTD 18	88.34
RTD 7	89.81	RTD 19	86.23
RTD 8	89.22	RTD 20	86.69
RTD 9	89.2	RTD 21	86.69
RTD 10	90.44	RTD 22	86.75
RTD 11	90.72	RTD 23	86.01
RTD 12	90.28	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 88.3497 IN F  
= 548.04 IN R

PRESS 1 64.411

PRESS 2 64.411

THE AVE PRESSURE IS = 64.411 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	79.7384	DEWPT 6	79.5703
DEWPT 2	79.7384	DEWPT 7	79.3484
DEWPT 3	82.4132	DEWPT 9	82.3638
DEWPT 4	82.1598	DEWPT 10	81.3316
DEWPT 5	82.1907		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.8487  
THE PWV IS = .52085 PSIA

THE MASS WEIGHT IS = 92820.5078125 LBM



BRUNSWICK STEAM ELECTRIC PLANT UNIT 1  
1985 ILRT  
SUMMARY OF LEAK RATE DATA

\*\*\* VERIFICATION TEST \*\*\*

READINGS TAKEN AT TIME PERIOD : 1345

DATE : 9/25/85

RTD 1	90.16	RTD 13	90.2
RTD 2	89.8	RTD 14	89.61
RTD 3	92.07	RTD 15	89.08
RTD 4	90.76	RTD 16	89.44
RTD 5	90.56	RTD 17	89.52
RTD 6	91.12	RTD 18	88.38
RTD 7	89.85	RTD 19	86.23
RTD 8	89.26	RTD 20	86.69
RTD 9	89.2	RTD 21	86.65
RTD 10	90.48	RTD 22	86.79
RTD 11	90.72	RTD 23	85.97
RTD 12	90.32	RTD 24	86.62

THE AVE RTD WITH WEIGHTING FACTORS IS = 98.357 IN F  
= 548.047 IN R

PRESS 1 64.407

PRESS 2 64.407

THE AVE PRESSURE IS = 64.407 PSIA

DEWCELLS WERE CONVERTED TO DEWPOINT

DEWPT 1	80.404	DEWPT 6	79.7922
DEWPT 2	80.1821	DEWPT 7	80.2292
DEWPT 3	82.4132	DEWPT 9	82.3638
DEWPT 4	82.1598	DEWPT 10	80.6124
DEWPT 5	81.9929		

THE AVE DEWPOINT WITH WEIGHTING FACTORS IS = 80.9497  
THE PWV IS = .522566 PSIA

THE MASS WEIGHT IS = 92810.96875 LBM

APPENDIX F  
AS FOUND ANALYSIS

Pen	Valves	TYPE B ANALYSIS			MINIMUM PATH ANALYSIS			NOTES
		As Found	As Left	Pen Leakage	As Found	As Left	Savings	
100A	ELECTRICAL	0	0		0	0	0	
100B	ELECTRICAL	0	0		0	0	0	
100C	ELECTRICAL	0	0		0	0	0	
103A	ELECTRICAL	0	0		0	0	0	
100D	ELECTRICAL	0	0		0	0	0	
104D	ELECTRICAL	0	0		0	0	0	
102A	ELECTRICAL	0	0		0	0	0	
104B	ELECTRICAL	0	0		0	0	0	
102B	ELECTRICAL	0	0		0	0	0	
101A	ELECTRICAL	0	0		0	0	0	
101C	ELECTRICAL	0	0		0	0	0	
105D	ELECTRICAL	0	0		0	0	0	
105E	ELECTRICAL	0	0		0	0	0	
102C	ELECTRICAL	0	0		0	0	0	
104C	ELECTRICAL	0	0		0	0	0	
105H	ELECTRICAL	0	0		0	0	0	
105G	ELECTRICAL	0	0		0	0	0	
102E	ELECTRICAL	0	0		0	0	0	
104E	ELECTRICAL	0	0		0	0	0	
100F	ELECTRICAL	0	0		0	0	0	
100E	ELECTRICAL	0	0		0	0	0	
100G	ELECTRICAL	0	0		0	0	0	
100H	ELECTRICAL	0	0		0	0	0	
102F	ELECTRICAL	0	0		0	0	0	
104F	ELECTRICAL	0	0		0	0	0	
103B	ELECTRICAL	0	0		0	0	0	
104G	ELECTRICAL	0	0		0	0	0	
102H	ELECTRICAL	0	0		0	0	0	

Pen	Valves	TYPE B ANALYSIS			MINIMUM PATH ANALYSIS			NOTES
		As Found	As Left	Pen Leakage	As Found	As Left	Savings	
105J	ELECTRICAL	0	0		0	0	0	
105K	ELECTRICAL	0	0		0	0	0	
101F	ELECTRICAL	0	0		0	0	0	
101D	ELECTRICAL	0	0		0	0	0	
105C	ELECTRICAL	0	0		0	0	0	
105B	ELECTRICAL	0	0		0	0	0	
232B	ELECTRICAL	0	0		0	0	0	
232C	ELECTRICAL	0	0		0	0	0	
232A	ELECTRICAL	0	0		0	0	0	
232D	ELECTRICAL	0	0		0	0	0	
1	EQPT HATCH	2.919	2.919		2.919	2.919	0	
2	LINER SEAL	0	0		0	0	0	
3	DW HD BLANK	0	0		0	0	0	
4	DW HD HATCH	0	0		0	0	0	
6	CRD HATCH	0	0		0	0	0	
200A	S. TORUS	0	0		0	0	0	
200B	N. TORUS	0	0		0	0	0	
-	HEAD SEAL	.265	.265		.265	.265	0	
3B	V49-O RING	0	0		0	0	0	
205	V5-O RING	0	0		0	0	0	
25	V6-O RING	0	0		0	0	0	
220	V7-O RING	0	0		0	0	0	
26	V9-O RING	0	0		0	0	0	
205	V16-O RING	0	0		0	0	0	
205	V17-O RING	0	0		0	0	0	

PEN	VALVES	TYPE C ANALYSIS			MINIMUM PATH ANALYSIS			NOTES
		AS FOUND	AS LEFT	PEN LEAKAGE	AS FOUND	AS LEFT	SAVINGS	
3B	CAC-49							
	CAC-50	.193	0		.0965	0	.0965	Tested in parallel
7A	B21-F022A							
	B21-F028A	20.9	0					See Note 7
7B	B21-F022B							
	B21-F028B	42.17	.607					See Note 7
7C	B21-F022C							
	B21-F028C	4.7	4.7					See Note 7
7D	B21-F022D							
	B21-F028D	15.75	3.397					See Note 7
8	B21-F016							
	B21-F019	WNP	0		0	0	0	Tested in parallel
	B21-F010A	WNP	1.98					See Note (a)
9A	B21-F032A							
	E41-F006	12.378	0		12.378	0	12.378	
	B21-F010B	WNP	1.09					
	B21-F032B							
9B	E51-F088	0	0		0	1.09	0	
	E51-F013							
	G31-F042	0	0					
10	E51-F007							
	E51-F008	0	0		0	0	0	Tested in parallel
11	E41-F002							
	E41-F003	19.751	1.727		9.876	.864	9.012	Tested in parallel
12	E11-F008							Tested in parallel
	E11-F009	63.716	0		0	0	0	See Note (b)
13A	E11-F015A							
	E11-F017A	0	0		0	0	0	Tested in parallel
13B	E11-F015B							
	E11-F017B	0	0		0	0	0	Tested in parallel

