REACTOR CONTAINMENT BUILDING INTEGRATED LEAK RATE TEST

INCLUDING TYPE A, B AND C
PERIODIC TEST RESULTS

DAVIS- BESSE
NUCLEAR POWER STATION
OAK HARBOR, OHIO
TOLEDO EDISON COMPANY

DOCKET NO. 50-346
OPERATING LICENSE NO. NPF-3

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PREPARED BY

WILLIAM D. ROMAN
SOUTHWEST POWER CONSULTANTS
INCORPORATED
CAVE CREEK, ARIZONA

SOUTHWEST POWER CONSULTANTS, INC.

TABLE OF CONTENTS

I. INTRODUCTION

A periodic Type "A" Integrated Leak Rate Test (ILRT) was performed on the containment structure of the Toledo Edison Company's Davis-Besse Nuclear Power Station (DBNPS) pressurized water reactor in October of 1991. The results of this test were analyzed utilizing the "Total-Time" method. This test was performed for a period of 6.2 hours at a pressure equal to or greater than the calculated peak containment internal pressure related to the design bases accident and specified in the Technical Specifications. This report describes and presents the results of this periodic Type A test including the supplemental test method utilized for verification (Controlled Leak Rate Test or CLRT).

The test results are reported in accordance with the requirements of 10 CFR 50, Appendix J, Section V.B.2., ANSI N45.4-1972 and the intent of ANSI/ANS-56.8-1987.

In addition, Type "B" and "C" test results performed since the last Type "A" test are included in this report (Appendix B) in accordance with the requirements of 10 CFR 50, Appendix J, Section V.B.3.

II. SUMMARY

Prior to performance of the ILRT, Local Leak Rate Tests (LLRTs), were performed to verify containment integrity. These Type "B" and Type "C" tests were performed on containment electrical penetrations, mechanical penetrations, containment isolation valves, fuel transfer tubes, equipment hatch, and air locks. The acceptance criteria for the LLRTs is that the total leakage does not exceed 0.60 (L_a) where L_a is the maximum allowable leakage rat at pressure P_a (peak accident pressure) stated as a percent of containment free volume per day (24 hours). The total leakage from these tests was well within this limit, and the results are presented in the official copies of the associated Type B and C surveillance test procedures, DB-PF-03008 (Containment Vessel Local Leakage Rate Test), which are on file at the DBNPS.

At the start of the ILRT, all valves were in their normal position for accident conditions. Exceptions to this valve line-up were identified in the official copy of acceptance test procedure DB-PF-10309 (Containment Integrated Leakage Rate Test), w'ich is also on file at the DBNPS.

II. SUMMARY (Continued)

The first order least-squares fit analysis of the data utilizing the Total-Time method yielded a leak rate of 0.022770% per day with a 95% upper confidence limit of 0.061169% per day. These values are well within the allowable limit of 0.375% per day.

III. TEST DISCUSSION

A. Description of Containment

The containment for the station consists of three basic structures: a steel Containment Vessel, a reinforced concrete Shield Building, and the internal structures. The Containment Vessel is a cylindrical steel pressure vessel with hemispherical dome and ellipsoidal bottom which houses the reactor vessel, reactor coolant piping, pressurizer, pressurizer quench tank and coolers, reactor coolant pumps, steam generators, core flooding tanks, letdown coolers, and normal ventilating systems. It is completely enclosed by a reinforced concrete Shield Building having a cylindrical shape with a shallow dome roof. An annular space is provided between the wall of the Containment Vessel and the Shield Building. There are no structural ties between the Containment Vessel and the Shield Building above the foundation slab. Above this, there is unlimited freedom of differential movement between the Containment Vessel and the Shield Building. The containment internal structures are constructed of reinforced concrete and structural steel. These structures are isolated from the Containment Vessel by steel grating panels with sliding supports which allow free differential

A. Description of Containment (Continued)

movement between the internal structures and the vessel. The internal structures are supported by the massive concrete fill within the Containment Vessel bottom head.

The non-field stress relieved Containment Vessel was constructed in a two-stage operation and in a manner that conforms to the ASME Boiler and Pressure Vessel Code, Article 14, N-1411. The vessel inside diameter is 130 feet and the net free volume is approximately 2,834,000 ft^3. The cylindrical shell and bottom head thickness, exclusive of reinforced areas, is 1-1/2" with a dome thickness of 13/16". The 180-ton polar crane is supported from the cylindrical vessel shell by a 14' 6-1/2" deep by 5' 11" wide circular crane girder. Access to the containment is provided by an equipment hatch, a personnel air lock, and an emergency air lock. Electrical and mechanical penetrations are provided for services to the containment.

The Containment Vessel is capable of withstanding an external pressure differential of 0.50 psi in accordance with the ASME Boiler and Pressure Vessel Code, Section VIII, UG-28. The Containment Vessel is vented as required to eliminate pressure fluctuations caused

A. Description of Containment (Continued)

by air temperature changes during various operating modes. This is accomplished through ventilation purge connections which are normally closed while the reactor is in operation. Automatic vacuum relief devices are also used to prevent the Containment Vessel from exceeding the external design pressure in accordance with the requirements of the ASME Boiler and Pressure Vessel Code, Section III, Article 16. Multiple vacuum breakers are used to relieve pressure from the Shield Building into the containment in case the Containment Vessel is subjected to excess external pressure. These valves ensure that external pressure differential on the Containment Vessel does not exceed 0.50 psi.

The reinforced concrete Shield Building was designed in accordance with ACI 307-69, Specification for the Design and Construction of Reinforced Concrete Chimneys, and checked by the Ultimate Strength Design Method in accordance with ACI 318-63. Load combinations specified in ACI 307-69 provide the design basis of the Shield Building. The Shield Building is designed to provide biological shielding during normal operation and from hypothetical accident conditions. The building provides a means for collection and filtration of fission product leakage from the Containment

A. Description of Containment (Continued)

Vessel following a hypothetical accident through the Emergency Ventilation System, an engineered safety feature designed for that purpose. In addition, the building provides environmental protection for the Containment Vessel from adverse atmospheric conditions and external missiles. The Shield Building annulus volume is 678,700 ft^3. The Emergency Ventilation System limits the temperature induced pressure transients in the annular space to 6 inches H_2O during a loss of coolant accident (LOCA). Following the initial pressure transient, the annulus pressure is maintained between (-)1/4 and (-)1-1/2 inches water gauge.

The Containment Vessel is designed for the following temperature and pressure conditions:

- Maximum Internal Pressure - 40 psig
- Design Internal Pressure - 36 psig, 264°F maximum
- Leakage Rate Test Pressure - 38 psig
- Negative Pressure - 0.5 psig
- Service Metal Temperature - 30°F
- Maximum Operating Ambient Temperature - 120°F
- Maximum Operating Internal Temperature - 120°F
- Pneumatic Test Pressure is 1.25 Times the Design Pressure - 45 psig

B. Description of Instrumentation

A "state-of-the-art" ILRT instrumentation system was utilized to allow leak rate determination by the "Absolute Method". The primary measurement variables include containment pressure, relative humidity (dewpoint temperature), and dry-bulb temperature as a function of time. The Data Acquisition System or DAS utilized was a Fluke Model 2286. Two DAS devices were utilized with one as a primary while the second was available as a backup. Ancillary measurements include outside ambient temperature and barometric pressure. During the supplemental CLRT, containment verification (fixed-orifice) flow is also measured. Instrument readings were acquired at 15-minute intervals via a data acquisition system. The measurement system schematic is shown in Figure 3. The mass of air (Q) is calculated by the Ideal Gas Law as follows:

$$Q = \frac{P_a V}{RT} = \frac{(P_t - P_{wv}) V}{RT}$$

where: P_a = air partial pressure

V = free volume

R = gas constant

T = temperature

P_t = total pressure, psia

P_{wv} = water vapor pressure, psia

B. Description of Instrumentation (Continued)

1. Temperature Instrumentation

Thirty (30) Burns precision platinum resistance temperature detectors (RTDs) were located throughout containment (see Figures 1 and 2) for the determination of the volumetrically weighted average dry-bulb temperature. The specified accuracy of the RTDs is ± 0.5°F (60° to 130°F range).

2. Relative Humidity Instrumentation

Ten (10) Phys-Chem humidity sensors (RHDs) were located throughout the containment (see Figures 1 and 2) for the determination of the volumetrically weighted average relative humidity. The specified accuracy of each of the sensors is ± 2½% RH over a range of 0-100% RH.

3. Pressure Instrumentation

Two (2) Paroscientific precision quartz pressure transmitters (0-100 psia) were provided (see Figure 3) for the determination of containment absolute pressure. One pressure transmitter was utilized as a primary while the second was available as a backup. The specified accuracy of each of the transmitters is ± 0.02% of full scale.

B. Description of Instrumentation (Continued)

4. Flow Instrumentation

Two (2) Brooks full view rotameters with a range of 0 to 45 scfm were utilized during the supplemental CLRT for verification flow (see Figure 3). One rotameter was utilized as a primary while the second was available as a backup. The specified accuracy of each of the instruments is ± 2% of full scale.

5. Ancillary Instrumentation

The outside ambient temperature and barometric pressure were measured utilizing existing site meteorological instruments.

Instrument Sensor Location

Instrument Sensor No.	CTMT Volume Fraction	CTMT Zone	CTMT Azimuth	CTMT Elevation
TEMPERATURE				
RTD-1	0.036962	6	270°	785
RTD-2	0.036962	6	90°	785
RTD-3	0.036962	6	0°	773
RTD-4	0.036962	6	180°	773
RTD-5	0.036961	6	270°	761
RTD-6	0.036962	6	90°	761
RTD-7	0.037477	5	0°	736
RTD-8	0.037477	5	180°	736
RTD-9	0.037476	5	270°	724
RTD-10	0.037477	5	90°	724
RTD-11	0.037476	5	0°	712
RTD-12	0.037476	5	180°	712
RTD-13	0.037477	4	270°	689
RTD-14	0.037477	4	90°	689
RTD-15	0.037476	4	0°	677
RTD-16	0.037477	4	180°	677
RTD-17	0.037476	4	270°	665
RTD-18	0.037476	4	90°	665
RTD-19	0.033933	3	225°	636
RTD-20	0.033933	3	45°	636
RTD-21	0.033933	3	290°	628
RTD-22	0.033933	3	315°	628
RTD-23	0.033934	3	315°	619
RTD-24	0.033933	3	135°	619
RTD-25	0.020819	2	310°	594
RTD-26	0.020819	2	55°	594
RTD-27	0.020818	2	225°	575
RTD-28	0.020818	2	145°	575
RTD-29	0.020819	2	310°	575
RTD-30	0.020819	2	45°	575
RELATIVE HUMIDITY				
RHD-1	0.110886	6	0°	773
RHD-2	0.110885	6	180°	773
RHD-3	0.112430	5	270°	724
RHD-4	0.112429	5	90°	724
RHD-5	0.112430	4	0°	677
RHD-6	0.112429	4	180°	677
RHD-7	0.101799	3	225°	636
RHD-8	0.101800	3	45°	636
RHD-9	0.062456	2	310°	594
RHD-10	0.062456	2	55°	594
PRESSURE				
PT-A	0.500000	N/A	N/A	N/A
PT-B	0.500000	N/A	N/A	N/A

C. Description of Computer Program

The computer program utilized for the performance of the Davis-Besse ILRT is written entirely in C language. It is an interactive system that utilizes the Microsoft Windows operating environment. Windows provides a "shell" that allows programs to run within a window-based user environment and provides sufficient multi-tasking utilizing the latest PC software.

Windows allows multiple programs to operate simultaneously and communicate with each other. This allows the Data Acquisition System (DAS) program to communicate with the ILRT analysis program by passing data in memory and providing a "device independent" way to interface with output devices. Windows includes an intuitive user interface through the use of pull-down menus and provides multiple views of data simultaneously thus allowing real-time updating of displays. All calculations can be performed automatically and all graphs and displays can be updated immediately on the screen upon receipt of new data.

The ILRT program consists of two (2) separate programs. The main program called LEAK.EXE is a data analysis and reporting program. Its "personality" is derived from a

C. Description of Computer Program (Continued)

configuration file. The ILRT program contains the tools required to create and edit the configuration file. The second program called DATAQ.EXE controls and provides interface to the DAS. The main program communicates with the DAS internally through a Windows facility called Dynamic Data Exchange (DDE), allowing a standardized way of communicating while keeping the main program isolated from the actual details of data acquisition. The configuration file specifies all plant-specific information such as number of compartments or zones in containment, number of each type of sensor each compartment contains, individual sensor calibration constants, volume fractions, containment volume, etc. All configuration information is accessible within the program and easily accessed through standard Windows dialog boxes.

Prior to actual test performance, the program allows loop checkout and troubleshooting of data acquisition all the way from the sensor proper to the computer. This validates the configuration file and performs a consistency check. The configuration file validation is automatically performed upon initiation of data acquisition. Once pressurization begins, the Pressurization Monitor allows monitoring of pressurization

C. Description of Computer Program (Continued)

trends until test pressure is achieved. At this point, the Temperature Stabilization window is utilized and determines when stabilization is achieved. This function is formatted exactly like Appendix F of ANSI/ANS-56.8-1987. Once temperature stabilization is achieved, the ILRT start reading or sample number is selected and all leak rate calculations are performed up to the current reading. As subsequent data sets arrive, leak rate calculations are updated automatically. The leakage calculations are performed utilizing both Total-Time and Mass-Point methodologies with Total-Time calculations performed in accordance with BN-TOP-1. Edit provisions exist within this program for failed sensors, corresponding volume fraction redistribution, invalid data sets, etc. All calculations are updated automatically to reflect any changes of this type that are made. In conjunction with this, a continuous calculation of the Instrument Selection Guide (ISG) is performed during the test based upon test duration and number of sensors. This assures the ISG requirement is being met if test duration is reduced and/or unacceptable sensors are eliminated. Upon successful completion of the ILRT, the program calculates a known leak in SCFM equal to L_a for the CLRT. The actual leak that was imposed is manually entered

C. Description of Computer Program (Continued)

and the program calculates the acceptance band for the verification test based upon this value. When all testing is complete and depressurization begins, the Depressurization Monitor allows monitoring of depressurization trends until atmospheric pressure is achieved. Extensive reporting and graphical options exist within the program and are available in hard copy by utilizing the Print option.

Test parameters measured are pressure, dewpoint temperature, and dry-bulb temperature inside the containment. Instrument readings taken by the DAS are recorded on the hard disk of the computer and from these data, the leak rate is calculated. All data, both 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 methodologies utilized are the Total-Time analysis as described in BN-TOP-1 and the Mass-Point analysis as described in ANSI/ANS-56.8-1987.

D. Error Analysis

The instrument system error analysis is based on the Instrument Selection Guide (ISG) formula stated in ANSI/ANS 56.8-1987, "Containment System Leakage Testing Requirements." The ISG value shall not exceed 0.25 L_a. The formula is:

$$ISG = \pm \frac{2400}{t} \left[2\left(\frac{ep}{P}\right)^2 + 2\left(\frac{et}{T}\right)^2 + 2\left(\frac{epv}{P}\right)^2 \right]^{\frac{1}{2}} \% \text{ / day}$$

where,

ep = absolute pressure measurement error divided by the square root of the number of sensors

et = dry-bulb temperature measurement error divided by the square root of the number of sensors

epv = vapor pressure measurement error divided by the square root of the number of sensors

P = test pressure

T = test temperature (nominal)

t = test duration in hours

Test Pressure	52.7 psia
Test Temperature	75°F (535°R)
Test Dewpoint	60°F (520°R)
Vapor Pressure	0.00913 psia/°F

$$ISG = \pm \frac{2400}{24} \left[2\left(\frac{0.0036707}{52.7}\right)^2 + 2\left(\frac{0.022}{535}\right)^2 + 2\left(\frac{0.001145}{52.7}\right)^2 \right]^{\frac{1}{2}}$$

ISG (24 hr) = $\pm$ 0.012 which is <0.125% per day by weight (25% of L_a)

ISG (6 hr) = $\pm$ 0.048% per day by weight

E. Description of Tests

The containment was made ready for the ILRT with final inspection, closure, and exclusion areas established at 1500 hours on October 17, 1991. Prior to this, various tasks were completed such as instrument sensor installation, in-situ testing, temperature survey, Type B and C testing, valve line-ups, etc. Various minor problems were encountered and resolved during this period. The details concerning these issues can be found in acceptance test procedure DB-PF-10309, Containment Integrated Leakage Rate Test, and the associated test log which are on file at the DBNPS.

Pressurization of containment commenced at 1800 hours on October 17, 1991, at approximately 9000 cfm with pressure achieved at 0935 hours on October 18, 1991 at 53.01 psia. The average pressurization rate was approximately 2.5 psi/hour. Upon reaching P_a, pressure was decreasing more than anticipated. This was attributed to the fact that containment average ambient temperature prior to close-out was approximately 67°F. As a result, containment average temperature at P_a was being "dragged down" with a corresponding effect on pressure. This created a concern of being at less than P_a prior to actual commencement of the ILRT. To avoid this condition, repressurization recommenced at 1215

E. Description of Tests (Continued)

hours with pressurization secured at 1300 hours at 54.0 psia. Stabilization began at 1330 hours and was satisfactorily completed at 1730 hours.

The ILRT commenced at the exact time stabilization was achieved with time zero at 1730 hours. During this period, data were acquired at 15 minute intervals with one data set deleted at 2245 hours due to apparent "noise" in the system. This noise was attributed to portable radios being utilized for transmission at that time at the ILRT station. As a result, the use of portable radios was banned for the remainder of the test period. The ILRT was satisfactorily completed at 2345 hours with a Total-Time Upper Confidence Limit of 0.061169% per day and a Mass-Point Upper Confidence Limit of 0.034465% per day. Both the Total-Time Upper Confidence Limit and Mass-Point Upper Confidence Limit were well below the 0.75 L_a acceptance criteria.

At 2350 hours, flow for the Controlled Leak Rate Test (CLRT) or verification test was initiated at 35.9 scfm. Following the one hour stabilization period, the CLRT commenced at 0050 hours on October 19, 1991, with data taken at 10 minute intervals. At approximately 0402

E. Description of Tests (Continued)

hours, power was lost to the entire ILRT system due to the transfer of loads off the D2 bus. Power was restored at approximately 0436 hours. As a result, no data were acquired during this period with data acquisition recommencing and the CLRT satisfactorily completed at 0500 hours. The results yielded a Total-Time calculated leak rate of 0.579865% per day and a Mass-Point leak rate of 0.585541% per day. Both the ILRT and CLRT satisfied all the requirements of BN-TOP-1.

Depressurization commenced at 0928 hours and was completed at 1825 hours. Total penalties for Type B and C tests with correction factors per Table 1 of Attachment 6 of DB-PF-10309 equate to 1992.2 sccm or 0.0010097% per day. There were no corrections for water level changes (sumps, Reactor Coolant System, etc.). This equates to a corrected total reported Type A leakage rate of 0.0621787% per day by weight.

IV. RESULTS AND VERIFICATION

The ILRT was conducted for a period of 6.2 hours starting at 1730 hours on October 18, 1991, with a total of 26 samples or data sets taken, and ending at 2345 hours. The results of a calculated least-squares statistical fit of all data revealed a Total-Time leak rate of 0.022770% per day with a 95-percent upper confidence limit of 0.061169% per day. Adding a penalty of 0.00101% per day to account for the Type B and C leakage of applicable penetrations which were not exposed to test pressure yielded a total "As-Left" Type A test result of 0.062179% per day, based on the upper confidence limit.

Following satisfactory completion of the ILRT at P_a , a 4.2 hour CLRT was performed with a total of 21 samples or data sets taken. This test was conducted by superimposing a known fixed-orifice leak approximately equivalent to L_a (0.5% per day) of 35.9 scfm. The calculated Total-Time leak rate for CLRT was 0.579865% per day.

Following valve repairs during the refueling outage, the total Type B and C minimum pathway leakage improvement was 0.00145% per day. Added to the "As-Left" results value above, this yielded an "As-Found" Type A test result of 0.063629% per day.

V. CONCLUSIONS

The Integrated Leak Rate Test at peak accident pressure provided acceptable results as evidenced by the computer printouts in Appendix A of this report. The computed leak rate is well within the specified limit. The acceptance criteria for the ILRT is as follows:

1. The maximum allowable operational leak rate shall not exceed 75% of L_a (0.5% per day) at a pressure of not less than P_a (38.0 psig):

   - 0.375% per day

2. The accuracy of the ILRT is verified by a supplemental test (CLRT) where a calibrated leak is imposed on the existing leaks (L_{am}) in the containment system. The superimposed leak rate (L_o) shall be between 75% and 125% of L_a.

	LEAK RATE (L_{am}) % PER 24 HRS BY WEIGHT	
	FITTED	95% UCL
ILRT		
· Total-Time Analysis	.022770	.061169
CLRT		
· Induced Flow	35.9 scfm (L_a or 0.5%)	

V. CONCLUSIONS (Continued)

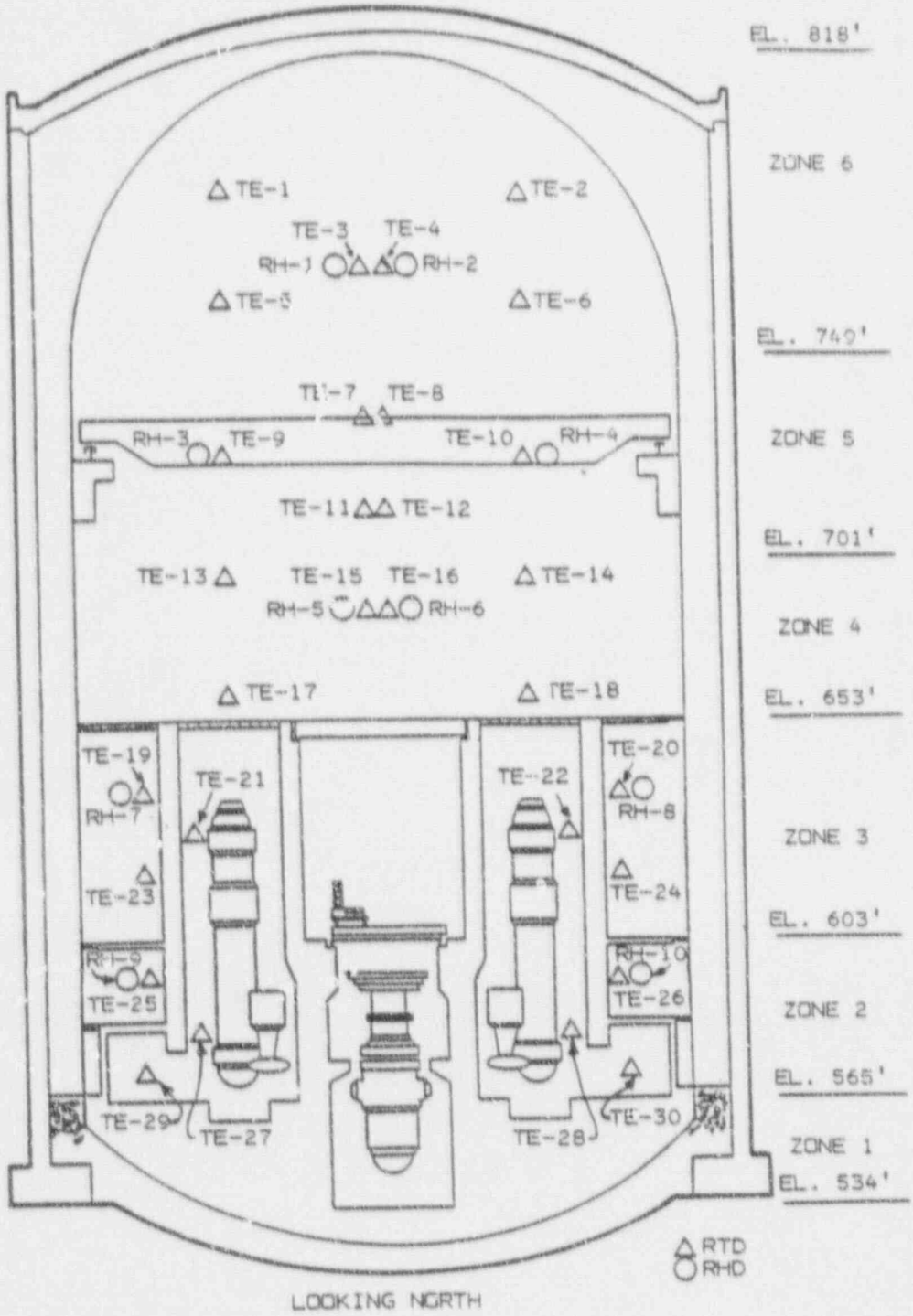
	LEAK RATE (L_a) % PER 24 HRS BY WEIGHT
CLRT	
· Total-Time Analysis	0.579865

	CLRT LIMITS % PER 24 HRS BY WEIGHT
CLRT LIMITS	
Total-Time Analysis	
· Upper Limit	0.65274
· Lower Limit	0.40274

The computer-generated reports based upon verified data substantiate for both the ILRT and CLRT that an acceptable test has been performed in accordance with 10 CFR 50, Appendix J, ANSI-N45.4-1972 and the intent of ANSI/ANS-56.8-1987.

The "As-Found" ILRT result of 0.063629% per day, based on addition of Type B and C leakage improvements to the above ILRT test results, was also acceptable.

FIGURE 1

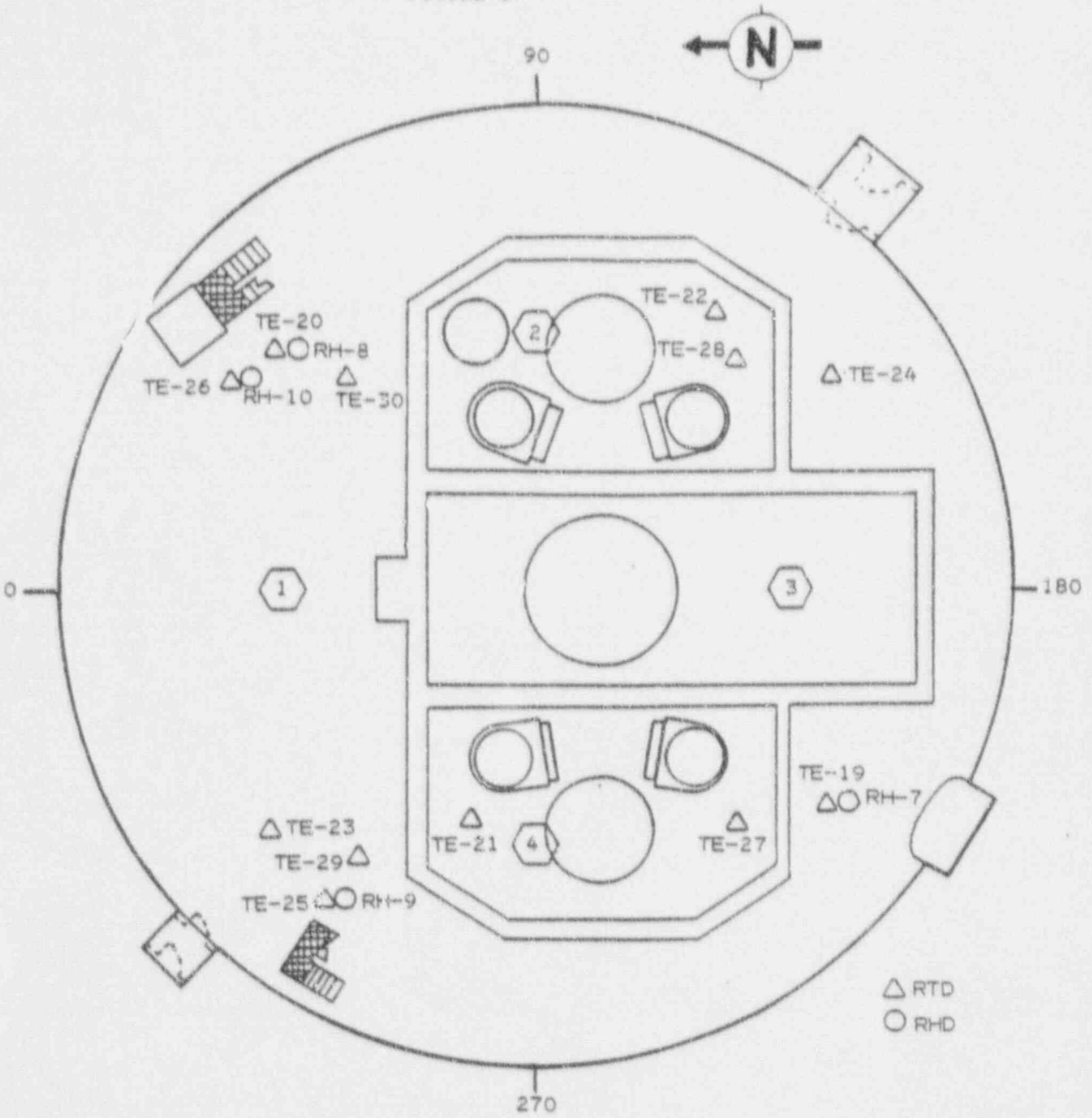


LOOKING NORTH

ILRT SENSOR LOCATIONS
ELEVATION VIEW

DAVIS-BESSE NUCLEAR POWER STATION

FIGURE 2

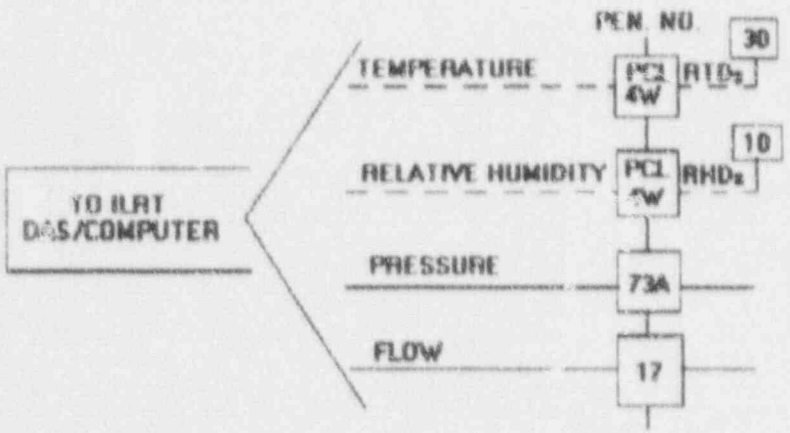


NOTES:

1. STRINGER HANGING FROM SPRAY RING WITH TE-3, 7, 11, 15, AND RH-1, 5
2. STRINGER HANGING FROM SPRAY RING WITH TE-2, 6, 10, 14, 18, AND RH-4
3. STRINGER HANGING FROM SPRAY RING WITH TE-4, 8, 12, 16, AND RH-2, 6
4. STRINGER HANGING FROM SPRAY RING WITH TE-1, 5, 9, 13, 17, AND RH-3

ILRT SENSOR LOCATIONS
PLAN VIEW

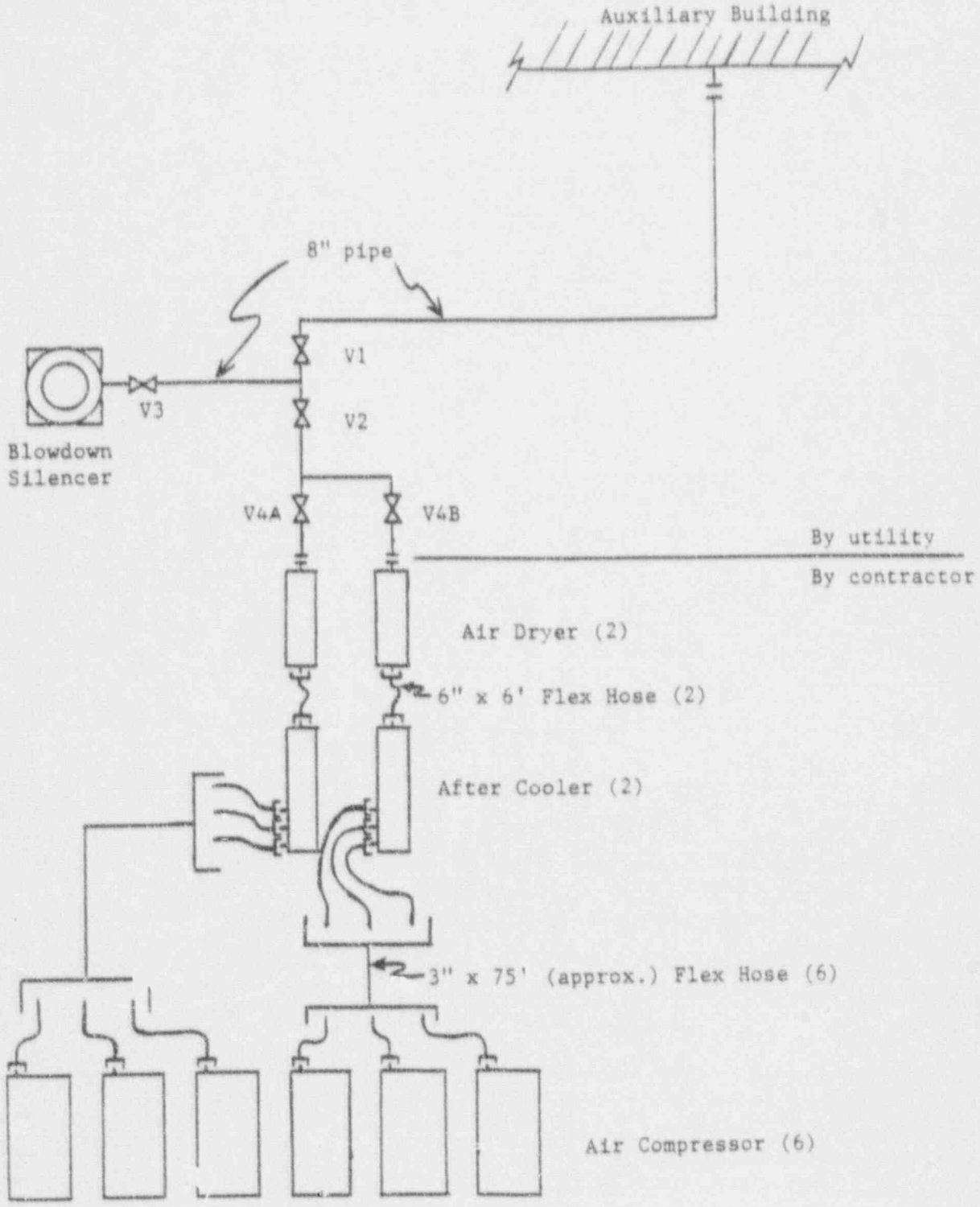
DAVIS-BESSE NUCLEAR POWER STATION



ILRT INSTRUMENTATION SCHEMATIC

DAVIS-BESSE NUCLEAR POWER STATION

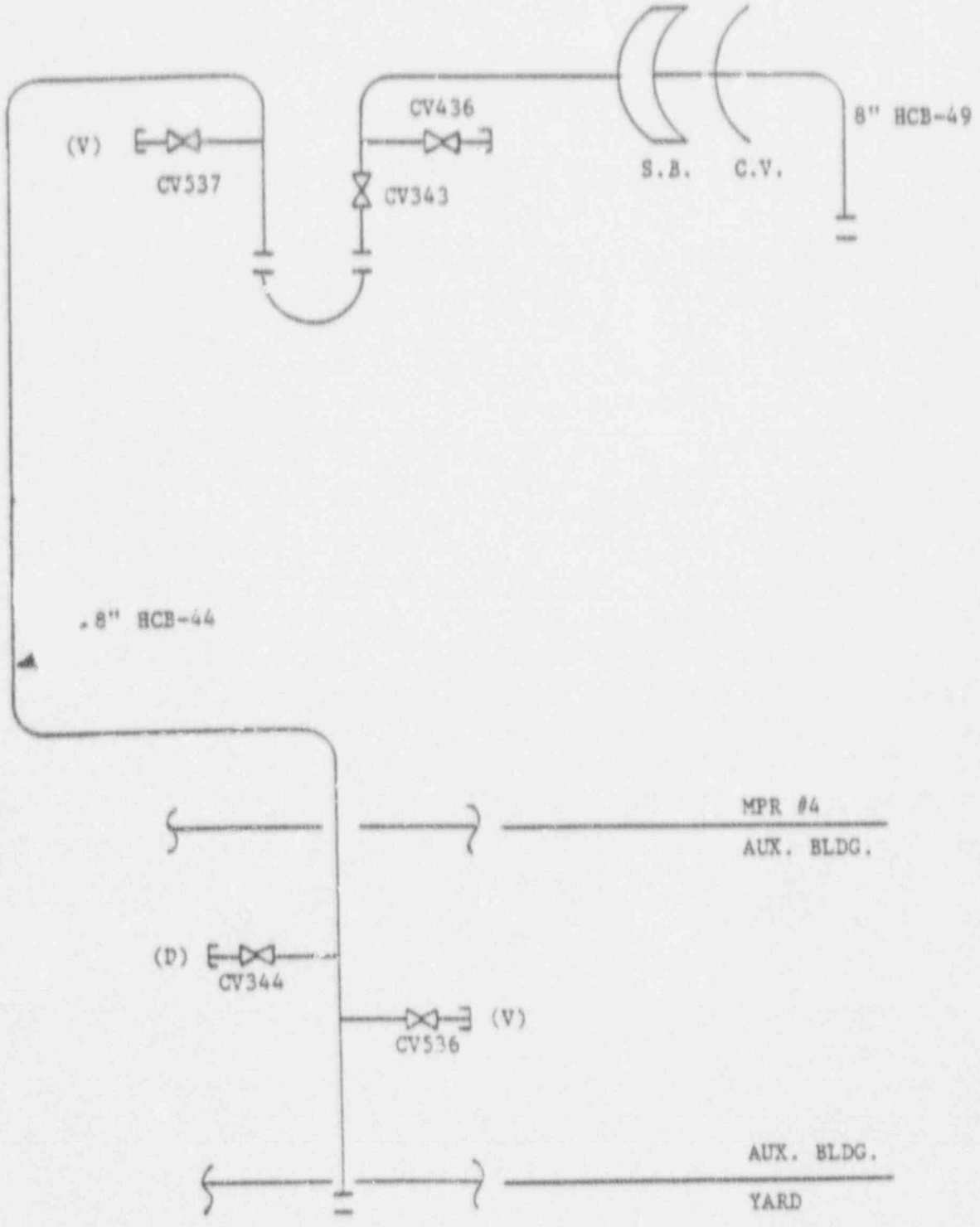
FIGURE 4



OUTSIDE PIPING/EQUIPMENT SETUP

(TYPICAL)

FIGURE 5



INSIDE PIPING LAYOUT

APPENDIX A

Computer Generated Report for

Integrated Leak Rate Test (ILRT)

BN-TOP-1 Temperature Stabilization

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

TIME	TEMP	AVE. DT OVER LAST 2 HOURS	RATE OF DT CHANGE OVER LAST 2 HOURS
t	T	$\frac{\lvert T_t - T_{t-2} \rvert}{2}$	
HOURS	°F	°F/HR	°F/HR/HR
13:30	73.443		
14:31	72.252		
15:31	71.661	0.891	0.600
16:30	71.250	0.503	0.177
17:30	70.931	0.366	0.098

Containment Calculated Values

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

RDG	TIME	MASS	TEMP	VAPOR PRESS	PRESSURE
79	13:30:58	769858.32	73.443	0.2077	53.8618
80	13:45:59	769921.29	73.023	0.2066	53.8227
81	14:00:59	769969.82	72.709	0.2049	53.7928
82	14:16:00	769985.55	72.461	0.2046	53.7687
83	14:31:00	769997.19	72.252	0.2049	53.7487
84	14:46:01	769995.50	72.076	0.2051	53.7311
85	15:01:01	760983.12	71.927	0.2054	53.7155
86	15:16:02	769975.39	71.792	0.2056	53.7016
87	15:31:02	769977.37	71.661	0.2058	53.6887
88	15:46:03	739979.85	71.544	0.2056	53.6770
89	16:01:03	769963.20	71.439	0.2060	53.6657
90	16:16:04	769962.76	71.338	0.2060	53.6554
91	16:30:24	769965.81	71.250	0.2052	53.6460
92	16:45:35	769939.26	71.165	0.2062	53.6366
93	17:00:35	769941.70	71.071	0.2066	53.6276
94	17:15:36	769921.08	70.997	0.2070	53.6192
95	17:30:36	769906.86	70.931	0.2073	53.6119

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 79 - Oct 18 13:30:58

Pressures (psia)

1.. 2	53.865	53.858						

Dew Points (volts)

1.. 8	2.694	2.6856	2.6628	2.6476	2.4785	2.3685	2.3799	2.3631
9..10	2.5821	2.543						

Temperatures (ohms)

1.. 8	109.35	109.4	109.38	109.36	109.37	109.35	109.3	109.3
9..16	109.31	109.33	109.35	109.32	109.15	109.26	109.04	109.13
17..24	109.03	109.04	108.78	108.77	108.77	108.77	108.77	108.73
25..30	108.55	108.55	108.35	108.4	108.27	108.33		

Reading # 80 - Oct 18 13:45:59

Pressures (psia)

1.. 2	53.826	53.819						

Dew Points (volts)

1.. 8	2.7188	2.7043	2.6659	2.6538	2.5537	2.361	2.4064	2.39
9..10	2.5953	2.5715						

Temperatures (ohms)

1.. 8	109.21	109.25	109.25	109.23	109.23	109.21	109.18	109.19
9..16	109.19	109.22	109.22	109.2	109.03	109.12	108.92	109.01
17..24	108.93	108.93	108.74	108.73	108.74	108.73	108.73	108.69
25..30	108.54	108.54	108.34	108.4	108.28	108.33		

Reading # 81 - Oct 18 14:00:59

Pressures (psia)

1.. 2	53.796	53.79						

Dew Points (volts)

1.. 8	2.7292	2.7266	2.6843	2.6823	2.4623	2.3629	2.4359	2.4218
9..10	2.6163	2.572						

Temperatures (ohms)

1.. 8	109.1	109.14	109.15	109.12	109.13	109.11	109.08	109.09
9..16	109.11	109.12	109.13	109.09	108.93	109.02	108.84	108.91
17..24	108.87	108.86	108.72	108.71	108.72	108.7	108.72	108.68
25..30	108.53	108.53	108.33	108.4	108.27	108.33		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 82 - Oct 18 14:16:00

Pressures (psia)

1.. 2	53.772	53.765

Dew Points (volts)

1.. 8	2.7436	2.7487	2.7014	2.6981	2.4741	2.3793	2.4604	2.4474
9..10	2.6484	2.5829						

Temperatures (ohms)

1.. 8	109.01	109.05	109.06	109.04	109.04	109.01	109	109.02
9..16	109.03	109.04	109.06	109.01	108.84	108.94	108.78	108.84
17..24	108.84	108.81	108.71	108.69	108.7	108.69	108.71	108.66
25..30	108.53	108.53	108.33	108.4	108.28	108.33		

Reading # 83 - Oct 18 14:31:00

Pressures (psia)

1.. 2	53.752	53.745

Dew Points (volts)

1.. 8	2.7624	2.7654	2.716	2.7175	2.4957	2.4099	2.4874	2.4695
9..10	2.6621	2.5986						

Temperatures (ohms)

1.. 8	108.93	108.97	108.98	108.97	108.97	108.94	108.94	108.95
9..16	108.97	108.97	108.99	108.94	108.77	108.86	108.74	108.8
17..24	108.8	108.78	108.7	108.68	108.69	108.67	108.69	108.65
25..30	108.52	108.52	108.33	108.4	108.28	108.34		

Reading # 84 - Oct 18 14:46:01

Pressures (psia)

1.. 2	53.735	53.727

Dew Points (volts)

1.. 8	2.7815	2.7862	2.7316	2.7354	2.5126	2.435	2.5102	2.4913
9..10	2.668	2.6039						

Temperatures (ohms)

1.. 8	108.87	108.91	108.91	108.9	108.91	108.88	108.89	108.89
9..16	108.91	108.92	108.93	108.88	108.71	108.78	108.71	108.77
17..24	108.78	108.75	108.69	108.66	108.68	108.67	108.68	108.64
25..30	108.52	108.52	108.33	108.39	108.28	108.34		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 85 - Oct 18 15:01:01

Pressures (psia)

1..2	53.719	53.712

Dew Points (volts)

1..8	2.7967	2.801	2.7474	2.7519	2.529	2.4601	2.5306	2.5088
9..10	2.6716	2.6086						

Temperatures (ohms)

1..8	108.81	108.85	108.86	108.85	108.85	108.82	108.83	108.84
9..16	10[illegible]6	108.86	108.87	108.83	108.69	108.75	108.69	108.75
17..24	108.76	108.73	108.67	108.65	108.67	108.66	108.66	108.63
25..30	108.52	108.52	108.33	108.39	108.27	108.34		

Reading # 86 - Oct 18 15:16:02

Pressures (psia)

1..2	53.705	53.698

Dew Points (volts)

1..8	2.8138	2.8193	2.7598	2.7598	2.5427	2.4983	2.5485	2.5251
9..10	2.6763	2.6186						

Temperatures (ohms)

1..8	108.76	108.8	108.81	108.79	108.8	108.77	108.79	108.79
9..16	108.81	108.81	108.82	108.79	108.67	108.73	108.67	108.7
17..24	108.75	108.71	108.66	108.64	108.66	108.65	108.65	108.62
25..30	108.51	108.51	108.33	108.39	108.28	108.34		

Reading # 87 - Oct 18 15:31:02

Pressures (psia)

1..2	53.692	53.685

Dew Points (volts)

1..8	2.8298	2.8335	2.7703	2.781	2.5572	2.5158	2.5637	2.5388
9..10	2.6844	2.6[illegible]56						

Temperatures (ohms)

1..8	108.71	108.74	108.76	108.75	108.76	108.72	108.74	108.74
9..16	108.76	108.77	108.77	108.74	108.65	108.7	108.65	108.68
17..24	108.73	108.7	108.64	108.63	108.65	108.64	108.64	108.61
25..30	108.51	108.5	108.32	108.39	108.28	108.35		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 88 - Oct 18 15:46:03

Pressures (psia)

1.. 2	53.68	53.674						

Dew Points (volts)

1.. 8	2.8392	2.8472	2.781	2.7757	2.5684	2.5331	2.5762	2.55
9..10	2.6896	2.6324						

Temperatures (ohms)

1.. 8	108.67	108.7	108.72	108.7	108.71	108.68	108.69	108.7
9..16	108.71	108.72	108.73	108.7	108.64	108.68	108.63	108.67
17..24	108.72	108.68	108.63	108.61	108.64	108.63	108.63	108.6
25..30	108.51	108.5	108.33	108.38	108.28	108.35		

Reading # 89 - Oct 18 16:01:03

Pressures (psia)

1.. 2	53.669	53.662						

Dew Points (volts)

1.. 8	2.8559	2.8633	2.7906	2.7946	2.5781	2.5553	2.5942	2.5659
9..10	2.6992	2.6408						

Temperatures (ohms)

1.. 8	108.62	108.66	108.67	108.66	108.67	108.64	108.65	108.65
9..16	108.67	108.68	108.7	108.65	108.63	108.67	108.62	108.66
17..24	108.71	108.67	108.62	108.61	108.63	108.63	108.62	108.59
25..30	108.5	108.49	108.33	108.38	108.28	108.35		

Reading # 90 - Oct 18 16:16:04

Pressures (psia)

1.. 2	53.659	53.652						

Dew Points (volts)

1.. 8	2.8605	2.8713	2.7862	2.7976	2.5928	2.5662	2.6135	2.5767
9..10	2.7107	2.6464						

Temperatures (ohms)

1.. 8	108.58	108.62	108.63	108.62	108.63	108.6	108.61	108.61
9..16	108.63	108.65	108.67	108.62	108.61	108.66	108.61	108.65
17..24	108.69	108.66	108.61	108.59	108.63	108.61	108.61	108.58
25..30	108.5	108.48	108.33	108.38	108.28	108.36		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 91 - Oct 18 16:30:24

Pressures (psia)

1.. 2	53.649	53.643

Dew Points (volts)

1.. 8	2.8593	2.8791	2.7661	2.7338	2.6098	2.5855	2.6304	2.5925
9..10	2.7214	2.6553						

Temperatures (ohms)

1.. 8	108.54	108.58	108.59	108.58	108.6	108.56	108.57	108.58
9..16	108.6	108.6	108.63	108.6	108.61	108.65	108.59	108.64
17..24	108.69	108.65	108.6	108.58	108.62	108.61	108.61	108.58
25..30	108.49	108.48	108.33	108.39	108.28	108.36		

Reading # 92 - Oct 18 16:45:35

Pressures (psia)

1.. 2	53.64	53.633

Dew Points (volts)

1.. 8	2.8407	2.8773	2.7564	2.763	2.692	2.6148	2.6594	2.6104
9..10	2.7426	2.6658						

Temperatures (ohms)

1.. 8	108.51	108.55	108.55	108.54	108.56	108.52	108.54	108.55
9..16	108.57	108.58	108.61	108.57	108.59	108.64	108.59	108.63
17..24	108.67	108.64	108.6	108.58	108.61	108.6	108.6	108.57
25..30	108.49	108.47	108.33	108.38	108.28	108.36		

Reading # 93 - Oct 18 17:00:35

Pressures (psia)

1.. 2	53.631	53.624

Dew Points (volts)

1.. 8	2.8379	2.8534	2.7825	2.7683	2.7073	2.6563	2.6831	2.6359
9..10	2.7591	2.6817						

Temperatures (ohms)

1.. 8	108.48	108.51	108.53	108.51	108.53	108.5	108.51	108.52
9..16	108.54	108.55	108.58	108.53	108.57	108.62	108.57	108.62
17..24	108.66	108.62	108.57	108.56	108.61	108.6	108.58	108.55
25..30	108.48	108.46	108.33	108.38	108.28	108.36		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 94 - Oct 18 17:15:36

Pressures (psia)

1..2	53.623	53.616

Dew Points (volts)

1..8	2.8394	2.8519	2.7759	2.7773	2.7235	2.6851	2.6972	2.6641
9..10	2.7864	2.7052						

Temperatures (ohms)

1..8	108.45	108.48	108.5	108.48	108.51	108.47	108.5	108.5
9..16	108.52	108.53	108.55	108.52	108.54	108.6	108.55	108.61
17..24	108.64	108.6	108.57	108.55	108.6	108.6	108.57	108.55
25..30	108.48	108.45	108.33	108.38	108.28	108.36		

Reading # 95 - Oct 18 17:30:36

Pressures (psia)

1..2	53.615	53.608

Dew Points (volts)

1..8	2.8381	2.8486	2.7802	2.7809	2.7267	2.6966	2.7137	2.6953
9..10	2.7982	2.7289						

Temperatures (ohms)

1..8	108.43	108.47	108.49	108.46	108.49	108.46	108.48	108.47
9..16	108.5	108.51	108.54	108.5	108.52	108.58	108.53	108.59
17..24	108.62	108.58	108.56	108.54	108.59	108.59	108.56	108.53
25..30	108.47	108.45	108.33	108.39	108.29	108.37		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 79 - Oct 18 13:30:58

Pressures (PSIA)

1..2	53.865	53.858						

Dew Points (°F)

1..8	57.038	56.869	56.533	56.485	53.493	52.424	51.245	51.125
9..10	52.361	52.172						

Temperatures (°F)

1..8	74.863	74.895	74.847	74.758	74.789	74.863	74.679	74.65
9..16	74.65	74.77	74.728	74.771	73.979	74.255	73.489	73.672
17..24	73.126	73.34	72.237	72.315	72.132	72.219	72.013	72.023
25..30	71.046	71.29	70.096	70.557	69.733	70.072		

Reading # 80 - Oct 18 13:45:59

Pressures (PSIA)

1..2	53.826	53.819						

Dew Points (°F)

1..8	56.74	56.51	56.057	56.084	53.804	51.837	51.377	51.264
9..10	52.457	52.432						

Temperatures (°F)

1..8	74.221	74.209	74.252	74.163	74.148	74.221	74.13	74.147
9..16	74.101	74.266	74.133	74.221	73.429	73.614	72.939	73.122
17..24	72.669	72.836	72.053	72.132	71.995	72.036	71.83	71.84
25..30	71	71.244	70.05	70.557	69.779	70.072		

Reading # 81 - Oct 18 14:00:59

Pressures (PSIA)

1..2	53.796	53.79						

Dew Points (°F)

1..8	56.421	56.27	55.908	55.955	52.474	51.441	51.622	51.538
9..10	52.634	52.395						

Temperatures (°F)

1..8	73.718	73.706	73.794	73.66	73.69	73.763	73.672	73.689
9..16	73.735	73.807	73.721	73.718	72.972	73.157	72.572	72.664
17..24	72.394	72.516	71.962	72.041	71.903	71.898	71.784	71.794
25..30	70.954	71.198	70.004	70.557	69.733	70.072		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 82 - Oct 18 14:16:00

Pressures (PSIA)

1.. 2	53.772	53.765						

Dew Points (°F)

1.. 8	56.184	56.153	55.744	55.777	52.352	51.335	51.851	51.738
9..10	52.966	52.51						

Temperatures (°F)

1.. 8	73.305	73.294	73.382	73.294	73.279	73.305	73.305	73.368
9..16	73.368	73.441	73.401	73.351	72.56	72.791	72.298	72.343
17..24	72.257	72.287	71.916	71.949	71.812	71.852	71.738	71.702
25..30	70.954	71.198	70.004	70.557	69.779	70.072		

Reading # 83 - Oct 18 14:31:00

Pressures (PSIA)

1.. 2	53.752	53.745						

Dew Points (°F)

1.. 8	56.032	56.023	55.637	55.677	52.42	51.514	52.105	51.94
9..10	53.064	52.632						

Temperatures (°F)

1.. 8	72.939	72.928	73.015	72.974	72.958	72.985	73.03	73.048
9..16	73.094	73.12	73.08	73.03	72.239	72.425	72.114	72.16
17..24	72.074	72.15	71.87	71.903	71.766	71.761	71.647	71.656
25..30	70.908	71.153	70.004	70.557	69.779	70.118		

Reading # 84 - Oct 18 14:46:01

Pressures (PSIA)

1.. 2	53.735	53.727						

Dew Points (°F)

1.. 8	55.924	55.932	55.54	55.645	52.477	51.668	52.311	52.034
9..10	53.124	52.688						

Temperatures (°F)

1.. 8	72.664	72.653	72.695	72.653	72.684	72.71	72.801	72.773
9..16	72.819	72.891	72.806	72.756	71.964	72.058	71.977	72.023
17..24	71.982	72.013	71.824	71.812	71.72	71.761	71.601	71.611
25..30	70.908	71.153	70.004	70.511	69.779	70.118		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 85 - Oct 18 15:01:01

Pressures (PSIA)

1..2	53.719	53.712						

Dew Points (°F)

1..8	55.861	55.865	55.487	55.556	52.57	51.862	52.446	52.242
9..10	53.161	52.737						

Temperatures (°F)

1..8	72.389	72.379	72.466	72.425	72.409	72.435	72.527	72.544
9..16	72.59	72.616	72.531	72.527	71.873	71.921	71.885	71.931
17..24	71.891	71.921	71.733	71.766	71.675	71.715	71.509	71.565
25..30	70.908	71.153	70.004	70.511	69.733	70.118		

Reading # 86 - Oct 18 15:16:02

Pressures (PSIA)

1..2	53.705	53.698						

Dew Points (°F)

1..8	55.816	55.789	55.398	55.422	52.632	52.07	52.596	52.376
9..10	53.166	52.799						

Temperatures (°F)

1..8	72.16	72.15	72.237	72.15	72.18	72.206	72.343	72.315
9..16	72.361	72.387	72.302	72.343	71.781	71.83	71.794	71.702
17..24	71.845	71.83	71.687	71.72	71.629	71.669	71.464	71.519
25..30	70.863	71.107	70.004	70.511	69.779	70.118		

Reading # 87 - Oct 18 15:31:02

Pressures (PSIA)

1..2	53.692	53.685						

Dew Points (°F)

1..8	55.759	55.757	55.29	55.462	52.702	52.175	52.673	52.481
9..10	53.249	52.829						

Temperatures (°F)

1..8	71.931	71.875	72.008	71.967	71.997	71.977	72.114	72.087
9..16	72.132	72.204	72.074	72.114	71.69	71.692	71.702	71.611
17..24	71.753	71.784	71.595	71.674	71.583	71.623	71.418	71.473
25..30	70.863	71.061	69.958	70.511	69.779	70.164		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 88 - Oct 18 15:46:03

Pressures (PSIA)

1.. 2	53.68	53.674

Dew Points (°F)

1.. 8	55.679	55.676	55.183	55.196	52.737	52.319	52.763	52.516
9..10	53.301	52.899						

Temperatures (°F)

1.. 8	71.748	71.692	71.824	71.738	71.769	71.794	71.885	71.903
9..16	71.903	71.975	71.891	71.931	71.644	71.601	71.611	71.565
17..24	71.708	71.693	71.55	71.583	71.537	71.577	71.372	71.427
25..30	70.863	71.061	70.004	70.466	69.779	70.164		

Reading # 89 - Oct 18 16:01:03

Pressures (PSIA)

1.. 2	53.669	53.662

Dew Points (°F)

1.. 8	55.627	55.661	55.107	55.212	52.797	52.514	52.91	52.685
9..10	53.356	52.944						

Temperatures (°F)

1.. 8	71.519	71.509	71.595	71.555	71.586	71.611	71.702	71.675
9..16	71.72	71.791	71.753	71.702	71.598	71.555	71.565	71.519
17..24	71.662	71.647	71.504	71.583	71.491	71.577	71.326	71.382
25..30	70.817	71.015	70.004	70.466	69.779	70.164		

Reading # 90 - Oct 18 16:16:04

Pressures (PSIA)

1.. 2	53.659	53.652

Dew Points (°F)

1.. 8	55.5	55.567	54.893	55.114	52.91	52.587	53.07	52.715
9..10	53.472	52.959						

Temperatures (°F)

1.. 8	71.336	71.326	71.412	71.372	71.403	71.427	71.519	71.491
9..16	71.537	71.654	71.616	71.565	71.507	71.509	71.519	71.473
17..24	71.57	71.601	71.458	71.491	71.491	71.486	71.281	71.336
25..30	70.817	70.969	70.004	70.466	69.779	70.21		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 91 - Oct 18 16:30:24

Pressures (PSIA)

1.. 2	53.649	53.643

Dew Points (°F)

1.. 8	55.318	55.471	54.567	54.268	53.003	52.749	53.203	52.839
9..10	53.537	53.051						

Temperatures (°F)

1.. 8	71.153	71.143	71.229	71.189	71.265	71.244	71.336	71.354
9..16	71.4	71.425	71.433	71.473	71.507	71.464	71.427	71.427
17..24	71.57	71.555	71.412	71.446	71.446	71.486	71.281	71.336
25..30	70.771	70.969	70.004	70.511	69.779	70.21		

Reading # 92 - Oct 18 16:45:35

Pressures (PSIA)

1.. 2	53.64	53.633

Dew Points (°F)

1.. 8	54.968	55.282	54.343	54.474	53.849	53.013	53.502	53.026
9..10	53.749	53.116						

Temperatures (°F)

1.. 8	71.015	71.006	71.046	71.006	71.082	71.061	71.198	71.217
9..16	71.263	71.333	71.342	71.336	71.415	71.418	71.427	71.382
17..24	71.479	71.51	71.412	71.446	71.4	71.44	71.235	71.29
25..30	70.771	70.924	70.004	70.466	69.779	70.21		

Reading # 93 - Oct 18 17:00:35

Pressures (PSIA)

1.. 2	53.631	53.624

Dew Points (°F)

1.. 8	54.855	54.925	54.473	54.399	53.919	53.4	53.617	53.206
9..10	53.87	53.235						

Temperatures (°F)

1.. 8	70.878	70.823	70.954	70.869	70.945	70.969	71.061	71.079
9..16	71.125	71.196	71.204	71.153	71.324	71.326	71.336	71.336
17..24	71.433	71.418	71.275	71.354	71.4	71.44	71.143	71.198
25..30	70.725	70.878	70.004	70.466	69.779	70.21		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 94 - Oct 18 17:15:36

Pressures (PSIA)

1.. 2	53.623	53.616

Dew Points (°F)

1.. 8	54.741	54.782	54.323	54.402	53.997	53.652	53.76	53.454
9..10	54.14	53.431						

Temperatures (°F)

