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June 19, 1989

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Catawba Nuclear Station, Unit 2
Docket No. 50-414
Reactor Containment Building
Integrated Leak Rate Test

Gentlemen:

Pursuant to 10 CFR 50, Appendix J, and Catawba Nuclear Station Technical Specification 4.6.1.2, please find attached the Catawba Unit 2 Reactor Containment Building Integrated Leak Rate Test (ILRT) Report. The ILRT was successfully completed on March 18, 1989 during the end of cycle 2 refueling outage. Analysis of final test data shows the results to be well within the appropriate limits.

Very truly yours,

Hal B. Tucker

H. B. Tucker

JGT/3/ILRT

Attachment

xc: S. D. Ebneter
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta St., NW, Suite 2900
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Mr. W. T. Orders
NRC Resident Inspector
Catawba Nuclear Station

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DUKE POWER COMPANY
CATAWBA NUCLEAR STATION
UNIT 2

DOCKET NO. 50-414

REACTOR CONTAINMENT BUILDING
INTEGRATED LEAK RATE TEST

MARCH 16-18, 1989

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I. INTRODUCTION

The initial periodic Containment Integrated Leak Rate Test on the primary containment structure of the Duke Power Company Catawba Nuclear Station Unit 2 Pressurized Water Reactor was successfully completed on March 18, 1989. The ILRT was conducted in conformance with the requirements of 10CFR50 Appendix J (and associated ANSI standards) and Catawba Technical Specifications. A 24-hour test was performed utilizing the absolute test method and mass point data analysis technique with the containment pressure > 14.68 psig (calculated peak containment accident pressure). The results were verified by the satisfactory completion of a superimposed leak rate test.

Analysis of final test data shows the results to be well within the specified limits for this containment. The acceptance criterion for this test is that the containment integrated leakage rate be less than 0.225 percent by weight of the containment air mass per day for both the "As-Found" and "As-Left" cases. The actual test results are 0.0243%/day for the Type A Leakage Rate (95% UCL Leakage Rate + Leakage Penalties + Leakage Savings). The Leakage Rate was the same for "As-Found" and "As-Left" because the ILRT was conducted at the beginning of the outage. The Leakage Savings was 0.0000%/Day for this test (See Appendix E).

II. TEST BACKGROUND INFORMATION

A. Description of Containment

The Catawba Unit 2 Containment System consists of a free-standing steel containment vessel surrounded by a separate concrete reactor building. A six foot annular space is provided between the outer wall of the containment vessel and the inner wall of the reactor building to allow filtration of containment vessel leakage during accident conditions to minimize off-site doses. The following containment vessel specifications are used as base data for the containment leak rate test.

• Containment Net Free Volume	1,172,618 ft^3
• Design Pressure	15 psig
• Calculated Peak Accident Pressure	14.68 psig
• Test Pressure	$\geq$ 14.68 psig
• Test Temperature	Ambient
• Maximum Allowable Leakage Rate (L_a)	0.3 weight %/day

B. Description of ILRT Instrumentation

The containment system was equipped with instrumentation to permit leakage rate determination by the absolute method. Utilizing this method, the actual mass of dry air within the containment is calculated. The leakage rate becomes the time rate of change of this value. The mass of air (W) is calculated according to the ideal gas law as follows:

$$W = \frac{(P-Pv)V}{RT}$$

Where:
- P = Containment Absolute Pressure
- Pv = Partial Pressure of Water Vapor
- V = Containment Net Free Volume
- R = Gas Constant
- T = Containment Absolute Temperature

The primary measurement variables required are containment absolute pressure, containment dewpoint temperature and containment temperature as a function of time. During the supplemental verification test, containment bleed-off flow is also recorded.

52 Resistance Temperature Detectors, 6 Dewpoint Hygrometers, and 3 Pressure Sensors are installed at predetermined locations in the containment vessel to allow determination of weighted average temperatures, vapor pressures, and pressures. For analysis purposes, the containment is divided into three compartments, with the following specifications:

Compartment	Volume Fraction	# RTDs	# Dewpoint Hygrometers	# Pressure Sensors
Lower Containment	0.271	24	2	1
Upper Containment	0.595	13	2	1
Ice Condenser	0.134	15	2	1
Totals	1.0	52	6	3

1. Pressure Instrumentation

Three precision pressure gauges were installed outside the containment vessel, with pressure tubing connecting each gauge to its applicable compartment containment penetration. The gauges used were Ruska Model 6000-801-40 psia gauges, with the following specifications:

Range: 0 to 40 psia
Repeatability: 24 Hr: ± 0.0008 psi
90 Day: ± 0.0016 psi
Accuracy: ±(0.01% Full Scale + 0.011% Reading) or better, traceable to NBS
Sensitivity: ± 0.002% FS
Output: DC Analog Output (0-4 v) to Digital Meter for display and fluke data acquisition system.

2. Temperature Instrumentation

Fifty-two precision Resistance Temperature Detectors were located throughout the containment to allow measurement of the weighted average air temperature. The locations of the RTDs are shown in Appendix C. The RTDs used were Rosemount Model No. 78S, with the following specifications:

Range: 0 to 200°F
Repeatability: ± 0.025% over entire range
Accuracy: ± 0.45°F over entire range
Sensitivity: ± 0.09°F
Element: Platinum
Resistance: 100 ohms at 32°F (nominal)

3. Humidity Instrumentation

Six Dewpoint Temperature Analyzers were located in containment. (Each compartment had two dewpoint cells installed at different locations within the compartment.) The locations of the dewpoint cells are also shown in Appendix C. The instruments used were EG&G Dewtrack Model 200, with the following specifications:

Range: -40.0 to 140°F
Accuracy: ± 1°F, traceable to NBS
Sensitivity: ± 0.36°F worst case
Output: 4-20 mA

4. Data Acquisition Facility

The data acquisition system consists of a Fluke 2289A computer front end and a Fluke 2281A extender chassis, which interfaces with the IBM System 2 Model 80 computer. The required cards and pertinent data are listed below.

Absolute Pressure - DC Voltage Measurement

Cards Required:	161 High Performance A/D
	162 Thermocouple/DC Volts Scanner
	175 Isothermal Input Connector
Range:	± 8 VDC
Resolution:	73 μV (sensitivity)
Accuracy:	± 0.01% Reading, ± 800 μV for 1 year calibration
	± 0.005% Reading, ±700 μV for 90 day calibration
Repeatability:	±0.003% Reading, ± 300 μV

Dewpoint - DC Current measurement

Cards Required:	161 High Performance A/D
	162 Thermocouple/DC Volts
	171 Current Input Connector
Range:	± 64 mA
Resolution:	0.6 μA (sensitivity)
Accuracy:	± 0.5% Rdg, ± 5 μA for 1 year
Repeatability:	± 0.015% Rdg, ± 2 μA

Temperature - RTD Resistance Measurement

Cards Required:	161 High Performance A/D
	163 RTD/Resistance Scanner
	177 RTD/Resistance Input Connector
Range:	256 ohms
Resolution:	2.4 mohms (sensitivity)
Accuracy:	±0.0175% Rdg, ± 5.7 mohms for 1 year cal.
	(15 - 35°C operating temperature)
Repeatability:	±0.005% Input, ± 4 milliohms

5. Flow Instrumentation

A rotameter was used to impose the leak during the verification test. The rotameter used was a Brooks Model #1110 with the following specifications:

Range: 0 - 5.86 SCFM
Repeatability: 0.5% FS
Accuracy: 1.0% FS, traceable to NBS

6. Instrumentation Selection Guide (ISG) Calculation

The Instrumentation Selection Guide is an acceptable method to verify the ability of the instrumentation system to measure the containment integrated leakage rate. The ISG formula is described in American National Standard ANSI/ANS-56.8-1987.

The maximum allowable value for the ISG is 0.25 L_a, or 0.075%/day for Catawba. The ISG calculated for this test (24-hour duration) was 0.0174%/day. The ISG calculated for an 8-hour duration was 0.0522%/day.

C. Description of Computer Program

The ILRT Program actually consists of two separate programs. The main program is called LEAK.EXE. This is a totally generic program, in that this program may run at any station with no changes required. Its "personality" is derived from a configuration file, which must be developed for each test. The ILRT Program contains the tools needed to create and edit the configuration file. The second program is called DATACQ.EXE. This program provides the interface to the data acquisition system. Although, it must be custom written for each data acquisition system, it does not contain any test-specific information. All it has to be able to do is establish communication with the data acquisition system, provide commands to the data acquisition system, and send the results back to LEAK.

Test parameters to be measured are pressure, dewpoint temperature, and dry bulb temperature inside the containment. Instrument readings by the data acquisition system are recorded on the hard disk of the computer. From this data, the leak rate is calculated by the computer. All data, raw and calculated, can be displayed on the computer monitor. Use of the absolute pressure method as described in ANS N45.4-1972 is the basis for the leakage calculations performed by the ILRT System Program. The primary methodology is mass point analysis as described in ANSI/ANS 56.8-1987. The secondary methodology is the total time calculation as described in BN-TOP-1. A description of the calculations performed is given in Appendix A.

D. Description of Pressurization Equipment

Pressurization for the Catawba Unit 2 ILRT was accomplished using two oil-free diesel-driven air compressors, each having a rated capacity of 1500 cfm at 150 psi. The compressed air, after passing through water-cooled aftercoolers and refrigerant air dryers, was routed to the discharge header of the instrument air system compressors. The air was then injected into Lower Containment and into the Ice Condenser via normal station/instrument air penetrations. (The air injected into the Ice Condenser was first passed through a Desiccant Air Dryer to further reduce the dewpoint prior to injection into the 15°F Ice Condenser Region.)

III. TEST RESULTS

A. Description of Testing Sequence

The ILRT for Unit 2 EOC-2 was conducted at the front end of the outage. As a result, very little type B&C leak rate testing was done prior to ILRT. The tests performed prior to ILRT are listed below. A tabulation of the leakage savings resulting from this testing can be found in Appendix E.

M346	As Found LR for Leakage Penalty
CNIP-2MI5	As Found LR for Leakage Penalty
CNIP-2MI6	As Found LR for Leakage Penalty
CNIP-2MI7	As Found LR for Leakage Penalty
Upper Airlock Emer Air Penetration	As Found LR for Leakage Penalty
Containment Purge Valves	As Found and As Left LR for Leakage Savings
Equipment Hatch	As Found and As Left LR for Leakage Savings

In addition to the installation of the data acquisition system and instrumentation, preparation for the ILRT included inspections of the interior and exterior surfaces of the containment vessel and the reactor building interior. The inspection of the reactor building exterior was performed after the ILRT. These inspections, performed by Duke Power Company Design Engineering/Civil Group, were completed on 4/19/89. Another test prerequisite was the performance of a temperature survey, required by both ANSI N45.4-1972 and ANSI/ANS-56.8-1987 to verify the proper location of the RTDs in containment. The temperature survey was performed per procedure PT/2/A/4200/01U, and was satisfactorily completed on 3/16/89.

Operations alignment of containment penetrations was completed on 3/16/89, and pressurization of the Containment Vessel commenced at 1015 hours on 3/16/89. (A list of the containment penetrations not exposed to test pressure can be found in Appendix D.) The average pressurization rate was approximately 2 psi/hour.

Pressurization was secured at 1820 hours on 3/16/89. The temperature stabilization phase was started at 1830. During the temperature stabilization period, a soap bubble test was performed on all hot mechanical penetrations as required by Catawba Technical Specifications. Also, leakage survey teams were dispatched to search for any leakage paths from containment. No significant leaks were identified.

The temperature stabilization criteria of ANSI/ANS-56.8-1987 were met at 2230 hours on 3/16/89, at which point the ILRT was initiated. After 24 hours of data accumulation, all acceptance criteria were met using the Mass Plot method, and the ILRT was officially terminated at 2231 hours on 3/17/89.

Following removal of a containment air sample by Health Physics, a leak was imposed on the containment vessel through a containment pressure transmitter tubing sense line (one of the permanent containment pressure transmitters, independent of the ILRT pressure instrumentation). The imposed leak test started at 22:56 on 3/17/89 and was successfully completed at 02:56 on 3/18/89.

The depressurization of containment commenced at 03:39 on 3/18/89. The primary flowpaths were through 1VY34 to the annulus and a VQ line to the unit vent (modifications had to be performed to the VQ line to permit flow through this line to the unit vent). Due to a high concentration of noble gases in containment, one of the planned vent paths (a VQ line to the open VQ filter units on 543 elevation of the Auxiliary Building) could not be used. Due to the slow rate of depressurization, the upper airlock door seals were deflated at 08:30. (The discharge through these door seals is to the annulus.) With these paths, depressurization was completed at 1500 on 3/10/89.

No equipment damage was found during the post-ILRT containment inspection. There were no instrumentation failures during the performance of the test.

B. Analysis and Interpretation

1. Temperature Stabilization

Containment ventilation fans were run during pressurization to aid in mixing the containment air. Due to the cool ambient conditions, the approximate average compartment temperature rise during pressurization was only 3.1°F. As a result, containment temperature stabilized rapidly, and the stabilization criteria of ANSI/ANS-56.8-1987 were met within the minimum four hour period.

2. Pressure Decay (24 Hour) Test

Due to the highly stable conditions inside containment following the temperature stabilization period, coupled with the leak-tightness of the containment penetrations (no significant leaks were found by the leakage survey teams), the 95% Upper Confidence Limit Mass Point Leakage Rate was well below the acceptable limit after only four hours of data accumulation. However, in order to meet current Appendix J requirements, the test was conducted for a duration of 24 hours. The mass point results were as follows:

Measured Leakage Rate:	0.0196%/day	
95% UCL Leakage Rate:	0.0239%/day	
Leakage Rate:	0.0243%/day	(95% UCL + Leakage Savings + Leakage Penalty)
Acceptance Criterion:	0.225%/day	(75% of L_a)

It may be worth noting that although the measured leakage using the Total Time Method was acceptable after 8 hours of data accumulation, the 95% UCL leakage using the Total Time Method (with BN-TOP-1 short duration acceptance criteria) did not meet the acceptance criterion until 18 hours into the test.

One thing noted from the plots for the 24 hr test was the spikes in ice condenser average vapor pressure. These spikes correspond to the defrost cycles that the ice condenser air handling units were set for. The units defrost approximately 30 minutes every six hours. The individual spikes occur every six hours as well as indicating that this was the cause.

3. Superimposed Leak Rate Test

A superimposed leak equivalent to 0.2980%/day was added to the existing containment leakage using the turbine flowmeter. After 4 hours of data accumulation, the verification test was terminated with the following acceptable results:

Minimum acceptable Measured Leakage Rate: 0.2426%/day
(24-Hour Test Measured Leakage Rate + Superimposed Leak Rate - 25% of L_a)
Maximum acceptable Measured Leakage Rate: 0.3926%/day
(24-Hour Test Measured Leakage Rate + Superimposed Leak Rate + 25% of L_a)
Measured Leakage Rate during Verification Test: 0.3319%/Day

IV. FIGURES

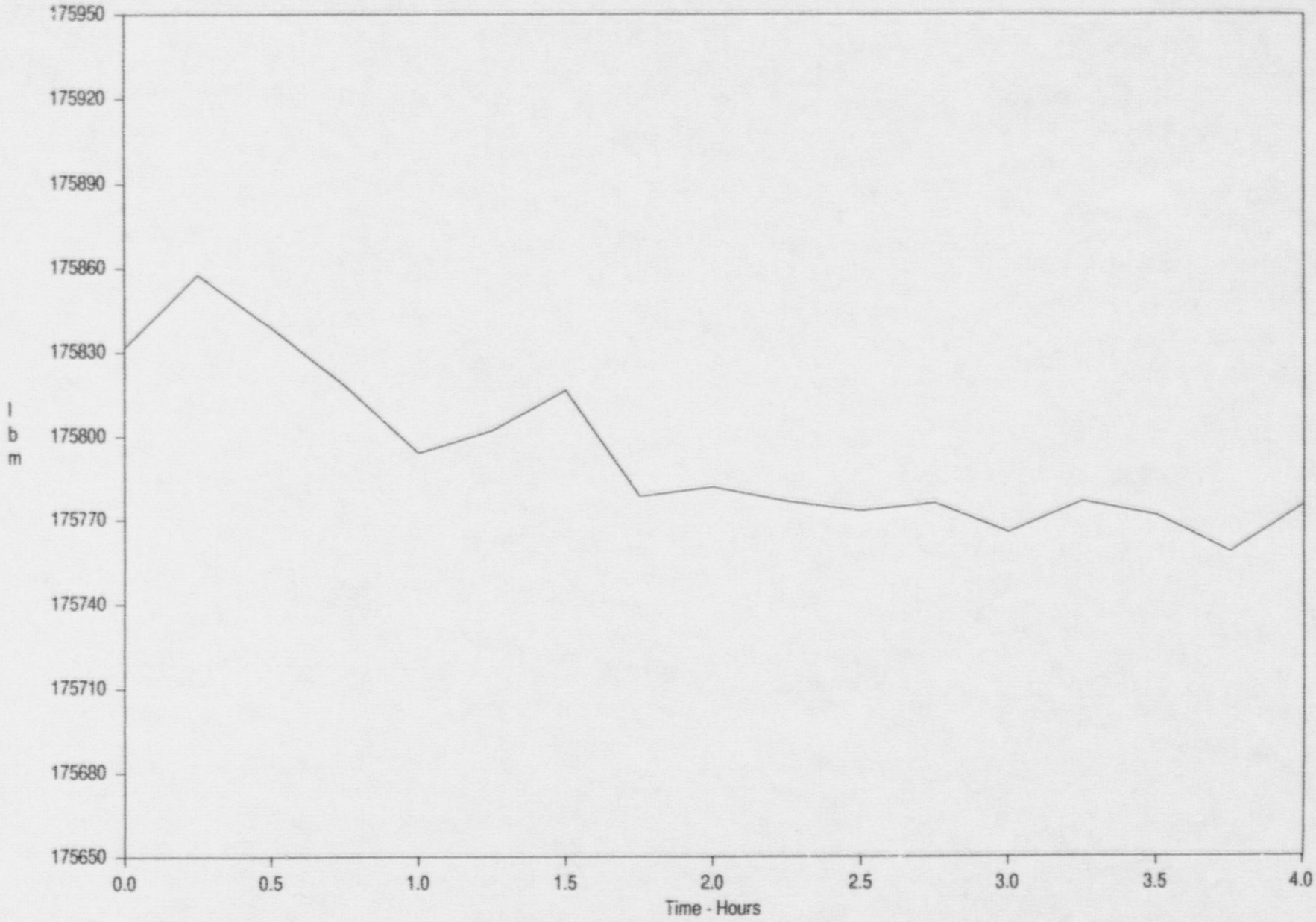
A. Temperature Stabilization Plots

The attached plots show data accumulated during the four hour temperature stabilization period, beginning at 1830 hours and ending at 2230 hours on 3/16/89.

- Containment Mass
- Lower Containment Pressure
- Lower Containment Avg. Temp.
- Lower Containment Vapor Pressure
- Upper Containment Pressure
- Upper Containment Avg. Temp.
- Upper Containment Vapor Pressure
- Ice Condenser Pressure
- Ice Condenser Avg. Temp.
- Ice Condenser Vapor Pressure

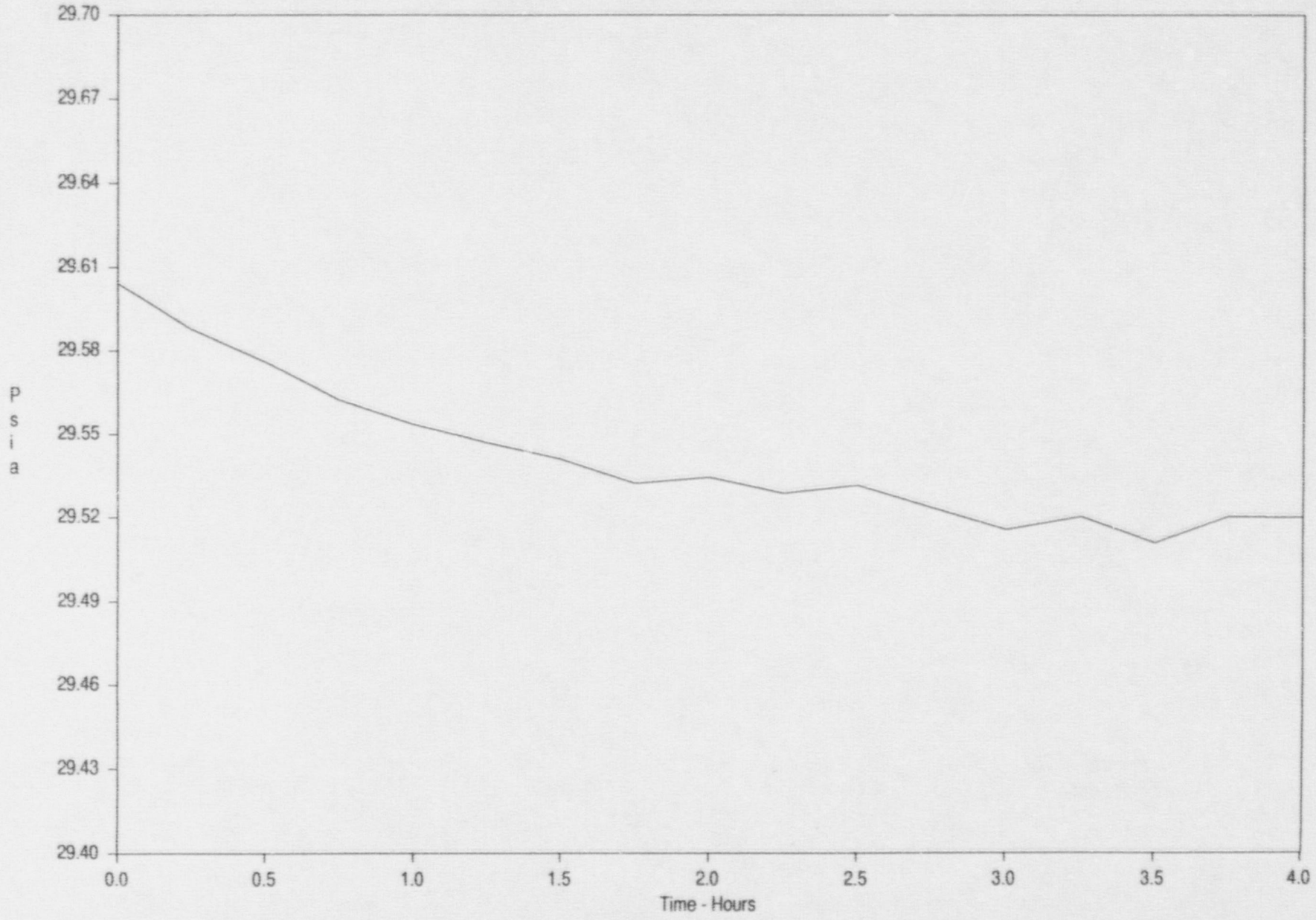
Containment Mass

Catawba Nuclear Station
Unit 2



Lower Containment Average Pressure

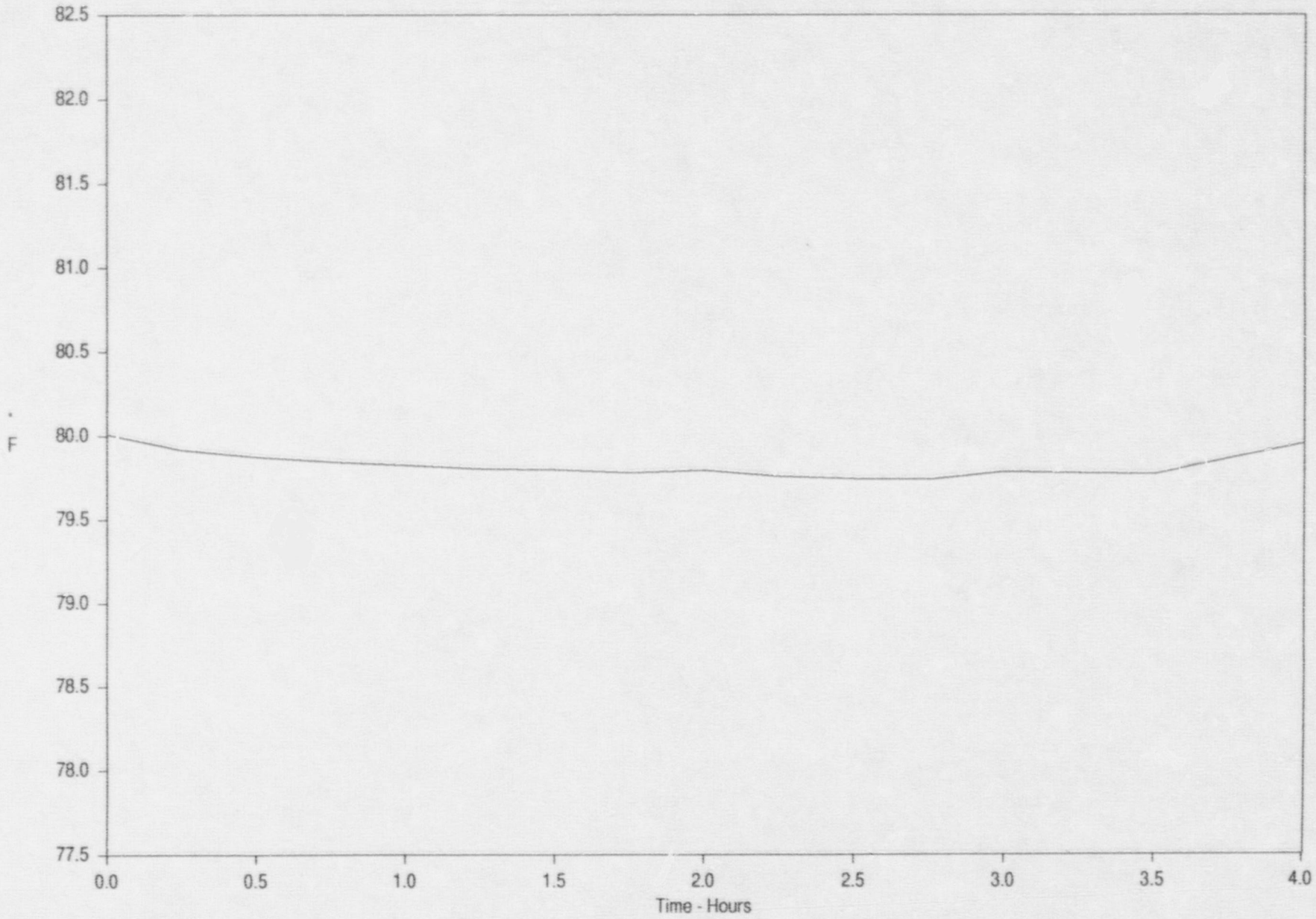
Catawba Nuclear Station
Unit 2



H1

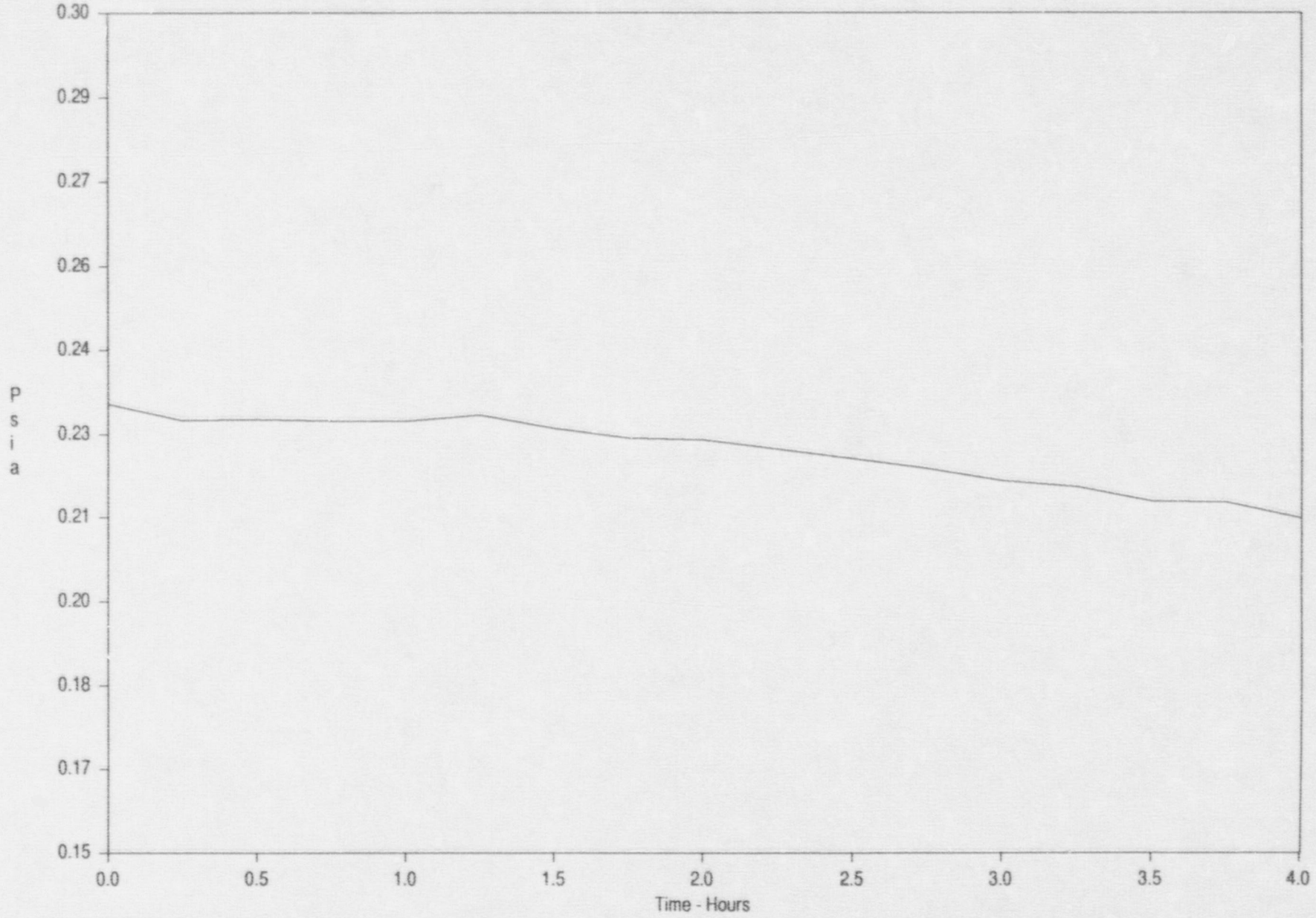
Lower Containment Average Temperature

Catawba Nuclear Station
Unit 2



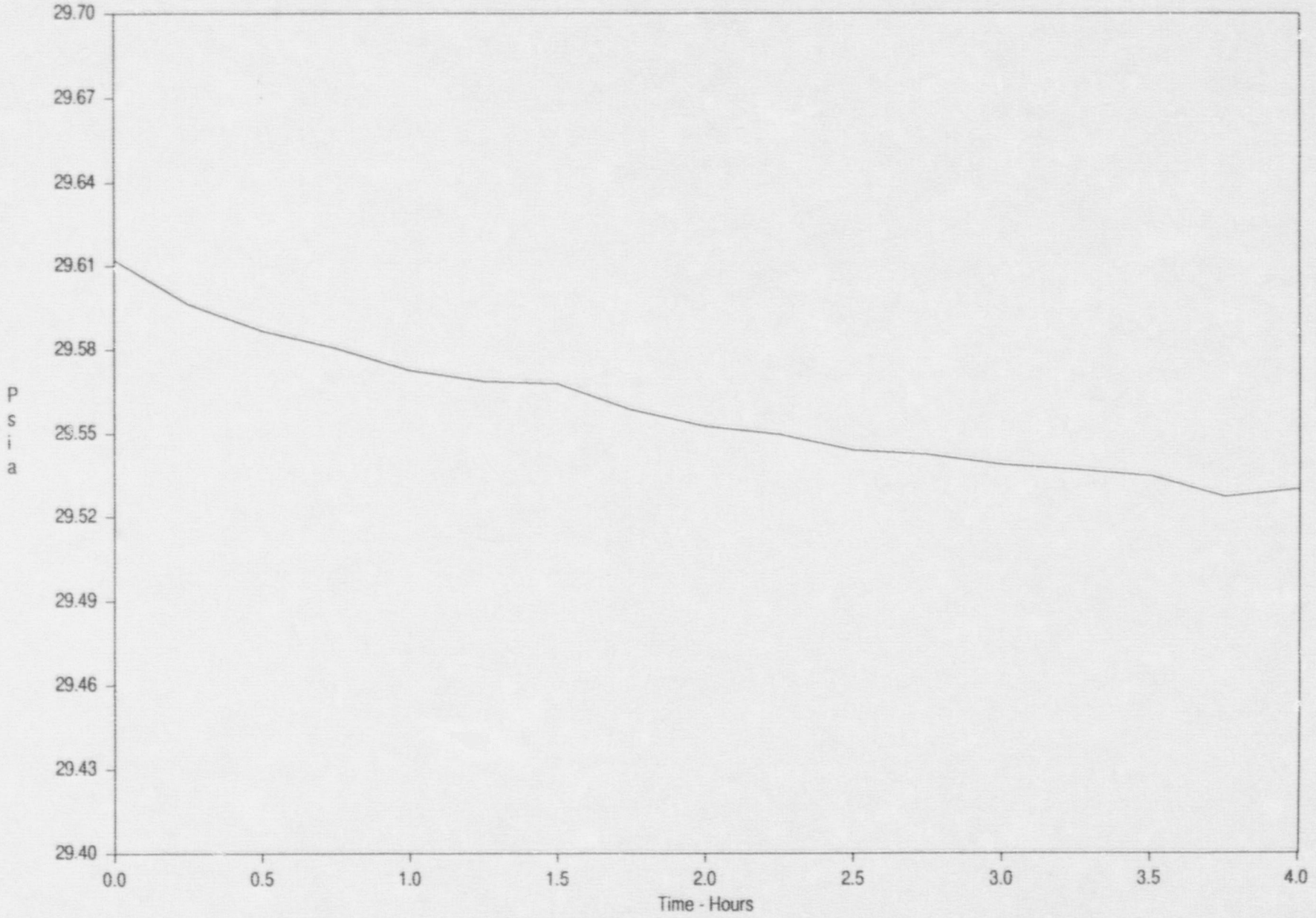
Lower Containment Average Vapor Pressure

Catawba Nuclear Station
Unit 2



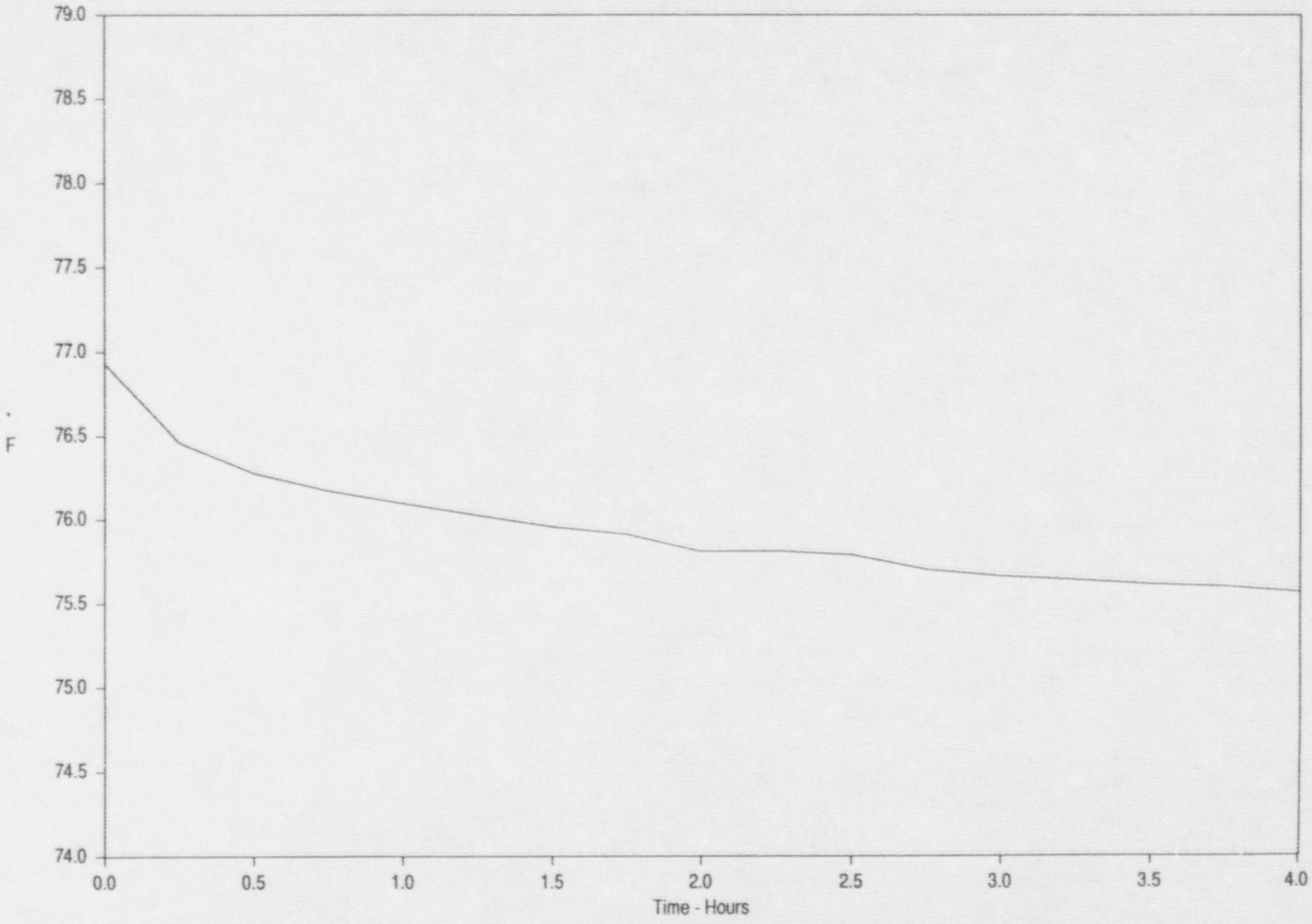
Upper Containment Average Pressure

Catawba Nuclear Station
Unit 2



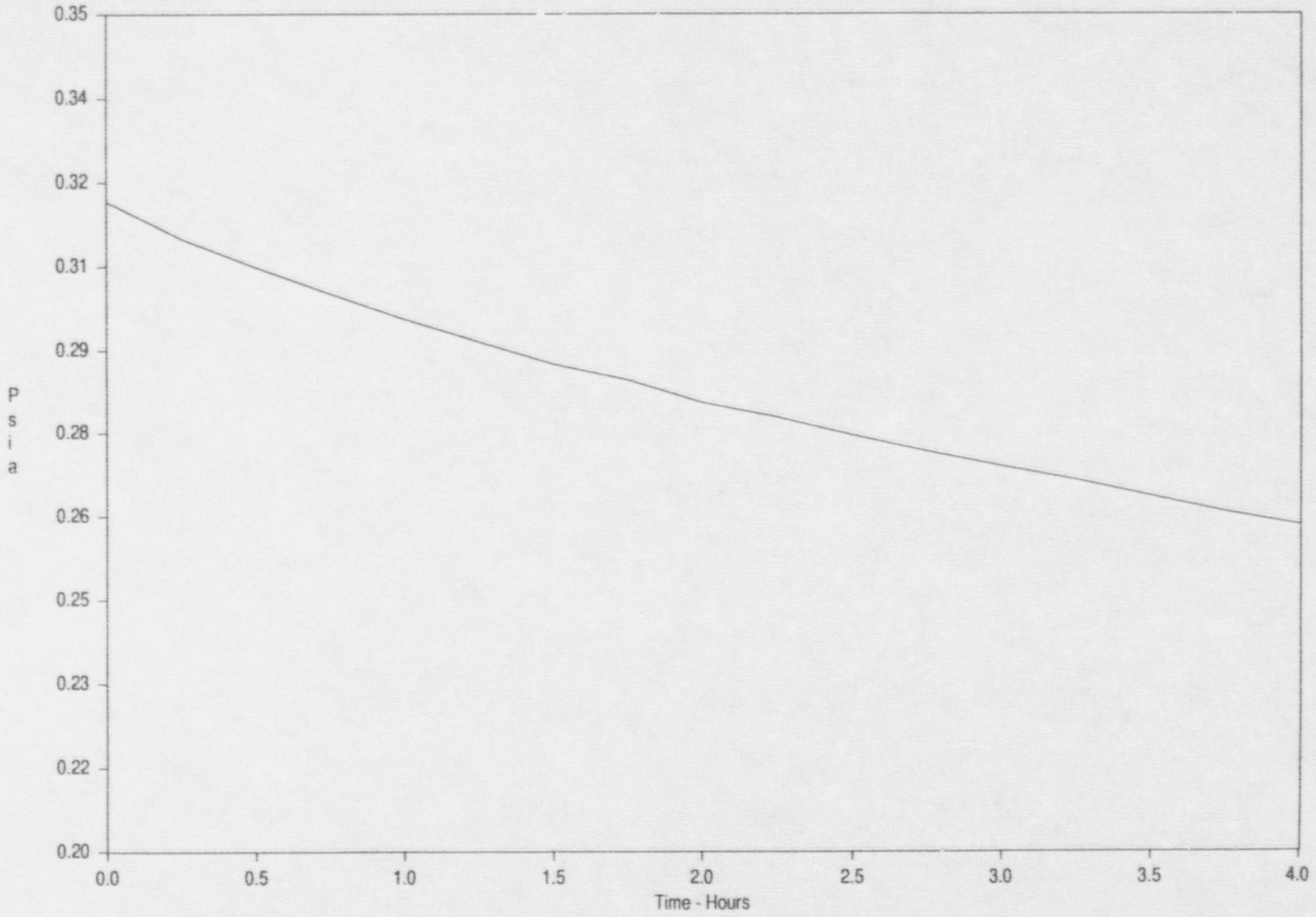
Upper Containment Average Temperature

Catawba Nuclear Station
Unit 2



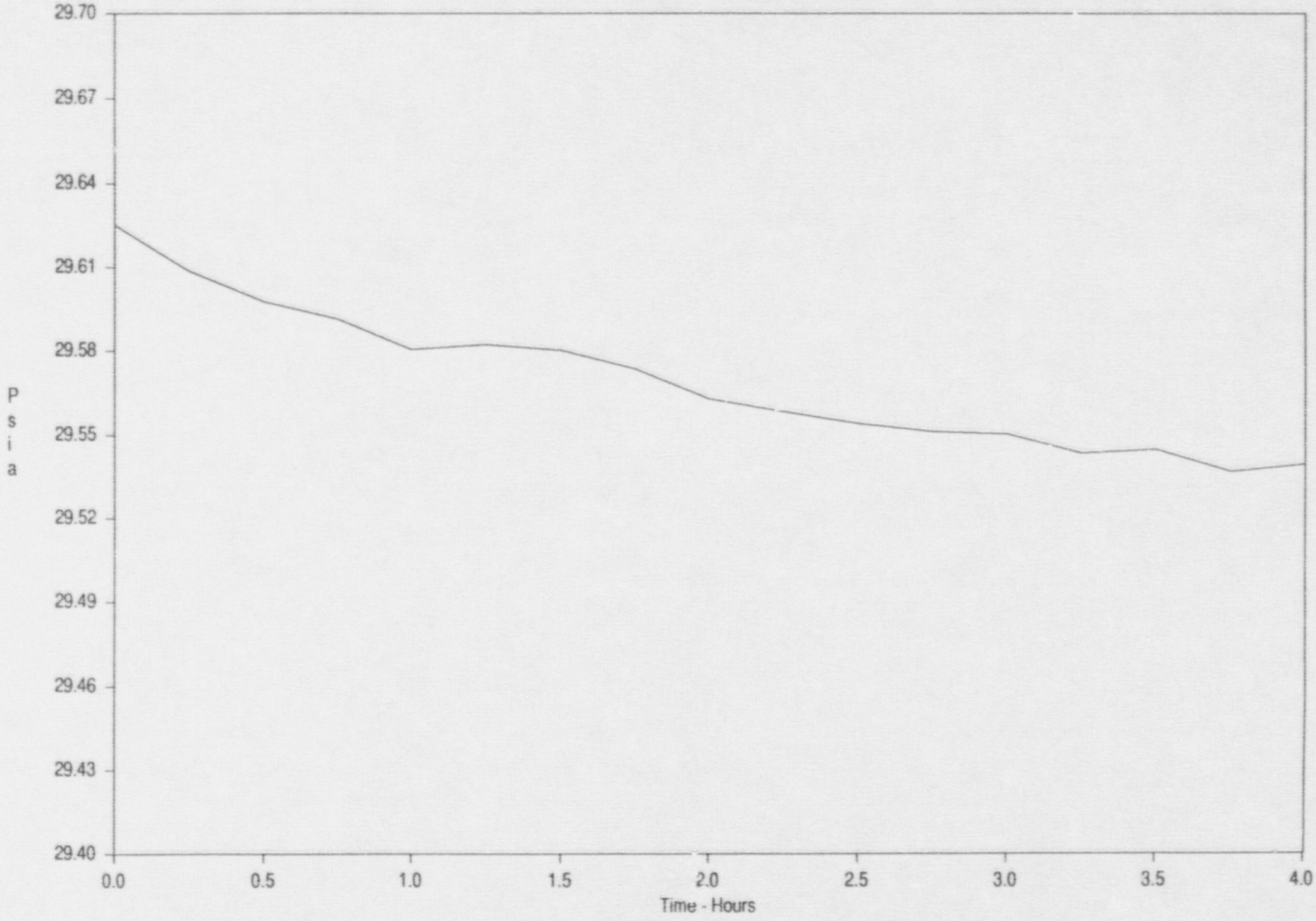
Upper Containment Average Vapor Pressure