PEN	VALVES	TYPE C ANALYSIS			MINIMUM PATH ANALYSIS			NOTES
		AS FOUND	AS LEFT	PEN LEAKAGE	AS FOUND	AS LEFT	SAVINGS	
14	G31-F001							
	G31-F004	0	0		0	0	0	Tested in parallel
16A	E21-F004A							
	E21-F005A	0	0		0	0	0	Tested in parallel
16B	E21-F004B							
	E21-F005B	0	0		0	0	0	Tested in parallel
17	E11-F022							Tested in parallel
	E11-F023	WNP	0		0	0	0	See Note (c)
18	G16-F003							
	G16-F004	1.393	1.393		.697	.697	0	Tested in parallel
19	G16-F019							
	G16-F020	0	0		0	0	0	Tested in parallel
23	RCC-V52							
& 24	RCC-V28	0	0		0	0	0	Tested in parallel
	CAC-V6, V15							
	V-4,V-5	WNP	3.06		1.53	1.53	0	Tested in parallel
	CAC-V17							
	X20B	WNP	.346		.173	.173	0	See Note (d)
25	CAC-V16							
&	X20A	2.468	1.286		1.234	.643	.591	
205	160,162,170	.292	1.252		NA	NA	NA	New Valves
	171,163,161	0	2.624		NA	NA	NA	New Valves
	55,56	WNP	1.742		NA	NA	NA	
	CAC-V9							Tested in parallel
	CAC-V10	2.722	.262		1.361	.131	1.23	See Note (e)
26	CAC-V23		0					
	CAC-V172		0					
35A	TIP-V1	0	0		0	0	0	

## TYPE C ANALYSIS

## MINIMUM PATH ANALYSIS

PEN	VALVES	AS		PEN		AS		AS		NOTES
		FOUND	LEFT	LEAKAGE	FOUND	LEFT	SAVINGS	LEFT	SAVINGS	
35B	TIP-V2	0	0		0	0	0	0	0	
35C	TIP-V3	0	0		0	0	0	0	0	
35D	TIP-V4	0	0		0	0	0	0	0	
35E	TIP-N <sub>2</sub> ChK	0	0		0	0	0	0	0	
39A	E11-F016A									
	E11-F021A	.821	0		.411	0	.411			Tested in parallel
39B	E11-F016B									
	E11-F021B	12.45	2.587		6.225	1.294	4.931			Tested in parallel
42	C41-F006	0	0							
	C41-F007	18.976	1.737		0	0	0			
	CAC-SV-1200B	1.26	0							
49B	CAC-SV-1261	8.58	0		1.26	0	1.26			
51A	E11-SV-F043C	3	0		NA	NA	NA			See Note 3
51B	E11-SV-F043A	1.563	.932		NA	NA	NA			See Note 3
51C	E11-SV-F037C	1.166	1.248		NA	NA	NA			See Note 3
51D	E11-SV-F037A	1.166	.932		NA	NA	NA			See Note 3
52	IA-SV-5253	0	0		0	0	0			New Valve
	CAC-SV-1211E	0	0							
54E	CAC-SV-3439	0	0		0	0	0			
	CAC-SV-1211F	0	.661							
54F	CAC-SV-1261	0	.464		0	.464	0			
55	IA-SV-5262	0	.196		0	.196	0			New Valve
	B32-F019									
56E	B32-F020	WNP	1.636		.818	.818	0			Tested in parallel See Note (f)
	CAC-SV-1209A	1.054	0							
57A	CAC-SV-4409-4	.262	0		NA	NA	NA			See Note 4
	CAC-SV-1209B	0	0							
57B	CAC-SV-4409-3	1.058	0		NA	NA	NA			See Note 4
57D	CAC-SV-1209D	1.163	0		NA	NA	NA			See Note 3
	CAC-SV-1205E	0	0							
60E	CAC-SV-4409-2	8.767	0		NA	NA	NA			See Note 4
	B32-V22	WNP	3.478							
62A	B32-V24	WNP	2.634		3.478	2.634	.844			See Note (g)

PEN	VALVES	TYPE C ANALYSIS			MINIMUM PATH ANALYSIS			NOTES
		AS FOUND	AS LEFT	PEN LEAKAGE	AS FOUND	AS LEFT	SAVINGS	
68A	E11-SV-F037D	.094	0		NA	NA	NA	See Note 3
68B	E11-SV-F043B	2.545	0		NA	NA	NA	See Note 3
68C	E11-SV-F043D	1.759	0		NA	NA	NA	See Note 3
68D	E11-SV-F037B	2.045	2.576		NA	NA	NA	See Note 3
71	IA-SV-5261	0	0		0	0	0	New Valve
	CAC-SV-1227A	0	.76					
73A	CAC-SV-4410-4	.818	0		NA	NA	NA	See Note 4
	CAC-SV-1227B	0	1.268					
73B	CAC-SV-4410-3	0	0		NA	NA	NA	See Note 4
	CAC-SV-1227C	0	0					
73C	CAC-SV-4410-2	.156	0		NA	NA	NA	See Note 4
	CAC-SV-1227E	0	.912					
73E	CAC-SV-1260	0	.608		0	.608	0	
	CAC-SV-1225B	2	.266					
76B	CAC-SV-3440	2.524	0		2	0	2	
76C	CAC-SV-1225C	0	1.122		NA	NA	NA	See Note 3
77B	RXS-SV-1222B							
77C	RXS-SV-1222C	.095	0		.095	0	.095	
	B32-V30	WNP	0					
78A	L32-V32	8.691	0		8.691	0	8.691	See Note (g)
83	IA-SV-5251		0				0	New Valve
206	CAC-SV-1218A	0	0					
A/A	CAC-SV-4410-1	.979	0		NA	NA	NA	See Note 4
206	CAC-SV-1218C	0	1.651		NA	NA	NA	See Note 3
A/C								
206	E41-SV-1218D	.263	0		NA	NA	NA	See Note 3
A/D								
206	CAC-SV-1219B	.207	0		NA	NA	NA	See Note 3
B/B								
206	CAC-SV-1219C	61.294	0		NA	NA	NA	See Note 3
B/C								