1.. 8	70.74	70.686	70.817	70.732	70.854	70.832	71.015	70.988
9..16	71.034	71.104	71.067	71.107	71.186	71.235	71.244	71.29
17..24	71.342	71.326	71.275	71.308	71.354	71.44	71.098	71.198
25..30	70.725	70.832	70.004	70.466	69.779	70.21		

Reading # 95 - Oct 18 17:30:36

Pressures (PSIA)

1.. 2	53.615	53.608

Dew Points (°F)

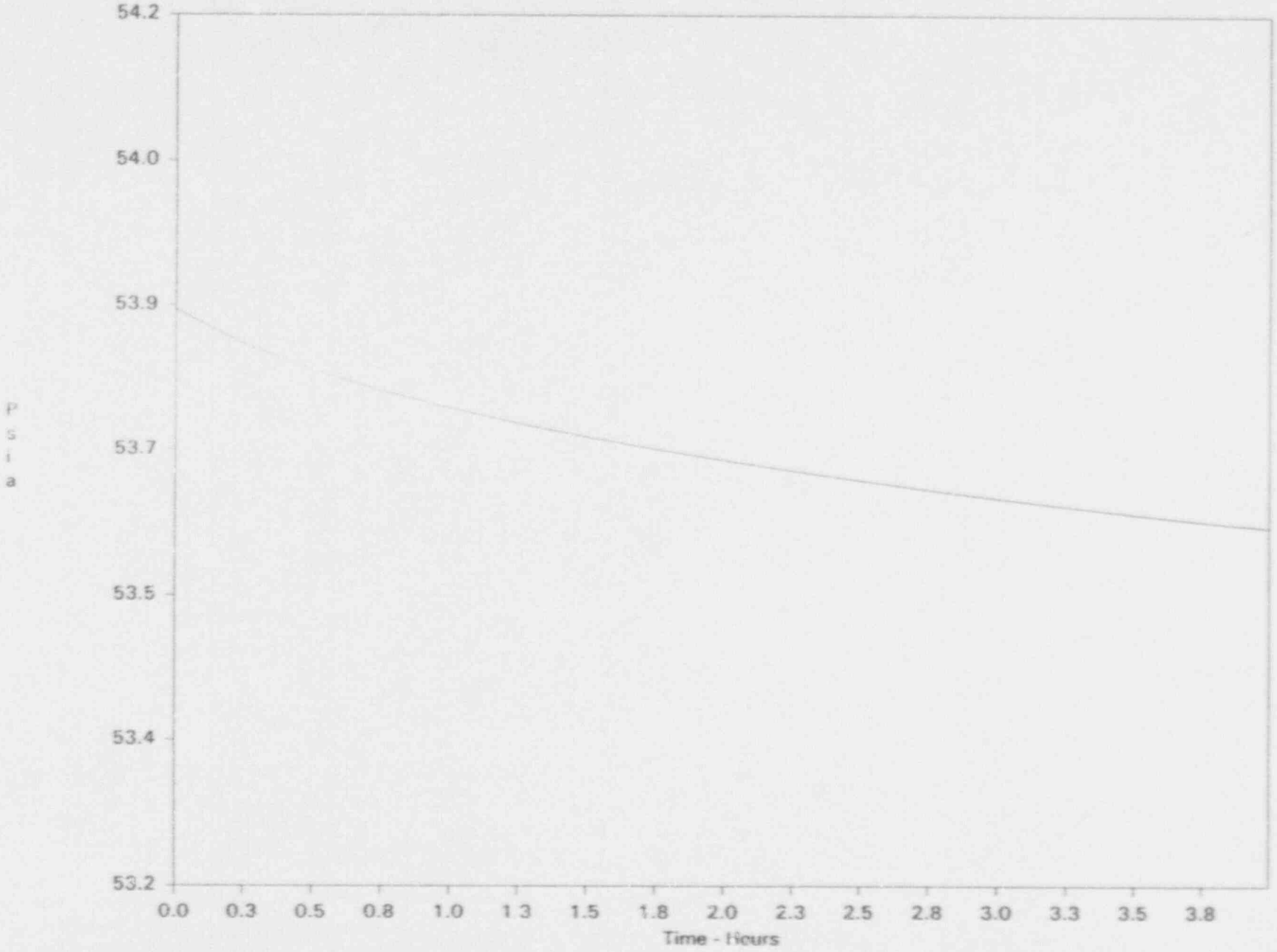
1.. 8	54.686	54.665	54.28	54.353	53.944	53.684	53.885	53.73
9..10	54.213	53.669						

Temperatures (°F)

1.. 8	70.649	70.64	70.771	70.64	70.762	70.786	70.924	70.951
9..16	70.942	71.012	71.021	71.015	71.096	71.143	71.153	71.198
17..24	71.25	71.235	71.229	71.262	71.308	71.394	71.052	71.107
25..30	70.679	70.832	70.004	70.511	69.824	70.255		

Average Pressure

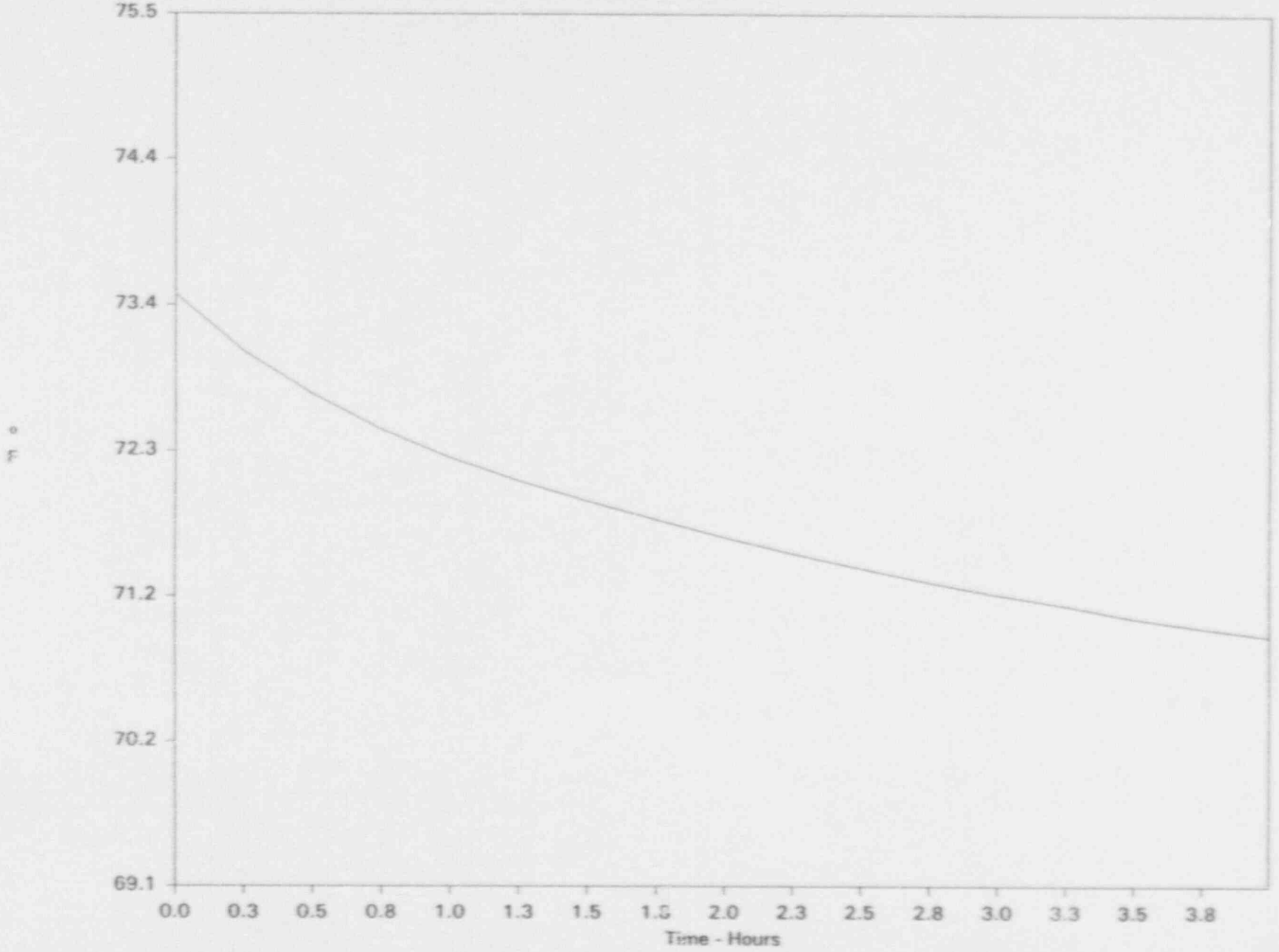
DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Average Temperature

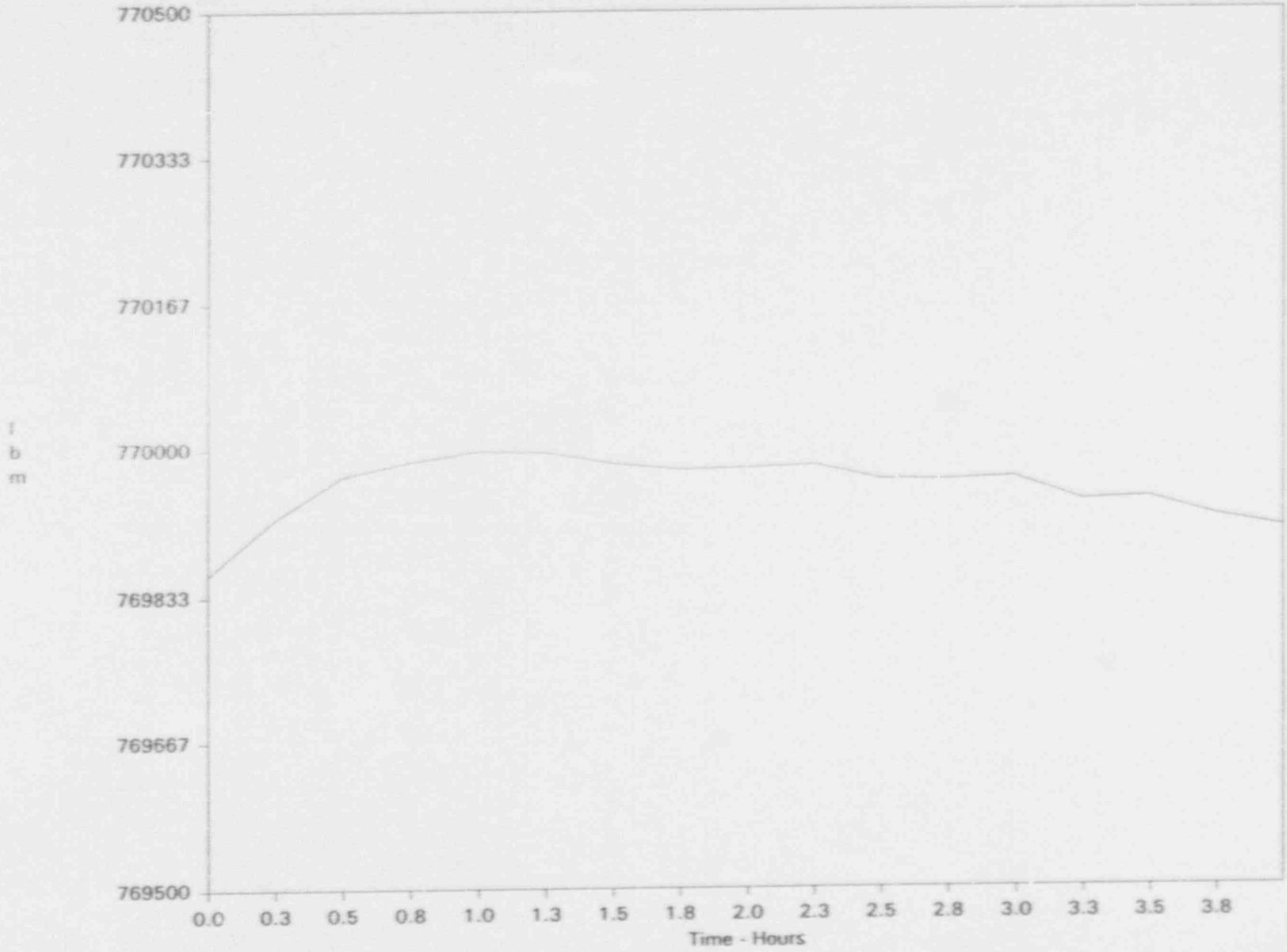
DAVIS-BESSE NUCLEAR POWER STATION

Unit No. 1



Containment Mass

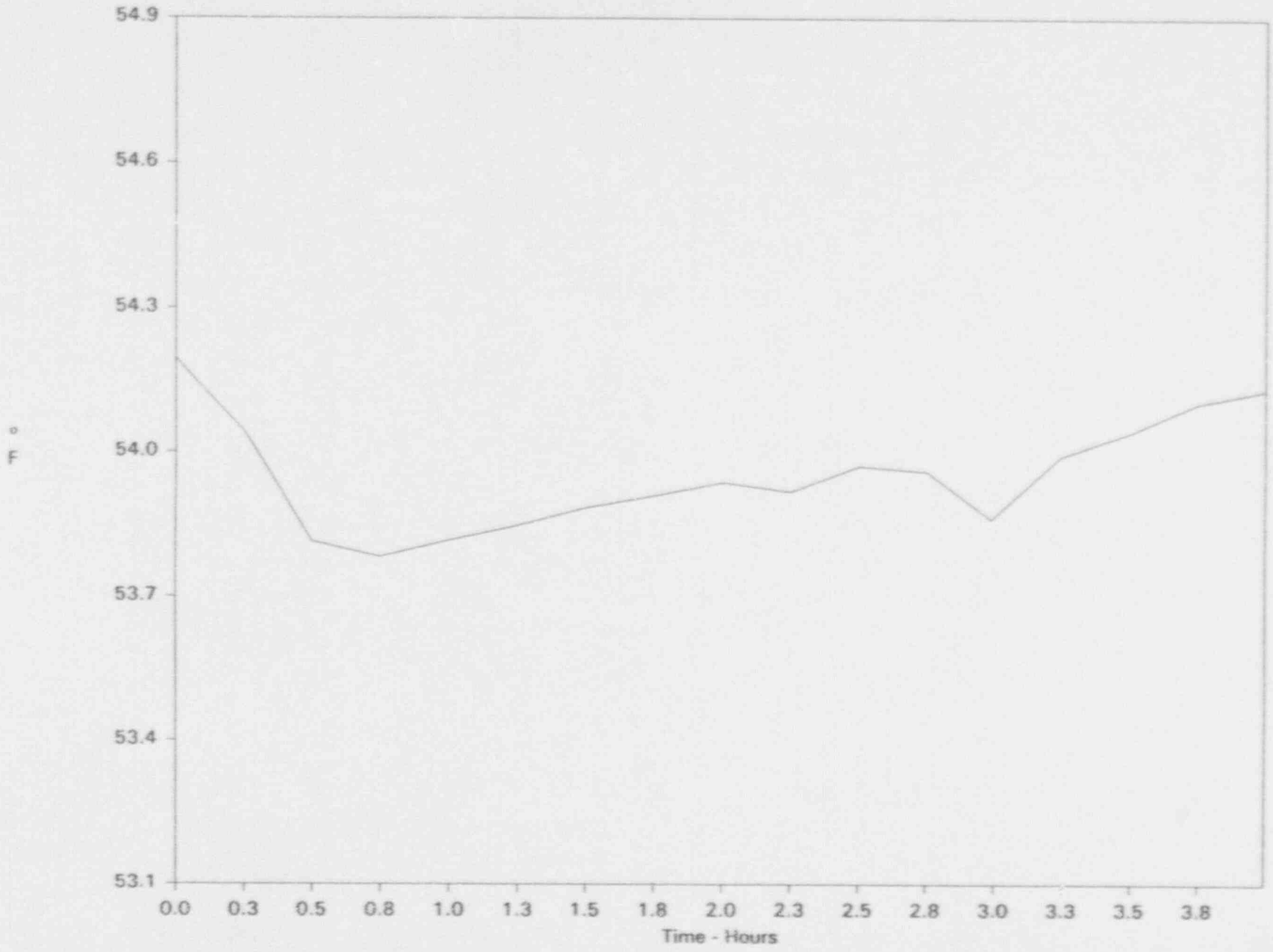
DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Average Dew Point

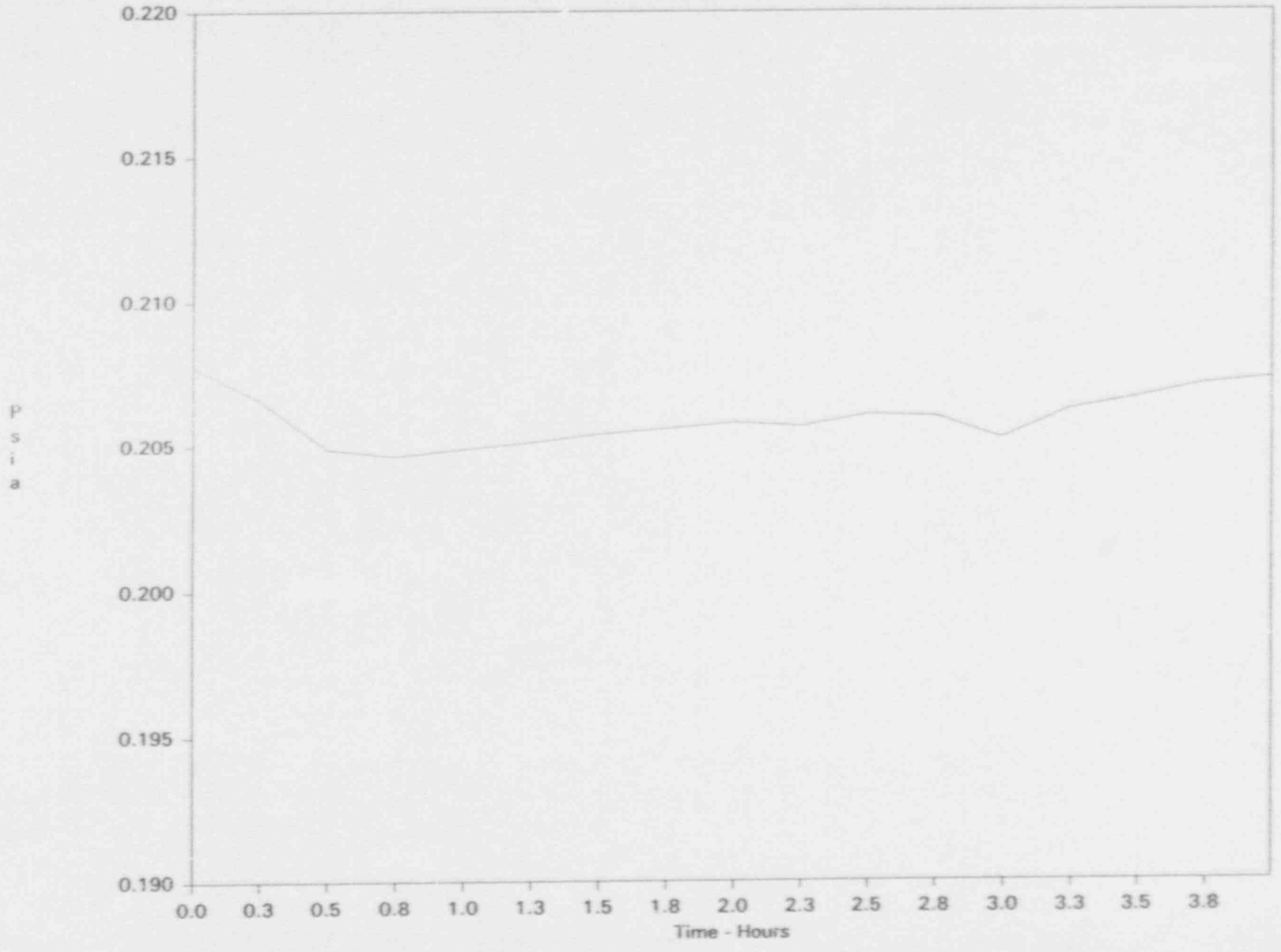
DAVIS-BESSE NUCLEAR POWER STATION

Unit No. 1



Average Vapor Pressure

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



BN-TOP-1 Termination Criteria

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

BN-TOP-1 Termination Criteria Evaluation for Reading # 120

1. The Trend Report based on Total Time calculations shall indicate that the magnitude of the calculated leak rate is tending to stabilize at a value less than the maximum allowable leak rate (<.75La).

Required Value: 0.375000 %/day Actual Value: 0.022770 %/day

(Note: The magnitude of the calculated leak rate may be increasing slightly as it tends to stabilize. In this case the average rate of increase of the calculated leak rate shall be determined from the accumulated data over the last five hours or last twenty data points, whichever provides the most points. Using this average rate the calculated leak rate can then be linearly extrapolated to the 24th hour data point. If this extrapolated value of the calculated leak rate exceeds 75% of the maximum allowable leak rate (La) then the leak rate test is continued.)

Required Value: 0.375000 %/day Actual Value: 0.000000 %/day

2. The end of test upper 95% confidence limit for the calculated leak rate based on Total Time calculations shall be less than the maximum allowable leak rate (<.75La).

Required Value: 0.375000 %/day Actual Value: 0.061169 %/day

3. The mean of the measured leak rates based on Total Time calculations over the last five hours of test or last twenty data points, whichever provides the most data, shall be less than the maximum allowable leak rate (<.75La).

Required Value: 0.375000 %/day Actual Value: 0.045863 %/day

4. Data shall be recorded at approximately equal intervals and in no case at intervals greater than one hour.

Required Interval: < =1 hr Maximum Actual Interval: 0.25 hr

5. At least twenty (20) data points shall be provided for proper statistical analysis.

Required # Data Points: > =20 Actual Data Points: 26

6. In no case shall the minimum test duration be less than six (6) hours.

Required Minimum Duration: 6 hr Actual Duration: 6.2 hr

Total Time Leak Rate Analysis

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

RDG	TIME (MINUTES)	MEASURED LEAK (WT %/DAY)	CALCULATED LEAK (WT %/DAY)	UCL LEAK (WT %/DAY)
95	0.00	-	-	-
96	15.02	0.066661	-	-
97	30.02	0.108568	0.108568	-
98	45.03	0.103169	0.111052	0.298235
99	60.03	0.128787	0.128938	0.197555
100	75.05	0.096282	0.116583	0.200436
101	90.05	0.076237	0.099233	0.183703
102	105.07	0.052471	0.078080	0.162369
103	120.07	0.051032	0.064434	0.139660
104	135.08	0.059030	0.058663	0.125168
105	150.08	0.039669	0.048208	0.109046
106	165.10	0.058746	0.047016	0.104086
107	180.10	0.046134	0.042611	0.095594
108	195.12	0.047971	0.039955	0.089981
109	210.12	0.044638	0.037206	0.084691
110	225.13	0.044724	0.035200	0.080753
111	240.13	0.042394	0.033194	0.077043
112	255.15	0.035838	0.030263	0.072328
113	270.15	0.043393	0.029514	0.070845
114	285.17	0.041155	0.028545	0.069057
115	300.17	0.032228	0.026162	0.065387
116	0.00	0.000000	0.000000	0.000000
117	330.18	0.042476	0.023547	0.063385
118	345.20	0.031106	0.022235	0.061039
119	360.20	0.037538	0.022265	0.060739
120	374.72	0.040062	0.022770	0.061169

Mass Point Leak Rate Analysis

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

RDG	TIME	Norm Mass	MP Leak %/day	MP UCL %/day
95	0.00	1.0000	0.00000	0.00000
96	15.02	0.99999	0.066661	0.00000
97	30.02	0.99998	0.10856	0.31568
98	45.03	0.99997	0.10790	0.13977
99	60.03	0.99995	0.12731	0.15754
100	75.05	0.99995	0.10985	0.13783
101	90.05	0.99995	0.089279	0.11965
102	105.07	0.99996	0.065753	0.10000
103	120.07	0.99996	0.053123	0.082451
104	135.08	0.99994	0.050505	0.073639
105	150.08	0.99996	0.040665	0.062000
106	165.10	0.99993	0.043020	0.060744
107	180.10	0.99994	0.039973	0.055148
108	195.12	0.99994	0.038916	0.051858
109	210.12	0.99993	0.037288	0.048549
110	225.13	0.99993	0.036390	0.046226
111	240.13	0.99993	0.035206	0.043923
112	255.15	0.99994	0.032546	0.040712
113	270.15	0.99992	0.032841	0.040125
114	285.17	0.99992	0.032599	0.039136
115	300.17	0.99993	0.030213	0.036572
116	315.18	0.00000	0.00000	0.00000
117	330.18	0.99990	0.031201	0.036968
118	345.20	0.99993	0.029094	0.034655
119	360.20	0.99991	0.029123	0.034175
120	374.72	0.99990	0.029802	0.034465

Containment Calculated Values

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

RDG	TIME	MASS	TEMP	VAPOR PRESS	PRESSURE
95	17:30:36	769906.86	70.931	0.2073	53.6119
96	17:45:37	769901.51	70.863	0.2074	53.6048
97	18:00:37	769889.44	70.807	0.2074	53.5983
98	18:15:38	769882.02	70.747	0.2075	53.5918
99	18:30:38	769865.53	70.698	0.2076	53.5859
100	18:45:39	769868.23	70.642	0.2076	53.5804
101	19:00:39	769870.16	70.586	0.2077	53.5750
102	19:15:40	769877.39	70.529	0.2076	53.5697
103	19:30:40	769874.10	70.481	0.2077	53.5647
104	19:45:41	769864.23	70.439	0.2078	53.5599
105	20:00:41	769875.03	70.386	0.2077	53.5553
106	20:15:42	769855.01	70.353	0.2077	53.5506
107	20:30:42	769862.44	70.306	0.2079	53.5465
108	20:45:43	769856.82	70.267	0.2079	53.5422
109	21:00:43	769856.72	70.226	0.2080	53.5381
110	21:15:44	769853.03	70.190	0.2080	53.5343
111	21:30:44	769852.43	70.155	0.2079	53.5306
112	21:45:45	769857.97	70.112	0.2080	53.5268
113	22:00:45	769844.19	70.086	0.2081	53.5233
114	22:15:46	769844.12	70.057	0.2082	53.5204
115	22:30:46	769855.14	70.015	0.2082	53.5170
116	22:45:47	769835.66	69.998	0.2083	53.5140
117	23:00:47	769831.88	69.970	0.2083	53.5110
118	23:15:48	769849.45	69.935	0.2084	53.5087
119	23:30:48	769834.57	69.916	0.2084	53.5058
120	23:45:19	769826.60	69.897	0.2085	53.5035

Ra[illegible]strument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 95 - Oct 18 17:30:36

Pressures (psia)

1..2	53.615	53.608

Dew Points (volts)

1..8	2.8381	2.8486	2.7802	2.7809	2.7267	2.6966	2.7137	2.6953
9..10	2.7982	2.7289						

Temperatures (ohms)

1..8	108.43	108.47	108.49	108.46	108.49	108.46	108.48	108.47
9..16	108.5	108.51	108.54	108.5	108.52	108.58	108.53	108.59
17..24	108.62	108.58	108.56	108.54	108.59	108.59	108.56	108.53
25..30	108.47	108.45	108.33	108.39	108.29	108.37		

Reading # 96 - Oct 18 17:45:37

Pressures (psia)

1..2	53.608	53.602

Dew Points (volts)

1..8	2.8387	2.8518	2.7798	2.7885	2.7372	2.7111	2.7298	2.7134
9..10	2.8022	2.7438						

Temperatures (ohms)

1..8	108.41	108.45	108.46	108.44	108.47	108.44	108.46	108.46
9..16	108.49	108.5	108.52	108.49	108.51	108.56	108.51	108.58
17..24	108.6	108.57	108.54	108.51	108.58	108.58	108.55	108.52
25..30	108.47	108.44	108.32	108.38	108.29	108.37		

Reading # 97 - Oct 18 18:00:37

Pressures (psia)

1..2	53.602	53.595

Dew Points (volts)

1..8	[illegible]	2.8554	2.785	2.7929	2.7461	2.7187	2.7408	2.7221
9..10	[illegible]	2.7537						

Temperatures (ohms)

1..8	108.4	108.44	108.44	108.43	108.45	108.43	108.44	108.44
9..16	108.47	108.48	108.5	108.47	108.5	108.54	108.5	108.56
17..24	108.58	108.56	108.53	108.5	108.58	108.57	108.57	108.5
25..30	108.46	108.42	108.32	108.38	108.3	108.37		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 98 - Oct 18 18:15:38

Pressures (psia)

1.. 2	53.595	53.588

Dew Points (volts)

1.. 8	2.8473	2.8555	2.7948	2.7979	2.7554	2.729	2.7518	2.7335
9..10	2.8091	2.7618						

Temperatures (ohms)

1.. 8	108.38	108.41	108.43	108.42	108.43	108.4	108.43	[illegible]
9..16	108.45	108.46	108.49	108.46	108.48	108.53	108.49	[illegible]
17..24	108.57	108.54	108.51	108.48	108.57	108.56	108.56	108.49
25..30	108.45	108.42	108.32	108.39	108.32	108.37		

Reading # 99 - Oct 18 18:30:39

Pressures (psia)

1.. 2	53.589	53.583

Dew Points (volts)

1.. 8	2.8554	2.8633	2.796	2.801	2.7626	2.7376	2.76	2.7433
9..10	2.8153	2.7682						

Temperatures (ohms)

1.. 8	108.36	108.41	108.41	108.4	108.41	108.4	108.41	108.42
9..16	108.44	108.45	108.47	108.45	108.46	108.51	108.47	108.54
17..24	108.55	108.55	108.5	108.47	108.55	108.56	108.56	108.48
25..30	108.45	108.41	108.31	108.38	108.32	108.38		

Reading # 100 - Oct 18 18:45:39

Pressures (psia)

1.. 2	53.584	53.577

Dew Points (volts)

1.. 8	2.8547	2.866	2.7982	2.8075	2.7707	2.7442	2.7649	2.7545
9..10	2.8159	2.7745						

Temperatures (ohms)

1.. 8	108.35	108.39	108.4	108.39	108.4	108.38	108.4	108.4
9..16	108.42	108.44	108.46	108.44	108.44	108.5	108.46	108.53
17..24	108.54	108.53	108.48	108.46	108.54	108.55	108.54	108.47
25..30	108.44	108.4	108.3	108.39	108.31	108.36		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 101 - Oct 18 19:00:39