Catawba Nuclear Station
Unit 2



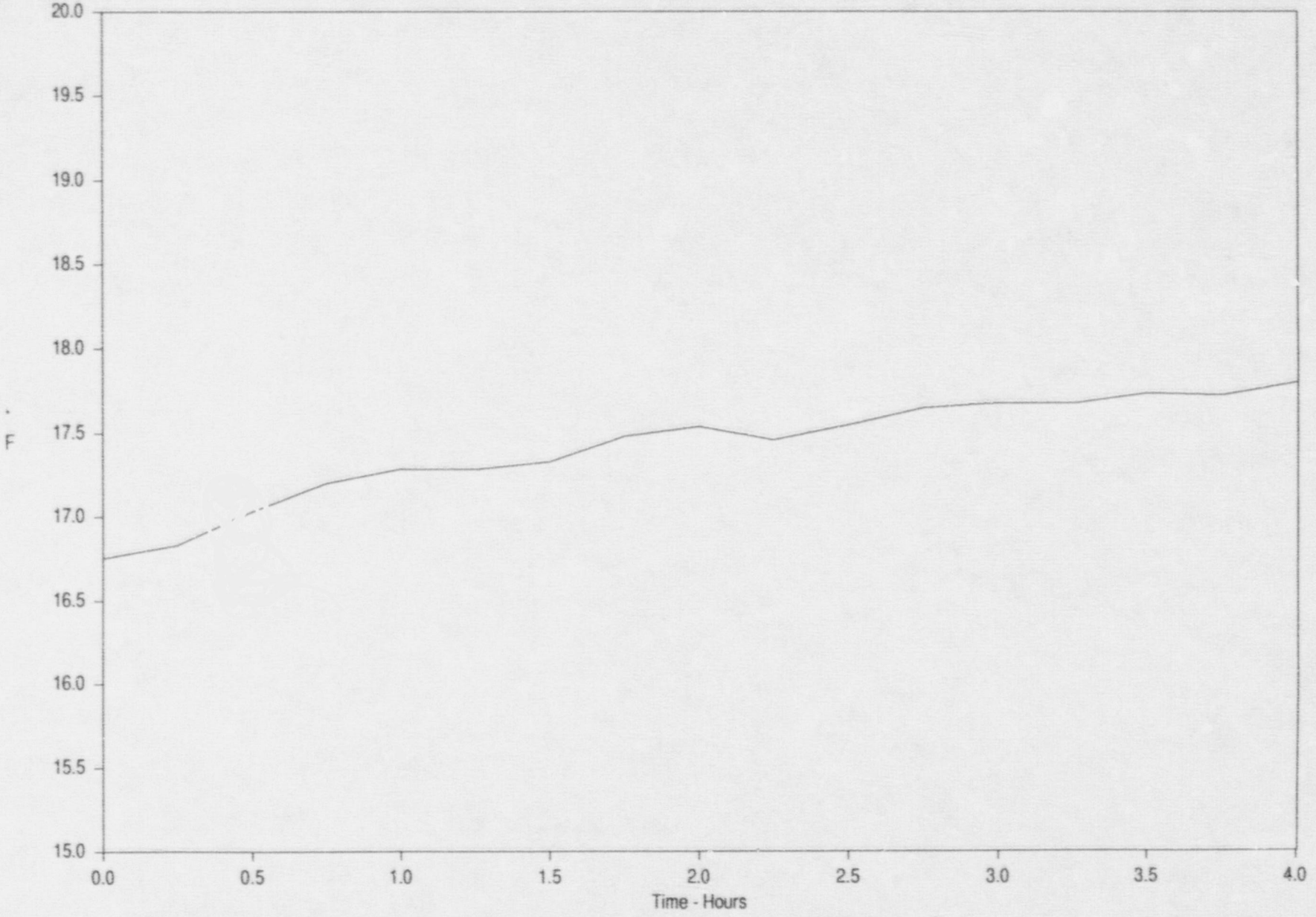
Ice Condenser Average Pressure

Catawba Nuclear Station
Unit 2



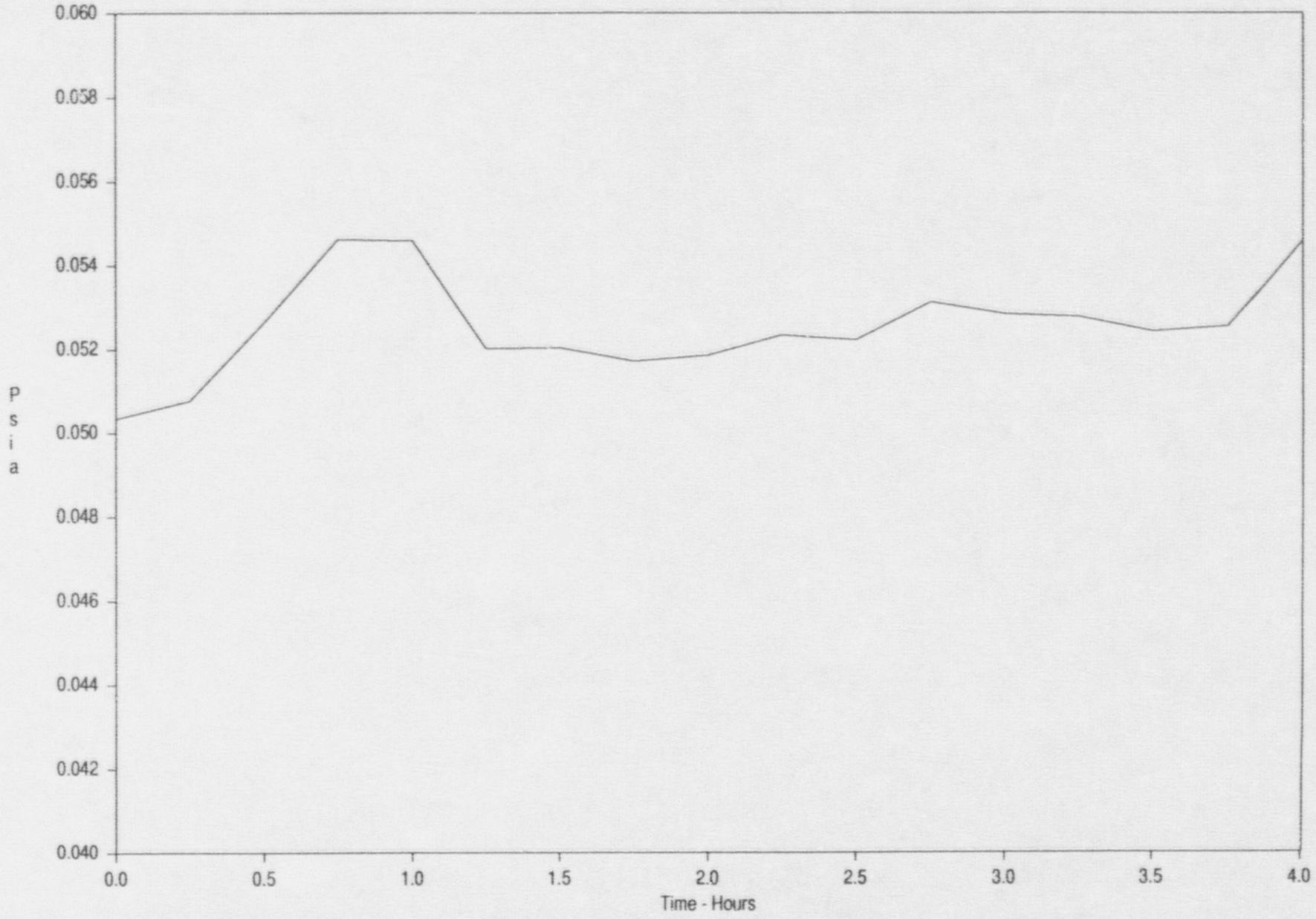
Ice Condenser Average Temperature

Catawba Nuclear Station
Unit 2



Ice Condenser Average Vapor Pressure

Catawba Nuclear Station
Unit 2



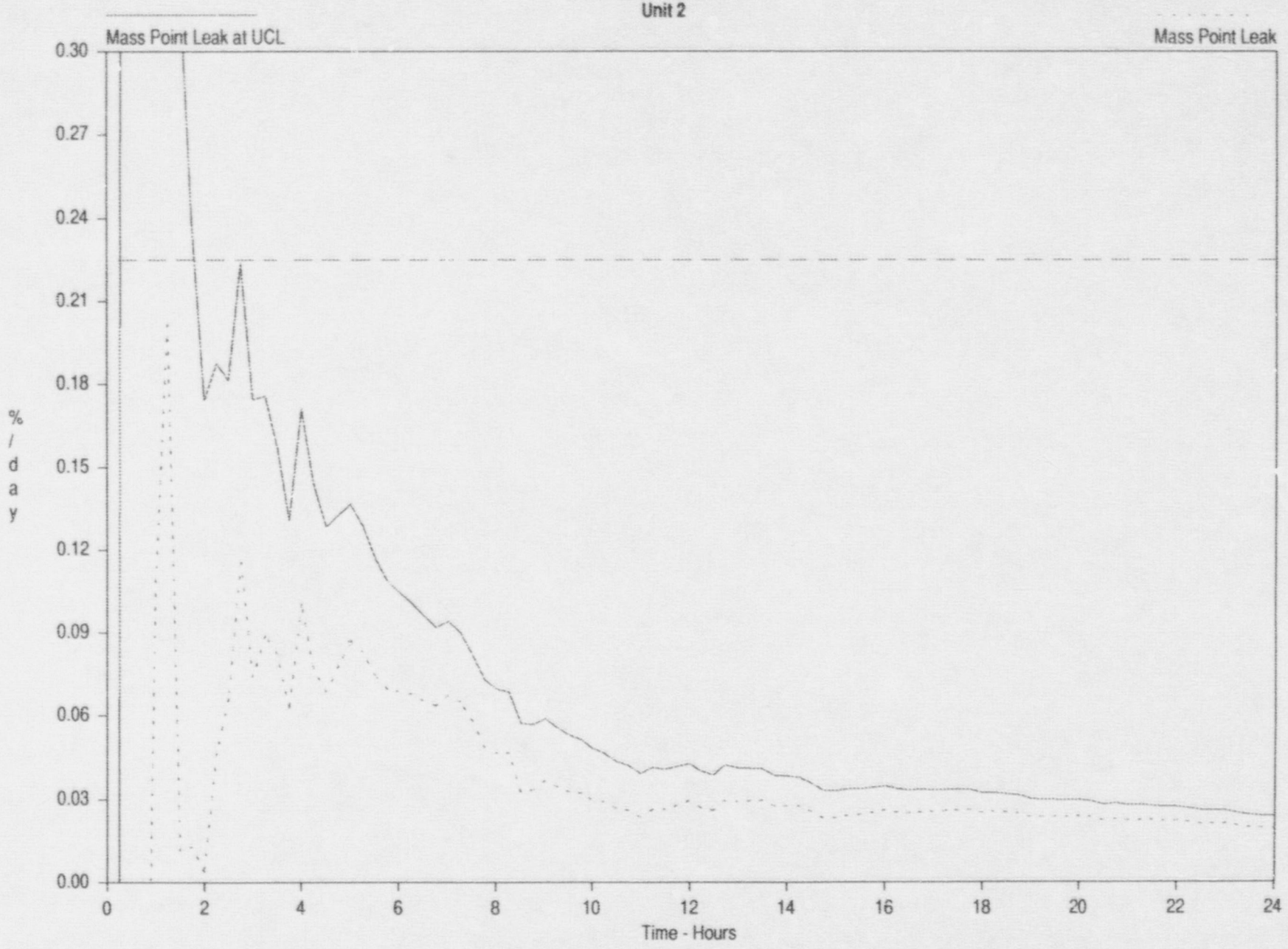
B. Pressure Decay (24 Hour) Test Plots

The attached plots show data accumulated during the 24 hour ILRT, beginning at 2230 hours on 3/16/89 and ending at 2231 hours on 3/17/89.

- Mass Point Leakage Rate and UCL
- Normalized Containment Mass
- Lower Containment Pressure
- Lower Containment Avg. Temp.
- Lower Containment Vapor Pressure
- Upper Containment Pressure
- Upper Containment Avg. Temp.
- Upper Containment Vapor Pressure
- Ice Condenser Pressure
- Ice Condenser Avg. Temp.
- Ice Condenser Vapor Pressure

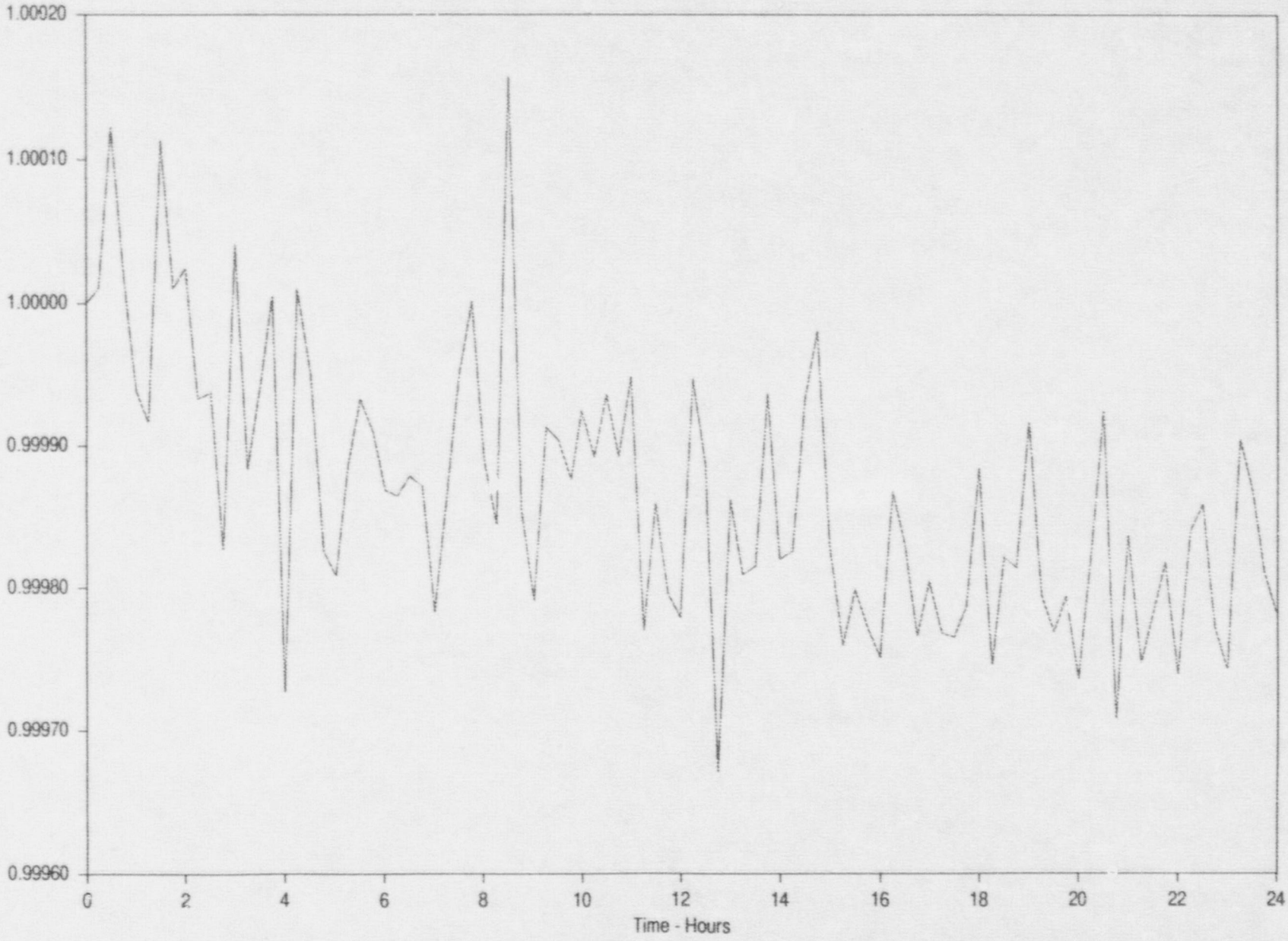
Mass Point Leak at UCL & Mass Point Leak

Catawba Nuclear Station
Unit 2



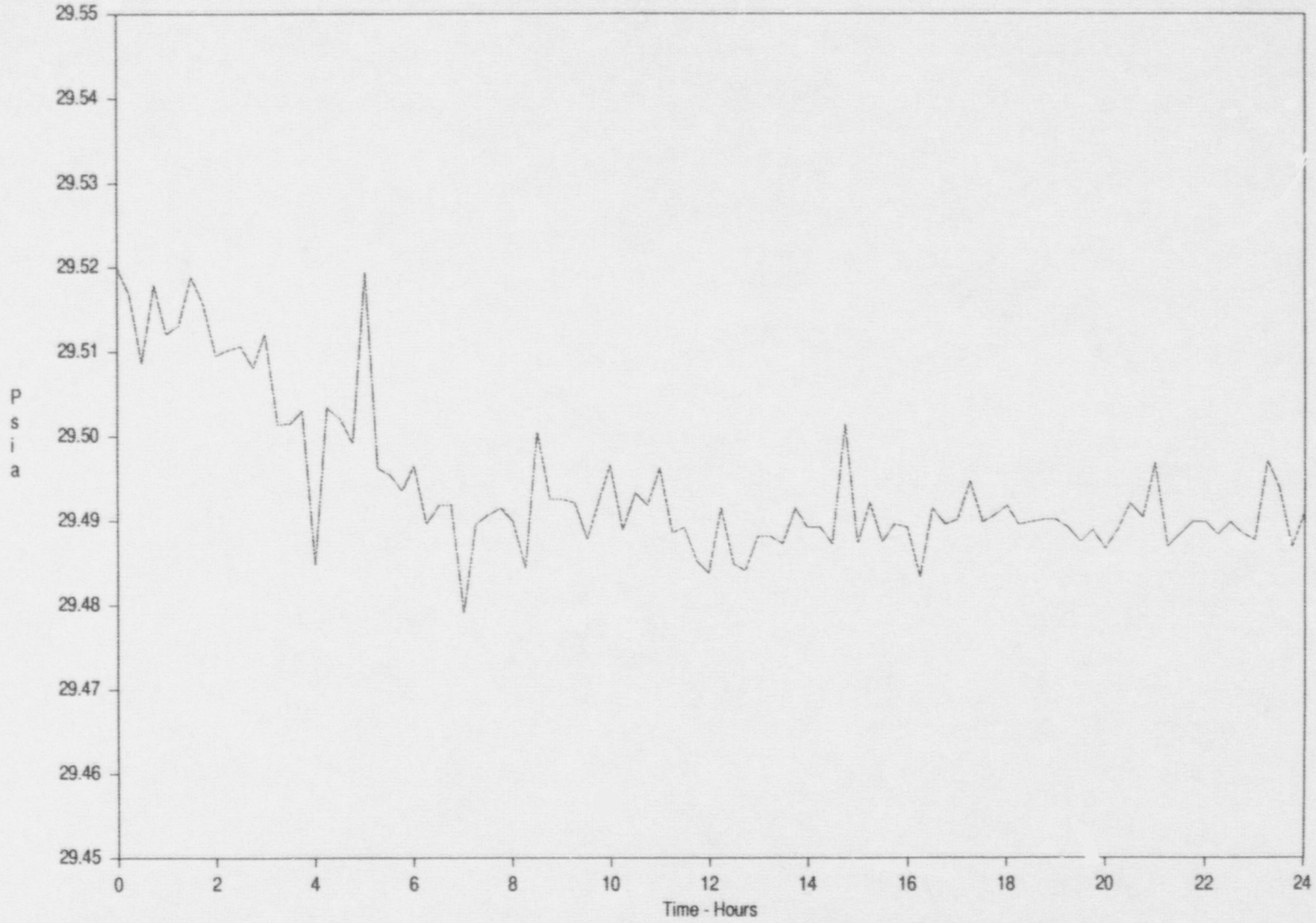
Containment Normalized Mass

Catawba Nuclear Station
Unit 2



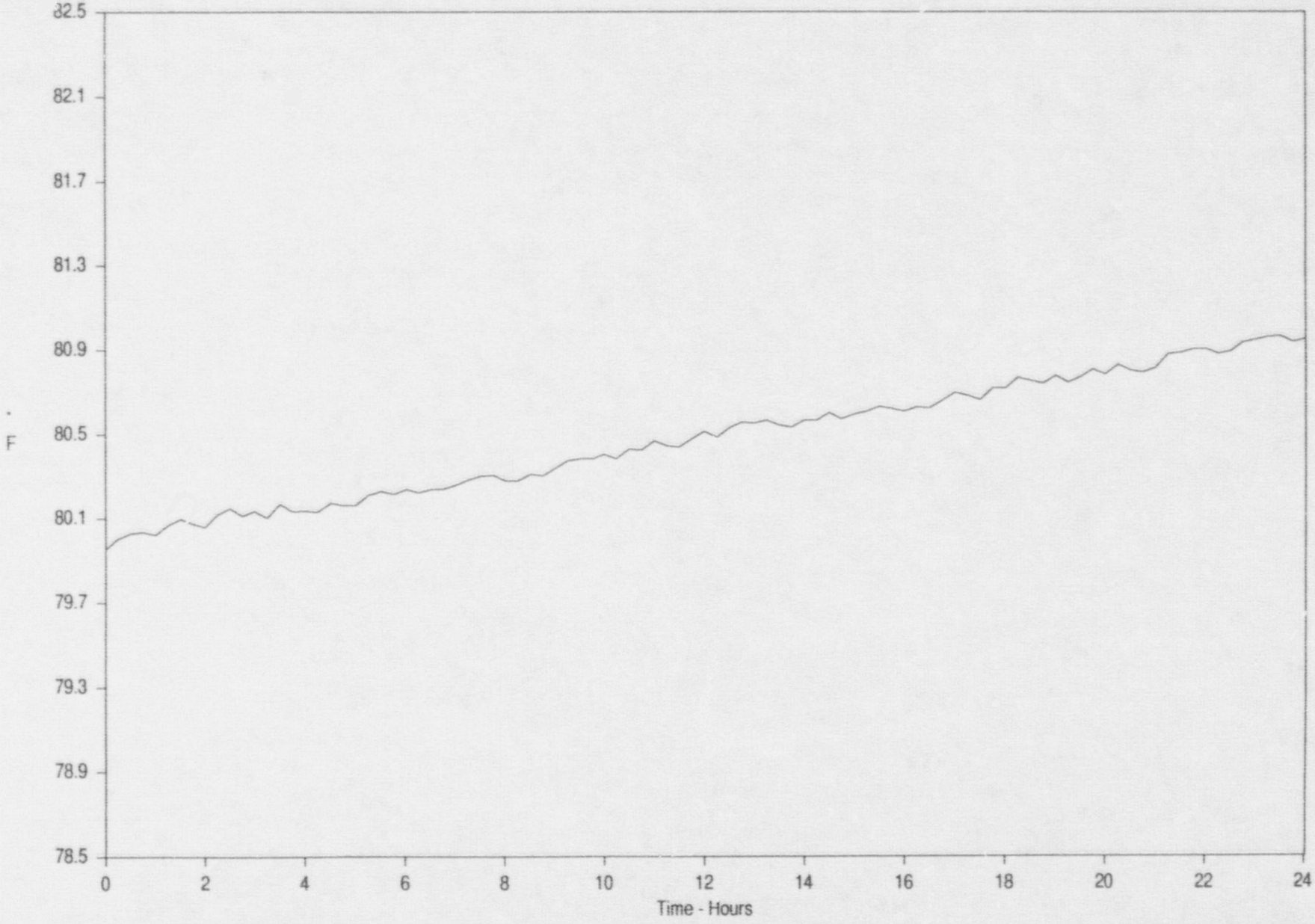
Lower Containment Average Pressure

Catawba Nuclear Station
Unit 2



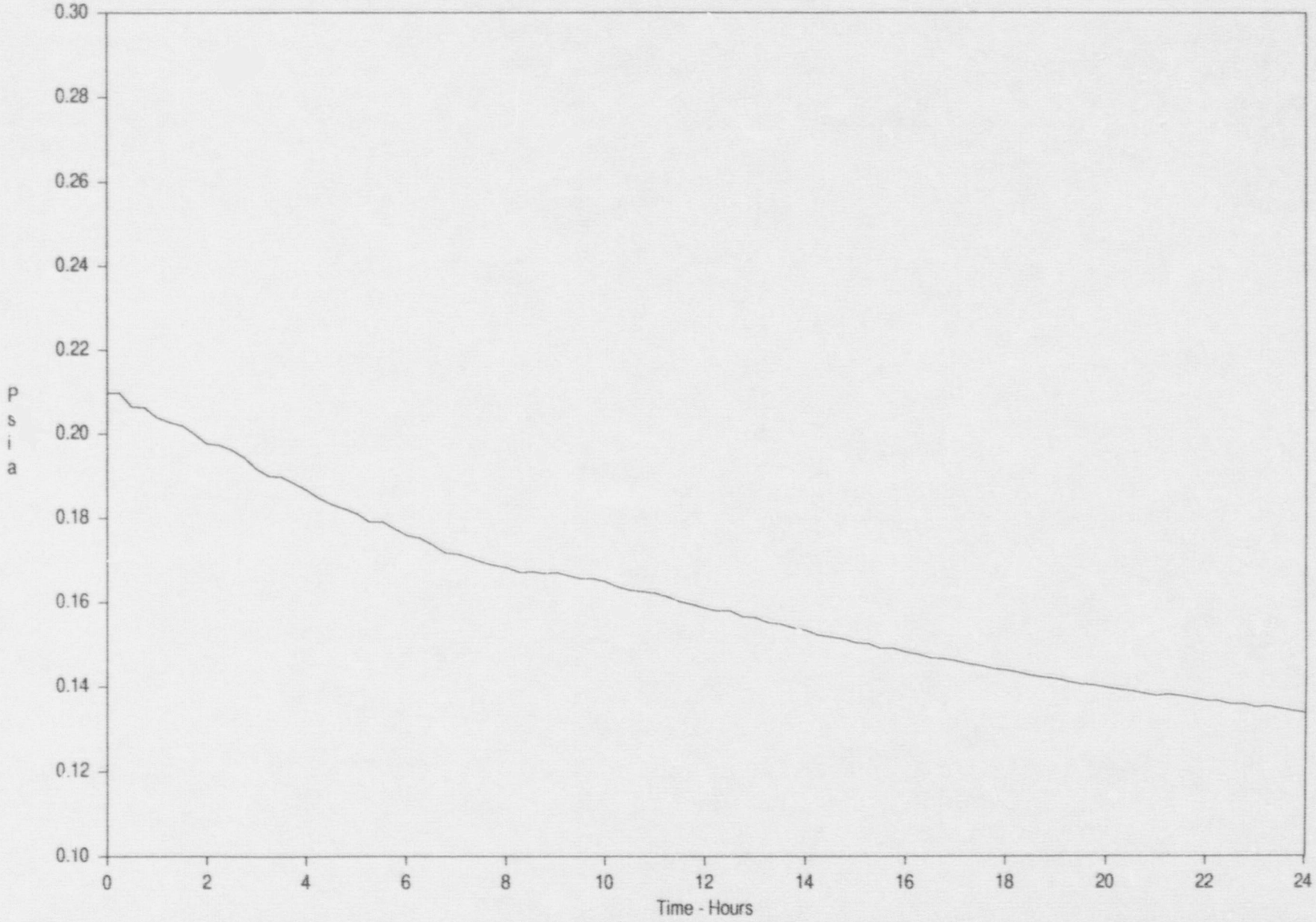
Lower Containment Average Temperature

Catawba Nuclear Station
Unit 2



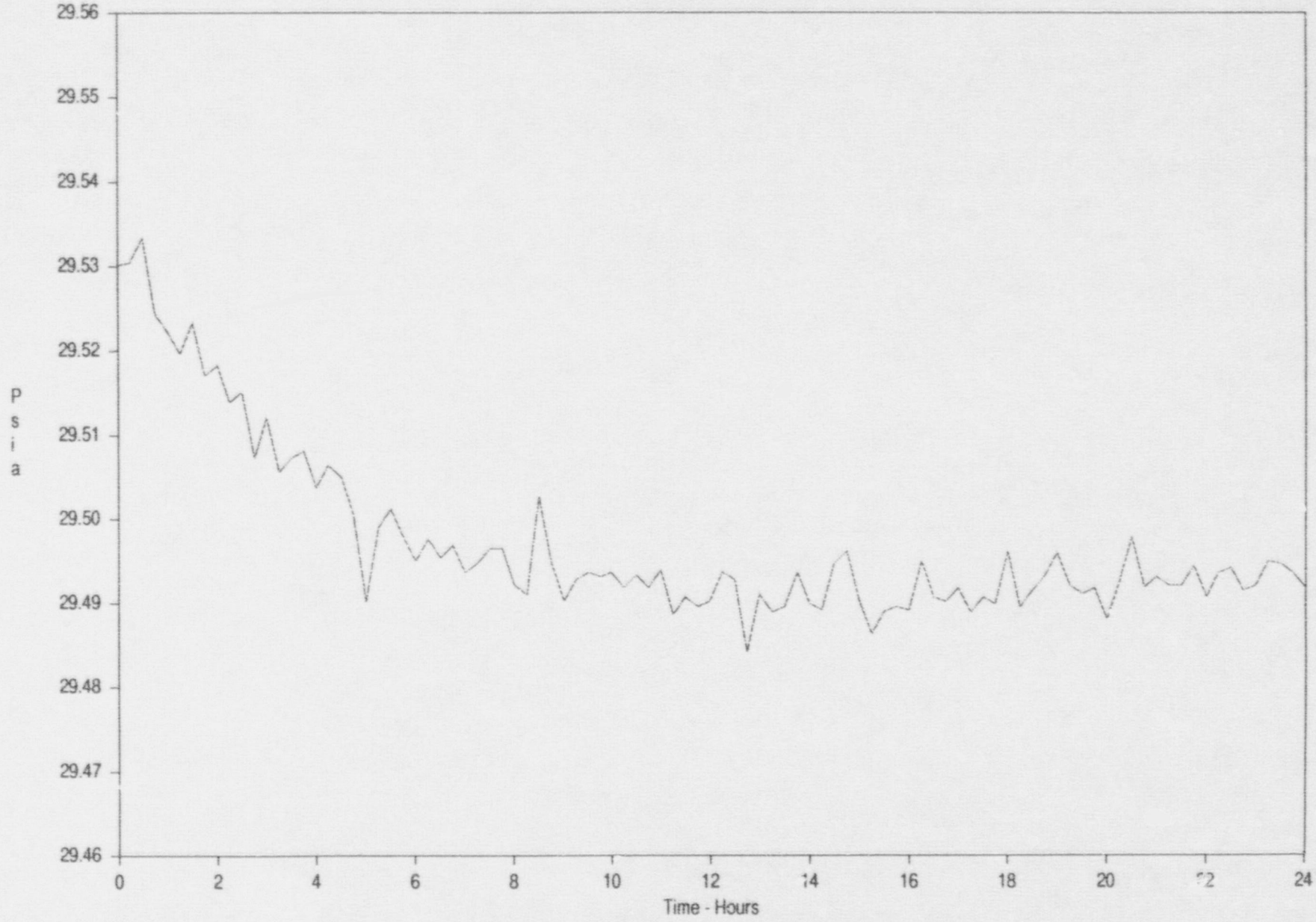
Lower Containment Average Vapor Pressure

Catawba Nuclear Station
Unit 2



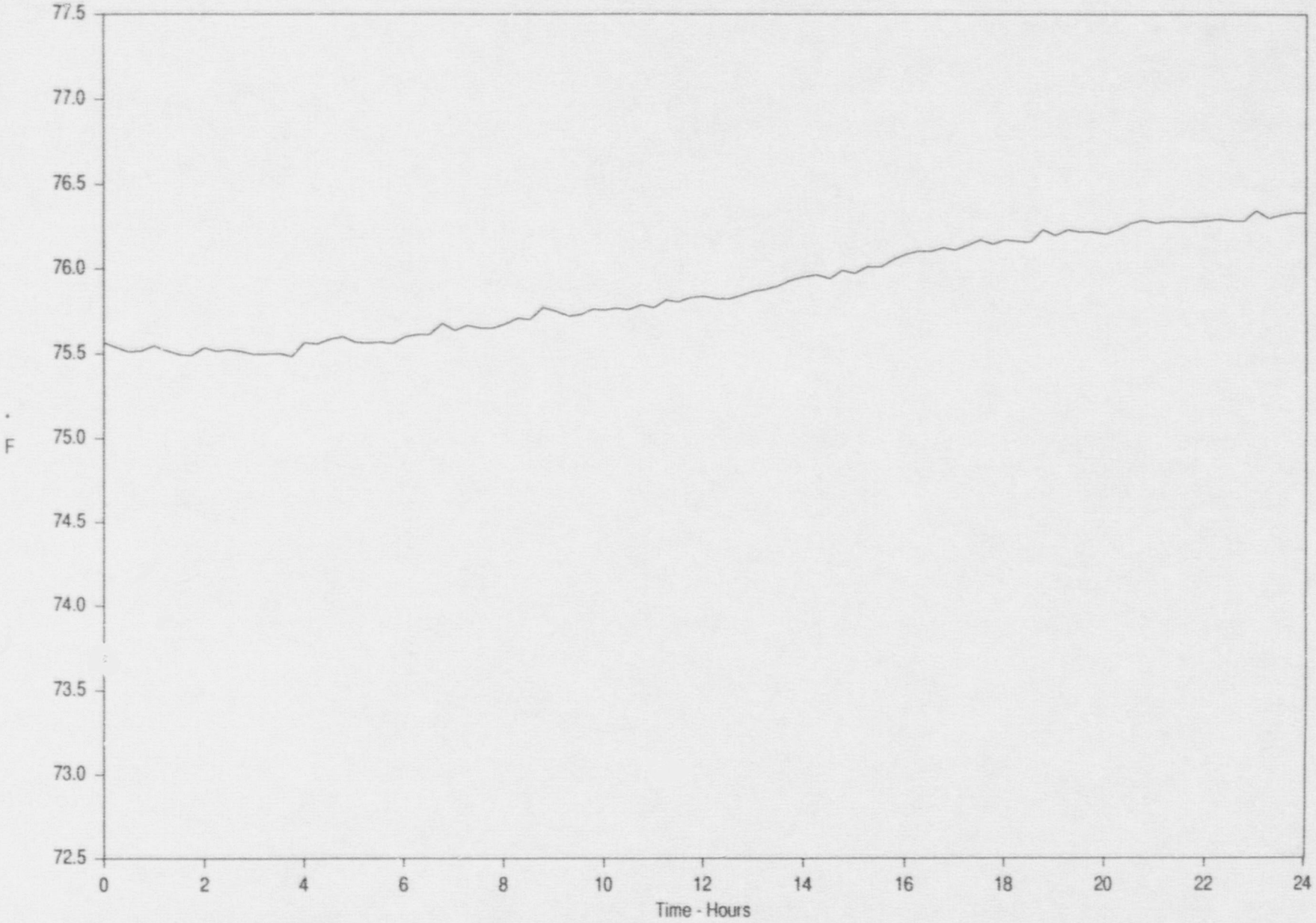
Upper Containment Average Pressure

Catawba Nuclear Station
Unit 2



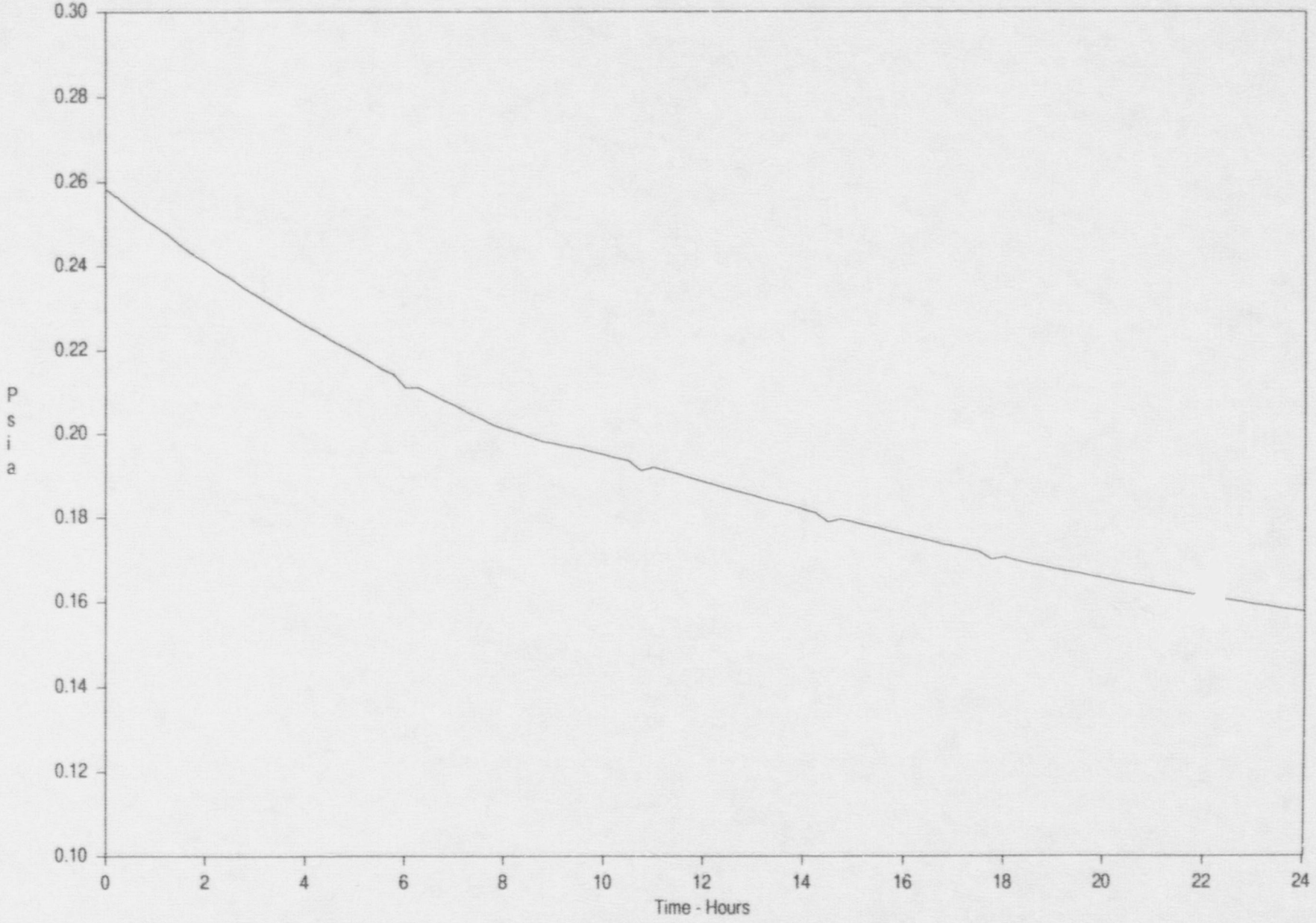
Upper Containment Average Temperature

Catawba Nuclear Station
Unit 2



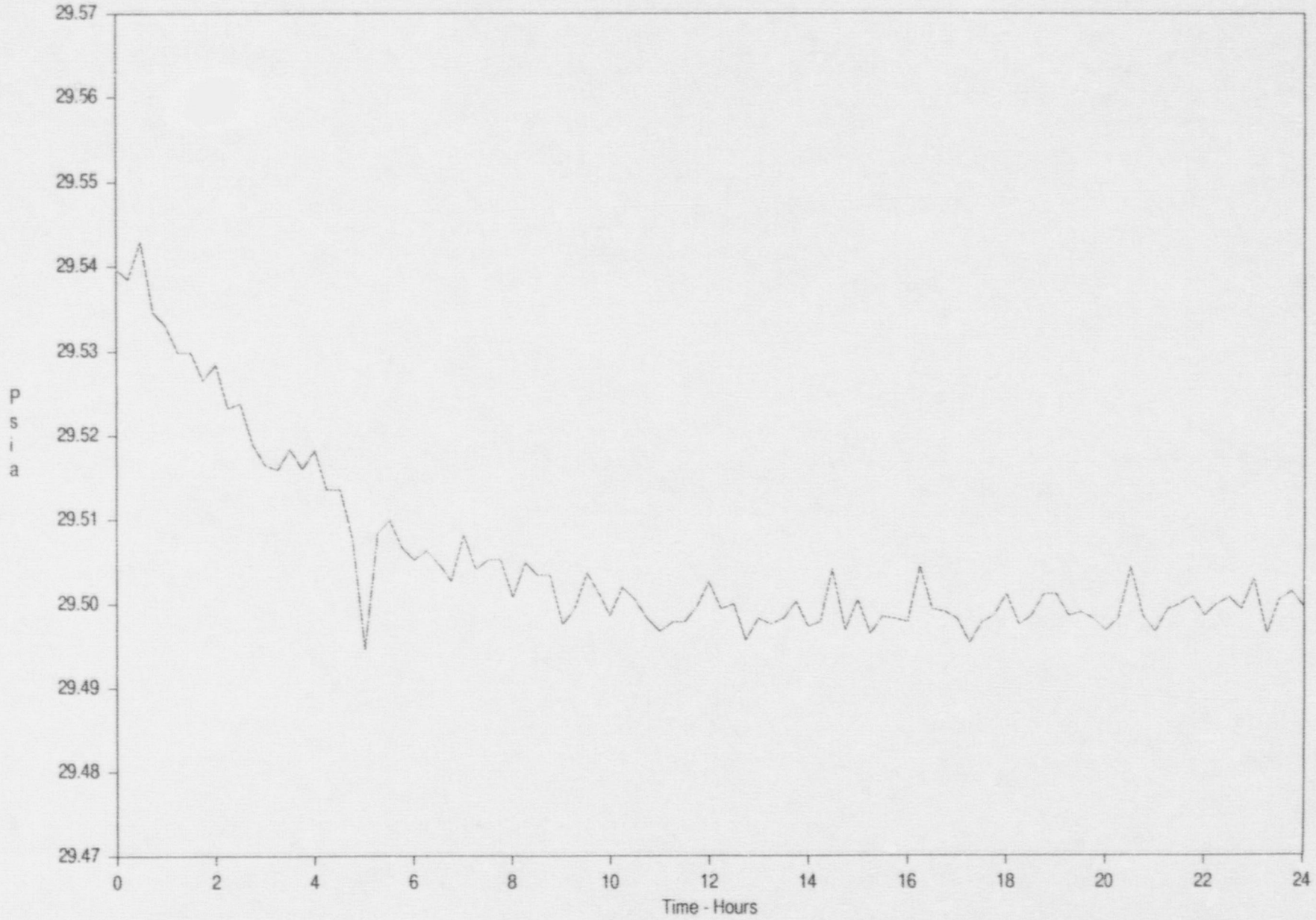
Upper Containment Average Vapor Pressure

Catawba Nuclear Station
Unit 2



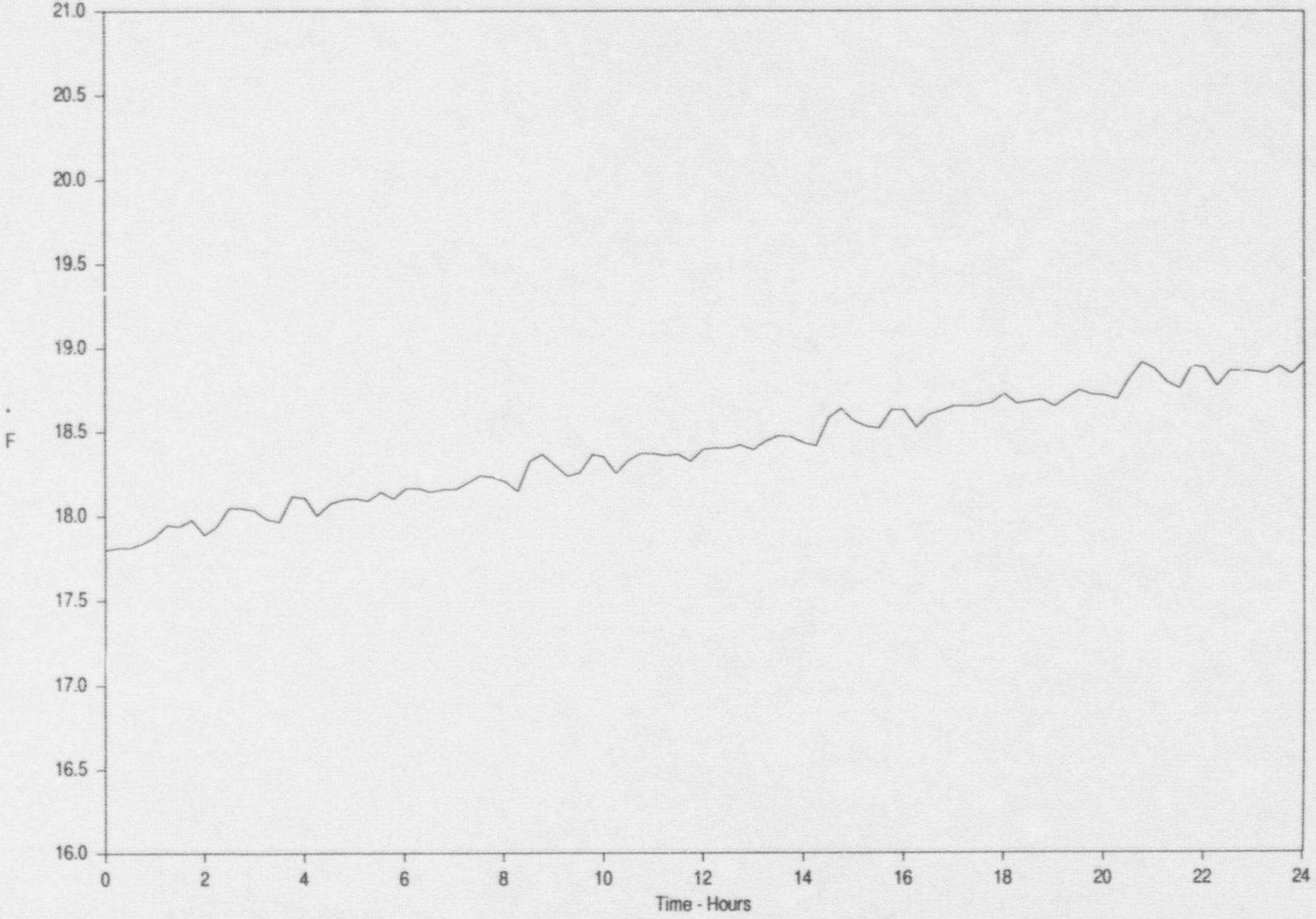
Ice Condenser Average Pressure

Catawba Nuclear Station
Unit 2



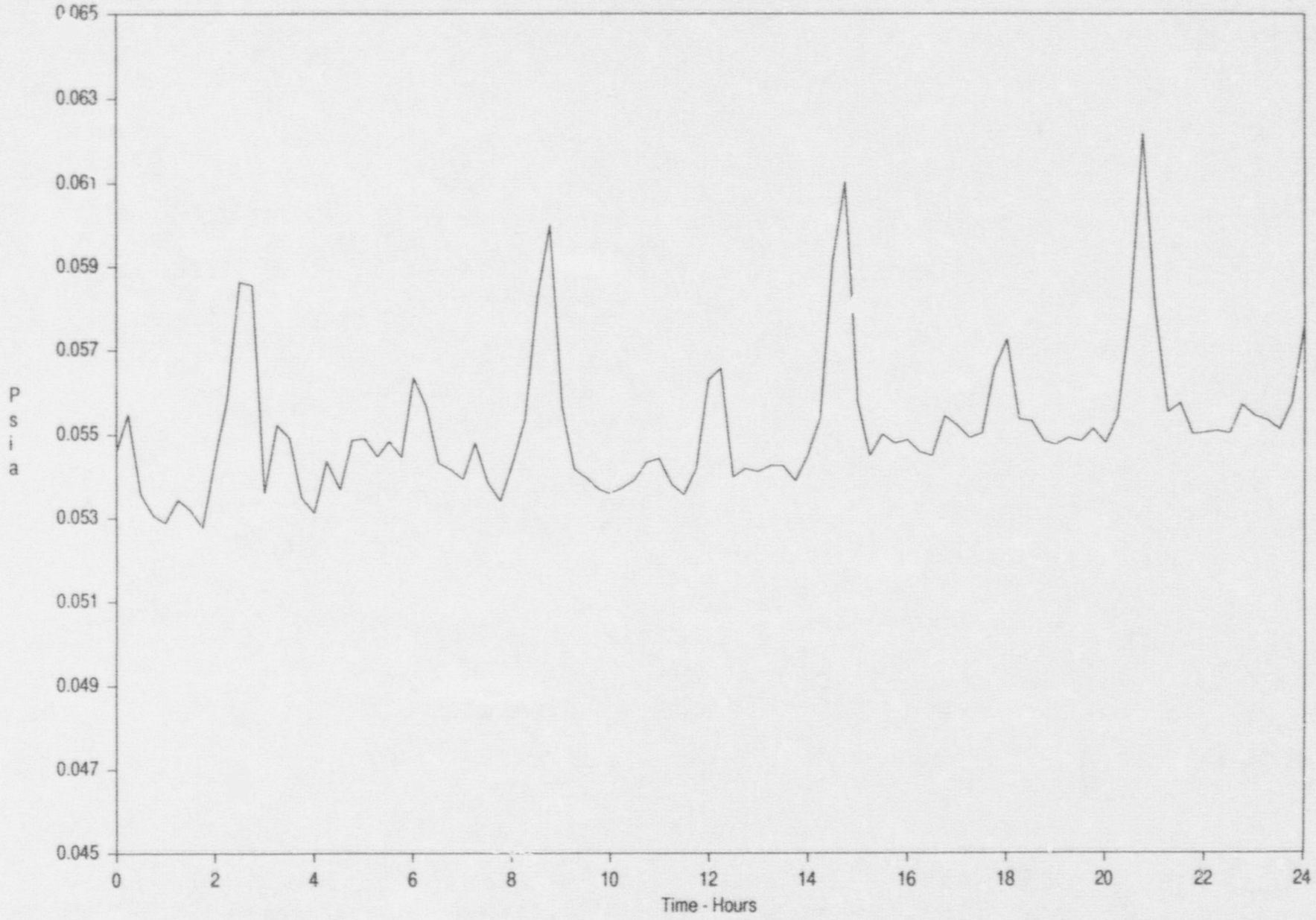
Ice Condenser Average Temperature

Catawba Nuclear Station
Unit 2



Ice Condenser Average Vapor Pressure

Catawba Nuclear Station
Unit 2



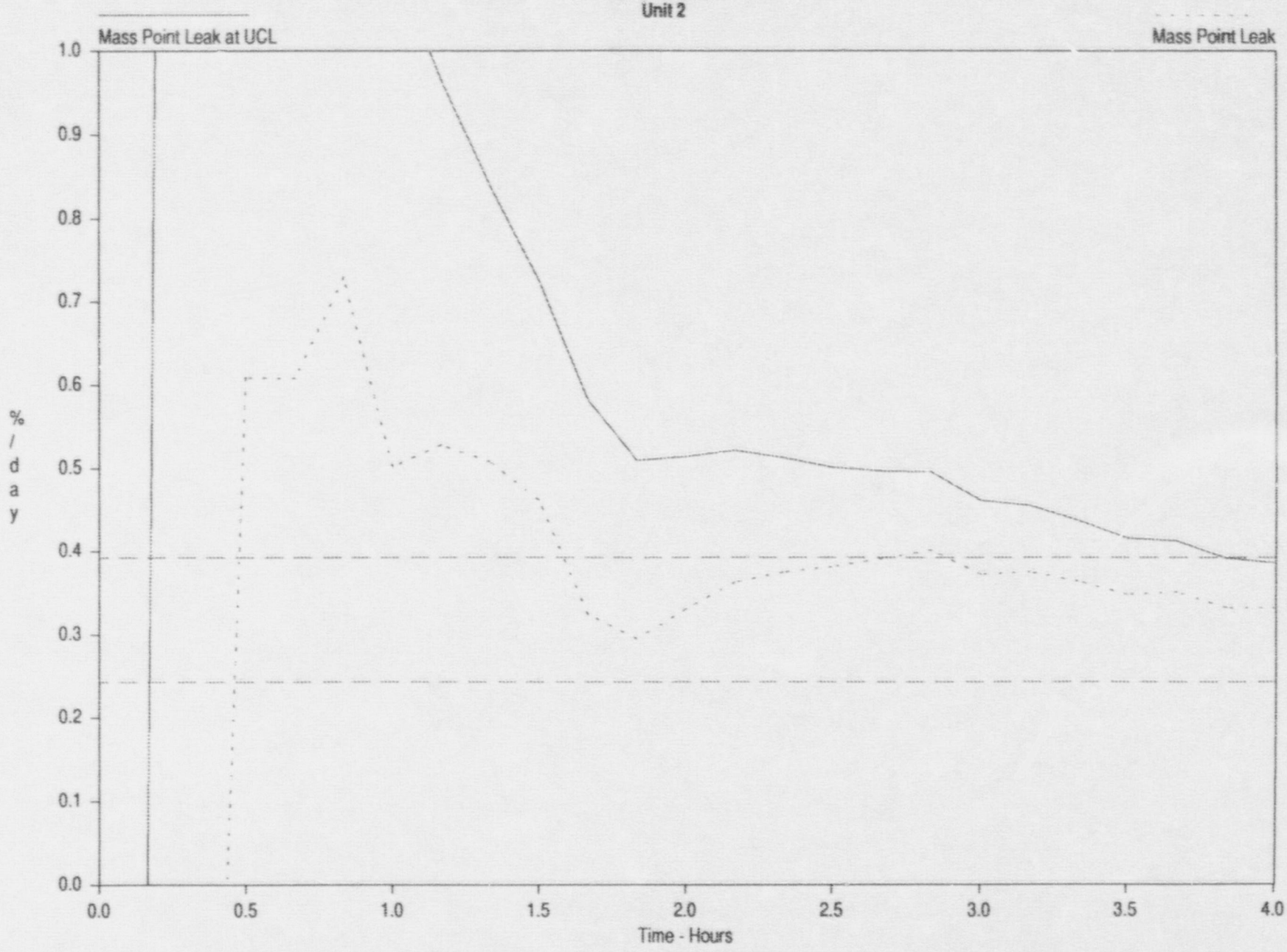
C. Superimposed Leak Rate Test Plots

The attached plots show data accumulated during the verification test, beginning at 2256 hours on 3/17/89 and ending at 0256 hours on 3/18/89.