PEN	VALVES	TYPE C ANALYSIS			MINIMUM PATH ANALYSIS			NOTES
		AS FOUND	AS LEFT	PEN LEAKAGE	AS FOUND	AS LEFT	SAVINGS	
206 B/D	E41-SV-1219D	0	0		NA	NA	NA	See Note 3
206 C/D	E41-SV-1220D		0		NA	NA	NA	See Note 3
206 D/D	E41-SV-1221D		0		NA	NA	NA	Tested with Pen 206A(D) See Note 3
209 A/B	RXS-SV-4186	0	0					Tested with Pen 206B(D)
209 A/D	RXS-SV-4187	.078	.078		0	0	0	
	RXS-SV-4188	0	0					
	RXS-SV-4189	0	0		0	0	0	
209 B/A	CAC-SV-1213A	3.916						
	CAC-SV-4409-1	0			NA	NA	NA	See Note 4
	Ell-F007A	.234						See Note 5
	Ell-F011A	0						
210A	Ell-F024A	Tested with Pen. 211A			NA	NA	NA	
	Ell-F025A	0						
	Ell-F007B	0						See Note 5
	Ell-F011B	3.649						
	Ell-F024B	Tested with Pen. 211B						
	Ell-F025B	0						
210B	Ell-F029	0			NA	NA	NA	
	Ell-F097	0						
	E41-F012	0						
	E51-F019	0						
	Ell-F027A							
211A	Ell-F028A	0	0		0	0	0	Tested in parallel
	Ell-F027B							See Note (h)
211B	Ell-F028B	WNP	0		0	0	0	Tested in parallel
	E51-F001							
212	E51-F040	WNP	5.313		2.6565	2.6565	0	See Note (i)

PEN	VALVES	TYPE C ANALYSIS				MINIMUM PATH ANALYSIS				NOTES
		AS		PEN	AS		SAVINGS			
		FOUND	LEFT		FOUND	LEFT				
214	E11-F055A	0								See Note 5
	E11-F055B	0								
	E11-F103A	0								
	E11-F103B	0			NA	NA	NA			
	E11-V20	0								
	E11-V21	0								
	E41-F049,F021	WNP	0							
216	E51-F062									Tested in parallel
	E51-F066	2.635	2.635		1.3175	1.3175	0			
	E41-F075									
218	E41-F079	.15	.15		.0075	.0075	0			Tested in parallel
	CAC-V22									
220	CAC-V7	.784	0		.392	0	.392			Tested in parallel
	CAC-V8									
	E51-F002									
221	E51-F028	WNP	1.704		.852	.852	0		See Note (k)	
222	E41-F022									
	E41-F040	0	0		0	0	0			
223A	E21-F015A	12.522	3.879		NA	NA	NA			See Note 5
	E21-F031A	0								
223B	E21-F015B	.975	.975		NA	NA	NA			See Note 5
	E21-F031B	WNP	0							
224	E51-F031	0	0		0	0	0			
225A	E11-F020A	WNP	4.50		NA	NA	NA			See Note 6
225B	E11-F020B	WNP	3.838		NA	NA	NA			See Note 6
226	E41-F042	0	0		0	0	0			
227A	E21-F001A	WNP	2.587		NA	NA	NA			See Note 6
227B	E21-F001B	WNP	0		NA	NA	NA			See Note 6
TD-V1										
231	TD-V22	0	0		0	0	0			See Note 4
244B	CAC-SV-1231B	1.727	0							
	CAC-SV-4541	WNP	0		NA	NA	NA			
245E	CAC-SV-1215E	.599	0							See Note 4
	CAC-SV-4540	WNP	1.526		NA	NA	NA			

## NOTES

### General

1. All valves are given in scfh.
2. The MPL assignment to penetrations that have valves tested in parallel is 1/2 the Type C value unless otherwise noted.
3. Valves do not receive containment isolation signal. These lines are required operable during normal operation, shutdown and accident conditions to monitor critical parameters. Piping and instruments tested during Type A test.
4.  $H_2-O_2$  monitors are Seismic I designed and used post-accident to monitor containment atmosphere. Piping and monitors are tested during Type A test.
5. These lines are part of a closed, seismic qualified loop that discharge back to containment below the minimum required torus water level. These penetrations do not constitute a potential atmospheric leak path.
6. These lines, which take suction below the min. torus water level, provide emergency cooling water to qualified closed systems which are built to Seismic I, Safety Class II standards. No potential atmospheric leak path exists.
7. Leakage from Main Steam Isolation Valves (MSIV) is considered a separate source term from containment leakage in the accident analyses. Technical specification acceptance criteria for MSIV's is 11.5 scfh per valve which equates to 92 scfh for 8 MSIV's. The as found for all 8 MSIV's is 83.5 scfh.

## NOTES

### Specific

- a. Maintenance performed to only B21-F019.
- b. Maintenance performed to only E11-F009.
- c. No maintenance performed, cycled E11-F023.
- d. CAC-V6, V15, V4, V5, V55, and V56 tested together prior to plant mod. Only one valve in this group required maintenance. CAC-V17 had disc replaced, no maintenance performed to CAC-X20B.

- e. CAC-V23 was tested with CAC-V9 and V10 prior to plant mod. CAC-V172 new valve.
- f. Maintenance performed to only B32-F019.
- g. B32-V22 was originally tested with B32-V30 which is part of penetration 78A. Maintenance was performed to B32-V30 only. Retest of B32-V22 resulted in 3.478 scfm which is also the As Found value.
- h. Valves E11-F027B and E11-F028B are tested with E11-F024B (Pen. 210B). Maintenance was performed to only E11-F024B which discharges back to torus below the minimum required water level.
- i. Maintenance performed to only E51-F001.
- j. Maintenance performed to only E41-F049.
- k. Maintenance performed to only E51-F028.

APPENDIX G

TYPE B AND C LEAKAGE RATE HISTORIES

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE [scfh]	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE [scfh]	DATE
E-1	Pen X100A	0	12-12-82				
		0	10-30-84				
		0	04-17-85				
E-2	Pen X100B	0	12-12-82				
		0	10-30-84				
		0	04-17-85				
E-3	Pen X100C	0	12-12-82				
		0	10-30-84				
		0	04-17-85				
E-4	Pen X100D	0	12-12-82				
		0	10-30-84				
		0	04-17-85				
E-5	Pen X100E	0	12-14-82				
		0	10-31-84				
		0	04-22-85				
E-6	Pen X100F	0	12-14-82				
		0	10-31-84				
		0	04-22-85				
E-7	Pen X100G	0	12-14-82				
		0	10-30-84				
		0	04-22-85				
E-8	Pen X100H	0	12-14-82				
		0	10-31-84				
		0	04-22-85				

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E-9	Pen X101A	0	12-13-82				
		0	10-31-84				
		0	04-20-85				
E-10	Pen X101C	0	12-13-82				
		0	10-31-84				
		0	04-20-85				
E-11	Pen X101D	0	12-18-82				
		0	10-31-84				
		0	04-31-85				
E-12	Pen X101F	0	12-18-82				
		0	10-31-84				
		0	04-21-85				
E-13	Pen X102A	0	12-13-82				
		0	10-30-84				
		0	04-17-85				
E-14	Pen X102B	0	12-13-82				
		0	10-30-84				
		0	04-17-85				
E-15	Pen X102C	0	12-14-82				
		0	10-30-84				
		0	04-22-85				
E-16	Pen X102E	0	12-14-82				
		0	10-31-84				
		0	04-28-85				