Pressures (psia)

1.. 2	53.578	53.572

Dew Points (volts)

1.. 8	2.8625	2.8685	2.8065	2.8136	2.7804	2.7537	2.7762	2.7614
9..10	2.8214	2.7807						

Temperatures (ohms)

1.. 8	108.34	108.37	108.38	108.38	108.39	108.37	108.39	108.39
9..16	108.42	108.42	108.44	108.43	108.43	108.49	108.44	108.51
17..24	108.52	108.52	108.48	108.44	108.53	108.53	108.52	108.46
25..30	108.43	108.39	108.3	108.38	108.31	108.38		

Reading # 102 - Oct 18 19:15:40

Pressures (psia)

1.. 2	53.573	53.566

Dew Points (volts)

1.. 8	2.8663	2.8727	2.8093	2.8186	2.7855	2.7588	2.7804	2.7701
9..10	2.8258	2.7863						

Temperatures (ohms)

1.. 8	108.32	108.36	108.37	108.36	108.37	108.35	108.37	108.38
9..16	108.4	108.41	108.44	108.41	108.42	108.48	108.42	108.5
17..24	108.51	108.5	108.46	108.43	108.52	108.52	108.52	108.45
25..30	108.42	108.38	108.29	108.38	108.32	108.37		

Reading # 103 - Oct 18 19:30:40

Pressures (psia)

1.. 2	53.568	53.561

Dew Points (volts)

1.. 8	2.8676	2.8766	2.8182	2.8216	2.7955	2.7653	2.7862	2.7766
9..10	2.8303	2.7933						

Temperatures (ohms)

1.. 8	108.31	108.35	108.36	108.35	108.36	108.34	108.36	108.37
9..16	108.38	108.4	108.42	108.4	108.4	108.46	108.41	108.49
17..24	108.5	108.49	108.45	108.42	108.51	108.51	108.5	108.44
25..30	108.42	108.38	108.29	108.39	108.31	108.37		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 104 - Oct 18 19:45:41

Pressures (psia)

1..2	53.563	53.556

Dew Points (volts)

1..8	2.874	2.879	2.8224	2.829	2.8047	2.7727	2.7906	2.7817
9..10	2.8354	2.7973						

Temperatures (ohms)

1..8	108.3	108.34	108.35	108.35	108.35	108.33	108.35	108.36
9..16	108.37	108.39	108.41	108.4	108.39	108.45	108.4	108.48
17..24	108.49	108.47	108.44	108.4	108.5	108.5	108.49	108.43
25..30	108.41	108.36	108.29	108.38	108.31	108.37		

Reading # 105 - Oct 18 20:00:41

Pressures (psia)

1..2	53.558	53.552

Dew Points (volts)

1..8	2.8749	2.8811	2.8235	2.8367	2.8088	2.7779	2.7966	2.7887
9..10	2.8387	2.804						

Temperatures (ohms)

1..8	108.29	108.33	108.34	108.34	108.34	108.31	108.34	108.36
9..16	108.36	108.37	108.4	108.38	108.38	108.44	108.39	108.46
17..24	108.48	108.44	108.43	108.39	108.49	108.49	108.48	108.42
25..30	108.4	108.36	108.29	108.38	108.31	108.36		

Reading # 106 - Oct 18 20:15:42

Pressures (psia)

1..2	53.554	53.547

Dew Points (volts)

1..8	2.8793	2.8835	2.8251	2.8404	2.8119	2.7875	2.8026	2.7937
9..10	2.8439	2.8082						

Temperatures (ohms)

1..8	108.28	108.31	108.33	108.32	108.33	108.31	108.33	108.35
9..16	108.36	108.36	108.39	108.37	108.37	108.44	108.39	108.45
17..24	108.47	108.44	108.41	108.39	108.48	108.48	108.47	108.42
25..30	108.39	108.35	108.29	108.41	108.3	108.36		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 107 - Oct 18 20:30:42

Pressures (psia)

1..2	53.55	53.543						

Dew Points (volts)

1..8	2.8843	2.8895	2.8321	2.8446	2.8189	2.7893	2.8088	2.8004
9..10	2.846	2.8125						

Temperatures (ohms)

1..8	108.27	108.31	108.32	108.31	108.32	108.29	108.32	108.34
9..16	108.35	108.35	108.38	108.36	108.36	108.42	108.38	108.45
17..24	108.45	108.42	108.4	108.39	108.47	108.47	108.45	108.41
25..30	108.38	108.35	108.28	108.4	108.3	108.35		

Reading # 108 - Oct 18 20:45:43

Pressures (psia)

1..2	53.546	53.539						

Dew Points (volts)

1..8	2.8874	2.8923	2.8375	2.8494	2.8239	2.7972	2.8141	2.8063
9..10	2.8485	2.8202						

Temperatures (ohms)

1..8	108.26	108.29	108.31	108.31	108.31	108.28	108.31	108.33
9..16	108.33	108.34	108.38	108.35	108.35	108.41	108.37	108.44
17..24	108.44	108.42	108.39	108.38	108.46	108.46	108.44	108.4
25..30	108.38	108.33	108.28	108.41	108.3	108.35		

Reading # 109 - Oct 18 21:00:43

Pressures (psia)

1..2	53.541	53.535						

Dew Points (volts)

1..8	2.8946	2.8963	2.8447	2.8544	2.829	2.8011	2.8202	2.8099
9..10	2.8522	2.8206						

Temperatures (ohms)

1..8	108.25	108.29	108.31	108.29	108.3	108.28	108.3	108.32
9..16	108.33	108.33	108.37	108.34	108.34	108.4	108.36	108.43
17..24	108.43	108.41	108.37	108.37	108.45	108.45	108.42	108.39
25..30	108.38	108.33	108.28	108.4	108.29	108.34		

Raw Instrument Data

DAVIS BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 110 - Oct 18 21:15:44

Pressures (psia)

1.. 2	53.538	53.531

Dew Points (volts)

1.. 8	2.9035	2.8977	2.8472	2.8557	2.8372	2.8033	2.8271	2.815
9..10	2.8554	2.8248						

Temperatures (ohms)

1.. 8	108.24	108.28	108.29	108.29	108.3	108.26	108.29	108.31
9..16	108.31	108.32	108.36	108.33	108.33	108.39	108.35	108.42
17..24	108.42	108.41	108.37	108.36	108.45	108.45	108.42	108.39
25..30	108.37	108.32	108.27	108.4	108.29	108.34		

Reading # 111 - Oct 18 21:30:44

Pressures (psia)

1.. 2	53.534	53.527

Dew Points (volts)

1.. 8	2.9028	2.9017	2.8485	2.8606	2.8385	2.8078	2.8287	2.82
9..10	2.8583	2.8324						

Temperatures (ohms)

1.. 8	108.23	108.27	108.28	108.28	108.28	108.26	108.28	108.3
9..16	108.31	108.31	108.35	108.32	108.32	108.39	108.34	108.41
17..24	108.41	108.4	108.36	108.34	108.44	108.44	108.43	108.38
25..30	108.37	108.31	108.27	108.41	108.29	108.34		

Reading # 112 - Oct 18 21:45:45

Pressures (psia)

1.. 2	53.53	53.524

Dew Points (volts)

1.. 8	2.9096	2.9047	2.8566	2.8661	2.8419	2.814	2.8362	2.8254
9..10	2.8608	2.831						

Temperatures (ohms)

1.. 8	108.22	108.26	108.27	108.27	108.27	108.25	108.27	108.3
9..16	108.29	108.31	108.34	108.32	108.31	108.37	108.34	108.4
17..24	108.4	108.38	108.36	108.33	108.43	108.42	108.41	108.37
25..30	108.35	108.31	108.27	108.41	108.28	108.33		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 113 - Oct 18 22:00:45

Pressures (psia)

1.. 2	53.527	53.52

Dew Points (volts)

1.. 8	2.9062	2.9077	2.8601	2.8715	2.8477	2.8188	2.8383	2.8276
9..10	2.8636	2.8361						

Temperatures (ohms)

1.. 8	108.22	108.25	108.27	108.27	108.27	108.24	108.26	108.29
9..16	108.29	108.3	108.33	108.31	108.31	108.37	108.32	108.39
17..24	108.4	108.37	108.35	108.33	108.42	108.43	108.4	108.37
25..30	108.35	108.31	108.26	108.4	108.27	108.32		

Reading # 114 - Oct 18 22:15:46

Pressures (psia)

1.. 2	53.524	53.517

Dew Points (volts)

1.. 8	2.9136	2.9109	2.8626	2.8766	2.8494	2.8199	2.8437	2.8329
9..10	2.8689	2.8379						

Temperatures (ohms)

1.. 8	108.21	108.25	108.25	108.26	108.26	108.22	108.25	108.28
9..16	108.29	108.29	108.32	108.31	108.3	108.36	108.31	108.4
17..24	108.4	108.37	108.34	108.32	108.42	108.42	108.39	108.36
25..30	108.36	108.3	108.26	108.41	108.27	108.32		

Reading # 115 - Oct 18 22:30:46

Pressures (psia)

1.. 2	53.52	53.514

Dew Points (volts)

1.. 8	2.9204	2.9142	2.8674	2.8789	2.8573	2.8252	2.8476	2.8362
9..10	2.8692	2.844						

Temperatures (ohms)

1.. 8	108.2	108.24	108.24	108.25	108.25	108.22	108.25	108.27
9..16	108.27	108.29	108.31	108.29	108.28	108.35	108.31	108.38
17..24	108.38	108.37	108.33	108.32	108.41	108.41	108.39	108.35
25..30	108.34	108.3	108.26	108.4	108.26	108.31		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 116 - Oct 18 22:45:47

Pressures (psia)

1.. 2	53.517	53.511

Dew Points (volts)

1.. 8	2.9237	2.9176	2.87	2.8822	2.8621	2.8262	2.8478	2.8444
9..10	2.8727	2.8465						

Temperatures (ohms)

1.. 8	108.19	108.23	108.24	108.24	108.25	108.22	108.25	108.27
9..16	108.27	108.28	108.31	108.29	108.29	108.34	108.3	108.38
17..24	108.37	108.37	108.33	108.3	108.4	108.4	108.38	108.35
25..30	108.35	108.29	108.26	108.41	108.26	108.31		

Reading # 117 - Oct 18 23:00:47

Pressures (psia)

1.. 2	53.514	53.508

Dew Points (volts)

1.. 8	2.9255	2.9156	2.8754	2.8848	2.8628	2.831[illegible]	2.8528	2.844
9..10	2.8756	2.8466						

Temperatures (ohms)

1.. 8	108.19	108.23	108.24	108.24	108.24	108.21	108.24	108.26
9..16	108.26	108.27	108.3	108.29	108.27	108.34	108.3	108.38
17..24	108.36	108.35	108.32	108.3	108.4	108.39	108.37	108.35
25..30	108.34	108.29	108.26	108.4	108.25	108.31		

Reading # 118 - Oct 18 23:15:48

Pressures (psia)

1.. 2	53.512	53.506

Dew Points (volts)

1.. 8	2.9324	2.9217	2.8756	2.8902	2.8694	2.8378	2.8573	2.8491
9..10	2.8763	2.8526						

Temperatures (ohms)

1.. 8	108.18	108.22	108.23	108.24	108.23	108.2	108.23	108.25
9..16	108.25	108.27	108.29	108.28	108.27	108.33	108.29	108.36
17..24	108.36	108.34	108.31	108.29	108.38	108.39	108.37	108.34
25..30	108.34	108.28	108.25	108.41	108.25	108.3		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 119 - Oct 18 23:30:48

Pressures (psia)

1.. 2	53.509	53.503

Dew Points (volts)

1.. 8	2.9293	2.927	2.8809	2.8909	2.8724	2.8384	2.8596	2.8523
9..10	2.8791	2.8535						

Temperatures (ohms)

1.. 8	108.17	108.21	108.22	108.22	108.23	108.2	108.22	108.25
9..16	108.24	108.27	108.29	108.27	108.27	108.32	108.29	108.36
17..24	108.35	108.34	108.31	108.29	108.39	108.39	108.36	108.34
25..30	108.33	108.28	108.25	108.4	108.25	108.3		

Reading # 120 - Oct 18 23:45:19

Pressures (psia)

1.. 2	53.507	53.5

Dew Points (volts)

1.. 8	2.934	2.9285	2.8859	2.8944	2.8748	2.8449	2.8642	2.8567
9..10	2.882	2.8552						

Temperatures (ohms)

1.. 8	108.17	108.2	108.22	108.22	108.22	108.19	108.22	108.25
9..16	108.24	108.25	108.29	108.27	108.26	108.33	108.28	108.36
17..24	108.35	108.34	108.31	108.29	108.38	108.38	108.35	108.33
25..30	108.32	108.28	108.25	108.4	108.24	108.3		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 95 - Oct 18 17:30:36

Pressures (PSIA)

1.. 2	53.615	53.608						

Dew Points (°F)

1.. 8	54.686	54.665	54.28	54.353	53.944	53.684	53.885	53.73
9..10	54.213	53.669						

Temperatures (°F)

1.. 8	70.649	70.64	70.771	70.64	70.762	70.786	70.924	70.851
9..16	70.942	71.012	71.021	71.015	71.095	71.143	71.153	71.198
17..24	71.25	71.235	71.229	71.262	71.308	71.394	71.052	71.107
25..30	70.679	70.832	70.004	70.511	69.824	70.255		

Reading # 96 - Oct 18 17:45:37

Pressures (PSIA)

1.. 2	53.608	53.602						

Dew Points (°F)

1.. 8	54.454	54.611	54.234	54.385	53.964	53.788	53.961	53.785
9..10	54.252	53.775						

Temperatures (°F)

1.. 8	70.657	70.549	70.634	70.549	70.671	70.695	70.832	70.805
9..16	70.896	70.966	70.93	70.969	71.049	71.052	71.061	71.153
17..24	71.159	71.189	71.137	71.125	71.263	71.348	71.006	71.061
25..30	70.679	70.786	69.958	70.466	69.824	70.255		

Reading # 97 - Oct 18 18:00:37

Pressures (PSIA)

1.. 2	53.602	53.595						

Dew Points (°F)

1.. 8	54.54	54.603	54.2	54.343	54.011	53.779	54.029	53.83
9..10	54.258	53.788						

Temperatures (°F)

1.. 8	70.511	70.503	70.542	70.503	70.579	70.649	70.74	70.713
9..16	70.805	70.875	70.838	70.878	71.003	70.96	71.015	71.061
17..24	71.067	71.143	71.092	71.079	71.263	71.302	71.098	70.969
25..30	70.634	70.695	69.958	70.466	69.87	70.255		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 98 - Oct 18 18:15:38

Pressures (PSIA)

1.. 2	53.595	53.588

Dew Points (°F)

1.. 8	54.518	54.561	54.211	54.306	54.061	53.797	54.053	53.86
9..10	54.234	53.869						

Temperatures (°F)

1.. 8	70.42	70.366	70.496	70.457	70.488	70.511	70.695	70.667
9..16	70.713	70.783	70.793	70.832	70.912	70.915	70.969	70.969
17..24	71.021	71.052	71	70.988	71.217	71.257	71.052	70.924
25..30	70.588	70.695	69.958	70.511	69.962	70.255		

Reading # 99 - Oct 18 18:30:38

Pressures (PSIA)

1.. 2	53.589	53.583

Dew Points (°F)

1.. 8	54.511	54.55	54.18	54.294	54.047	53.883	54.092	53.915
9..10	54.294	53.889						

Temperatures (°F)

1.. 8	70.328	70.366	70.405	70.366	70.396	70.511	70.603	70.622
9..16	70.667	70.737	70.701	70.786	70.82	70.823	70.878	70.969
17..24	70.93	71.098	70.954	70.942	71.125	71.257	71.052	70.878
25..30	70.588	70.649	69.912	70.466	69.962	70.301		

Reading # 100 - Oct 18 18:45:39

Pressures (PSIA)

1.. 2	53.584	53.577

Dew Points (°F)

1.. 8	54.461	54.533	54.116	54.315	54.084	53.907	54.056	53.984
9..10	54.257	53.909						

Temperatures (°F)

1.. 8	70.282	70.274	70.359	70.32	70.35	70.42	70.557	70.53
9..16	70.576	70.691	70.655	70.74	70.728	70.777	70.832	70.924
17..24	70.884	71.006	70.863	70.896	71.079	71.211	70.96	70.832
25..30	70.542	70.603	69.867	70.511	69.916	70.301		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 101 - Oct 18 19:00:39

Pressures (PSIA)

1..2	53.578	53.572

Dew Points (°F)

1..8	54.451	54.518	54.197	54.289	54.095	53.916	54.167	53.967
9..10	54.268	53.927						

Temperatures (°F)

1..8	70.237	70.183	70.267	70.274	70.305	70.374	70.511	70.484
9..16	70.576	70.6	70.564	70.695	70.683	70.732	70.74	70.832
17..24	70.793	70.96	70.863	70.805	71.034	71.119	70.869	70.786
25..30	70.496	70.557	69.867	70.466	69.916	70.301		

Reading # 102 - Oct 18 19:15:40

Pressures (PSIA)

1..2	53.573	53.566

Dew Points (°F)

1..8	54.444	54.469	54.139	54.295	54.06	53.924	54.123	54.01
9..10	54.268	53.94						

Temperatures (°F)

1..8	70.145	70.137	70.221	70.183	70.213	70.282	70.42	70.439
9..16	70.484	70.554	70.564	70.603	70.637	70.686	70.649	70.786
17..24	70.747	70.869	70.771	70.759	70.988	71.073	70.869	70.74
25..30	70.45	70.511	69.821	70.466	69.962	70.255		

Reading # 103 - Oct 18 19:30:40

Pressures (PSIA)

1..2	53.568	53.561

Dew Points (°F)

1..8	54.414	54.463	54.141	54.281	54.115	53.946	54.138	54.032
9..10	54.312	54.008						

Temperatures (°F)

1..8	70.099	70.091	70.176	70.137	70.167	70.237	70.374	70.393
9..16	70.393	70.508	70.472	70.557	70.545	70.594	70.603	70.74
17..24	70.701	70.823	70.725	70.713	70.942	71.028	70.777	70.695
25..30	70.45	70.511	69.821	70.511	69.916	70.255		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 104 - Oct 18 19:45:41

Pressures (PSIA)

1.. 2	53.563	53.556

Dew Points (°F)

1.. 8	54.475	54.486	54.139	54.31	54.162	53.976	54.138	53.997
9..10	54.318	53.962						

Temperatures (°F)

1.. 8	70.053	70.045	70.176	70.137	70.122	70.191	70.328	70.347
9..16	70.347	70.462	70.427	70.557	70.5	70.549	70.557	70.695
17..24	70.655	70.732	70.679	70.622	70.896	70.982	70.732	70.649
25..30	70.405	70.42	69.821	70.466	69.916	70.255		

Reading # 105 - Oct 18 20:00:41

Pressures (PSIA)

1.. 2	53.558	53.552

Dew Points (°F)

1.. 8	54.398	54.464	54.107	54.299	54.16	53.942	54.154	54.023
9..10	54.307	54.028						

Temperatures (°F)

1.. 8	70.008	70	70.084	70.091	70.076	70.099	70.282	70.347
9..16	70.301	70.371	70.381	70.466	70.454	70.503	70.511	70.603
17..24	70.61	70.594	70.634	70.576	70.851	70.936	70.686	70.603
25..30	70.359	70.42	69.821	70.466	69.916	70.21		

Reading # 106 - Oct 18 20:15:42

Pressures (PSIA)

1.. 2	53.554	53.547

Dew Points (°F)

1.. 8	54.397	54.401	54.122	54.292	54.19	53.994	54.128	54.072
9..10	54.315	54.026						

Temperatures (°F)

1.. 8	69.962	69.908	70.038	70	70.03	70.099	70.237	70.301
9..16	70.301	70.325	70.335	70.42	70.408	70.503	70.511	70.557
17..24	70.564	70.594	70.542	70.576	70.805	70.89	70.64	70.603
25..30	70.313	70.374	69.821	70.603	69.87	70.21		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 107 - Oct 18 20:30:42

Pressures (PSIA)

1..2	53.55	53.543						

Dew Points (°F)

1..8	54.402	54.415	54.147	54.29	54.215	54.012	54.146	54.138
9..10	54.292	54.068						

Temperatures (°F)

1..8	69.916	69.908	69.992	63.954	69.984	70.008	70.191	70.255
9..16	70.255	70.279	70.289	70.374	70.362	70.411	70.466	70.557
17..24	70.472	70.503	70.496	70.576	70.759	70.844	70.549	70.557
25..30	70.267	70.374	69.775	70.557	69.87	70.164		

Reading # 108 - Oct 18 20:45:43

Pressures (PSIA)

1..2	53.546	53.539						

Dew Points (°F)

1..8	54.388	54.442	54.114	54.293	54.221	54.046	54.154	54.153
9..10	54.316	54.057						

Temperatures (°F)

1..8	69.87	69.816	69.947	69.954	69.938	69.962	70.145	70.21
9..16	70.164	70.233	70.289	70.328	70.316	70.366	70.42	70.511
17..24	70.427	70.503	70.45	70.53	70.713	70.798	70.503	70.511
25..30	70.267	70.282	69.775	70.603	69.87	70.164		

Reading # 109 - Oct 18 21:00:43

Pressures (PSIA)

1..2	53.541	53.535						

Dew Points (°F)

1..8	54.457	54.394	54.183	54.298	54.228	54.042	54.128	54.145
9..10	54.352	54.061						

Temperatures (°F)

1..8	69.824	69.816	69.947	69.862	69.893	69.962	70.099	70.164
9..16	70.164	70.187	70.244	70.282	70.271	70.32	70.374	70.466
17..24	70.381	70.457	70.359	70.484	70.667	70.753	70.411	70.466
25..30	70.267	70.282	69.775	70.557	69.824	70.118		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 110 - Oct 18 21:15:44

Pressures (PSIA)

1.. 2	53.538	53.531

Dew Points (°F)

1.. 8	54.455	54.407	54.122	54.268	54.264	54.021	54.195	54.152
9..10	54.34	54.059						

Temperatures (°F)

1.. 8	69.779	69.771	69.855	69.862	69.893	69.87	70.053	70.118
9..16	70.072	70.142	70.198	70.237	70.225	70.274	70.328	70.42
17..24	70.335	70.457	70.359	70.438	70.667	70.753	70.411	70.466
25..30	70.221	70.237	69.729	70.557	69.824	70.118		

Reading # 111 - Oct 18 21:30:44

Pressures (PSIA)

1.. 2	53.534	53.527

Dew Points (°F)

1.. 8	54.406	54.402	54.134	54.272	54.234	54.022	54.168	54.115
9..10	54.368	54.09						

Temperatures (°F)

1.. 8	69.733	69.725	69.809	69.817	69.801	69.87	70.008	70.072
9..16	70.072	70.096	70.152	70.191	70.179	70.274	70.282	70.374
17..24	70.289	70.411	70.313	70.347	70.622	70.707	70.457	70.42
25..30	70.221	70.191	69.729	70.603	69.824	70.118		

Reading # 112 - Oct 18 21:45:45

Pressures (PSIA)

1.. 2	53.53	53.524

Dew Points (°F)

1.. 8	54.427	54.388	54.127	54.325	54.267	54.04	54.24	54.125
9..10	54.306	54.076						

Temperatures (°F)

1.. 8	69.687	69.679	69.763	69.771	69.755	69.824	69.962	70.072
9..16	69.981	70.096	70.106	70.191	70.133	70.183	70.282	70.328
17..24	70.243	70.32	70.313	70.301	70.576	70.615	70.366	70.374
25..30	70.13	70.191	69.729	70.603	69.779	70.072		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 113 - Oct 18 22:00:45

Pressures (PSIA)

1.. 2	53.527	53.52

Dew Points (°F)

1.. 8	54.395	54.416	54.16	54.334	54.237	54.044	54.218	54.146
9..10	54.333	54.126						

Temperatures (°F)

1.. 8	69.687	69.633	69.763	69.771	69.755	69.779	69.916	70.027
9..16	69.981	70.05	70.061	70.145	70.133	70.183	70.191	70.282
17..24	70.243	70.274	70.267	70.301	70.53	70.061	70.32	70.374
25..30	70.13	70.191	69.683	70.557	69.733	70.026		

Reading # 114 - Oct 18 22:15:46

Pressures (PSIA)

1.. 2	53.524	53.517

Dew Points (°F)

1.. 8	54.379	54.403	54.184	54.339	54.211	54.097	54.227	54.155
9..10	54.426	54.1						

Temperatures (°F)

1.. 8	69.641	69.633	69.672	69.725	69.71	69.687	69.87	69.981
9..16	69.981	70.004	70.015	70.145	70.088	70.137	70.145	70.328
17..24	70.243	70.274	70.221	70.255	70.53	70.615	70.274	70.328
25..30	70.176	70.145	69.683	70.603	69.733	70.026		

Reading # 115 - Oct 18 22:30:46

Pressures (PSIA)

1.. 2	53.52	53.514

Dew Points (°F)

1.. 8	54.4	54.391	54.144	54.361	54.287	54.063	54.222	54.187
9..10	54.344	54.159						

Temperatures (°F)

1.. 8	69.595	69.588	69.626	69.679	69.664	69.687	69.87	69.935
9..16	69.889	70.004	69.969	70.053	69.996	70.091	70.145	70.237
17..24	70.152	70.274	70.176	70.255	70.484	70.569	70.274	70.282
25..30	70.084	70.145	69.683	70.557	69.687	69.981		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 116 - Oct 18 22:45:47

Pressures (PSIA)

1.. 2	53.517	53.511

Dew Points (°F)

1.. 8	54.431	54.381	54.169	54.35	54.29	54.073	54.224	54.18
9..10	54.42	54.14						

Temperatures (°F)

1.. 8	69.55	69.542	69.626	69.634	69.664	69.687	69.87	69.935
9..16	69.889	69.958	69.969	70.053	70.042	70.045	70.099	70.237
17..24	70.106	70.274	70.176	70.164	70.439	70.523	70.228	70.282
25..30	70.13	70.099	69.683	70.603	69.687	69.981		

Reading # 117 - Oct 18 23:00:47

Pressures (PSIA)

1.. 2	53.514	53.508

Dew Points (°F)

1.. 8	54.448	54.362	54.178	54.332	54.297	54.126	54.229	54.176
9..10	54.405	54.141						

Temperatures (°F)

1.. 8	69.55	69.542	69.626	69.634	69.618	69.641	69.824	69.889
9..16	69.843	69.912	69.923	70.053	69.95	70.045	70.099	70.237
17..24	70.06	70.183	70.13	70.164	70.439	70.478	70.183	70.282
25..30	70.084	70.099	69.683	70.557	69.641	69.981		

Reading # 118 - Oct 18 23:15:48

Pressures (PSIA)

1.. 2	53.512	53.506

Dew Points (°F)

1.. 8	54.469	54.419	54.137	54.383	54.317	54.099	54.23	54.183
9..10	54.411	54.156						

Temperatures (°F)

1.. 8	69.504	69.496	69.58	69.634	69.572	69.595	69.779	69.843
9..16	69.798	69.912	69.777	70.008	69.95	70	70.053	70.145
17..24	70.06	70.137	70.084	70.118	70.347	70.478	70.183	70.237
25..30	70.084	70.053	69.637	70.603	69.641	69.935		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 119 - Oct 18 23:30:48

Pressures (PSIA)

1.. 2	53.509	53.503

Dew Points (°F)

1.. 8	54.397	54.383	54.145	54.39	54.345	54.105	54.252	54.214
9..10	54.395	54.165						

Temperatures (°F)

1.. 8	69.458	69.45	69.534	69.542	69.572	69.595	69.733	69.843
9..16	69.752	69.912	69.877	69.962	69.95	69.954	70.053	70.145
17..24	70.015	70.137	70.084	70.118	70.393	70.478	70.137	70.237
25..30	70.038	70.053	69.637	70.557	69.641	69.935		

Reading # 120 - Oct 18 23:45:19

Pressures (PSIA)

1.. 2	53.507	53.5

Dew Points (°F)

1.. 8	54.441	54.397	54.192	54.337	54.326	54.168	54.296	54.256
9..10	54.38	54.181						

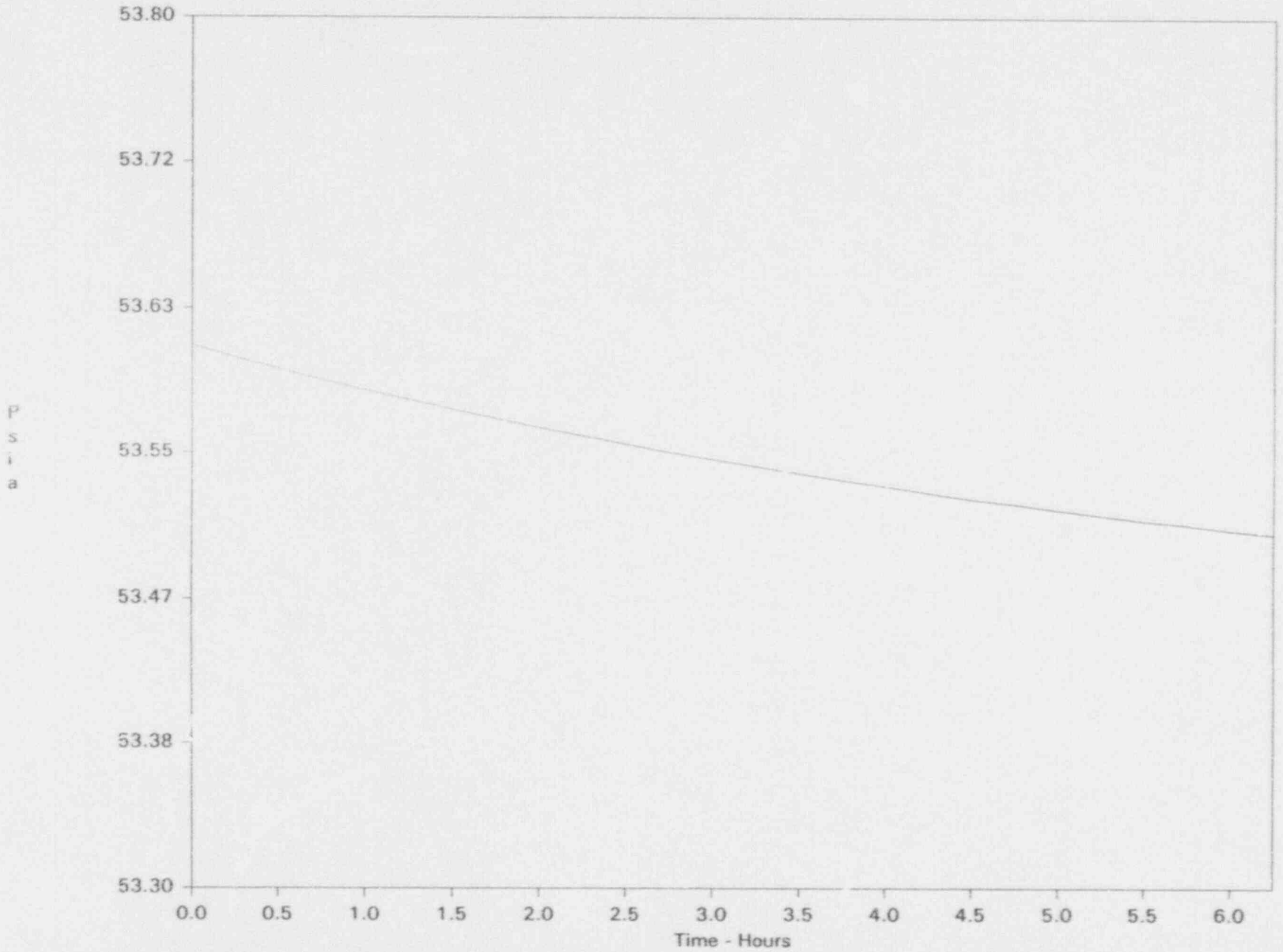
Temperatures (°F)