- Mass Point Leakage Rate and UCL
- Normalized Containment Mass

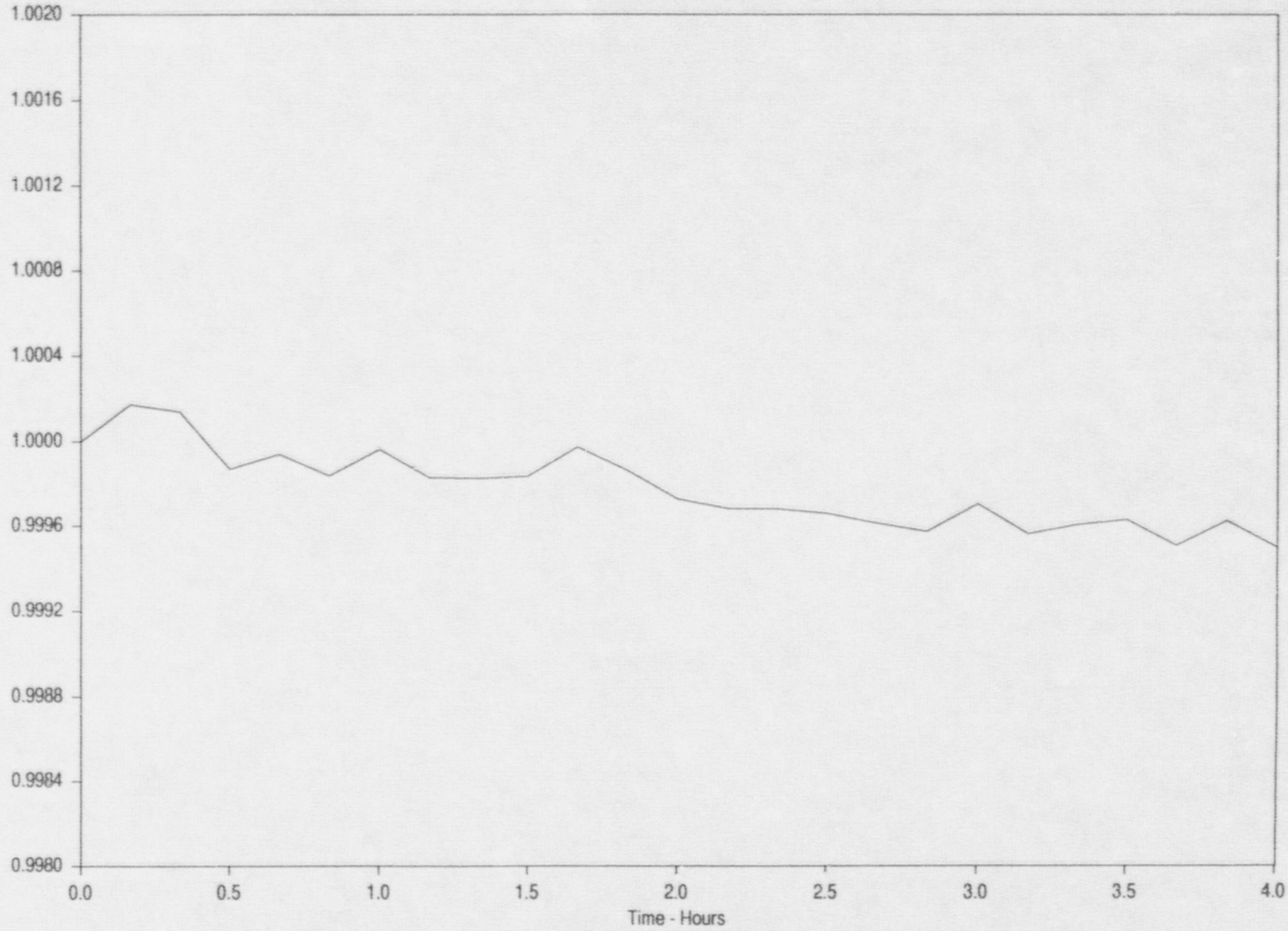
Mass Point Leak at UCL & Mass Point Leak

Catawba Nuclear Station
Unit 2



Containment Normalized Mass

Catawba Nuclear Station
Unit 2

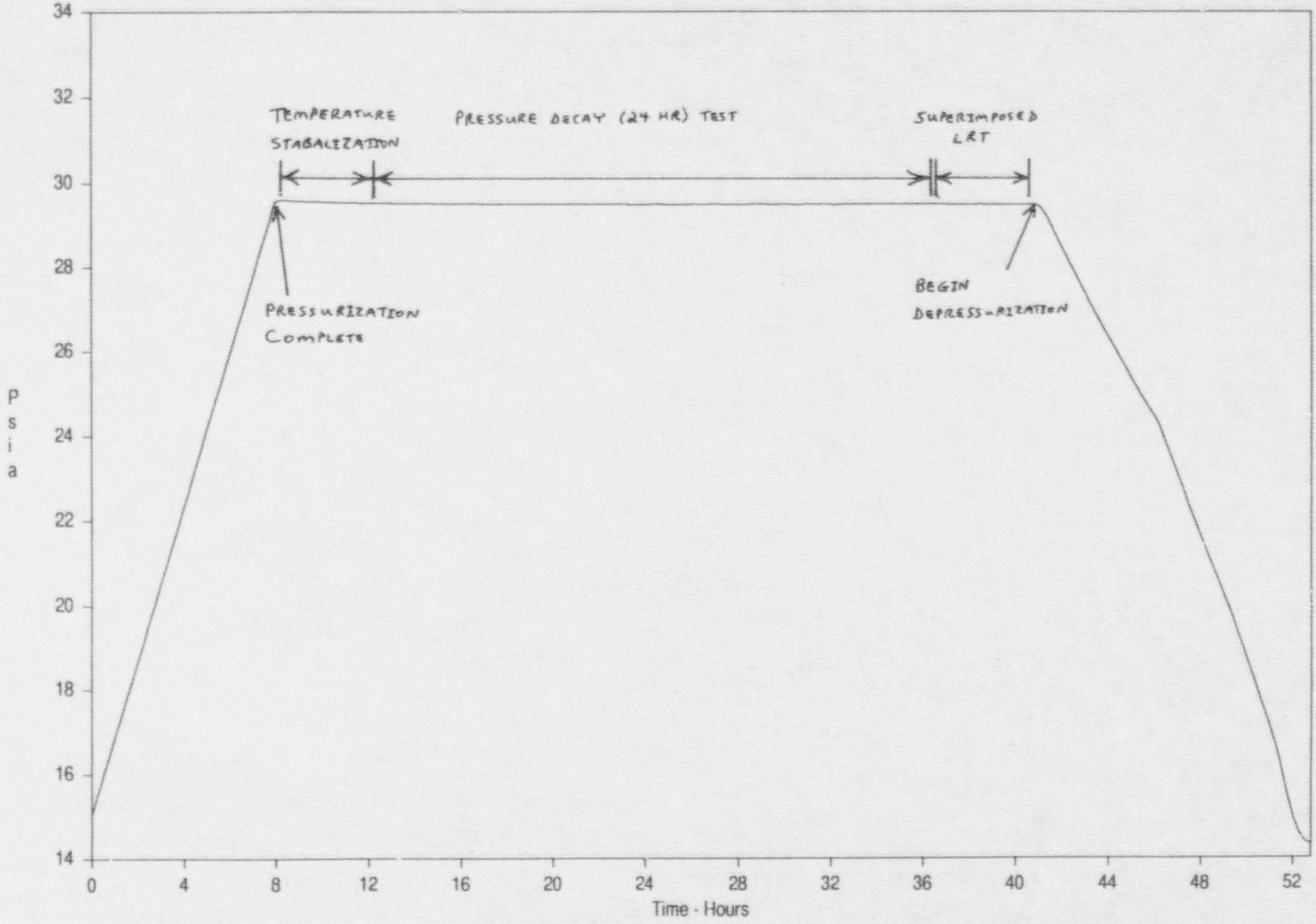


D. Miscellaneous Plots

The attached plots show: (1) Upper containment pressure and (2) Ice Condenser Average Temperature from the start of pressurization to the end of depressurization.

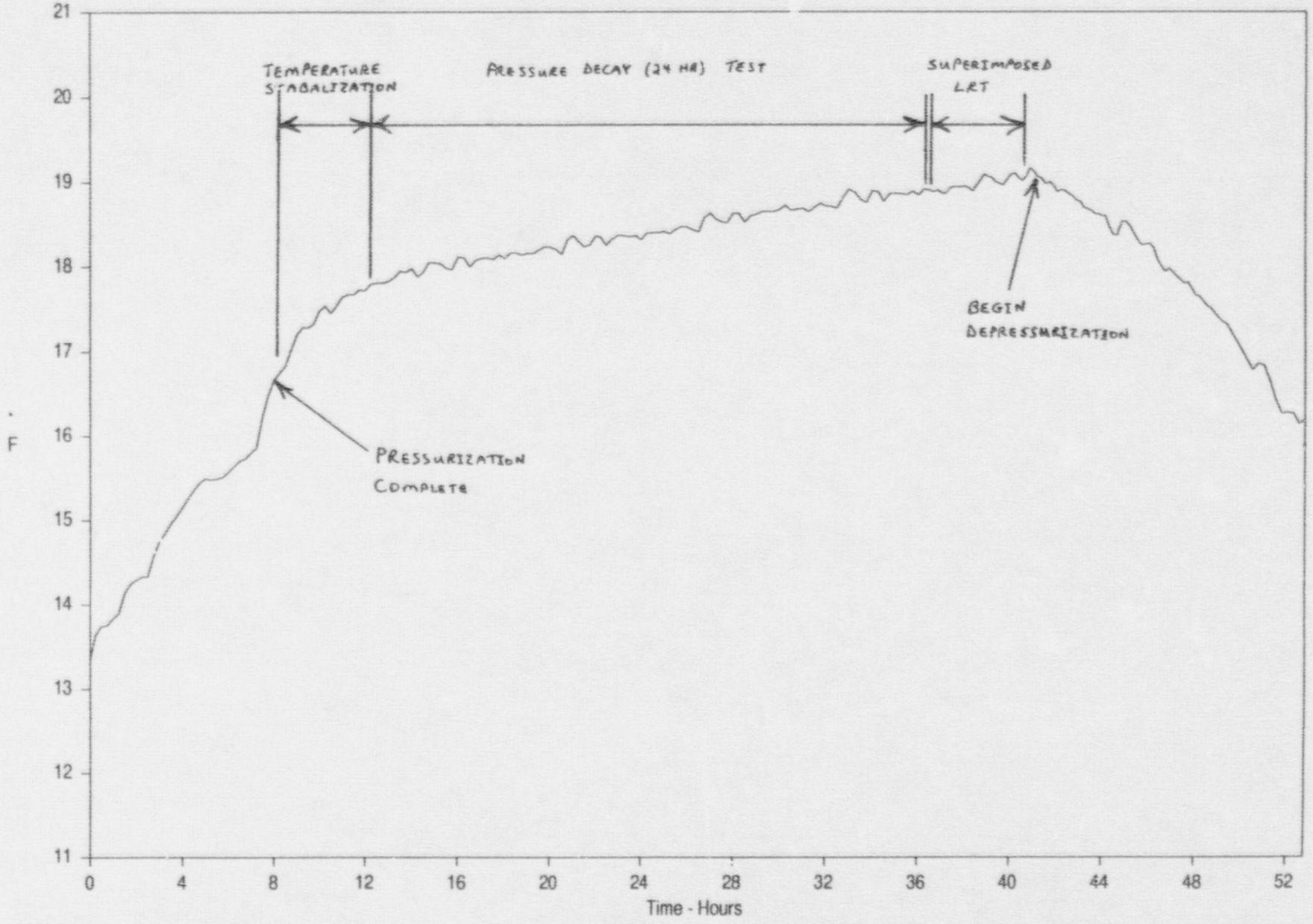
Upper Containment Average Pressure

Catawba Nuclear Station
Unit 2



Ice Condenser Average Temperature

Catawba Nuclear Station
Unit 2



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V. APPENDICES

A. ILRT Program Calculations Description

B. Test Log of Significant Events

C. RTD Locations

D. Leakage Penalty Analysis

E. Leakage Savings Analysis

F. Local Leakage Rate Testing Conducted Since the Last ILRT

G. Test Data

APPENDIX A

1LRT PROGRAM CALCULATIONS DESCRIPTION

SYMBOLS AND DEFINITIONS

A - Slope of least squares line

B - Intercept of least squares line

L_a - Maximum allowable leakage rate at calculated peak accident pressure as specified in the station's technical specifications, (wt. %/day)

L_{am} - Estimate of leakage rate, derived from Mass Point least squares slope and intercept, expressed as a positive number, (wt %/day)

L_i - Measured leakage rate based on the difference between the initial mass at time t_1 and the mass at the ith interval, (wt. %/day)

L_{tt} - Estimate of leakage rate, derived from the Total Time least squares slope and intercept, (wt. %/day)

n - Number of (N_i, t_i) pairs of measurements

$\tilde{n}$ - Number of (L_i, tt_i) pairs of measurements

N_i - Normalized mass of containment air at the ith interval

P - Total compartment absolute pressure in containment, (psia)

P_v - Partial pressure of water vapor, (psia)

R - Gas constant for air, 53.35 ft lbf/lbm °R

S_A - Estimate of standard deviation of slope term A derived from least squares line

T - Mean compartment absolute temperature of containment air, (°R)

t_i - elapsed time since first reading, (min)

tt_i - elapsed time since second reading, (min)

$t_{.95}$ - 95th percentile of Students t distribution

UCL - Upper Confidence Limit; a calculated value constructed from test data with the intention of placing an upper bound on the time leakage rate, (wt. %/day)

V - Internal free volume of containment (assumed to remain constant for test duration), (ft^3)

W_i - Measured mass of containment air at ith interval

i - subscript i indicates ith data point; i.e., (W_i, t_i), $i = 1, 2, \ldots, n$

1.0 RAW DATA CALCULATIONS

The raw data set consists of clock time, air temperature sensor readings in ohms, pressure sensor readings in volts and dew point hygrometer readings in milliamps. Catawba and McGuire use 52 RTD's for temperature measurement, three Ruska's for pressure measurement and six hygrometers for dew point temperature measurement. Oconee uses 24 RTD's for temperature measurement, two Ruska's for pressure measurement and six hygrometers for dew point temperature measurement. All raw data values are converted into engineering units by equation 1.1.

$$Y = C0 + C1(X) + C2(X)^2 + C3(X)^3 + C4(X)^4 \qquad (1.1)$$

where: Y = converted value (°F,psia)
X = raw data value (ohms,V,amps)
C0,C1,C2,C3,C4 = conversion constants

Note: For Pressure, C1=10; C0, C2, C3 & C4 = 0.0.
For Dew Point, C0, C1, C2, C3 and C4 are obtained manufacturer's. instrument specification sheet.
For Temperature, C0,C1 and C2 are obtained from Standard's Lab calibration sheets; C3 & C4 = 0.

The mean absolute temperature for each compartment at the ith interval is determined by equation 1.2.

$$T_i = \frac{1}{\sum_{j=1}^{m} \frac{Vf_j}{T_{ij}}} \qquad (1.2)$$

where: T_i = containment atmosphere volume weighted absolute drybulb temperature at the ith interval, (°R)
T_{ij} = absolute temperature of the jth sensor at the ith interval, (°R; where °R = °F + 459.67)
Vf_j = volume fraction assigned to temp. sensor j
m = number of temperature sensors in compartment

Reference: ANSI/ANS-56.8-1987

The average dew point temperature for each compartment at the ith interval is determined by equation 1.3.

$$Tdp_i = \sum_{j=1}^{k} Tdp_{ij}\ Vf_j \qquad (1.3)$$

where: Tdp_i = average compartment dew point temperature at ith interval, (°F)
Tdp_{ij} = dew point temperature recorded by sensor j at ith interval, (°F)
Vf_j = volume fraction corresponding to dew point sensor j
k = number of dew point sensors in compartment

Reference: ANSI-56.8-1987

The total absolute pressure for each compartment at the ith interval is determined by equation 1.4.

$$P_i = \sum_{j=1}^{k} P_{ij}\ Vf_j \qquad (1.4)$$

where: P_i = total compartment absolute pressure at the ith interval, (psia)
P_{ij} = total absolute pressure recorded by sensor j at the ith interval, (psia)
Vf_j = volume fraction corresponding to pressure sensor j
k = number of pressure sensors in compartment

The weighted average dew point temperature for each compartment is substituted into either equation 1.5 or equation 1.6 to calculate the compartment partial pressure of water vapor.

For T > 32°F : (1.5)

$$\frac{P_v}{P_c} = \exp\left[\frac{1}{\Theta}\,\frac{\sum_{n=1}^{5} k_n(1-\Theta)^n}{1 + k_6(1-\Theta) + k_7(1-\Theta)^2} - \frac{(1-\Theta)}{k_8(1-\Theta)^2 + k_9}\right]$$

where:

P_v = vapor press. (Pa)
(1 Pa = $1.45037738 \times 10^{-4}$ psi)

P_c = 22120.0 kPa

θ = T/T_c

T = dew point temp. (°K)
[°K = (5/9)(°F - 32) + 273.15]

T_c = 647.3 °K

k_1 = -7.691234564

k_2 = -26.08023696

k_3 = -168.1706546

k_4 = 64.23285504

k_5 = -118.9646225

k_6 = 4.167117320

k_7 = 20.97506760

k_8 = 1×10^9

k_9 = 6

Reference: ASME Steam Tables, Fifth Edition, Appendix 1, Section 5, Reduced Saturation Pressure, 1983.

For T ≤ 32 °F :

At temperatures less than 32 °F, dew point hygrometers measure the frost point temperature rather than the dew point. The saturation pressure over ice is determined by substituting the frost point temperature into equation 1.6.

(1.6)

$$\ln(P_v) = C_1/T + C_2 + C_3T + C_4T^2 + C_5T^3 + C_6T^4 + C_7\ln(T)$$

where:

P_v = vapor press. (Pa)
(1 Pa = $1.45037738 \times 10^{-4}$ psi)

T = dew point temp. (°K)
[°K = (5/9)(°F - 32) + 273.15]

C_1 = -5674.5359

C_2 = 6.3925247

C_3 = $-0.9677843 \times 10^{-2}$

C_4 = $0.62215701 \times 10^{-6}$

C_5 = $0.20747825 \times 10^{-8}$

C_6 = $-0.9484024 \times 10^{-12}$

C_7 = 4.1635019

Reference: ASHRAE Handbook 1981 Fundamentals, Chapter 5, page 2.

The mass of air in each compartment at the ith interval is determined by the ideal gas law, equation 1.7.

$$W_{ik} = \frac{144\ V\ X_k}{R}\left[\frac{(P_i - Pv_i)}{T_i}\right] \qquad (1.7)$$

where: W_{ik} = measured mass of compartment air at the ith interval, (lbm)
T_i = compartment atmosphere volume weighted absolute drybulb temperature at the ith interval, (°R; where °R = °F + 459.67)
P_i = total absolute pressure in compartment at the ith interval, (psia)
Pv_i = partial pressure of water vapor for compartment at time i, (psia)
X_k = compartment building volume fraction,
V^k = total containment vessel volume, (ft^3)
R = gas constant for air, (53.35 ft lbf/lbm °R)
144 = conversion constant from in^2 to ft^2

The mass is calculated for each of three compartments (lower containment, upper containment and the ice condenser) at Catawba and McGuire Nuclear Stations. The mass of each of the three compartments is summed together, resulting in the total mass for the containment vessel. For Oconee Nuclear Station, having only one compartment, the containment mass is equal to the compartment mass.

A single total containment mass and a single time is assigned to each reading set number. A normalized containment mass is computed by dividing each reading's mass by the mass corresponding to the containment air mass at the start of the test reading at time t_1. Normalizing the containment masses for each reading improves the precision of the leakage rate calculations by reducing the truncation errors associated with the large numbers generated by the least squares fit regression calculations.

The normalization equation is given by 1.8.

$$N_i = \frac{W_i}{W_1} \qquad (1.8)$$

where: N_i = total normalized containment air mass at the ith interval
Wi = total containment air mass at the ith interval
W_1 = total containment mass at start of the test

2.0 Mass Point Leakage Rate Calculation

This analysis method consists of determining the mass of air in containment, absolutely, utilizing the ideal gas law, at each time point during the test and using a straight-line least squares analysis to estimate the leakage rate. The estimate of the leakage rate is a function of both the slope and the intercept of the regression line computed by equations 2.1 and 2.2 respectively.

$$A = \frac{n(\Sigma t_i N_i) - (\Sigma N_i)(\Sigma t_i)}{n(\Sigma t_i^2) - (\Sigma t_i)^2} \qquad (2.1)$$

$$B = \frac{(\Sigma N_i)(\Sigma t_i^2) - (\Sigma t_i N_i)(\Sigma t_i)}{n(\Sigma t_i^2) - (\Sigma t_i)^2} \qquad (2.2)$$

where: A = slope of least squares line
B = intercept of least squares line
t_i = elapsed time since first reading,(min)
N_i = normalized mass of reading at t_i ($N_i = W_i/W_1$)
n = number of points (N_i, t_i pairs)

Note: Each t_i is the elapsed time between the clock time at which the first test reading is taken and the clock time at which the ith reading is taken. Thus, $t_1 = 0$ in all test situations, t_2 is the elapsed time before the next reading, and so on.

The measured leakage rate is expressed as the ratio of the rate of change of mass to the mass in containment at time $t_i = 0$. Since values of t_i are expressed in units of minutes, the mass point leakage rate is expressed as a positive number by computing equation 2.3.

$$L_{am} = -144{,}000\ (A/B) \qquad (2.3)$$

where: L_{am} = estimate of leakage rate, derived from least squares slope and intercept, (wt. %/day)
A = the slope of the least squares line
B = the intercept of the least squares line
$-144{,}000$ = (60 min/hr)(24 hrs/day)(100 %)

The standard deviation of the slope, S_A, is given by 2.4.

$$S_A = \left[\left(\frac{1}{n-2}\right) \left[\frac{n(\Sigma N_i^2) - (\Sigma N_i)^2}{n(\Sigma t_i^2) - (\Sigma t_i)^2} - A^2\right]\right]^{1/2} \qquad (2.4)$$

where: S_A = standard deviation of the slope A
A = slope of the least squares line
N_i = normalized mass of reading at t_i, $(N_i = W_i/W_1)$
t_i = elapsed time since first reading, (min)
n = number of points (N_i,t_i pairs)

The following approximation is given for the 95th percentile of the Student's t distribution, $t_{.95}$:

For $d_F \geq 3$

$$t_{.95} = \frac{1.6449(n-2)^2 + 3.5283(n-2) + 0.85602}{(n-2)^2 + 1.2209(n-2) - 1.5162} \qquad (2.5)$$

where: $t_{.95}$ = the 95th percentile of the Student's t distribution
$n-2$ = degrees of freedom, d_F, where n = the number of (N_i,t_i pairs)

Reference: ANSI/ANS-56.8-1987, Appendix B, footnote 17,p 24.

The ratio S_B/B is small when compared with the ratio S_A/B; therefore, an approximate upper confidence limit of the 95 percent confidence level on the true leakage rate is provided by equation 2.6.

$$UCL = L_{am} + 144{,}000\ (t_{.95})\ (S_A/B) \qquad (2.6)$$

where:
- UCL = approximate 95 percent upper confidence level on the true leakage.
- L_{am} = estimate of leakage rate, derived from least squares slope and intercept, (wt. %/day)
- $t_{.95}$ = the 95th percentile of Student's t distribution
- S_A = standard deviation of the slope A
- B = the intercept of the least squares line

3.0 Total Time Leakage Rate Calculation

The Total Time method calculates a series of leakage rates based on the starting mass point and the most recent mass point (i.e. it calculates a leakage rate between data points 1 & 2; then between 1 & 3; and so on). Each successive leakage calculation is based upon a longer period of time. The overall leakage rate, in weight percent per day, at any given time is determined by applying linear regression analyses to the leakage rates at each time point.

The leak rate corresponding to each data point is determined from equation 3.1.

$$L_i = \frac{144{,}000}{t_i}\ (\ 1 - N_i\ ) \qquad (3.1)$$

where:
- L_i = measured leakage rate based on the difference between the initial mass at time t_1 and the mass at time t_i (Note: the normalized mass at at time t_1=1), (wt. %/day)
- N_i = normalized mass at time t_i ($N_i = W_i/W_1$)
- t_i = elapsed time since first reading, (min)
- i = 2 to n; where n = number of (N_i, t_i pairs)

Plotting the measured leakage rate (L_i) on the y axis and the total time (tt_i) on the x axis, the following regression equations are used to find the slope and intercept:

$$A = \frac{\tilde{n}(\Sigma tt_i L_i) - (\Sigma L_i)(\Sigma tt_i)}{\tilde{n}(\Sigma tt_i^2) - (\Sigma tt_i)^2} \qquad (3.2)$$

$$B = \frac{(\Sigma L_i)(\Sigma tt_i^2) - (\Sigma tt_i L_i)(\Sigma tt_i)}{\tilde{n}(\Sigma tt_i^2) - (\Sigma tt_i)^2} \qquad (3.3)$$

where:
- A = slope of least squares line
- B = intercept of least squares line
- tt_i = elapsed time since second reading, (min)
- L_i = measured leakage rate based on the difference between the initial mass at time t_1 and the mass at time t_i, (wt. %/day)
- $\tilde{n}$ = number of leakage pairs (L_i, tt_i pairs)
- i = 2 to $\tilde{n}$+1
- n = $\tilde{n}$+1

Note: Each tt_i is the elapsed time between the clock time at which the second test reading is taken and the clock time at which the ith reading is taken. Thus, tt_2 = 0 in all test situations, tt_3 is the elapsed time before the next reading, and so on.

The Total Time leakage rate at some specific time, t_i, is calculated from the regression line equation for the Least Squares "best fit" straight line given by equation 3.4.

$$L_{tt} = A\,(tt_i) + B \qquad (3.4)$$

where:
- L_{tt} = total time leakage rate at time t_i, (wt. %/day)
- A = slope of the least squares line
- B = the intercept of the least squares line
- tt_i = elapsed time since second reading, (min)

Note: The intercept of the least squares line, B, corresponds to the clock time for reading number two; therefore, the Total Time Leakage rate can only be calculated for reading numbers 3 to n.

The standard deviation of the slope, S_A, is calculated from either equation 3.5 or 3.6.

For t_n < 24 hours: (3.5)

$$S_A = \left[\frac{\Sigma L_i^2 - B\Sigma L_i - A\Sigma L_i tt_i}{\tilde{n} - 2} \left[1 + 1/\tilde{n} + \frac{(tt_n - \Sigma tt_i/\tilde{n})^2}{\Sigma tt_i^2 - (\Sigma tt_i)^2/\tilde{n}} \right] \right]^{1/2}$$

For t_n > 24 hours: (3.6)

$$S_A = \left[\frac{\Sigma L_i^2 - B\Sigma L_i - A\Sigma L_i tt_i}{\tilde{n} - 2} \left[1/\tilde{n} + \frac{(tt_n - \Sigma tt_i/\tilde{n})^2}{\Sigma tt_i^2 - (\Sigma tt_i)^2/\tilde{n}} \right] \right]^{1/2}$$

where: S_A = standard deviation of the slope A at time t_n
L_i = measured leakage rate based on the difference between the initial mass at time t_1 and the mass at time t_i, (wt. %/day)
A = slope of the least squares line
B = intercept of the least squares line
tt_i = elapsed time since second reading, (min)
$\tilde{n}$ = number of leakage pairs (L_i,tt_i pairs)
i = 2 to $\tilde{n}$+1
n = $\tilde{n}$+1

The Total Time method utilizes a 97.5% Student's t distribution for a test duration less than 24 hours and a 95% Student's t distribution for a test duration greater than or equal to 24 hours. The approximation given by equation 3.7 is used for the 97.5% Student's t distribution. Equation 2.5 is used for the 95% Student's t distribution.

For t_n < 24 hours:

$$t_{.975} = 1.95996 + \frac{2.37226}{(\tilde{n}-2)} + \frac{2.82250}{(\tilde{n}-2)^2} \quad (3.7)$$

where: $t_{.975}$ = the 97.5 percentile of the Student's t distribution
$\tilde{n}$-2 = degrees of freedom, where n = the number of leakage pairs (L_i,tt_i pairs)

The approximate upper confidence limit on the Total Time leakage rate is given by equation 3.8

$$UCL = L_{tt} + t_{\%} S_A \qquad (3.8)$$

where: UCL = approximate 95 or 97.5 percent upper confidence level on the Total Time leakage rate, (wt. %/day)
L_{tt} = Total Time leakage rate, (wt. %/day)
$t_{\%}$ = the 95 or 97.5 percentile of the Student's t distribution at time t_n
S_A = standard deviation of the slope A at time t_n

4.0 Mass Point Termination Criteria

The following three statistical tests have been proposed to the NRC staff as a method for determining the acceptability of mass point leakage results for test durations less than 24 hours.

The first of these tests is the Maximum Window Leakage Criterion. This routine calculates the leakage rate, using the mass point methodology, for all time intervals (windows) equal to 1/2 or 1/3 of the test duration and records the value of the maximum leakage. The default value for the program is the 1/2 window leakage calculation, which has been submitted to the NRC staff for review. The 1/3 window leakage calculation option is also available if desired.

The window time interval is calculated by multiplying the elapsed time between the first reading and the last reading (reading n) by the window multiplier (1/2 or 1/3). Using the first reading as a starting point for the leakage calculation, the program uses the data acquisition frequency and subsequent iterations to find the data set having an elapsed time most closely matching

the window time interval. This data set is called the 'end reading' and represents the latest edge of the window calculation. The leading edge of the window calculation is referred to as the 'begin reading'. Using the Mass Point Method for determining leakage rate described by Section 2.0 of this Appendix, the measured leakage rate (Lam) is calculated through all data points from 'begin reading' to 'end reading'.

The 'begin reading' is then advanced by one reading. The 'end reading' is advanced, such that the time span between the 'begin' and 'end' readings most nearly approximates the time interval of the window; the leakage rate is then recalculated. The window leakage calculations are repeated until the 'end reading' is equal to the last reading of the test duration (reading n). The maximum measured leakage rate (Lam) generated by the sequential window leakage calculations is the 1/2 or 1/3 maximum window leakage value for this test duration. The test data satisfies this criterion at the point when the 1/2 or 1/3 maximum window leakage value is less than 0.75 L_a.

The second statistical test is the Limit on Data Scatter as described by Condition 2 of the NRC draft Regulatory Guide MS 021-5. This test ensures a tight fit of the test data about the linear least squares fit regression line used by the mass point method to calculate the leakage rate. The test is acceptable when inequality 4.1 is met.

$$r^2 > \frac{L_{am}^2[\Sigma t_i^2 - (\Sigma t_i)^2/n]}{L_{am}^2[\Sigma t_i^2 - (\Sigma t_i)^2/n] + L_a^2 t_n^2 X^2(n-2, 0.95)/122.93} \quad (4.1)$$

where:

r^2 is the coefficient of determination and is defined as;

$$r^2 = \frac{[n(\Sigma t_i N_i) - (\Sigma t_i)(\Sigma N_i)]^2}{[n(\Sigma t_i^2) - (\Sigma t_i)^2][n(\Sigma N_i^2) - (\Sigma N_i)^2]} \quad (4.2)$$

$X^2(n-2, 0.95)$ is the 95th percentile of the chi-square distribution with n - 2 degrees of freedom which is approximated by;

$$\sim 1.08916(n-2)\left[\frac{(n + 1.33)(n + 42.603)}{(n - 1.202)(n + 28.155)}\right] \quad (4.3)$$

L_{am} = estimate of leakage rate, derived from least squares slope and intercept, (wt. %/day)
L_a = maximum allowable leakage rate at calculated peak accident pressure as specified in plant's technical specifications
N_i = normalized mass of reading at t_i, ($N_i = W_i/W_1$)
t_i = elapsed time since first reading, (min)
t_n = elapsed time of test at time n, (min)
n = number of points (N_i, t_i pairs)

When the ratio of the left hand side of inequality 4.1 over the right hand side of inequality 4.1 is greater than 1.0, the Limit on Data Scatter is satisfied.

The Predictor Criterion as outlined in T.M. Brown's and L.E. Estenssoro's paper, "Suggested Criteria for a Short Duration ILRT" is the third statistical test performed on the test data. Satisfying this criterion ensures that the measured leakage rate (L_{am}) and the 95 percent upper confidence limit (UCL) are

converging. In addition, the predictor equation will provide reasonable assurance that the leakage rate reported following test termination will result in the verification test meeting its acceptance criteria. The predictor equation is given by 4.4.

$$\left[2(UCL - L_{am}) + (A' + 2S_{A'})\tau \right] \frac{100}{L_a} \leq 25\% \qquad (4.4)$$

where: A' = the absolute value of the least squares regression slope (L_{am} vs time) for previous four hours of measured leakage rate, (wt. %/day/min)

$S_{A'}$ = an estimate of a standard deviation of slope of least squares regression line for the previous four hours of measured leakage rate.

τ = the time period corresponding to the last four hours of data, (min)
Note: τ will be equal to the time interval of the least squares regression slope calculation A'.

L_a = maximum allowable leakage rate at calculated peak accident pressure as specified in the station's technical specifications, (wt. %/day)

L_{am} = estimate of leakage rate, derived from Mass Point least squares slope and intercept, (wt. %/day)

UCL = approximate 95% upper confidence limit on the measured leakage, L_{am}

This criterion is met when the predictor equation result is less than 25 percent.

5.0 Verification Test Acceptance Limits

The verification test menu option, selected from the calculations section of the program, will output a recommended imposed leak setpoint in SCFM for the flow device. This value is equal to the plant's maximum allowable leakage, La and is calculated by equation 5.1.

(5.1)

$$Q(La) = W_1 \ (La/100) \left[\frac{1 \text{ day}}{1440 \text{ min}} \right] \left[\frac{1 \text{ ft}^3}{0.07517 \text{ lbm}} \right]$$

where: $Q(La)$ = Recommended imposed leak setpoint at La, (scfm)
W_1 = Initial total containment air mass at the start of the test, zero elapsed time, (lbm)
La = Maximum allowable leakage rate at calculated peak accident pressure as specified in the station's technical specifications (wt. %/day)
1440 = number of minutes in a day
0.07517 = density of dry air at standard conditions, 14.6959 psia and 68 °F, (lbm/ft^3)

Manually determine the corrected value for the superimposed leak rate, (Lo) to account for differences between calibration temperature and pressure and actual flow conditions. Remember that a rotameter is a nonlinear flow device and will require a square root correction; a turbine meter is a linear flow device and does not require the square root correction.

Given the corrected value for the superimposed leak, Lo in SCFM, it is converted to %/day by 5.2.

(5.2)

$$Lo = 100 \ \% \ \frac{Lo(scfm) \ (1440 \text{ min/day}) \ (0.07517 \text{ lbm/ft}^3)}{W1}$$

where: Lo = Corrected value for superimposed leak (wt.%/day)
Wi = Initial total containment air mass at the start of the test, zero elapsed time, (lbm)
1440 = number of minutes in a day
0.07517 = density of dry air at standard conditions, 14.6959 psia and 68 °F, (lbm/ft^3)

The upper and lower verification test acceptance limits for both the mass point methodology and the total time methodology are given by 5.3 and 5.4 respectively.

Mass Point Acceptance Limits: (5.3)

Upper Limit = Lo + Lam + 0.25 La

Lower Limit = Lo + Lam - 0.25 La

Total Time Acceptance Limits: (5.4)

Upper Limit = Lo + Ltt + 0.25 La

Lower Limit = Lo + Ltt - 0.25 La

where: Lo = corrected value for superimposed leak (wt. %/day)
Lam= estimate of leakage rate, derived from mass point least squares slope and intercept, (wt. %/day)
Ltt= estimate of leakage rate, derived from total time least squares slope and intercept, (wt. %/day)
La = Maximum allowable leakage rate at calculated peak accident pressure as specified in the station's technical specifications (wt. %/day)

APPENDIX B

TEST LOG OF SIGNIFICANT EVENTS

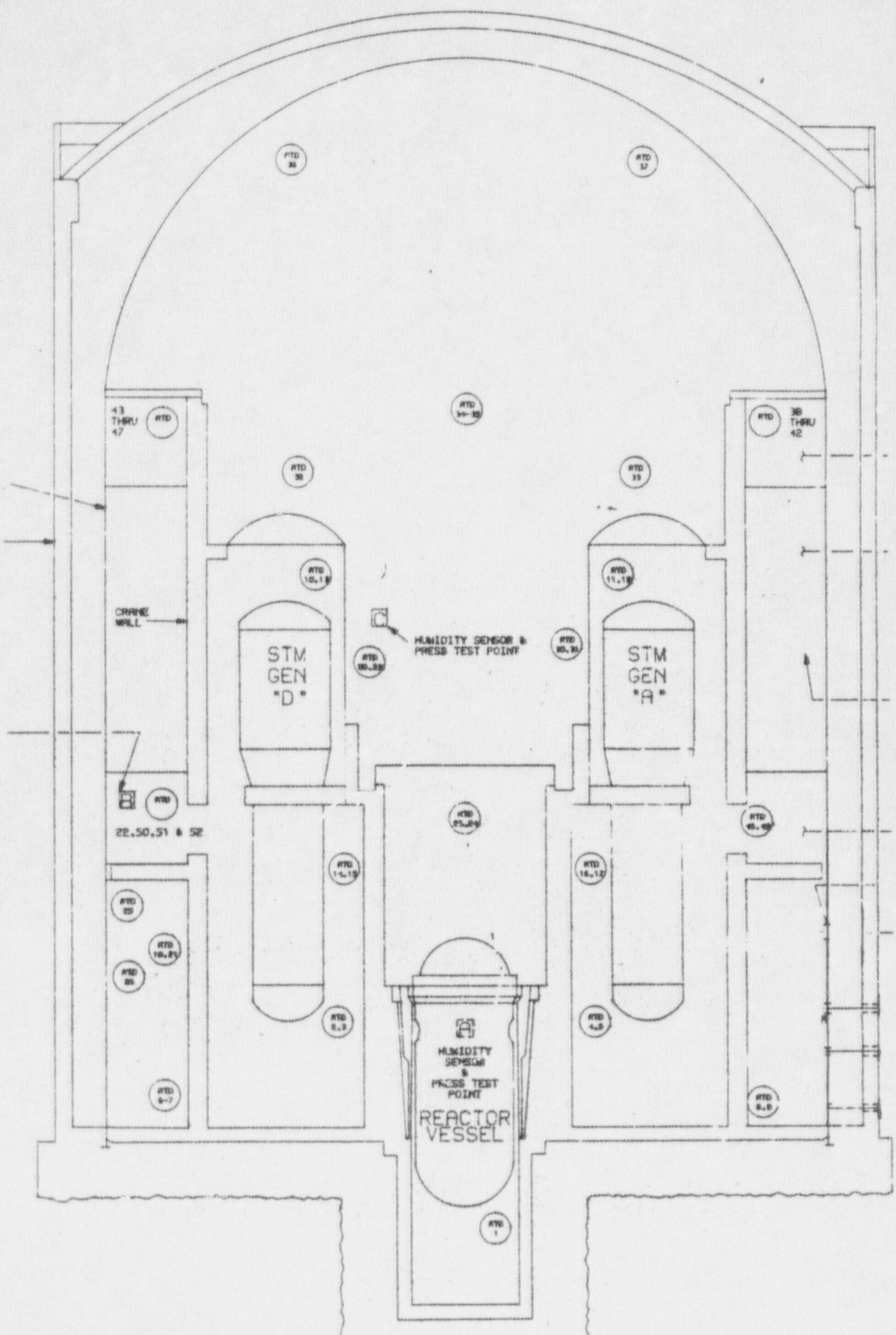
Date	Time	Comments
2/28/89		Installed multiplexer in upper containment. Box is secured to hatch cover per letter from W. M. Hogan (Design Eng. Civil) addressing seismic concerns due to unit operating.
3/2/89		Scheduled to start hanging RTDs today; however, this must be postponed. Card missing from fluke in trailer will not allow computer to scan RTDs to check dummy loads (100Ω resistors). Card is being sought from Oconee.
3/3/89		Installed card in fluke but data acquisition system still did not work. Found a bad cable between the computer and the fluke. Replaced the cable and the data acquisition system is operable.
3/6/89		Began installation of RTDs in upper containment. Installed 16 RTDs.
3/10/89	0800	Operations placed the CLRT air dryer in service last night to allow beds time to condition prior to use.
3/11/89	1000	Technicians going into lower containment to hang RTDs. Completed installation of 6 RTDs.
3/12/89	1800	Completed the installation of 17 RTDs in lower containment. This gives a total of 39 RTDs installed and checked out.
3/13/89	1040	Logged procedure into Shift Supervisor's Logbook.
3/13/89	1100	Atlas CopCo compressors on site and being placed in the required locations outside the Unit 2 Turbine Building.
3/13/89	1810	Completed installation of 12 RTDs. A work request was written (6932PRF) on 2VI129 because it would not open. This valve is used for pressurization.
3/14/89	0700	Leak Rate Test completed on 1VY34. Functional on lift setpoint shows valve lifting at 15.8 psig. I&C List calls for 17.25 psig. IAE to recalibrate.
3/14/89	0800	Rental compressor hookup in progress.
3/14/89	1000	ILRT desiccant drying tower checked out and operating ok.
3/14/89	1100	LRT completed on ILRT sense lines.
3/15/89	0800	Began installation of portable compressors in upper containment to supply door seals.

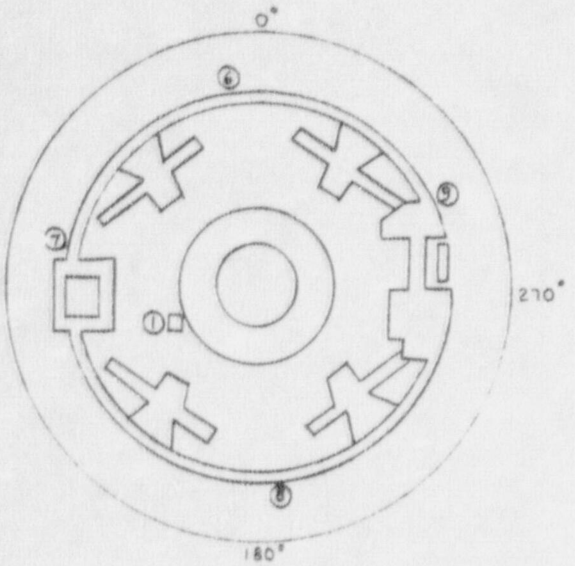
Date	Time	Comments
3/15/89	1200	Completed checkout of portable compressors in containment. The small compressor was not working properly. It would not cycle on when needed. Appeared to be overheating. Since the door seals are in good shape, will use the big portable compressor to supply all doors. Started containment walkdowns.
3/15/89	1400	The rental compressors are being checked out. The hoses to supply water to the dryer are 1½" hoses, these are not big enough. Will changeout to larger hoses.
3/16/89	0001	Changed hoses on dryer. Ops planning on beginning pressurization at 0700.
3/16/89	0250	Completed CV inspection (both upper and lower). Found a few light bulbs and flashlights in upper ice condenser. Will have them removed.
3/16/89	1015	Started pressurization of containment.
3/16/89	1430	Alarm for high glycol temp on NF floor cooling pumps. Prints reveal an air operated valve which fails closed. A manual bypass is provided around the air operated valve. Operations is discussing with Bill Lifsey on whether or not it is necessary to make a containment entry to open the manual valve. This will be an item to consider next time.
3/16/89	1820	Pressurization complete. Realigning for temperature stabilization.
3/16/89	1850	Realignment from pressurization complete. Begin first reading of temperature stabilization at 1830. (Reading #34)
3/16/89	2230	Temperature stabilization complete (Reading #50). Start 24 hour CRT with Reading #50.
3/16/89	2250	Computer locked-up while making graphs. Cold boot.
3/17/89	0030	Found two penetrations leaking: M219 - Leaking thru 2VS56 & 2VS54B, detected at 2VS53. M220 - Leaking thru 2VI79 & 2VI77B, detected at 2VI76. The leakage does not appear significant enough to warrant isolating the penetrations. Also found fittings at 2VYFT5000 leaking. Valved out transmitter. No leakage penalty involved. (M346).

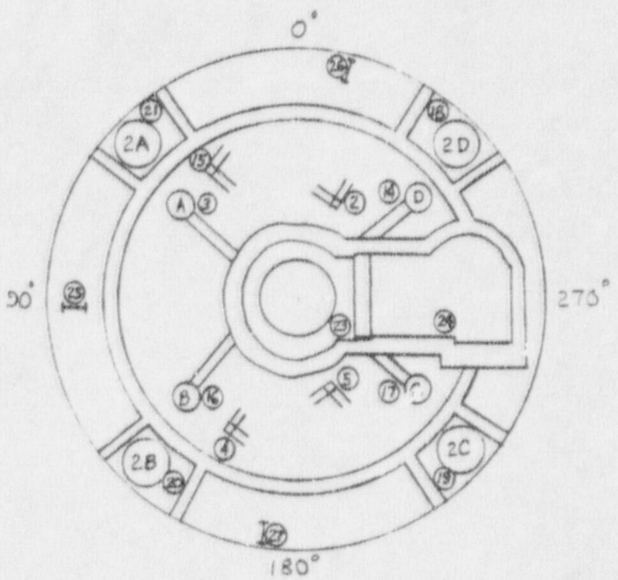
Date	Time	Comments
3/17/89	2231	24-hour LRT acceptance criteria met. (Reading #146) HP obtaining air sample.
3/17/89	2254	Imposed leak.
3/17/89	2256	Start imposed LRT (Reading #148). Changed data acquisition interval to 10 min.
3/18/89	0256	Imposed LRT complete (Reading #172). Prepping for blowdown.
3/18/89	0339	M323, M322 being used for depressurization (in addition to VQ10 & VY34).
3/18/89	0830	Deflated seals on upper airlock to allow this to be used as another depressurization data.
3/18/89	1500	Depressurization complete.

