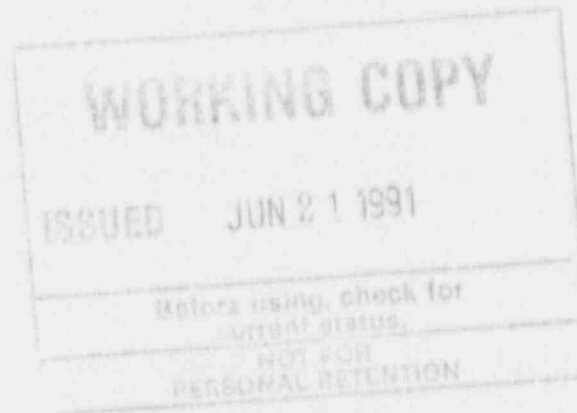


BOSTON EDISON

PILGRIM NUCLEAR POWER STATION

Procedure No. 8.7.3

SECONDARY CONTAINMENT LEAK RATE TEST



Approved

*Not Required*  
QA Manager

*19/2/91*  
Date

Approved

*Not Required*  
Plant Manager

*19/2/91*  
Date

Safety Review Required/Not Required

# REVISION LOG

<u>Revision</u>	<u>Date</u>	<u>Pages Affected</u>	<u>Description</u>
28		5,7-9, 12-14	Removed requirement to inspect idle train core plate D/P instruments per PDC 86-70.
EDIT CORR	4/91	4,9	Add PNPS 2.2.125.1 to References and delete retired PNPS 2.4.147.
27		4,15	To address and correct a problem identified by RFI 89-275 and ref. applicable section of Tech. Spec. after step and in Ref. section.
26		A11	Clarify Procedure and C-7 Reset.
25		A11	Incorporate comments of PCAQ NED 88-165.
24		A11	Revised step 19 from "Reopen any valves closed per step 14" to correctly read "Reopen any valves closed per step 16".

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## 1.0 PURPOSE

The purpose of this procedure is to provide instructions for performing the secondary containment leak rate test.

## 2.0 REFERENCES

- [1] FSAR, Section 5.3
- [2] PNPS Procedure:
  - (a) 2.2.50, "Standby Gas Treatment"
  - (b) 8.7.3.1, "Inspection of Secondary Containment Dampers"
  - (c) 2.2.125.1, "Primary and Secondary Containment Isolation Reset" |
- [3] PNPS Technical Specification Section 4.7.C.1.c, Table 6.9.1  
[RFI 89-275]
- [4] P&IDs
  - (a) M-280, Heating and Ventilation
  - (b) P&ID M-287, Plant Ventilation
  - (c) P&ID M-321, Fan Room No. 1
  - (d) P&ID M-322, H&V and AC Fan Room No. 3 and 2
  - (e) P&ID M-323, H&V and AC Temperature Controls
- [5] NOP-8301, Conduct of Operations
- [6] NED Memo #84-038, corresponds to FS&MC Memo #84-015
- [7] Vendor Manual V-0529, Pacific Air Products
- [8] Design Changes
  - (a) PDC 85-14, Reactor Building Secondary Containment Isolation Dampers
  - (b) PDC 86-70, Standby Gas Treatment System Modifications
  - (c) PDC 88-53, Reactor Building Trucklock Door Mechanical Seal
- [9] NRC resolved concern, UNR 83-23-02
- [10] PCAQ NED 88-165



### 3.0 DISCUSSION

This procedure should be performed at each refueling outage prior to refueling as required by PNPS Technical Specification 4.7.C.1.c, or as required for post work testing.

### 4.0 PREREQUISITES

- [1] Watch Engineer's permission to perform test.

---

#### NOTE

The Turbine Building should be at a slight negative pressure (-0.1 to -0.2 inches H<sub>2</sub>O) with respect to atmosphere as read on the manometers next to Panel C60.

---

- [2] Turbine Bldg. H&V System operating with 2 exhaust and 2 supply fans in service. Roof exhausters in operation as required.
- [3] DPI-AA-22 and DPI-AA-32 calibrated and initially reading 0" H<sub>2</sub>O.
- [4] At least one door at each access closed.
- [5] Standby gas treatment system operable.
- [6] All automatic ventilation system isolation dampers operable or secured in the isolated condition.
- [7] All manometers filled and zeroed.
- [8] Secondary containment checkoff (Attachment 2) considered and accepted.
- [9] Specific purpose for test performance to be noted in Attachment 1.
- [10] Wind speed is less than or equal to 15 mph.

### 5.0 APPARATUS

- [1] Key for test switches
- [2] Communications equipment

## 6.0 PRECAUTIONS

- [1] Do not draw over 1" H<sub>2</sub>O vacuum across the reactor building.
- [2] If this test is performed during reactor power operation, do not keep the reactor building isolated longer than 10 minutes as the main steam tunnel temperature will start to rise.
- [3] A reading to the right of zero (downward) on the manometers is negative.
- [4] An individual base line reading outside of  $0 \pm 0.1$ " H<sub>2</sub>O indicates test results could be influenced and test should not be conducted until condition is corrected.

## 7.0 PROCEDURE

PERFORM the test as follows:

- [1] RECORD ambient conditions.
- [2] VERIFY OR POSITION as required the SGTS as follows:

<u>A Train</u>	<u>B Train</u>
(a) AON 99, 108 Auto (Closed)	AON 106, 112 Auto (Closed)
(b) AON 135, 136, Open	AON 135, 136, Open
(c) AON 98, 138 Auto (Closed)	AON 101, 137 Auto (Closed)
- [3] CLOSE the outer Reactor Building Trucklock door **AND** INFLATE the seal.
- [4] OPEN the inner Reactor Building trucklock door.
- [5] PLACE hand switches for both SGTS fans, VEX-210A and VEX-210B, (Panel C-7) in the "OFF" position.

---

NOTE

When the test switches are tripped, the signal will seal in and the Reactor Building will remain isolated. The SGTS fans will not start until manipulated by this procedure. An SGTS trouble alarm may come in and not reset until completion of this test.

---

- [6] **SIMULTANEOUSLY TURN** both keylocked secondary containment isolation system initiation control switches (RPWA/CS and RPWB/CS on Panel C-7) to the "TEST" position.
  - (a) **ALLOW** 3 minutes for stabilization **AND TAKE** base readings on the 4 manometers in the reactor building elevation 91', **AND** 2 manometers in the Turbine Building Elevation 51'.
  - (b) **RECORD** data on Attachment 1 **AND REVIEW** that average base line is within bounds. ( $0 \pm 0.1$ " H<sub>2</sub>O)
- [7] **AFTER** noting which fans were operating, **TURN** all Reactor building fan switches on Panel C-61 to the "OFF" position.
- [8] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "AUTO" position. **LEAVE** the control switch for the B fan in the "OFF" position.
- [9] **VERIFY** dampers AON-99 AND AON-108 reposition to the OPEN position.
- [10] **REGULATE** MON-109 as required such that flow is maximized but does not exceed 4000 CFM.
- [11] **ALLOW** the manometers to stabilize **AND RECORD** the approximate time necessary for stabilization on Attachment 1.
- [12] **RECORD** the following data on Attachment 1:
  - (a) Manometer dP readings.
  - (b) DP-AA-22 dP
  - (c) FI-8126/8127
- [13] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "OFF" position.
- [14] **CLOSE** the inner Reactor Building Trucklock door but **DO NOT INFLATE** the seal. [PCAQ MED 88-165]
- [15] **OPEN** the outer Reactor Building Trucklock door. [PCAQ MED 88-165]
- [16] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "AUTO" position. **LEAVE** the control switch for the B fan in the "OFF" position.