1.. 8	69.458	69.405	69.534	69.542	69.527	69.55	69.733	69.843
9..16	69.752	69.821	69.877	69.962	69.904	70	70.008	70.145
17..24	70.015	70.137	70.084	70.118	70.347	70.432	70.091	70.191
25..30	69.992	70.053	69.637	70.557	69.595	69.935		

Average Pressure

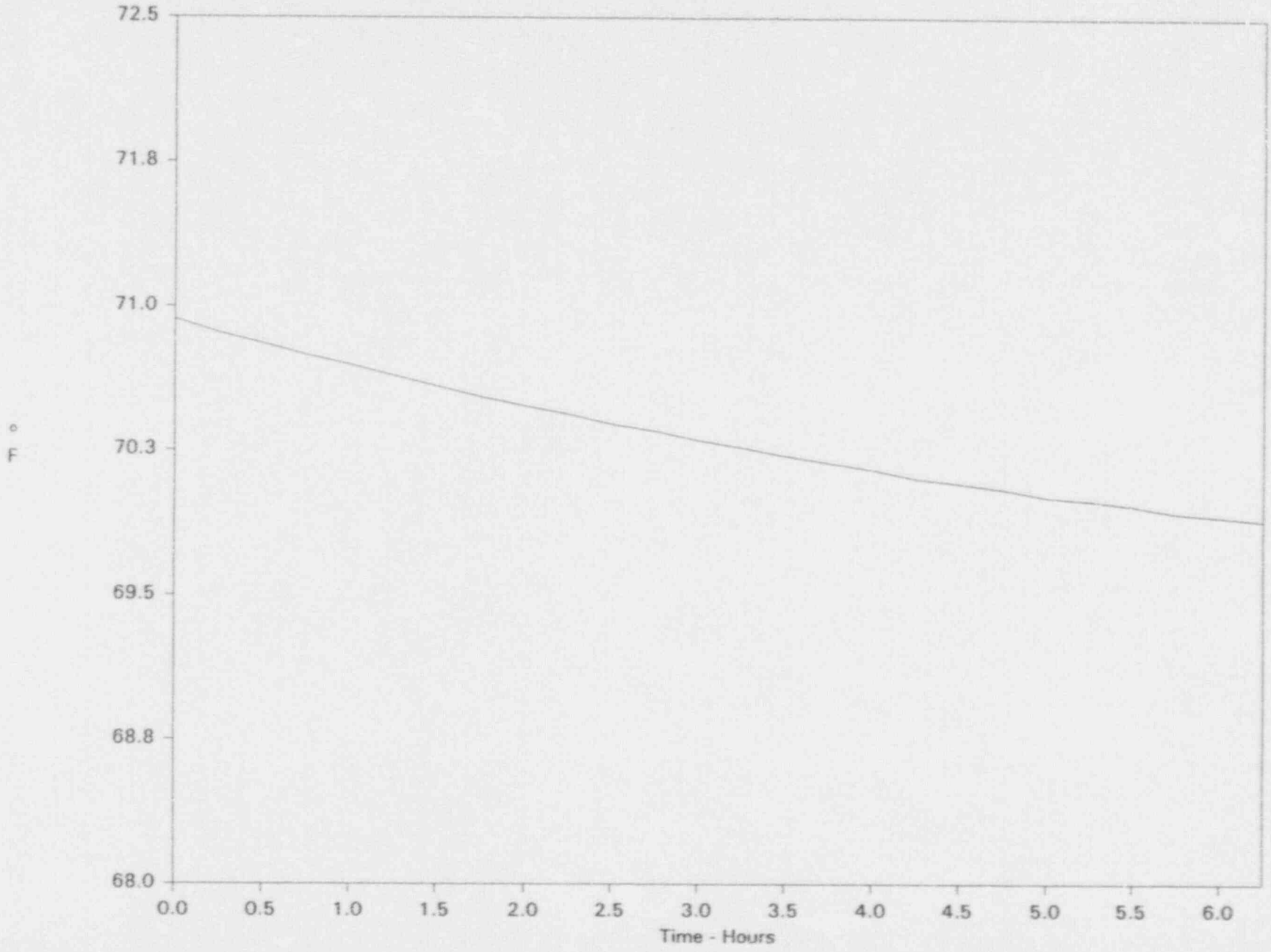
DAVIS-BESSE NUCLEAR POWER STATION

Unit No. 1



Average Temperature

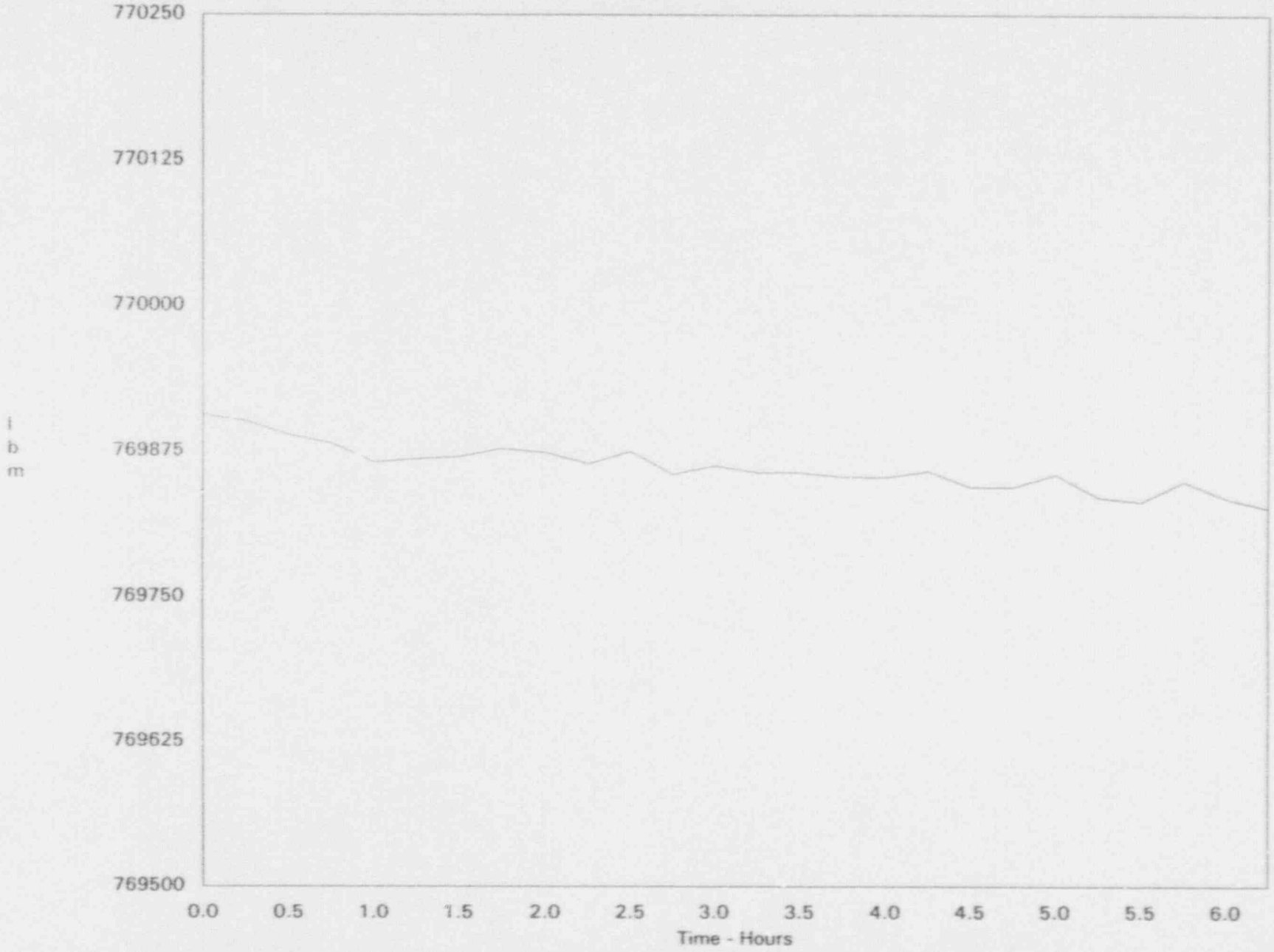
DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Containment Mass

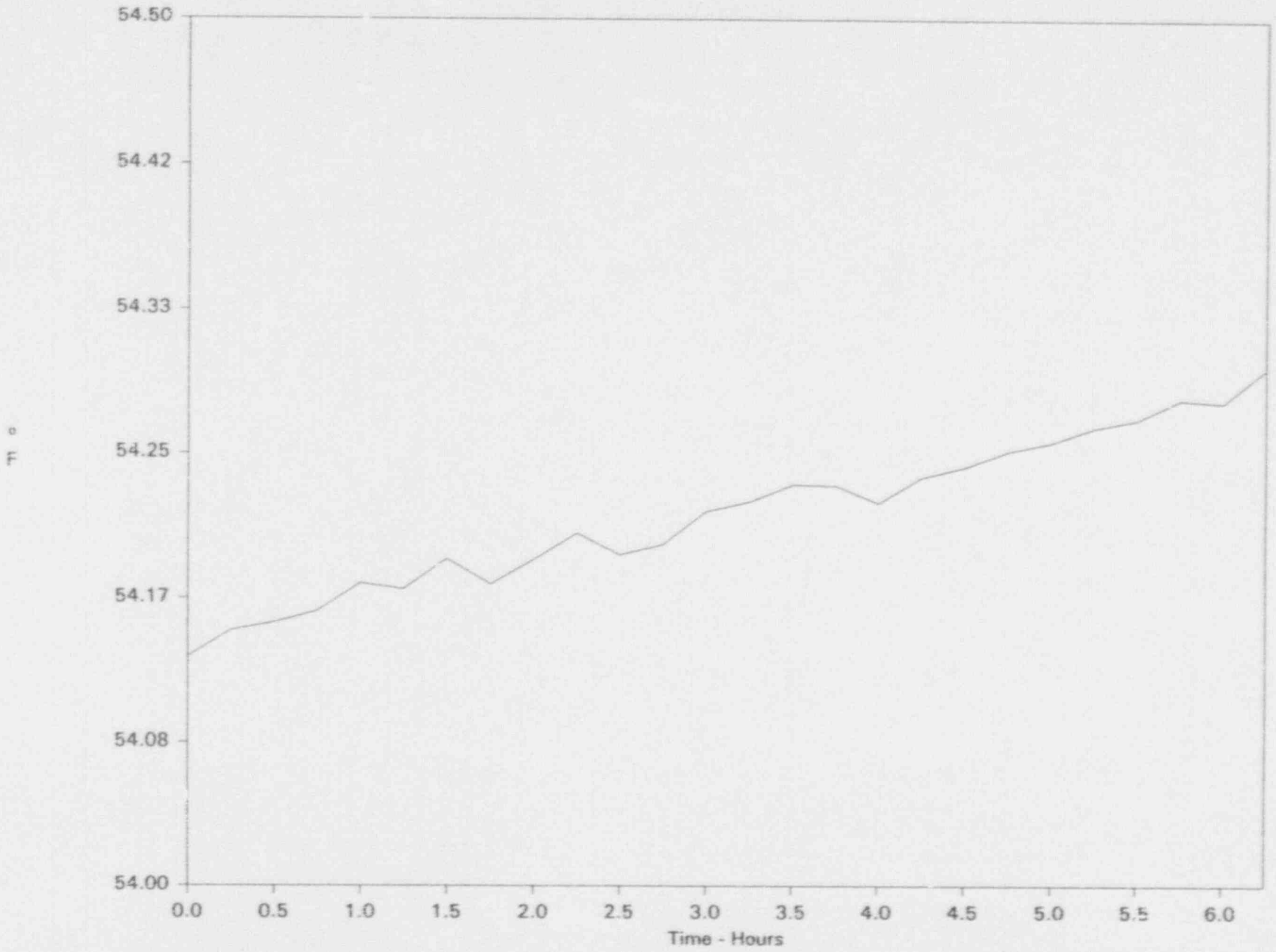
DAVIS-BESSE NUCLEAR POWER STATION

Unit No. 1



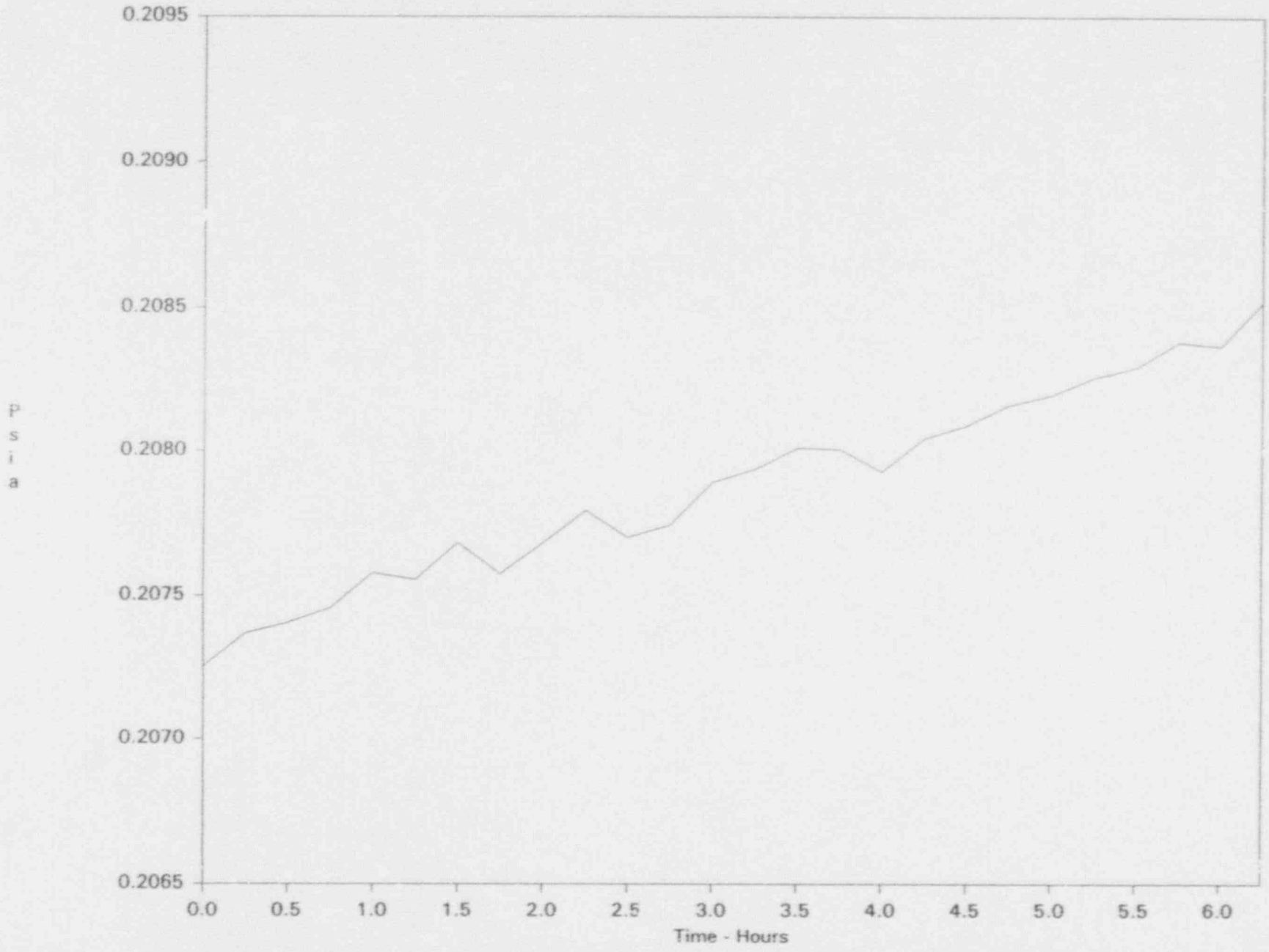
Average Dew Point

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



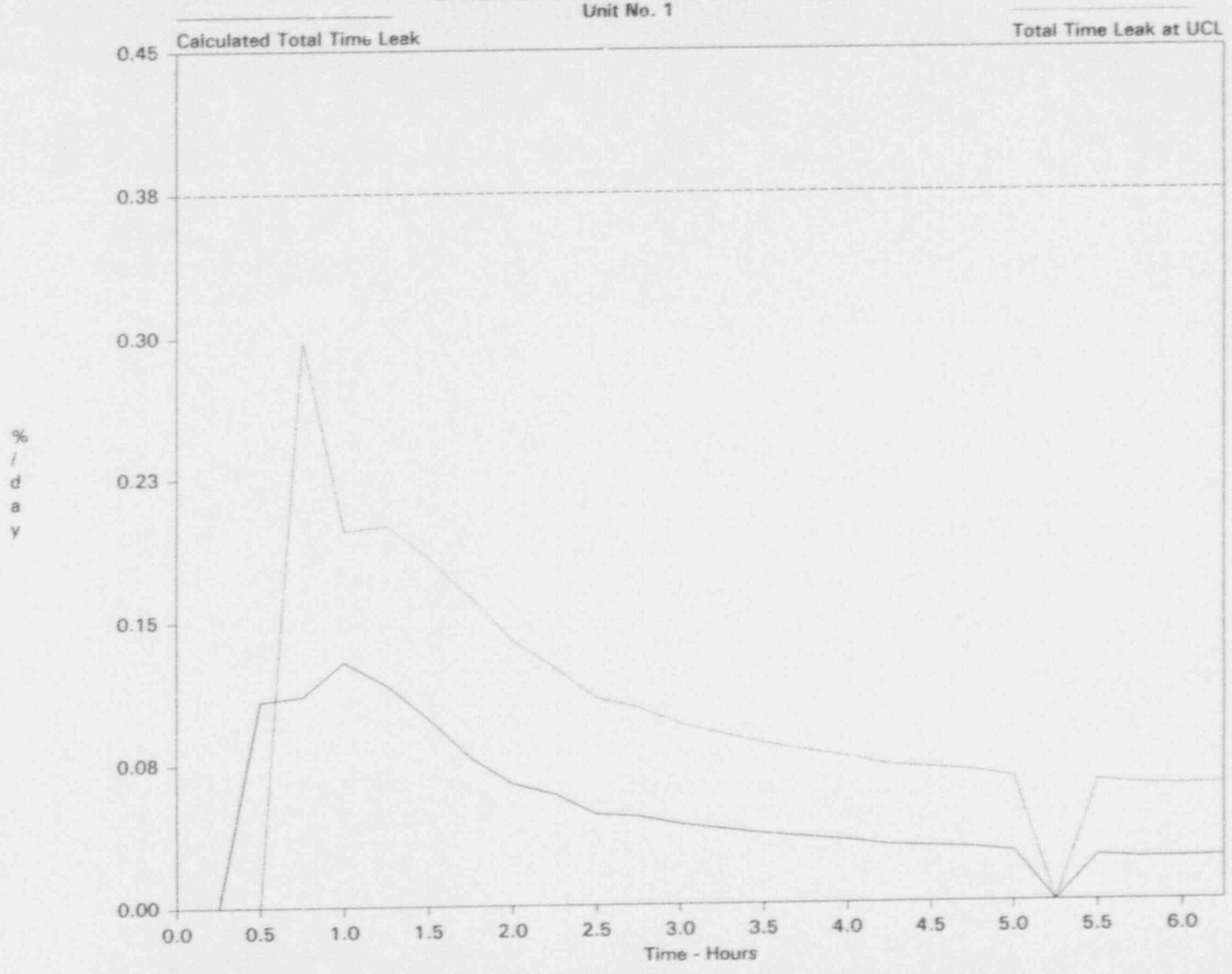
Average Vapor Pressure

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



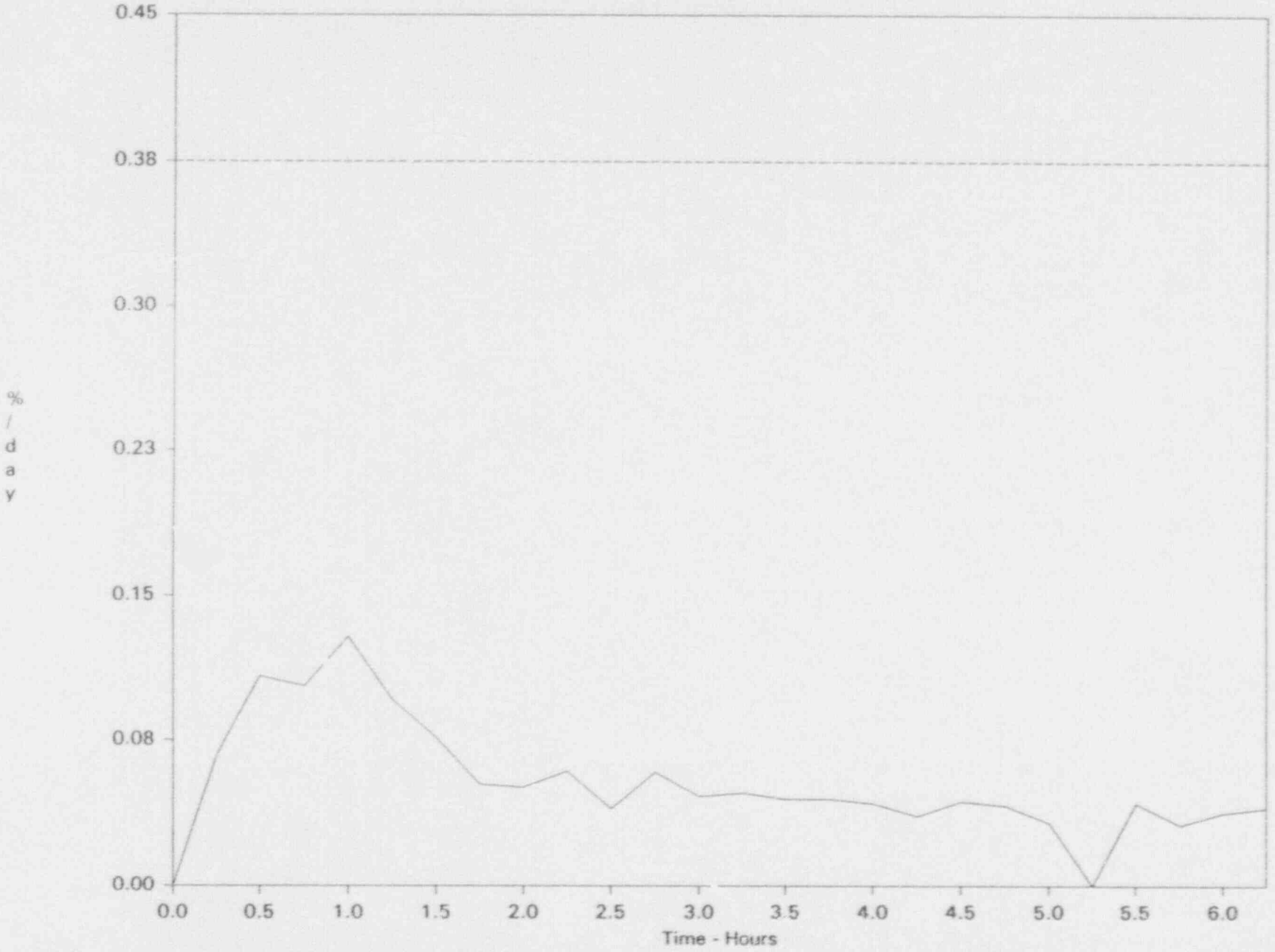
Calculated Total Time Leak & Total Time Leak at UCL

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



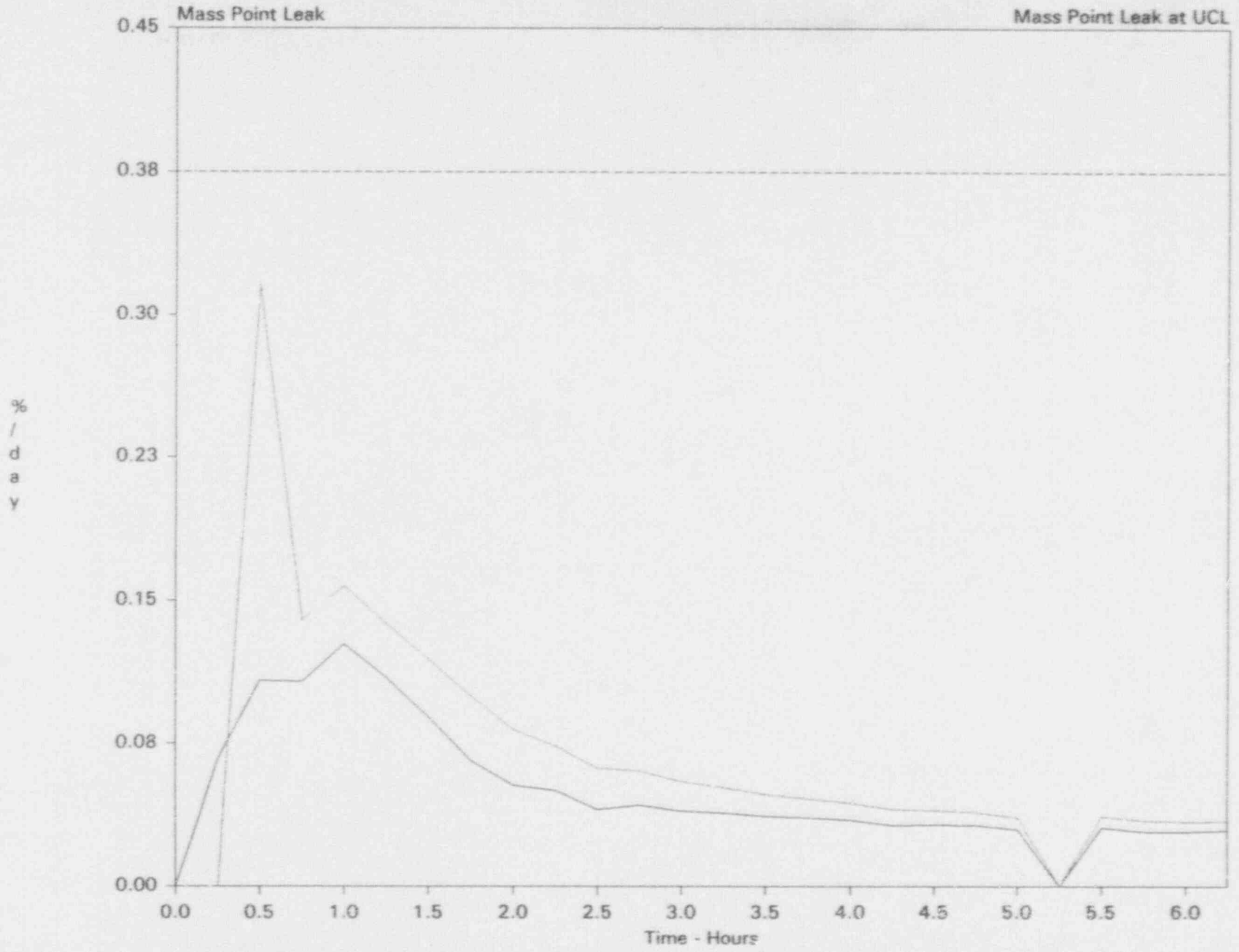
Measured Total Time Leak

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



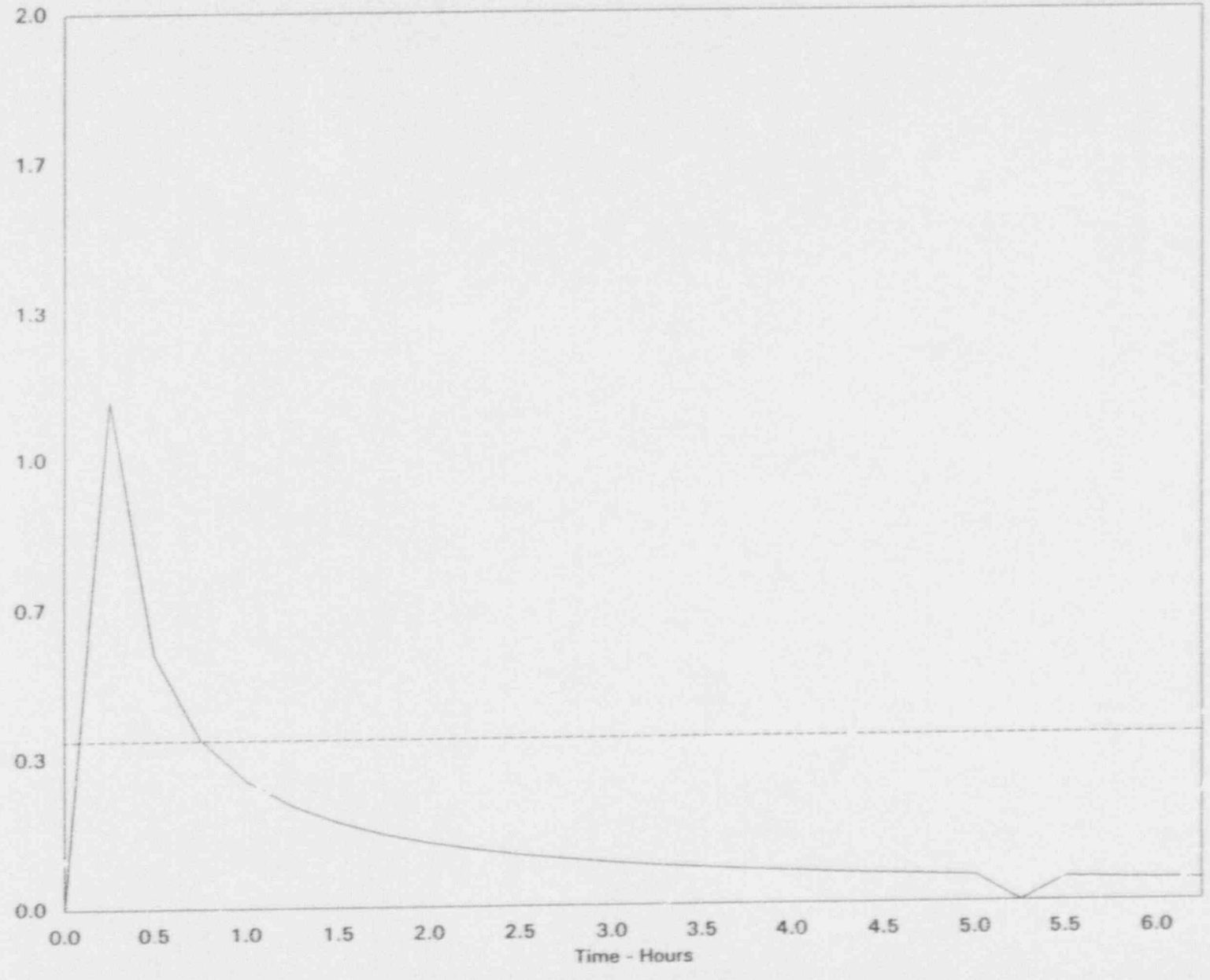
Mass Point Leak & Mass Point Leak at UCL