APPENDIX C

RTD LOCATIONS


43 THRU 47
38 THRU 42
CRANE WALL
HUMIDITY SENSOR & PRESS TEST POINT
STM GEN "D"
STM GEN "A"
22.50.51 & 52
HUMIDITY SENSOR & PRESS TEST POINT
REACTOR VESSEL



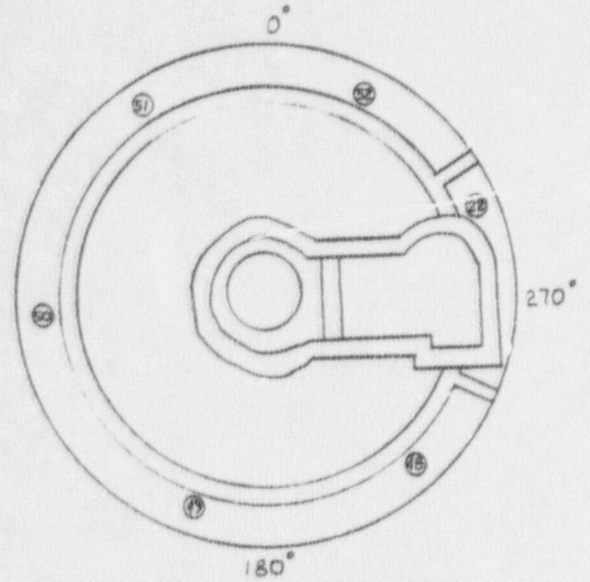


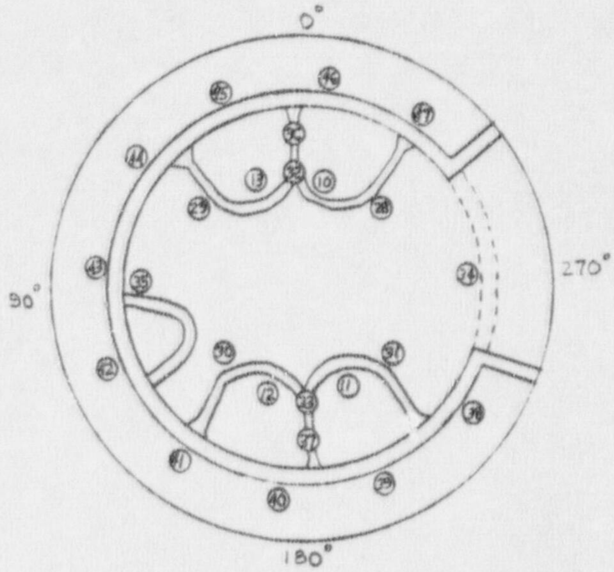
1LRT RTD LOCATIONS BELOW ELEV. 562'-0"

RTD#	AZIMUTH	ELEVATION	MISCELLANEOUS INFORMATION
1	111°-0"	544'-0"	EXTEND FROM WALL NEXT TO LADDER CAGE WITH 12" BRACKET FOR MOUNTING INFORMATION SEE DETAIL A ([illegible])
6	12°-30'	557'-0"	FOR MOUNTING INFORMATION SEE DETAIL B
7	76°-45'	557'-0"	FOR MOUNTING INFORMATION SEE DETAIL B
8	184°-0"	556'-6"	FOR MOUNTING INFORMATION SEE DETAIL B
9	290°-0"	557'-0"	FOR MOUNTING INFORMATION SEE DETAIL B
A	90°-0"	570'-9"	HUMIDITY SENSOR AND PRESSURE TUBING TERMINATION POINT (MOUNTING PANEL) WILL SHOW DRAWING [illegible]

1LRT RTD LOCATIONS 562'-0" TO 573'-0"

RTD#	AZIMUTH	ELEVATION	MISCELLANEOUS INFORMATION
2	305°-30'	570'-8 1/2"	MOUNT 25'-7" FROM CENTER LINE OF REACTOR BLDG. ON S.G. 1D LOWER SUPPORT USE STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL E, NOTE 4
3	41°-30'	570'-8 1/2"	MOUNT 26'-0" FROM CENTER LINE OF REACTOR BLDG. ON SG 1A LOWER SUPPORT USE STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL E, NOTE 4
4	140°-15'	570'-8 1/2"	MOUNT 26'-5" FROM CENTER LINE OF REACTOR BLDG. ON SG 1B LOWER SUPPORT USE STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL E, NOTE 4
5	218°-15'	570'-8 1/2"	MOUNT 24'-6" FROM CENTER LINE OF REACTOR BLDG. ON SG 1C LOWER SUPPORT USE STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL E, NOTE 4
14	316°-0" (APPROX.)	590'-6"	MOUNT ON PLATFORM AT RCP MOTOR USE 2" X 2" ANGLE 6'-6" LONG. ATTACH W/U BOLT FOR MOUNTING INFORMATION SEE DETAIL F MOUNT [illegible]'-6" FROM ℄ OF R.B. (APPROX.)
15	60°-0" (APPROX.)	590'-6"	MOUNT ON PLATFORM AT RCP MOTOR USE 2" X 2" ANGLE 6'-6" LONG. ATTACH W/U BOLT FOR MOUNTING INFORMATION SEE DETAIL F MOUNT [illegible]'-6" FROM ℄ OF R.B. (APPROX.)
16	116°-0" (APPROX.)	590'-6"	MOUNT ON PLATFORM AT RCP MOTOR USE 2" X 2" ANGLE 6'-6" LONG. ATTACH W/U BOLT FOR MOUNTING INFORMATION SEE DETAIL F MOUNT [illegible]'-6" FROM ℄ OF R.B. (APPROX.)
17	22[illegible]°-[illegible]" (APPROX.)	590'-6"	MOUNT ON PLATFORM AT RCP MOTOR USE 2" X 2" ANGLE 6'-6" LONG. ATTACH W/U BOLT FOR MOUNTING INFORMATION SEE DETAIL F MOUNT [illegible]'-6" FROM ℄ OF R.B. (APPROX.)
18	305°-0"	570'-0"	MOUNT ON WALL 5'-0" FROM CRANE WALL USING STANDARD BRACKET FOR MOUNTING INFORMATION SEE DETAIL B
19	214°-0"	576'-0"	MOUNT ON WALL 7'-0" FROM CRANE WALL USING STANDARD BRACKET. FOR MOUNTING INFORMATION SEE DETAIL B
20	140°-0"	570'-6"	MOUNT ON WALL 6'-0" FROM CRANE WALL USING STANDARD BRACKET. FOR MOUNTING INFORMATION SEE DETAIL B
21	34°-0"	576'-6"	MOUNT ON WALL 5'-0" FROM CRANE WALL USING STANDARD BRACKET. FOR MOUNTING INFORMATION SEE DETAIL B
23	[illegible]°-0" (APPROX.)	586'-1"	MOUNT 7" X 4" X 3" BRACKET TO WALL. FOR MOUNTING INFORMATION SEE DETAIL D
24	25[illegible]°-0" (APPROX.)	587'-0"	MOUNT 7" X 4" X 3" BRACKET TO WALL ON RIGHT SIDE OF LADDER SUPPORT. FOR MOUNTING INFORMATION SEE DETAIL D
25	90°-0"	580'-0"	MOUNT ON CEL. USING STANDARD PLATE WELD TO CEL. (SOUTH SIDE) FOR MOUNTING INFOR. SEE DETAIL C (POSITION 2)
26	340°-40'	577'-0"	MOUNT ON CEL. USING STANDARD PLATE WELD TO CEL. (N.W. SIDE) FOR MOUNTING INFOR. SEE DETAIL C (POSITION 1)
27	168°-40'	577'-0"	MOUNT ON CEL. USING STANDARD PLATE WELD TO CEL. (S.E. SIDE) FOR MOUNTING INFOR. SEE DETAIL C (POSITION 1)





ILRT RTD LOCATIONS 599'-0" TO 602'-0"

RTD	AZIMUTH	ELEVATION	MISCELLANEOUS INFORMATION
22	290°-0"	601'-0"	MOUNT ON WALL USING STANDARD BRACKET [illegible] TO [illegible] FOR MOUNTING INFORMATION SEE DETAIL B
48	143°-0"	602'-0"	MOUNT ON COL. USING STANDARD BRACKET, WELD TO COL. (S.W. SIDE) FOR MOUNTING INFOR. SEE DETAIL I (POSITION 1)
49	158°-0"	603'-0"	MOUNT ON COL. USING STANDARD BRACKET, WELD TO COL. (N.W. SIDE) FOR MOUNTING INFOR. SEE DETAIL I (POSITION 1)
50	95°-0"	601'-7 1/2"	MOUNT ON COL. USING STANDARD BRACKET, WELD TO COL. (WEST SIDE) FOR MOUNTING INFOR SEE DETAIL I (POSITION 2)
51	35°-0"	600'-0"	MOUNT ON COL. USING STANDARD BRACKET, WELD TO COL. (S.W. SIDE) FOR MOUNTING INFOR. SEE DETAIL I (POSITION 2)
52	330°-0"	600'-0"	MOUNT ON COL. USING STANDARD PLATE, WELD TO COL. (N.W. SIDE) FOR MOUNTING INFOR. SEE DETAIL I (POSITION 2)
6	95°-0"	599'-4 1/2"	HUMIDITY SENSOR AND PRESSURE TUBING TERMINATION POINT (MOUNTING PANEL) WILL SHOW ON DWG. CH-1490.03-5.08.

ILRT RTD LOCATIONS 608'-0" TO 665'-0"

RTD	AZIMUTH	ELEVATION	MISCELLANEOUS INFORMATION
10	340°-0" (APPROX.)	636'-7" (APPROX.)	MOUNT ON INSULATION SUPPORT (USE PLATE, BOLTED TO SUPPORT) FOR MOUNTING INFOR. SEE DETAIL K
11	200°-0" (APPROX.)	636'-7" (APPROX.)	MOUNT ON INSULATION SUPPORT (USE PLATE, BOLTED TO SUPPORT) FOR MOUNTING INFOR. SEE DETAIL K
12	160°-0" (APPROX.)	636'-7" (APPROX.)	MOUNT ON INSULATION SUPPORT (USE PLATE, BOLTED TO SUPPORT) FOR MOUNTING INFOR. SEE DETAIL K
13	20°-0" (APPROX.)	636'-7" (APPROX.)	MOUNT ON INSULATION SUPPORT (USE PLATE, BOLTED TO SUPPORT) FOR MOUNTING INFOR. SEE DETAIL K
28	316°-30"	627'-0"	MOUNT 30'-0" FROM ¢ OF REACTOR BUILDING FOR MOUNTING INFORMATION SEE DETAIL D
29	43°-30"	627'-0"	MOUNT 30'-0" FROM ¢ OF REACTOR BUILDING FOR MOUNTING INFORMATION SEE DETAIL D
30	136°-30"	627'-0"	MOUNT 30'-0" FROM ¢ OF REACTOR BUILDING FOR MOUNTING INFORMATION SEE DETAIL D
31	223°-30"	627'-0"	MOUNT 30'-0" FROM ¢ OF REACTOR BUILDING FOR MOUNTING INFORMATION SEE DETAIL D
32	0°-0" (APPROX.)	658'-9"	MOUNT ON END OF CONCRETE (POINTING UPWARDS) FOR MOUNTING INFORMATION SEE DETAIL F
33	180°-0" (APPROX.)	653'-9"	MOUNT ON END OF CONCRETE (POINTING UPWARDS) FOR MOUNTING INFORMATION SEE DETAIL F (APPROX. 23'-0" FROM ¢ OF R.B.).
34	268°-0"	665'-4"	MOUNT ON WALL (USING STANDARD BRACKET) FOR MOUNTING INFORMATION SEE DETAIL B (APPROX. 62'-6" FROM ¢ OF R.B.).
35	80°-0"	665'-4"	MOUNT ON CABLE TRAY SUPPORT (USING STANDARD PLATE) FOR MOUNTING INFORMATION SEE DETAIL G
36	0°-0" (APPROX.)	707'-0" (APPROX.)	MOUNT APPROX. 31'-6" FROM CENTER LINE OF REACTOR BLDG. ON CONT. SPRAY PIPE SUPPORT. FOR MOUNTING INFORMATION SEE DETAIL J.
37	180°-0" (APPROX.)	707'-0" (APPROX.)	MOUNT APPROX. 31'-6" FROM CENTER LINE OF REACTOR BLDG. ON CONT. SPRAY PIPE SUPPORT. FOR MOUNTING INFORMATION SEE DETAIL J.
38	233°-0" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 1)
39	200°-0" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 2)
40	175°-0" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 1)
41	138°-0" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 2)
42	109°-0" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 1)
43	82°-30" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 2)
44	51°-30" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 1)
45	31°-0" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 1)
46	354°-0" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 2)
47	319°-30" (APPROX.)	664'-6"	MOUNT ON RING SUPPORT USING STANDARD PLATE FOR MOUNTING INFORMATION SEE DETAIL H. (POSITION 2)
C	109°-0"	636'-10"	HUMIDITY SENSOR AND PRESSURE TUBING TERMINATION POINT (MOUNTING PANEL) WILL SHOW ON DRAWING CH-1490.03-5.08.

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APPENDIX D

LEAKAGE PENALTY ANALYSIS

The following penetrations, flanges, or valves are not opened to test pressure due to system or test alignment. Type B or C leak rate test results (minimum pathway leakage, instrument error included) are assigned to these penetrations and the total value is added to the ILRT results as Leakage Penalty.

Penetration	System	Reason	Leakage Rate (SCCM)
M346	VY	#1	37.2
CNIP-2MI5	ILRT	#2	22.0
CNIP-2MI6	ILRT	#2	22.0
CNIP-2MI7	ILRT	#2	22.0
Upper Airlock Emerg. Air Penet.	IAE	#3	11.0
M372	NF	#4	22.0
M373	NF	#4	22.0
Upper Airlock Aux. Side Door Air Supply	IAE	#5	22.0
Lower Airlock Aux. Side Door Air Supply	IAE	#5	22.0

TOTAL LEAKAGE PENALTY: 202.2 SCCM

$$\times\ 2.1692 \times 10^{-6}\ \frac{\%/\text{Day}}{\text{SCCM}}$$

$$= 0.0004\%/\text{Day}$$

Reasons for not aligning penetrations:

#1 A relief valve for the Containment Vessel was connected to this penetration.

#2 These were the pressure sensing lines for the ILRT.

#3 Pressurization fixture was installed on this penetration to allow entry into containment while pressurized.

#4 These Glycol lines from the chillers in the Auxiliary Building to the Air Handling Units inside the Ice Condenser were required to be in service to keep the Ice Condenser cool.

#5 These penetrations were in service to provide instrument air to the seals on the Personnel Air Lock outer doors.

APPENDIX E

LEAKAGE SAVINGS ANALYSIS

IE Information Notice 85-71 requires both As-Found (Pre-Maintenance) and As-Left (Post Maintenance) leak rate tests on penetrations performed during the outage. Because ILRT was performed at the beginning of the outage, there was no maintenance work performed on any penetrations, therefore, no As-Found leak rate tests were conducted because of maintenance. The only As-Found leak rate tests conducted were the VP valves and the equipment hatch. The total leakage savings (which is added to the measured As-Left ILRT Result, yielding the total As-Found ILRT Result) is calculated by summing the differences between the As-Found minimum pathway leakage rate and the As-Left minimum pathway leakage rates for all affected penetrations.

Below is a tabulation of the Leakage Savings realized during the Unit 2 EOC-2 refueling outage prior to ILRT. The leakage rates listed are corrected for instrument error. Because the leakage savings was negative, a conservative value of zero was used for addition to the measured ILRT results.

Penetration	Reason for Testing	As-Found Min. Pathway Leak Rate (SCCM)	As-Left Min. Pathway Leak Rate (SCCM)	Leakage Savings (SCCM)
Equipment Hatch	Type B penet., utilized prior to ILRT	17.4	22	-4.6
M213	Containment purge penet. (Type C), utilized prior to ILRT	10.75	53.1	-42.35
M119	Containment purge penet. (Type C), utilized prior to ILRT	5.65	27.0	-21.35
M140	Containment purge penet. (Type C), utilized prior to ILRT	116.5	451.5	-335.0
M357	Containment purge penet. (Type C), utilized prior to ILRT	126.5	145.0	-18.5
M434	Containment purge penet. (Type C), utilized prior to ILRT	90.5	259.0	-168.5
M368	Containment purge penet. (Type C), utilized prior to ILRT	21.5	41.5	-20.0
M433	Containment purge penet. (Type C), utilized prior to ILRT	75	50.0	19.0
M456	Containment purge penet. (Type C), utilized prior to ILRT	15.25	68.5	-53.25

Penetration	Reason for Testing	As-Found Min. Pathway Leak Rate (SCCM)	As-Left Min. Pathway Leak Rate (SCCM)	Leakage Savings (SCCM)
M432	Containment purge penet. (Type C), utilized prior to ILRT	8.25	31.0	-22.75
				-667.3

TOTAL LEAKAGE SAVINGS:

$$X\ 2.1476\ X\ 10^{-6}\ \frac{\%\ DAY}{SCCM}$$

$$= -0.0014\%/DAY$$

APPENDIX F

LOCAL LEAKAGE RATE CONDUCTED SINCE THE LAST ILRT

Since the preoperational Type A Test performed on Catawba Unit 2 in June and July of 1985, local leak rate testing was conducted in accordance with 10CFR50 Appendix J and the station Technical Specifications. During this time period, the summation of the Type B and C leakage rates averaged less than 8,000 SCCM, which is well below the acceptance criterion of 55,877 SCCM. The maximum Type B and C leakage rate total over this time period was 10,204.5 SCCM, which still represents less than 0.11 L_a. It should be noted that L_a was changed from 0.2%/day to 0.3%/day in February 1988 resulting in an acceptance criteria of 82,979 SCCM.

Attached are three printouts listing leakage rates for all Type B and C penetrations: Printout #1 lists a summary of As-Left leakage rates for Unit 2 Post Preoperational ILRT prior to commercial operation. Printout #2 lists the As-Left leakage rates for the Unit 2 EOC-1 refueling outage, and Printout #3 lists the As-Left leakage rates for the Unit 2 EOC-2 refueling outage. The "Reported Leakage" for each penetration is the Maximum Pathway leakage rate. When the measured leakage rate is less than the lower (threshold) limit for which the Volumetrics Leak Rate Monitor is calibrated, the calibration lower limit is reported as the leakage rate.

Acceptance Criterion 11.2 on Page 11 of the printouts addresses penetrations which are "Bypass Leakage Paths". (i.e., Any leakage through these penetrations would escape both the Containment Vessel and the Reactor Building, bypassing the Annulus.) Acceptance Criterion 11.3 addresses the Containment Purge System penetrations.

Below is a summary of the Type B and C penetrations which failed the local leak rate test since the last ILRT. In these instances, although the Maximum Pathway Leakage Rate might have exceeded the acceptance criterion of 0.6 L_a, the Minimum Pathway Leakage Rates were always well below the acceptable limits. The list does not include failures of valves being retested following maintenance, or failures of the Containment Purge System valves after they had been opened. (These large butterfly valves, which are opened only during plant shutdown, have a 50% probability of leak rate test failure following cycling. It is for this reason that an As-Found LRT on all of the purge valves was performed prior to opening them.)

Valve No. & Type	Leakage Rate	Date of Failure
CNIP-2MI3	Unable to maintain test pressure	6/3/86
2NI96B, 2NI120B	Unable to maintain test pressure	6/6/86
2RN405	Unable to maintain test pressure	9/23/86
2NM22A	3650	9/23/86
2NM25A	5360	9/23/86
2NM26B	3650	9/23/86
2NM425	5360	9/23/86
2WLA22	Unable to maintain test pressure	9/24/86
2NC57	Unable to maintain test pressure	1/5/88
2KC340	Unable to maintain test pressure	1/13/88
2NV90	510	1/20/88
2NI95A	175	1/22/88

Valve No. & Type	Leakage Rate	Date of Failure
CNIP-2MI3	303	1/23/88
CNIP-2MI4	180	1/23/88
2NI120B	1990	2/28/88

PRINTOUT #1 - SUMMARY OF UNIT 2 POST PREOPERATIONAL
ILRT LEAKAGE RATES

11.1 Combined leakage rate of less than 0.60 L_a for all penetrations and valves subject to Type B & C tests when pressurized to P_a. (Total Error Adjusted Leakage < 55,319 SCCM).

TOTAL ERROR ADJUSTED LEAKAGE: 3237.49 SCCM

11.2 Combined bypass leakage of less than 0.07 L_a for all penetrations identified in technical specifications Table 3.6-1 when pressurized to P_a (Total Error Adjusted Leakage < 6,454 SCCM).

TOTAL ERROR ADJUSTED LEAKAGE: 1796.3 SCCM

11.3 Combined leakage rate of less than 0.05 L_a for all upper/lower and instrument room containment purge valves when pressurized to P_a (Total Error Adjusted Leakage < 4,610 SCCM).

TOTAL ERROR ADJUSTED LEAKAGE: 935.3 SCCM

NOTE: These acceptance criteria and the acceptance criteria on Printout #2 reflect L_a = 0.2%/DAY. A technical specification change to L_a = 0.3%/DAY is reflected in the acceptance criteria for Printout #3.

Printout #2 - Unit 2 EOC1 as left leakage rates.

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
PT/2/A/4200/01C - Containment Isolation Valve LRT PT/2/A/4200/41B - VQ Valve LRT (2VQ2A & 2VQ16A only) (TYPE C)						
*M212	2NC54A	01/05/88	53.1	10.0	1.0	53.1
	2NC53B	01/05/88	52.4	10.0	1.0	
*M215	2VB85	01/21/88	59.0	10.0	1.0	59.0
	2VB83B	01/21/88	51.0	20.0	2.0	
*M216	2NC57	01/12/88	0.0	10.0	1.0	10.0
*M219	2VS56	02/02/88	0.0	10.0	1.0	10.0
	2VS54B	02/02/88	8.5	2.0	1.0	
*M220	2VI79	01/06/88	0.0	10.0	1.0	10.0
	2VI77B & 2VI312A	01/06/88	0.0	2.0	1.0	
*M221	2WL868	01/20/88	17.5	10.0	1.0	17.5
*M240	2RN438	01/04/88	2.2	10.0	1.0	10.0
*M204	2VQ15B	01/26/88	0.0	10.0	1.0	10.0
	2VQ16A	01/27/88	0.0	10.0	1.0	
*M230	2RN485	01/04/88	1.0	10.0	1.0	10.0
*M259	2NB262	01/20/88	1.2	10.0	1.0	10.0
	2NB260B	01/20/88	6.1	10.0	1.0	
*M235	2NM7B	01/05/88	0.0	10.0	1.0	21.5
	2NM3A	01/05/88	0.0	10.0	1.0	
	2NM6A & 2NM424	01/05/88	11.5	10.0	1.0	
*M331	2NI48	01/13/88	0.0	10.0	1.0	10.0
	2NI47A	01/13/88	5.0	10.0	1.0	
*M310	2NM26B	02/10/88	0.0	10.0	1.0	20.0
	2NM22A	02/10/88	0.0	10.0	1.0	
	2NM25A & 2NM425	02/10/88	3.5	10.0	1.0	
*M308	2RN430	01/05/88	5.2	10.0	1.0	10.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
*M316	2RF392	01/15/88	5.0	10.0	1.0	10.0
*M323	2KC430A	01/06/88	0.0	10.0	1.0	10.0
	2KC429B & 2KC47	01/06/88	0.0	10.0	1.0	
*M322	2NI95A	03/01/88	0.4	20.0	2.0	38.0
	2NI96B & 2NI120B	03/01/88	38.0	20.0	2.0	
*M327	2NC141	01/04/88	0.0	10.0	1.0	10.0
	2NC142	01/04/88	0.0	10.0	1.0	
*M329	2NC196A	01/04/88	0.0	10.0	1.0	10.0
	2NC195B	01/04/88	0.0	10.0	1.0	
*M332	2VY16	02/06/88	100.8	20.0	2.0	100.8
	2VY15B	02/06/88	87.3	10.0	1.0	
*M337	2YM121	02/05/88	0.0	10.0	1.0	20.0
	2YM119B	02/05/88	0.0	20.0	2.0	
*M348	2WL450A	01/21/88	0.0	10.0	1.0	10.0
	2WL451B	01/21/88	1.6	10.0	1.0	
*M361	2RF448	01/21/88	0.0	10.0	1.0	10.0
*M356	2WE20 & 2WE22	01/08/88	36.5	20.0	2.0	36.5
*M377	2FW5	01/05/88	0.0	10.0	1.0	20.0
	2FW4	01/05/88	2.6	20.0	2.0	
*M358	2FW11 & 2FW13	01/04/88	0.0	10.0	1.0	10.0
*M373	2NF229	01/22/88	10.2	20.0	2.0	96.5
	2NF228A	01/23/88	96.5	20.0	2.0	
*M386	2VQ3B	01/25/88	7.9	20.0	2.0	20.0
	2VQ2A	01/28/88	1.0	20.0	2.0	
*M385	2RN405	01/05/88	39.8	20.0	2.0	39.8

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
*M372	2NF234A	01/22/88	2.5	20.0	2.0	40.0
	2NF233B	01/22/88	3.0	20.0	2.0	
	2NF235	01/22/88	2.9	20.0	2.0	
*M328	2KC340	01/30/88	1250.0	1000.0	100.0	1250.0
M228	2NV874	01/06/88	0.0	10.0	1.0	10.0
	2NV872A	01/06/88	0.0	2.0	1.0	
M346	2VY17A	02/06/88	72.6	20.0	2.0	450.0
	2VY18B	02/06/88	450.0	200.0	20.0	
M256	2NV90	02/07/88	0.0	10.0	1.0	10.0
M347	2NV15B & 2NV14	02/07/88	24.0	10.0	1.0	24.0
M345	2WL806	02/04/88	0.0	10.0	1.0	10.0
M374	2WL321	01/08/88	0.0	10.0	1.0	10.0
M359	2WLA22	01/04/88	0.0	10.0	1.0	10.0
M236	2NM72B	01/21/88	0.0	10.0	1.0	40.0
	2NM75B	01/21/88	0.8	10.0	1.0	
	2NM78B	01/21/88	0.0	10.0	1.0	
	2NM81B	01/21/88	2.2	10.0	1.0	
	2NM82A & 2NM69	01/21/88	0.0	10.0	1.0	
M321	2KC279	01/14/88	1.0	10.0	1.0	10.0
CNIP-2MI1	ANALYZER	01/23/88	37.5	20.0	2.0	37.5
	SAMPLE	01/23/88	29.5	20.0	2.0	
CNIP-2MI2	ANALYZER	12/31/87	1.5	10.0	1.0	10.0
	SAMPLE	12/31/87	3.2	10.0	1.0	
CNIP-2MI3	ANALYZER	02/02/88	5.4	20.0	2.0	44.7
	SAMPLE	02/02/88	44.7	20.0	2.0	
CNIP-2MI4	ANALYZER	02/03/88	0.4	20.0	2.0	21.8
	SAMPLE	02/03/88	21.8	20.0	2.0	
CNIP-2MI5	2MIMV6480	01/18/88	2.3	20.0	2.0	20.0
	2MIMV6481	01/18/88	2.4	20.0	2.0	

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CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
CNIP-2MI6	2MIMV6490	01/18/88	2.5	20.0	2.0	20.0
	2MIMV6491	01/18/88	2.6	20.0	2.0	
CNIP-2MI7	2MIMV6470	01/18/88	2.8	20.0	2.0	20.0
	2MIMV6471	01/18/88	2.9	20.0	2.0	
CNIP-2EMF	2MISV5230	01/19/88	0.0	20.0	2.0	20.0
(IN)	2MISV5231	01/19/88	1.8	20.0	2.0	
CNIP-2EMF	2MISV5232	01/19/88	3.0	20.0	2.0	20.0
(OUT)	2MISV5233	01/19/88	0.0	20.0	2.0	
CNIP-2NS2	2NSPT5060 & 2NSPT5170 & 2NSPT5180	01/26/88	0.1	2.0	1.0	2.0
CNIP-2NS3	2NSPT5050 & 2NSPT5250 & 2NSPT5260	01/26/88	5.9	2.0	1.0	5.9
CNIP-2NS4	2NSPT5040 & 2NSPT5270 & 2NSPT5380 & 2NSPT5240	02/02/88	4.4	20.0	2.0	20.0
CNIP-2NS1	2NSPT5070 & 2NSPT5160 & 2NSPT5190 & 2NSPT5370	01/26/88	0.3	2.0	1.0	2.0
Upper PAL	2IASV5080	01/25/88	2.0	20.0	2.0	20.0
Air Supply/	2IACV5340	01/25/88	11.5	20.0	2.0	
Equal. Pen.	2IACV5360	01/25/88	1.0	20.0	2.0	
	2IIACV5380	01/25/88	17.9	20.0	2.0	
Lower PAL	2IASV5160	01/20/88	1.0	10.0	1.0	109.0
Air Supply/	2IACV5350	01/20/88	109.0	100.0	10.0	
Equal. Pen.	2IACV5370	01/20/88	0.4	10.0	1.0	
	2IACV5390	01/20/88	2.5	10.0	1.0	

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CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
PT/2/A/4200/41A - Containment Purge Isolation Valve LRT (TYPE C)						
*M213	2VP17A & 2VP18B	02/14/88	185.0	20.0	2.0	185.0
*M119	2VP15A & 2VP18B	02/15/88	18.9	20.0	2.0	20.0
*M140	2VP19A & 2VP20B	02/14/88	47.3	20.0	2.0	47.3
*M357	2VP6B & 2VP7A	02/14/88	296.0	200.0	20.0	296.0
*M434	2VP8B & 2VP9A	02/14/88	360.0	200.0	20.0	360.0
*M368	2VP10A & 2VP11B	02/14/88	640.0	200.0	20.0	640.0
*M433	2VP12A & 2VP13B	02/17/88	103.9	20.0	2.0	103.9
*M456	2VP1B & 2VP2A	02/14/88	145.9	20.0	2.0	145.9
*M432	2VP3B & 2VP4A	02/14/88	265.0	200.0	20.0	265.0
PT/2/A/4200/01B - Electrical Penetration O-Ring Leak Rate Test (TYPE B)						
E101		12/28/87	0.0	10.0	1.0	10.0
E102		12/28/87	0.0	10.0	1.0	10.0
E103		12/28/87	0.0	10.0	1.0	10.0
E104		12/28/87	0.0	10.0	1.0	10.0
E105		12/28/87	0.0	10.0	1.0	10.0
E106		12/28/87	0.0	10.0	1.0	10.0

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CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
E107		12/28/87	0.0	10.0	1.0	10.0
E108		12/28/87	0.0	10.0	1.0	10.0
E109		12/28/87	0.0	10.0	1.0	10.0
E111		12/28/87	0.0	10.0	1.0	10.0
E112		12/28/87	0.0	10.0	1.0	10.0
E114		12/28/87	0.0	10.0	1.0	10.0
E115		12/28/87	0.0	10.0	1.0	10.0
E116		12/28/87	0.0	10.0	1.0	10.0
E117		12/28/87	0.0	10.0	1.0	10.0
E118		12/28/87	0.0	10.0	1.0	10.0
E120		12/28/87	0.0	10.0	1.0	10.0
E122		12/28/87	0.0	10.0	1.0	10.0
E123		12/28/87	0.0	10.0	1.0	10.0
E124		12/28/87	0.0	10.0	1.0	10.0
E126		12/28/87	0.0	10.0	1.0	10.0
E127		12/28/87	0.0	10.0	1.0	10.0
E129		12/28/87	0.0	10.0	1.0	10.0
E130		12/28/87	0.0	10.0	1.0	10.0
E132		12/28/87	0.0	10.0	1.0	10.0
E133		12/28/87	0.0	10.0	1.0	10.0
E134		12/28/87	0.0	10.0	1.0	10.0
E135		12/28/87	0.0	10.0	1.0	10.0
E136		12/28/87	0.0	10.0	1.0	10.0

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CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
E137		12/28/87	0.0	10.0	1.0	10.0
E200		12/28/87	0.5	10.0	1.0	10.0
E202		12/28/87	0.5	10.0	1.0	10.0
E203		12/28/87	0.5	10.0	1.0	10.0
E205		12/28/87	0.5	10.0	1.0	10.0
E206		12/28/87	0.5	10.0	1.0	10.0
E208		12/28/87	0.5	10.0	1.0	10.0
E211		12/28/87	0.5	10.0	1.0	10.0
E222		12/28/87	0.0	10.0	1.0	10.0
E223		12/28/87	0.0	10.0	1.0	10.0
E224		12/28/87	0.0	10.0	1.0	10.0
E225		12/28/87	0.0	10.0	1.0	10.0
E226		12/28/87	0.0	10.0	1.0	10.0
E231		12/28/87	0.5	10.0	1.0	10.0
E232		12/28/87	0.5	10.0	1.0	10.0
E233		12/28/87	0.0	10.0	1.0	10.0
E237		12/28/87	0.5	10.0	1.0	10.0
E238		12/28/87	0.5	10.0	1.0	10.0
E244		12/28/87	0.5	10.0	1.0	10.0
E245		12/28/87	0.5	10.0	1.0	10.0
E252		12/28/87	0.5	10.0	1.0	10.0
E268		12/28/87	0.5	10.0	1.0	10.0
E269		12/28/87	0.5	10.0	1.0	10.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
E270		12/28/87	0.5	10.0	1.0	10.0
E271		12/28/87	0.5	10.0	1.0	10.0
E311		12/28/87	0.5	10.0	1.0	10.0
E313		12/28/87	0.0	10.0	1.0	10.0
E364		12/28/87	0.0	10.0	1.0	10.0
E366		12/28/87	0.0	10.0	1.0	10.0
E379		12/28/87	0.0	10.0	1.0	10.0
E391		12/28/87	0.0	10.0	1.0	10.0
E392		12/28/87	0.0	10.0	1.0	10.0
E395		12/28/87	0.0	10.0	1.0	10.0
E398		12/28/87	0.0	10.0	1.0	10.0
E399		12/28/87	0.0	10.0	1.0	10.0
E3102		12/28/87	0.0	10.0	1.0	10.0
E402		12/28/87	0.0	10.0	1.0	10.0
E403		12/28/87	0.0	10.0	1.0	10.0
E412		12/28/87	0.0	10.0	1.0	10.0
E415		12/28/87	0.0	10.0	1.0	10.0
E418		12/28/87	0.0	10.0	1.0	10.0
E419		12/28/87	0.0	10.0	1.0	10.0
E420		12/28/87	0.0	10.0	1.0	10.0
E421		12/28/87	0.0	10.0	1.0	10.0
E424		12/28/87	0.0	10.0	1.0	10.0
E425		12/28/87	0.0	10.0	1.0	10.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
E426		12/28/87	0.0	10.0	1.0	10.0
E427		12/28/87	0.0	10.0	1.0	10.0
E428		12/28/87	0.0	10.0	1.0	10.0
E429		12/28/87	0.0	10.0	1.0	10.0
E430		12/28/87	0.0	10.0	1.0	10.0
E431		12/28/87	0.0	10.0	1.0	10.0
E439		12/28/87	0.0	10.0	1.0	10.0
E440		12/28/87	0.0	10.0	1.0	10.0
E443		12/28/87	0.0	10.0	1.0	10.0
E444		12/28/87	0.0	10.0	1.0	10.0
E445		12/28/87	0.0	10.0	1.0	10.0
E446		12/28/87	0.0	10.0	1.0	10.0
E447		12/28/87	0.0	10.0	1.0	10.0
E448		12/28/87	0.0	10.0	1.0	10.0
E449		12/28/87	0.0	10.0	1.0	10.0
E450		12/28/87	0.0	10.0	1.0	10.0
PT/2/A/4200/01D - Fuel Transfer Tube LRT (TYPE B)						
FUEL TRANSFER TUBE		02/15/88	0.0	2.0	1.0	2.0
PT/2/A/4200/01E - Upper Personnel Air Lock LRT (TYPE B)						
UPPER PAL		03/03/88	1653.3	220.0	22.0	1653.3

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CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
PT/2/A/4200/01F - Lower Personnel Air Lock LRT (TYPE B)						
LOWER PAL		03/04/88	2250.0	2020.0	202.0	2250.0
PT/2/A/4200/01H - Equipment Hatch LRT (TYPE B)						
EQUIPMENT HATCH		02/16/88	12.5	2.0	1.0	12.5
PT/2/A/4200/01P - NF Penetration LRT (TYPE B)						
M371		02/14/88	34.7	20.0	2.0	34.7
M394		02/14/88	38.7	20.0	2.0	38.7
PT/2/A/4200/01R - M301, M234, M452 Penetration LRT (TYPE B)						
M234		02/14/88	0.0	2.0	1.0	2.0
M301		02/02/88	25.0	20.0	2.0	25.0
M452		02/14/88	0.0	2.0	1.0	2.0
PT/2/A/4200/01M - Incore Instr. LRT (TYPE B)						
E121		02/12/88	0.6	20.0	2.0	20.0
E138		02/12/88	0.0	20.0	2.0	20.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)

ACCEPTANCE CRITERIA VERIFICATION

11.1 Combined leakage rate of less than 0.60 La for all penetrations and valves subject to Type B & C leak rate tests when pressurized to Pa (Error Adjusted leakage < 55,319 sccm).

Total Type B & C Leakage:	9972.9 sccm
+ Root Sum Squared Instr. Error:	231.6 sccm
Error Adjusted Leakage:	10204.5 sccm

11.2 Combined Bypass leakage of less than 0.07 La for all penetrations identified in Technical Specifications Table 3.6-1 when pressurized to Pa (Error Adjusted Leakage < 6,454 sccm).

Combined Bypass Leakage:	4055.8 sccm
+ Root Sum Squared Instr. Error:	108.1 sccm
Error Adjusted Leakage:	4163.9 sccm

*Identifies penetrations listed in Tech. Spec Table 3.6-1.

11.3 Combined leakage rate of less than 0.05 La for all upper/lower and instrument room Containment Purge penetrations when pressurized to Pa (Error Adjusted Leakage < 4,610 sccm).

Containment Purge Penet. Leakage:	2063.1 sccm
+ Root Sum Squared Instr. Error:	40.2 sccm
Error Adjusted Leakage:	2103.3 sccm

Data Input By: Alison H. O'Dell, 07Mar88

Data Input Verified By: Roy Choate, 3/7/88

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PT/2/A/4200/01C - Containment Isolation Valve LRT
PT/2/A/4200 41B - VQ Valve LRT (2VQ2A & 2VQ16A only)
(TYPE C)

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
*M212	2NC54A	03/31/89	99.9	10.0	1.0	102.0
	2NC53B	03/31/89	102.0	100.0	10.0	
*M215	2VB85	03/20/89	142.0	100.0	10.0	142.0
	2VB83B	03/20/89	140.6	20.0	2.0	
*M216	2NC57	03/21/89	0.0	10.0	1.0	10.0
*M219	2VS56	03/22/89	0.0	10.0	1.0	20.0
	2VS54B	03/22/89	2.5	20.0	2.0	
*M220	2VI79	04/12/89	0.0	10.0	1.0	20.0
	2VI77B & 2VI312A	04/12/89	0.0	20.0	2.0	
*M221	2WL868	03/21/89	0.0	10.0	1.0	10.0
*M240	2RN438	04/11/89	4.6	10.0	1.0	10.0
*M204	2VQ15B	04/07/89	2.3	10.0	1.0	10.0
	2VQ16A	04/08/89	0.0	10.0	1.0	
*M230	2RN485	04/21/89	0.0	10.0	1.0	10.0
*M259	2NB262	04/11/89	0.4	10.0	1.0	10.0
	2NB260B	05/17/89	0.0	10.0	1.0	
*M235	2NM7B	04/17/89	3.2	10.0	1.0	21.8
	2NM3A	04/17/89	3.4	10.0	1.0	
	2NM6A & 2NM424	04/17/89	11.8	10.0	1.0	
*M331	2NI48	04/14/89	1.0	10.0	1.0	10.0
	2NI47A	04/24/89	0.0	10.0	1.0	
*M310	2NM26B	04/18/89	0.0	10.0	1.0	192.0
	2NM22A	04/18/89	0.0	10.0	1.0	
	2NM25A & 2NM425	05/07/89	182.0	100.0	10.0	
*M308	2RN430	03/27/89	0.0	10.0	1.0	10.0

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PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
*M316	2RF392	03/28/89	23.2	10.0	1.0	23.2
*M323	2NC430A	04/10/89	0.0	10.0	1.0	10.0
	2NC429B & 2KC47	04/10/89	0.0	10.0	1.0	
*M322	2NC95A	05/02/89	0.0	10.0	1.0	10.0
	2NC96B & 2NC120B	05/05/89	0.0	10.0	1.0	
*M327	2NC141	03/20/89	0.0	10.0	1.0	30.0
	2NC142	03/20/89	30.0	10.0	1.0	
*M329	2NC196A	03/21/89	0.0	10.0	1.0	10.0
	2NC195B	03/21/89	0.0	10.0	1.0	
*M332	2NV16	03/21/89	79.0	20.0	2.0	79.0
	2NV15B	03/21/89	45.3	10.0	1.0	
*M337	2NM121	03/19/89	0.0	10.0	1.0	10.0
	2NM119B	03/19/89	0.0	10.0	1.0	
*M348	2WL450A	04/04/89	3.5	10.0	1.0	10.0
	2WL451B	04/04/89	3.0	10.0	1.0	
*M361	2RF448	03/28/89	0.0	10.0	1.0	10.0
*M356	2NE20 & 2NE22	03/20/89	52.2	20.0	2.0	52.2
*M377	2FW5	03/14/89	0.0	10.0	1.0	36.8
	2FW4	03/14/89	36.8	10.0	1.0	
*M358	2FW11 & 2FW13	03/14/89	0.0	10.0	1.0	10.0
*M373	2NF229	04/18/89	0.0	20.0	2.0	32.0
	2NF228A	04/18/89	32.0	20.0	2.0	
*M386	2VQ3B	04/10/89	0.8	20.0	2.0	20.0
	2VQ2A	04/10/89	0.0	20.0	2.0	
*M385	2RN405	03/27/89	0.0	20.0	2.0	20.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
*M372	2NF234A	04/18/89	0.0	20.0	2.0	40.0
	2NF233B	04/18/89	0.0	20.0	2.0	
	2NF235	04/18/89	3.0	20.0	2.0	
*M328	2NC340	04/06/89	111.0	100.0	10.0	111.0
M228	2NV874	04/01/89	0.0	10.0	1.0	171.0
	2NV872A	04/01/89	171.0	100.0	10.0	
M346	2NV17A	04/10/89	78.3	20.0	2.0	78.3
	2NV18B	04/10/89	75.5	20.0	2.0	
M256	2NV90	03/27/89	0.0	10.0	1.0	10.0
M347	2NV15A & 2NV14	05/05/89	0.6	10.0	1.0	10.0
M345	2NV806	04/05/89	0.5	10.0	1.0	10.0
M374	2NV321	04/06/89	0.0	10.0	1.0	10.0
M359	2NV822	03/27/89	0.3	10.0	1.0	10.0
M236	2NM72B	04/17/89	0.0	10.0	1.0	40.0
	2NM75B	04/17/89	0.8	10.0	1.0	
	2NM78B	04/17/89	0.0	10.0	1.0	
	2NM81B	04/17/89	0.0	10.0	1.0	
	2NM82A & 2NM69	04/17/89	0.0	10.0	1.0	
M321	2NC279	03/31/89	0.0	10.0	1.0	10.0
CNIP-2MI1	ANALYZER	04/10/89	4.2	20.0	2.0	20.0
	SAMPLE	04/10/89	7.1	20.0	2.0	
CNIP-2MI2	ANALYZER	04/10/89	6.4	20.0	2.0	20.0
	SAMPLE	04/10/89	7.1	20.0	2.0	
CNIP-2MI3	ANALYZER	04/10/89	7.9	20.0	2.0	25.0
	SAMPLE	04/11/89	25.0	20.0	2.0	
CNIP-2MI4	ANALYZER	04/10/89	4.8	20.0	2.0	25.0
	SAMPLE	04/10/89	25.0	20.0	2.0	
CNIP-2MI5	2MIMV6480	03/14/89	0.0	20.0	2.0	20.0
	2MIMV6481	03/14/89	0.0	20.0	2.0	

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
CNIP-2MI6	2MIMV6490	03/14/89	0.0	20.0	2.0	20.0
	2MIMV6491	03/14/89	0.0	20.0	2.0	
CNIP-2MI7	2MIMV6470	03/14/89	0.0	20.0	2.0	20.0
	2MIMV6471	03/14/89	0.0	20.0	2.0	
CNIP-2EMF <IN>	2MISV5230	04/04/89	0.0	20.0	2.0	33.0
	2MISV5231	04/04/89	33.0	20.0	2.0	
CNIP-2EMF <OUT>	2MISV5232	04/04/89	1.5	20.0	2.0	20.0
	2MISV5233	04/04/89	0.0	20.0	2.0	
CNIP-2NS2	2NSPT5060 & 2NSPT5170 & 2NSPT5180	04/13/89	0.0	1.0	0.1	1.0
CNIP-2NS3	2NSPT5050 & 2NSPT5250 & 2NSPT5260	03/22/89	2.5	20.0	2.0	20.0
CNIP-2NS4	2NSPT5040 & 2NSPT5270 & 2NSPT5380 & 2NSPT5240	03/22/89	2.5	20.0	2.0	20.0
CNIP-2NS1	2NSPT5070 & 2NSPT5160 & 2NSPT5190 & 2NSPT5370	03/22/89	2.0	20.0	2.0	20.0
Upper PAL Air Supply/ Equal. Pen.	2IASV5080	05/02/89	1.5	20.0	2.0	28.4
	2IACV5340	05/03/89	2.0	20.0	2.0	
	2IACV5360	05/03/89	26.4	20.0	2.0	
	2IIACV5380	05/03/89	28.4	20.0	2.0	
Lower PAL Air Supply/ Equal. Pen.	2IASV5160	05/03/89	0.0	10.0	1.0	10.0
	2IACV5350	05/03/89	1.0	10.0	1.0	
	2IACV5370	05/03/89	0.4	10.0	1.0	
	2IACV5390	05/03/89	1.4	10.0	1.0	

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
PT/2/A/4200/01A - Containment Purge Isolation Valve LRT (TYPE C)						
*M213	2VF17A & 2VF18B	05/12/89	891.0	200.0	20.0	891.0
*M119	2VF15A & 2VF18B	05/14/89	15.0	10.0	1.0	15.0
*M140	2VF19A & 2VF20B	05/12/89	170.2	20.0	2.0	170.2
*M357	2VF6B & 2VF7A	05/12/89	280.0	200.0	20.0	280.0
*M434	2VF8B & 2VF9A	05/12/89	260.0	200.0	20.0	260.0
*M368	2VF10A & 2VF11B	05/12/89	122.0	20.0	2.0	122.0
*M433	2VF12A & [illegible]	05/12/89	0.0	10.0	1.0	10.0
[illegible]	[illegible]	[illegible]	12.1	10.0	1.0	12.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PT/2/A/4200/01B (TYPE B)	Electrical Penetration O-Ring Leak Rate Test					
E101		03/27/89	0.0	1.0	0.1	1.0
E102		03/27/89	0.0	1.0	0.1	1.0
E103		03/27/89	0.0	1.0	0.1	1.0
E104		03/27/89	0.0	1.0	0.1	1.0
E105		03/27/89	0.0	1.0	0.1	1.0
E106		03/27/89	0.0	1.0	0.1	1.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
E107		03/27/89	0.0	1.0	0.1	1.0
E108		03/27/89	0.0	1.0	0.1	1.0
E109		03/27/89	0.0	1.0	0.1	1.0
E111		03/27/89	0.0	1.0	0.1	1.0
E112		03/27/89	0.0	1.0	0.1	1.0
E114		03/27/89	0.0	1.0	0.1	1.0
E115		03/27/89	0.0	1.0	0.1	1.0
E116		03/27/89	0.0	1.0	0.1	1.0
E117		03/27/89	0.0	1.0	0.1	1.0
E118		03/27/89	0.0	1.0	0.1	1.0
E120		03/27/89	0.0	1.0	0.1	1.0
E122		03/27/89	0.0	1.0	0.1	1.0
E123		03/27/89	0.0	1.0	0.1	1.0
E124		03/27/89	0.0	1.0	0.1	1.0
E126		03/27/89	0.0	1.0	0.1	1.0
E127		03/27/89	0.0	1.0	0.1	1.0
E129		03/27/89	0.0	1.0	0.1	1.0
E130		03/27/89	0.0	1.0	0.1	1.0
E132		03/27/89	0.0	1.0	0.1	1.0
E133		03/27/89	0.0	1.0	0.1	1.0
E134		03/27/89	0.0	1.0	0.1	1.0
E135		03/27/89	0.0	1.0	0.1	1.0
E136		03/27/89	0.0	1.0	0.1	1.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
E137		[illegible]	0.0	1.	0.1	[illegible]
E20[illegible]		03/[illegible]/89	0.0	1.	0.1	1.[illegible]
E2[illegible]2		03/27/89	0.0	1.0	.1	1.[illegible]
E203		03/27/89	0.0	1.0	0.1	1.0
E205		03/27/89	0.0	1.0	0.1	1.0
E206		03/27/89	0.0	1.0	0.1	1.0
E208		03/27/89	0.0	1.0	0.1	1.0
E211		03/27/89	0.0	1.0	0.1	1.0
E222		03/27/89	0.0	1.0	0.1	1.0
E223		03/27/89	0.0	1.0	0.1	1.0
E224		03/27/89	0.0	1.0	0.1	1.0
E225		03/27/89	0.0	1.0	0.1	1.0
E226		03/27/89	0.0	1.0	0.1	1.0
E231		03/27/89	0.0	1.0	0.1	1.0
E232		03/27/89	0.0	1.0	0.1	1.0
E233		03/27/89	0.0	1.0	0.1	1.0
E237		03/27/89	0.0	1.0	0.1	1.0
E238		03/27/89	0.0	1.0	0.1	1.0
E244		03/27/89	0.0	1.0	0.1	1.0
E245		03/27/89	0.0	1.0	0.1	1.0
E252		03/27/89	0.0	1.0	0.1	1.0
E268		03/27/89	0.0	1.0	0.1	1.0
E269		03/27/89	0.0	1.0	0.1	1.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
E270		03/27/89	0.0	1.0	0.1	1.0
E271		03/27/89	0.0	1.0	0.1	1.0
E311		03/27/89	0.0	1.0	0.1	1.0
E313		03/27/89	0.0	1.0	0.1	1.0
E364		03/27/89	0.0	1.0	0.1	1.0
E366		03/27/89	0.0	1.0	0.1	1.0
E379		03/27/89	0.0	1.0	0.1	1.0
E391		03/27/89	0.0	1.0	0.1	1.0
E392		03/27/89	0.0	1.0	0.1	1.0
E395		03/27/89	0.0	1.0	0.1	1.0
E398		03/27/89	0.0	1.0	0.1	1.0
E399		03/27/89	0.0	1.0	0.1	1.0
E3102		03/27/89	0.0	1.0	0.1	1.0
E402		03/27/89	0.0	1.0	0.1	1.0
E403		03/27/89	0.0	1.0	0.1	1.0
E412		03/27/89	0.0	1.0	0.1	1.0
E415		03/27/89	0.0	1.0	0.1	1.0
E418		03/27/89	0.0	1.0	0.1	1.0
E419		03/27/89	0.0	1.0	0.1	1.0
E420		03/27/89	0.0	1.0	0.1	1.0
E421		03/27/89	0.0	1.0	0.1	1.0
E424		03/27/89	0.0	1.0	0.1	1.0
E425		03/27/89	0.0	1.0	0.1	1.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK (SCCM)	RANGE LOWER LIMIT (SCCM)	INSTR. ERROR (SCCM)	REPORTED LEAKAGE (SCCM)
E426		03/27/89	0.0	1.0	0.1	1.0
E427		03/27/89	0.0	1.0	0.1	1.0
E428		03/27/89	0.0	1.0	0.1	1.0
E429		03/27/89	0.0	1.0	0.1	1.0
E430		03/27/89	0.0	1.0	0.1	1.0
E431		03/27/89	0.0	1.0	0.1	1.0
E439		03/27/89	0.0	1.0	0.1	1.0
E440		03/27/89	0.0	1.0	0.1	1.0
E443		03/27/89	0.0	1.0	0.1	1.0
E444		03/27/89	0.0	1.0	0.1	1.0
E445		03/27/89	0.0	1.0	0.1	1.0
E446		03/27/89	0.0	1.0	0.1	1.0
E447		03/27/89	0.0	1.0	0.1	1.0
E448		03/27/89	0.0	1.0	0.1	1.0
E449		03/27/89	0.0	1.0	0.1	1.0
E450		03/27/89	0.0	1.0	0.1	1.0
PT/2/A/4200/01D - Fuel Transfer Tube LRT (TYPE B)						
FUEL TRANSFER TUBE		05/11/89	0.0	20.0	2.0	20.0
PT/2/A/4200/01E - Upper Personnel Air Lock LRT (TYPE B)						
UPPER PAL		03/22/89	2830.0	1020.0	102.0	2830.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>
PT/2/A/4200/01F - Lower Personnel Air Lock LRT (TYPE B)						
LOWER PAL		01/25/89	1830.2	1001.0	101.0	1830.2
PT/2/A/4200/01H - Equipment Hatch LRT (TYPE B)						
EQUIPMENT HATCH		05/18/89	1.2	2.0	1.0	2.0
PT/2/A/4200/01P - NF Penetration LRT (TYPE B)						
M371		05/09/89	30.0	20.0	2.0	30.0
M394		05/13/89	10.0	10.0	1.0	10.0
PT/2/A/4200/01R - M301, M234, M452 Penetration LRT (TYPE B)						
M234		05/04/89	12.3	20.0	2.0	20.0
M301		04/04/89	23.0	10.0	1.0	23.0
M452		05/04/89	15.0	20.0	2.0	20.0
PT/2/A/4200/01M - Incore Instr. LRT (TYPE B)						
E121		04/04/89	1.0	10.0	1.0	10.0
E138		04/04/89	0.0	10.0	1.0	10.0

CATAWBA NUCLEAR STATION
CONTROLLING PROCEDURE FOR TYPE B&C LEAK RATE TESTS
PT/2/A/4200/01L
ENCLOSURE 13.1
TYPE B&C LEAK RATE TEST REPORT

PENET.	VALVE	TEST DATE	MEAS. LEAK <SCCM>	RANGE LOWER LIMIT <SCCM>	INSTR. ERROR <SCCM>	REPORTED LEAKAGE <SCCM>

ACCEPTANCE CRITERIA VERIFICATION

11.1 Combined leakage rate of less than 0.60 La for all penetrations and valves subject to Type B & C leak rate tests when pressurized to Pa (Error Adjusted leakage < 82,979 sccm).