7.0 PROCEDURE (Continued)

- [17] **REGULATE** MON-109 as required such that flow is maximized, but does not exceed 4000 CFM.
- [18] **ALLOW** the manometers to stabilize and **RECORD** the approximate time necessary for stabilization on Attachment 1.
- [19] **RECORD** the following data on Attachment 1:
- (a) Manometer dP readings
  - (b) DP-AA-22 dP
  - (c) FI-8126/8127
- [20] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "OFF" position.
- [21] **VERIFY** the damper control switches (on Panel C-7) for AON-99 AND AON-108 in the "AUTO" position and the dampers indicate CLOSED.
- [22] **PLACE** the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "MAINTENANCE" position. **LEAVE** the control switch for the A fan in the "OFF" position.
- [23] **VERIFY** dampers AON-106 AND AON-112 reposition to the OPEN position.
- [24] **REGULATE** MON-113 as required such that flow is maximized but does not exceed 4000 CFM.
- [25] **ALLOW** the manometers to stabilize **AND RECORD** the approximate time necessary for stabilization on Attachment 1.
- [26] **RECORD** the following data on Attachment 1:
- (a) Manometer dP readings
  - (b) DP-AA-32 dP
  - (c) FI-8126/8127
- [27] **PLACE** the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "OFF" position.
- [28] **CLOSE** the outer Reactor Building Trucklock door **AND INFLATE** the seal.
- [29] **OPEN** the inner Reactor Building Trucklock door.
- [30] **PLACE** the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "MAINTENANCE" position. **LEAVE** the control switch for the A fan in the "OFF" position.
- [31] **REGULATE** MON-113 as required such that flow is maximized but does not exceed 4000 CFM.
- [32] **ALLOW** the manometers to stabilize **AND RECORD** the approximate time necessary for stabilization on Attachment 1.

## 7.0 PROCEDURE (Continued)

[33] RECORD the following data on Attachment 1:

- (a) Manometer dP readings
- (b) DP-AA-32 dP
- (c) FI-8126/8127

[34] PLACE the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "OFF" position.

[35] RESET the secondary containment isolation per PNPS 2.2.125.1.

[36] RETURN the SBGTS to normal line-up per PNPS 2.2.50.

[37] VERIFY all components are returned to normal (Independent verification required).

---

### NOTE

Independent verification may be performed by:

- a. Direct method - checking appropriate equipment and/or controls

OR

- b. Indirect method - observation of indicators and/or status lights

An independent verification need not be performed if a person has the potential of receiving greater than 25 mRem whole body while performing the verification.

---

[38] Documentation

- (a) ENTER the performance of the test in the Control Room Log.
- (b) COMPLETE the signoff sheet AND FORWARD to the Compliance Engineer.
- (c) ROUTE to Control Room Annex for filing.

## 8.0 ACCEPTANCE CRITERIA

[1] The test was performed as written with no unexplained discrepancies.

[2] The individual Base Line Readings were equal to  $0 \pm 0.1$ " H<sub>2</sub>O.

## 8.0 ACCEPTANCE CRITERIA (Continued)

- [3] A 1/4" water vacuum (average corrected value) on the secondary containment obtained with a filter train flow rate of equal to or less than 4000 CFM as determined from the perforated plate readings (DPI-AA-22/DPI-AA-32).
- [4] That FIs 8126 and 8127 agree within  $\pm 20\%$  of perforated plate dP conversion. (Not Tech. Spec. required.)

## 9.0 ATTACHMENTS

- ATTACHMENT 1 - SECONDARY CONTAINMENT LEAK RATE SIGNOFF
- ATTACHMENT 2 - SECONDARY CONTAINMENT INTEGRITY CHECKOFF
- ATTACHMENT 3 - SGTS "A" AIR FLOW VS PERFORATED PLATE P.
- ATTACHMENT 4 - SGTS "B" AIR FLOW VS PERFORATED PLATE P.

SECONDARY CONTAINMENT LEAK RATE SIGNOFF

[1] Prerequisites (Section 4.0)

- |   |         |               |
|---|---------|---------------|
| (A) Watch Engineer permission to perform test.  | Initial | <u>D.W.</u>   |
| (B) Turbine Building, H&V System operating two exhaust and two supply fans in service. Roof exhausters as required. | Initial | <u>P.E.M.</u> |
| (C) DPI-AA-22 and DPI-AA-32 calibrated.   | Initial | <u>J.P.G.</u> |
| (D) At least one door at each access closed.  | Initial | <u>R.H.</u>   |
| (E) Standby gas treatment system operable.  | Initial | <u>P.E.M.</u> |
| (F) All automatic ventilation system isolation dampers operable or secured in the isolated condition.               | Initial | <u>R.H.</u>   |
| (G) All manometers filled and zeroed.   | Initial | <u>R.H.</u>   |
| (H) Secondary containment checkoff considered and accepted.   | Initial | <u>P.E.M.</u> |
| (I) Specific purpose for test performance is:   | Initial | <u>R.H.</u>   |

[2] Test Performance To verify secondary containment integrity prior to RFO 8 reloading of fuel, per PNPS Technical specification 4.7.C.1.c

Wind Direction 180 Degrees

Wind Velocity 4 mph ( $\leq 15$  mph)

Outside Temperature 81 °F

Inside Temperature 72 °F

(A) Base Readings

Manometer P Rx Bldg E1 91'

N (1) + .015 " H<sub>2</sub>O

E (2) .00 " H<sub>2</sub>O



W (3)           + .025           " H<sub>2</sub>O  
S (4)           - .099           " H<sub>2</sub>O  
Average           - .015           " H<sub>2</sub>O (0"  $\pm$ 0.1" H<sub>2</sub>O)

Elevation 51' Turbine Building:

Turb op. floor           + .08           "H<sub>2</sub>O  
Condenser Compt.           + .08           "H<sub>2</sub>O

(B) SGTs A Performance Inner Truck Lock Door Open, Outer D     Shut and  
inflated.

Manometer Stabilization Time           5           Min.