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Instrument Selection Guide

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Total Time Leak Rate Analysis

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

RDG	TIME (MINUTES)	MEASURED LEAK (WT %/DAY)	CALCULATED LEAK (WT %/DAY)	UCL LEAK (WT %/DAY)
126	0.00	-	-	-
127	10.02	0.636630	-	-
128	20.02	0.603603	0.603603	-
129	30.02	0.579603	0.578099	0.613797
130	40.03	0.625031	0.602405	0.749763
131	50.03	0.606010	0.602220	0.696039
132	60.03	0.615858	0.607470	0.681002
133	70.05	0.599960	0.603199	0.663681
134	80.05	0.628556	0.612535	0.670044
135	90.05	0.590189	0.604206	0.658332
136	100.07	0.607034	0.604316	0.653268
137	110.07	0.586479	0.597894	0.644302
138	120.07	0.586225	0.593145	0.636646
139	129.78	0.588459	0.590288	0.630961
140	139.95	0.573610	0.584253	0.623537
141	149.97	0.602319	0.586548	0.625662
142	159.97	0.587033	0.584957	0.622204
143	169.97	0.595713	0.585594	0.621847
144	179.98	0.607646	0.588602	0.625511
145	189.98	0.592736	0.588222	0.623824
146	249.78	0.579672	0.579865	0.615924

Mass Point Leak Rate Analysis

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

RDG	TIME (MINUTES)	NORM. MASS	EASURED LEAK (WT %/DAY)	UCL LEAK (WT %/DAY)
126	0.00	1.000000	-	-
127	10.02	0.999956	0.636630	-
128	20.02	0.999916	0.603613	0.766894
129	30.02	0.999879	0.578706	0.627933
130	40.03	0.999826	0.610252	0.658782
131	50.03	0.999789	0.607786	0.636712
132	60.03	0.999743	0.613044	0.633324
133	70.05	0.999708	0.606195	0.622672
134	80.05	0.999651	0.617835	0.635639
135	90.05	0.999631	0.605514	0.624734
136	100.07	0.999578	0.605751	0.621223
137	110.07	0.999552	0.597242	0.612777
138	120.07	0.999517	0.591645	0.605891
139	129.78	0.999470	0.588811	0.601277
140	139.95	0.999443	0.581757	0.594688
141	149.97	0.999373	0.586353	0.598532
142	159.97	0.999348	0.585025	0.595800
143	169.97	0.999297	0.586717	0.596404
144	179.98	0.999241	0.591464	0.601325
145	189.98	0.999218	0.591104	0.599956
146	249.78	0.998994	0.585541	0.593855

Containment Calculated Values

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

RDG	TIME	MASS	TEMP	VAPOR PRESS	PRESSURE
126	00:50:31	769663.70	69.770	0.2086	53.4795
127	01:00:32	769629.61	69.757	0.2086	53.4759
128	01:10:32	769599.12	69.743	0.2085	53.4722
129	01:20:32	769570.71	69.725	0.2086	53.4685
130	01:30:33	769529.96	69.716	0.2088	53.4650
131	01:40:33	769501.64	69.705	0.2087	53.4618
132	01:50:33	769466.09	69.694	0.2088	53.4584
133	02:00:34	769439.07	69.679	0.2088	53.4550
134	02:10:34	769394.76	69.675	0.2088	53.4515
135	02:20:34	769379.63	69.658	0.2087	53.4487
136	02:30:35	769339.03	69.649	0.2089	53.4451
137	02:40:35	769318.67	69.630	0.2088	53.4418
138	02:50:35	769287.49	69.617	0.2089	53.4384
139	03:00:18	769255.50	69.608	0.2089	53.4353
140	03:10:28	769234.63	69.593	0.2089	53.4322
141	03:20:29	769180.91	69.597	0.2090	53.4291
142	03:30:29	769161.78	69.578	0.2090	53.4259
143	03:40:29	769122.52	69.575	0.2089	53.4228
144	03:50:30	769079.15	69.572	0.2090	53.4196
145	04:00:30	769061.81	69.554	0.2091	53.4166
146	05:00:18	768889.80	69.492	0.2092	53.3986

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 126 - Oct 19 00:50:31

Pressures (psia)

1.. 2	53.483	53.476

Dew Points (volts)

1.. 8	2.9522	2.9409	2.9035	2.9083	2.8878	2.8563	2.8764	2.8677
9.. 10	2.8919	2.8653						

Temperatures (ohms)

1.. 8	108.14	108.18	108.18	108.19	108.19	108.17	108.19	108.22
9..16	108.21	108.24	108.26	108.24	108.23	108.29	108.25	108.33
17..24	108.32	108.29	108.28	108.26	108.35	108.35	108.32	108.31
25..30	108.31	108.26	108.23	108.39	108.23	108.28		

Reading # 127 - Oct 19 01:00:32

Pressures (psia)

1.. 2	53.479	53.473

Dew Points (volts)

1.. 8	2.9519	2.9426	2.9013	2.9113	2.8934	2.8558	2.8779	2.8713
9..10	2.8919	2.8673						

Temperatures (ohms)

1.. 8	108.14	108.18	108.19	108.19	108.19	108.16	108.19	108.21
9..16	108.22	108.22	108.25	108.24	108.23	108.29	108.25	108.33
17..24	108.31	108.29	108.28	108.25	108.34	108.35	108.32	108.31
25..30	108.3	108.26	108.23	108.38	108.23	108.27		

Reading # 128 - Oct 19 01:10:32

Pressures (psia)

1.. 2	53.[illegible]	53.469

Dew Points (volts)

1.. 8	2.95	2.9415	2.9049	2.9126	2.8944	2.8571	2.8763	2.872
9..10	2.894	2.8692						

Temperatures (ohms)

1.. 8	108.14	108.18	108.18	108.19	108.18	108.16	108.19	108.21
9..16	108.2	108.21	108.25	108.24	108.22	108.29	108.24	108.33
17..24	108.31	108.29	108.27	108.25	108.34	108.35	108.32	108.3
25..30	108.31	108.25	108.24	108.38	108.23	108.27		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 129 - Oct 19 01:20:3 /

Pressures (psia)

1.. 2	53.472	53.465

Dew Points (volts)

1.. 8	2.953	2.9443	2.9081	2.9144	2.896	2.8601	2.8789	2.8747
9..10	2.8943	2.8698						

Temperatures (ohms)

1.. 8	108.13	108.17	108.18	108.19	108.18	108.15	108.18	108.2
9..16	108.2	108.22	108.25	108.22	108.22	108.29	108.24	108.32
17..24	108.31	108.29	108.26	108.24	108.33	108.35	108.32	108.3
25..30	108.3	108.25	108.24	108.38	108.22	108.27		

Reading # 130 - Oct 19 01:30:33

Pressures (psia)

1.. 2	53.468	53.462

Dew Points (volts)

1.. 8	2.9597	2.9445	2.9116	2.9148	2.8968	2.8616	2.8851	2.8763
9..10	2.897	2.8718						

Temperatures (ohms)

1.. 8	108.13	108.17	108.18	108.19	108.18	108.15	108.18	108.2
9..16	108.2	108.22	108.24	108.23	108.21	108.27	108.24	108.32
17..24	108.3	108.29	108.26	108.25	108.33	108.34	108.31	108.3
25..30	108.3	108.25	108.24	108.38	108.22	108.27		

Reading # 131 - Oct 19 01:40:33

Pressures (psia)

1.. 2	53.465	53.459

Dew Points (volts)

1.. 8	2.9564	2.9469	2.9127	2.9175	2.8979	2.8643	2.8871	2.8771
9..10	2.8973	2.8738						

Temperatures (ohms)

1.. 8	108.13	108.16	108.17	108.18	108.17	108.15	108.17	108.2
9..16	108.19	108.22	108.24	108.22	108.21	108.29	108.24	108.31
17..24	108.31	108.3	108.26	108.24	108.33	108.34	108.31	108.3
25..30	108.3	108.24	108.23	108.37	108.22	108.27		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 132 - Oct 19 01:50:33

Pressures (psia)

1.. 2	53.462	53.455

Dew Points (volts)

1.. 8	2.9566	2.9489	2.9161	2.9203	2.9022	2.8658	2.888	2.8817
9..10	2.8984	2.8755						

Temperatures (ohms)

1.. 8	108.13	108.16	108.17	108.18	108.18	108.15	108.17	108.2
9..16	108.19	108.21	108.24	108.22	108.22	108.27	108.23	108.31
17..24	108.31	108.29	108.26	108.24	108.32	108.34	108.3	108.29
25..30	108.3	108.24	108.23	108.37	108.22	108.26		

Reading # 133 - Oct 19 02:00:34

Pressures (psia)

1.. 2	53.458	53.452

Dew Points (volts)

1.. 8	2.9604	2.9499	2.9178	2.9222	2.9007	2.8653	2.8893	2.8822
9..10	2.8999	2.8755						

Temperatures (ohms)

1.. 8	108.12	108.16	108.17	108.18	108.17	108.14	108.17	108.2
9..16	108.19	108.2	108.24	108.22	108.2	108.27	108.23	108.32
17..24	108.29	108.28	108.26	108.24	108.32	108.33	108.3	108.29
25..30	108.29	108.24	108.24	108.37	108.22	108.26		

Reading # 134 - Oct 19 02:10:34

Pressures (psia)

1.. 2	53.455	53.448

Dew Points (volts)

1.. 8	2.9631	2.9522	2.9162	2.9239	2.9056	2.8678	2.8894	2.8031
9..10	2.9003	2.8791						

Temperatures (ohms)

1.. 8	108.12	108.16	108.16	108.17	108.16	108.15	108.17	108.2
9..16	108.19	108.2	108.23	108.22	108.21	108.27	108.23	108.31
17..24	108.3	108.3	108.25	108.23	108.32	108.32	108.31	108.29
25..30	108.3	108.24	108.24	108.37	108.21	108.25		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 135 - Oct 19 02:20:34

Pressures (psia)

1..2	53.452	53.446

Dew Points (volts)

1..8	2.96	2.9547	2.9201	2.9243	2.9073	2.8727	2.8891	2.8849
9..10	2.9026	2.8786						

Temperatures (ohms)

1..8	108.12	108.16	108.16	108.17	108.16	108.15	108.16	108.19
9..16	108.19	108.2	108.23	108.21	108.22	108.27	108.23	108.3
17..24	108.29	108.29	108.25	108.22	108.31	108.32	108.3	108.28
25..30	108.28	108.23	108.23	108.38	108.21	108.25		

Reading # 136 - Oct 19 02:30:35

Pressures (psia)

1..2	53.448	53.442

Dew Points (volts)

1..8	2.9658	2.9535	2.9213	2.9276	2.9099	2.873	2.8881	2.8865
9..10	2.9022	2.8798						

Temperatures (ohms)

1..8	108.11	108.16	108.16	108.18	108.16	108.14	108.16	108.19
9..16	108.18	108.2	108.23	108.21	108.21	108.26	108.22	108.3
17..24	108.29	108.27	108.26	108.23	108.31	108.32	108.29	108.29
25..30	108.28	108.24	108.22	108.38	108.21	108.25		

Reading # 137 - Oct 19 02:40:35

Pressures (psia)

1..2	53.445	53.439

Dew Points (volts)

1..8	2.9641	2.9546	2.925	2.9306	2.9102	2.8734	2.8926	2.8883
9..10	2.9041	2.8807						

Temperatures (ohms)

1..8	108.11	108.15	108.16	108.16	108.16	108.13	108.16	108.19
9..16	108.18	108.19	108.22	108.2	108.2	108.26	108.22	108.3
17..24	108.29	108.28	108.25	108.22	108.31	108.32	108.29	108.28
25..30	108.28	108.23	108.23	108.37	108.21	108.24		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 138 - Oct 19 02:50:35

Pressures (psia)

1.. 2	53.441	53.435

Dew Points (volts)

1.. 8	2.9696	2.9566	2.9253	2.9303	2.9097	2.8764	2.8953	2.8881
9..10	2.9055	2.8829						

Temperatures (ohms)

1.. 8	108.11	108.15	108.15	108.16	108.15	108.13	108.16	108.18
9..16	108.18	108.19	108.22	108.2	108.19	108.26	108.22	108.29
17..24	108.29	108.27	108.25	108.22	108.31	108.31	108.29	108.28
25..30	108.28	108.23	108.22	108.37	108.2	108.25		

Reading # 139 - Oct 19 03:00:18

Pressures (psia)

1.. 2	53.439	53.432

Dew Points (volts)

1.. 8	2.9706	2.9581	2.9243	2.9322	2.9145	2.879	2.8954	2.8899
9..10	2.9074	2.882						

Temperatures (ohms)

1.. 8	108.1	108.15	108.14	108.16	108.15	108.13	108.15	108.19
9..16	108.17	108.19	108.22	108.21	108.19	108.26	108.22	108.3
17..24	108.28	108.26	108.24	108.22	108.3	108.31	108.29	108.28
25..30	108.28	108.23	108.21	108.37	108.2	108.25		

Reading # 140 - Oct 19 03:10:28

Pressures (psia)

1.. 2	53.435	53.429

Dew Points (volts)

1.. 8	2.9742	2.9605	2.9251	2.934	2.9157	2.8766	2.8944	2.8033
9..10	2.9069	2.8860						

Temperatures (ohms)

1.. 8	108.1	108.15	108.14	108.16	108.15	108.13	108.15	108.18
9..16	108.17	108.19	108.22	108.2	108.19	108.25	108.21	108.29
17..24	108.27	108.26	108.24	108.21	108.3	108.31	108.29	108.28
25..30	108.28	108.22	108.21	108.35	108.2	108.24		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 141 - Oct 19 03:20:29

Pressures (psia)

1.. 2	53.432	53.426						

Dew Points (volts)

1.. 8	2.9733	2.96	2.9302	2.9353	2.9178	2.8774	2.8962	2.8965
9..10	2.9084	2.8856						

Temperatures (ohms)

1.. 8	108.1	108.14	108.15	108.16	108.15	108.12	108.15	108.18
9..16	108.17	108.19	108.22	108.2	108.19	108.25	108.22	108.28
17..24	108.27	108.27	108.24	108.22	108.3	108.31	108.29	108.28
25..30	108.28	108.22	108.22	108.36	108.2	108.25		

Reading # 142 - Oct 19 03:30:29

Pressures (psia)

1.. 2	53.429	53.423						

Dew Points (volts)

1.. 8	2.9747	2.9621	2.9286	2.9367	2.9185	2.8827	2.8992	2.8934
9..10	2.9095	2.8867						

Temperatures (ohms)

1.. 8	108.1	108.14	108.14	108.16	108.15	108.13	108.15	108.17
9..16	108.16	108.19	108.21	108.19	108.19	108.24	108.21	108.29
17..24	108.27	108.25	108.24	108.22	108.29	108.3	108.28	108.28
25..30	108.27	108.22	108.22	108.36	108.2	108.24		

Reading # 143 - Oct 19 03:40:29

Pressures (psia)

1.. 2	53.426	53.42						

Dew Points (volts)

1.. 8	2.9722	2.963	2.9334	2.9357	2.9181	2.8819	2.8989	2.8951
9..10	2.9105	2.8882						

Temperatures (ohms)

1.. 8	108.1	108.14	108.14	108.15	108.14	108.12	108.14	108.17
9..16	108.16	108.18	108.21	108.2	108.18	108.25	108.21	108.29
17..24	108.27	108.28	108.23	108.21	108.29	108.31	108.29	108.27
25..30	108.27	108.22	108.22	108.37	108.19	108.24		

Raw Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 144 - Oct 19 03:50:30

Pressures (psia)

1..2	53.423	53.416						

Dew Points (volts)

1..8	2.9741	2.9635	2.9332	2.9382	2.916	2.8827	2.9019	2.8964
9..10	2.912	2.8912						

Temperatures (ohms)

1..8	108.09	108.14	108.14	108.16	108.14	108.12	108.14	108.18
9..16	108.16	108.19	108.21	108.2	108.19	108.25	108.21	108.29
17..24	108.27	108.26	108.23	108.21	108.29	108.3	108.28	108.27
25..30	108.27	108.21	108.21	108.36	108.2	108.24		

Reading # 145 - Oct 19 04:00:30

Pressures (psia)

1..2	53.42	53.41[illegible]						

Dew Points (volts)

1..8	2.9773	2.9664	2.9355	2.9405	2.9239	2.8842	2.9051	2.8996
9..10	2.9132	2.8912						

Temperatures (ohms)

1..8	108.09	108.14	108.14	108.15	108.14	108.11	108.14	108.17
9..16	108.16	108.18	108.21	108.19	108.18	108.24	108.2	108.28
17..24	108.27	108.25	108.23	108.21	108.29	108.3	108.28	108.27
25..30	108.26	108.22	108.21	108.36	108.19	108.24		

Reading # 146 - Oct 19 05:00:18

Pressures (psia)

1..2	53.402	53.396						

Dew Points (volts)

1..8	2.9854	2.9728	2.9463	2.9487	2.9312	2.8936	2.9109	2.9086
9..10	2.9191	2.8967						

Temperatures (ohms)

1..8	108.08	108.12	108.12	108.14	108.13	108.11	108.13	108.15
9..16	108.14	108.17	108.2	108.18	108.17	108.23	108.19	108.27
17..24	108.25	108.23	108.21	108.19	108.27	108.28	108.27	108.25
25..30	108.25	108.21	108.2	108.34	108.19	108.23		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 126 - Oct 19 00:50:31

Pressures (PSIA)

1..2	53.483	53.476						

Dew Points (°F)

1..8	54.439	54.384	54.23	54.425	54.321	54.149	54.284	54.233
9..10	54.431	54.197						

Temperatures (°F)

1..8	69.321	69.313	69.351	69.405	69.389	69.458	69.595	69.706
9..16	69.615	69.775	69.74	69.824	69.767	69.816	69.87	70.008
17..24	69.877	69.908	69.947	69.981	70.21	70.294	69.954	70.099
25..30	69.947	69.962	69.546	70.511	69.55	69.843		

Reading # 127 - Oct 19 01:00:32

Pressures (PSIA)

1..2	53.479	53.473						

Dew Points (°F)

1..8	54.479	54.4	54.252	54.368	54.374	54.144	54.298	54.224
9..10	54.388	54.211						

Temperatures (°F)

1..8	69.321	69.313	69.397	69.405	69.389	69.412	69.595	69.66
9..16	69.66	69.683	69.694	69.824	69.767	69.816	69.87	70.008
17..24	69.832	69.908	69.947	69.935	70.164	70.294	69.954	70.099
25..30	69.901	69.962	69.546	70.466	69.55	69.798		

Reading # 128 - Oct 19 01:10:32

Pressures (PSIA)

1..2	53.475	53.469						

Dew Points (°F)

1..8	54.42	54.39	54.2	54.337	54.34	54.156	54.24	54.231
9..10	54.452	54.187						

Temperatures (°F)

1..8	69.321	69.313	69.351	69.405	69.344	69.412	69.595	69.66
9..16	69.569	69.637	69.694	69.824	69.721	69.816	69.824	70.008
17..24	69.832	69.908	69.901	69.935	70.164	70.294	69.954	70.053
25..30	69.947	69.916	69.592	70.466	69.55	69.798		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 129 - Oct 19 01:20:32

Pressures (PSIA)

1.. 2	53.472	53.465

Dew Points (°F)

1.. 8	54.447	54.416	54.231	54.397	54.356	54.142	54.222	54.214
9..10	54.411	54.192						

Temperatures (°F)

1.. 8	69.275	69.267	69.351	69.405	69.344	69.366	69.55	69.615
9..16	69.569	69.683	69.694	69.733	69.721	69.816	69.824	69.962
17..24	69.832	69.908	69.855	69.889	70.118	70.294	69.954	70.053
25..30	69.901	69.916	69.592	70.466	69.504	69.798		

Reading # 130 - Oct 19 01:30:33

Pressures (PSIA)

1.. 2	53.468	53.462

Dew Points (°F)

1.. 8	54.509	54.418	54.264	54.401	54.363	54.157	54.281	54.272
9..10	54.436	54.211						

Temperatures (°F)

1.. 8	69.275	69.267	69.351	69.405	39.344	69.366	69.55	69.615
9..16	69.569	69.683	69.649	69.779	69.676	69.725	69.824	69.962
17..24	69.786	69.908	69.855	69.935	70.118	70.249	69.908	70.053
25..30	69.901	69.916	69.592	70.466	69.504	69.798		

Reading # 131 - Oct 19 01:40:33

Pressures (PSIA)

1.. 2	53.465	53.459

Dew Points (°F)

1.. 8	54.435	54.397	54.231	54.426	54.374	54.14	54.3	54.237
9..10	54.439	54.188						

Temperatures (°F)

1.. 8	69.275	69.222	69.305	69.359	69.298	69.366	69.504	69.615
9..16	69.523	69.683	69.649	69.733	69.676	69.816	69.824	69.916
17..24	69.832	69.954	69.855	69.889	70.118	70.249	69.908	70.053
25..30	69.901	69.87	69.546	70.42	69.504	69.798		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 132 - Oct 19 01:50:33

Pressures (PSIA)

1.. 2	53.462	53.455

Dew Points (°F)

1.. 8	54.437	54.416	54.263	54.41	54.371	54.154	54.308	54.281
9..10	54.45	54.204						

Temperatures (°F)

1.. 8	69.275	69.222	69.305	69.359	69.344	69.366	69.504	69.615
9..16	69.523	69.637	69.649	69.733	69.721	69.725	69.779	69.916
17..24	69.832	69.908	69.855	69.889	70.072	70.249	69.862	70.008
25..30	69.901	69.87	69.546	70.42	69.504	69.752		

Reading # 133 - Oct 19 02:00:34

Pressures (PSIA)

1.. 2	53.458	53.452

Dew Points (°F)

1.. 8	54.472	54.425	54.279	54.385	54.357	54.192	54.321	54.285
9..10	54.421	54.204						

Temperatures (°F)

1.. 8	69.229	69.222	69.305	69.359	69.298	69.321	69.504	69.615
9..16	69.523	69.592	69.649	69.733	69.63	69.725	69.779	69.962
17..24	69.74	69.862	69.855	69.889	70.072	70.203	69.862	70.008
25..30	69.855	69.87	69.592	70.42	69.504	69.752		

Reading # 134 - Oct 19 02:10:34

Pressures (PSIA)

1.. 2	53.455	53.448

Dew Points (°F)

1.. 8	54.454	54.404	54.264	54.4	54.403	54.173	54.279	54.251
9..10	54.468	54.238						

Temperatures (°F)

1.. 8	69.229	69.222	69.26	69.313	69.252	69.366	69.504	69.615
9..16	69.523	69.592	69.603	69.733	69.676	69.725	69.779	69.916
17..24	69.786	69.954	69.809	69.843	70.072	70.157	69.908	70.008
25..30	69.901	69.87	69.592	70.42	69.458	69.706		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 135 - Oct 19 02:20:34

Pressures (PSIA)

1.. 2	53.452	53.446

Dew Points (°F)

1.. 8	54.426	54.427	54.301	54.404	54.419	54.177	54.276	54.225
9..10	54.404	54.191						

Temperatures (°F)

1.. 8	69.229	69.222	69.26	69.313	69.252	69.366	69.458	69.569
9..16	69.523	69.592	69.603	69.687	69.721	69.725	69.779	69.87
17..24	69.74	69.908	69.809	69.798	70.027	70.157	69.862	69.962
25..30	69.809	69.824	69.546	70.466	69.458	69.706		

Reading # 136 - Oct 19 02:30:35

Pressures (PSIA)

1.. 2	53.448	53.442

Dew Points (°F)

1.. 8	54.479	54.458	54.269	54.435	54.401	54.18	54.309	54.283
9..10	54.4	54.245						

Temperatures (°F)

1.. 8	69.183	69.222	69.26	69.359	69.252	69.321	69.458	69.569
9..16	69.477	69.592	69.603	69.687	69.676	69.679	69.733	69.87
17..24	69.74	69.817	69.855	69.843	70.027	70.157	69.816	70.008
25..30	69.809	69.87	69.5	70.466	69.458	69.706		

Reading # 137 - Oct 19 02:40:35

Pressures (PSIA)

1.. 2	53.445	53.439

Dew Points (°F)

1.. 8	54.463	54.383	54.304	54.42	54.404	54.184	54.309	54.258
9..10	54.418	54.211						

Temperatures (°F)

1.. 8	69.183	69.176	69.26	69.267	69.252	69.275	69.458	69.569
9..16	69.477	69.546	69.557	69.641	69.63	69.679	69.733	69.87
17..24	69.74	69.862	69.809	69.798	70.027	70.157	69.816	69.962
25..30	69.809	69.824	69.546	70.42	69.458	69.66		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 138 - Oct 19 02:50:35

Pressures (PSIA)

1..2	53.441	53.435						

Dew Points (°F)

1..8	54.471	54.401	54.306	54.417	54.399	54.17	54.335	54.256
9..10	54.431	54.231						

Temperatures (°F)

1..8	69.183	69.176	69.214	69.267	69.206	69.275	69.458	69.523
9..16	69.477	69.546	69.557	69.641	69.584	69.679	69.733	69.824
17..24	69.74	69.817	69.809	69.798	70.027	70.111	69.816	69.962
25..30	69.809	69.824	69.5	70.42	69.412	69.706		

Reading # 139 - Oct 19 03:00:18

Pressures (PSIA)

1..2	53.439	53.432						

Dew Points (°F)

1..8	54.438	54.415	54.254	54.435	54.444	54.237	54.293	54.273
9..10	54.449	54.223						

Temperatures (°F)

1..8	69.137	69.176	69.168	69.267	69.206	69.275	69.412	69.569
9..16	69.431	69.546	69.557	69.687	69.584	69.679	69.733	69.87
17..24	69.694	69.771	69.763	69.798	69.991	70.111	69.816	69.962
25..30	69.809	69.824	69.454	70.42	69.412	69.706		

Reading # 140 - Oct 19 03:10:28

Pressures (PSIA)

1..2	53.435	53.429						

Dew Points (°F)

1..8	54.471	54.438	54.262	54.452	54.413	54.172	54.283	54.262
9..10	54.444	54.226						

Temperatures (°F)

1..8	69.137	69.176	69.168	69.267	69.206	69.275	69.412	69.523
9..16	69.431	69.546	69.557	69.641	69.584	69.633	69.687	69.824
17..24	69.649	69.771	69.763	69.752	69.981	70.111	69.816	69.962
25..30	69.809	69.779	69.454	70.328	69.412	69.66		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 141 - Oct 19 03:20:29

Pressures (PSIA)

1..2	53.432	53.426

Dew Points (°F)

1..8	54.505	54.433	54.309	54.464	54.475	54.136	54.3	54.335
9..10	54.458	54.214						

Temperatures (°F)

1..8	69.137	69.13	69.214	69.267	69.206	69.229	69.412	69.523
9..16	69.431	69.546	69.557	69.641	69.584	69.633	69.733	69.779
17..24	69.649	69.817	69.763	69.798	69.981	70.111	69.816	69.962
25..30	69.809	69.779	69.5	70.374	69.412	69.706		

Reading # 142 - Oct 19 03:30:29

Pressures (PSIA)

1..2	53.429	53.423

Dew Points (°F)

1..8	54.475	54.452	54.252	54.477	54.439	54.23	54.329	54.306
9..10	54.426	54.225						

Temperatures (°F)

1..8	69.137	69.13	69.168	69.267	69.206	69.275	69.412	69.477
9..16	69.386	69.546	69.511	69.595	69.584	69.588	69.687	69.824
17..24	69.649	69.725	69.763	69.798	69.935	70.065	69.771	69.962
25..30	69.763	69.779	69.5	70.374	69.412	69.66		

Reading # 143 - Oct 19 03:40:29

Pressures (PSIA)

1..2	53.426	53.42

Dew Points (°F)

1..8	54.452	54.418	54.296	54.425	54.435	54.222	54.283	54.279
9..10	54.435	54.239						

Temperatures (°F)

1..8	69.137	69.13	69.168	69.222	69.161	69.229	69.366	69.477
9..16	69.386	69.5	69.511	69.641	69.538	69.633	69.687	69.824
17..24	69.649	69.862	69.718	69.752	69.935	70.111	69.816	69.916
25..30	69.763	69.779	69.5	70.42	69.366	69.66		