Total Type B & C Leakage:	8440.2 sccm
+ Root Sum Squared Instr. Error:	149.9 sccm
Error Adjusted Leakage:	8590.1 sccm

11.2 Combined Bypass leakage of less than 0.07 La for all penetrations identified in Technical Specifications Table 3.6-1 when pressurized to Pa (Error Adjusted Leakage < 9,681 sccm).

Combined Bypass Leakage:	2892.3 sccm
+ Root Sum Squared Instr. Error:	40.9 sccm
Error Adjusted Leakage:	2933.2 sccm

*Identifies penetrations listed in Tech. Spec Table 3.6-1.

11.3 Combined leakage rate of less than 0.05 La for all upper/lower and instrument room Containment Purge penetrations when pressurized to Pa (Error Adjusted Leakage < 6,915 sccm).

Containment Purge Penet. Leakage:	1800.3 sccm
+ Root Sum Squared Instr. Error:	34.9 sccm
Error Adjusted Leakage:	1835.2 sccm

****

Data Input By: Alison O'Dell , 5/18/89

Data Input Verified By: Hugh Hollins , 5-18-89

CATAWBA NUCLEAR STATION

** These acceptance criteria reflect the change of L_a from 0.2%/day to 0.3%/day.

APPENDIX G

TEST DATA

Test Data Printouts

- Mass Point Leak Rate Analysis (3 pages)
- Containment Calculated Values by Reading (12 pages)
- Calibrated Instrument Data (47 pages)
- Sensor Information (3 pages)

Significant Reading #s

- Temperature Stabilization: Readings #34 to 50
- Pressure Decay Test: Readings #50 to 146
- Verification Test: Readings #148 to 172

Mass Point Leak Rate Analysis

Catawba Nuclear Station
Unit 2

RDG	TIME (MINUTES)	NORM. MASS	MEASURED LEAK (WT %/DAY)	UCL LEAK (WT %/DAY)
50	0.00	1.000000	-	-
51	15.02	1.000011	-0.105853	-
52	30.17	1.000122	-0.583561	1.762254
53	45.32	1.000018	-0.158246	0.647087
54	60.32	0.999939	0.109315	0.630492
55	75.33	0.999916	0.201587	0.531110
56	90.35	1.000113	0.011534	0.324081
57	105.35	1.000011	0.012914	0.237731
58	120.22	1.000024	0.003863	0.174141
59	135.37	0.999933	0.046543	0.187553
60	150.37	0.999937	0.066003	0.181380
61	165.38	0.999826	0.115613	0.223829
62	180.38	1.000041	0.074169	0.174492
63	195.40	0.999883	0.089003	0.175631
64	210.42	0.999942	0.082501	0.157348
65	225.42	1.000005	0.062830	0.130940
66	240.43	0.999728	0.100256	0.171044
67	255.43	1.000010	0.077342	0.144114
68	271.45	0.999951	0.068540	0.128634
69	286.47	0.999826	0.078332	0.133066
70	301.47	0.999808	0.086722	0.136767
71	316.48	0.999886	0.083147	0.128640
72	331.48	0.999933	0.074669	0.116939
73	346.50	0.999909	0.069654	0.108627
74	361.50	0.999868	0.068711	0.104503
75	376.52	0.999865	0.067705	0.100695
76	391.52	0.999878	0.065314	0.095899
77	406.53	0.999871	0.063421	0.091840
78	421.53	0.999783	0.067253	0.093942
79	436.55	0.999864	0.064979	0.089958
80	451.57	0.999950	0.057751	0.082145
81	466.57	1.000001	0.048673	0.073192
82	481.58	0.999890	0.046596	0.069696
83	496.58	0.999845	0.046797	0.068519
84	511.60	1.000157	0.032547	0.057306
85	526.60	0.999854	0.033418	0.056799
86	541.62	0.999791	0.036584	0.058900
87	556.63	0.999913	0.034420	0.055651
88	571.63	0.999903	0.032786	0.052978
89	586.65	0.999876	0.032218	0.051397
90	599.35	0.999925	0.030039	0.048405
91	614.53	0.999892	0.029079	0.046595
92	629.50	0.999936	0.026828	0.043670
93	644.67	0.999892	0.026055	0.042146
94	659.67	0.999949	0.023738	0.039276
95	674.67	0.999771	0.026356	0.041432
96	689.68	0.999859	0.026341	0.040772

Mass Point Leak Rate Analysis

Catawba Nuclear Station
Unit 2

RDG	TIME (MINUTES)	NORM. MASS	MEASURED LEAK (WT %/DAY)	UCL LEAK (WT %/DAY)
97	704.68	0.999796	0.027796	0.041694
98	719.53	0.999780	0.029400	0.042818
99	734.68	0.999947	0.026978	0.040069
100	749.70	0.999887	0.026080	0.038684
101	764.70	0.999671	0.029711	0.042329
102	779.98	0.999862	0.029062	0.041216
103	795.03	0.999809	0.029440	0.041146
104	810.20	0.999815	0.029605	0.040883
105	825.20	0.999936	0.027513	0.038571
106	840.22	0.999820	0.027611	0.038279
107	855.22	0.999826	0.027548	0.037845
108	870.23	0.999953	0.025708	0.035811
109	885.23	0.999981	0.023251	0.033298
110	900.25	0.999830	0.023290	0.033005
111	915.27	0.999760	0.024324	0.033776
112	930.27	0.999799	0.024669	0.033824
113	945.28	0.999772	0.025316	0.034205
114	960.28	0.999751	0.026147	0.034798
115	975.30	0.999867	0.025357	0.033778
116	990.30	0.999831	0.025069	0.033241
117	1005.32	0.999767	0.025558	0.033502
118	1020.32	0.999804	0.025527	0.033239
119	1035.33	0.999768	0.025884	0.033382
120	1050.33	0.999765	0.026213	0.033505
121	1065.35	0.999788	0.026242	0.033330
122	1080.37	0.999884	0.025212	0.032175
123	1095.37	0.999746	0.025671	0.032459
124	1110.38	0.999822	0.025298	0.031914
125	1125.40	0.999814	0.025004	0.031450
126	1140.40	0.999917	0.023718	0.030117
127	1155.42	0.999795	0.023652	0.029885
128	1170.43	0.999769	0.023798	0.029874
129	1185.43	0.999794	0.023689	0.029313
130	1200.45	0.999736	0.024069	0.029857
131	1215.47	0.999823	0.023667	0.029327
132	1230.47	0.999925	0.022429	0.028078
133	1245.48	0.999708	0.023008	0.028549
134	1260.48	0.999837	0.022513	0.027944
135	1275.50	0.999748	0.022722	0.028029
136	1290.50	0.999782	0.022639	0.027825
137	1305.52	0.999818	0.022284	0.027362
138	1320.52	0.999740	0.022494	0.027462
139	1335.53	0.999840	0.021970	0.026852
140	1350.53	0.999859	0.021335	0.026148
141	1365.55	0.999772	0.021307	0.026016
142	1380.55	0.999743	0.021461	0.026070
143	1395.57	0.999904	0.020550	0.025144

Mass Point Leak Rate Analysis

Catawba Nuclear Station
Unit 2

RDG	TIME (MINUTES)	NORM. MASS	MEASURED LEAK (WT %/DAY)	UCL LEAK (WT %/DAY)
144	1410.57	0.999869	0.019904	0.024444
145	1425.58	0.999810	0.019649	0.024099
146	1440.58	0.999782	0.019570	0.023930

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
34	18:30:37	Lower Containment	46702.29	80.010	0.2304	29.6042
		Upper Containment	102762.10	76.931	0.3166	29.6122
		Ice Condenser	26367.30	16.756	0.0503	29.6253
		TOTAL	175831.69			
35	18:45:37	Lower Containment	46688.98	79.916	0.2276	29.5879
		Upper Containment	102820.72	76.462	0.3100	29.5966
		Ice Condenser	26348.01	16.834	0.0508	29.6089
		TOTAL	175857.70			
36	19:00:38	Lower Containment	46673.62	79.873	0.2277	29.5760
		Upper Containment	102839.86	76.278	0.3049	29.5870
		Ice Condenser	26325.45	17.033	0.0526	29.5978
		TOTAL	175838.93			
37	19:15:38	Lower Containment	46655.13	79.844	0.2275	29.5626
		Upper Containment	102854.24	76.175	0.3002	29.5807
		Ice Condenser	26308.80	17.202	0.0546	29.5916
		TOTAL	175818.17			
38	19:30:39	Lower Containment	46642.78	79.825	0.2274	29.5537
		Upper Containment	102857.00	76.096	0.2956	29.5726
		Ice Condenser	26294.28	17.288	0.0546	29.5806
		TOTAL	175794.06			
39	19:45:39	Lower Containment	46632.11	79.802	0.2285	29.5468
		Upper Containment	102871.45	76.025	0.2915	29.5687
		Ice Condenser	26298.44	17.284	0.0520	29.5824
		TOTAL	175801.99			
40	20:00:40	Lower Containment	46627.05	79.798	0.2260	29.5410
		Upper Containment	102895.38	75.958	0.2875	29.5679
		Ice Condenser	26293.96	17.330	0.0520	29.5803
		TOTAL	175816.39			
41	20:15:41	Lower Containment	46617.49	79.778	0.2244	29.5323
		Upper Containment	102881.03	75.916	0.2846	29.5586
		Ice Condenser	26279.99	17.483	0.0517	29.5737
		TOTAL	175778.51			
42	20:30:41	Lower Containment	46620.37	79.793	0.2240	29.5345
		Upper Containment	102894.34	75.812	0.2805	29.5526
		Ice Condenser	26267.16	17.539	0.0519	29.5629
		TOTAL	175781.87			
43	20:45:42	Lower Containment	46616.79	79.757	0.2224	29.5287
		Upper Containment	102892.76	75.816	0.2778	29.5497
		Ice Condenser	26267.22	17.457	0.0523	29.5584
		TOTAL	175776.76			
44	21:00:42	Lower Containment	46625.59	79.741	0.2207	29.5317
		Upper Containment	102889.09	75.792	0.2746	29.5441
		Ice Condenser	26258.59	17.548	0.0522	29.5542
		TOTAL	175773.27			
45	21:15:43	Lower Containment	46615.63	79.740	0.2189	29.5236
		Upper Containment	102910.89	75.705	0.2716	29.5426
		Ice Condenser	26249.64	17.649	0.0531	29.5513
		TOTAL	175776.16			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
46	21:30:43	Lower Containment	46602.74	79.784	0.2168	29.5157
		Upper Containment	102915.33	75.664	0.2689	29.5389
		Ice Condenser	26247.58	17.678	0.0528	29.5505
		TOTAL	175765.64			
47	21:45:44	Lower Containment	46612.70	79.775	0.2157	29.5204
		Upper Containment	102922.40	75.641	0.2664	29.5371
		Ice Condenser	26241.67	17.675	0.0528	29.5436
		TOTAL	175776.77			
48	22:00:44	Lower Containment	46602.40	79.771	0.2130	29.5110
		Upper Containment	102929.47	75.615	0.2636	29.5349
		Ice Condenser	26239.90	17.736	0.0524	29.5450
		TOTAL	175771.77			
49	22:15:45	Lower Containment	46609.57	79.864	0.2128	29.5204
		Upper Containment	102915.54	75.603	0.2609	29.5276
		Ice Condenser	26233.49	17.722	0.0526	29.5371
		TOTAL	175758.60			
50	22:30:45	Lower Containment	46605.81	79.954	0.2099	29.5200
		Upper Containment	102939.94	75.567	0.2585	29.5302
		Ice Condenser	26229.68	17.801	0.0546	29.5397
		TOTAL	175775.43			
51	22:45:46	Lower Containment	46596.33	80.004	0.2100	29.5168
		Upper Containment	102953.90	75.541	0.2563	29.5305
		Ice Condenser	26227.14	17.814	0.0555	29.5385
		TOTAL	175777.37			
52	23:00:55	Lower Containment	46586.67	80.030	0.2065	29.5087
		Upper Containment	102977.47	75.514	0.2540	29.5334
		Ice Condenser	26232.76	17.813	0.0536	29.5429
		TOTAL	175796.90			
53	23:16:04	Lower Containment	46600.92	80.038	0.2063	29.5179
		Upper Containment	102953.30	75.520	0.2515	29.5244
		Ice Condenser	26224.45	17.838	0.0531	29.5346
		TOTAL	175778.67			
54	23:31:04	Lower Containment	46596.74	80.023	0.2040	29.5121
		Upper Containment	102946.90	75.549	0.2497	29.5223
		Ice Condenser	26221.06	17.878	0.0529	29.5331
		TOTAL	175764.70			
55	23:46:05	Lower Containment	46596.19	80.069	0.2028	29.5131
		Upper Containment	102950.71	75.521	0.2475	29.5197
		Ice Condenser	26213.78	17.950	0.0534	29.5299
		TOTAL	175760.68			
56	00:01:06	Lower Containment	46604.05	80.099	0.2020	29.5189
		Upper Containment	102976.83	75.496	0.2450	29.5233
		Ice Condenser	26214.45	17.941	0.0532	29.5298
		TOTAL	175795.33			
57	00:16:06	Lower Containment	46604.17	80.076	0.2000	29.5157
		Upper Containment	102963.24	75.490	0.2430	29.5171
		Ice Condenser	26209.88	17.977	0.0528	29.5265
		TOTAL	175777.29			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
58	00:30:58	Lower Containment	46599.31	80.060	0.1978	29.5096
		Upper Containment	102965.49	75.536	0.2410	29.5183
		Ice Condenser	26214.93	17.889	0.0544	29.5284
		TOTAL	175779.73			
59	00:46:07	Lower Containment	46595.69	80.119	0.1975	29.5102
		Upper Containment	102961.66	75.516	0.2388	29.5139
		Ice Condenser	26206.39	17.939	0.0558	29.5233
		TOTAL	175763.74			
60	01:01:07	Lower Containment	46596.03	80.148	0.1963	29.5107
		Upper Containment	102970.10	75.524	0.2372	29.5151
		Ice Condenser	26198.30	18.049	0.0586	29.5238
		TOTAL	175764.43			
61	01:16:08	Lower Containment	46597.91	80.111	0.1944	29.5081
		Upper Containment	102952.76	75.513	0.2349	29.5073
		Ice Condenser	26194.23	18.045	0.0586	29.5189
		TOTAL	175744.90			
62	01:31:08	Lower Containment	46606.48	80.134	0.1918	29.5121
		Upper Containment	102978.93	75.497	0.2332	29.5121
		Ice Condenser	26197.15	18.033	0.0536	29.5165
		TOTAL	175782.56			
63	01:46:09	Lower Containment	46595.07	80.102	0.1900	29.5014
		Upper Containment	102961.91	75.499	0.2314	29.5056
		Ice Condenser	26197.96	17.983	0.0552	29.5159
		TOTAL	175754.94			
64	02:01:10	Lower Containment	46589.91	80.168	0.1898	29.5015
		Upper Containment	102973.96	75.502	0.2295	29.5073
		Ice Condenser	26201.29	17.966	0.0549	29.5183
		TOTAL	175765.16			
65	02:16:10	Lower Containment	46597.76	80.132	0.1883	29.5030
		Upper Containment	102986.16	75.486	0.2277	29.5081
		Ice Condenser	26192.47	18.113	0.0535	29.5160
		TOTAL	175776.39			
66	02:31:11	Lower Containment	46571.03	80.138	0.1867	29.4849
		Upper Containment	102961.41	75.568	0.2259	29.5037
		Ice Condenser	26195.14	18.105	0.0531	29.5182
		TOTAL	175727.59			
67	02:46:11	Lower Containment	46604.18	80.129	0.1848	29.5034
		Upper Containment	102977.36	75.559	0.2244	29.5063
		Ice Condenser	26195.63	18.002	0.0544	29.5136
		TOTAL	175777.18			
68	03:02:12	Lower Containment	46600.78	80.173	0.1832	29.5020
		Upper Containment	102973.78	75.587	0.2225	29.5049
		Ice Condenser	26192.22	18.075	0.0537	29.5136
		TOTAL	175766.78			
69	03:17:13	Lower Containment	46598.61	80.163	0.1822	29.4991
		Upper Containment	102961.38	75.602	0.2208	29.5005
		Ice Condenser	26184.82	18.097	0.0549	29.5078
		TOTAL	175744.81			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
70	03:32:13	Lower Containment	46632.66	80.164	0.1810	29.5194
		Upper Containment	102936.25	75.572	0.2193	29.4902
		Ice Condenser	26172.83	18.103	0.0549	29.4947
		TOTAL	175741.73			
71	03:47:14	Lower Containment	46594.69	80.211	0.1792	29.4962
		Upper Containment	102974.57	75.566	0.2176	29.4991
		Ice Condenser	26186.14	18.089	0.0545	29.5084
		TOTAL	175755.40			
72	04:02:14	Lower Containment	46591.65	80.231	0.1792	29.4954
		Upper Containment	102987.60	75.572	0.2157	29.5012
		Ice Condenser	26184.36	18.140	0.0548	29.5099
		TOTAL	175763.61			
73	04:17:15	Lower Containment	46592.69	80.217	0.1775	29.4936
		Upper Containment	102982.85	75.563	0.2143	29.4979
		Ice Condenser	26183.93	18.100	0.0545	29.5066
		TOTAL	175759.47			
74	04:32:15	Lower Containment	46597.88	80.239	0.1759	29.4965
		Upper Containment	102976.67	75.602	0.2110	29.4950
		Ice Condenser	26177.75	18.160	0.0563	29.5052
		TOTAL	175752.31			
75	04:47:16	Lower Containment	46589.30	80.223	0.1753	29.4896
		Upper Containment	102983.13	75.614	0.2111	29.4976
		Ice Condenser	26179.19	18.162	0.0557	29.5063
		TOTAL	175751.62			
76	05:02:16	Lower Containment	46593.85	80.239	0.1738	29.4918
		Upper Containment	102979.98	75.617	0.2096	29.4954
		Ice Condenser	26180.24	18.139	0.0543	29.5047
		TOTAL	175754.07			
77	05:17:17	Lower Containment	46596.89	80.242	0.1718	29.4919
		Upper Containment	102978.15	75.680	0.2082	29.4969
		Ice Condenser	26177.77	18.154	0.0542	29.5027
		TOTAL	175752.82			
78	05:32:17	Lower Containment	46575.43	80.261	0.1715	29.4791
		Upper Containment	102979.11	75.640	0.2068	29.4936
		Ice Condenser	26182.82	18.153	0.0539	29.5081
		TOTAL	175737.36			
79	05:47:18	Lower Containment	46591.52	80.285	0.1705	29.4894
		Upper Containment	102983.64	75.666	0.2052	29.4947
		Ice Condenser	26176.34	18.193	0.0548	29.5041
		TOTAL	175751.50			
80	06:02:19	Lower Containment	46593.46	80.302	0.1695	29.4907
		Upper Containment	102997.45	75.653	0.2038	29.4965
		Ice Condenser	26175.72	18.237	0.0539	29.5052
		TOTAL	175766.63			
81	06:17:19	Lower Containment	46595.69	80.304	0.1687	29.4915
		Upper Containment	103003.35	75.651	0.2022	29.4965
		Ice Condenser	26176.65	18.227	0.0534	29.5052
		TOTAL	175775.69			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
82	06:32:20	Lower Containment	46596.25	80.279	0.1682	29.4899
		Upper Containment	102986.42	75.676	0.2012	29.4921
		Ice Condenser	26173.37	18.202	0.0543	29.5008
		TOTAL	175756.05			
83	06:47:20	Lower Containment	46589.29	80.280	0.1670	29.4844
		Upper Containment	102979.48	75.710	0.2002	29.4910
		Ice Condenser	26179.37	18.141	0.0554	29.5049
		TOTAL	175748.14			
84	07:02:21	Lower Containment	46611.93	80.309	0.1672	29.5005
		Upper Containment	103025.53	75.701	0.1993	29.5026
		Ice Condenser	26165.53	18.323	0.0583	29.5034
		TOTAL	175802.99			
85	07:17:21	Lower Containment	46600.55	80.303	0.1668	29.4925
		Upper Containment	102987.57	75.772	0.1983	29.4947
		Ice Condenser	26161.68	18.365	0.0600	29.5034
		TOTAL	175749.80			
86	07:32:22	Lower Containment	46597.12	80.339	0.1670	29.4925
		Upper Containment	102977.59	75.753	0.1976	29.4902
		Ice Condenser	26164.01	18.299	0.0556	29.4976
		TOTAL	175738.72			
87	07:47:23	Lower Containment	46594.73	80.374	0.1662	29.4921
		Upper Containment	102994.98	75.722	0.1970	29.4928
		Ice Condenser	26170.41	18.235	0.0542	29.4994
		TOTAL	175760.12			
88	08:02:23	Lower Containment	46588.16	80.382	0.1656	29.4878
		Upper Containment	102997.14	75.734	0.1965	29.4936
		Ice Condenser	26173.16	18.258	0.0540	29.5037
		TOTAL	175758.46			
89	08:17:24	Lower Containment	46595.62	80.383	0.1655	29.4925
		Upper Containment	102992.51	75.763	0.1957	29.4931
		Ice Condenser	26165.53	18.361	0.0537	29.5012
		TOTAL	175753.67			
90	08:30:06	Lower Containment	46601.04	80.404	0.1650	29.4965
		Upper Containment	102997.22	75.758	0.1952	29.4936
		Ice Condenser	26163.90	18.350	0.0536	29.4986
		TOTAL	175762.17			
91	08:45:17	Lower Containment	46592.69	80.384	0.1637	29.4889
		Upper Containment	102991.58	75.769	0.1944	29.4918
		Ice Condenser	26172.18	18.252	0.0537	29.5020
		TOTAL	175756.44			
92	09:00:15	Lower Containment	46597.02	80.428	0.1630	29.4933
		Upper Containment	103000.57	75.762	0.1937	29.4933
		Ice Condenser	26166.58	18.327	0.0539	29.5005
		TOTAL	175764.17			
93	09:15:25	Lower Containment	46595.75	80.424	0.1625	29.4918
		Upper Containment	102998.74	75.789	0.1913	29.4918
		Ice Condenser	26161.94	18.369	0.0543	29.4983
		TOTAL	175756.43			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
94	09:30:25	Lower Containment	46599.35	80.468	0.1622	29.4962
		Upper Containment	103006.37	75.772	0.1921	29.4939
		Ice Condenser	26160.67	18.367	0.0544	29.4968
		TOTAL	175766.39			
95	09:45:25	Lower Containment	46590.75	80.444	0.1614	29.4886
		Upper Containment	102981.58	75.820	0.1913	29.4886
		Ice Condenser	26162.81	18.355	0.0538	29.4979
		TOTAL	175735.13			
96	10:00:26	Lower Containment	46594.11	80.438	0.1602	29.4892
		Upper Containment	102993.98	75.809	0.1904	29.4907
		Ice Condenser	26162.57	18.364	0.0536	29.4979
		TOTAL	175750.65			
97	10:15:26	Lower Containment	46585.52	80.477	0.1595	29.4852
		Upper Containment	102988.23	75.834	0.1896	29.4896
		Ice Condenser	26165.86	18.323	0.0542	29.4997
		TOTAL	175739.60			
98	10:30:17	Lower Containment	46581.62	80.512	0.1586	29.4838
		Upper Containment	102992.33	75.840	0.1887	29.4902
		Ice Condenser	26162.75	18.392	0.0563	29.5026
		TOTAL	175736.70			
99	10:45:26	Lower Containment	46597.51	80.483	0.1579	29.4915
		Upper Containment	103009.46	75.827	0.1879	29.4936
		Ice Condenser	26159.16	18.402	0.0566	29.4994
		TOTAL	175766.14			
100	11:00:27	Lower Containment	46583.08	80.529	0.1579	29.4849
		Upper Containment	103010.30	75.825	0.1870	29.4928
		Ice Condenser	26162.12	18.399	0.0540	29.5000
		TOTAL	175755.49			
101	11:15:27	Lower Containment	46581.60	80.557	0.1565	29.4841
		Upper Containment	102979.12	75.844	0.1861	29.4841
		Ice Condenser	26156.98	18.420	0.0542	29.4957
		TOTAL	175717.69			
102	11:30:44	Lower Containment	46588.70	80.551	0.1564	29.4881
		Upper Containment	103001.43	75.869	0.1853	29.4910
		Ice Condenser	26160.99	18.390	0.0541	29.4983
		TOTAL	175751.12			
103	11:45:47	Lower Containment	46589.45	80.565	0.1551	29.4881
		Upper Containment	102994.88	75.881	0.1844	29.4889
		Ice Condenser	26157.57	18.439	0.0543	29.4976
		TOTAL	175741.91			
104	12:00:57	Lower Containment	46590.51	80.543	0.1548	29.4873
		Upper Containment	102996.08	75.903	0.1836	29.4896
		Ice Condenser	26156.40	18.472	0.0542	29.4983
		TOTAL	175742.99			
105	12:15:57	Lower Containment	46599.43	80.534	0.1539	29.4915
		Upper Containment	103006.24	75.934	0.1830	29.4936
		Ice Condenser	26158.61	18.468	0.0539	29.5002
		TOTAL	175764.27			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

HDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
106	12:30:58	Lower Containment	46594.13	80.564	0.1533	29.4892
		Upper Containment	102992.22	75.955	0.1821	29.4899
		Ice Condenser	26157.46	18.432	0.0545	29.4973
		TOTAL	175743.81			
107	12:45:58	Lower Containment	46595.78	80.564	0.1523	29.4892
		Upper Containment	102990.95	75.966	0.1812	29.4892
		Ice Condenser	26158.15	18.414	0.0554	29.4979
		TOTAL	175744.88			
108	13:00:59	Lower Containment	46590.34	80.601	0.1518	29.4873
		Upper Containment	103022.01	75.945	0.1790	29.4947
		Ice Condenser	26151.29	18.580	0.0591	29.5041
		TOTAL	175763.64			
109	13:15:59	Lower Containment	46616.05	80.572	0.1513	29.5014
		Upper Containment	103015.75	75.993	0.1797	29.4962
		Ice Condenser	26140.24	18.635	0.0610	29.4969
		TOTAL	175772.04			
110	13:31:00	Lower Containment	46593.06	80.595	0.1504	29.4873
		Upper Containment	103000.37	75.976	0.1789	29.4902
		Ice Condenser	26152.08	18.562	0.0558	29.5005
		TOTAL	175745.51			
111	13:46:01	Lower Containment	46600.01	80.608	0.1501	29.4921
		Upper Containment	102981.82	76.016	0.1782	29.4863
		Ice Condenser	26151.37	18.531	0.0545	29.4965
		TOTAL	175733.19			
112	14:01:01	Lower Containment	46592.54	80.631	0.1490	29.4875
		Upper Containment	102994.13	76.013	0.1775	29.4890
		Ice Condenser	26153.38	18.518	0.0550	29.4985
		TOTAL	175740.05			
113	14:16:02	Lower Containment	46596.75	80.620	0.1490	29.4896
		Upper Containment	102991.28	76.054	0.1767	29.4896
		Ice Condenser	26147.33	18.629	0.0548	29.4983
		TOTAL	175735.36			
114	14:31:02	Lower Containment	46598.51	80.608	0.1482	29.4892
		Upper Containment	102986.26	76.086	0.1760	29.4892
		Ice Condenser	26146.96	18.628	0.0549	29.4979
		TOTAL	175731.73			
115	14:46:03	Lower Containment	46588.39	80.628	0.1477	29.4834
		Upper Containment	103005.02	76.106	0.1753	29.4950
		Ice Condenser	26158.71	18.523	0.0546	29.5044
		TOTAL	175752.13			
116	15:01:03	Lower Containment	46602.89	80.623	0.1469	29.4915
		Upper Containment	102992.66	76.104	0.1747	29.4907
		Ice Condenser	26150.10	18.601	0.0545	29.4994
		TOTAL	175745.65			
117	15:16:04	Lower Containment	46597.15	80.660	0.1466	29.4896
		Upper Containment	102989.52	76.127	0.1738	29.4902
		Ice Condenser	26147.75	18.624	0.0554	29.4991
		TOTAL	175734.42			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
118	15:31:04	Lower Containment	46595.54	80.698	0.1462	29.4902
		Upper Containment	102999.84	76.111	0.1733	29.4918
		Ice Condenser	26145.61	18.653	0.0552	29.4983
		TOTAL	175741.00			
119	15:46:05	Lower Containment	46604.99	80.684	0.1455	29.4947
		Upper Containment	102986.23	76.141	0.1727	29.4889
		Ice Condenser	26143.47	18.650	0.0549	29.4954
		TOTAL	175734.69			
120	16:01:05	Lower Containment	46599.84	80.663	0.1451	29.4899
		Upper Containment	102988.87	76.171	0.1721	29.4907
		Ice Condenser	26145.50	18.652	0.0550	29.4979
		TOTAL	175734.21			
121	16:16:06	Lower Containment	46597.21	80.721	0.1444	29.4907
		Upper Containment	102997.28	76.147	0.1702	29.4899
		Ice Condenser	26143.61	18.673	0.0565	29.4986
		TOTAL	175738.09			
122	16:31:07	Lower Containment	46599.96	80.716	0.1440	29.4918
		Upper Containment	103012.57	76.172	0.1708	29.4962
		Ice Condenser	26142.51	18.724	0.0573	29.5012
		TOTAL	175755.03			
123	16:46:07	Lower Containment	46592.81	80.768	0.1435	29.4896
		Upper Containment	102993.87	76.164	0.1699	29.4896
		Ice Condenser	26144.06	18.668	0.0554	29.4976
		TOTAL	175730.74			
124	17:01:08	Lower Containment	46595.62	80.753	0.1428	29.4899
		Upper Containment	103004.03	76.157	0.1693	29.4915
		Ice Condenser	26144.43	18.678	0.0553	29.4986
		TOTAL	175744.09			
125	17:16:09	Lower Containment	46598.04	80.739	0.1423	29.4902
		Upper Containment	102998.16	76.232	0.1687	29.4933
		Ice Condenser	26146.56	18.689	0.0548	29.5012
		TOTAL	175742.76			
126	17:31:09	Lower Containment	46595.31	80.777	0.1420	29.4902
		Upper Containment	103016.72	76.196	0.1681	29.4960
		Ice Condenser	26148.82	18.649	0.0548	29.5012
		TOTAL	175760.85			
127	17:46:10	Lower Containment	46597.49	80.746	0.1413	29.4892
		Upper Containment	102998.26	76.231	0.1675	29.4921
		Ice Condenser	26143.58	18.700	0.0549	29.4986
		TOTAL	175739.33			
128	18:01:11	Lower Containment	46593.78	80.770	0.1407	29.4875
		Upper Containment	102999.50	76.216	0.1670	29.4911
		Ice Condenser	26141.62	18.745	0.0549	29.4991
		TOTAL	175734.90			
129	18:16:11	Lower Containment	46593.10	80.807	0.1405	29.4889
		Upper Containment	103004.14	76.217	0.1663	29.4918
		Ice Condenser	26142.04	18.720	0.0551	29.4983
		TOTAL	175739.28			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
130	18:31:12	Lower Containment	46592.56	80.783	0.1399	29.4867
		Upper Containment	102995.16	76.206	0.1658	29.4881
		Ice Condenser	26141.39	18.715	0.0548	29.4969
		TOTAL	175729.12			
131	18:46:13	Lower Containment	46592.65	80.830	0.1395	29.4889
		Upper Containment	103008.30	76.231	0.1651	29.4925
		Ice Condenser	26143.36	18.691	0.0554	29.4983
		TOTAL	175744.31			
132	19:01:13	Lower Containment	46600.76	80.802	0.1391	29.4921
		Upper Containment	103021.98	76.267	0.1646	29.4979
		Ice Condenser	26139.55	18.819	0.0579	29.5044
		TOTAL	175762.28			
133	19:16:14	Lower Containment	46599.86	80.793	0.1385	29.4904
		Upper Containment	102998.97	76.288	0.1640	29.4919
		Ice Condenser	26125.37	18.914	0.0622	29.4985
		TOTAL	175724.20			
134	19:31:14	Lower Containment	46608.93	80.814	0.1380	29.4968
		Upper Containment	103008.28	76.270	0.1635	29.4931
		Ice Condenser	26129.59	18.876	0.0581	29.4968
		TOTAL	175746.80			
135	19:46:15	Lower Containment	46587.31	80.879	0.1383	29.4870
		Upper Containment	103005.18	76.279	0.1629	29.4921
		Ice Condenser	26138.64	18.794	0.0555	29.4994
		TOTAL	175731.13			
136	20:01:15	Lower Containment	46589.55	80.886	0.1379	29.4884
		Upper Containment	103006.73	76.279	0.1625	29.4921
		Ice Condenser	26140.90	18.759	0.0557	29.5000
		TOTAL	175737.17			
137	20:16:16	Lower Containment	46591.34	80.902	0.1374	29.4899
		Upper Containment	103017.12	76.277	0.1619	29.4944
		Ice Condenser	26134.94	18.894	0.0550	29.5009
		TOTAL	175743.41			
138	20:31:16	Lower Containment	46592.14	80.903	0.1368	29.4899
		Upper Containment	103004.16	76.286	0.1614	29.4907
		Ice Condenser	26133.43	18.884	0.0550	29.4986
		TOTAL	175729.74			
139	20:46:17	Lower Containment	46591.92	80.881	0.1367	29.4884
		Upper Containment	103014.69	76.294	0.1609	29.4936
		Ice Condenser	26140.74	18.772	0.0551	29.5000
		TOTAL	175747.35			
140	21:01:17	Lower Containment	46594.51	80.893	0.1360	29.4899
		Upper Containment	103019.54	76.287	0.1605	29.4942
		Ice Condenser	26136.58	18.862	0.0550	29.5008
		TOTAL	175750.63			
141	21:16:18	Lower Containment	46588.57	80.936	0.1360	29.4886
		Upper Containment	103012.29	76.283	0.1601	29.4915
		Ice Condenser	26134.58	18.865	0.0557	29.4994
		TOTAL	175735.44			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
142	21:31:18	Lower Containment	46587.64	80.947	0.1352	29.4878
		Upper Containment	103004.34	76.345	0.1595	29.4921
		Ice Condenser	26138.29	18.860	0.0555	29.5030
		TOTAL	175730.27			
143	21:46:19	Lower Containment	46600.75	80.962	0.1355	29.4971
		Upper Containment	103024.69	76.300	0.1591	29.4950
		Ice Condenser	26133.18	18.850	0.0553	29.4965
		TOTAL	175758.62			
144	22:01:19	Lower Containment	46596.25	80.965	0.1349	29.4939
		Upper Containment	103021.56	76.320	0.1586	29.4947
		Ice Condenser	26134.60	18.892	0.0551	29.5005
		TOTAL	175752.42			
145	22:16:20	Lower Containment	46588.53	80.938	0.1343	29.4870
		Upper Containment	103016.30	76.335	0.1582	29.4936
		Ice Condenser	26137.39	18.847	0.0558	29.5015
		TOTAL	175742.11			
146	22:31:20	Lower Containment	46594.41	80.952	0.1339	29.4910
		Upper Containment	103012.23	76.330	0.1578	29.4918
		Ice Condenser	26130.41	18.916	0.0576	29.4997
		TOTAL	175737.05			
147	22:46:21	Lower Containment	46594.70	80.936	0.1332	29.4896
		Upper Containment	103024.17	76.368	0.1574	29.4968
		Ice Condenser	26133.11	18.900	0.0570	29.5012
		TOTAL	175751.98			
148	22:56:21	Lower Containment	46591.91	80.938	0.1330	29.4878
		Upper Containment	103009.66	76.337	0.1571	29.4907
		Ice Condenser	26132.20	18.884	0.0558	29.4980
		TOTAL	175733.77			
149	23:06:22	Lower Containment	46595.09	80.926	0.1331	29.4892
		Upper Containment	103031.24	76.363	0.1568	29.4980
		Ice Condenser	26137.52	18.908	0.0555	29.5052
		TOTAL	175763.86			
150	23:16:22	Lower Containment	46595.13	80.960	0.1324	29.4904
		Upper Containment	103028.79	76.374	0.1566	29.4977
		Ice Condenser	26134.10	18.875	0.0554	29.4991
		TOTAL	175758.01			
151	23:26:22	Lower Containment	46593.77	80.985	0.1325	29.4910
		Upper Containment	102986.73	76.409	0.1562	29.4873
		Ice Condenser	26130.40	18.861	0.0552	29.4939
		TOTAL	175710.90			
152	23:36:23	Lower Containment	46582.88	80.965	0.1323	29.4828
		Upper Containment	103006.50	76.374	0.1559	29.4907
		Ice Condenser	26133.72	18.919	0.0555	29.5015
		TOTAL	175723.10			
153	23:46:23	Lower Containment	46589.24	80.976	0.1318	29.4870
		Upper Containment	102990.21	76.424	0.1558	29.4886
		Ice Condenser	26125.84	18.947	0.0555	29.4944
		TOTAL	175705.29			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
154	23:56:23	Lower Containment	46582.73	81.006	0.1317	29.4844
		Upper Containment	103012.96	76.382	0.1554	29.4925
		Ice Condenser	26131.57	18.942	0.0555	29.5005
		TOTAL	175727.26			
155	00:06:24	Lower Containment	46580.15	81.025	0.1320	29.4841
		Upper Containment	102995.19	76.405	0.1552	29.4884
		Ice Condenser	26128.07	18.944	0.0553	29.4965
		TOTAL	175703.41			
156	00:16:24	Lower Containment	46586.46	80.999	0.1316	29.4863
		Upper Containment	102991.35	76.404	0.1549	29.4870
		Ice Condenser	26125.04	18.955	0.0551	29.4936
		TOTAL	175702.85			
157	00:26:24	Lower Containment	46585.29	80.989	0.1310	29.4844
		Upper Containment	102992.28	76.426	0.1546	29.4881
		Ice Condenser	26127.05	18.929	0.0556	29.4947
		TOTAL	175704.63			
158	00:36:25	Lower Containment	46578.64	81.034	0.1312	29.4828
		Upper Containment	103019.27	76.414	0.1545	29.4951
		Ice Condenser	26131.32	18.894	0.0568	29.4986
		TOTAL	175729.23			
159	00:46:25	Lower Containment	46583.75	80.995	0.1306	29.4834
		Upper Containment	103001.72	76.432	0.1542	29.4907
		Ice Condenser	26123.93	18.958	0.0583	29.4957
		TOTAL	175709.40			
160	00:56:26	Lower Containment	46585.54	81.032	0.1304	29.4863
		Upper Containment	102984.77	76.416	0.1540	29.4849
		Ice Condenser	26115.76	19.022	0.0594	29.4915
		TOTAL	175686.06			
161	01:06:26	Lower Containment	46584.78	81.037	0.1306	29.4863
		Upper Containment	102983.34	76.428	0.1538	29.4849
		Ice Condenser	26109.93	19.090	0.0610	29.4907
		TOTAL	175678.06			
162	01:16:27	Lower Containment	46569.48	81.066	0.1307	29.4783
		Upper Containment	102990.07	76.438	0.1534	29.4870
		Ice Condenser	26117.83	19.069	0.0612	29.4986
		TOTAL	175677.38			
163	01:26:27	Lower Containment	46579.39	81.061	0.1304	29.4840
		Upper Containment	102981.74	76.431	0.1532	29.4840
		Ice Condenser	26112.84	19.058	0.0594	29.4904
		TOTAL	175673.97			
164	01:36:27	Lower Containment	46575.68	81.080	0.1300	29.4823
		Upper Containment	102972.01	76.469	0.1530	29.4831
		Ice Condenser	26118.23	19.002	0.0565	29.4902
		TOTAL	175665.92			
165	01:46:28	Lower Containment	46574.13	81.096	0.1302	29.4823
		Upper Containment	102967.41	76.456	0.1527	29.4808
		Ice Condenser	26117.40	18.987	0.0563	29.4881
		TOTAL	175658.94			

Containment Calculated Values

Catawba Nuclear Station
Unit 2

RDG	TIME		MASS	TEMP	VAP PRESS	PRESSURE
166	01:56:28	Lower Containment	46580.62	81.105	0.1299	29.4867
		Upper Containment	102980.70	76.455	0.1526	29.4844
		Ice Condenser	26120.59	18.965	0.0562	29.4902
		TOTAL	175681.90			
167	02:06:29	Lower Containment	46577.46	81.055	0.1295	29.4815
		Upper Containment	102964.63	76.478	0.1523	29.4808
		Ice Condenser	26114.96	19.026	0.0558	29.4873
		TOTAL	175657.06			
168	02:16:29	Lower Containment	46577.09	81.087	0.1293	29.4828
		Upper Containment	102974.32	76.468	0.1521	29.4828
		Ice Condenser	26113.43	19.086	0.0558	29.4892
		TOTAL	175664.85			
169	02:26:29	Lower Containment	46570.07	81.056	0.1288	29.4762
		Upper Containment	102982.89	76.467	0.1518	29.4849
		Ice Condenser	26115.71	19.106	0.0556	29.4928
		TOTAL	175668.67			
170	02:36:30	Lower Containment	46575.27	81.068	0.1284	29.4797
		Upper Containment	102959.25	76.504	0.1505	29.4789
		Ice Condenser	26112.81	19.049	0.0558	29.4863
		TOTAL	175647.33			
171	02:46:30	Lower Containment	46577.51	81.112	0.1287	29.4838
		Upper Containment	102974.85	76.468	0.1514	29.4823
		Ice Condenser	26115.64	19.017	0.0556	29.4873
		TOTAL	175668.01			
172	02:56:30	Lower Containment	46571.49	81.125	0.1287	29.4808
		Upper Containment	102960.05	76.496	0.1512	29.4794
		Ice Condenser	26114.35	19.068	0.0555	29.4889
		TOTAL	175645.88			

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 34 - Mar 16 18:30:37

Pressures (PSIA)

Lower Containment	1.. 1	29.604									
Upper Containment	1.. 1	29.612									
Ice Condenser	1.. 1	29.625									

Dew Points (°F)

Lower Containment	1.. 2	58.494	55.604								
Upper Containment	1.. 2	66.337	65.728								
Ice Condenser	1.. 2	17.283	22.602								

Temperatures (°F)

Lower Containment	1..10	70.185	78.422	78.353	78.569	78.705	74.105	72.586	74.163	77.116	86.364
	11..20	86.637	87.09	85.552	82.709	82.6	82.996	79.85	77.345	79.272	80.041
	21..24	77.854	78.481	78.707	80.216						
Upper Containment	1..10	70.981	79.033	79.223	76.589	78.003	76.138	76.294	77.208	75.955	76.803
	11..13	76.913	77.192	77.015							
Ice Condenser	1..10	19.576	19.069	17.985	17.292	16.575	15.895	17.47	17.083	19.391	19.239
	11..15	15.737	14.999	14.423	15.185	15.478					

Reading # 35 - Mar 16 18:45:37

Pressures (PSIA)

Lower Containment	1.. 1	29.588									
Upper Containment	1.. 1	29.597									
Ice Condenser	1.. 1	29.609									

Dew Points (°F)

Lower Containment	1.. 2	58.343	55.065								
Upper Containment	1.. 2	65.713	65.13								
Ice Condenser	1.. 2	17.564	22.678								

Temperatures (°F)

Lower Containment	1..10	69.652	78.357	78.274	78.429	78.673	74.212	72.531	73.903	77.172	86.267
	11..20	86.628	87.09	85.533	82.538	82.47	82.778	79.687	77.248	79.193	80.004
	21..24	77.835	78.42	78.809	80.263						
Upper Containment	1..10	70.911	78.842	79.214	75.67	77.65	75.744	75.951	76.55	75.546	76.371
	11..13	76.435	76.51	76.482							
Ice Condenser	1..10	19.356	19.181	18.247	17.92	16.848	16.2	17.731	17.388	19.226	18.999
	11..15	15.744	15.015	14.28	15.18	15.493					