DPI-AA-22           .4           "H<sub>2</sub>O /           2000           CFM

FI-8126/8127           3900 / 3850           CFM

Elevation 91' Rx. Bldg. manometer:

	<u>Test</u>	<u>Base</u>	<u>Corrected</u>
N (1)	<u>          - .72          </u> " H <sub>2</sub> O	<u>          + .015          </u> " H <sub>2</sub> O	<u>          - .735          </u> " H <sub>2</sub> O
E (2)	<u>          - .69          </u> " H <sub>2</sub> O	<u>          .0          </u> " H <sub>2</sub> O	<u>          - .69          </u> " H <sub>2</sub> O
W (3)	<u>          - .71          </u> " H <sub>2</sub> O	<u>          + .025          </u> " H <sub>2</sub> O	<u>          - .735          </u> " H <sub>2</sub> O
S (4)	<u>          - .80          </u> " H <sub>2</sub> O	<u>          - .099          </u> " H <sub>2</sub> O	<u>          - .701          </u> " H <sub>2</sub> O

Average corrected manometer DP           - .715           " H<sub>2</sub>O

Elevation 51' Turb Bldg. manometers:

Turb op Floor           + .07           "H<sub>2</sub>O  
Condenser Compt.           + .07           " H<sub>2</sub>O



(C) SGTS A Performance Inner Truck Lock Door Shut seal NOT inflated, Outer Door Open.

DPI-AA-22 .37 " H<sub>2</sub>O 1900 CFM

FI 8126/8127 3900 / 3852 CFM

Manometer Stabilization Time 5 Min.

Elevation 91' Rx Bldg Manometers:

Test	-	Base	=	Corrected
N (1)	<u>-.80</u> " H <sub>2</sub> O	<u>+.015</u> " H <sub>2</sub> O		<u>-.815</u> " H <sub>2</sub> O
E (2)	<u>-.78</u> " H <sub>2</sub> O	<u>.0</u> " H <sub>2</sub> O		<u>-.78</u> " H <sub>2</sub> O
W (3)	<u>-.76</u> " H <sub>2</sub> O	<u>+.025</u> " H <sub>2</sub> O		<u>-.785</u> " H <sub>2</sub> O
S (4)	<u>-.86</u> " H <sub>2</sub> O	<u>-.099</u> " H <sub>2</sub> O		<u>-.761</u> " H <sub>2</sub> O

Average corrected manometer DP .785 " H<sub>2</sub>O

Elevation 51' Turb Bldg manometers:

Turb op Floor +.10 "H<sub>2</sub>O

Condenser Compt. +.09 "H<sub>2</sub>O

(D) SGTS B Performance Inner Truck Lock Door Shut, seal NOT inflated, Outer Door Open.

DPI-AA-32 .40 "H<sub>2</sub>O 2000 CFM

FI 8126/8127 3950 / 3800 CFM

Manometer Stabilization Time 4 Min.

Elevation 91' Rx Bldg. manometers:

	<u>Test</u>	-	<u>Base</u>	=	<u>Corrected</u>
N (1)	<u>.72</u>	" H <sub>2</sub> O	<u>+ .015</u>	" H <sub>2</sub> O	<u>- .735</u> " H <sub>2</sub> O
E (2)	<u>-.69</u>	" H <sub>2</sub> O	<u>.0</u>	" H <sub>2</sub> O	<u>- .69</u> " H <sub>2</sub> O
W (3)	<u>-.71</u>	" H <sub>2</sub> O	<u>+ .025</u>	" H <sub>2</sub> O	<u>- .735</u> " H <sub>2</sub> O
S (4)	<u>-.80</u>	" H <sub>2</sub> O	<u>-.099</u>	" H <sub>2</sub> O	<u>- .701</u> " H <sub>2</sub> O

Average corrected manometer DP .715 " H<sub>2</sub>O

Elevation 51' Turb Bldg Manometers:

Turb op Floor + .08 " H<sub>2</sub>O

Condenser Compt + .08 " H<sub>2</sub>O

- (E) SGTS B Performance Inner Truck Lock Door Open, Outer Door Shut seal inflated.

DPI-AA-32 .35 " H<sub>2</sub>O 1800 CFM

FI 8126/8127 3950 / 3800 CFM

Manometer Stabilization Time 3 Min.

Elevation 91' Rx Bldg Manometers:

	<u>Test</u>	-	<u>Base</u>	=	<u>Corrected</u>
N (1)	<u>-.71</u>	" H <sub>2</sub> O	<u>+ .015</u>	" H <sub>2</sub> O	<u>- .725</u> " H <sub>2</sub> O
E (2)	<u>-.68</u>	" H <sub>2</sub> O	<u>.0</u>	" H <sub>2</sub> O	<u>- .68</u> " H <sub>2</sub> O
W (3)	<u>-.69</u>	" H <sub>2</sub> O	<u>+ .025</u>	" H <sub>2</sub> O	<u>- .715</u> " H <sub>2</sub> O
S (4)	<u>-.76</u>	" H <sub>2</sub> O	<u>-.099</u>	" H <sub>2</sub> O	<u>- .661</u> " H <sub>2</sub> O

Average corrected DP -.695 " H<sub>2</sub>O

Elevation 51' Turb bldg manometers:

Turb op Floor \_\_\_\_\_ + .09 \_\_\_\_\_ " H<sub>2</sub>O

Condenser Compt. \_\_\_\_\_ + .08 \_\_\_\_\_ " H<sub>2</sub>O

(F) System Returned to Normal: (Independent Verification Required)

\_\_\_\_\_  
R. Haislett/D. Williams

\_\_\_\_\_  
Date 6/20/91

Discrepancies:

WRT #019988 on FI 8126/8127 Reading > + 20% of DPI-AA 22/32 MR 19103116

Acceptance Criteria, as stated in Section 8.0 of the procedure was met.

\_\_\_\_\_  
D. Williams

\_\_\_\_\_  
Watch Engineer

Reviewed By \_\_\_\_\_  
D. Williams

\_\_\_\_\_  
Watch Engineer

Test data forwarded to Compliance Eng. by Watch Engineer Date 6/20/91

(G) Reporting

[Per Technical Specification Table 6.9.1]

Compliance Engineer submitted report to the NRC within 90 days.

\_\_\_\_\_  
William Munro

\_\_\_\_\_  
Compliance Engineer

\_\_\_\_\_  
7/22/91

\_\_\_\_\_  
Date

\_\_\_\_\_  
Report Letter # 91-93

(H) Route to Control Room Annex for Filing.

SECONDARY CONTAINMENT CHECK-OFF  
(By Elevation)

The attached check-off sheets provide satisfactory (Sat) or unsatisfactory (Unsat) check-off for various secondary containment penetrations. Satisfactory check-off will indicate the following:

- a. For plugs, hatches, and doors; seals are in place and provide a positive seal around the perimeters of the seal area.
- b. For dampers: Linkage system is clean and free of corrosion. Edge seals are in place and not otherwise damaged. Damper position corresponds to its associated switch position on panel C-7.
- c. For drains: valves are lined up to a minimum 20% full collection tank, tank covers are installed.
- d. For water level indication, no low water level alarms are present.

Conditions other than those listed require unsatisfactory check-off and discrepancies noted. Repairs to correct deficiencies shall be initiated.

Inspection of electrical penetrations and masonry for the Reactor Building will be accomplished for all walls annually. Verification of these inspections will be noted as satisfactory if all annual inspections are completed.