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E-17	Pen X102F	0	12-14-82				
		0	10-30-84				
		0	04-22-85				
E-18	Pen X102H	0	12-18-82				
		0	10-31-84				
		0	04-21-85				
E-19	Pen X103A	0	12-13-82				
		0	10-30-84				
		0	04-17-85				
E-20	Pen X103B	0	12-16-82				
		0.094	10-31-84				
		0	04-22-85				
E-21	Pen X104A	0	12-13-82				
		0	10-30-84				
		0	04-17-85				
E-22	Pen X104B	0	12-13-82				
		0	10-30-84				
		0	04-17-85				
E-23	Pen X104C	0	12-14-82				
		0	10-30-84				
		0	04-22-85				
E-24	Pen X104E	0	12-14-82				
		0	10-31-84				
		0	04-28-85				



ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E-25	Pen X104F	0	12-16-82				
		0	10-31-84				
		0	04-22-85				
E-26	Pen X104G	0	12-18-82				
		0	10-31-84				
		0	04-11-85				
E-27	Pen X105B	0	12-12-82				
		0	10-31-84				
		0	04-17-85				
E-28	Pen X105C	0	12-12-82				
		0	10-30-84				
		0	04-17-85				
E-29	Pen X105D	0	12-14-82				
		0	10-31-84				
		0	04-20-85				
E-30	Pen X105E	0	12-13-82				
		0	10-31-84				
		0	04-20-85				
E-31	Pen X105G	0	12-14-82				
		0	10-31-84				
		0	04-28-85				
E-32	Pen X105H	0	12-14-82				
		0	10-31-84				
		0	04-28-85				

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE [scfh]	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE [scfh]	DATE
E-33	Pen X105J	0	12-18-82				
		0	10-31-84				
		0	04-21-85				
E-34	Pen X105K	0	12-18-82				
		0	10-31-84				
		0	04-21-85				
E-35	Pen X232B	0	12-18-82				
		0	11-01-84				
		0	04-28-85				
E-36	Pen X232C	0	12-18-82				
		0	10-31-84				
		0	04-28-85				
E-37	Pen X232A			PM-81-251 Elec. Pen. newly installed		0	06-28-85
E-38	Pen X232D			PM-81-251 Elec. Pen. newly installed		0	06-28-85
H-1	Equipment Hatch	0	05-11-83				
		2.919	09-18-85				
H-2	Personnel lock to drywell liner seal	0	01-19-83				
		0	11-02-84				
		0	09-15-85				
H-3	Drywell head blank	0.1	05-17-83				
		0	09-05-85				
H-4	Drywell head access hatch	0.1	05-17-83				
		0	09-05-85				

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
H-5	CRD hatch	0	06-29-83				
		0	11-11-83				
			03-08-84				
H-6	Suppression chamber access hatch (South CS Room)	0	07-02-83				
		0	07-23-83				
		0	03-06-84				
		0	11-21-84				
		0	12-04-84				
		0	09-23-85				
H-7	Suppression chamber access hatch (North CS Room)	0	07-04-83				
			09-23-85				
H-8	Drywell to drywell head seal	42.293	05-21-83	1M-83-1666	Removed drywell head and replaced O-ring gaskets	0	05-26-83
		0.265	09-05-85				
M-1	CAC-V49 inboard O-rings	0.637	05-17-83				
		0	04-01-85	PM-80-133	New solenoid valve V49 installed	0	08-11-85
M-2	CAC-V5 inboard O-rings	0	12-31-82				
		0	11-02-84				
		0	04-3-85	PM-84-303	New disc installed	0	09-20-85
M-3	CAC-V6 inboard O-rings	0	12-31-82				
		0	11-04-84				
		0	04-09-85	PM-84-303	New disc installed	0	09-20-85
M-4	CAC-V7 inboard O-rings	0	02-21-83				
		0	04-01-85	PM-84-303	New disc installed	0	09-20-85

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
M-5	CAC-V9 inboard O-rings	0	12-23-82				
		0	04-01-85			0	08-20-85
M-6	CAC-V16 inboard O-rings	0	12-26-82				
		0	11-02-84				
		0	04-03-85	PM-84-361	New disc installed	0	08-15-85
M-7	CAC-V17 inboard O-rings	0	03-14-83				
		0	11-02-84				
		0	04-03-85	PM-80-133	New disc installed	0	08-11-85
B21-1	B21-F010A	0.350	01-13-83				
		1.023	11-05-83				
		WNP	04-25-85		New soft seat installed	1.98	05-16-85
B21-2	B21-F010B	0	01-12-83				
		WNP	11-04-84	1M-84-4666	Soft seat replaced	0	11-09-84
		1.09	05-03-85				
B21-3	B21-F032A, E41-F006	0	03-03-83	1M-82-1553	Repacked valve E41-F006	5.457	03-17-83
		WNP	11-01-84	1M-84-4695	Blued disc, lapped disc, E41-F006		
				1E-84-5341	Disconnected and reconnected actuator for maintenance	13.587	11-10-84
				1M-84-4896	Replaced guides and disc B21-F032A		
				1E-84-5508	Disconnected and reconnected actuator for Mech. Maint.	WNP	11-15-84
				1M-84-4896	Retorqued bonnet bolts; loosened and realigned bonnet	0	11-17-84

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
		12.378	04-25-85	PM-84-381	Moved E41-F006 for line break concerns	0	09-07-85
B21-4	G31-F039	WNP	01-14-83	1M-82-1705	Repacked valve B21-F032B	0.749	03-03-83
		11.70	10-31-84				
		0	05-01-85	PM-83-223	Deleted F013, F039; added E51-V88	2.145	07-26-85
B21-5	B21-F016, F019	4.23	01-12-83	1M-83-163	Valve B21-F016 replaced stem, lapped seat and repacked	2.72	02-28-83
		3.602	10-21-83	1M-83-4211	Replaced packing B21-F019	0	10-23-83
		WNP	04-25-85	1M-84-5451	Rebuilt B21-F019	0	09-07-85
B32-1	B32-V22, V30	4.059	05-17-83				
		WNP	08-14-85	1E-85-3263	Adjusted torque switch V30	3.478	08-20-85
				1M-85-3157	Disassembled, inspected and reassembled V30	0	09-21-85
B32-2	B32-F019, F020	0.2767 0.1859	09-09-82 12-17-82				
		31.685	10-24-83	1E-83-4827 1M-83-4195	Rebuilt B32-F019	11.499	11-01-83
					Stroked B32-F019 to flush seat	0	11-02-83
		55.92	03-03-84	1M-83-5089	Rebuilt B32-F019	3.02	03-04-84
				1E-84-5709	Lapped seats, new disc on stem, installed new diaphragm	0	03-08-84
		1.636	08-29-85				
B32-3	B32-V24	6.04	04-18-83				
		WNP	07-27-85	1M-85-3046	Cut out and replaced valve V24	40.108	09-20-85
				1M-85-3059	Lapped valve seat V24	2.634	09-21-85