Calibrated Instrument Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Reading # 144 - Oct 19 03:50:30

Pressures (PSIA)

1.. 2	53.423	53.416

Dew Points (°F)

1.. 8	54.47	54.465	54.295	54.491	54.416	54.23	54.311	54.291
9..10	54.449	54.224						

Temperatures (°F)

1.. 8	69.092	69.13	69.168	69.267	69.161	69.229	69.368	69.523
9..16	69.386	69.546	69.511	69.641	69.584	69.633	69.687	69.824
17..24	69.649	69.771	69.718	69.752	69.935	70.065	69.771	69.916
25..30	69.763	69.733	69.454	70.374	69.412	69.66		

Reading # 145 - Oct 19 04:00:30

Pressures (PSIA)

1.. 2	53.42	53.413

Dew Points (°F)

1.. 8	54.499	54.449	54.316	54.47	54.447	54.201	54.342	54.322
9..10	54.418	54.267						

Temperatures (°F)

1.. 8	69.092	69.13	69.168	69.222	69.161	69.183	69.366	69.477
9..16	69.386	69.5	69.511	69.595	69.538	69.588	69.641	69.779
17..24	69.649	69.725	69.718	69.752	69.935	70.065	69.771	69.916
25..30	69.718	69.779	69.454	70.374	69.366	69.66		

Reading # 146 - Oct 19 05:00:18

Pressures (PSIA)

1.. 2	53.402	53.396

Dew Points (°F)

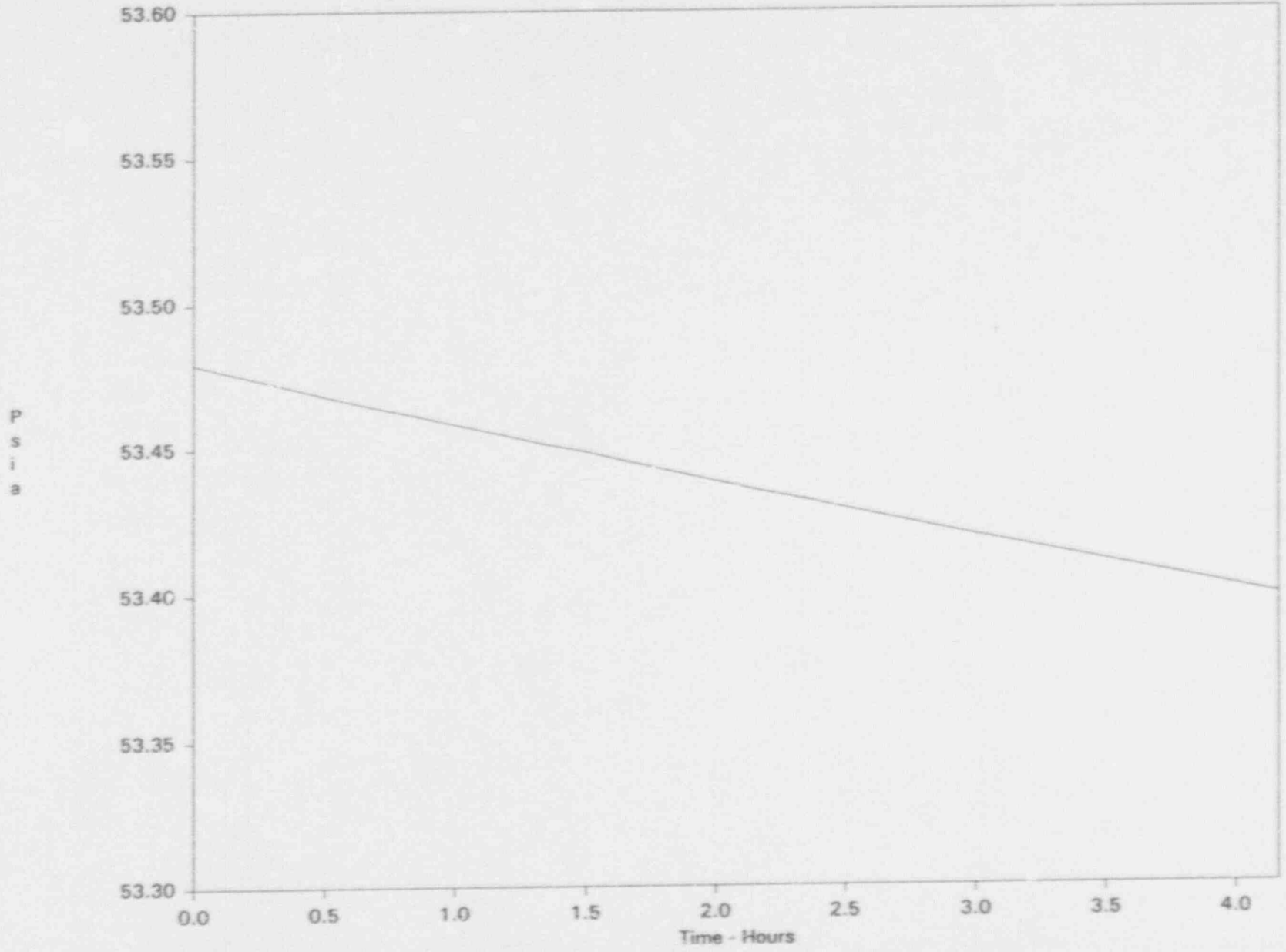
1.. 8	54.488	54.465	54.331	54.503	54.472	54.247	54.311	54.321
9..10	54.43	54.277						

Temperatures (°F)

1.. 8	69.046	69.039	69.076	69.176	69.115	69.183	69.321	69.386
9..16	69.294	69.454	69.466	69.55	69.492	69.542	69.595	69.733
17..24	69.557	69.634	69.626	69.66	69.843	69.974	69.725	69.824
25..30	69.672	69.733	69.408	70.282	69.366	69.614		

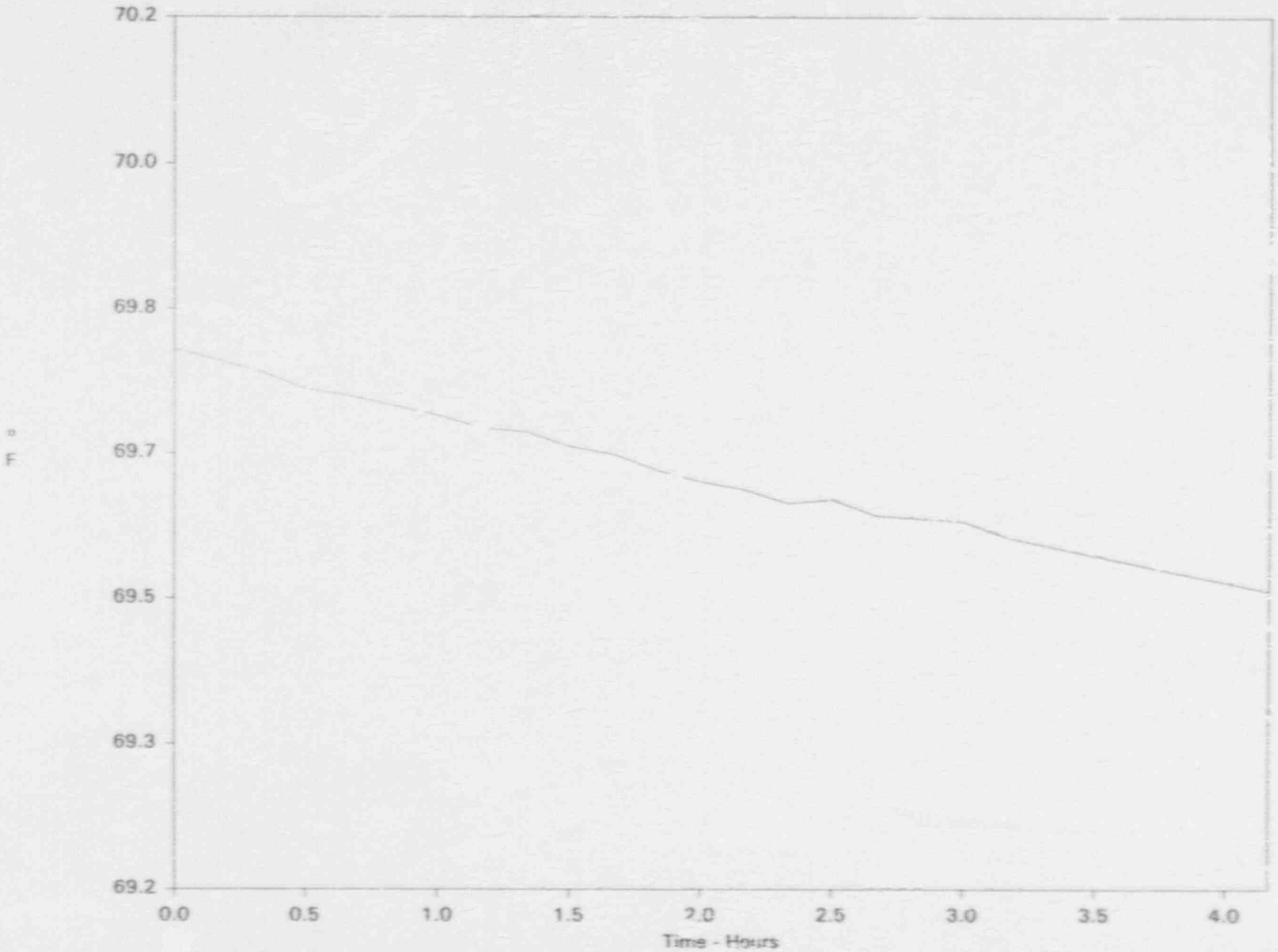
Average Pressure

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



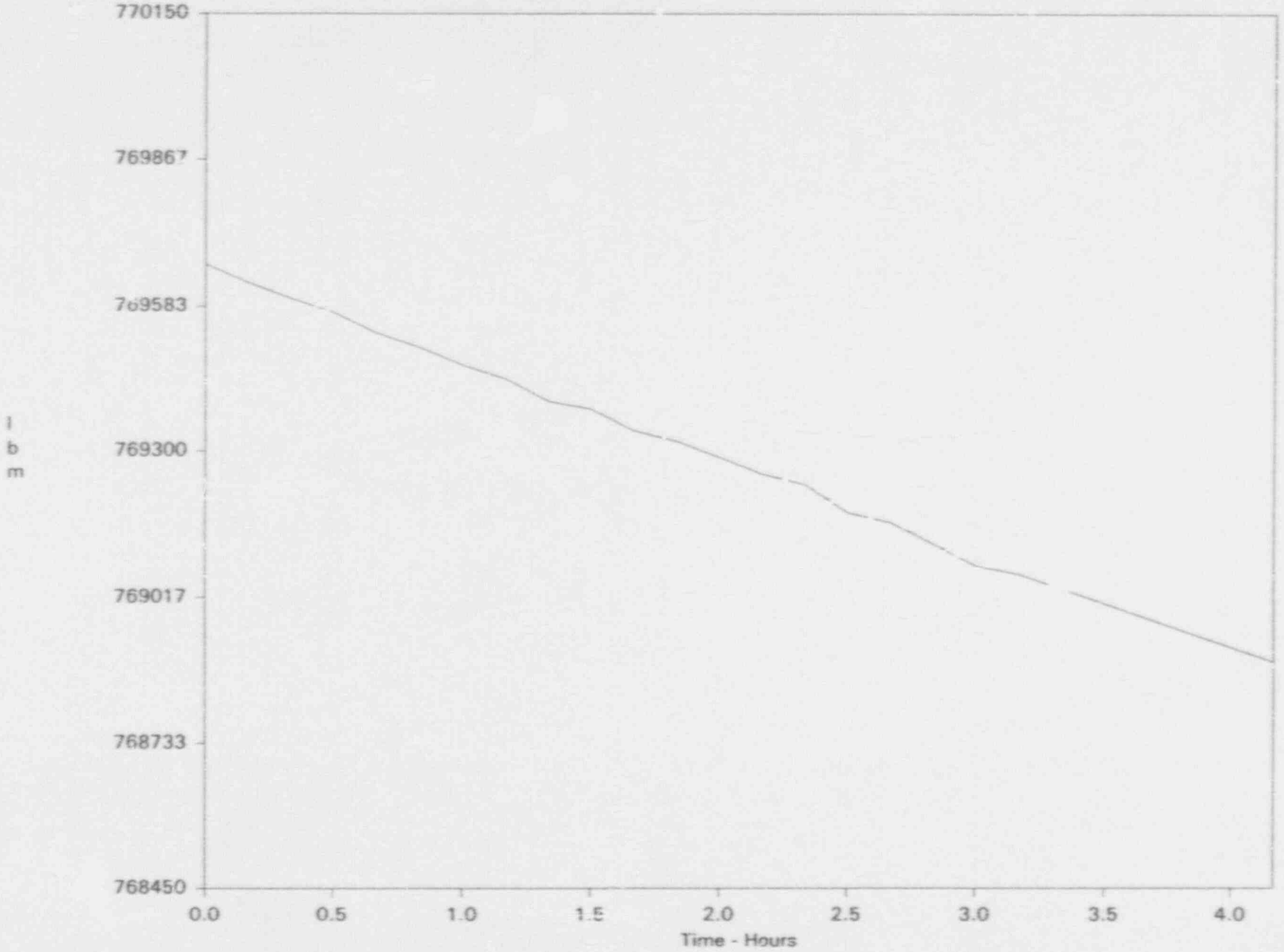
Average Temperature

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Containment Mass

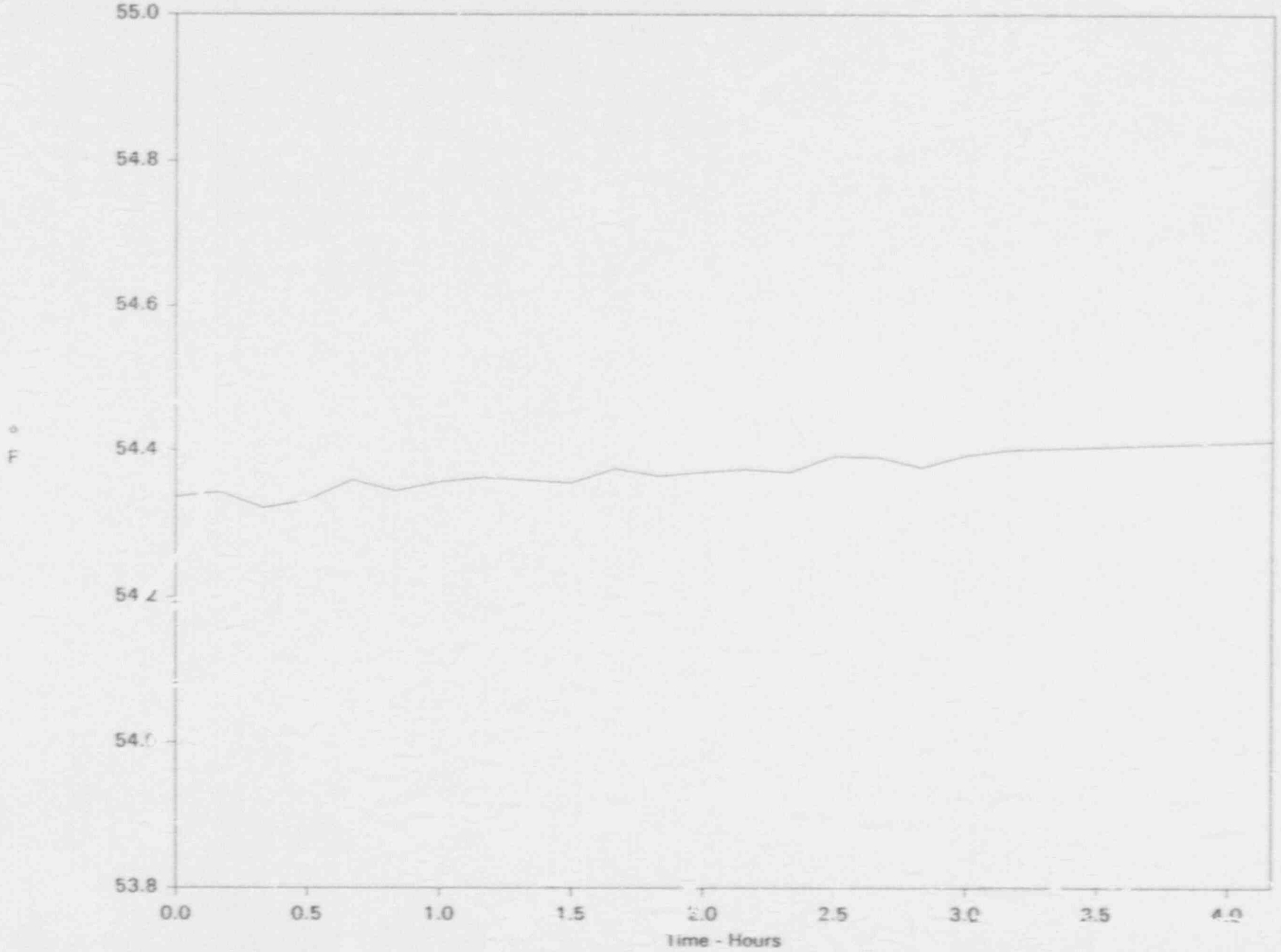
DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Average Dew Point

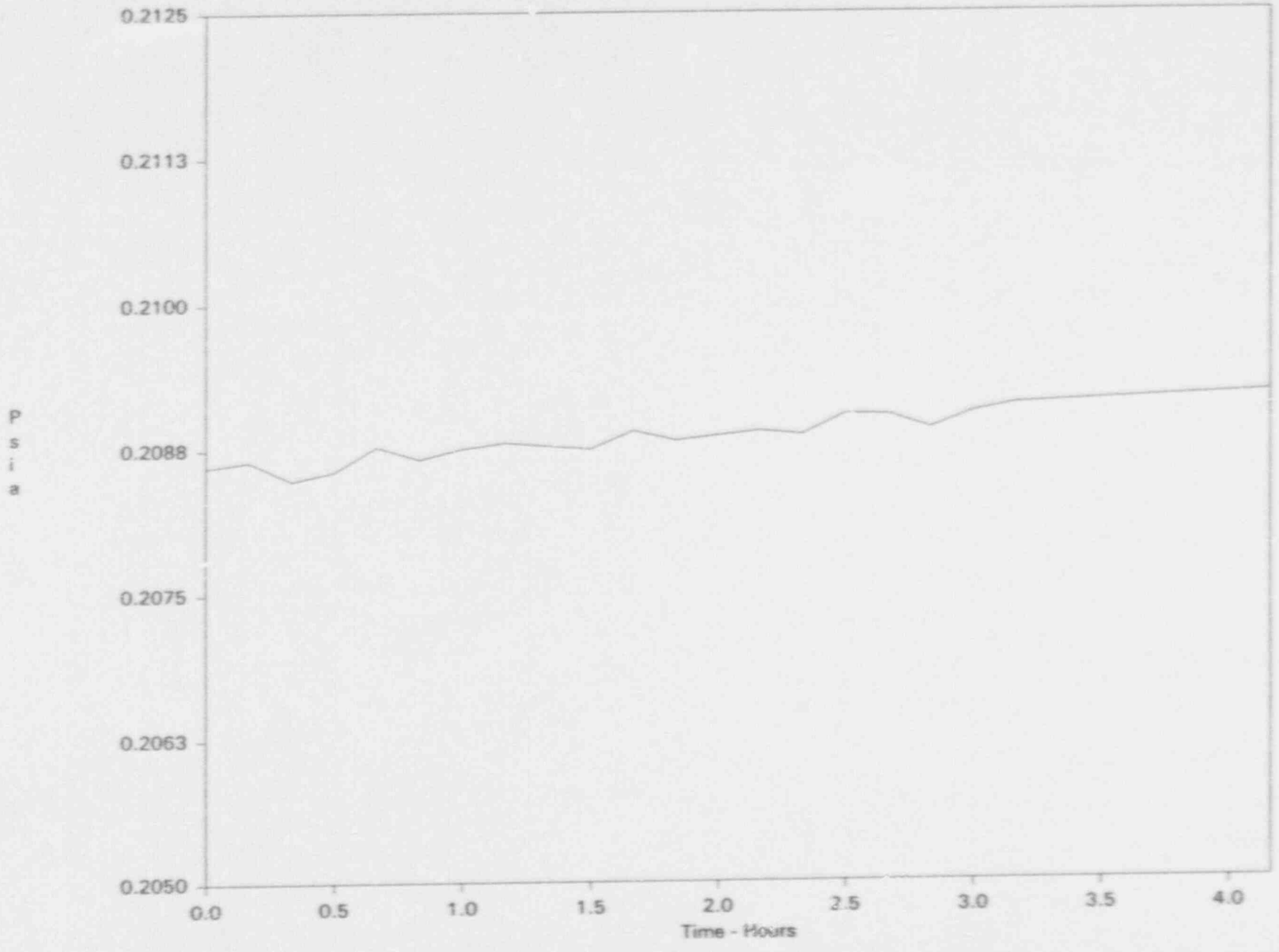
DAVIS-BESSE NUCLEAR POWER STATION

Unit No. 1



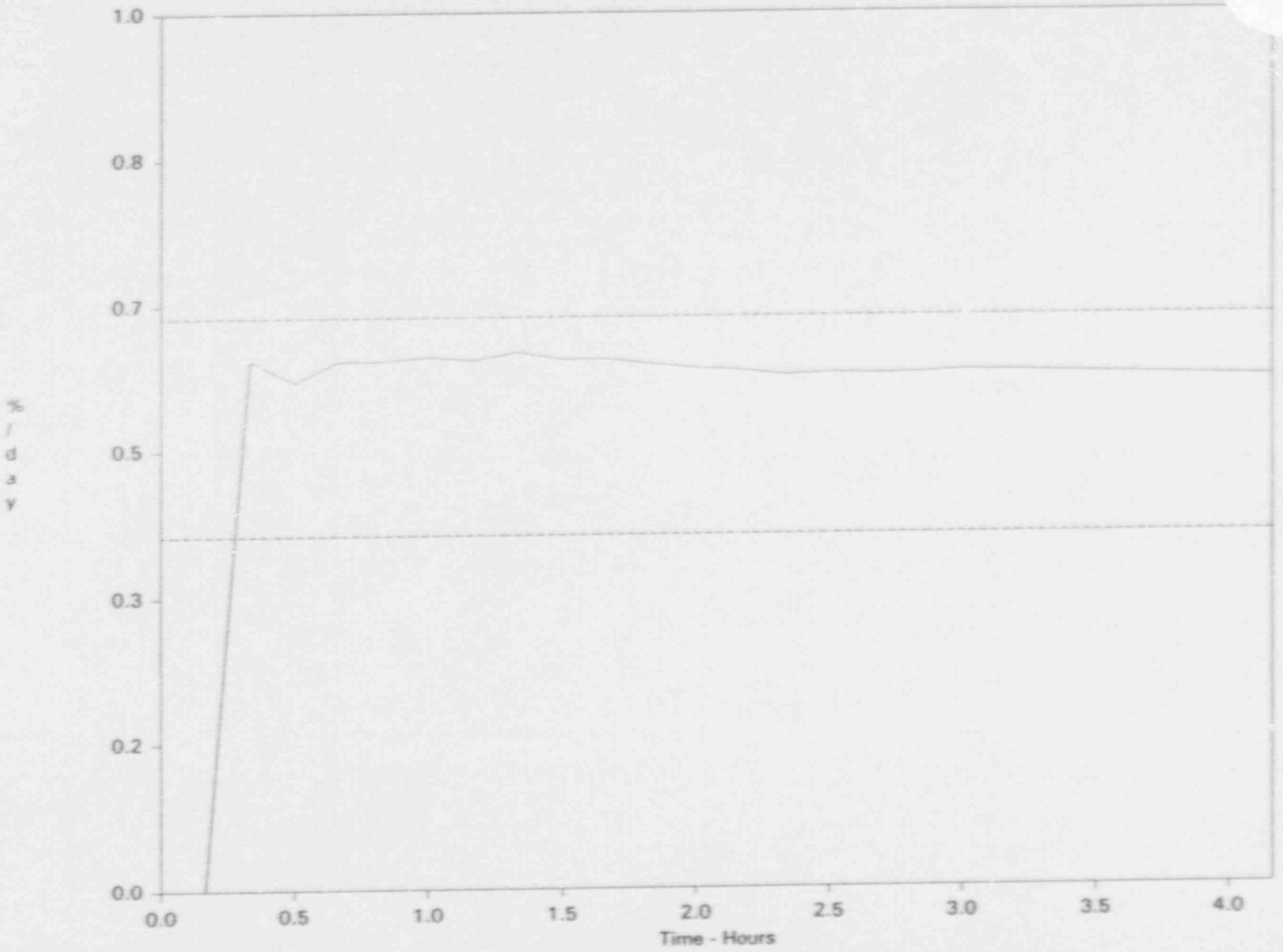
Average Vapor Pressure

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



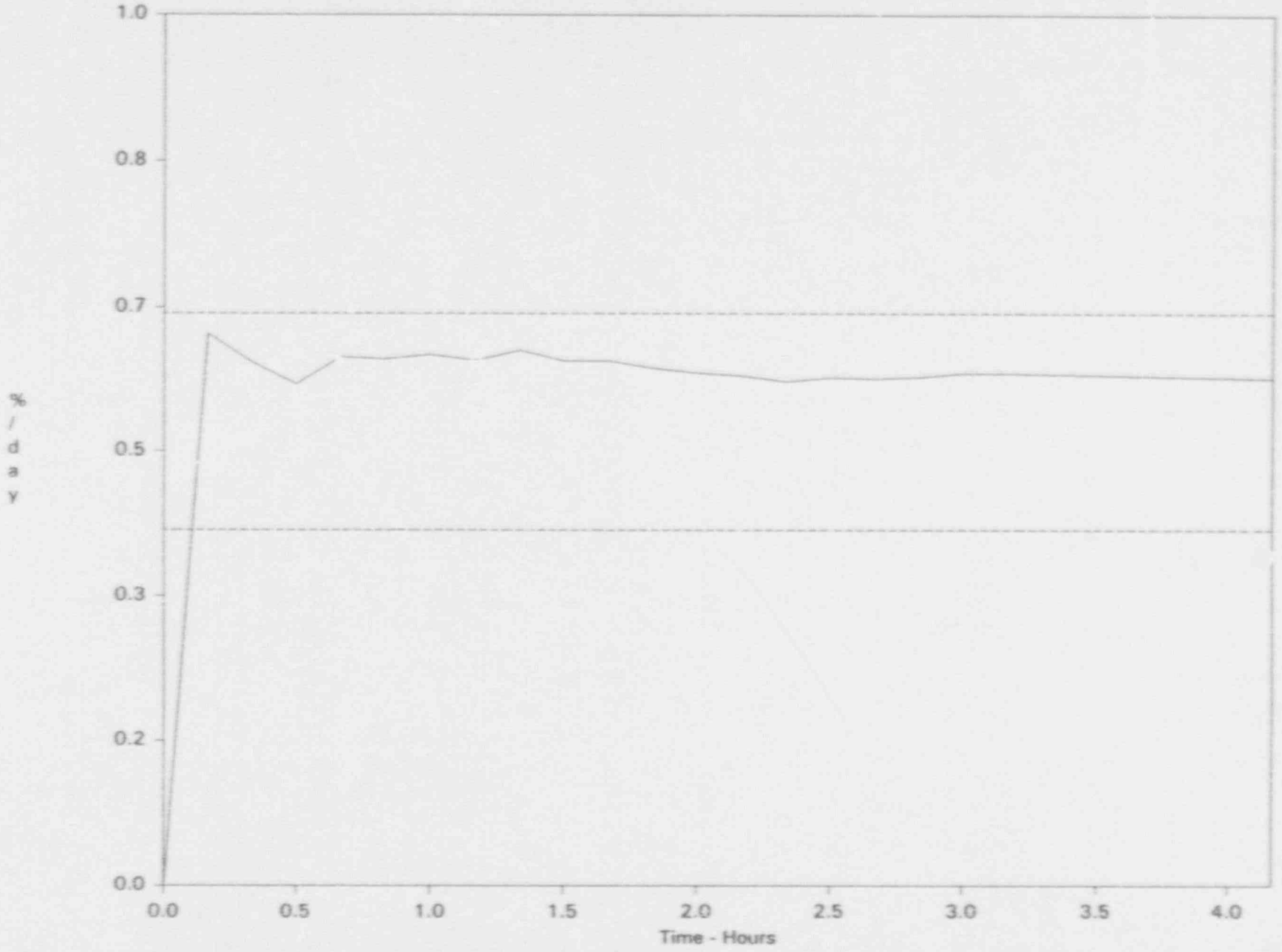
Calculated Total Time Leak

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Mass Point Leak

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1



Configuration Data

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Station Name - DAVIS-BESSE NUCLEAR POWER STATION
Unit Name - Unit No. 1
Containment Volume = 2834000.00 cubic feet
Imposed Leak = 0.50497 %/day
La (Lt) = 0.500 %/day
Test Pressure = 38.00 PSIG
Total # Sensors = 42
Total # Press. = 2
Total # Dew Pt. = 10
Total # Temp. = 30
Start Temp Stab Rdg = 79, End Temp Stab Rdg = 95
Start Leak Rate Test Rdg = 95, End Leak Rate Test Rdg = 120
Start Verif. Test Rdg = 126, End Verif. Test Rdg = 146
Raw Data File - DB1091.RDA Test Data File - DB1091.TDA..