E1 3' Reactor Aux. Bay

HPCI Floor Blowout Panel & Plugs	Sat. <u>  X  </u>	Unsat <u>          </u>
HPCI Escape Hatch	Sat <u>  X  </u>	Unsat <u>          </u>
HPCI Equipment Hatch	Sat <u>  X  </u>	Unsat <u>          </u>

Note Discrepancies:

E1 6' Radwaste

Miscellaneous Tank Drains	Sat <u>  X  </u>	Unsat <u>          </u>
---------------------------	------------------	-------------------------

Note Discrepancies:

PASS Area Above Machine Shop

2 ventilation dampers between Rx Bldg. & PASS sample station closed.

Verified           JN

E1 23' Reactor Building

Truck Lock Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Truck Lock Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>
Truck Lock Dampers	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 114	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 115	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 116	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 117	Sat <u>  X  </u>	Unsat <u>          </u>
Personnel Access to Aux. Bay		
Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>
Personnel Access to Access Control		
Inner Door	Sat <u>(SEE BELOW)</u>	Unsat <u>          </u>
Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>

Note Discrepancies:

Door 58 - Seal Deteriorated WRT 015278

E1 51' Reactor Building

Access to MG Set Room

Door "A" Inner	Sat <u>  X  </u>	Unsat <u>          </u>
Door "A" Outer	Sat <u>  X  </u>	Unsat <u>          </u>
Door "B" Inner	Sat <u>  X  </u>	Unsat <u>          </u>
Door "B" Outer	Sat <u>  X  </u>	Unsat <u>          </u>

E1. 51' Reactor Building (cont'd)

Dampers

AO-N 90	Sat <u>X</u>	Unsat <u>          </u>
AO-N 91	Sat <u>X</u>	Unsat <u>          </u>
AO-N 96	Sat <u>X</u>	Unsat <u>          </u>
AO-N 97	Sat <u>X</u>	Unsat <u>          </u>

Note Discrepancies:

E1 74' Reactor Building

Access to Fan Room 3

Inner Door	Sat <u>X</u>	Unsat <u>          </u>
Outer Door	Sat <u>X</u>	Unsat <u>          </u>

Access to Fan Room 4

Inner Door	Sat <u>X</u>	Unsat <u>          </u>
Outer Door	Sat <u>X</u>	Unsat <u>          </u>

Access to Fan Room 5

Inner Door	Sat <u>X</u>	Unsat <u>          </u>
Outer Door	Sat <u>X</u>	Unsat <u>          </u>

Dampers

AO-N 78	Sat <u>X</u>	Unsat <u>          </u>
AO-N 79	Sat <u>X</u>	Unsat <u>          </u>
AO-N 80	Sat <u>X</u>	Unsat <u>          </u>
AO-N 81	Sat <u>X</u>	Unsat <u>          </u>

Note Discrepancies:

E1 91' Reactor Building

Access to Fan Room 6 Sat X Unsat           

Inner Door Sat X Unsat           

Outer Door Sat X Unsat           

Dampers

AO-N 82 Sat X Unsat           

AO-N 83 Sat X Unsat           

Note Discrepancies:

Seal loose on inner door MR 90-56-33

E1 117' Reactor Building

Roof Access (E1. 158' - 4 1/4")

Inner Door Sat X Unsat           

Outer Hatch Sat X Unsat           

Note Discrepancies:

E1 51' Turbine Building

Dampers

AO-N 92	Sat <u>X</u>	Unsat <u>          </u>
AO-N 93	Sat <u>X</u>	Unsat <u>          </u>
AO-N 94	Sat <u>X</u>	Unsat <u>          </u>
AO-N 95	Sat <u>X</u>	Unsat <u>          </u>

Note Discrepancies:

Inspected by J. Calfa/ J. Owens /Date 6/19/91  
Signature

MR's issued for repairs WRT - 015278  
as noted MR 90-56-53

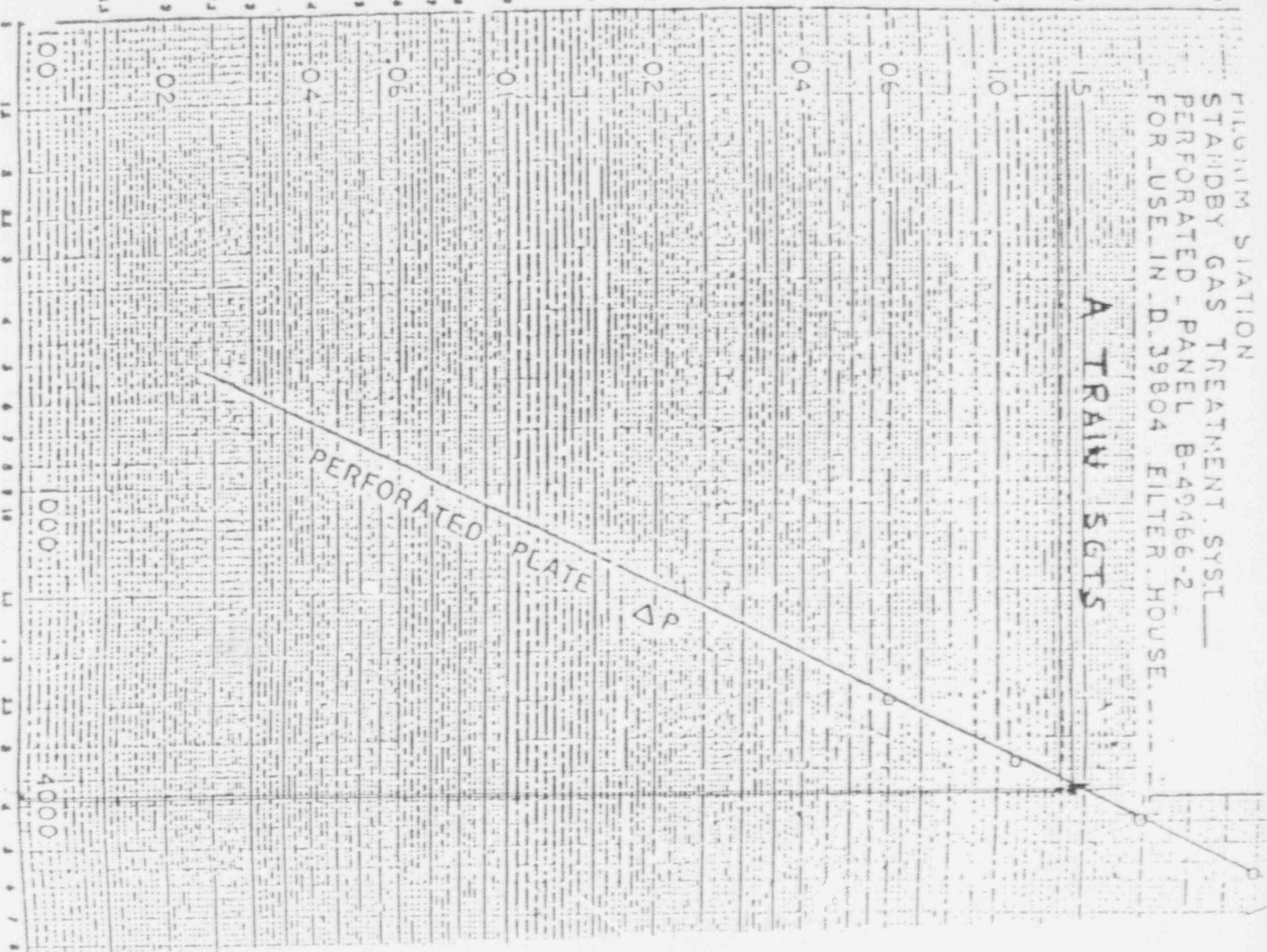
Reviewed by W. Clancy /Date 6/20/91  
CTE