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
B32-4	B32-V32	27.46	04-15-83	1M-83-1213	Lapped valve disc V32	6.337	04-28-83
		8.691	07-25-85	1M-85-2717	Cut out and replaced valve V32	0	09-20-85
C41-1	C41-F006	0.356	05-14-83				
		0	06-21-85				
C41-2	C41-F007	0.748	05-13-83				
		18.976	06-20-85	1M-85-2311	Lapped seats F007	1.737	07-25-85
CAC-1	CAC-V47	0	12-31-82				
		0.292	04-04-85	PM-80-133	Replaced V47 with V170, V160, and V162	1.252	09-18-85
CAC-2	CAC-V48	0.550	12-30-82				
		0	04-04-85	PM-80-133	Replaced V48 with V171, V161, and V163	2.624	09-18-85
CAC-3	CAC-V4, V5, V6, V15, V55, V56	WNP	08-12-82	1E-82-2710		0.848	08-16-82
				1E-82-2435	Reset mech. stops and limit switches V-5		
				1E-82-2956	Reset mech. stopped and limit switches V-6	1.824	09-14-82
		3.611	12-31-82	1M-83-569	Rebuilt actuator on CAC-V6	5.546	04-15-83
		WNP	04-04-85	PM-84-303	Replaced CAC-V5 and CAC-V6		
					New test CAC-V4, CAC-V5, CAC-V6, and V15	3.060	09-13-85
				PM-80-133	New test CAC-V55 and CAC-V56 only	1.742	09-17-85
CAC-4	CAC-V7, V8, V22	WNP	08-15-82	1E-82-2932	Set limit switches CAC-V7	WNP	09-06-82
				1M-82-2585	Repack CAC-V7	0	09-06-82
				1M-82-2598	Overhaul CAC-V7	0	09-12-82
		10.11	01-04-83	1M-83-268 1M-83-264	Overhaul CAC-V7	5.457	02-22-83

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
CAC-5	CAC-V9, V10, V23	WNP	11-02-84	1M-84-4704 1E-84-5401	Replaced disc, seat, backup ring, and packing on CAC-V8	0	11-18-84
		0.784	04-01-85	PM-84-361	Install new disc in CAC-V7 and V8	0	09-12-85
		2.348	12-23-82				
		1.959	11-01-84				
		2.722	03-31-85	PM-84-303	V9 and V10 test only	0.262	09-07-85
CAC-6	CAC-X20A, V16			PM-84-303	CAC-V23 now tested separately	0	09-14-85
		WNP	09-02-82	1E-82-3012	Set stops CAC-V16	WNP	09-06-82
				1M-82-2589	Replace seal on X-20A	0	09-07-82
		0.738	12-26-82				
		WNP	11-02-84	1M-84-4710	Adjust packing V16	WNP	11-04-84
CAC-7	CAC-X20B, V17			1M-84-4753	Installed new disc, seat rings, packing V16	0	11-10-84
		2.468	04-09-85	PM-84-361	Installed new disc V16	1.270	08-15-85
		0	09-01-82				
		0	12-26-82				
		0.487	11-02-84				
CAC-8	CAC-V49, V50	WNP	04-08-85	PM-84-361	Installed new disc V17	0.346	08-11-85
		1.821	09-02-82				
		0	05-21-83				
		0.193	03-31-85	PM-80-133	Replace CAC-V49 and V50 with CAC-SV-49 and SV-50	0	08-11-85
CAC-9	CAC-PV-1200B	0	12-16-82				
		1.260	07-29-85	PM-82-287A	Replaced PV-1200B with SV-1200B	0	09-08-85

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
CAC-10	CAC-PV-1261	0	12-16-82				
		8.580	07-29-85	PM-82-287A	Replaced PV-1261 with SV-1261	0	09-08-85
CAC-11	CAC-PV-1227A	0	08-13-82				
		0	12-14-82				
		0	04-17-85	PM-82-287P	Replaced PV-1261 with SV-1261	0.760	08-21-85
CAC-12	CAC-PV-1227B	0	08-13-82				
		0	12-14-82				
		0	04-17-85	PM-82-287P	Replaced PV-1227B with SV-1227B	1.268	08-21-85
CAC-13	CAC-PV-1227C	0	08-13-82				
		0	12-14-82				
		0	06-06-83				
		0	04-17-85	PM-82-287P	Replaced PV-1227C with SV-1227C	12.46	08-21-85
CAC-14	CAC-PV-1227E			PM-82-287P	Flush trash out of seat	0	08-21-85
		0.0608	07-25-82				
		0	09-26-82				
		0	12-15-82				
		0	04-30-85	PM-82-287P	Install new solenoid valve SV-1227E	0.912	08-21-85
CAC-15	CAC-PV-1260	0.0912	07-25-82				
		0	12-15-82				
		0	04-30-85	PM-82-287P	Install new solenoid valve SV-1260	0.608	08-21-85



ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
CAC-16	CAC-PV-1231B	0.6021	08-13-82				
		0	12-14-82				
		1.727	04-18-85	PM-82-287EE	Replaced PV-1231B with SV-1231B	0	08-31-85
CAC-17	CAC-PV-3440	0	07-18-82				
			12-15-82				
		2.524	04-11-85	PM-82-2875	Replaced PV-3440 with SV-3440	0	09-01-85
CAC-18	CAC-PV-1225B	0.352	07-18-82				
		0	12-15-82				
		2.0	04-12-85	PM-82-287S	Replaced PV-1225B with SV-1225B	0.266	09-01-85
CAC-19	CAC-PV-1211F	0	07-26-82				
		0	12-14-82				
		0	04-07-85	PM-82-287D	Replaced PV-1211F with SV-1211F	0.661	09-04-85
CAC-20	CAC-PV-1262	0	07-26-82				
		0	12-14-82				
		0	10-08-84				
		0	04-07-85	PM-82-287D	Replaced PV-1262 with SV-1262	0.464	09-04-85
CAC-21	CAC-PV-1209A	0	08-14-82				
		0	12-13-82				
		0	11-19-84				
		1.054	04-14-85	PM-82-287F	Replaced PV-1209A with SV-1209A	0	09-13-85