Sensor Information

DAVIS-BESSE NUCLEAR POWER STATION
Unit No. 1

Pressures

U	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	1001	IC 1.03.064	0.500000	0.0	1.0	-	-	-
2	1002	IC 1.03.065	0.500000	0.0	1.0	-	-	-

Dew Points

U	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	40	IC 4.09.104	0.110886	0.0	20.0	-	-	-
2	41	IC 4.09.104	0.110885	0.0	20.0	-	-	-
3	42	IC 4.09.104	0.112430	0.0	20.0	-	-	-
4	43	IC 4.09.104	0.112429	0.0	20.0	-	-	-
5	44	IC 4.09.104	0.112430	0.0	20.0	-	-	-
6	45	IC 4.09.105	0.112429	0.0	20.0	-	-	-
7	46	IC 4.09.105	0.101799	0.0	20.0	-	-	-
8	47	IC [illegible]05	0.101800	0.0	20.0	-	-	-
9	48	IC [illegible]05	0.062456	0.0	20.0	-	-	-
10	49	IC 4.09.105	0.062456	0.0	20.0	-	-	-

Temperatures

U	CHAN	SERIAL	VOL FRACT	C0	C1	C2	C3	C4
1	30	IC 2.02.107	0.036962	-425.9750	4.5801330	-	-	-
2	1	IC 2.02.141	0.036962	-425.66050	4.5754640	-	-	-
3	2	IC 2.02.134	0.036962	-426.12630	4.5801210	-	-	-
4	3	IC 2.02.102	0.036962	-425.61470	4.5754640	-	-	-
5	4	IC 2.02.132	0.036961	-425.63240	4.5754860	-	-	-
6	5	IC 2.02.110	0.036962	-425.9750	4.5801330	-	-	-
7	6	IC 2.02.125	0.037477	-425.92920	4.5801330	-	-	-
8	7	IC 2.02.133	0.037477	-425.70320	4.5777980	-	-	-
9	8	IC 2.02.140	0.037476	-425.7490	4.5777980	-	-	-
10	9	IC 2.02.111	0.037477	-426.22890	4.5824450	-	-	-
11	10	IC 2.02.139	0.037476	-425.60080	4.5754760	-	-	-
12	11	IC 2.02.123	0.037476	-425.92920	4.5801330	-	-	-
13	12	IC 2.02.116	0.037477	-425.68920	4.5778090	-	-	-
14	13	IC 2.02.138	0.037477	-425.66050	4.5754640	-	-	-
15	14	IC 2.02.124	0.037476	-425.92920	4.5801330	-	-	-
16	15	IC 2.02.117	0.037477	-426.15820	4.5801330	-	-	-
17	16	IC 2.02.127	0.037476	-425.73810	4.5754760	-	-	-
18	17	IC 2.02.131	0.037476	-425.56890	4.5754640	-	-	-
19	18	IC 2.02.135	0.033933	-425.98890	4.5801210	-	-	-
20	19	IC 2.02.136	0.033933	-425.61170	4.5777980	-	-	-
21	20	IC 2.02.109	0.033933	-425.79480	4.5777980	-	-	-
22	21	IC 2.02.104	0.033933	-426.21510	4.5824590	-	-	-
23	22	IC 2.02.121	0.033934	-425.66050	4.5754640	-	-	-
24	23	IC 2.02.137	0.033933	-425.9750	4.5801330	-	-	-
25	24	IC 2.02.115	0.020819	-426.12630	4.5801210	-	-	-
26	25	IC 2.02.114	0.020819	-425.88340	4.5801330	-	-	-
27	26	IC 2.02.128	0.020818	-426.41220	4.5824450	-	-	-
28	27	IC 2.02.129	0.020818	-425.92920	4.5801330	-	-	-
29	28	IC 2.02.122	0.020819	-426.15820	4.5801330	-	-	-
30	29	IC 2.02.130	0.020819	-425.84060	4.5777980	-	-	-

APPENDIX B

Summary of 1990 and 1991

Local Leak Rate Tests (LLRT)

Introduction

Appendix B summarizes the results of the Local Leak Rate Test (LLRT) data which was obtained from periodic testing performed since the September 1988 periodic Type A test. Data is provided for surveillance testing performed in 1990 and 1991. The leakage rates that are listed in Appendix B are individual valve measurements unless otherwise noted.

The acceptance criteria for Types B and C testing is in accordance with 10CFR50, Appendix J. The combined leakage rate for all penetrations and valves subject to Types B and C tests in 1990/1991 were well below the acceptance criteria of less than $0.60L_a$.

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-1	Pressurizer Sample	C	RC240A(IC)	1	0/2-22-90	0/2-22-90
			RC240B(OC)	1	0/2-22-90	0/4-16-90
P-3	Component Cooling Supply	C	CC1411A(IC)	12	0/2-16-90	0/4-20-90
			CC1411B(OC)	12	Combined	Combined
P-4	Component Cooling Return	C	CC1407A(IC)	12	7420/4-3-90	5300/4-14-90
			CC1407B(OC)	12	* Indeterminate	Combined
P-8A	Containment Vessel Vac. Br.	C	CV5070(OC)	8	29791/2-21-90	0/5-16-90
			CV5080(OC)	8	42/2-21-90	Combined
P-8B	Containment Vessel Vac. Br.	C	CV5071(OC)	8	20110/2-21-90	233/5-17-90
			CV5081(OC)	8	4876/2-21-90	0/5-22-90
P-8C	Containment Vessel Vac. Br.	C	CV5072(OC)	8	1153/2-21-90	64/4-10-90
			CV5082(OC)	8	1046/2-21-90	1046/2-21-90
P-8D	Containment Vessel Vac. Br.	C	CV5073(OC)	8	64/2-21-90	64/2-21-90
			CV5083(OC)	8	81/2-21-90	81/2-21-90
P-8E	Containment Vessel Vac. Br.	C	CV5074(OC)	8	82244/2-21-90	0/5-16-90
			CV5084(OC)	8	4876/2-21-90	Combined
P-8F	Containment Vessel Vac. Br.	C	CV5075(OC)	8	636/2-19-90	95/3-31-90
			CV5985(OC)	8	350/2-19-90	350/2-19-90
P-8G	Containment Vessel Vac. Br.	C	CV5076(OC)	8	4876/2-19-90	42/3-31-90
			CV5086(OC)	8	1047/2-19-90	0/6-1-90

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-8H	Containment Vessel Vac. Br.	C	CV5077(OC)	8	143/2-19-90	0/3-31-90
			CV5087(OC)	8	106/2-19-90	106/2-19-90
P-8I	Containment Vessel Vac. Br.	C	CV5078(OC)	8	0/2-21-90	0/2-21-90
			CV5088(OC)	8	0/2-21-90	0/2-21-90
P-8J	Containment Vessel Vac. Br.	C	CV5079(OC)	8	0/2-21-90	0/5-3-90
			CV5089(OC)	8	0/2-22-90	0/2-22-90
P-12	Comp. Cooling to CRDMs	C	CC1567A(IC)	3	0/2-12-90	0/3-22-90
			CC1567B(OC)	3	0/2-12-90	0/2-12-90
P-13	Cont. Ves. Nor. Sump Drain	C	DR2012A(IC)	4	366/2-14-90	0/5-8-90
			DR2012B(OC)	4	321/2-14-90	321/2-14-90
P-14	Letdown to Purif. Demins.	C	MU2A(IC)	2.5	0/2-8-90	0/2-8-90
			MU3(OC)	2.5	11660/2-8-90	0/2-23-90
P-16	Cont. Vess. Equip. Vent Hdr.	C	RC1719A(IC)	3	0/2-15-90	0/2-15-90
			RC1719B(OC)	3	0/2-15-90	0/2-15-90
P-17	Cont. Vess. Leak Test Line	C	CV343(OC)	8	98/2-5-90	98/2-5-90
			Blind Flg.(IC)	8	Combined	Combined
P-20	Normal RCS Makeup	C	MU33(OC)	2.5	N/A	N/A
		C	MU6422(OC)	2.5	0/2-5-90	0/3-30-90
P-21	Demin. Water Supply	C	DW6831A(IC)	4	76/2-24-90	76/2-24-90
			DW6831B(OC)	4	0/2-24-90	0/2-24-90

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-23	Fuel Trans. Tube 1-2 Bellows	B	Bellows/Guard Pipe	N/A	0/5-10-90	0/5-10-90
			O-Rings(IC)	N/A	263/2-1-90	0/5-8-90
P-24	Fuel Trans. Tube 1-1 Bellows	B	Bellows/Guard Pipe	N/A	0/5-10-90	0/5-10-90
			O-Rings(IC)	N/A	109/2-1-90	0/5-8-90
P-25	Containment Spray	C	SA536(OC)	2	0/2-6-90	0/2-6-90
			SA532(OC)	2	Combined	Combined
			CS1531(OC)	8	0/2-6-90	0/2-6-90
			CS33(OC)	8	0/2-6-90	N/A
			CS17(OC)	8	Combined	
			CS33(OC)	8	207/2-6-90	207/2-6-90
			CS17(OC)	8	0/2-6-90	0/2-6-90
P-26	Containment Spray	C	SA533(OC)	2	368/2-7-90	368/2-7-90
			SA535(OC)	2	Combined	Combined
			CS1530(OC)	8	233/2-7-90	233/2-7-90
			CS36(OC)	8	0/2-7-90	0/2-7-90
			CS18(OC)	8	Combined	Combined
			CS36(OC)	8	0/2-7-90	0/2-7-90
			CS18(OC)	8	25785/2-8-90	4897/4-18-90

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-29	Decay Heat Suction	C	DH23(IC)	8	0/3-8-90	0/3-8-90
P-30	Cont. Emer. Sump Guard Pipe	B	Guard Pipe	N/A	0/1-30-90	0/1-30-90
P-31	Cont. Emer. Sump Guard Pipe	B	Guard Pipe	N/A	0/1-31-90	0/1-31-90
P-32	RCS Drain to RCDT	C C	RC1773A(IC) RC1773B(OC)	3 3	0/3-8-90 1590/3-8-90	0/3-8-90 1590/3-8-90
P-33	Cont. Vess. Purge Inlet	C C	CV5006(IC) CV5005(OC)	48 48	477/1-27-90 Combined	623/6-7-90 Combined
P-34	Cont. Vess. Purge Outlet	C	CV5007(IC) CV5008(OC)	48 48	636/1-27-90 Combined	530/6-7-90 Combined
P-37	Main Feedwater Inbd. Bellows Main Feedwater Otbd. Bellows	B B	Bellows Bellows	N/A N/A	0/3-10-90 0/3-10-90	0/3-10-90 0/3-10-90
P-38	Main Feedwater Inbd. Bellows Main Feedwater Otbd. Bellows	B B	Bellows Bellows	N/A N/A	0/3-10-90 0/3-10-90	0/3-10-90 0/3-10-90
P-39	Main Steam Inbd. Bellows Main Steam Otbd. Bellows	B B	Bellows Bellows	N/A N/A	0/3-10-90 0/3-10-90	0/3-10-90 0/3-10-90
P-40	Main Steam Inbd. Bellows Main Steam Otbd. Bellows	B B	Bellows Bellows	N/A N/A	0/3-10-90 0/3-10-90	0/3-10-90 0/3-10-90

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-41	Press. Quench Tk. Circ. Inlet	C	RC113(IC) RC232(OC)	2 2	0/2-15-90 366/2-15-90	0/2-15-90 366/2-15-90
P-42A	Service Air Supply	C	SA502(IC) SA2010(OC)	1.5 1.5	4876/2-2-90 5088/2-2-90	0/5-18-90 0/5-18-90
P-42B	Cont. Vess. Air Sample Ret.	C	CV124(IC) CV5010E(OC)	1 1.5	117/2-9-90 0/2-8-90	117/2-9-90 0/4-11-90
P-43A	Instrument Air Supply	C	IA501(IC) IA2011(OC)	1 1	346/3-5-90 85/3-5-90	346/3-5-90 85/3-5-90
P-43B	Cont. Vess. Air Sample Ret.	C	CV125(IC) CV5011E(OC)	1 1.5	0/2-9-90 0/2-9-90	0/2-9-90 0/2-9-90
P-44A	Core Flood Tank Fill & N2 Supply	C	CF15(IC) CF1541(OC)	1 1	636/2-13-90 303/2-12-90	636/2-13-90 1007/4-5-90
P-44B	Containment N2 Supply	C	NN58(IC) NN236(OC)	1 1	477/2-12-90 395/2-12-90	477/2-12-90 395/2-12-90
P-47A	Core Flood Tank Vent	C	CF2A(IC) CF2B(IC) CF1545(OC)	(Note 1) (Note 1) 1	0/2-10-90 0/2-10-90 0/2-10-90	0/5-18-90 0/5-18-90 212/5-27-90
P-47B	Core Flood Tank Vent	C	CF5A(IC) CF5B(IC) CF1542(OC)	(Note 1) (Note 1) 1	0/2-12-90 0/2-12-90 64/2-12-90	0/5-8-90 0/5-8-90 0/5-27-90

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-48	Press. Quench Tk. Circ. Outlet	C	RC229B(IC)	3	42/2-2-90	42/2-2-90
			RC229A(OC)	3	42/2-2-90	42/2-2-90
P-49	Refueling Canal Fill	C	DH88(IC)	8	4346/3-17-90	0/4-4-90
			DH87(OC)	8	1686/3-17-90	0/5-30-90
P-50	RCS Makekup	C	MU6421(OC)	2.5	0/2-5-90	0/2-5-90
P-51	H2 Purge Exhaust	C	CV5038(OC)	4	0/2-8-90	0/2-8-90
			CV5037(OC)	4	0/2-8-90	0/2-8-90
P-52	RCP Seal Water Supply	C	MU242(IC)	1.5	305/3-5-90	305/3-5-90
			MU66A(OC)	1.5	0/3-5-90	0/3-5-90
P-53	RCP Seal Water Supply	C	MU243(IC)	1.5	0/3-5-90	0/3-5-90
			MU66B(OC)	1.5	141/3-5-90	141/3-5-90
P-54	RCP Seal Water Supply	C	MU244(IC)	1.5	570/3-5-90	570/3-5-90
			MU66C(OC)	1.5	0/3-5-90	0/3-5-90
P-55	RCP Seal Water Supply	C	MU245(IC)	1.5	199/3-5-90	199/3-5-90
			MU66D(OC)	1.5	0/3-5-90	0/3-5-90
P-56	RCP Seal Water Return	C	MU59A-D(IC)	1	0/3-13-90	0/4-18-90
			MU38(OC)	1	Combined	Combined
P-59	Sec. Side Chem. Cleaning Flanges	B	Flanges	8	64/1-31-90	53/5-5-90

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-67	H2 Dilution Supply	C	CV210(IC) CV5090(OC)	4 4	795/2-6-90 795/2-6-90	0/4-11-90 0/4-9-90
P-68A	Press. Quench Tk. Sample	C	SS235B(IC) SS235A(OC)	1 1	42/2-3-90 78/2-3-90	42/2-3-90 78/2-3-90
P-68B	Containment Air Sample	C	CV5011B(IC) CV5010B(OC)	1 1	0/2-1-90 Combined	0/2-1-90 Combined
P-69	H2 Dilution Supply	C	CV209(IC) CV5065(OC)	4 4	42/2-6-90 0/2-6-90	170/6-3-90 0/2-6-90
P-71B	Containment Air Sample	C	CV5010A(IC) CV5011A(OC)	1 1	0/2-10-90 Combined	0/3-19-90 Combined
P-71C	Core Flood Tk. Fill & N2 Supply	C	CF16(IC) CF1544(OC)	1 1	427/2-13-90 82/2-13-90	427/2-13-90 82/2-13-90
P-73B	Containment Air Sample	C	CV5010C(IC) CV5011C(OC)	1 1	0/2-13-90 Combined	0/4-12-90 Combined
P-74B	Containment Air Sample	C	CV5010D(IC) CV5011D(OC)	1 1	0/2-1-90 Combined	0/2-1-90 0/4-9-90
P-74C	Press. Aux Spray	C	DH2735(IC) DH2736(OC)	1.5 1.5	0/2-10-90 0/2-10-90	0/2-10-90 0/3-24-90
P-80	Emergency Air Lock	B	Air Lock	N/A	1814/2-16-90	0/5-29-90

1990 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-81	Personnel Air Lock	B	Air Lock	N/A	1325/1-27-90	1193/5-29-90
P-82	Equipment Hatch	B	O-Rings	N/A	0/1-28-90	0/6-3-90
P-101	Electrical Penetrations	B	O-Rings	N/A	8247/3-9-90	0/3-9-90
P-102	Electrical Penetrations	B	O-Rings	N/A	0/3-9-90	0/3-9-90
				TOTAL	* >234,845	23,309

NOTES 1. Individual valves are 1 inch. Tested in parallel for nominal size of 2 inches.

2. Each penetration leakage was increased as follows:

   a. 2% for 38 (+1,-0) psig.

   b. 2% for rotameter accuracy.

   c. 2% for 60-70 degrees F.

* PCAQR 90-0112 issued. Valve limit stops caused excessive leakage through CC1407B. MWO 7-90-0112-01 reset limits and valve tested satisfactorily (see Penetration No. 4).

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-1	Pressurizer Sample	C	RC240A(IC) RC240B(OC)	1 1	0/9-12-91 0/9-12-91	0/9-12-91 0/9-12-91
P-3	Component Cooling Supply	C	CC1411A(IC) CC1411B(OC)	12 12	52/9-11-91 Combined	308/10-13-91 Combined
P-4	Component Cooling Return	C	CC1407A(IC) CC1407B(OC)	12 12	3487/9-11-91 Combined	3487/9-11-91 Combined
P-8A	Containment Vessel Vac. Br.	C	CV5070(OC) CV5080(OC)	8 8	2072/9-13-91 Combined	515/10-10-91 1242/10-14-91
P-8B	Containment Vessel Vac. Br.	C	CV5071(OC) CV5081(OC)	8 8	790/9-13-91 592/9-13-91	790/9-13-91 0/9-18-91
P-8C	Containment Vessel Vac. Br.	C	CV5072(OC) CV5082(OC)	8 8	5/9-13-91 5/9-13-91	5/9-13-91 5/9-13-91
P-8D	Containment Vessel Vac. Br.	C	CV5073(OC) CV5083(OC)	8 8	0/9-13-91 49/9-13-91	0/9-13-91 49/9-13-91
P-8E	Containment Vessel Vac. Br.	C	CV5074(OC) CV5084(OC)	8 8	0/9-13-91 Combined	237/10-11-91 15/10-14-91
P-8F	Containment Vessel Vac. Br.	C	CV5075(OC) CV5985(OC)	8 8	393/9-10-91 319/9-10-91	393/9-10-91 319/9-10-91
P-8G	Containment Vessel Vac. Br.	C	CV5076(OC) CV5086(OC)	8 8	440/9-10-91 491/9-10-91	440/9-10-91 13975/10-15-91

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-8H	Containment Vessel Vac. Br.	C	CV5077(OC)	8	0/9-10-91	0/9-10-91
			CV5087(OC)	8	0/9-10-91	0/9-10-91
P-8I	Containment Vessel Vac. Br.	C	CV5078(OC)	8	0/9-10-91	0/9-10-91
			CV5088(OC)	8	16/9-10-91	16/9-10-91
P-8J	Containment Vessel Vac. Br.	C	CV5079(OC)	8	55/9-10-91	55/9-10-91
			CV5089(OC)	8	0/9-10-91	16/10-15-91
P-12	Comp. Cooling to CRDMs	C	CC1567A(IC)	3	0/9-6-91	0/9-6-91
			CC1567B(OC)	3	0/9-6-91	0/9-6-91
P-13	Cont. Ves. Nor. Sump Drain	C	DR2012A(IC)	4	508/10-10-91	508/10-10-91
			DR2012B(OC)	4	610/10-10-91	610/10-10-91
P-14	Letdown to Purif. Demins.	C	MU2A(IC)	2.5	0/9-9-91	0/9-9-91
			MU3(OC)	2.5	0/9-10-91	0/9-10-91
P-16	Cont. Vess. Equip. Vent Hdr.	C	RC1719A(IC)	3	65/9-13-91	65/9-13-91
			RC1719B(OC)	3	73/9-13-91	73/9-13-91
P-17	Cont. Vess. Leak Test Line	C	CV343(OC)	8	40/9-3-91	42/10-21-91
			Blind Flg.(IC)	8	Combined	Combined
P-20	Normal RCS Makeup	C	MU6422(OC)	2.5	32/9-19-91	22/10-17-91
P-21	Demin. Water Supply	C	DW6831A(IC)	4	56/9-16-91	56/9-16-91
			DW6831B(OC)	4	60/9-16-91	60/9-16-91

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-23	Fuel Trans. Tube 1-2 Bellows	B	Bellows/Guard Pipe	N/A	11/10-9-91	11/10-9-91
			O-Rings(IC)	N/A	0/9-11-91	0/10-14-91
P-24	Fuel Trans. Tube 1-1 Bellows	B	Bellows/Guard Pipe	N/A	0/10-9-91	0/10-9-91
			O-Rings(IC)	N/A	0/9-11-91	0/10-14-91
P-25	Containment Spray	C	SA536(OC)	2	0/9-5-91	0/9-5-91
			SA532(OC)	2	Combined	Combined
			CS1531(OC)	8	0/9-5-91	0/9-5-91
			CS33(OC)	8	0/9-5-91	N/A
			CS17(OC)	8	Combined	
			CS33(OC)	8	129/9-5-91	129/9-5-91
			CS17(OC)	8	0/9-5-91	0/9-5-91
P-26	Containment Spray	C	SA533(OC)	2	453/9-6-91	453/9-6-91
			SA535(OC)	2	Combined	Combined
			CS1530(OC)	8	206/9-6-91	206/9-6-91
			CS36(OC)	8	84/9-6-91	N/A
			CS18(OC)	8	Combined	
			CS36(OC)	8	78/9-6-91	79/10-26-91
			CS18(OC)	8	25400/9-6-91	4820/10-26-91

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-30	Cont. Emer. Sump Guard Pipe	B	Guard Pipe	N/A	0/9-5-91	0/9-5-91
P-31	Cont. Emer. Sump Guard Pipe	B	Guard Pipe	N/A	0/9-5-91	0/9-5-91
P-32	RCS Drain to RCDT	C	RC1773A(IC)	3	0/9-12-91	0/9-12-91
			RC1773B(OC)	3	79351/9-12-91	0/10-24-91
P-33	Cont. Vess. Purge Inlet	C	CV5006(IC)	48	295/9-1-91	5717/10-24-91
		C	CV5005(OC)	48	Combined	Combined
P-34	Cont. Vess. Purge Outlet	C	CV5007(IC)	48	52/9-1-91	1430/10-25-91
			CV5008(OC)	48	Combined	Combined
P-37	Main Feedwater Inbd. Bellows	B	Bellows	N/A	0/9-11-91	0/9-11-91
	Main Feedwater Otbd. Bellows	B	Bellows	N/A	0/9-11-91	0/9-11-91
P-38	Main Feedwater Inbd. Bellows	B	Bellows	N/A	0/9-8-91	0/9-8-91
	Main Feedwater Otbd. Bellows	B	Bellows	N/A	0/9-8-91	0/9-8-91
P-39	Main Steam Inbd. Bellows	B	Bellows	N/A	0/9-11-91	0/9-11-91
	Main Steam Otbd. Bellows	B	Bellows	N/A	0/9-11-91	0/9-11-91
P-40	Main Steam Inbd. Bellows	B	Bellows	N/A	0/9-8-91	0/9-8-91
	Main Steam Otbd. Bellows	B	Bellows	N/A	0/9-11-91	0/9-11-91
P-41	Press. Quench Tk. Circ. Inlet	C	RC113(IC)	2	35/9-14-91	35/9-14-91
			RC232(OC)	2	4934/9-14-91	158/10-15-91

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-42A	Service Air Supply	C	SA502(IC)	1.5	216/9-7-91	216/9-7-91
			SA2010(OC)	1.5	1364/9-8-91	911/10-23-91
P-42B	Cont. Vess. Air Sample Ret.	C	CV124(IC)	1	211/9-8-91	211/9-8-91
			CV5010E(OC)	1.5	15/9-8-91	15/9-8-91
P-43A	Instrument Air Supply	C	IA501(IC)	1	364/10-9-91	364/10-9-91
			IA2011(OC)	1	52/10-9-91	52/10-9-91
P-43B	Cont. Vess. Air Sample Ret.	C	CV125(IC)	1	0/9-9-91	0/9-9-91
			CV5011E(OC)	1.5	0/9-9-91	0/9-9-91
P-44A	Core Flood Tank Fill & N2 Supply	C	CF15(IC)	1	133/9-14-91	133/9-14-91
			CF1541(OC)	1	600/9-14-91	600/9-14-91
P-44B	Containment N2 Supply	C	NN58(IC)	1	184/9-7-91	184/9-7-91
			NN236(OC)	1	243/9-7-91	243/9-7-91
P-47A	Core Flood Tank Vent	C	CF2A(IC)	(Note 1)	106/9-13-91	106/9-13-91
			CF2B(IC)	(Note 1)	0/9-13-91	0/9-13-91
			CF1545(OC)	1	0/9-13-91	0/9-13-91
P-47B	Core Flood Tank Vent	C	CF5A(IC)	(Note 1)	0/9-13-91	0/9-13-91
			CF5B(IC)	(Note 1)	0/9-13-91	0/9-13-91
			CF1542(OC)	1	35/9-13-91	35/9-13-91
P-48	Press. Quench Tk. Circ. Outlet	C	RC229B(IC)	3	55/9-14-91	55/9-14-91
			RC229A(OC)	3	5920/9-14-91	1143/10-14-91

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-49	Refueling Canal Fill	C	DH88(IC)	8	0/9-8-91	0/9-8-91
			DH87(OC)	8	0/9-9-91	0/9-9-91
P-50	RCS Makekup	C	MU6421(OC)	2.5	0/9-7-91	0/9-7-91
P-51	H2 Purge Exhaust	C	CV5038(OC)	4	21/9-10-91	21/9-10-91
			CV5037(OC)	4	15/9-10-91	123/10-11-91
P-52	RCP Seal Water Supply	C	MU242(IC)	1.5	218/9-8-91	218/9-8-91
			MU66A(OC)	1.5	0/9-8-91	0/9-8-91
P-53	RCP Seal Water Supply	C	MU243(IC)	1.5	0/9-7-91	0/9-7-91
			MU66B(OC)	1.5	0/9-8-91	0/9-8-91
P-54	RCP Seal Water Supply	C	MU244(IC)	1.5	496/9-9-91	496/9-9-91
			MU66C(OC)	1.5	0/9-9-91	0/9-9-91
P-55	RCP Seal Water Supply	C	MU245(IC)	1.5	0/9-9-91	0/9-9-91
			MU66D(OC)	1.5	0/9-9-91	0/9-9-91
P-56	RCP Seal Water Return	C	MU59A-D(IC)	1	0/9-11-91	0/9-11-91
			MU38(OC)	1	Combined	Combined
P-59	Sec. Side Chem. Cleaning Flanges	B	Flanges	8	24/9-3-91 Combined	47/10-23-91 Combined
P-67	H2 Dilution Supply	C	CV210(IC)	4	10/9-7-91	10/9-7-91
			CV5090(OC)	4	0/9-9-91	288/10-10-91

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-68A	Press. Quench Tk. Sample	C	SS235B(IC) SS235A(OC)	1 1	21/9-12-91 119/9-12-91	21/9-12-91 119/9-12-91
P-68B	Containment Air Sample	C	CV5011B(IC) CV5010B(OC)	1 1	0/9-7-91 Combined	0/9-7-91 Combined
P-69	H2 Dilution Supply	C	CV209(IC) CV5065(OC)	4 4	177/9-10-91 0/9-11-91	177/9-10-91 0/9-11-91
P-71B	Containment Air Sample	C	CV5010A(IC) CV5011A(OC)	1 1	0/9-8-91 Combined	14/10-16-91 Combined
P-71C	Core Flood Tk. Fill & N2 Supply	C	CF16(IC) CF1544(OC)	1 1	360/9-12-91 176/9-12-91	360/9-12-91 176/9-12-91
P-73B	Containment Air Sample	C	CV5010C(IC) CV5011C(OC)	1 1	0/9-8-91 Combined	0/10-10-91 Combined
P-74B	Containment Air Sample	C	CV5010D(IC) CV5011D(OC)	1 1	0/9-7-91 Combined	0/9-7-91 Combined
P-74C	Press. Aux Spray	C	DH2735(IC) DH2736(OC)	1.5 1.5	0/9-7-91 0/9-7-91	0/9-7-91 0/9-7-91
P-80	Emergency Air Lock	B	Air Lock	N/A	402/5-1-91	182/10-10-91
P-81	Personnel Air Lock	B	Air Lock	N/A	1315/4-30-91	113/10-14-91

1991 Surveillance Test

Pen No.	System Name	Test Type	Equipment/ Valves	Valve Size (Inches)	As-Found Leakage (SCCM)/Date	As-Left Leakage (SCCM)/Date
P-82	Equipment Hatch	B	O-Rings	N/A	0/9-4-91	0/10-23-91
P-101	Electrical Penetrations	B	O-Rings	N/A	0/9-12-91	0/9-12-91
P-102	Electrical Penetrations	B	O-Rings	N/A	0/9-8-91	0/9-8-91
				TOTAL	134,090	42,974

NOTES 1. Individual valves are 1 inch. Tested in parallel for nominal size of 2 inches.

2. Each penetration leakage was increased as follows:

   a. 2% for rotameter accuracy.

   b. 1% for 38 (+1,-0) psig.

Summary and Conclusions

- 1990 Surveillance Test -

SUMMARY:

All tests were performed utilizing air or nitrogen as the test media at a minimum pressure of 38.0 psig (P_a) for a minimum duration of 15 minutes after stabilization.

DATA SUMMARY:

- Total allowable (0.60 L_a) . . . . . 599,400 SCCM
- Total "as-found". . . . . *234,845 SCCM
- Total "as-left" . . . . . 23,309 SCCM

ACCEPTANCE CRITERIA:

The combined leakage rate of all Type B and C tests shall be less than 0.60 L_a or <599,400 SCCM.

CONCLUSIONS:

The combined as-found leakage rate of all Type B and C tests was = >234,845 SCCM. No Type A test or ILRT was performed during this surveillance interval.

*See 1990 surveillance test data for Penetration No. 4

- 1991 Surveillance Test -

SUMMARY:

All tests were performed utilizing air or nitrogen as the test media at a minimum pressure of 38.0 psig (P_a) for a minimum duration of 15 minutes after stabilization.

DATA SUMMARY:

- Total allowable (0.60 L_a) . . . . . .599,400 SCCM
- Total "as-found". . . . . .134,090 SCCM
- Total "as-left" . . . . . 42,974 SCCM

ACCEPTANCE CRITERIA:

The combined leakage rate of all Type B and C tests shall be less than 0.60 L_a or <599,400 SCCM.

CONCLUSIONS:

The combined as-found leakage rate of all Type B and C tests was 134,090 SCCM which [illegible]ells within the acceptance limit. The data substantiates that an acceptable test was performed in accordance with the requirements of 10CFR50, Appendix J.

DAVIS-BESSE
NUCLEAR POWER STATION

TOLEDO EDISON