Approved by P.E. Mastangelo /Date 6/20/91  
Watch Engineer



PILGRIM STATION  
STANDBY GAS TREATMENT SYST  
PERFORATED PANEL B-49466-2  
FOR USE IN D.39804 FILTER HOUSE

A TRAIN SGTS



STANDBY GAS TREATMENT SYST.  
PERFORATED PANEL B-49466-1  
FOR USE IN D-39B04 FILTER HOUSE

1.42  
1.37

B TRAIN SGTS

PERFORATED PLATE  $\Delta P$

100

1000

4000

AIR FLOW (CFM)

B TRAIN SGTS

- OUTER DOOR OPEN
- INNER DOOR OPEN

NWE SURVEILLANCE TEST REVIEW

This Form is to be completed for any surveillance test which is intended to meet Technical Specification items AND requires NWE review after completion. Procedures 2.1.15, 2.1.16, 2.1.12.1, and 2.1.12.2 are exempt from this review. If the surveillance test is complete without discrepancies, this form is NOT required

Surveillance Procedure Number 8.7.3 Date 6/20/91

1. Review the surveillance test for exceptions, notes, or discrepancies.

If there are ANY exceptions, notes, or discrepancies or the NWE desires additional review, then the STA or NOS shall review the surveillance test per the criteria of Step 2.

2. Review of Discrepancies:

- The STA (SCRE) or NOS shall document the discrepancy(s) and the review performed to determine acceptance or rejection of the test.
- Cognizant staff engineers or supervisors in the discipline affected may be required to assist in the review.
- a. Record the discrepant condition: Use procedure and step number if appropriate.

FI 8126 & 8127 did not read within  $\pm 20\%$  of SSGT DPI-AA-22&32 while performing 8.7.3

- b. Does the condition affect Tech Spec requirements? Yes [ ] No [x]

Tech Spec(s) considered T.S. 4.7.C.1.C

Explain basis of decision:

(Tech Spec not required)

- c. Does the condition prevent restoration of the component, device, or system to operable status as defined in Tech Spec definition 1.0.E? Yes [ ] No [x]
- d. Does the condition leave the Surveillance test incomplete with respect to the component or system tested? Yes [ ] No [x]

Note that Surveillance tests used for post work testing of specific components may be only partially completed, IF the subsection of the procedure itself is complete AND the partial test is not used to take credit for the entire periodic surveillance test.

- e. Are there any associated system or Plant impacts such as incomplete logic channels or unmonitored trip instruments? Yes ☐ No ☒

Specify associated effects:

- f. ☐ If the discrepancy or incomplete steps affect compliance with MSTP commitments, initiate a Failure and Malfunction (F&M) Report to document the portion of the surveillance which must be reperformed and attach the MSTP node printout to the F&M. Then annotate the master copy of the Weekly Division Schedule located in the Control Room Annex with the completion date and initials in the appropriate spaces.

F&M \_\_\_\_\_ LCO \_\_\_\_\_ MR \_\_\_\_\_

- ☐ If discrepancies do not impact commitments, the MSTP may be updated.

Reviewer comments or concerns: WRT 019988

References used for this review: \_\_\_\_\_

Cognizant Engineer/Supervisor  
(if participant) \_\_\_\_\_

Signature \_\_\_\_\_

This surveillance has been reviewed for discrepancies and it is concluded that the discrepant condition is: Not Acceptable ☐ Acceptable ☒

Review performed by: R. Geracie  
SCRE/STA or NOS

6/20/91

Date

NWE concurrence with review results D. Williams  
NWE

6/20/91

Date

This form is to be filed with the Surveillance test reviewed as part of the permanent record.

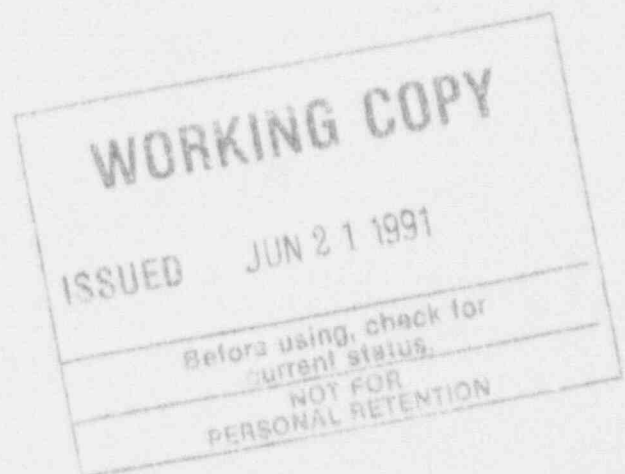


BOSTON EDISON

PILGRIM NUCLEAR POWER STATION

Procedure No. 8.7.3

SECONDARY CONTAINMENT LEAK RATE TEST



Approved *Not Required* *19/2/91*  
QA Manager Date

Approved *19/2/91* *19/2/91*  
Plant Manager Date

Safety Review Required/Not Required

# REVISION LOG

<u>Revision</u>	<u>Date</u>	<u>Pages Affected</u>	<u>Description</u>
28		5,7-9, 12-14	Removed requirement to inspect idle train core plate D/P instruments per PDC 86-70.
EDIT CORR	4/91	4,9	Add PNPS 2.2.125.1 to References and delete retired PNPS 2.4.147.
27		4,15	To address and correct a problem identified by RFI 89-275 and ref. applicable section of Tech. Spec. after step and in Ref. section.
26		A11	Clarify Procedure and C-7 Reset.
25		A11	Incorporate comments of PCAQ NED 88-165.
24		A11	Revised step 19 from "Reopen any valves closed per step 14" to correctly read "Reopen any valves closed per step 16".

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## 1.0 PURPOSE

The purpose of this procedure is to provide instructions for performing the secondary containment leak rate test.