Reading # 36 - Mar 16 19:00:38

Pressures (PSIA)

Lower Containment	1.. 1	29.576									
Upper Containment	1.. 1	29.587									
Ice Condenser	1.. 1	29.598									

Dew Points (°F)

Lower Containment	1.. 2	58.468	54.973								
Upper Containment	1.. 2	65.255	64.645								
Ice Condenser	1.. 2	18.975	22.772								

Temperatures (°F)

Lower Containment	1..10	69.406	78.316	78.256	78.397	78.682	74.268	72.586	73.806	77.19	86.211
	11..20	86.651	86.97	85.566	82.417	82.372	82.671	79.622	77.225	79.184	80.004
	21..24	77.826	78.434	78.809	80.254						
Upper Containment	1..10	70.921	78.787	79.204	75.322	77.618	75.665	75.867	76.203	75.393	76.176
	11..13	76.245	76.269	76.222							
Ice Condenser	1..10	19.398	19.212	18.312	17.684	17.641	17.121	18.652	17.647	19.579	19.213
	11..15	15.753	15.048	14.3	15.18	15.516					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 37 - Mar 16 19:15:38

Pressures (PSIA)

Lower Containment	1.. 1	29.563
Upper Containment	1.. 1	29.581
Ice Condenser	1.. 1	29.592

Dew Points (°F)

Lower Containment	1.. 2	58.579	54.808
Upper Containment	1.. 2	64.86	64.147
Ice Condenser	1.. 2	20.469	22.823

Temperatures (°F)

Lower Containment	1..10	69.294	78.278	78.209	78.341	78.659	74.3	72.651	73.764	77.213	86.253
	11..20	86.651	87.035	85.543	82.319	82.298	82.574	79.511	77.211	79.203	80.027
	21..24	77.784	78.444	78.767	80.272						
Upper Containment	1..10	70.879	78.712	79.19	75.192	77.724	75.633	75.779	75.966	75.314	76.032
	11..13	76.101	76.153	76.111							
Ice Condenser	1..10	19.322	19.212	18.251	17.827	18.578	17.92	19.406	17.963	19.68	19.208
	11..15	15.791	15.031	14.284	15.185	15.551					

Reading # 38 - Mar 16 19:30:39

Pressures (PSIA)

Lower Containment	1.. 1	29.554
Upper Containment	1.. 1	29.573
Ice Condenser	1.. 1	29.581

Dew Points (°F)

Lower Containment	1.. 2	58.605	54.763
Upper Containment	1.. 2	64.362	63.759
Ice Condenser	1.. 2	20.201	23.066

Temperatures (°F)

Lower Containment	1..10	69.253	78.237	78.167	78.276	78.594	74.323	72.693	73.732	77.246	86.267
	11..20	86.702	87.053	85.584	82.236	82.219	82.462	79.534	77.16	79.24	80.036
	21..24	77.77	78.444	78.744	80.272						
Upper Containment	1..10	70.879	78.731	79.181	75.081	77.553	75.591	75.668	75.975	75.208	75.926
	11..13	76.004	76.056	76.004							
Ice Condenser	1..10	19.398	19.266	18.905	17.989	18.686	17.951	19.31	18.176	19.873	19.262
	11..15	15.833	15.021	14.262	15.207	15.562					

Reading # 39 - Mar 16 19:45:39

Pressures (PSIA)

Lower Containment	1.. 1	29.547
Upper Containment	1.. 1	29.569
Ice Condenser	1.. 1	29.582

Dew Points (°F)

Lower Containment	1.. 2	58.744	54.883
Upper Containment	1.. 2	63.989	63.333
Ice Condenser	1.. 2	18.332	22.909

Temperatures (°F)

Lower Containment	1..10	69.211	78.227	78.144	78.299	78.543	74.323	72.725	73.709	77.232	86.332
	11..20	86.749	87.09	85.552	82.166	82.177	82.476	79.33	77.178	79.272	80.027
	21..24	77.752	78.397	78.679	80.212						
Upper Containment	1..10	70.856	78.745	79.172	74.974	77.706	75.591	75.593	75.725	75.185	75.819
	11..13	75.906	75.977	75.916							
Ice Condenser	1..10	19.549	19.523	19.525	17.978	18.108	17.608	18.945	18.167	19.885	19.401
	11..15	15.813	15.021	14.262	15.238	15.585					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 40 - Mar 16 20:00:40

Pressures (PSIA)

Lower Containment	1.. 1	29.541									
Upper Containment	1.. 1	29.568									
Ice Condenser	1.. 1	29.58									

Dew Points (°F)

Lower Containment	1.. 2	58.612	54.428								
Upper Containment	1.. 2	63.615	62.932								
Ice Condenser	1.. 2	18.344	22.922								

Temperatures (°F)

Lower Containment	1..10	69.188	78.204	78.102	78.276	78.576	74.365	72.748	73.695	77.278	86.388
	11..20	86.781	87.002	85.598	82.166	82.047	82.444	79.469	77.137	79.24	80.036
	21..24	77.752	78.388	78.623	80.198						
Upper Containment	1..10	70.911	78.582	79.163	74.942	77.771	75.47	75.528	75.702	75.11	75.708
	11..13	75.832	75.88	75.828							
Ice Condenser	1..10	19.614	19.642	19.194	18.031	17.915	17.448	18.84	18.264	20.377	20.161
	11..15	15.844	15.053	14.21	15.238	15.594					

Reading # 41 - Mar 16 20:15:41

Pressures (PSIA)

Lower Containment	1.. 1	29.532									
Upper Containment	1.. 1	29.559									
Ice Condenser	1.. 1	29.574									

Dew Points (°F)

Lower Containment	1.. 2	58.462	54.174								
Upper Containment	1.. 2	63.327	62.638								
Ice Condenser	1.. 2	18.129	22.876								

Temperatures (°F)

Lower Containment	1..10	69.141	78.162	78.102	78.22	78.511	74.379	72.767	73.695	77.278	86.411
	11..20	86.772	87.109	85.64	82.101	82.014	82.388	79.362	77.113	79.217	80.046
	21..24	77.719	78.346	78.591	80.212						
Upper Containment	1..10	70.93	78.698	79.139	74.886	77.794	75.382	75.473	75.716	75.101	75.643
	11..13	75.735	75.773	75.721							
Ice Condenser	1..10	20.473	19.685	18.97	17.978	17.861	17.352	18.86	18.422	20.817	21.654
	11..15	15.876	15.064	14.22	15.261	15.594					

Reading # 42 - Mar 16 20:30:41

Pressures (PSIA)

Lower Containment	1.. 1	29.535									
Upper Containment	1.. 1	29.553									
Ice Condenser	1.. 1	29.563									

Dew Points (°F)

Lower Containment	1.. 2	58.43	54.114								
Upper Containment	1.. 2	62.908	62.232								
Ice Condenser	1.. 2	18.181	22.935								

Temperatures (°F)

Lower Containment	1..10	69.123	78.153	78.112	78.276	78.552	74.397	72.813	73.685	77.278	86.374
	11..20	86.847	87.053	85.663	82.125	81.973	82.453	79.446	77.127	79.24	80.036
	21..24	77.696	78.346	78.646	80.175						
Upper Containment	1..10	70.93	78.471	79.13	74.845	77.511	75.285	75.366	75.531	75.031	75.601
	11..13	75.665	75.685	75.624							
Ice Condenser	1..10	20.989	19.868	18.894	17.966	17.807	17.352	18.925	17.[illegible]1	20.933	21.771
	11..15	15.887	15.073	14.242	15.261	15.585					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 43 - Mar 16 20:45:42

Pressures (PSIA)

Lower Containment	1.. 1	29.529									
Upper Containment	1.. 1	29.55									
Ice Condenser	1.. 1	29.558									

Dew Points (°F)

Lower Containment	1.. 2	58.127	54.015								
Upper Containment	1.. 2	62.612	61.984								
Ice Condenser	1.. 2	18.424	23.073								

Temperatures (°F)

Lower Containment	1..10	69.137	78.139	78.093	78.244	78.497	74.43	72.822	73.685	77.302	86.411
	11..20	86.781	87.118	85.575	82.041	81.949	82.346	79.218	77.113	79.193	80.018
	21..24	77.71	78.3	78.581	80.175						
Upper Containment	1..10	70.921	78.68	79.116	74.766	77.66	75.243	75.32	75.619	74.971	75.527
	11..13	75.656	75.662	75.647							
Ice Condenser	1..10	20.215	19.728	19.225	18.385	17.904	17.372	18.967	18.553	20.655	20.462
	11..15	15.898	15.107	14.231	15.281	15.594					

Reading # 44 - Mar 16 21:00:42

Pressures (PSIA)

Lower Containment	1.. 1	29.532									
Upper Containment	1.. 1	29.544									
Ice Condenser	1.. 1	29.554									

Dew Points (°F)

Lower Containment	1.. 2	58.062	53.661								
Upper Containment	1.. 2	62.324	61.609								
Ice Condenser	1.. 2	18.509	22.897								

Temperatures (°F)

Lower Containment	1..10	69.114	78.097	78.037	78.234	78.422	74.421	72.846	73.685	77.278	86.42
	11..20	86.847	87.118	85.673	81.985	81.917	82.337	79.098	77.095	79.161	80.018
	21..24	77.687	78.3	78.567	80.165						
Upper Containment	1..10	70.921	78.689	79.093	74.812	77.803	75.09	75.301	75.508	74.99	75.494
	11..13	75.656	75.62	75.578							
Ice Condenser	1..10	19.98	19.996	19.313	19.155	19.051	17.33	18.936	18.499	20.451	20.227
	11..15	15.898	15.171	14.21	15.281	15.628					

Reading # 45 - Mar 16 21:15:43

Pressures (PSIA)

Lower Containment	1.. 1	29.524									
Upper Containment	1.. 1	29.543									
Ice Condenser	1.. 1	29.551									

Dew Points (°F)

Lower Containment	1.. 2	57.858	53.418								
Upper Containment	1.. 2	61.982	61.332								
Ice Condenser	1.. 2	19.211	22.922								

Temperatures (°F)

Lower Containment	1..10	69.114	78.107	78.023	78.22	78.487	74.453	72.864	73.709	77.269	86.411
	11..20	86.833	87.076	85.682	81.971	81.894	82.3	79.144	77.104	79.24	80.004
	21..24	77.696	78.29	78.549	80.142						
Upper Containment	1..10	70.911	78.494	79.084	74.724	77.618	75.1	75.231	75.369	74.915	75.448
	11..13	75.549	75.555	75.504							
Ice Condenser	1..10	20.237	20.395	19.29	19.733	19.479	17.372	18.967	18.51	20.442	20.099
	11..15	15.929	15.181	14.231	15.292	15.681					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 46 - Mar 16 21:30:43

Pressures (PSIA)

Lower Containment	1.. 1	29.516									
Upper Containment	1.. 1	29.539									
Ice Condenser	1.. 1	29.551									

Dew Points (°F)

Lower Containment	1.. 2	57.629	53.098								
Upper Containment	1.. 2	61.708	61.039								
Ice Condenser	1.. 2	18.929	22.975								

Temperatures (°F)

Lower Containment	1..10	69.1	78.107	78.07	78.234	78.552	74.476	72.887	73.718	77.32	86.439
	11..20	86.87	87.1	85.756	82.041	81.884	82.346	79.492	77.095	79.184	80.036
	21..24	77.71	78.3	78.567	80.156						
Upper Containment	1..10	70.897	78.29	79.074	74.692	77.868	75.146	75.213	75.313	74.892	75.406
	11..13	75.34	75.546	75.448							
Ice Condenser	1..10	20.022	20.092	19.268	19.756	19.672	17.588	18.925	18.82	20.624	20.141
	11..15	15.952	15.192	14.253	15.312	15.69					

Reading # 47 - Mar 16 21:45:44

Pressures (PSIA)

Lower Containment	1.. 1	29.52									
Upper Containment	1.. 1	29.537									
Ice Condenser	1.. 1	29.544									

Dew Points (°F)

Lower Containment	1.. 2	57.425	53.025								
Upper Containment	1.. 2	61.431	60.782								
Ice Condenser	1.. 2	18.909	22.941								

Temperatures (°F)

Lower Containment	1..10	69.1	78.121	78.061	78.22	78.455	74.486	72.91	73.732	77.288	86.462
	11..20	86.898	87.132	85.849	81.995	81.819	82.29	79.436	77.072	79.217	80.036
	21..24	77.687	78.314	78.516	80.175						
Upper Containment	1..10	70.911	78.569	79.065	74.636	77.562	75.081	75.171	75.271	74.851	75.35
	11..13	75.438	75.49	75.429							
Ice Condenser	1..10	19.795	20.384	19.393	19.505	18.639	17.711	19.283	19.266	20.682	20.049
	11..15	15.967	15.198	14.269	15.33	15.728					

Reading # 48 - Mar 16 22:00:44

Pressures (PSIA)

Lower Containment	1.. 1	29.511									
Upper Containment	1.. 1	29.535									
Ice Condenser	1.. 1	29.545									

Dew Points (°F)

Lower Containment	1.. 2	57.236	52.534								
Upper Containment	1.. 2	61.117	60.502								
Ice Condenser	1.. 2	18.594	22.975								

Temperatures (°F)

Lower Containment	1..10	69.114	78.107	78.047	78.202	78.455	74.504	72.934	73.75	77.311	86.527
	11..20	86.912	87.132	85.877	81.93	81.796	82.249	79.33	77.081	79.226	80.004
	21..24	77.687	78.29	78.591	80.156						
Upper Containment	1..10	70.888	78.494	79.051	74.692	77.423	75.123	75.148	75.248	74.851	75.295
	11..13	75.405	75.458	75.416							
Ice Condenser	1..10	20.496	20.361	19.665	18.952	18.419	17.727	19.61	19.989	20.377	20.13
	11..15	15.961	15.203	14.273	15.335	15.755					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 49 - Mar 16 22:15:45

Pressures (PSIA)

Lower Containment	1.. 1	29.52									
Upper Containment	1.. 1	29.528									
Ice Condenser	1.. 1	29.537									

Dew Points (°F)

Lower Containment	1.. 2	57	52.718								
Upper Containment	1.. 2	60.849	60.193								
Ice Condenser	1.. 2	18.667	23.001								

Temperatures (°F)

Lower Containment	1..10	69.114	78.162	78.307	78.299	78.562	74.541	73.082	73.936	77.353	86.508
	11..20	87.009	87.132	85.859	82.083	81.852	82.583	79.622	77.113	79.356	80.004
	21..24	77.719	78.267	78.567	80.286						
Upper Containment	1..10	70.888	78.318	79.042	74.65	77.465	75.1	75.125	75.41	74.837	75.295
	11..13	75.373	75.416	75.332							
Ice Condenser	1..10	20.603	20.503	19.629	18.701	18.123	17.796	19.433	19.181	20.747	20.489
	11..15	15.979	15.241	14.311	15.341	15.847					

Reading # 50 - Mar 16 22:30:45

Pressures (PSIA)

Lower Containment	1.. 1	29.52									
Upper Containment	1.. 1	29.53									
Ice Condenser	1.. 1	29.54									

Dew Points (°F)

Lower Containment	1.. 2	56.705	52.252								
Upper Containment	1.. 2	60.573	59.95								
Ice Condenser	1.. 2	20.201	23.053								

Temperatures (°F)

Lower Containment	1..10	69.123	78.269	78.613	78.397	78.511	74.639	73.494	74.423	77.506	86.536
	11..20	86.968	87.151	85.859	82.115	82.093	82.746	79.548	77.127	79.653	79.995
	21..24	77.761	78.267	78.637	80.309						
Upper Containment	1..10	70.879	78.429	79.019	74.627	77.446	75.049	75.092	75.359	74.786	75.197
	11..13	75.382	75.337	75.286							
Ice Condenser	1..10	20.173	20.361	19.579	18.748	18.697	18.209	19.471	18.927	21.16	21.277
	11..15	15.983	15.214	14.316	15.346	15.851					

Reading # 51 - Mar 16 22:45:46

Pressures (PSIA)

Lower Containment	1.. 1	29.517									
Upper Containment	1.. 1	29.531									
Ice Condenser	1.. 1	29.539									

Dew Points (°F)

Lower Containment	1.. 2	56.488	52.488								
Upper Containment	1.. 2	60.364	59.675								
Ice Condenser	1.. 2	20.844	23.086								

Temperatures (°F)

Lower Containment	1..10	69.123	78.325	78.678	78.504	78.585	74.69	73.73	74.585	77.548	86.569
	11..20	86.968	87.262	85.9	82.157	82.21	82.801	79.511	77.137	79.736	80.027
	21..24	77.77	78.29	78.605	80.23						
Upper Containment	1..10	70.865	78.429	79.009	74.562	77.544	74.984	75.083	75.248	74.753	75.23
	11..13	75.275	75.361	75.277							
Ice Condenser	1..10	19.968	20.299	19.46	18.878	19.094	18.532	19.471	19.174	21.02	20.741
	11..15	16.015	15.234	14.338	15.366	15.874					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 52 - Mar 16 23:00:55

Pressures (PSIA)

Lower Containment	1.. 1	29.509	
Upper Containment	1.. 1	29.533	
Ice Condenser	1.. 1	29.543	

Dew Points (°F)

Lower Containment	1.. 2	56.199	51.879
Upper Containment	1.. 2	60.081	59.446
Ice Condenser	1.. 2	19.277	23.204

Temperatures (°F)

Lower Containment	1..10	69.123	78.325	78.669	78.527	78.552	74.722	73.786	74.65	77.548	86.592
	11..20	87.065	87.253	85.947	82.157	82.265	82.792	79.687	77.169	79.671	80.027
	21..24	77.793	78.281	78.646	80.24						
Upper Containment	1..10	70.865	78.569	78.996	74.552	77.344	75.058	75.074	75.128	74.73	75.188
	11..13	75.243	75.361	75.263							
Ice Condenser	1..10	19.957	20.245	19.452	18.846	19.244	18.39	19.718	19.614	20.528	20.527
	11..15	16.037	15.234	14.349	15.388	15.885					

Reading # 53 - Mar 16 23:16:04

Pressures (PSIA)

Lower Containment	1.. 1	29.518	
Upper Containment	1.. 1	29.524	
Ice Condenser	1.. 1	29.535	

Dew Points (°F)

Lower Containment	1.. 2	56.01	52.016
Upper Containment	1.. 2	59.8	59.177
Ice Condenser	1.. 2	18.956	23.119

Temperatures (°F)

Lower Containment	1..10	69.155	78.348	78.71	78.545	78.511	74.736	73.864	74.706	77.538	86.592
	11..20	87.028	87.304	85.91	82.18	82.196	82.876	79.599	77.192	79.778	80.027
	21..24	77.817	78.281	78.711	80.212						
Upper Containment	1..10	70.856	78.698	78.972	74.571	77.344	74.951	75.05	75.248	74.697	75.197
	11..13	75.266	75.296	75.253							
Ice Condenser	1..10	19.849	20.039	20.018	18.824	18.901	18.274	19.868	19.486	21.202	20.462
	11..15	16.026	15.246	14.36	15.399	15.894					

Reading # 54 - Mar 16 23:31:04

Pressures (PSIA)

Lower Containment	1.. 1	29.512	
Upper Containment	1.. 1	29.522	
Ice Condenser	1.. 1	29.533	

Dew Points (°F)

Lower Containment	1.. 2	55.734	51.662
Upper Containment	1.. 2	59.602	58.966
Ice Condenser	1.. 2	18.791	23.144

Temperatures (°F)

Lower Containment	1..10	69.165	78.334	78.669	78.536	78.399	74.745	73.948	74.706	77.506	86.68
	11..20	87.084	87.271	85.965	82.222	82.21	82.778	79.371	77.192	79.671	80.013
	21..24	77.812	78.286	78.698	80.193						
Upper Containment	1..10	70.874	78.824	78.972	74.566	77.483	75.053	75.023	75.169	74.707	75.174
	11..13	75.35	75.323	75.327							
Ice Condenser	1..10	19.737	20.646	20.596	18.898	18.751	18.197	19.738	19.282	21.148	20.548
	11..15	16.037	15.277	14.381	15.408	15.885					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 55 - Mar 16 23:46:05

Pressures (PSIA)

Lower Containment	1.. 1	29.513
Upper Containment	1.. 1	29.52
Ice Condenser	1.. 1	29.53

Dew Points (°F)

Lower Containment	1.. 2	55.492	51.591
Upper Containment	1.. 2	59.387	58.697
Ice Condenser	1.. 2	19.251	23.119

Temperatures (°F)

Lower Containment	1..10	69.178	78.39	78.729	78.578	78.608	74.778	73.994	74.771	77.515	86.648
	11..20	87.028	87.271	86.012	82.245	82.191	82.899	79.622	77.202	79.681	80.036
	21..24	77.835	78.281	78.753	80.198						
Upper Containment	1..10	70.856	78.647	78.954	74.571	77.553	75.025	75.074	75.225	74.697	75.146
	11..13	75.243	75.272	75.244							
Ice Condenser	1..10	19.818	21.027	20.296	19.424	18.986	18.135	19.621	19.131	21.128	21.106
	11..15	16.06	15.31	14.392	15.419	15.894					

Reading # 56 - Mar 17 00:01:06

Pressures (PSIA)

Lower Containment	1.. 1	29.519
Upper Containment	1.. 1	29.523
Ice Condenser	1.. 1	29.53

Dew Points (°F)

Lower Containment	1.. 2	55.407	51.466
Upper Containment	1.. 2	59.091	58.435
Ice Condenser	1.. 2	19.015	23.158

Temperatures (°F)

Lower Containment	1..10	69.197	78.413	78.785	78.569	78.673	74.801	74.036	74.845	77.515	86.704
	11..20	87.075	87.262	85.965	82.264	82.233	82.866	79.924	77.211	79.681	80.036
	21..24	77.849	78.314	78.767	80.068						
Upper Containment	1..10	70.865	78.35	78.944	74.571	77.836	74.993	75.06	75.054	74.656	75.197
	11..13	75.146	75.351	75.253							
Ice Condenser	1..10	19.957	20.458	19.848	20.022	19.148	18.016	19.514	19.013	21.171	21.277
	11..15	16.068	15.32	14.403	15.419	15.916					

Reading # 57 - Mar 17 00:16:06

Pressures (PSIA)

Lower Containment	1.. 1	29.516
Upper Containment	1.. 1	29.517
Ice Condenser	1.. 1	29.527

Dew Points (°F)

Lower Containment	1.. 2	55.127	51.198
Upper Containment	1.. 2	58.83	58.227
Ice Condenser	1.. 2	18.688	23.154

Temperatures (°F)

Lower Containment	1..10	69.211	78.367	78.766	78.601	78.511	74.801	74.059	74.845	77.497	86.778
	11..20	87.107	87.285	86.086	82.245	82.196	82.889	79.525	77.266	79.606	80.046
	21..24	77.872	78.281	78.744	80.035						
Upper Containment	1..10	70.888	78.689	78.931	74.594	77.326	75.011	75.06	75.077	74.656	75.174
	11..13	75.22	75.282	75.263							
Ice Condenser	1..10	20.872	20.361	19.707	20.419	18.879	18.027	19.481	18.959	21.341	20.913
	11..15	16.08	15.331	14.423	15.431	15.937					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 58 - Mar 17 00:30:58

Pressures (PSIA)

Lower Containment	1..1	29.51
Upper Containment	1..1	29.518
Ice Condenser	1..1	29.528

Dew Points (°F)

Lower Containment	1..2	54.914	50.803
Upper Containment	1..2	58.612	57.997
Ice Condenser	1..2	19.578	23.545

Temperatures (°F)

Lower Containment	1..10	69.211	78.376	78.687	78.601	78.455	74.81	74.1	74.868	77.473	86.755
	11..20	87.172	87.271	86.072	82.287	82.168	82.801	79.381	77.234	79.555	79.995
	21..24	77.849	78.3	78.776	80.026						
Upper Containment	1..10	70.897	78.787	78.921	74.603	77.488	74.96	75.06	75.304	74.674	75.123
	11..13	75.257	75.319	75.295							
Ice Condenser	1..10	20.623	20.245	19.644	19.413	19.136	18.047	19.492	19.035	21.041	20.644
	11..15	16.091	15.342	14.423	15.442	15.959					

Reading # 59 - Mar 17 00:46:07

Pressures (PSIA)

Lower Containment	1..1	29.51
Upper Containment	1..1	29.514
Ice Condenser	1..1	29.523

Dew Points (°F)

Lower Containment	1..2	54.71	50.921
Upper Containment	1..2	58.37	57.728
Ice Condenser	1..2	20.785	23.415

Temperatures (°F)

Lower Containment	1..10	69.22	78.413	78.71	78.643	78.631	74.843	74.133	74.924	77.473	86.787
	11..20	87.149	87.304	86.095	82.319	82.242	82.913	79.817	77.266	79.565	80.004
	21..24	77.881	78.323	78.786	80.003						
Upper Containment	1..10	70.921	78.439	78.912	74.58	77.738	75.067	75.106	75.183	74.642	75.197
	11..13	75.187	75.305	75.253							
Ice Condenser	1..10	20.204	20.191	19.602	19.402	19.704	18.402	20.146	19.217	20.667	20.548
	11..15	16.102	15.342	14.457	15.462	15.97					

Reading # 60 - Mar 17 01:01:07

Pressures (PSIA)

Lower Containment	1..1	29.511
Upper Containment	1..1	29.515
Ice Condenser	1..1	29.524

Dew Points (°F)

Lower Containment	1..2	54.592	50.698
Upper Containment	1..2	58.173	57.536
Ice Condenser	1..2	22.765	23.5

Temperatures (°F)

Lower Containment	1..10	69.234	78.422	78.775	78.634	78.705	74.843	74.188	74.975	77.45	86.801
	11..20	87.163	87.271	86.119	82.319	82.251	82.964	80.012	77.276	79.606	79.995
	21..24	77.881	78.337	78.874	79.947						
Upper Containment	1..10	70.944	78.374	78.889	74.636	77.724	75.058	75.092	75.225	74.674	75.165
	11..13	75.22	75.328	75.263							
Ice Condenser	1..10	19.968	20.03	19.425	19.301	19.292	19.812	20.589	19.34	21.025	20.543
	11..15	16.095	15.369	14.484	15.469	15.975					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 61 - Mar 17 01:16:08

Pressures (PSIA)

Lower Containment	1.. 1	29.508	
Upper Containment	1.. 1	29.507	
Ice Condenser	1.. 1	29.519	

Dew Points (°F)

Lower Containment	1.. 2	54.389	50.396
Upper Containment	1.. 2	57.891	57.287
Ice Condenser	1.. 2	21.957	24.247

Temperatures (°F)

Lower Containment	1..10	69.253	78.399	78.752	78.634	78.487	74.856	74.207	75.012	77.441	86.81
	11..20	87.205	87.294	86.151	82.343	82.242	82.899	79.576	77.308	79.509	80.004
	21..24	77.891	78.3	78.832	79.929						
Upper Containment	1..10	70.953	78.777	78.875	74.58	77.697	74.928	75.037	75.063	74.665	75.123
	11..13	75.322	75.272	75.263							
Ice Condenser	1..10	19.838	19.976	19.386	19.144	19.811	20.097	19.724	19.506	20.924	20.474
	11..15	16.048	15.364	14.519	15.473	15.97					

Reading # 62 - Mar 17 01:31:08

Pressures (PSIA)

Lower Containment	1.. 1	29.512	
Upper Containment	1.. 1	29.512	
Ice Condenser	1.. 1	29.517	

Dew Points (°F)

Lower Containment	1.. 2	54.121	49.918
Upper Containment	1.. 2	57.68	57.085
Ice Condenser	1.. 2	19.939	22.569

Temperatures (°F)

Lower Containment	1..10	69.253	78.413	78.766	78.615	78.552	74.875	74.239	75.031	77.418	86.866
	11..20	87.261	87.336	86.119	82.361	82.177	82.899	79.803	77.29	79.5	79.995
	21..24	77.881	78.337	78.842	79.929						
Upper Containment	1..10	70.962	78.536	78.87	74.562	77.502	75.002	75.037	75.142	74.609	75.132
	11..13	75.308	75.319	75.253							
Ice Condenser	1..10	19.742	19.987	20.146	19.155	19.522	19.561	20.338	19.432	21.083	20.505
	11..15	16.102	15.396	14.519	15.505	15.982					

Reading # 63 - Mar 17 01:46:09

Pressures (PSIA)

Lower Containment	1.. 1	29.501	
Upper Containment	1.. 1	29.506	
Ice Condenser	1.. 1	29.516	

Dew Points (°F)

Lower Containment	1.. 2	53.951	49.589
Upper Containment	1.. 2	57.466	56.875
Ice Condenser	1.. 2	19.322	24.417

Temperatures (°F)

Lower Containment	1..10	69.262	78.399	78.743	78.601	78.497	74.875	74.253	75.054	77.418	86.875
	11..20	87.191	87.369	86.161	82.343	82.07	82.889	79.46	77.299	79.467	79.981
	21..24	77.872	78.3	78.851	79.882						
Upper Containment	1..10	70.962	78.754	78.856	74.594	77.326	74.905	75.05	75.118	74.688	75.146
	11..13	75.299	75.282	75.253							
Ice Condenser	1..10	19.721	19.987	20.464	19.075	19.26	18.922	20.076	19.351	20.971	20.586
	11..15	16.138	15.411	14.537	15.523	16.008					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 64 - Mar 17 02:01:10

Pressures (PSIA)

Lower Containment	1.. 1	29.502									
Upper Containment	1.. 1	29.507									
Ice Condenser	1.. 1	29.518									

Dew Points (°F)

Lower Containment	1.. 2	53.661	49.813								
Upper Containment	1.. 2	57.236	56.652								
Ice Condenser	1.. 2	19.06	24.45								

Temperatures (°F)

Lower Containment	1..10	69.276	78.446	78.785	78.634	78.659	74.898	74.318	75.096	77.408	86.885
	11..20	87.27	87.359	86.193	82.408	82.219	82.973	79.882	77.299	79.5	79.971
	21..24	77.891	78.337	78.823	79.905						
Upper Containment	1..10	70.953	78.439	78.847	74.627	77.446	75.058	75.092	75.16	74.711	75.132
	11..13	75.257	75.282	75.253							
Ice Condenser	1..10	19.668	19.996	19.804	19.016	19.105	18.617	19.899	19.347	21.449	21.118
	11..15	16.102	15.438	14.596	15.516	16.033					

Reading # 65 - Mar 17 02:16:10

Pressures (PSIA)

Lower Containment	1.. 1	29.503									
Upper Containment	1.. 1	29.508									
Ice Condenser	1.. 1	29.516									

Dew Points (°F)

Lower Containment	1.. 2	53.547	49.496								
Upper Containment	1.. 2	57.01	56.433								
Ice Condenser	1.. 2	18.704	23.695								

Temperatures (°F)

Lower Containment	1..10	69.285	78.422	78.766	78.643	78.576	74.907	74.304	75.11	77.399	86.899
	11..20	87.27	87.294	86.207	82.398	82.056	82.917	79.566	77.331	79.453	79.971
	21..24	77.881	78.337	78.874	79.873						
Upper Containment	1..10	70.944	78.731	78.833	74.617	77.302	75.025	75.092	75.044	74.674	75.132
	11..13	75.21	75.282	75.277							
Ice Condenser	1..10	20.839	19.922	19.456	18.894	18.928	18.44	19.798	19.428	22.043	22.572
	11..15	16.129	15.445	14.739	15.534	16.039					

Reading # 66 - Mar 17 02:31:11

Pressures (PSIA)

Lower Containment	1.. 1	29.485									
Upper Containment	1.. 1	29.504									
Ice Condenser	1.. 1	29.518									

Dew Points (°F)

Lower Containment	1.. 2	53.293	49.295								
Upper Containment	1.. 2	56.783	56.218								
Ice Condenser	1.. 2	18.777	23.354								

Temperatures (°F)

Lower Containment	1..10	69.294	78.413	78.729	78.643	78.543	74.907	74.337	75.137	77.385	86.908
	11..20	87.326	87.369	86.305	82.408	82.121	82.931	79.46	77.331	79.379	79.962
	21..24	77.914	78.314	78.851	79.85						
Upper Containment	1..10	70.93	78.884	78.824	74.627	77.901	74.984	75.074	75.142	74.688	75.155
	11..13	75.452	75.272	75.277							
Ice Condenser	1..10	21.346	19.942	19.344	18.782	18.816	18.339	19.814	19.443	21.931	22.211
	11..15	16.156	15.46	14.831	15.538	16.044					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 67 - Mar 17 02:46:11

Pressures (PSIA)

Lower Containment	1.. 1	29.503	
Upper Containment	1.. 1	29.506	
Ice Condenser	1.. 1	29.514	

Dew Points (°F)

Lower Containment	1.. 2	53.031	49.012
Upper Containment	1.. 2	56.625	56.022
Ice Condenser	1.. 2	18.777	24.299

Temperatures (°F)

Lower Containment	1..10	69.308	78.422	78.729	78.615	78.487	74.917	74.36	75.161	77.385	86.899
	11..20	87.344	87.383	86.267	82.431	82.154	82.834	79.395	77.345	79.37	79.971
	21..24	77.923	78.3	78.842	79.84						
Upper Containment	1..10	70.911	78.917	78.815	74.617	77.284	75.035	75.092	75.281	74.697	75.155
	11..13	75.396	75.328	75.341							
Ice Condenser	1..10	20.204	20.084	19.729	18.974	18.805	18.339	19.814	19.432	21.619	21.234
	11..15	16.176	15.46	14.712	15.549	16.066					

Reading # 68 - Mar 17 03:02:12

Pressures (PSIA)

Lower Containment	1.. 1	29.502	
Upper Containment	1.. 1	29.505	
Ice Condenser	1.. 1	29.514	

Dew Points (°F)

Lower Containment	1.. 2	52.81	48.75
Upper Containment	1.. 2	56.383	55.793
Ice Condenser	1.. 2	18.792	23.774

Temperatures (°F)

Lower Containment	1..10	69.332	78.422	78.775	78.643	78.552	74.931	74.392	75.207	77.343	86.973
	11..20	87.344	87.457	86.323	82.431	82.145	82.899	79.771	77.355	79.323	79.981
	21..24	77.914	78.323	78.832	79.831						
Upper Containment	1..10	70.897	78.698	78.801	74.692	77.878	75.146	75.148	75.225	74.674	75.165
	11..13	75.373	75.393	75.309							
Ice Condenser	1..10	20.161	20.449	19.954	19.863	19.865	18.177	19.673	19.293	21.148	20.945
	11..15	16.198	15.47	14.638	15.569	16.077					

Reading # 69 - Mar 17 03:17:13

Pressures (PSIA)

Lower Containment	1.. 1	29.499	
Upper Containment	1.. 1	29.501	
Ice Condenser	1.. 1	29.508	

Dew Points (°F)

Lower Containment	1.. 2	52.705	48.567
Upper Containment	1.. 2	56.173	55.582
Ice Condenser	1.. 2	19.256	24.219

Temperatures (°F)

Lower Containment	1..10	69.35	78.432	78.785	78.615	78.543	74.954	74.401	75.235	77.343	86.973
	11..20	87.386	87.401	86.314	82.459	82.08	82.931	79.557	77.345	79.314	79.962
	21..24	77.914	78.3	78.897	79.817						
Upper Containment	1..10	70.897	78.828	78.791	74.701	78.077	75.067	75.125	75.216	74.688	75.174
	11..13	75.373	75.351	75.351							
Ice Condenser	1..10	20.118	20.308	19.575	20.445	20.181	18.204	19.68	19.278	21.251	20.801
	11..15	16.172	15.496	14.654	15.585	16.094					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 70 - Mar 17 03:32:13

Pressures (PSIA)

Lower Containment	1.. 1	29.519
Upper Containment	1.. 1	29.49
Ice Condenser	1.. 1	29.495

Dew Points (°F)

Lower Containment	1.. 2	52.452	48.459
Upper Containment	1.. 2	55.974	55.397
Ice Condenser	1.. 2	19.156	24.343

Temperatures (°F)

Lower Containment	1..10	69.336	78.455	78.775	78.657	78.534	74.963	74.425	75.272	77.302	86.996
	11..20	87.326	87.424	86.388	82.473	82.047	82.917	79.534	77.387	79.323	79.971
	21..24	77.914	78.3	78.823	79.85						
Upper Containment	1..10	70.897	78.884	78.777	74.692	77.544	74.97	75.125	75.239	74.739	75.197
	11..13	75.34	75.37	75.309							
Ice Condenser	1..10	19.903	20.191	19.46	20.333	20.327	18.316	19.664	19.594	21.363	20.731
	11..15	16.165	15.515	14.658	15.592	16.109					

Reading # 71 - Mar 17 03:47:14

Pressures (PSIA)

Lower Containment	1.. 1	29.496
Upper Containment	1.. 1	29.499
Ice Condenser	1.. 1	29.508

Dew Points (°F)

Lower Containment	1.. 2	52.251	48.108
Upper Containment	1.. 2	55.772	55.176
Ice Condenser	1.. 2	19.046	24.122

Temperatures (°F)

Lower Containment	1..10	69.35	78.455	78.785	78.699	78.631	74.972	74.448	75.304	77.329	87.015
	11..20	87.358	87.448	86.314	82.514	82.21	83.029	79.84	77.373	79.323	79.981
	21..24	77.914	78.3	78.865	79.859						
Upper Containment	1..10	70.897	78.666	78.768	74.724	77.562	75.1	75.115	75.29	74.665	75.197
	11..13	75.354	75.351	75.309							
Ice Condenser	1..10	19.818	20.308	19.676	20.152	19.383	18.382	19.91	19.926	21.299	20.612
	11..15	16.187	15.523	14.723	15.612	16.109					

Reading # 72 - Mar 17 04:02:14

Pressures (PSIA)

Lower Containment	1.. 1	29.495
Upper Containment	1.. 1	29.501
Ice Condenser	1.. 1	29.51

Dew Points (°F)

Lower Containment	1.. 2	52.134	48.239
Upper Containment	1.. 2	55.537	54.921
Ice Condenser	1.. 2	18.719	24.731

Temperatures (°F)

Lower Containment	1..10	69.373	78.478	78.808	78.689	78.705	74.982	74.48	75.332	77.302	87.047
	11..20	87.358	87.383	86.365	82.459	82.275	83.061	79.98	77.355	79.323	79.971
	21..24	77.923	78.346	78.883	79.794						
Upper Containment	1..10	70.888	78.592	78.759	74.747	77.576	75.1	75.115	75.336	74.697	75.262
	11..13	75.234	75.402	75.318							
Ice Condenser	1..10	20.507	20.492	20.061	19.498	19.06	18.37	20.146	20.462	20.924	20.709
	11..15	16.23	15.546	14.735	15.612	16.12					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 73 - Mar 17 04:17:15

Pressures (PSIA)

Lower Containment	1.. 1	29.494
Upper Containment	1.. 1	29.498
Ice Condenser	1.. 1	29.507

Dew Points (°F)

Lower Containment	1.. 2	51.943	47.904
Upper Containment	1.. 2	55.32	54.77
Ice Condenser	1.. 2	19.571	23.59

Temperatures (°F)

Lower Containment	1..10	69.392	78.455	78.808	78.713	78.603	74.982	74.48	75.388	77.329	87.047
	11..20	87.442	87.545	86.411	82.505	82.191	82.987	79.576	77.387	79.3	79.981
	21..24	77.956	78.314	78.921	79.794						
Upper Containment	1..10	70.879	78.866	78.75	74.715	77.673	75.049	75.092	75.151	74.642	75.174
	11..13	75.419	75.337	75.309							
Ice Condenser	1..10	20.581	20.63	19.857	19.166	18.729	18.467	19.931	19.657	21.148	21.16
	11..15	16.218	15.557	14.851	15.624	16.132					

Reading # 74 - Mar 17 04:32:15

Pressures (PSIA)

Lower Containment	1.. 1	29.497
Upper Containment	1.. 1	29.495
Ice Condenser	1.. 1	29.505

Dew Points (°F)

Lower Containment	1.. 2	51.709	47.668
Upper Containment	1.. 2	54.921	54.325
Ice Condenser	1.. 2	20.844	23.736

Temperatures (°F)

Lower Containment	1..10	69.392	78.487	78.826	78.689	78.594	74.996	74.499	75.42	77.32	87.103
	11..20	87.423	87.554	86.453	82.579	82.289	82.973	79.706	77.405	79.291	79.981
	21..24	77.956	78.337	78.851	79.817						
Upper Containment	1..10	70.879	78.731	78.75	74.738	78.031	75.146	75.134	75.174	74.753	75.174
	11..13	75.354	75.379	75.351							
Ice Condenser	1..10	20.161	20.404	19.655	19.178	19.298	18.971	19.953	19.398	21.642	21.535
	11..15	16.23	15.566	14.927	15.635	16.14					

Reading # 75 - Mar 17 04:47:16

Pressures (PSIA)

Lower Containment	1.. 1	29.49
Upper Containment	1.. 1	29.498
Ice Condenser	1.. 1	29.506

Dew Points (°F)

Lower Containment	1.. 2	51.591	47.597
Upper Containment	1.. 2	54.927	54.337
Ice Condenser	1.. 2	20.13	23.952

Temperatures (°F)

Lower Containment	1..10	69.415	78.455	78.826	78.666	78.65	75.014	74.499	75.453	77.288	87.094
	11..20	87.442	87.457	86.435	82.551	82.219	82.996	79.608	77.387	79.3	79.981
	21..24	77.923	78.323	78.851	79.762						
Upper Containment	1..10	70.865	78.875	78.736	74.747	77.822	75.113	75.148	75.239	74.73	75.23
	11..13	75.405	75.393	75.351							
Ice Condenser	1..10	19.991	20.245	19.514	19.252	20.112	19.003	19.899	19.645	21.523	21.03
	11..15	16.218	15.599	14.896	15.646	16.152					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 76 - Mar 17 05:02:16

Pressures (PSIA)

Lower Containment	1.. 1	29.492									
Upper Containment	1.. 1	29.495									
Ice Condenser	1.. 1	29.505									

Dew Points (°F)

Lower Containment	1.. 2	51.367	47.354								
Upper Containment	1.. 2	54.724	54.167								
Ice Condenser	1.. 2	19.171	23.873								

Temperatures (°F)

Lower Containment	1..10	69.429	78.467	78.775	78.657	78.576	75.028	74.522	75.467	77.302	87.136
	11..20	87.456	87.577	86.5	82.579	82.33	82.987	79.525	77.419	79.291	79.971
	21..24	77.933	78.337	78.883	79.785						
Upper Containment	1..10	70.879	78.991	78.726	74.738	77.488	75.132	75.134	75.225	74.809	75.22
	11..13	75.452	75.393	75.392							
Ice Condenser	1..10	20	20.341	19.655	19.144	19.618	18.841	20.103	20.054	21.009	20.828
	11..15	16.252	15.631	14.938	15.666	16.163					

Reading # 77 - Mar 17 05:17:17

Pressures (PSIA)

Lower Containment	1.. 1	29.492									
Upper Containment	1.. 1	29.497									
Ice Condenser	1.. 1	29.503									

Dew Points (°F)

Lower Containment	1.. 2	51.052	47.058								
Upper Containment	1.. 2	54.535	53.97								
Ice Condenser	1.. 2	18.936	23.991								

Temperatures (°F)

Lower Containment	1..10	69.438	78.487	78.808	78.657	78.617	75.037	74.531	75.476	77.288	87.122
	11..20	87.489	87.489	86.476	82.603	82.289	83.015	79.622	77.396	79.291	79.962
	21..24	77.97	78.314	78.874	79.752						
Upper Containment	1..10	70.888	79.158	78.712	74.78	77.998	75.113	75.213	75.271	74.809	75.253
	11..13	75.452	75.458	75.429							
Ice Condenser	1..10	19.861	20.361	20.18	19.082	19.298	18.671	20.273	19.838	21.46	20.709
	11..15	16.284	15.631	14.958	15.688	16.174					

Reading # 78 - Mar 17 05:32:17

Pressures (PSIA)

Lower Containment	1.. 1	29.479									
Upper Containment	1.. 1	29.494									
Ice Condenser	1.. 1	29.508									

Dew Points (°F)

Lower Containment	1.. 2	50.987	47.02								
Upper Containment	1.. 2	54.35	53.8								
Ice Condenser	1.. 2	18.87	23.88								

Temperatures (°F)

Lower Containment	1..10	69.447	78.511	78.873	78.676	78.682	75.051	74.568	75.518	77.278	87.159
	11..20	87.489	87.489	86.509	82.603	82.093	83.071	79.761	77.405	79.314	79.962
	21..24	77.956	78.337	78.921	79.743						
Upper Containment	1..10	70.897	78.866	78.703	74.789	77.738	75.155	75.19	75.336	74.739	75.285
	11..13	75.382	75.449	75.383							
Ice Condenser	1..10	19.764	20.415	20.319	19.263	19.179	18.606	20.123	19.668	21.545	20.805
	11..15	16.304	15.653	14.916	15.7	16.183					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 79 - Mar 17 05:47:18

Pressures (PSIA)

Lower Containment	1.. 1	29.49
Upper Containment	1.. 1	29.495
Ice Condenser	1.. 1	29.504

Dew Points (°F)

Lower Containment	1.. 2	50.822	46.888
Upper Containment	1.. 2	54.141	53.571
Ice Condenser	1.. 2	18.87	24.542

Temperatures (°F)

Lower Containment	1..10	69.457	78.52	78.85	78.741	78.794	75.07	74.577	75.541	77.288	87.177
	11..20	87.475	87.424	86.486	82.612	82.265	83.071	79.924	77.396	79.323	79.971
	21..24	77.97	78.355	78.883	79.734						
Upper Containment	1..10	70.897	78.592	78.694	74.798	78.216	75.211	75.269	75.281	74.762	75.318
	11..13	75.429	75.458	75.392							
Ice Condenser	1..10	19.764	20.565	20.243	19.733	19.361	18.52	19.984	19.464	21.299	21.481
	11..15	16.284	15.653	14.874	15.72	16.205					

Reading # 80 - Mar 17 06:02:19

Pressures (PSIA)

Lower Containment	1.. 1	29.491
Upper Containment	1.. 1	29.497
Ice Condenser	1.. 1	29.505

Dew Points (°F)

Lower Containment	1.. 2	50.677	46.712
Upper Containment	1.. 2	53.943	53.392
Ice Condenser	1.. 2	18.653	24.044

Temperatures (°F)

Lower Containment	1..10	69.48	78.511	78.84	78.773	78.77	75.093	74.61	75.564	77.269	87.168
	11..20	87.554	87.489	86.509	82.654	82.196	83.15	80.003	77.396	79.314	79.948
	21..24	77.979	78.346	78.907	79.697						
Upper Containment	1..10	70.911	78.582	78.68	74.854	77.878	75.178	75.255	75.336	74.762	75.332
	11..13	75.396	75.449	75.429							
Ice Condenser	1..10	19.925	21.211	20.061	19.98	19.403	18.37	19.803	19.293	21.437	21.504
	11..15	16.337	15.673	14.927	15.731	16.205					

Reading # 81 - Mar 17 06:17:19

Pressures (PSIA)

Lower Containment	1.. 1	29.492
Upper Containment	1.. 1	29.497
Ice Condenser	1.. 1	29.505

Dew Points (°F)

Lower Containment	1.. 2	50.566	46.586
Upper Containment	1.. 2	53.74	53.177
Ice Condenser	1.. 2	18.542	23.807

Temperatures (°F)

Lower Containment	1..10	69.503	78.529	78.808	78.773	78.845	75.102	74.628	75.583	77.278	87.224
	11..20	87.53	87.508	86.532	82.668	81.884	83.168	80.04	77.419	79.356	79.948
	21..24	77.956	78.365	78.972	79.72						
Upper Containment	1..10	70.93	78.666	78.671	74.835	77.813	75.211	75.287	75.206	74.795	75.332
	11..13	75.419	75.467	75.439							
Ice Condenser	1..10	20.765	20.653	19.88	19.948	19.179	18.37	19.769	19.271	21.738	21.127
	11..15	16.357	15.685	14.938	15.742	16.228					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 82 - Mar 17 06:32:20

Pressures (PSIA)

Lower Containment	1.. 1	29.49									
Upper Containment	1.. 1	29.492									
Ice Condenser	1.. 1	29.501									

Dew Points (°F)

Lower Containment	1.. 2	50.593	46.384								
Upper Containment	1.. 2	53.603	53.052								
Ice Condenser	1.. 2	18.798	24.234								

Temperatures (°F)