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
CAC-22	CAC-PV-1209B	0	08-14-82				
		0	12-13-82				
		0	04-15-85	PM-82-287F	Replaced PV-1209B with SV-1209B	0	09-13-85
CAC-23	CAC-PV-1205E	0	08-14-82				
		0	12-13-82				
		0	04-17-85	PM-82-287I	Replaced PV-1205E with SV-1205E	0	08-31-85
CAC-24	CAC-PV-1215E	0	08-13-82				
		0	12-14-82				
		0	01-26-85				
		0.599	04-11-85	PM-82-287FF	Replaced PV-1215E with SV-1215E	0	09-04-85
CAC-25	CAC-PV-1211E	0	07-18-82				
		0	12-14-82				
		0	04-07-85	PM-82-287D	Replaced PV-1211E with SV-1211E	0	09-04-85
CAC-26	CAC-PV-3439	0	07-18-82				
		0	12-14-82				
		0	04-07-85	PM-82-287D	Replaced PV-3439 with SV-3439	0	09-04-85
CAC-27	CAC-SV-4541	0	12-15-82				
		0	06-02-83				
		WNP	04-18-85	1M-85-1587	Installed new disc and O-rings	0.515	09-18-85
CAC-28	CAC- V-3442	0.0304	07-25-82				
		0	12-15-82				

Deleted

PM-80-032

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
CAC-29	CAC-SV-4540	0	07-18-82				
	CAC-PV-3437	0	12-14-82	PM-80-032	Deleted PV-3437 replaced with SV-4540	2.254	06-10-83
		WNP	04-11-85	1M-85-1511	Rebuilt SV-4540	1.526	09-18-85
CAC-30	CAC-PV-3438	0	07-18-82				
		WNP	12-13-82	1E-82-4314	Rebuilt solenoid and cleaned pilot valve/assembly	0	02-23-83
	Deleted			PM-80-032			
CAC-31	CAC-SV-1263-4	0	07-18-82				
		0	12-13-82	PM-80-032	Replaced SV-1263-4 with SV-4409-4	0	06-06-83
	CAC-SV-4409-4	0.262	04-12-85	PM-85-019	Flush	0	09-16-85
CAC-32	CAC-SV-1263-3	0	07-18-82				
		0	12-13-82	PM-80-032	Replaced SV-1263-3 with SV-4409-32	0	06-06-83
	CAC-SV-4409-3	1.058	04-12-85	PM-85-019	Flush	0	09-16-85
CAC-33	CAC-SV-1263-2	0	07-18-82				
		0	12-14-82	PM-80-032	Replaced SV-1263-2 with SV-4409-2	0	06-23-83
	CAC-SV-4409-2	8.767	04-12-85	PM-85-019	Flush	0	09-16-85
CAC-34	CAC-SV-1263-1	0	07-18-82				
		0	12-14-82	PM-80-032	Replaced SV-1263-1 with SV-4409-1	0	06-02-83
	CAC-SV-4409-1	0	04-17-85	PM-85-019	Flush	0	09-16-85

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
CAC-35	CAC-SV-1259-4	0	07-18-82				
		WNP	12-14-82	PM-80-032	Replaced SV-1259-4 with 4410-4	0	06-06-83
	CAC-SV-4410-4	0.818	04-17-85	PM-85-019	Flush	0	09-16-85
CAC-36	CAC-SV-1259-3	0	07-18-82				
		WNP	12-14-82	PM-80-032	Replaced SV-1259-3 with 4410-3	0	06-06-83
	CAC-SV-4410-3	0	04-17-85	PM-85-019	Flush	0	09-16-85
CAC-37	CAC-SV-1259-2	0	07-18-82				
		WNP	12-14-82	PM-80-032	Replaced SV-1259-2 with SV-4410-2	3.171	06-06-83
	CAC-SV-4410-2	0.156	04-17-85	PM-85-019	Flush	0	09-16-85
CAC-38	CAC-SV-1259-1	0	07-18-82				
		WNP	12-14-82	PM-80-032	Replaced SV-1259-1 with SV-4410-1	0	06-02-83
	CAC-SV-4410-1	0.979	06-07-85	PM-85-019	Flush	0	09-16-85
CAC-39	CAC-PV-1218C	0	07-19-82	PM-82-287W	Replaced PV-1218C with SV-1218C	1.651	08-23-85
		0	12-16-82				
		0	04-26-85				
CAC-40	CAC-PV-1219B	0	07-19-82				
		0	12-20-82				
		0.207	04-24-85	PM-82-287X	Replaced PV-1219B with SV-1219B	0	08-24-85
CAC-41	CAC-PV-1225C	0	07-19-82				
		0	12-18-82				
		0	04-12-85	PM-82-287S	Replaced PV-1225C with SV-1225C	1.122	09-01-85

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
CAC-42	CAC-PV-1209D	0	07-19-82				
		0	12-18-82				
		1.163	04-15-85	PM-82-287F	Replaced PV-1209D with SV-1209D	0	09-09-85
CAC-43	CAC-PV-1220C	0	07-19-82	PM-78-078	Removed and capped		
CAC-44	CAC-PV-1221C	0	07-19-82	PM-78-078	Removed and capped		
CAC-45	CAC-PV-1219C	0	07-19-82				
		0	12-17-82				
		61.294	04-26-85	PM-82-287X	Replaced PV-1219C with SV-1219C	0	08-24-85
CAC-46	CAC-SV-1213A	0	06-10-83				
		3.916	04-17-85	1M-85-1588	Disassembled, cleaned, reassembled	0	09-20-85
CAC-47	CAC-SV-1218A	0	06-10-83				
		0	06-11-85	PM-80-133	Acceptance tested per PM	0	09-15-85
E11-1	E11-F008, F009	0	08-23-82	1M-83-728	Rebuilt valve	5.256	03-10-83
		0	02-23-83				
		63.716	07-13-85	1M-85-0664	Repacked F009	2.799	07-15-85
E11-2	E11-F011A			PM-81-34-322	Replace actuator	0	07-28-85
		0	07-27-82				
		0	03-28-83				
		0	04-26-85				

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E11-3	E11-F011B	5.552	12-30-82				
		2.013	11-21-84				
		3.649	06-29-85				
E11-4	E11-F015A, F017A	1.882	07-27-82	1M-82-2053	Repacked valve F017A	2.16	03-08-83
		0.748	02-01-83				
		0	04-12-85	PM-81-322	Replaced motor and reset torque switch F015A	0	05-16-85
E11-5	E11-F015B, F017B	4.967	08-23-82				
		0	01-24-83				
		1.401	11-20-84				
E11-6	E11-F016A, F021A	0	07-01-85	PM-81-323	Replace motor	0	08-18-85
		0.8242	07-27-82				
		0.253	02-01-83	1M-83-331	Disassembled valve and replaced stem F016A	0	03-26-83
E11-7	E11-F016B, F021B	0.821	04-11-85	PM-81-326	Replaced motor and reset torque switch (F021A)		
				PM-81-324	Replaced motor and reset torque switch (F016A)	0	05-18-85
		2.262	01-20-83	1M-83-274	Repacked valve	0	01-23-83
						0	04-10-83
		8.753	06-30-85			12.450	08-19-85
					Adj packing E11-F016B	2.587	08-19-85