## 2.0 REFERENCES

- [1] FSAR, Section 5.3
- [2] PNPS Procedures
  - (a) 2.2.50, "Standby Gas Treatment"
  - (b) 8.7.3.1, "Inspection of Secondary Containment Dampers"
  - (c) 2.2.125.1, "Primary and Secondary Containment Isolation Reset" |
- [3] PNPS Technical Specification Section 4.7.C.1.c, Table 6.9.1  
[RFI 89-275]
- [4] P&IDs
  - (a) M-280, Heating and Ventilation
  - (b) P&ID M-287, Plant Ventilation
  - (c) P&ID M-321, Fan Room No. 1
  - (d) P&ID M-322, H&V and AC Fan Room No. 3 and 2
  - (e) P&ID M-323, H&V and AC Temperature Controls
- [5] NOP-8301, Conduct of Operations
- [6] NED Memo #84-038, corresponds to FS&MC Memo #84-015
- [7] Vendor Manual V-0529, Pacific Air Products
- [8] Design Changes
  - (a) PDC 85-14, Reactor Building Secondary Containment Isolation Dampers
  - (b) PDC 86-70, Standby Gas Treatment System Modifications
  - (c) PDC 88-53, Reactor Building Trucklock Door Mechanical Seal
- [9] NRC resolved concern, UNR 83-23-02
- [10] PCAQ NED 88-165



### 3.0 DISCUSSION

This procedure should be performed at each refueling outage prior to refueling as required by PNPS Technical Specification 4.7.C.1.c, or as required for post work testing.

### 4.0 PREREQUISITES

- [1] Watch Engineer's permission to perform test.

---

#### NOTE

The Turbine Building should be at a slight negative pressure (-0.1 to -0.2 inches H<sub>2</sub>O) with respect to atmosphere as read on the manometers next to Panel C60.

---

- [2] Turbine Bldg. H&V System operating with 2 exhaust and 2 supply fans in service. Roof exhausters in operation as required.
- [3] DPI-AA-22 and DPI-AA-32 calibrated and initially reading 0" H<sub>2</sub>O.
- [4] At least one door at each access closed.
- [5] Standby gas treatment system operable.
- [6] All automatic ventilation system isolation dampers operable or secured in the isolated condition.
- [7] All manometers filled and zeroed.
- [8] Secondary containment checkoff (Attachment 2) considered and accepted.
- [9] Specific purpose for test performance to be noted in Attachment 1.
- [10] Wind speed is less than or equal to 15 mph.

### 5.0 APPARATUS

- [1] Key for test switches
- [2] Communications equipment

## 6.0 PRECAUTIONS

- [1] Do not draw over 1" H<sub>2</sub>O vacuum across the reactor building.
- [2] If this test is performed during reactor power operation, do not keep the reactor building isolated longer than 10 minutes as the main steam tunnel temperature will start to rise.
- [3] A reading to the right of zero (downward) on the manometers is negative.
- [4] An individual base line reading outside of  $0 \pm 0.1$ " H<sub>2</sub>O indicates test results could be influenced and test should not be conducted until condition is corrected.

## 7.0 PROCEDURE

PERFORM the test as follows:

- [1] RECORD ambient conditions.
- [2] VERIFY OR POSITION as required the SGTS as follows:

### A Train

- (a) AON 99, 108 Auto (Closed)
- (b) AON 135, 136, Open
- (c) AON 98, 138 Auto (Closed)

### B Train

- AON 106, 112 Auto (Closed)
- AON 135, 136, Open
- AON 101, 137 Auto (Closed)

- [3] CLOSE the outer Reactor Building Trucklock door AND INFLATE the seal.
- [4] OPEN the inner Reactor Building trucklock door.
- [5] PLACE hand switches for both SGTS fans, VEX-210A and VEX-210B, (Panel C-7) in the "OFF" position

NOTE

When the test switches are tripped, the signal will seal in and the Reactor Building will remain isolated. The SGTS fans will not start until manipulated by this procedure. An SGTS trouble alarm may come in and not reset until completion of this test.

- [6] **SIMULTANEOUSLY TURN** both keylocked secondary containment isolation system initiation control switches (RPWA/CS and RPWB/CS on Panel C-7) to the "TEST" position.
  - (a) **ALLOW** 3 minutes for stabilization **AND TAKE** base readings on the 4 manometers in the reactor building elevation 91', **AND** 2 manometers in the Turbine Building Elevation 51'.
  - (b) **RECORD** data on Attachment 1 **AND REVIEW** that average base line is within bounds. ( $0 \pm 0.1$ " H<sub>2</sub>O)
- [7] **AFTER** noting which fans were operating, **TURN** all Reactor building fan switches on Panel C-61 to the "OFF" position.
- [8] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "AUTO" position. **LEAVE** the control switch for the B fan in the "OFF" position.
- [9] **VERIFY** dampers AON-99 AND AON-108 reposition to the OPEN position.
- [10] **REGULATE** MON-109 as required such that flow is maximized but does not exceed 4000 CFM.
- [11] **ALLOW** the manometers to stabilize **AND RECORD** the approximate time necessary for stabilization on Attachment 1.
- [12] **RECORD** the following data on Attachment 1:
  - (a) Manometer dP readings.
  - (b) DP-AA-22 dP
  - (c) FI-8126/8127
- [13] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "OFF" position.
- [14] **CLOSE** the inner Reactor Building Trucklock door but **DO NOT INFLATE** the seal. [PCAQ NED 88-165]
- [15] **OPEN** the outer Reactor Building Trucklock door. [PCAQ NED 88-165]
- [16] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "AUTO" position. **LEAVE** the control switch for the B fan in the "OFF" position.

7.0 PROCEDURE (Continued)

- [17] **REGULATE** MON-109 as required such that flow is maximized, but does not exceed 4000 CFM.
- [18] **ALLOW** the manometers to stabilize and **RECORD** the approximate time necessary for stabilization on Attachment 1.
- [19] **RECORD** the following data on Attachment 1:
- (a) Manometer dP readings
  - (b) DP-AA-22 dP
  - (c) FI-8126/8127
- [20] **PLACE** the fan control switch (on Panel C-7) for VEX-210A (A SGTS fan) in the "OFF" position.
- [21] **VERIFY** the damper control switches (on Panel C-7) for AON-99 AND AON-108 in the "AUTO" position and the dampers indicate CLOSED.
- [22] **PLACE** the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "MAINTENANCE" position. **LEAVE** the control switch for the A fan in the "OFF" position.
- [23] **VERIFY** dampers AON-106 AND AON-112 reposition to the OPEN position.
- [24] **REGULATE** MON-113 as required such that flow is maximized but does not exceed 4000 CFM.
- [25] **ALLOW** the manometers to stabilize **AND RECORD** the approximate time necessary for stabilization on Attachment 1.
- [26] **RECORD** the following data on Attachment 1:
- (a) Manometer dP readings
  - (b) DP-AA-32 dP
  - (c) FI-8126/8127
- [27] **PLACE** the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "OFF" position.
- [28] **CLOSE** the outer Reactor Building Trucklock door **AND INFLATE** the seal.
- [29] **OPEN** the inner Reactor Building Trucklock door.
- [30] **PLACE** the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "MAINTENANCE" position. **LEAVE** the control switch for the A fan in the "OFF" position.
- [31] **REGULATE** MON-113 as required such that flow is maximized but does not exceed 4000 CFM.
- [32] **ALLOW** the manometers to stabilize **AND RECORD** the approximate time necessary for stabilization on Attachment 1.