Lower Containment	1..10	69.503	78.529	78.785	78.764	78.729	75.116	74.665	75.583	77.288	87.242
	11..20	87.521	87.531	86.565	82.723	81.796	83.15	79.655	77.429	79.356	79.939
	21..24	77.956	78.355	78.972	79.734						
Upper Containment	1..10	70.93	78.893	78.671	74.845	77.868	75.197	75.269	75.248	74.818	75.318
	11..13	75.429	75.467	75.471							
Ice Condenser	1..10	20.592	20.361	19.848	20.452	19.125	18.435	19.792	19.313	21.287	20.891
	11..15	16.38	15.707	14.958	15.762	16.237					

Reading # 83 - Mar 17 06:47:20

Pressures (PSIA)

Lower Containment	1.. 1	29.484									
Upper Containment	1.. 1	29.491									
Ice Condenser	1.. 1	29.505									

Dew Points (°F)

Lower Containment	1.. 2	50.456	46.148								
Upper Containment	1.. 2	53.478	52.907								
Ice Condenser	1.. 2	19.584	24.26								

Temperatures (°F)

Lower Containment	1..10	69.526	78.511	78.752	78.722	78.682	75.125	74.675	75.597	77.278	87.266
	11..20	87.54	87.564	86.607	82.677	82.047	83.061	79.548	77.452	79.388	79.93
	21..24	77.979	78.355	78.986	79.697						
Upper Containment	1..10	70.944	79.046	78.661	74.896	77.479	75.294	75.334	75.387	74.809	75.318
	11..13	75.568	75.481	75.513							
Ice Condenser	1..10	20.303	20.319	19.783	19.617	19.565	18.563	19.803	19.39	20.924	20.731
	11..15	16.357	15.707	14.969	15.784	16.248					

Reading # 84 - Mar 17 07:02:21

Pressures (PSIA)

Lower Containment	1.. 1	29.501									
Upper Containment	1.. 1	29.503									
Ice Condenser	1.. 1	29.503									

Dew Points (°F)

Lower Containment	1.. 2	50.489	46.186								
Upper Containment	1.. 2	53.341	52.783								
Ice Condenser	1.. 2	21.952	24.044								

Temperatures (°F)

Lower Containment	1..10	69.526	78.52	78.766	78.773	78.705	75.135	74.693	75.615	77.278	87.308
	11..20	87.628	87.554	86.597	82.668	82.265	83.061	79.631	77.461	79.402	79.93
	21..24	77.979	78.365	78.962	79.752						
Upper Containment	1..10	70.953	78.991	78.652	74.886	77.78	75.22	75.245	75.359	74.818	75.309
	11..13	75.526	75.481	75.448							
Ice Condenser	1..10	20.054	20.126	19.591	19.583	20.284	20.086	20.562	19.495	21.299	20.817
	11..15	16.423	15.716	15.044	15.805	16.27					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 85 - Mar 17 07:17:21

Pressures (PSIA)

Lower Containment	1.. 1	29.493	
Upper Containment	1.. 1	29.495	
Ice Condenser	1.. 1	29.503	

Dew Points (°F)

Lower Containment	1.. 2	50.456	46.063
Upper Containment	1.. 2	53.21	52.639
Ice Condenser	1.. 2	23.231	23.998

Temperatures (°F)

Lower Containment	1..10	69.545	78.529	78.752	78.731	78.692	75.149	74.675	75.625	77.255	87.321
	11..20	87.619	87.61	86.597	82.723	82.196	83.029	79.566	77.484	79.411	79.897
	21..24	77.988	78.365	78.995	79.697						
Upper Containment	1..10	70.953	79.102	78.638	74.91	77.878	75.331	75.301	75.498	74.86	75.36
	11..13	75.558	75.555	75.568							
Ice Condenser	1..10	19.818	20.007	19.436	19.417	20.396	20.348	21.416	19.737	21.283	20.671
	11..15	16.395	15.754	15.073	15.823	16.286					

Reading # 86 - Mar 17 07:32:22

Pressures (PSIA)

Lower Containment	1.. 1	29.493	
Upper Containment	1.. 1	29.49	
Ice Condenser	1.. 1	29.498	

Dew Points (°F)

Lower Containment	1.. 2	50.489	46.102
Upper Containment	1.. 2	53.105	52.567
Ice Condenser	1.. 2	19.67	24.384

Temperatures (°F)

Lower Containment	1..10	69.554	78.553	78.864	78.773	78.747	75.167	74.716	75.662	77.288	87.298
	11..20	87.628	87.577	86.607	82.732	82.191	83.136	79.785	77.461	79.444	79.939
	21..24	77.956	78.365	79.046	79.71						
Upper Containment	1..10	70.976	78.852	78.629	74.933	78.04	75.253	75.32	75.498	74.837	75.415
	11..13	75.452	75.555	75.536							
Ice Condenser	1..10	19.742	20.007	20.254	19.317	19.854	19.904	20.874	19.764	21.063	20.548
	11..15	16.411	15.77	15.035	15.838	16.302					

Reading # 87 - Mar 17 07:47:23

Pressures (PSIA)

Lower Containment	1.. 1	29.492	
Upper Containment	1.. 1	29.493	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	50.458	45.88
Upper Containment	1.. 2	53.028	52.464
Ice Condenser	1.. 2	18.884	24.339

Temperatures (°F)

Lower Containment	1..10	69.568	78.553	78.882	78.838	78.835	75.167	74.763	75.694	77.288	[illegible]
	11..20	87.628	87.554	86.695	82.774	82.177	83.205	80.054	77.494	79.411	[illegible]
	21..24	77.97	78.355	79.004	79.752						
Upper Containment	1..10	70.985	78.504	78.629	74.919	78.174	75.294	75.334	75.457	74.818	75.35
	11..13	75.48	75.514	75.471							
Ice Condenser	1..10	19.731	20.007	20.5	19.285	19.545	19.249	20.358	19.594	21.224	20.774
	11..15	16.368	15.781	15.012	15.838	16.313					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 88 - Mar 17 08:02:23

Pressures (PSIA)

Lower Containment	1.. 1	29.488
Upper Containment	1.. 1	29.494
Ice Condenser	1.. 1	29.504

Dew Points (°F)

Lower Containment	1.. 2	50.415	45.726
Upper Containment	1.. 2	52.946	52.415
Ice Condenser	1.. 2	18.725	24.049

Temperatures (°F)

Lower Containment	1..10	69.591	78.562	78.905	78.81	78.77	75.19	74.781	75.703	77.288	87.321
	11..20	87.651	87.522	86.648	82.821	82.386	83.15	79.989	77.507	79.467	79.906
	21..24	77.988	78.379	79.041	79.743						
Upper Containment	1..10	70.985	78.666	78.615	74.951	78.031	75.341	75.301	75.42	74.837	75.35
	11..13	75.503	75.537	75.536							
Ice Condenser	1..10	19.699	19.987	19.848	19.178	19.372	18.938	20.157	19.56	21.812	21.858
	11..15	16.434	15.781	15.108	15.858	16.313					

Reading # 89 - Mar 17 08:17:24

Pressures (PSIA)

Lower Containment	1.. 1	29.493
Upper Containment	1.. 1	29.493
Ice Condenser	1.. 1	29.501

Dew Points (°F)

Lower Containment	1.. 2	50.232	45.892
Upper Containment	1.. 2	52.855	52.292
Ice Condenser	1.. 2	18.523	24.044

Temperatures (°F)

Lower Containment	1..10	69.601	78.562	78.85	78.875	78.645	75.2	74.814	75.736	77.302	87.34
	11..20	87.661	87.577	86.662	82.788	82.168	83.191	79.966	77.517	79.444	79.93
	21..24	77.97	78.365	79.069	79.743						
Upper Containment	1..10	70.995	78.842	78.615	74.961	77.891	75.341	75.366	75.401	74.883	75.429
	11..13	75.582	75.546	75.545							
Ice Condenser	1..10	20.893	19.976	19.548	19.082	19.21	18.745	20.07	19.657	22.177	22.673
	11..15	16.465	15.812	15.205	15.847	16.302					

Reading # 90 - Mar 17 08:30:06

Pressures (PSIA)

Lower Containment	1.. 1	29.497
Upper Containment	1.. 1	29.494
Ice Condenser	1.. 1	29.499

Dew Points (°F)

Lower Containment	1.. 2	50.187	45.754
Upper Containment	1.. 2	52.777	52.213
Ice Condenser	1.. 2	18.49	24.004

Temperatures (°F)

Lower Containment	1..10	69.61	78.585	78.85	78.885	78.835	75.214	74.837	75.745	77.302	87.377
	11..20	87.651	87.629	86.695	82.797	82.093	83.233	80.207	77.507	79.453	79.939
	21..24	78.002	78.397	79.041	79.734						
Upper Containment	1..10	71.009	78.633	78.606	74.984	78.202	75.373	75.375	75.336	74.837	75.438
	11..13	75.535	75.578	75.536							
Ice Condenser	1..10	21.292	20.061	19.46	18.985	19.094	18.659	20.016	19.625	22.038	22.619
	11..15	16.423	15.823	15.205	15.847	16.324					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 91 - Mar 17 08:45:17

Pressures (PSIA)

Lower Containment	1.. 1	29.489									
Upper Containment	1.. 1	29.492									
Ice Condenser	1.. 1	29.502									

Dew Points (°F)

Lower Containment	1.. 2	50.088	45.458								
Upper Containment	1.. 2	52.658	52.115								
Ice Condenser	1.. 2	18.509	24.083								

Temperatures (°F)

Lower Containment	1..10	69.61	78.562	78.864	78.829	78.78	75.223	74.86	75.759	77.302	87.396
	11..20	87.726	87.596	86.704	82.83	82.112	83.215	79.803	77.526	79.565	79.92
	21..24	77.988	78.388	79.06	79.71						
Upper Containment	1..10	71.041	79.028	78.597	74.998	78.007	75.364	75.366	75.42	74.827	75.383
	11..13	75.517	75.555	75.545							
Ice Condenser	1..10	20.399	20.137	19.853	19.075	19.098	18.621	20.011	19.609	21.733	21.477
	11..15	16.353	15.85	15.254	15.876	16.351					

Reading # 92 - Mar 17 09:00:15

Pressures (PSIA)

Lower Containment	1.. 1	29.493									
Upper Containment	1.. 1	29.493									
Ice Condenser	1.. 1	29.501									

Dew Points (°F)

Lower Containment	1.. 2	49.899	45.4								
Upper Containment	1.. 2	52.567	52.016								
Ice Condenser	1.. 2	18.601	24.148								

Temperatures (°F)

Lower Containment	1..10	69.642	78.618	78.947	78.894	78.91	75.232	74.86	75.782	77.311	87.405
	11..20	87.628	87.629	86.737	82.853	82.177	83.289	80.133	77.526	79.486	79.93
	21..24	78.011	78.379	79.027	79.743						
Upper Containment	1..10	71.041	78.647	78.583	75.039	78.054	75.317	75.375	75.466	74.883	75.383
	11..13	75.535	75.546	75.545							
Ice Condenser	1..10	20.258	20.449	20.083	19.937	20.027	18.498	19.899	19.475	21.556	21.106
	11..15	16.411	15.866	15.151	15.912	16.366					

Reading # 93 - Mar 17 09:15:25

Pressures (PSIA)

Lower Containment	1.. 1	29.492									
Upper Containment	1.. 1	29.492									
Ice Condenser	1.. 1	29.498									

Dew Points (°F)

Lower Containment	1.. 2	49.82	45.335								
Upper Containment	1.. 2	52.239	51.655								
Ice Condenser	1.. 2	18.962	24.103								

Temperatures (°F)

Lower Containment	1..10	69.665	78.594	78.97	78.926	78.877	75.255	74.888	75.801	77.32	87.419
	11..20	87.661	87.693	86.746	82.862	82.098	83.247	79.891	77.558	79.509	79.934
	21..24	78.016	78.383	79.078	79.757						
Upper Containment	1..10	71.046	78.879	78.592	75.044	78.17	75.359	75.385	75.396	74.911	75.434
	11..13	75.512	75.574	75.564							
Ice Condenser	1..10	20.307	20.507	19.745	20.629	20.408	18.505	19.841	19.437	21.552	20.963
	11..15	16.461	15.884	15.135	15.928	16.394					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 94 - Mar 17 09:30:25

Pressures (PSIA)

Lower Containment	1.. 1	29.496
Upper Containment	1.. 1	29.494
Ice Condenser	1.. 1	29.497

Dew Points (°F)

Lower Containment	1.. 2	49.628	45.433
Upper Containment	1.. 2	52.343	51.785
Ice Condenser	1.. 2	18.686	24.443

Temperatures (°F)

Lower Containment	1..10	69.675	78.631	79.026	78.908	78.891	75.265	74.878	75.81	77.311	87.419
	11..20	87.642	87.661	86.746	82.951	82.316	83.28	80.249	77.568	79.606	79.93
	21..24	78.011	78.411	79.139	79.762						
Upper Containment	1..10	71.064	78.68	78.573	75.049	77.989	75.438	75.375	75.369	74.948	75.457
	11..13	75.48	75.588	75.568							
Ice Condenser	1..10	20.054	20.287	19.606	20.521	20.493	18.579	19.841	19.737	21.637	20.866
	11..15	16.568	15.893	15.146	15.95	16.394					

Reading # 95 - Mar 17 09:45:25

Pressures (PSIA)

Lower Containment	1.. 1	29.489
Upper Containment	1.. 1	29.489
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	49.519	45.256
Upper Containment	1.. 2	52.22	51.668
Ice Condenser	1.. 2	18.542	24.122

Temperatures (°F)

Lower Containment	1..10	69.675	78.618	78.98	78.908	78.891	75.274	74.911	75.833	77.32	87.461
	11..20	87.74	87.629	86.816	82.886	82.047	83.28	80.003	77.605	79.555	79.93
	21..24	78.011	78.388	79.125	79.762						
Upper Containment	1..10	71.073	78.875	78.573	74.998	78.096	75.373	75.626	75.401	74.957	75.503
	11..13	75.568	75.588	75.592							
Ice Condenser	1..10	19.872	20.437	19.884	20.383	19.699	18.644	20.087	20.114	21.498	20.833
	11..15	16.481	15.904	15.146	15.961	16.436					

Reading # 96 - Mar 17 10:00:26

Pressures (PSIA)

Lower Containment	1.. 1	29.489
Upper Containment	1.. 1	29.491
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	49.373	45.007
Upper Containment	1.. 2	52.101	51.557
Ice Condenser	1.. 2	18.313	24.162

Temperatures (°F)

Lower Containment	1..10	69.675	78.585	78.924	78.926	78.854	75.288	74.925	75.843	77.302	87.484
	11..20	87.749	87.675	86.778	82.872	82.191	83.191	79.826	77.614	79.63	79.93
	21..24	78.044	78.411	79.181	79.743						
Upper Containment	1..10	71.106	79.088	78.564	75.03	77.868	75.341	75.431	75.378	74.99	75.438
	11..13	75.614	75.62	75.578							
Ice Condenser	1..10	20.473	20.545	20.168	19.702	19.361	18.617	20.316	20.655	21.063	20.687
	11..15	16.487	15.899	15.174	15.955	16.421					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 97 - Mar 17 10:15:26

Pressures (PSIA)

Lower Containment	1.. 1	29.485	
Upper Containment	1.. 1	29.49	
Ice Condenser	1.. 1	29.5	

Dew Points (°F)

Lower Containment	1.. 2	49.255	44.889
Upper Containment	1.. 2	51.983	51.432
Ice Condenser	1.. 2	18.811	24.136

Temperatures (°F)

Lower Containment	1..10	69.698	78.65	79.012	78.959	78.988	75.297	74.966	75.866	77.329	87.484
	11..20	87.717	87.629	86.816	82.918	81.926	83.345	80.295	77.637	79.555	79.92
	21..24	78.035	78.411	79.102	79.794						
Upper Containment	1..10	71.124	78.787	78.555	75.104	78.3	75.429	75.487	75.457	74.948	75.471
	11..13	75.535	75.634	75.624							
Ice Condenser	1..10	20.753	20.761	19.891	19.359	18.955	18.648	20.07	19.829	21.384	21.18
	11..15	16.445	15.931	15.194	15.966	16.429					

Reading # 98 - Mar 17 10:30:17

Pressures (PSIA)

Lower Containment	1.. 1	29.484	
Upper Containment	1.. 1	29.49	
Ice Condenser	1.. 1	29.503	

Dew Points (°F)

Lower Containment	1.. 2	49.15	44.718
Upper Containment	1.. 2	51.853	51.307
Ice Condenser	1.. 2	20.364	24.181

Temperatures (°F)

Lower Containment	1..10	69.698	78.673	78.989	78.982	79.03	75.32	74.957	75.889	77.329	87.484
	11..20	87.74	87.684	86.834	82.969	82.135	83.419	80.379	77.614	79.532	79.962
	21..24	78.053	78.411	79.144	79.817						
Upper Containment	1..10	71.138	78.712	78.555	75.058	78.239	75.47	75.552	75.484	74.934	75.513
	11..13	75.582	75.643	75.601							
Ice Condenser	1..10	20.345	20.534	19.783	19.305	19.426	19.173	20.103	19.549	21.803	21.771
	11..15	16.487	15.942	15.301	15.988	16.421					

Reading # 99 - Mar 17 10:45:26

Pressures (PSIA)

Lower Containment	1.. 1	29.492	
Upper Containment	1.. 1	29.494	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	49.065	44.554
Upper Containment	1.. 2	51.74	51.196
Ice Condenser	1.. 2	20.483	24.266

Temperatures (°F)

Lower Containment	1..10	69.721	78.659	79.003	78.959	78.924	75.329	74.985	75.908	77.343	87.503
	11..20	87.758	87.693	86.802	82.969	81.973	83.368	80.054	77.647	79.639	79.948
	21..24	78.053	78.434	79.139	79.817						
Upper Containment	1..10	71.162	78.949	78.541	75.058	77.91	75.438	75.473	75.457	74.948	75.448
	11..13	75.6	75.662	75.647							
Ice Condenser	1..10	20.141	20.373	19.644	19.391	20.134	19.249	20.07	19.722	21.715	21.171
	11..15	16.519	15.974	15.42	15.997	16.452					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 100 - Mar 17 11:00:27

Pressures (PSIA)

Lower Containment	1.. 1	29.485
Upper Containment	1.. 1	29.493
Ice Condenser	1.. 1	29.5

Dew Points (°F)

Lower Containment	1.. 2	48.868	44.737
Upper Containment	1.. 2	51.623	51.052
Ice Condenser	1.. 2	18.686	24.116

Temperatures (°F)

Lower Containment	1..10	69.73	78.729	79.003	78.991	79.04	75.353	75.022	75.931	77.353	87.549
	11..20	87.758	87.684	86.89	83.048	82.047	83.4	80.328	77.637	79.597	79.948
	21..24	78.067	78.434	79.139	79.84						
Upper Containment	1..10	71.171	78.745	78.532	75.081	78.128	75.47	75.487	75.401	74.948	75.503
	11..13	75.582	75.634	75.624							
Ice Condenser	1..10	20.161	20.35	19.611	19.305	19.845	19.068	20.242	20.15	21.363	20.978
	11..15	16.646	15.985	15.547	16.031	16.472					

Reading # 101 - Mar 17 11:15:27

Pressures (PSIA)

Lower Containment	1.. 1	29.484
Upper Containment	1.. 1	29.484
Ice Condenser	1.. 1	29.496

Dew Points (°F)

Lower Containment	1.. 2	48.763	44.388
Upper Containment	1.. 2	51.485	50.939
Ice Condenser	1.. 2	18.784	24.162

Temperatures (°F)

Lower Containment	1..10	69.749	78.729	79.012	79.024	79.072	75.362	75.054	75.954	77.353	87.535
	11..20	87.791	87.652	86.876	83.048	82.275	83.41	80.402	77.679	79.63	79.939
	21..24	78.067	78.462	79.199	79.85						
Upper Containment	1..10	71.189	78.592	78.532	75.137	78.239	75.47	75.538	75.457	74.971	75.536
	11..13	75.6	75.611	75.647							
Ice Condenser	1..10	20.044	20.449	20.303	19.236	19.538	18.933	20.43	20.038	21.561	20.886
	11..15	16.622	15.989	15.532	16.058	16.501					

Reading # 102 - Mar 17 11:30:44

Pressures (PSIA)

Lower Containment	1.. 1	29.488
Upper Containment	1.. 1	29.491
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	48.666	44.436
Upper Containment	1.. 2	51.367	50.816
Ice Condenser	1.. 2	18.706	24.188

Temperatures (°F)

Lower Containment	1..10	69.763	78.715	79.045	79.047	79.03	75.371	75.054	75.977	77.353	87.582
	11..20	87.749	87.684	86.844	83.048	82.191	83.428	80.346	77.711	79.671	79.939
	21..24	78.086	78.444	79.167	79.84						
Upper Containment	1..10	71.203	78.698	78.518	75.095	78.174	75.461	75.487	75.577	74.98	75.555
	11..13	75.623	75.694	75.666							
Ice Condenser	1..10	19.892	20.395	20.393	19.371	19.383	18.852	20.285	19.838	21.695	20.882
	11..15	16.53	16.016	15.536	16.051	16.505					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 103 - Mar 17 11:45:47

Pressures (PSIA)

Lower Containment	1.. 1	29.488
Upper Containment	1.. 1	29.489
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	48.561	44.121
Upper Containment	1.. 2	51.223	50.698
Ice Condenser	1.. 2	18.739	24.26

Temperatures (°F)

Lower Containment	1..10	69.786	78.738	79.045	79.047	79.04	75.385	75.073	75.987	77.353	87.623
	11..20	87.782	87.707	86.899	83.025	82.196	83.484	80.258	77.721	79.662	79.948
	21..24	78.099	78.453	79.222	79.873						
Upper Containment	1..10	71.226	78.842	78.518	75.179	78.397	75.461	75.593	75.498	74.971	75.536
	11..13	75.591	75.653	75.652							
Ice Condenser	1..10	19.861	20.619	20.361	19.863	19.553	18.725	20.146	19.645	21.502	21.568
	11..15	16.561	16.016	15.485	16.062	16.517					

Reading # 104 - Mar 17 12:00:57

Pressures (PSIA)

Lower Containment	1.. 1	29.487
Upper Containment	1.. 1	29.49
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	48.494	44.088
Upper Containment	1.. 2	51.109	50.573
Ice Condenser	1.. 2	18.509	24.488

Temperatures (°F)

Lower Containment	1..10	69.795	78.729	79.035	78.991	79.007	75.394	75.073	75.996	77.385	87.591
	11..20	87.814	87.74	86.913	83.039	82.21	83.41	79.947	77.744	79.736	79.897
	21..24	78.086	78.462	79.181	79.859						
Upper Containment	1..10	71.226	79.102	78.508	75.179	78.096	75.6	75.552	75.498	74.98	75.536
	11..13	75.698	75.676	75.689							
Ice Condenser	1..10	19.721	20.995	20.243	20.183	19.684	18.585	19.996	19.443	21.63	21.921
	11..15	16.561	16.039	15.44	16.094	16.526					

Reading # 105 - Mar 17 12:15:57

Pressures (PSIA)

Lower Containment	1.. 1	29.492
Upper Containment	1.. 1	29.494
Ice Condenser	1.. 1	29.5

Dew Points (°F)

Lower Containment	1.. 2	48.364	43.906
Upper Containment	1.. 2	51.007	50.489
Ice Condenser	1.. 2	18.438	24.293

Temperatures (°F)

Lower Containment	1..10	69.819	78.738	79.035	78.917	78.924	75.418	75.082	75.996	77.376	87.572
	11..20	87.847	87.74	86.913	83.006	82.21	83.4	79.882	77.744	79.736	79.902
	21..24	78.104	78.481	79.209	79.836						
Upper Containment	1..10	71.24	79.241	78.513	75.23	77.864	75.563	75.566	75.494	75.041	75.55
	11..13	75.804	75.769	75.758							
Ice Condenser	1..10	20.792	20.807	20.014	20.114	19.453	18.621	19.969	19.428	21.818	21.283
	11..15	16.568	16.054	15.424	16.1	16.532					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 106 - Mar 17 12:30:58

Pressures (PSIA)

Lower Containment	1.. 1	29.489
Upper Containment	1.. 1	29.49
Ice Condenser	1.. 1	29.497

Dew Points (°F)

Lower Containment	1.. 2	48.127	43.931
Upper Containment	1.. 2	50.888	50.356
Ice Condenser	1.. 2	18.679	24.502

Temperatures (°F)

Lower Containment	1..10	69.828	78.757	79.086	79.005	79.03	75.427	75.105	76.028	77.385	87.6
	11..20	87.838	87.74	86.913	83.057	81.959	83.428	80.258	77.744	79.759	79.93
	21..24	78.099	78.453	79.246	79.859						
Upper Containment	1..10	71.245	78.884	78.499	75.225	78.174	75.577	75.584	75.716	75.013	75.624
	11..13	75.735	75.759	75.763							
Ice Condenser	1..10	20.731	20.523	19.998	20.558	19.361	18.628	19.964	19.443	21.471	21.021
	11..15	16.561	16.07	15.355	16.127	16.548					

Reading # 107 - Mar 17 12:45:58

Pressures (PSIA)

Lower Containment	1.. 1	29.489
Upper Containment	1.. 1	29.489
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	48.036	43.663
Upper Containment	1.. 2	50.745	50.227
Ice Condenser	1.. 2	19.67	24.214

Temperatures (°F)

Lower Containment	1..10	69.828	78.771	79.035	79.024	79.007	75.441	75.129	76.028	77.376	87.67
	11..20	87.889	87.763	86.923	83.039	82.168	83.41	79.98	77.762	79.75	79.92
	21..24	78.118	78.476	79.199	79.85						
Upper Containment	1..10	71.259	79.084	78.499	75.257	77.966	75.6	75.668	75.772	75.022	75.592
	11..13	75.735	75.759	75.749							
Ice Condenser	1..10	20.57	20.492	19.891	19.787	19.737	18.841	20.007	19.517	21.171	20.891
	11..15	16.573	16.092	15.59	16.147	16.571					

Reading # 108 - Mar 17 13:00:59

Pressures (PSIA)

Lower Containment	1.. 1	29.487
Upper Containment	1.. 1	29.495
Ice Condenser	1.. 1	29.504

Dew Points (°F)

Lower Containment	1.. 2	47.866	43.676
Upper Containment	1.. 2	50.442	49.677
Ice Condenser	1.. 2	22.286	24.332

Temperatures (°F)

Lower Containment	1..10	69.846	78.803	79.1	78.973	79.049	75.45	75.152	76.038	77.376	87.67
	11..20	87.865	87.749	86.988	83.113	82.219	83.465	80.295	77.744	79.75	79.92
	21..24	78.118	78.462	79.236	79.873						
Upper Containment	1..10	71.268	78.712	78.485	75.234	78.096	75.61	75.603	75.66	75.022	75.61
	11..13	75.763	75.796	75.772							
Ice Condenser	1..10	20.291	20.308	19.736	19.782	20.558	20.135	20.643	19.641	21.552	20.983
	11..15	16.588	16.108	15.639	16.165	16.597					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 109 - Mar 17 13:15:59

Pressures (PSIA)

Lower Containment	1.. 1	29.501
Upper Containment	1.. 1	29.496
Ice Condenser	1.. 1	29.497

Dew Points (°F)

Lower Containment	1.. 2	47.82	43.537
Upper Containment	1.. 2	50.521	49.995
Ice Condenser	1.. 2	23.533	24.41

Temperatures (°F)

Lower Containment	1..10	69.87	78.78	79.077	78.973	78.975	75.45	75.161	76.038	77.418	87.656
	11..20	87.847	87.772	86.913	83.048	82.21	83.354	80.045	77.786	79.727	79.92
	21..24	78.118	78.476	79.278	79.859						
Upper Containment	1..10	71.277	79.144	78.485	75.313	78.04	75.624	75.603	75.693	75.069	75.633
	11..13	75.786	75.815	75.819							
Ice Condenser	1..10	20.011	20.104	19.557	19.69	[illegible].97	20.611	21.505	19.883	21.426	20.848
	11..15	16.637	16.124	15.536	16.19	16.602					

Reading # 110 - Mar 17 13:31:00

Pressures (PSIA)

Lower Containment	1.. 1	29.487
Upper Containment	1.. 1	29.49
Ice Condenser	1.. 1	29.501

Dew Points (°F)

Lower Containment	1.. 2	47.66	43.38
Upper Containment	1.. 2	50.423	49.873
Ice Condenser	1.. 2	19.84	24.306

Temperatures (°F)

Lower Containment	1..10	69.86	78.789	79.059	78.959	78.998	75.459	75.17	76.038	77.399	87.656
	11..20	87.879	87.791	87.053	83.113	82.414	83.377	80.035	77.786	79.727	79.948
	21..24	78.118	78.476	79.213	79.873						
Upper Containment	1..10	71.277	79.06	78.485	75.299	78.105	75.61	75.649	75.66	75.055	75.633
	11..13	75.735	75.782	75.796							
Ice Condenser	1..10	19.937	20.126	20.211	19.532	20.112	20.236	21.185	19.957	21.276	20.698
	11..15	16.637	16.135	15.536	16.212	16.602					

Reading # 111 - Mar 17 13:46:01

Pressures (PSIA)

Lower Containment	1.. 1	29.492
Upper Containment	1.. 1	29.486
Ice Condenser	1.. 1	29.497

Dew Points (°F)

Lower Containment	1.. 2	47.675	43.281
Upper Containment	1.. 2	50.312	49.755
Ice Condenser	1.. 2	18.818	24.365

Temperatures (°F)

Lower Containment	1..10	69.883	78.803	78.98	78.973	78.988	75.492	75.203	76.052	77.399	87.698
	11..20	87.912	87.782	87.053	83.122	82.405	83.451	80.077	77.8	79.727	79.948
	21..24	78.118	78.476	79.288	79.873						
Upper Containment	1..10	71.31	79.005	78.476	75.29	78.054	75.633	75.682	75.799	75.129	75.708
	11..13	75.763	75.829	75.819							
Ice Condenser	1..10	19.892	20.158	20.693	19.478	19.877	19.581	20.638	19.776	21.426	20.956
	11..15	16.669	16.146	15.633	16.235	16.602					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 112 - Mar 17 14:01:01

Pressures (PSIA)

Lower Containment	1.. 1	29.488	
Upper Containment	1.. 1	29.489	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	47.451	43.105
Upper Containment	1.. 2	50.206	49.661
Ice Condenser	1.. 2	18.949	24.627

Temperatures (°F)

Lower Containment	1..10	69.893	78.813	79.035	79.024	79.04	75.506	75.203	76.061	77.45	87.744
	11..20	87.912	87.814	87.062	83.122	82.307	83.442	80.258	77.818	79.713	79.962
	21..24	78.132	78.485	79.301	79.896						
Upper Containment	1..10	71.31	78.963	78.476	75.322	78.355	75.591	75.668	75.716	75.069	75.708
	11..13	75.795	75.806	75.805							
Ice Condenser	1..10	19.818	20.18	20.191	19.413	19.684	19.238	20.37	19.722	21.856	21.708
	11..15	16.669	16.155	15.677	16.212	16.622					

Reading # 113 - Mar 17 14:16:02

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.49	
Ice Condenser	1.. 1	29.498	

Dew Points (°F)

Lower Containment	1.. 2	47.472	43.098
Upper Containment	1.. 2	50.069	49.551
Ice Condenser	1.. 2	18.7	24.712

Temperatures (°F)

Lower Containment	1..10	69.902	78.845	79.1	79.024	79.04	75.515	75.193	76.075	77.427	87.712
	11..20	87.912	87.805	87.011	83.146	82.363	83.4	79.966	77.832	79.736	79.948
	21..24	78.15	78.499	79.334	79.882						
Upper Containment	1..10	71.324	79.279	78.467	75.322	78.272	75.763	75.747	75.702	75.11	75.652
	11..13	75.883	75.829	75.842							
Ice Condenser	1..10	21.043	20.084	19.761	19.263	19.491	19.045	20.307	19.807	22.327	22.889
	11..15	16.691	16.166	15.72	16.212	16.633					

Reading # 114 - Mar 17 14:31:02

Pressures (PSIA)

Lower Containment	1.. 1	29.489	
Upper Containment	1.. 1	29.489	
Ice Condenser	1.. 1	29.498	

Dew Points (°F)

Lower Containment	1.. 2	47.347	42.927
Upper Containment	1.. 2	49.956	49.445
Ice Condenser	1.. 2	18.706	24.764

Temperatures (°F)

Lower Containment	1..10	69.916	78.836	79.003	79.005	78.998	75.524	75.226	76.075	77.427	87.698
	11..20	87.865	87.772	87.053	83.122	82.349	83.428	79.905	77.85	79.727	79.944
	21..24	78.146	78.513	79.306	79.91						
Upper Containment	1..10	71.361	79.283	78.471	75.383	78.049	75.716	75.742	75.864	75.115	75.749
	11..13	75.911	75.898	75.879							
Ice Condenser	1..10	21.62	20.175	19.644	19.198	19.372	18.918	20.22	19.787	22.199	22.588
	11..15	16.7	16.2	15.816	16.235	16.655					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 115 - Mar 17 14:46:03

Pressures (PSIA)

Lower Containment	1.. 1	29.483									
Upper Containment	1.. 1	29.495									
Ice Condenser	1.. 1	29.504									

Dew Points (°F)

Lower Containment	1.. 2	47.198	42.889								
Upper Containment	1.. 2	49.858	49.341								
Ice Condenser	1.. 2	18.759	24.483								

Temperatures (°F)

Lower Containment	1..10	69.935	78.836	79.003	79.033	79.03	75.538	75.249	76.084	77.45	87.744
	11..20	87.898	87.823	87.011	83.155	82.451	83.428	79.98	77.85	79.75	79.92
	21..24	78.141	78.509	79.264	79.915						
Upper Containment	1..10	71.356	79.279	78.467	75.41	78.249	75.675	75.821	75.911	75.143	75.74
	11..13	75.841	75.912	75.925							
Ice Condenser	1..10	20.527	20.319	20.007	19.252	19.403	18.875	20.199	19.753	21.931	21.62
	11..15	16.723	16.2	15.74	16.254	16.676					

Reading # 116 - Mar 17 15:01:03

Pressures (PSIA)

Lower Containment	1.. 1	29.492									
Upper Containment	1.. 1	29.491									
Ice Condenser	1.. 1	29.499									

Dew Points (°F)

Lower Containment	1.. 2	47.046	42.757								
Upper Containment	1.. 2	49.774	49.223								
Ice Condenser	1.. 2	18.667	24.516								

Temperatures (°F)

Lower Containment	1..10	69.948	78.836	79.068	78.991	79.021	75.547	75.249	76.084	77.441	87.744
	11..20	87.921	87.847	87.085	83.104	82.251	83.41	79.989	77.874	79.736	79.906
	21..24	78.141	78.509	79.32	79.896						
Upper Containment	1..10	71.384	79.353	78.467	75.387	78.249	75.818	75.733	75.693	75.152	75.74
	11..13	75.957	75.912	75.949							
Ice Condenser	1..10	20.462	20.599	20.296	20.152	20.273	18.767	20.081	19.636	21.726	21.288
	11..15	16.712	16.22	15.686	16.277	16.676					

Reading # 117 - Mar 17 15:16:04

Pressures (PSIA)

Lower Containment	1.. 1	29.49									
Upper Containment	1.. 1	29.49									
Ice Condenser	1.. 1	29.499									

Dew Points (°F)

Lower Containment	1.. 2	47.08	42.62								
Upper Containment	1.. 2	49.63	49.104								
Ice Condenser	1.. 2	19.185	24.719								

Temperatures (°F)

Lower Containment	1..10	69.958	78.845	79.035	79.047	79.104	75.571	75.291	76.103	77.441	87.754
	11..20	87.945	87.823	87.062	83.155	82.451	83.465	80.142	77.874	79.736	79.897
	21..24	78.164	78.509	79.362	79.947						
Upper Containment	1..10	71.398	79.158	78.453	75.461	78.202	75.753	75.811	75.846	75.208	75.773
	11..13	76.013	75.926	75.916							
Ice Condenser	1..10	20.419	20.599	19.929	20.81	20.621	18.763	20.045	19.598	21.614	21.156
	11..15	16.718	16.236	15.693	16.304	16.703					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 118 - Mar 17 15:31:04

Pressures (PSIA)

Lower Containment	1.. 1	29.49
Upper Containment	1.. 1	29.492
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	46.921	42.62
Upper Containment	1.. 2	49.558	49.02
Ice Condenser	1.. 2	18.942	24.804

Temperatures (°F)

Lower Containment	1..10	69.958	78.845	79.1	79.121	79.169	75.58	75.281	76.126	77.464	87.767
	11..20	87.954	87.782	87.16	83.243	82.428	83.498	80.37	77.897	79.736	79.93
	21..24	78.188	78.532	79.385	79.97						
Upper Containment	1..10	71.421	78.949	78.453	75.429	78.355	75.763	75.844	75.781	75.198	75.796
	11..13	75.93	75.926	75.939							
Ice Condenser	1..10	20.195	20.404	19.756	20.746	20.794	18.859	20.045	19.899	21.83	21.026
	11..15	16.964	16.269	15.713	16.335	16.714					

Reading # 119 - Mar 17 15:46:05

Pressures (PSIA)

Lower Containment	1.. 1	29.495
Upper Containment	1.. 1	29.489
Ice Condenser	1.. 1	29.495

Dew Points (°F)

Lower Containment	1.. 2	46.914	42.377
Upper Containment	1.. 2	49.452	48.935
Ice Condenser	1.. 2	18.844	24.673

Temperatures (°F)

Lower Containment	1..10	69.967	78.868	79.026	79.103	79.086	75.603	75.3	76.126	77.473	87.786
	11..20	87.963	87.861	87.15	83.22	82.558	83.465	80.1	77.883	79.75	79.939
	21..24	78.174	78.509	79.376	79.947						
Upper Containment	1..10	71.421	79.32	78.453	75.485	78.119	75.721	75.765	75.846	75.231	75.796
	11..13	76.004	75.968	75.958							
Ice Condenser	1..10	20.076	20.63	20.104	20.495	19.908	18.906	20.316	20.289	21.738	20.956
	11..15	16.989	16.251	15.729	16.351	16.729					

Reading # 120 - Mar 17 16:01:05

Pressures (PSIA)

Lower Containment	1.. 1	29.49
Upper Containment	1.. 1	29.491
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	46.822	42.33
Upper Containment	1.. 2	49.36	48.841
Ice Condenser	1.. 2	18.895	24.712

Temperatures (°F)

Lower Containment	1..10	69.999	78.878	79.086	79.033	79.072	75.603	75.291	76.135	77.483	87.809
	11..20	87.996	87.814	87.076	83.178	82.493	83.507	79.817	77.897	79.736	79.906
	21..24	78.188	78.518	79.362	79.929						
Upper Containment	1..10	71.439	79.297	78.443	75.485	78.555	75.763	75.821	75.846	75.208	75.773
	11..13	76.013	75.991	75.981							
Ice Condenser	1..10	20.753	20.738	20.276	19.83	19.352	18.884	20.531	20.794	21.321	20.945
	11..15	16.893	16.285	15.794	16.351	16.741					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 121 - Mar 17 16:16:06

Pressures (PSIA)

Lower Containment	1.. 1	29.491
Upper Containment	1.. 1	29.49
Ice Condenser	1.. 1	29.499

Dew Points (°F)

Lower Containment	1.. 2	46.632	42.265
Upper Containment	1.. 2	49.091	48.519
Ice Condenser	1.. 2	19.944	24.791

Temperatures (°F)

Lower Containment	1..10	69.999	78.887	79.1	79.145	79.1[illegible]	75.612	75.337	76.149	77.483	87.819
	11..20	87.954	87.74	87.136	83.252	82.549	83.563	80.467	77.906	79.727	79.851
	21..24	78.206	78.518	79.353	79.97						
Upper Containment	1..10	71.439	79.135	78.443	75.508	78.518	75.786	75.798	75.79	75.231	75.81
	11..13	75.939	75.954	75.958							
Ice Condenser	1..10	20.904	20.922	20.083	19.68	19.845	19.014	20.285	19.969	21.653	21.418
	11..15	16.85	16.285	15.848	16.362	16.741					

Reading # 122 - Mar 17 16:31:07

Pressures (PSIA)

Lower Containment	1.. 1	29.492
Upper Containment	1.. 1	29.496
Ice Condenser	1.. 1	29.501

Dew Points (°F)

Lower Containment	1.. 2	46.64	42.115
Upper Containment	1.. 2	49.157	48.639
Ice Condenser	1.. 2	20.542	24.719

Temperatures (°F)

Lower Containment	1..10	70.023	78.901	79.184	79.089	79.16	75.635	75.379	76.158	77.483	87.809
	11..20	87.996	87.782	87.127	83.266	82.47	83.54	80.249	77.929	79.736	79.823
	21..24	78.188	78.532	79.427	79.97						
Upper Containment	1..10	71.472	79.186	78.443	75.536	78.467	75.86	75.844	75.837	75.263	75.787
	11..13	75.939	76	76.004							
Ice Condenser	1..10	20.43	20.684	19.906	19.643	20.385	19.534	20.323	19.726	21.98	22.013
	11..15	16.803	16.312	15.863	16.378	16.756					

Reading # 123 - Mar 17 16:46:07

Pressures (PSIA)

Lower Containment	1.. 1	29.49
Upper Containment	1.. 1	29.49
Ice Condenser	1.. 1	29.498

Dew Points (°F)

Lower Containment	1.. 2	46.398	42.176
Upper Containment	1.. 2	49.028	48.504
Ice Condenser	1.. 2	19.226	24.629

Temperatures (°F)

Lower Containment	1..10	70.046	78.924	79.1	79.228	79.267	75.654	75.379	76.191	77.497	87.842
	11..20	88.042	87.861	87.15	83.34	82.535	83.623	80.532	77.939	79.759	79.851
	21..24	78.206	78.55	79.408	79.994						
Upper Containment	1..10	71.486	79.028	78.434	75.526	78.541	75.851	75.867	75.772	75.249	75.838
	11..13	76.013	75.954	75.967							
Ice Condenser	1..10	20.356	20.565	19.832	19.559	20.127	19.5	20.3	19.973	21.884	21.423
	11..15	16.824	16.332	15.863	16.389	16.779					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 124 - Mar 17 17:01:08

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	46.33	41.997
Upper Containment	1.. 2	48.921	48.41
Ice Condenser	1.. 2	19.086	24.731

Temperatures (°F)

Lower Containment	1..10	70.023	78.91	79.133	79.21	79.281	75.668	75.42	76.191	77.515	87.851
	11..20	87.935	87.847	87.15	83.308	82.46	83.614	80.435	77.962	79.759	79.809
	21..24	78.206	78.541	79.427	80.003						
Upper Containment	1..10	71.495	79.158	78.434	75.517	78.397	75.795	75.844	75.823	75.231	75.861
	11..13	75.93	75.977	75.967							
Ice Condenser	1..10	20.345	20.61	19.772	19.478	19.8	19.314	20.435	20.354	21.942	21.149
	11..15	17.054	16.339	15.924	16.416	16.783					

Reading # 125 - Mar 17 17:16:09

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.493	
Ice Condenser	1.. 1	29.501	

Dew Points (°F)

Lower Containment	1.. 2	46.343	41.812
Upper Containment	1.. 2	48.822	48.317
Ice Condenser	1.. 2	18.843	24.613

Temperatures (°F)

Lower Containment	1..10	70.046	78.933	79.184	79.112	79.118	75.677	75.397	76.2	77.548	87.865
	11..20	87.986	87.847	87.225	83.285	82.609	83.572	80.1	77.939	79.759	79.869
	21..24	78.201	78.536	79.427	79.998						
Upper Containment	1..10	71.546	79.436	78.439	75.545	78.648	75.888	75.863	75.906	75.282	75.805
	11..13	76.087	76.005	76.018							
Ice Condenser	1..10	20.233	20.657	20.543	19.424	19.684	19.207	20.638	20.226	21.769	21.064
	11..15	16.969	16.339	15.933	16.447	16.794					

Reading # 126 - Mar 17 17:31:09

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.496	
Ice Condenser	1.. 1	29.501	

Dew Points (°F)

Lower Containment	1.. 2	46.193	41.846
Upper Containment	1.. 2	48.731	48.207
Ice Condenser	1.. 2	18.646	24.745

Temperatures (°F)

Lower Containment	1..10	70.055	78.933	79.1	79.228	79.299	75.686	75.397	76.223	77.529	87.884
	11..20	87.996	87.837	87.173	83.419	82.558	83.614	80.425	77.971	79.75	79.874
	21..24	78.229	78.532	79.473	80.012						
Upper Containment	1..10	71.518	79.111	78.434	75.55	78.453	75.869	75.867	75.911	75.249	75.861
	11..13	76.013	76.047	75.99							
Ice Condenser	1..10	20.054	20.588	20.639	19.583	19.565	19.068	20.488	19.989	21.653	21.214
	11..15	16.926	16.359	15.879	16.447	16.805					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 127 - Mar 17 17:46:10

Pressures (PSIA)

Lower Containment	1.. 1	29.489	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	46.09	41.696
Upper Containment	1.. 2	48.626	48.134
Ice Condenser	1.. 2	18.739	24.778

Temperatures (°F)

Lower Containment	1..10	70.064	78.943	79.165	79.145	79.169	75.7	75.397	76.223	77.562	87.851
	11..20	88.01	87.888	87.192	83.35	82.428	83.581	80.151	77.971	79.736	79.865
	21..24	78.229	78.532	79.459	79.994						
Upper Containment	1..10	71.551	79.353	78.42	75.559	78.833	75.916	75.844	75.758	75.338	75.819
	11..13	76.036	76.047	76.055							
Ice Condenser	1..10	19.968	20.792	20.457	20.002	19.672	18.938	20.327	19.838	21.911	21.804
	11..15	16.884	16.381	15.89	16.459	16.826					

Reading # 128 - Mar 17 18:01:11

Pressures (PSIA)

Lower Containment	1.. 1	29.488	
Upper Containment	1.. 1	29.491	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	46.016	41.524
Upper Containment	1.. 2	48.548	48.044
Ice Condenser	1.. 2	18.733	24.726

Temperatures (°F)

Lower Containment	1..10	70.078	78.952	79.175	79.2	79.216	75.71	75.434	76.237	77.538	87.893
	11..20	87.977	87.823	87.215	83.34	82.558	83.581	80.281	77.98	79.75	79.874
	21..24	78.239	78.518	79.497	80.059						
Upper Containment	1..10	71.551	79.306	78.42	75.591	78.555	75.892	75.992	75.758	75.314	75.87
	11..13	75.981	76.033	76.046							
Ice Condenser	1..10	20.044	21.361	20.35	20.376	19.897	18.841	20.208	19.679	21.877	21.708
	11..15	16.893	16.381	15.944	16.481	16.848					

Reading # 129 - Mar 17 18:16:11

Pressures (PSIA)

Lower Containment	1.. 1	29.489	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.498	

Dew Points (°F)

Lower Containment	1.. 2	45.844	41.617
Upper Containment	1.. 2	48.442	47.938
Ice Condenser	1.. 2	18.739	24.947

Temperatures (°F)

Lower Containment	1..10	70.088	79.031	79.165	79.275	79.364	75.733	75.462	76.246	77.538	87.916
	11..20	87.954	87.837	87.257	83.405	82.47	83.679	80.523	78.003	79.736	79.902
	21..24	78.257	78.555	79.459	80.031						
Upper Containment	1..10	71.565	79.186	78.43	75.624	78.657	75.943	75.946	75.776	75.3	75.935
	11..13	75.953	75.986	76.032							
Ice Condenser	1..10	21.081	21.011	20.041	19.883	19.65	18.841	20.188	19.668	21.973	21.331
	11..15	16.989	16.413	15.955	16.49	16.848					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 130 - Mar 17 18:31:12

Pressures (PSIA)

Lower Containment	1.. 1	29.487									
Upper Containment	1.. 1	29.488									
Ice Condenser	1.. 1	29.497									

Dew Points (°F)

Lower Containment	1.. 2	45.787	41.473								
Upper Containment	1.. 2	48.351	47.852								
Ice Condenser	1.. 2	18.667	24.752								

Temperatures (°F)

Lower Containment	1..10	70.12	78.952	79.165	79.177	79.216	75.742	75.453	76.256	77.58	87.93
	11..20	88.042	87.921	87.234	83.405	82.46	83.66	80.151	78.003	79.759	79.86
	21..24	78.257	78.536	79.534	80.04						
Upper Containment	1..10	71.578	79.39	78.416	75.554	78.091	75.865	75.914	75.864	75.356	75.856
	11..13	76.032	76.019	76.05							
Ice Condenser	1..10	21.016	20.68	19.987	19.937	19.502	18.875	20.134	19.679	22.209	21.438
	11..15	16.969	16.413	16.02	16.512	16.86					

Reading # 131 - Mar 17 18:46:13

Pressures (PSIA)

Lower Containment	1.. 1	29.489									
Upper Containment	1.. 1	29.493									
Ice Condenser	1.. 1	29.498									

Dew Points (°F)