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E11-8	E11-F020A	WNP	07-28-82	N/A	Flushed valve seat with water	12.826	07-29-82
		WNP	02-03-83	1M-83-344	Rebuilt valve	13.598	03-29-83
		2.857	11-19-84				
		WNP	04-06-85			WNP	04-10-85
				1M-85-1492	Lapped disc and blued. Repacked valve	4.60	05-24-85
E11-9	E11-F020B	49.808	01-25-83	1E-83-289	Disassembled valve and replaced stem	1.32	04-14-83
		WNP	06-27-85			14.011	07-25-85
				1E-85-3353			
				1M-85-1320	Packing leak, machined disc	3.838	07-28-85
E11-10	E11-F022, F023	0	01-13-83	1M-82-1701	Repacked valve	0	06-06-83
		0	11-21-84	1M-84-4382	Changed out grease in operator		
				1E-84-5448	Disconnected and reconnected for Mech. Maint.	0	11-29-84
		WNP	09-01-85		Stroke E11-F023	0	09-01-85
E11-11	E11-F024A, F027A, F028A	0	07-27-82				
		0	02-02-83				
		0	04-07-85	1M-83-333	Replaced stem and packing (F024A)		
				1E-85-1005	Assist Mech. Maint. w/1M-83-333	0	05-15-85
E11-12	E11-F024B, F027B, F028B	0	01-25-83	1M-82-2818	Cleaned valve internals and replaced bonnet gasket	0	01-28-83
		WNP	06-30-85		Cycled E11-F024B	1.267	07-01-85
				1M-84-0334 1E-85-1007	Replaced stem E11-F024B	0	08-15-85

WNP = Would Not Pressurize

MSC/85-0300

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E11-13	E11-F025A	0	07-27-82				
		0	02-04-83				
		0	11-18-84				
		0	04-18-85	1M-84-2758	Adjusted set point	0	04-18-85
E11-14	E11-F025B	0	07-19-82				
		0	01-17-83				
		0	11-21-84				
		0	06-25-85				
E11-15	E11-F037D	0	07-18-82				
		0.1	12-22-82				
		0.094	04-07-85	PM-82-287L	Replaced E11-F037D with E11-SV-F037D	0	08-30-85
E11-16	E11-F037B	2.727	07-18-82				
		0	12-16-82				
		2.045	04-07-85	PM-82-287L	Replaced E11-F037B with E11-SV-F037B	2.576	08-30-85
E11-17	E11-F043D	0	07-18-82				
		0.1	12-22-82				
		1.759	04-07-85	PM-82-287L	Replaced E11-F043D with E11-SV-F043D	0	08-30-85
E11-18	E11-F043B	0	07-18-82				
		1.810	12-16-82	1M-83-059	No work done	1.810	05-11-83
		2.545	04-07-85	PM-82-287L	Replaced E11-F043 B with E11-SV-F043B	0	08-30-85

WNP = Would Not Pressurize



ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E11-19	E11-F037C	0	07-18-82				
		0	12-16-82				
		1.166	04-07-85	PM-82-287B	Replaced F037C with SV-F037C	1.248	09-11-85
E11-20	E11-F043C	0	07-18-82				
		0	12-16-82				
		3.00	04-07-85	PM-82-287B	Replaced F043C with SV-F043C	0	09-11-85
E11-21	E11-F043A	0	07-18-82				
		0.749	12-16-82	1M-83-060	Rebuilt valve	1.266	05-23-83
		1.563	04-07-85	PM-82-287B	Replaced F043A with SV-F043A	0.932	09-11-85
E11-22	E11-F037A	1.150	07-18-82				
		0	12-16-82				
		1.166	04-07-85	PM-82-287B	Replaced F037A with SV-F037A	0.932	09-11-85
E11-23	E11-F097	0.3781	08-03-82				
		34.43	12-30-82	1M-83-061	Cleaned surfaces and replaced gasket on cap	0	01-11-83
		0	11-22-84				
		0	07-04-85				
E11-24	E11-F007A	0	08-11-82	1M-82-2254	Disassemble and inspect E11-F007A	0.7905	08-13-82
		0	02-01-83				
		0.234	04-08-85				

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E11-25	E11-F007B	0	08-07-82				
		23.02	01-21-83	1M-83-0276	Disassembled valve, cleaned, repacked, and replaced gasket	0	01-28-83
		0	11-21-84				
		0	06-25-85	1M-84-4797	Disassemble and inspect E11-F007B		08-22-85
E11-26	E11-F103A	0	08-16-82				
		0	02-02-83				
		0	04-11-83				
E11-27	E11-F103B	0	08-13-82				
		0	01-18-83				
		0.356	07-11-85				
E11-28	E11-F055A	0.2735	08-16-82				
		0	02-04-83				
		0	04-21-85				
E11-29	E11-F055B	0.6530	08-14-82				
		0.398	01-05-83				
		0	06-30-85				
E11-30	E11-V20	0.0608	08-25-82				
		0	02-04-83				
		0	05-04-85	1M-85-5391	Valve replaced per DR 85008	0	05-24-85
E11-31	E11-V21	0.1654	08-19-82				
		0	01-05-83				
		0	06-30-85	1M-85-2659	Valve replaced per DR 85008		
				1M-84-5392		0	07-03-85

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E11-32	E11-F029	0.0555	08-20-82				
		0	02-22-83				
		0	07-28-85				
E21-1	E21-F001A	3.608	02-21-83				
		WNP	04-23-85	1E-85-2102	Set torque switch	19.027	05-10-85
				1E-85-2324	Reset torque switch	2.587	05-11-85
E21-2	E21-F001B	0	07-26-82				
		0.106	12-29-82				
		WNP	07-03-85	1M-85-2438	Grind disc seat	11.640	07-26-85
E21-3	E21-F005A, F004A				Replace disc	0	08-14-85
		0	08-26-82				
		0	02-18-83				
E21-4	E21-F005B, F004B	0	04-23-85	PM-81-330	Replaced motor and reset torque switch (F005A)		
				PM-81-328	Replaced motor and reset torque switch (F004A)	0	05-11-85
		2.962	08-24-82				
E21-5	E21-F015A	0.168	12-23-82				
		0	06-29-85	PM-81-329	Replace motor E21-F004B		
				PM-81-331	Replace motor E21-F005B	0	08-15-85
E21-5	E21-F015A	0.8219	07-28-82				
		0	02-21-83				
		12.522	04-24-85	1M-85-1667	Lapped seats, cut disc and blued and repacked		
				1E-85-1004	Disconnect and reconnect for Mech. Maint.	3.879	05-10-85

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E21-6	E21-F015B	0	07-25-82				
		0	12-29-82				
		1.000	11-23-84				
		0.975	07-23-85				
E21-7	E21-F031A	0	02-21-83				
		0	04-22-85				
		0	05-11-85				
E21-8	E21-F031B	0.2822	07-24-82				
		0	01-19-83				
		WNP	06-30-85	1E-85-2925	Adjust torque switch	0	08-15-85
E41-1	E41-F002, F003	WNP	07-22-82	1M-82-2057	Repack E41-F002	WNP	07-25-82
				1M-82-2081	Rebuilt E41-F002	0.2223	08-04-82
		WNP	11-01-84	1E-84-5340	Set torque switch		
				1M-84-0543	Repacked valve	8.731	11-04-84
		19.751	04-10-85				
				1M-85-1493	F003, Packing leak		
				1M-85-0337	F002, Packing leak	1.727	09-14-85
E41-2	E41-F012	4.174	07-28-82				
			12-19-82				
		0	04-02-85	1E-84-2934		2.610	09-18-85
E41-3	E41-F042	1.139	07-22-82				
		0	12-19-82				
		0	04-01-85				
E41-4	E41-F022, F040	0	07-22-82				
		0	02-10-83				
		0	04-02-85				