7.0 PROCEDURE (Continued)

[33] RECORD the following data on Attachment 1:

- (a) Manometer dP readings
- (b) DP-AA-32 dP
- (c) FI-8126/8127

[34] PLACE the fan control switch (on Panel C-7) for VEX-210B (B SGTS fan) in the "OFF" position.

[35] RESET the secondary containment isolation per PNPS 2.2.125.1.

[36] RETURN the SBGTS to normal line-up per PNPS 2.2.50.

[37] VERIFY all components are returned to normal (Independent verification required).

---

NOTE

Independent verification may be performed by:

- a. Direct method - checking appropriate equipment and/or controls

OR

- b. Indirect method - observation of indicators and/or status lights

An independent verification need not be performed if a person has the potential of receiving greater than 25 mRem whole body while performing the verification.

---

[38] Documentation

- (a) ENTER the performance of the test in the Control Room Log.
- (b) COMPLETE the signoff sheet AND FORWARD to the Compliance Engineer.
- (c) ROUTE to Control Room Annex for filing.

8.0 ACCEPTANCE CRITERIA

[1] The test was performed as written with no unexplained discrepancies.

[2] The individual Base Line Readings were equal to  $0 \pm 0.1$ " H<sub>2</sub>O.

## 8.0 ACCEPTANCE CRITERIA (Continued)

- [3] A 1/4" water vacuum (average corrected value) on the secondary containment obtained with a filter train flow rate of equal to or less than 4000 CFM as determined from the perforated plate readings (DPI-AA-22/DPI-AA-32).
- [4] That FIs 8126 and 8127 agree within  $\pm 20\%$  of perforated plate dP conversion. (Not Tech. Spec. required.)

## 9.0 ATTACHMENTS

- ATTACHMENT 1 - SECONDARY CONTAINMENT LEAK RATE SIGNOFF
- ATTACHMENT 2 - SECONDARY CONTAINMENT INTEGRITY CHECKOFF
- ATTACHMENT 3 - SGTS "A" AIR FLOW VS PERFORATED PLATE P.
- ATTACHMENT 4 - SGTS "B" AIR FLOW VS PERFORATED PLATE P.



SECONDARY CONTAINMENT LEAK RATE SIGNOFF

[1] Prerequisites (Section 4.0)

- |   |         |      |
|---|---------|------|
| (A) Watch Engineer permission to perform test.  | Initial | T.T. |
| (B) Turbine Building, H&V System operating two exhaust and two supply fans in service. Roof exhausters as required. | Initial | V.M. |
| (C) DPI-AA-22 and DPI-AA-32 calibrated.   | Initial | J.B. |
| (D) At least one door at each access closed.  | Initial | V.M. |
| (E) Standby gas treatment system operable.  | Initial | V.M. |
| (F) All automatic ventilation system isolation dampers operable or secured in the isolated condition.               | Initial | V.M. |
| (G) All manometers filled and zeroed.   | Initial | J.B. |
| (H) Secondary containment checkoff considered and accepted.   | Initial | V.M. |
| (I) Specific purpose for test performance is:   | Initial | V.M. |

[2] Test Performance

To verify secondary containment integrity prior to  
RFO 8 fuel offload per PNPS Technical Specification  
4.7.1.c.

Wind Direction 355 Degrees

Wind Velocity 10 mph ( $\leq 15$  mph)

Outside Temperature 47 °F

Inside Temperature 70 °F

(A) Base Readings

Manometer P Rx Bldg E1 91'

N (1) + .05 " H<sub>2</sub>O

E (2) + .06 " H<sub>2</sub>O

W (3)           - .03           " H<sub>2</sub>O  
S (4)           + .07           " H<sub>2</sub>O  
Average           + .04           " H<sub>2</sub>O (0"  $\pm$ 0.1" H<sub>2</sub>O)

Elevation 51' Turbine Building:

Turb op. floor           - .12           "H<sub>2</sub>O  
Condenser Compt.           - .13           "H<sub>2</sub>O

(B) SGTS A Performance Inner Truck Lock Door Open, Outer Door Shut seal inflated.

Manometer Stabilization Time           .17           Min.  
DPI-AA-22           1.37           "H<sub>2</sub>O/           3800           CFM  
FI-8126/8127           3800           /           3800           CFM

Elevation 91' Rx. Bldg. manometer:

	<u>Test</u>	<u>-</u>	<u>Base</u>	<u>=</u>	<u>Corrected</u>
N (1)	<u>          - .41          </u>	" H <sub>2</sub> O	<u>          + .05          </u>	" H <sub>2</sub> O	<u>          - .46          </u> " H <sub>2</sub> O
E (2)	<u>          - .42          </u>	" H <sub>2</sub> O	<u>          + .06          </u>	" H <sub>2</sub> O	<u>          - .48          </u> " H <sub>2</sub> O
W (3)	<u>          - .54          </u>	" H <sub>2</sub> O	<u>          - .03          </u>	" H <sub>2</sub> O	<u>          - .51          </u> " H <sub>2</sub> O
S (4)	<u>          - .41          </u>	" H <sub>2</sub> O	<u>          + .07          </u>	" H <sub>2</sub> O	<u>          - .48          </u> " H <sub>2</sub> O

Average corrected manometer DP           - .483           " H<sub>2</sub>O

Elevation 51' Turb Bldg manometers:

Turb op Floor           - .12           " H<sub>2</sub>O  
Condenser Compt.           - .13           " H<sub>2</sub>O



- (C) SGTS A Performance Inner Truck Lock Door Shut seal NQT inflated, Outer Door Open.

DPI-AA-22 1.35 " H<sub>2</sub>O 3900 CFM

FI 8126/8127 3800 / 3800 CFM

Manometer Stabilization Time .08 Min.

Elevation 91' Rx Bldg Manometers:

Test	Base	Corrected
N (1) <u>- .36</u> " H <sub>2</sub> O	<u>+ .05</u> " H <sub>2</sub> O	<u>- .41</u> " H <sub>2</sub> O
E (2) <u>- .37</u> " H <sub>2</sub> O	<u>+ .06</u> " H <sub>2</sub> O	<u>- .43</u> " H <sub>2</sub> O
W (3) <u>- .5</u> " H <sub>2</sub> O	<u>- .03</u> " H <sub>2</sub> O	<u>- .47</u> " H <sub>2</sub> O
(4) <u>- .36</u> " H <sub>2</sub> O	<u>+ .07</u> " H <sub>2</sub> O	<u>- .43</u> " H <sub>2</sub> O

Average corrected manometer DP - .435 " H<sub>2</sub>O

Elevation 51' Turb Bldg manometers:

Turb op Floor - .12 "H<sub>2</sub>O

Condenser Compt. - .13 "H<sub>2</sub>O

- (D) SGTS B Performance Inner Truck Lock Door Shut, seal NQT inflated, Outer Door Open.

DPI-AA-32 1.42 "H<sub>2</sub>O 3900 CFM

FI 8126/8127 3900 / 3900 CFM

Manometer Stabilization Time .16 Min.