Lower Containment	1.. 2	45.806	41.302								
Upper Containment	1.. 2	48.246	47.734								
Ice Condenser	1.. 2	19.119	24.778								

Temperatures (°F)

Lower Containment	1..10	70.102	78.966	79.23	79.252	79.355	75.751	75.476	76.27	77.562	87.949
	11..20	88.042	87.879	87.271	83.438	82.558	83.679	80.513	78.013	79.75	79.851
	21..24	78.248	78.55	79.603	80.045						
Upper Containment	1..10	71.592	79.07	78.411	75.624	78.629	75.925	75.918	75.846	75.305	75.916
	11..13	76.027	76.075	76.055							
Ice Condenser	1..10	20.657	20.512	20.041	20.58	19.511	19.11	20.208	19.742	21.491	21.171
	11..15	16.969	16.424	15.975	16.523	16.891					

Reading # 132 - Mar 17 19:01:13

Pressures (PSIA)

Lower Containment	1.. 1	29.492									
Upper Containment	1.. 1	29.498									
Ice Condenser	1.. 1	29.504									

Dew Points (°F)

Lower Containment	1.. 2	45.742	41.224								
Upper Containment	1.. 2	48.166	47.649								
Ice Condenser	1.. 2	20.929	24.824								

Temperatures (°F)

Lower Containment	1..10	70.129	78.998	79.133	79.2	79.216	75.751	75.508	76.27	77.548	87.93
	11..20	88.019	87.879	87.313	83.364	82.721	83.637	80.249	78.027	79.759	79.832
	21..24	78.248	78.532	79.506	80.045						
Upper Containment	1..10	71.602	79.557	78.411	75.656	78.225	75.948	75.951	75.911	75.296	75.907
	11..13	76.125	76.112	76.129							
Ice Condenser	1..10	20.311	20.415	19.933	19.894	20.197	20.503	20.894	19.838	21.792	21.192
	11..15	17.043	16.478	16.029	16.532	16.902					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 133 - Mar 17 19:16:14

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	45.615	41.11
Upper Containment	1.. 2	48.075	47.562
Ice Condenser	1.. 2	23.656	25.079

Temperatures (°F)

Lower Containment	1..10	70.129	78.998	79.142	79.177	79.202	75.765	75.494	76.279	77.571	87.972
	11..20	88.075	87.888	87.304	83.34	82.549	83.67	80.119	78.013	79.759	79.865
	21..24	78.271	78.541	79.524	80.045						
Upper Containment	1..10	71.602	79.515	78.411	75.656	78.518	76.045	75.928	75.943	75.347	75.916
	11..13	76.101	76.088	76.078							
Ice Condenser	1..10	20.033	20.18	19.676	19.926	21.249	20.793	21.633	20.076	21.619	20.998
	11..15	17.269	16.489	16.04	16.566	16.922					

Reading # 134 - Mar 17 19:31:14

Pressures (PSIA)

Lower Containment	1.. 1	29.497	
Upper Containment	1.. 1	29.493	
Ice Condenser	1.. 1	29.497	

Dew Points (°F)

Lower Containment	1.. 2	45.511	41.039
Upper Containment	1.. 2	47.996	47.478
Ice Condenser	1.. 2	20.778	25.072

Temperatures (°F)

Lower Containment	1..10	70.143	79.05	79.221	79.219	79.225	75.775	75.532	76.288	77.562	87.949
	11..20	88.061	87.861	87.234	83.419	82.535	83.67	80.328	78.036	79.736	79.851
	21..24	78.262	78.541	79.538	80.059						
Upper Containment	1..10	71.602	79.255	78.397	75.656	78.467	76.004	75.928	76.008	75.314	75.916
	11..13	76.055	76.121	76.101							
Ice Condenser	1..10	19.946	20.18	20.404	19.841	20.872	20.333	21.194	20.076	21.568	20.86
	11..15	17.281	16.489	16.159	16.577	16.933					

Reading # 135 - Mar 17 19:46:15

Pressures (PSIA)

Lower Containment	1.. 1	29.487	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	45.484	41.171
Upper Containment	1.. 2	47.892	47.393
Ice Condenser	1.. 2	19.021	24.955

Temperatures (°F)

Lower Containment	1..10	70.153	79.04	79.23	79.307	79.355	75.784	75.582	76.311	77.58	87.991
	11..20	88.117	87.902	87.313	83.47	82.841	83.725	80.565	78.059	79.769	79.874
	21..24	78.304	78.55	79.571	80.077						
Upper Containment	1..10	71.602	78.991	78.397	75.679	79.065	76.013	75.974	75.837	75.328	75.991
	11..13	76.05	76.047	76.12							
Ice Condenser	1..10	20.011	20.223	20.865	19.691	20.197	19.731	20.746	19.914	21.61	21.041
	11..15	17.173	16.52	16.083	16.597	16.933					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 136 - Mar 17 20:01:15

Pressures (PSIA)

Lower Containment	1.. 1	29.488	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.5	

Dew Points (°F)

Lower Containment	1.. 2	45.42	41.087
Upper Containment	1.. 2	47.82	47.309
Ice Condenser	1.. 2	19.015	25.126

Temperatures (°F)

Lower Containment	1..10	70.176	79.04	79.254	79.382	79.411	75.807	75.55	76.335	77.613	87.991
	11..20	88.052	87.879	87.28	83.494	82.697	83.744	80.685	78.078	79.778	79.851
	21..24	78.304	78.55	79.58	80.1						
Upper Containment	1..10	71.639	79.144	78.397	75.689	78.555	75.962	76.006	75.934	75.37	76.005
	11..13	76.069	76.075	76.111							
Ice Condenser	1..10	19.946	20.234	20.211	19.552	19.865	19.431	20.509	19.85	21.919	21.717
	11..15	17.131	16.531	16.212	16.608	16.944					

Reading # 137 - Mar 17 20:16:16

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.494	
Ice Condenser	1.. 1	29.501	

Dew Points (°F)

Lower Containment	1.. 2	45.381	40.942
Upper Containment	1.. 2	47.727	47.229
Ice Condenser	1.. 2	18.679	24.903

Temperatures (°F)

Lower Containment	1..10	70.176	79.05	79.23	79.405	79.476	75.807	75.615	76.353	77.636	88.004
	11..20	88.117	87.921	87.369	83.517	82.646	83.758	80.63	78.101	79.759	79.865
	21..24	78.313	78.541	79.58	80.133						
Upper Containment	1..10	71.639	79.135	78.388	75.679	78.847	75.967	76.025	75.846	75.361	76.005
	11..13	76.05	76.033	76.088							
Ice Condenser	1..10	21.119	20.18	19.821	19.409	19.688	19.245	20.419	19.942	22.473	22.893
	11..15	17.2	16.536	16.421	16.604	16.96					

Reading # 138 - Mar 17 20:31:16

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.491	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	45.263	40.836
Upper Containment	1.. 2	47.649	47.144
Ice Condenser	1.. 2	18.7	24.909

Temperatures (°F)

Lower Containment	1..10	70.185	79.128	79.272	79.437	79.443	75.821	75.606	76.367	77.627	87.991
	11..20	88.084	87.837	87.313	83.517	82.512	83.809	80.783	78.124	79.75	79.851
	21..24	78.336	78.56	79.571	80.114						
Upper Containment	1..10	71.648	79.06	78.397	75.735	78.778	75.967	76.039	75.837	75.37	75.991
	11..13	76.055	76.144	76.12							
Ice Condenser	1..10	21.604	20.254	19.718	19.305	19.479	19.121	20.316	19.926	22.305	22.747
	11..15	17.332	16.552	16.437	16.597	16.956					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 139 - Mar 17 20:46:17

Pressures (PSIA)

Lower Containment	1.. 1	29.488	
Upper Containment	1.. 1	29.494	
Ice Condenser	1.. 1	29.5	

Dew Points (°F)

Lower Containment	1.. 2	45.269	40.777
Upper Containment	1.. 2	47.571	47.046
Ice Condenser	1.. 2	18.726	24.922

Temperatures (°F)

Lower Containment	1..10	70.185	79.063	79.319	79.405	79.364	75.84	75.606	76.367	77.659	88.014
	11..20	88.131	87.861	87.336	83.494	82.437	83.786	80.444	78.133	79.769	79.874
	21..24	78.313	78.541	79.603	80.124						
Upper Containment	1..10	71.639	79.376	78.388	75.703	78.314	76.045	75.992	75.966	75.435	76.014
	11..13	76.069	76.088	76.078							
Ice Condenser	1..10	20.614	20.395	20.072	19.413	19.553	19.068	20.307	19.883	21.942	21.697
	11..15	17.247	16.563	16.372	16.629	16.965					

Reading # 140 - Mar 17 21:01:17

Pressures (PSIA)

Lower Containment	1.. 1	29.49	
Upper Containment	1.. 1	29.494	
Ice Condenser	1.. 1	29.501	

Dew Points (°F)

Lower Containment	1.. 2	45.138	40.619
Upper Containment	1.. 2	47.504	46.986
Ice Condenser	1.. 2	18.656	24.935

Temperatures (°F)

Lower Containment	1..10	70.204	79.087	79.281	79.363	79.401	75.84	75.629	76.353	77.636	88.037
	11..20	88.075	87.912	87.336	83.503	82.567	83.809	80.49	78.143	79.769	79.906
	21..24	78.313	78.55	79.58	80.124						
Upper Containment	1..10	71.657	79.223	78.388	75.679	78.68	76.022	76.006	75.911	75.426	75.949
	11..13	76.036	76.065	76.101							
Ice Condenser	1..10	20.592	20.61	20.339	20.365	20.412	18.949	20.177	19.764	21.931	21.364
	11..15	17.258	16.585	16.298	16.662	16.987					

Reading # 141 - Mar 17 21:16:18

Pressures (PSIA)

Lower Containment	1.. 1	29.489	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	45.052	40.737
Upper Containment	1.. 2	47.425	46.914
Ice Condenser	1.. 2	19.131	24.98

Temperatures (°F)

Lower Containment	1..10	70.217	79.119	79.24	79.447	79.476	75.849	75.647	76.386	77.645	88.046
	11..20	88.131	87.912	87.336	83.568	82.744	83.841	80.695	78.175	79.778	79.897
	21..24	78.35	78.56	79.622	80.142						
Upper Containment	1..10	71.68	79.241	78.388	75.689	78.532	76.078	75.992	75.846	75.393	75.968
	11..13	76.055	76.121	76.129							
Ice Condenser	1..10	20.496	20.653	19.965	20.976	20.627	18.938	20.157	19.733	21.803	21.245
	11..15	17.289	16.594	16.179	16.694	17.01					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 142 - Mar 17 21:31:18

Pressures (PSIA)

Lower Containment	1.. 1	29.488	
Upper Containment	1.. 1	29.492	
Ice Condenser	1.. 1	29.503	

Dew Points (°F)

Lower Containment	1.. 2	44.96	40.515
Upper Containment	1.. 2	47.341	46.822
Ice Condenser	1.. 2	18.902	25.013

Temperatures (°F)

Lower Containment	1..10	70.227	79.119	79.272	79.461	79.453	75.863	75.694	76.395	77.669	88.037
	11..20	88.075	87.921	87.387	83.559	82.502	83.855	80.978	78.189	79.792	79.897
	21..24	78.35	78.56	79.678	80.175						
Upper Containment	1..10	71.666	79.241	78.378	75.768	78.898	76.013	76.104	75.911	75.435	76.046
	11..13	76.125	76.13	76.176							
Ice Condenser	1..10	20.258	20.503	19.868	20.837	20.809	18.991	20.157	19.98	21.834	21.16
	11..15	17.247	16.617	16.222	16.705	17.03					

Reading # 143 - Mar 17 21:46:19

Pressures (PSIA)

Lower Containment	1.. 1	29.497	
Upper Containment	1.. 1	29.495	
Ice Condenser	1.. 1	29.497	

Dew Points (°F)

Lower Containment	1.. 2	44.96	40.612
Upper Containment	1.. 2	47.262	46.783
Ice Condenser	1.. 2	18.758	25.079

Temperatures (°F)

Lower Containment	1..10	70.241	79.147	79.272	79.47	79.508	75.872	75.726	76.409	77.682	88.07
	11..20	88.084	87.944	87.378	83.591	82.6	83.832	80.931	78.221	79.769	79.897
	21..24	78.359	78.56	79.701	80.156						
Upper Containment	1..10	71.68	79.088	78.378	75.768	78.629	76.013	76.081	75.846	75.435	76.032
	11..13	76.036	76.153	76.143							
Ice Condenser	1..10	20.226	20.664	20.191	20.495	19.93	19.056	20.392	20.377	21.749	21.084
	11..15	17.236	16.628	16.244	16.716	17.041					

Reading # 144 - Mar 17 22:01:19

Pressures (PSIA)

Lower Containment	1.. 1	29.494	
Upper Containment	1.. 1	29.495	
Ice Condenser	1.. 1	29.501	

Dew Points (°F)

Lower Containment	1.. 2	44.886	40.474
Upper Containment	1.. 2	47.181	46.677
Ice Condenser	1.. 2	18.553	25.111

Temperatures (°F)

Lower Containment	1..10	70.259	79.128	79.281	79.484	79.499	75.881	75.745	76.418	77.669	88.079
	11..20	88.098	87.921	87.345	83.633	82.73	83.841	80.815	78.254	79.792	79.906
	21..24	78.382	78.597	79.58	80.212						
Upper Containment	1..10	71.68	79.158	78.378	75.754	78.75	76.087	76.09	75.869	75.393	76.046
	11..13	76.069	76.163	76.152							
Ice Condenser	1..10	20.904	20.845	20.307	19.883	19.661	19.025	20.616	20.999	21.523	21.075
	11..15	17.204	16.648	16.275	16.736	17.052					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 145 - Mar 17 22:16:20

Pressures (PSIA)

Lower Containment	1.. 1	29.487									
Upper Containment	1.. 1	29.494									
Ice Condenser	1.. 1	29.502									

Dew Points (°F)

Lower Containment	1.. 2	44.875	40.265								
Upper Containment	1.. 2	47.123	46.6								
Ice Condenser	1.. 2	19.119	25.027								

Temperatures (°F)

Lower Containment	1..10	70.273	79.105	79.295	79.461	79.443	75.895	75.745	76.432	77.682	88.06
	11..20	88.159	87.888	87.387	83.614	82.6	83.855	80.444	78.254	79.792	79.897
	21..24	78.368	78.606	79.622	80.156						
Upper Containment	1..10	71.699	79.515	78.378	75.768	78.583	76.013	76.071	75.869	75.426	76.023
	11..13	76.134	76.13	76.185							
Ice Condenser	1..10	20.989	20.964	20.083	19.563	19.318	19.142	20.392	20.139	21.76	21.438
	11..15	17.247	16.67	16.372	16.736	17.061					

Reading # 146 - Mar 17 22:31:20

Pressures (PSIA)

Lower Containment	1.. 1	29.491									
Upper Containment	1.. 1	29.492									
Ice Condenser	1.. 1	29.5									

Dew Points (°F)

Lower Containment	1.. 2	44.646	40.312								
Upper Containment	1.. 2	47.053	46.534								
Ice Condenser	1.. 2	20.503	25.001								

Temperatures (°F)

Lower Containment	1..10	70.296	79.147	79.319	79.405	79.462	75.904	75.712	76.432	77.692	88.07
	11..20	88.159	87.912	87.387	83.642	82.6	83.841	80.62	78.272	79.792	79.897
	21..24	78.382	78.606	79.603	80.165						
Upper Containment	1..10	71.69	79.33	78.378	75.744	78.726	76.059	76.016	75.952	75.393	75.981
	11..13	76.092	76.195	76.152							
Ice Condenser	1..10	20.538	20.738	19.88	19.583	19.877	19.646	20.423	19.861	22.103	22.148
	11..15	17.281	16.681	16.405	16.77	17.083					

Reading # 147 - Mar 17 22:46:21

Pressures (PSIA)

Lower Containment	1.. 1	29.49									
Upper Containment	1.. 1	29.497									
Ice Condenser	1.. 1	29.501									

Dew Points (°F)

Lower Containment	1.. 2	44.646	40.029								
Upper Containment	1.. 2	46.974	46.461								
Ice Condenser	1.. 2	20.05	25.053								

Temperatures (°F)

Lower Containment	1..10	70.296	79.147	79.319	79.437	79.401	75.904	75.754	76.441	77.724	88.07
	11..20	88.14	87.902	87.452	83.577	82.567	83.865	80.328	78.272	79.769	79.92
	21..24	78.382	78.606	79.622	80.156						
Upper Containment	1..10	71.69	79.538	78.378	75.819	78.801	76.064	76.113	76.059	75.403	76.014
	11..13	76.05	76.163	76.166							
Ice Condenser	1..10	20.345	20.577	19.837	19.671	20.574	19.658	20.37	20.085	22.016	21.45
	11..15	17.236	16.702	16.372	16.779	17.083					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 148 - Mar 17 22:56:21

Pressures (PSIA)

Lower Containment	1.. 1	29.488									
Upper Containment	1.. 1	29.491									
Ice Condenser	1.. 1	29.498									

Dew Points (°F)

Lower Containment	1.. 2	44.612	40.009								
Upper Containment	1.. 2	46.92	46.423								
Ice Condenser	1.. 2	19.105	25.072								

Temperatures (°F)

Lower Containment	1..10	70.296	79.119	79.37	79.405	79.411	75.904	75.768	76.441	77.71	88.088
	11..20	88.149	87.888	87.42	83.6	82.558	83.879	80.281	78.272	79.801	79.897
	21..24	78.382	78.606	79.692	80.175						
Upper Containment	1..10	71.69	79.659	78.369	75.777	78.388	76.036	76.039	75.943	75.449	75.991
	11..13	76.101	76.153	76.176							
Ice Condenser	1..10	20.399	20.556	19.794	19.594	20.305	19.507	20.466	20.366	21.823	21.288
	11..15	17.301	16.713	16.414	16.79	17.094					

Reading # 149 - Mar 17 23:06:22

Pressures (PSIA)

Lower Containment	1.. 1	29.489									
Upper Containment	1.. 1	29.498									
Ice Condenser	1.. 1	29.505									

Dew Points (°F)

Lower Containment	1.. 2	44.626	40.024								
Upper Containment	1.. 2	46.862	46.384								
Ice Condenser	1.. 2	18.903	25.086								

Temperatures (°F)

Lower Containment	1..10	70.306	79.138	79.319	79.372	79.364	75.918	75.726	76.451	77.701	88.111
	11..20	88.131	87.888	87.434	83.614	82.59	83.809	80.249	78.296	79.801	79.93
	21..24	78.359	78.597	79.636	80.133						
Upper Containment	1..10	71.713	79.636	78.369	75.791	78.379	76.045	76.09	76.082	75.426	76.005
	11..13	76.134	76.172	76.208							
Ice Condenser	1..10	20.311	20.695	20.238	19.514	20.042	19.415	20.623	20.617	21.733	21.209
	11..15	17.307	16.719	16.432	16.808	17.121					

Reading # 150 - Mar 17 23:16:22

Pressures (PSIA)

Lower Containment	1.. 1	29.49									
Upper Containment	1.. 1	29.498									
Ice Condenser	1.. 1	29.499									

Dew Points (°F)

Lower Containment	1.. 2	44.43	39.945								
Upper Containment	1.. 2	46.836	46.337								
Ice Condenser	1.. 2	18.785	25.067								

Temperatures (°F)

Lower Containment	1..10	70.306	79.138	79.328	79.428	79.462	75.918	75.735	76.465	77.724	88.06
	11..20	88.098	88.009	87.41	83.591	82.59	83.879	80.671	78.296	79.811	79.92
	21..24	78.382	78.597	79.58	80.156						
Upper Containment	1..10	71.713	79.566	78.369	75.791	78.518	76.143	76.113	75.952	75.435	76.056
	11..13	76.157	76.241	76.199							
Ice Condenser	1..10	20.173	20.361	20.453	19.482	19.849	19.319	20.708	20.307	22.043	21.133
	11..15	17.296	16.719	16.432	16.808	17.121					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 151 - Mar 17 23:26:22

Pressures (PSIA)

Lower Containment	1.. 1	29.491	
Upper Containment	1.. 1	29.487	
Ice Condenser	1.. 1	29.494	

Dew Points (°F)

Lower Containment	1.. 2	44.417	40.011
Upper Containment	1.. 2	46.763	46.292
Ice Condenser	1.. 2	18.601	25.093

Temperatures (°F)

Lower Containment	1..10	70.306	79.203	79.337	79.493	79.541	75.928	75.809	76.474	77.71	88.102
	11..20	88.14	87.912	87.443	83.633	82.665	83.823	80.815	78.309	79.801	79.939
	21..24	78.392	78.583	79.538	80.165						
Upper Containment	1..10	71.722	79.45	78.369	75.819	78.898	76.166	76.308	75.985	75.5	76.102
	11..13	76.078	76.228	76.185							
Ice Condenser	1..10	20.13	20.565	20.726	19.433	19.684	19.184	20.605	20.119	22.092	21.084
	11..15	17.312	16.724	16.363	16.824	17.137					

Reading # 152 - Mar 17 23:36:23

Pressures (PSIA)

Lower Containment	1.. 1	29.483	
Upper Containment	1.. 1	29.491	
Ice Condenser	1.. 1	29.502	

Dew Points (°F)

Lower Containment	1.. 2	44.41	39.918
Upper Containment	1.. 2	46.724	46.231
Ice Condenser	1.. 2	18.745	25.204

Temperatures (°F)

Lower Containment	1..10	70.306	79.161	79.351	79.484	79.462	75.937	75.791	76.474	77.734	88.088
	11..20	88.173	87.921	87.452	83.591	82.688	83.883	80.379	78.309	79.801	79.93
	21..24	78.401	78.606	79.622	80.165						
Upper Containment	1..10	71.736	79.501	78.369	75.833	78.42	76.12	76.127	75.994	75.491	76.056
	11..13	76.166	76.186	76.199							
Ice Condenser	1..10	20.161	21.038	20.973	19.83	19.661	19.121	20.477	19.989	21.803	21.374
	11..15	17.397	16.744	16.372	16.832	17.148					

Reading # 153 - Mar 17 23:46:23

Pressures (PSIA)

Lower Containment	1.. 1	29.487	
Upper Containment	1.. 1	29.489	
Ice Condenser	1.. 1	29.494	

Dew Points (°F)

Lower Containment	1.. 2	44.391	39.768
Upper Containment	1.. 2	46.718	46.174
Ice Condenser	1.. 2	18.798	25.152

Temperatures (°F)

Lower Containment	1..10	70.324	79.161	79.337	79.447	79.429	75.946	75.777	76.483	77.724	88.079
	11..20	88.173	87.977	87.42	83.614	82.795	83.879	80.49	78.319	79.824	79.93
	21..24	78.401	78.597	79.678	80.156						
Upper Containment	1..10	71.722	79.566	78.369	75.833	78.921	76.199	76.136	76.05	75.467	76.046
	11..13	76.213	76.218	76.208							
Ice Condenser	1..10	20.15	21.338	20.78	20.087	19.811	19.068	20.392	19.861	21.78	21.793
	11..15	17.269	16.756	16.383	16.855	17.148					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 154 - Mar 17 23:56:23

Pressures (PSIA)

Lower Containment	1.. 1	29.484	
Upper Containment	1.. 1	29.493	
Ice Condenser	1.. 1	29.501	

Dew Points (°F)

Lower Containment	1.. 2	44.279	39.839
Upper Containment	1.. 2	46.646	46.141
Ice Condenser	1.. 2	18.678	25.237

Temperatures (°F)

Lower Containment	1..10	70.338	79.203	79.37	79.502	79.541	75.96	75.8	76.483	77.757	88.125
	11..20	88.205	87.87	87.452	83.698	82.73	83.841	80.815	78.319	79.801	79.93
	21..24	78.41	78.597	79.603	80.165						
Upper Containment	1..10	71.699	79.404	78.355	75.809	78.615	76.134	76.113	75.994	75.481	76.088
	11..13	76.148	76.209	76.227							
Ice Condenser	1..10	20.096	20.79	20.307	20.259	19.984	19.003	20.316	19.764	21.899	22.361
	11..15	17.377	16.756	16.394	16.855	17.157					

Reading # 155 - Mar 18 00:06:24

Pressures (PSIA)

Lower Containment	1.. 1	29.484	
Upper Containment	1.. 1	29.488	
Ice Condenser	1.. 1	29.497	

Dew Points (°F)

Lower Containment	1.. 2	44.26	39.957
Upper Containment	1.. 2	46.594	46.102
Ice Condenser	1.. 2	18.575	25.225

Temperatures (°F)

Lower Containment	1..10	70.357	79.194	79.337	79.512	79.559	75.96	75.833	76.492	77.766	88.135
	11..20	88.159	87.902	87.489	83.698	82.925	83.883	80.834	78.351	79.834	79.948
	21..24	78.433	78.606	79.617	80.175						
Upper Containment	1..10	71.699	79.265	78.346	75.851	78.921	76.12	76.104	75.975	75.491	76.102
	11..13	76.213	76.241	76.24							
Ice Condenser	1..10	20.623	20.716	20.2	20.687	19.854	18.929	20.231	19.668	22.103	21.568
	11..15	17.42	16.767	16.459	16.875	17.168					

Reading # 156 - Mar 18 00:16:24

Pressures (PSIA)

Lower Containment	1.. 1	29.486	
Upper Containment	1.. 1	29.487	
Ice Condenser	1.. 1	29.494	

Dew Points (°F)

Lower Containment	1.. 2	44.324	39.761
Upper Containment	1.. 2	46.56	46.049
Ice Condenser	1.. 2	18.476	25.185

Temperatures (°F)

Lower Containment	1..10	70.357	79.161	79.379	79.526	79.55	75.96	75.809	76.492	77.766	88.158
	11..20	88.214	87.837	87.443	83.675	82.753	83.883	80.565	78.337	79.824	79.948
	21..24	78.433	78.606	79.594	80.198						
Upper Containment	1..10	71.722	79.483	78.355	75.833	78.652	76.11	76.183	75.985	75.523	76.13
	11..13	76.125	76.241	76.24							
Ice Condenser	1..10	21.077	20.664	20.11	20.896	19.722	18.901	20.172	19.629	22.097	21.454
	11..15	17.404	16.782	16.463	16.882	17.195					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 157 - Mar 18 00:26:24

Pressures (PSIA)

Lower Containment	1.. 1	29.484	
Upper Containment	1.. 1	29.488	
Ice Condenser	1.. 1	29.495	

Dew Points (°F)

Lower Containment	1.. 2	44.258	39.584
Upper Containment	1.. 2	46.488	45.996
Ice Condenser	1.. 2	18.804	25.197

Temperatures (°F)

Lower Containment	1..10	70.357	79.147	79.36	79.47	79.462	75.969	75.833	76.506	77.757	88.144
	11..20	88.205	87.912	87.466	83.656	82.851	83.883	80.425	78.337	79.792	79.939
	21..24	78.424	78.606	79.571	80.175						
Upper Containment	1..10	71.736	79.678	78.355	75.851	78.606	76.157	76.201	76.017	75.523	76.079
	11..13	76.199	76.251	76.25							
Ice Condenser	1..10	21.389	20.664	20.072	20.291	19.672	18.895	20.146	19.636	22.123	21.364
	11..15	17.377	16.787	16.491	16.897	17.18					

Reading # 158 - Mar 18 00:36:25

Pressures (PSIA)

Lower Containment	1.. 1	29.483	
Upper Containment	1.. 1	29.495	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	44.167	39.728
Upper Containment	1.. 2	46.475	45.988
Ice Condenser	1.. 2	19.729	25.197

Temperatures (°F)

Lower Containment	1..10	70.357	79.203	79.393	79.502	79.573	75.979	75.842	76.516	77.78	88.158
	11..20	88.205	87.958	87.499	83.675	82.851	83.93	80.806	78.337	79.824	79.948
	21..24	78.424	78.615	79.58	80.212						
Upper Containment	1..10	71.722	79.306	78.355	75.907	78.986	76.199	76.146	76.05	75.467	76.111
	11..13	76.101	76.228	76.227							
Ice Condenser	1..10	20.861	20.512	20.007	20.033	20.251	19.088	20.242	19.722	21.568	21.268
	11..15	17.408	16.798	16.479	16.897	17.202					

Reading # 159 - Mar 18 00:46:25

Pressures (PSIA)

Lower Containment	1.. 1	29.483	
Upper Containment	1.. 1	29.491	
Ice Condenser	1.. 1	29.496	

Dew Points (°F)

Lower Containment	1.. 2	44.060	39.616
Upper Containment	1.. 2	46.416	45.931
Ice Condenser	1.. 2	20.733	25.296

Temperatures (°F)

Lower Containment	1..10	70.38	79.203	79.379	79.512	79.485	75.979	75.833	76.53	77.757	88.158
	11..20	88.228	87.902	87.489	83.642	82.707	83.907	80.435	78.328	79.834	79.976
	21..24	78.443	78.601	79.566	80.184						
Upper Containment	1..10	71.75	79.566	78.365	75.902	78.569	76.115	76.197	76.077	75.505	76.097
	11..13	76.227	76.269	76.268							
Ice Condenser	1..10	20.684	20.541	19.922	20.076	20.809	19.485	20.746	19.861	21.341	21.127
	11..15	17.439	16.809	16.468	16.908	17.211					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 160 - Mar 18 00:56:26

Pressures (PSIA)

Lower Containment	1.. 1	29.486	
Upper Containment	1.. 1	29.485	
Ice Condenser	1.. 1	29.492	

Dew Points (°F)

Lower Containment	1.. 2	44.049	39.544
Upper Containment	1.. 2	46.402	45.904
Ice Condenser	1.. 2	21.485	25.289

Temperatures (°F)

Lower Containment	1..10	70.38	79.235	79.393	79.502	79.55	75.979	75.851	76.539	77.78	88.144
	11..20	88.247	87.87	87.466	83.712	82.86	83.976	80.75	78.319	79.811	79.962
	21..24	78.433	78.606	79.548	80.221						
Upper Containment	1..10	71.736	79.376	78.355	75.874	78.671	76.199	76.16	76.073	75.509	76.056
	11..13	76.19	76.251	76.264							
Ice Condenser	1..10	20.408	20.458	19.826	20.013	21.172	20.183	21.151	19.937	21.46	21.084
	11..15	17.408	16.841	16.468	16.92	17.222					

Reading # 161 - Mar 18 01:06:26

Pressures (PSIA)

Lower Containment	1.. 1	29.486	
Upper Containment	1.. 1	29.485	
Ice Condenser	1.. 1	29.491	

Dew Points (°F)

Lower Containment	1.. 2	44.016	39.662
Upper Containment	1.. 2	46.345	45.866
Ice Condenser	1.. 2	22.634	25.277

Temperatures (°F)

Lower Containment	1..10	70.403	79.235	79.416	79.558	79.615	75.993	75.865	76.539	77.766	88.144
	11..20	88.205	87.861	87.475	83.73	82.665	83.93	80.904	78.36	79.834	79.971
	21..24	78.457	78.597	79.562	80.221						
Upper Containment	1..10	71.745	79.353	78.346	75.907	78.833	76.199	76.201	76.008	75.481	76.176
	11..13	76.176	76.241	76.264							
Ice Condenser	1..10	20.237	20.33	19.725	19.825	20.728	21.517	21.532	20.027	21.7	21.133
	11..15	17.466	16.816	16.486	16.935	17.238					

Reading # 162 - Mar 18 01:16:27

Pressures (PSIA)

Lower Containment	1.. 1	29.478	
Upper Containment	1.. 1	29.487	
Ice Condenser	1.. 1	29.499	

Dew Points (°F)

Lower Containment	1.. 2	44.016	39.695
Upper Containment	1.. 2	46.292	45.8
Ice Condenser	1.. 2	22.772	25.315

Temperatures (°F)

Lower Containment	1..10	70.412	79.268	79.393	79.6	79.624	75.993	75.851	76.548	77.789	88.19
	11..20	88.205	87.986	87.499	83.721	82.99	83.907	80.857	78.36	79.824	79.995
	21..24	78.466	78.615	79.594	80.189						
Upper Containment	1..10	71.736	79.418	78.346	75.874	78.726	76.208	76.146	76.031	75.532	76.167
	11..13	76.245	76.251	76.273							
Ice Condenser	1..10	20.141	20.341	19.687	19.744	20.787	21.19	21.377	20.15	21.76	21.095
	11..15	17.482	16.832	16.502	16.951	17.256					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 163 - Mar 18 01:26:27

Pressures (PSIA)

Lower Containment	1.. 1	29.484									
Upper Containment	1.. 1	29.484									
Ice Condenser	1.. 1	29.49									

Dew Points (°F)

Lower Containment	1.. 2	44.003	39.597								
Upper Containment	1.. 2	46.259	45.754								
Ice Condenser	1.. 2	21.506	25.284								

Temperatures (°F)

Lower Containment	1..10	70.412	79.259	79.425	79.609	79.615	76.016	75.897	76.548	77.789	88.209
	11..20	88.149	87.87	87.499	83.73	82.851	83.92	80.931	78.36	79.848	79.995
	21..24	78.466	78.629	79.548	80.254						
Upper Containment	1..10	71.755	79.223	78.346	75.948	78.791	76.157	76.127	76.04	75.509	76.176
	11..13	76.231	76.26	76.282							
Ice Condenser	1..10	20.087	20.319	20.339	19.744	20.509	20.784	21.088	20.096	21.877	21.095
	11..15	17.473	16.883	16.522	16.971	17.256					

Reading # 164 - Mar 18 01:36:27

Pressures (PSIA)

Lower Containment	1.. 1	29.482									
Upper Containment	1.. 1	29.483									
Ice Condenser	1.. 1	29.49									

Dew Points (°F)

Lower Containment	1.. 2	43.918	39.525								
Upper Containment	1.. 2	46.212	45.727								
Ice Condenser	1.. 2	19.336	25.369								

Temperatures (°F)

Lower Containment	1..10	70.412	79.268	79.435	79.609	79.671	76.016	75.921	76.571	77.789	88.158
	11..20	88.238	87.888	87.452	83.777	82.883	83.981	81.052	78.36	79.824	80.004
	21..24	78.48	78.629	79.571	80.212						
Upper Containment	1..10	71.745	79.2	78.346	75.948	79.288	76.273	76.16	75.994	75.556	76.153
	11..13	76.231	76.292	76.296							
Ice Condenser	1..10	20.118	20.33	20.812	19.691	20.197	20.257	20.82	20.011	21.715	20.913
	11..15	17.504	16.928	16.491	16.982	17.2.5					

Reading # 165 - Mar 18 01:46:28

Pressures (PSIA)

Lower Containment	1.. 1	29.482									
Upper Containment	1.. 1	29.481									
Ice Condenser	1.. 1	29.488									

Dew Points (°F)

Lower Containment	1.. 2	43.963	39.53								
Upper Containment	1.. 2	46.173	45.674								
Ice Condenser	1.. 2	19.178	25.36								

Temperatures (°F)

Lower Containment	1..10	70.422	79.3	79.435	79.656	79.624	76.025	75.948	76.571	77.799	88.19
	11..20	88.182	87.879	87.517	83.777	82.841	83.976	81.261	78.36	79.848	80.004
	21..24	78.48	78.615	79.603	80.23						
Upper Containment	1..10	71.755	79.209	78.346	75.948	78.931	76.282	76.234	76.017	75.556	76.176
	11..13	76.222	76.269	76.296							
Ice Condenser	1..10	20.087	20.373	20.973	19.66	20.038	19.871	20.681	19.903	21.78	21.171
	11..15	17.504	16.937	16.511	16.982	17.276					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 166 - Mar 18 01:56:28

Pressures (PSIA)

Lower Containment	1.. 1	29.487									
Upper Containment	1.. 1	29.484									
Ice Condenser	1.. 1	29.49									

Dew Points (°F)

Lower Containment	1.. 2	43.97	39.44								
Upper Containment	1.. 2	46.148	45.65								
Ice Condenser	1.. 2	19.054	25.388								

Temperatures (°F)

Lower Containment	1..10	70.436	79.324	79.458	79.656	79.638	76.016	75.962	76.581	77.822	88.223
	11..20	88.228	87.935	87.466	83.777	83.004	83.976	81.024	78.37	79.875	80.004
	21..24	78.498	78.629	79.636	80.263						
Upper Containment	1..10	71.745	79.279	78.346	75.939	78.931	76.263	76.201	76.017	75.546	76.2
	11..13	76.199	76.283	76.282							
Ice Condenser	1..10	20.096	20.384	20.585	19.594	19.93	19.635	20.551	19.883	21.899	21.311
	11..15	17.601	16.937	16.575	17.005	17.276					

Reading # 167 - Mar 18 02:06:29

Pressures (PSIA)

Lower Containment	1.. 1	29.482									
Upper Containment	1.. 1	29.481									
Ice Condenser	1.. 1	29.487									

Dew Points (°F)

Lower Containment	1.. 2	43.865	39.361								
Upper Containment	1.. 2	46.094	45.598								
Ice Condenser	1.. 2	18.844	25.355								

Temperatures (°F)

Lower Containment	1..10	70.445	79.291	79.416	79.591	79.615	76.025	75.962	76.581	77.831	88.176
	11..20	88.173	87.912	87.517	83.763	82.827	83.962	80.541	78.37	79.866	80.004
	21..24	78.48	78.615	79.622	80.23						
Upper Containment	1..10	71.755	79.613	78.346	75.939	78.555	76.24	76.354	76.138	75.546	76.153
	11..13	76.231	76.306	76.319							
Ice Condenser	1..10	20.311	20.254	20.104	19.521	19.822	19.496	20.499	19.892	22.412	22.491
	11..15	17.612	16.959	16.609	17.016	17.299					

Reading # 168 - Mar 18 02:16:29

Pressures (PSIA)

Lower Containment	1.. 1	29.483									
Upper Containment	1.. 1	29.483									
Ice Condenser	1.. 1	29.489									

Dew Points (°F)

Lower Containment	1.. 2	43.839	39.302								
Upper Containment	1.. 2	46.068	45.557								
Ice Condenser	1.. 2	18.706	25.447								

Temperatures (°F)

Lower Containment	1..10	70.445	79.3	79.467	79.581	79.615	76.025	75.939	76.594	77.799	88.223
	11..20	88.256	87.986	87.475	83.777	82.86	84.004	80.88	78.337	79.848	80.018
	21..24	78.48	78.629	79.617	80.221						
Upper Containment	1..10	71.755	79.353	78.346	75.939	78.833	76.296	76.243	76.105	75.523	76.167
	11..13	76.213	76.292	76.319							
Ice Condenser	1..10	21.335	20.308	19.891	19.433	19.695	19.377	20.455	19.946	22.574	23.005
	11..15	17.516	16.971	16.63	16.982	17.299					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 169 - Mar 18 02:26:29

Pressures (PSIA)

Lower Containment	1.. 1	29.476
Upper Containment	1.. 1	29.485
Ice Condenser	1.. 1	29.493

Dew Points (°F)

Lower Containment	1.. 2	43.735	39.217
Upper Containment	1.. 2	46.004	45.518
Ice Condenser	1.. 2	18.594	25.414

Temperatures (°F)

Lower Containment	1..10	70.445	79.291	79.458	79.535	79.55	76.025	75.948	76.604	77.808	88.232
	11..20	88.196	87.935	87.489	83.777	82.962	84.004	80.416	78.37	79.875	80.018
	21..24	78.489	78.615	79.58	80.221						
Upper Containment	1..10	71.755	79.636	78.337	75.948	78.485	76.175	76.378	76.04	75.546	76.167
	11..13	76.264	76.306	76.319							
Ice Condenser	1..10	21.678	20.308	19.783	19.328	19.576	19.272	20.412	19.960	22.467	23.221
	11..15	17.632	16.971	16.694	17.016	17.319					

Reading # 170 - Mar 18 02:36:30

Pressures (PSIA)

Lower Containment	1.. 1	29.48
Upper Containment	1.. 1	29.479
Ice Condenser	1.. 1	29.486

Dew Points (°F)

Lower Containment	1.. 2	43.715	39.056
Upper Containment	1.. 2	45.8	45.276
Ice Condenser	1.. 2	18.798	25.407

Temperatures (°F)

Lower Containment	1..10	70.445	79.3	79.416	79.544	79.541	76.034	75.907	76.627	77.831	88.209
	11..20	88.196	87.958	87.55	83.754	82.948	83.962	80.695	78.36	79.834	80.004
	21..24	78.466	78.638	79.571	80.212						
Upper Containment	1..10	71.755	79.636	78.337	75.962	78.801	76.199	76.331	76.105	75.546	76.167
	11..13	76.343	76.306	76.347							
Ice Condenser	1..10	21.077	20.245	19.88	19.359	19.545	19.249	20.392	19.957	22.543	22.157
	11..15	17.912	16.982	16.811	17.005	17.319					

Reading # 171 - Mar 18 02:46:30

Pressures (PSIA)

Lower Containment	1.. 1	29.484
Upper Containment	1.. 1	29.482
Ice Condenser	1.. 1	29.487

Dew Points (°F)

Lower Containment	1.. 2	43.657	39.237
Upper Containment	1.. 2	45.947	45.455
Ice Condenser	1.. 2	18.642	25.37

Temperatures (°F)

Lower Containment	1..10	70.459	79.324	79.467	79.6	79.657	76.044	75.939	76.627	77.822	88.223
	11..20	88.247	87.935	87.587	83.777	82.906	84.027	81.066	78.337	79.866	80.036
	21..24	78.498	78.638	79.617	80.221						
Upper Containment	1..10	71.755	79.288	78.337	75.962	78.726	76.254	76.201	76.096	75.532	76.186
	11..13	76.296	76.334	76.305							
Ice Condenser	1..10	20.657	20.503	20.104	19.402	19.607	19.207	20.37	19.937	22.242	21.751
	11..15	18.051	16.991	16.694	17.016	17.319					

Calibrated Instrument Data

Catawba Nuclear Station
Unit 2

Reading # 172 - Mar 18 02:56:30

Pressures (PSIA)

Lower Containment	1.. 1	29.481									
Upper Containment	1.. 1	29.479									
Ice Condenser	1.. 1	29.489									

Dew Points (°F)

Lower Containment	1.. 2	43.708	39.217								
Upper Containment	1.. 2	45.898	45.42								
Ice Condenser	1.. 2	18.589	25.361								

Temperatures (°F)

Lower Containment	1..10	70.468	79.342	79.467	79.679	79.671	76.044	75.948	76.627	77.831	88.176
	11..20	88.27	87.912	87.587	83.795	83.013	84.018	81.108	78.36	79.866	80.027
	21..24	78.498	78.638	79.58	80.263						
Upper Containment	1..10	71.778	79.376	78.337	75.995	78.972	76.231	76.266	76.031	75.556	76.251
	11..13	76.264	76.357	76.338							
Ice Condenser	1..10	20.614	20.642	20.296	19.98	20.069	19.142	20.307	19.85	22.166	21.568
	11..15	18.029	17.002	16.706	17.025	17.33					

Sensor Information

Catawba Nuclear Station
Unit 2

Lower Containment

Pressure

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	20		1.000000	0.00000000	10.00000000	0.00000000	-	-

Dew Points

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	1		0.500000	-85.00000000	11250.00000000	0.00000000	-	-
2	2		0.500000	-85.00000000	11250.00000000	0.00000000	-	-

Temperatures

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	101	SNPRF40737	0.052800	-409.59170000	4.23051100	0.00188736	-	-
2	102	SNPRF40738	0.053000	-409.59780000	4.23213000	0.00187600	-	-
3	103	SNPRF40116	0.053000	-409.17020000	4.22782400	0.00188288	-	-
4	104	SNPRF40747	0.053000	-409.59320000	4.22973400	0.00188799	-	-
5	105	SNPRF40399	0.053000	-409.17680000	4.22611100	0.00187980	-	-
6	106	SNPRF40164	0.032700	-409.72980000	4.23794600	0.00182486	-	-
7	107	SNPRF40172	0.032700	-409.51800000	4.23247300	0.00182489	-	-
8	108	SNPRF40131	0.032700	-409.13120000	4.22667400	0.00189094	-	-
9	109	SNPRF40741	0.032700	-409.48370000	4.22919400	0.00189469	-	-
10	110	SNPFR40140	0.053000	-409.15440000	4.22547300	0.00187835	-	-
11	111	SNPRF40744	0.053000	-409.98110000	4.238[illegible]1300	0.00184987	-	-
12	112	SNPRF40152	0.053000	-409.16530000	4.22229900	0.00186136	-	-
13	113	SNPRF40126	0.053000	-409.04120000	4.22435900	0.00188823	-	-
14	114	SNPRF40159	0.053000	-409.53890000	4.23049700	0.00184880	-	-
15	115	SNPRF40148	0.053000	-408.49850000	4.21578600	0.00193816	-	-
16	116	SNPRF40135	0.053000	-409.26750000	4.23081300	0.00186117	-	-
17	117	SNPRF40145	0.053000	-408.42920000	4.21351000	0.00194464	-	-
18	118	SNPRF40156	0.012000	-409.19680000	4.22451900	0.00186935	-	-
19	119	SNPRF40136	0.010100	-409.24530000	4.23017800	0.00186120	-	-
20	120	SNPRF40167	0.011600	-408.57220000	4.21506700	0.00191606	-	-
21	121	SNPRF40160	0.011600	-408.82850000	4.22225600	0.00188926	-	-
22	125	SNPRF40143	0.053300	-409.18310000	4.22891000	0.00187043	-	-
23	126	SNPRF40742	0.041900	-409.94110000	4.23606200	0.00186065	-	-
24	127	SNPRF40122	0.039900	-405.34920000	4.15842700	0.00218859	-	-

Sensor Information

Catawba Nuclear Station
Unit 2

Upper Containment

Pressure

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	21		1.000000	0.00000000	10.00000000	0.00000000	-	-

Dew Points

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	3		0.500000	-85.00000000	11250.00000000	0.00000000	-	-
2	4		0.500000	-85.00000000	11250.00000000	0.00000000	-	-

Temperatures

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	122	SNPRF40391	0.020000	-409.37860000	4.23020100	0.00185571	-	-
2	123	SNPRF40146	0.059000	-409.24680000	4.22936400	0.00186770	-	-
3	124	SNPRF40128	0.045000	-409.08770000	4.22377500	0.00188774	-	-
4	128	SNPRF40123	0.059000	-409.28430000	4.22995100	0.00186711	-	-
5	129	SNPRF40129	0.059000	-409.13830000	4.22473200	0.00188323	-	-
6	130	SNPRF40138	0.059000	-409.32440000	4.22947100	0.00186281	-	-
7	131	SNPRF40120	0.059000	-409.09910000	4.22568000	0.00189706	-	-
8	132	SNPRF40169	0.115000	-409.11680000	4.22327900	0.00186993	-	-
9	133	SNPRF40142	0.115000	-409.59260000	4.23420000	0.00185183	-	-
10	134	SNPRF40132	0.110000	-409.16220000	4.22597100	0.00189488	-	-
11	135	SNPRF40117	0.110000	-408.84230000	4.21767300	0.00192959	-	-
12	136	SNPRF40168	0.095000	-409.39050000	4.22933600	0.00186038	-	-
13	137	SNPRF40171	0.095000	-409.06290000	4.22181200	0.00188469	-	-

Sensor Information

Catawba Nuclear Station
Unit 2

Ice Condenser

Pressure

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	22		1.000000	0.00000000	10.00000000	0.00000000	-	-

Dew Points

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	5		0.500000	-85.00000000	11250.00000000	0.00000000	-	-
2	6		0.500000	-85.00000000	11250.00000000	0.00000000	-	-

Temperatures

NUM	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	138	SNPRF40119	0.057200	-409.47120000	4.23151000	0.00186776	-	-
2	139	SNPRF40157	0.057200	-409.29920000	4.22716700	0.00185530	-	-
3	140	SNPRF40166	0.057200	-409.41490000	4.23011800	0.00183906	-	-
4	141	SNPRF40154	0.057200	-409.17300000	4.22410100	0.00186228	-	-
5	142	SNPRF40170	0.057200	-409.35020000	4.22889900	0.00186477	-	-
6	143	SNPRF40163	0.057200	-409.43810000	4.23101500	0.00186425	-	-
7	144	SNPRF40174	0.057200	-408.95490000	4.21939000	0.00188697	-	-
8	145	SNPRF40144	0.057200	-409.43560000	4.22903500	0.00188211	-	-
9	146	SNPRF40151	0.057200	-409.66100000	4.23416800	0.00182393	-	-
10	147	SNPRF40133	0.057200	-409.19900000	4.22705200	0.00189457	-	-
11	148	SNPRF40165	0.085600	-408.70240000	4.21513300	0.00193066	-	-
12	149	SNPRF40147	0.085600	-409.33880000	4.23045200	0.00185533	-	-
13	150	SNPRF40150	0.085600	-408.75350000	4.21872400	0.00191082	-	-
14	151	SNPRF40386	0.085600	-409.14060000	4.22413000	0.00187226	-	-
15	152	SNPRF40382	0.085600	-408.69250000	4.21751700	0.00191262	-	-