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E41-5	E41-F021, F049	0	07-25-82				
		WNP	02-18-83	1M-83-1309	Disassembled, inspected, and repaired valve	2.718	06-07-83
		WNP	04-02-85	1M-85-1358	Replaced hinge pin E41-F049		
				1M-85-0237		0	09-13-85
E41-6	E41-F075, F079	1.090	07-22-82				
		0	12-14-82				
		0.015	04-08-85				
E41-7	E41-PV-1218D, PV-1220D	WNP	07-19-82	1M-82-2017	Tightened bonnet and tubing fittings	0	07-20-82
		0	12-28-82				
		0.263	04-10-85	PM-82-287W	Replaced SV-1218D	0	08-23-85
				PM-82-287W	Replaced SV-1220D	0	08-23-85
E41-8	E41-PV-1219D, PV-1221D	0	07-18-82				
		0	02-18-83				
		0	04-01-85	PM-82-287W	Replaced SV-1219D	0	08-24-85
				PM-82-287W	Replaced SV-1221D	1.65	08-24-85
E51-1	E51-F007, F008	0	07-22-82				
		0	12-16-82	1M-82-1698	Repacked valve, cleaned valve bonnet and stem	0	03-03-83
		0	10-19-83			2.69	11-08-83
		0	06-05-85	1M-85-0654	Repacked E51-F007	0	09-12-85
				1M-84-5493	Repacked E51-F008		

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
E51-2	E51-F019	0	07-22-82				
		0	12-17-82				
		0	04-01-85				
E51-3	E51-F031	0	07-22-82				
		0	12-16-82				
		0	04-01-85				
E51-4	E51-F002, F028	9.552	07-18-82	1M-82-2005	Disassembled and cleaned seat E51-F028	0	07-18-82
		0	02-04-83				
		WNP	04-02-85	1M-85-1362	Cleaned and inspected E51-F028	1.704	07-10-85
E51-5	E51-F001, F040	WNP	01-26-83	1M-82-808	E51-F040 replaced by PM-81-275	0	04-07-83
		WNP	04-01-85	1M-85-1359	Grind seat E51-F001	5.513	07-10-85
E51-6	E51-F062, F066	0	07-24-82				
		0	12-16-82	1E-83-2522	Set stroke E51-F066	0	07-16-83
		2.635	04-11-85				
G16-1	G16-F003, F004	9.1361	09-26-82				
		0	01-28-83				
		0	11-04-84				
		1.393	04-27-85				
G16-2	G16-F019, F020	WNP	07-25-82	1M-82-2082 1M-82-2083	Rebuilt both G16-F019 and F020	2.532	08-01-82
		0.7531	01-27-83				
		0.433	11-02-84				
		0	04-27-85	PM-82-065	Air supply solenoid valve replaced	0	09-12-85

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS			MAINTENANCE REQUIRED			POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
G31-1	G31-F001, F004	WNP	08-23-82	1M-82-2459	Rebuilt G31-F004	1.873	09-03-82
		0.849	03-08-83	1M-83-1173	Replaced disc and seal on G31-F004		
				1M-82-3199		0	04-05-83
		11.41	05-28-84	PM-84-315	Valves tested due to various weld replace- ments and overlays (IGSCC repairs)	0.847	12-03-84
			05-03-85	PM-85-013	Replaced pipe between F001 and F004	0	07-28-85
G31-2	G31-F042	29.10	08-06-82	1M-82-2208	Repaired seat and disc G31-F042	0	08-12-82
		0	03-11-83				
		WNP	11-09-84	PM-84-347	Replaced valve	1.831	11-29-84
RCC-1	RCC-V28, V52		05-30-85				
		0.5483	08-14-82				
		0	04-23-83	1M-82-2066	Repacked valve RCC-V52	0	04-27-83
RCC-2	RCC-SV-1222B, SV-1222C RXS-PV-1222B, PV-1222C	0	04-10-85				
		0.6357	08-15-82				
		3.14	04-29-83				
RNA-1	RNA-V101	0.095	04-11-85	PM-82-287T	Replaced RXS-PV-1222B, 1222C with RCC-SV-1222B, SV-1222C	0	09-03-85
		7.63	07-20-82				
		0	05-13-83	PM-84-195	Replace valve w/SV-5262	0	09-19-85
RNA-2	RNA-V103	1.030	07-19-82				
		0	05-13-83				
		0	07-25-85	PM-84-195	Replaced V103 with SV-5261	0	09-07-85

WNP = Would Not Pressurize

ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
RNA-3	RNA-PV1204B	0	07-20-82				
		0	04-18-83				
RNA-4	RNA-PV-1204C	0	07-20-82				
		0	04-18-83				
RXS-1	RXS-SV-4186	0	05-12-83				
		0	04-27-85				
RXS-2	RXS-SV-4187	0	05-12-83				
		0.078	04-27-85				
RXS-3	RXS-SV-4188	0	05-12-83				
		0	04-27-85				
RXS-4	RXS-SV-4189	0	05-12-83				
		0	04-27-85				
SA-1	SA-V448	0	03-23-83		Capped		
SA-2	SA-V449	0	03-23-83		Capped		
TD-1	TD-V22, V1	0	06-26-82				
		WNP	03-15-83	1M-83-0870	Replaced seat ring and gaskets	0.422 2.628	06-03-83 06-07-83
		0	05-05-85				
TIP-1	TIP-V1	0	07-19-82				
		0	12-17-82				
		0	05-02-85				
TIP-2	TIP-V2	0	07-19-82				
		0	12-17-82				
		0	05-02-85	1E-85-4515	Replace valve	0	10-11-85

WNP = Would Not Pressurize



ROUTINE SURVEILLANCE/ PREMAINTENANCE TESTS				MAINTENANCE REQUIRED		POSTMAINTENANCE TESTS	
TEST NO.	TEST VALVES	LEAKAGE (scfh)	DATE	PM/ WR&A NO.	WORK PERFORMED	LEAKAGE (scfh)	DATE
TIP-3	TIP-V3	0	07-19-82				
		0	12-17-82				
		0	05-02-85				
TIP-4	TIP-V4	0	07-19-82				
		0	12-17-83				
		0	05-02-85				
TIP-5	TIP-N2 check valve	0	07-18-82				
		0	12-17-83				
		0	05-02-85				
TIP-6	TIP-N2 solenoid valve	0	07-18-82				
		0	12-17-83				
		Deleted	11-02-84				

WNP = Would Not Pressurize