Elevation 91' Rx Bldg. manometers:

Test	-	Base	=	Corrected
N (1)	- .53 " H <sub>2</sub> O	+ .05 " H <sub>2</sub> O		- .58 " H <sub>2</sub> O
E (2)	- .54 " H <sub>2</sub> O	+ .06 " H <sub>2</sub> O		- .60 " H <sub>2</sub> O
W (3)	- .67 " H <sub>2</sub> O	- .03 " H <sub>2</sub> O		- .64 " H <sub>2</sub> O
S (4)	- .54 " H <sub>2</sub> O	+ .07 " H <sub>2</sub> O		- .61 " H <sub>2</sub> O

Average corrected manometer DP - .608 " H<sub>2</sub>O

Elevation 51' Turb Bldg Manometers:

Turb op Floor - .11 " H<sub>2</sub>O

Condenser Compt. - .12 " H<sub>2</sub>O

- (E) SGT5 B Performance Inner Truck Lock Door Open, Outer Door Shut seal inflated.

DPI-AA-32 1.37 " H<sub>2</sub>O 3900 CFM

FI 8126/8127 3900 / 3900 CFM

Manometer Stabilization Time .16 Min.

Elevation 91' Rx Bldg Manometers:

Test	-	Base	=	Corrected
N (1)	- .30 " H <sub>2</sub> O	+ .05 " H <sub>2</sub> O		- .35 " H <sub>2</sub> O
E (2)	- .34 " H <sub>2</sub> O	+ .06 " H <sub>2</sub> O		- .40 " H <sub>2</sub> O
W (3)	- .50 " H <sub>2</sub> O	- .03 " H <sub>2</sub> O		- .47 " H <sub>2</sub> O
S (4)	- .33 " H <sub>2</sub> O	+ .07 " H <sub>2</sub> O		- .40 " H <sub>2</sub> O

Average corrected DP - .405 " H<sub>2</sub>O

Elevation 51' Turb bldg manometers:

Turb op Floor \_\_\_\_\_ - .13 \_\_\_\_\_ " H<sub>2</sub>O

Condenser Compt. \_\_\_\_\_ - .14 \_\_\_\_\_ " H<sub>2</sub>O

(F) System Returned to Normal: (Independent Verification Required)

\_\_\_\_\_  
Vincent Magnatta \_\_\_\_\_ Date \_\_\_\_\_ 5/5/91

Discrepancies:

Acceptance Criteria, as stated in Section 8.0 of the procedure was met.

\_\_\_\_\_  
T. Trepanier \_\_\_\_\_  
Watch Engineer

Reviewed By \_\_\_\_\_  
T. Trepanier \_\_\_\_\_  
Watch Engineer

Test data forwarded to Compliance Eng. by Watch Engineer Date 5 May 91

(G) Reporting

[Per Technical Specification Table 6.9.1]

Compliance Engineer submitted report to the NRC within 90 days.

\_\_\_\_\_  
W. Munro \_\_\_\_\_ 7/22/91 Report Letter # 91-93  
Compliance Engineer Date

(H) Route to Control Room Annex for Filing.

SECONDARY CONTAINMENT CHECK-OFF  
(By Elevation)

The attached check-off sheets provide satisfactory (Sat) or unsatisfactory (Unsat) check-off for various secondary containment penetrations. Satisfactory check-off will indicate the following:

- a. For plugs, hatches, and doors: seals are in place and provide a positive seal around the perimeters of the seal area.
- b. For dampers: Linkage system is clean and free of corrosion. Edge seals are in place and not otherwise damaged. Damper position corresponds to its associated switch position on panel C-7.
- c. For drains: valves are lined up to a minimum 20% full collection tank, tank covers are installed.
- d. For water level indication, no low water level alarms are present.

Conditions other than those listed require unsatisfactory check-off and discrepancies noted. Repairs to correct deficiencies shall be initiated.

Inspection of electrical penetrations and masonry for the Reactor Building will be accomplished for all walls annually. Verification of these inspections will be noted as satisfactory if all annual inspections are completed.

E1 3' Reactor Aux. Bay

HPCI Floor Blowout  
Panel & Plugs

Sat   X  

Unsat           

HPCI Escape Hatch

Sat   X  

Unsat           

HPCI Equipment Hatch

Sat   X  

Unsat           

Note Discrepancies:

E1 6' Radwaste

Miscellaneous Tank Drains

Sat   X  

Unsat           

Note Discrepancies: Tank covers on miscellaneous tank installed but not bolted

PASS Area Above Machine Shop

2 ventilation dampers between Rx Bldg. & PASS sample station closed.

Verified   DW

E1 23' Reactor Building

Truck Lock Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Truck Lock Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>
Truck Lock Dampers	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 114	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 115	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 116	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 117	Sat <u>  X  </u>	Unsat <u>          </u>
Personnel Access to Aux. Bay		
Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>
Personnel Access to Access Control		
Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>

Note Discrepancies:

E1 51' Reactor Building

Access to MG Set Room

Door "A" Inner	Sat <u>  X  </u>	Unsat <u>          </u>
Door "A" Outer	Sat <u>  X  </u>	Unsat <u>          </u>
Door "B" Inner	Sat <u>  X  </u>	Unsat <u>          </u>
Door "B" Outer	Sat <u>  X  </u>	Unsat <u>          </u>

E1. 51' Reactor Building (cont'd)

Dampers

AO-N 90	Sat <u>  x  </u>	Unsat <u>          </u>
AO-N 91	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 96 (OPEN)	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 97 (OPEN)	Sat <u>  X  </u>	Unsat <u>          </u>

Note Discrepancies:

E1 74' Reactor Building

Access to Fan Room 3

Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>

Access to Fan Room 4

Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>

Access to Fan Room 5

Inner Door	Sat <u>  X  </u>	Unsat <u>          </u>
Outer Door	Sat <u>  X  </u>	Unsat <u>          </u>

Dampers

AO-N 78	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 79	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 80	Sat <u>  X  </u>	Unsat <u>          </u>
AO-N 81	Sat <u>  X  </u>	Unsat <u>          </u>

Note Discrepancies:



E1 91' Reactor Building

Access to Fan Room 6 Sat X Unsat \_\_\_\_\_

Inner Door Sat X Unsat \_\_\_\_\_

Outer Door Sat X Unsat \_\_\_\_\_

Dampers

AO-N 82 Sat X Unsat \_\_\_\_\_

AO-N 83 Sat X Unsat \_\_\_\_\_

Note Discrepancies:

E4 117' Reactor Building

Roof Access (E1. 158' - 4 1/4")

Inner Door Sat X Unsat \_\_\_\_\_

Outer Hatch Sat X Unsat \_\_\_\_\_

Note Discrepancies:

## E1 51' Turbine Building

## Danpers s

AO-N 92

Sat. X

Unsat. \_\_\_\_\_

AO-N 93

Sat. x

Unsat.....

AO-N 94

Sat      x     

Unsat\_\_\_\_\_

AO-N 95

Sat                                 

Unsat. \_\_\_\_\_

Note Discrepancies:

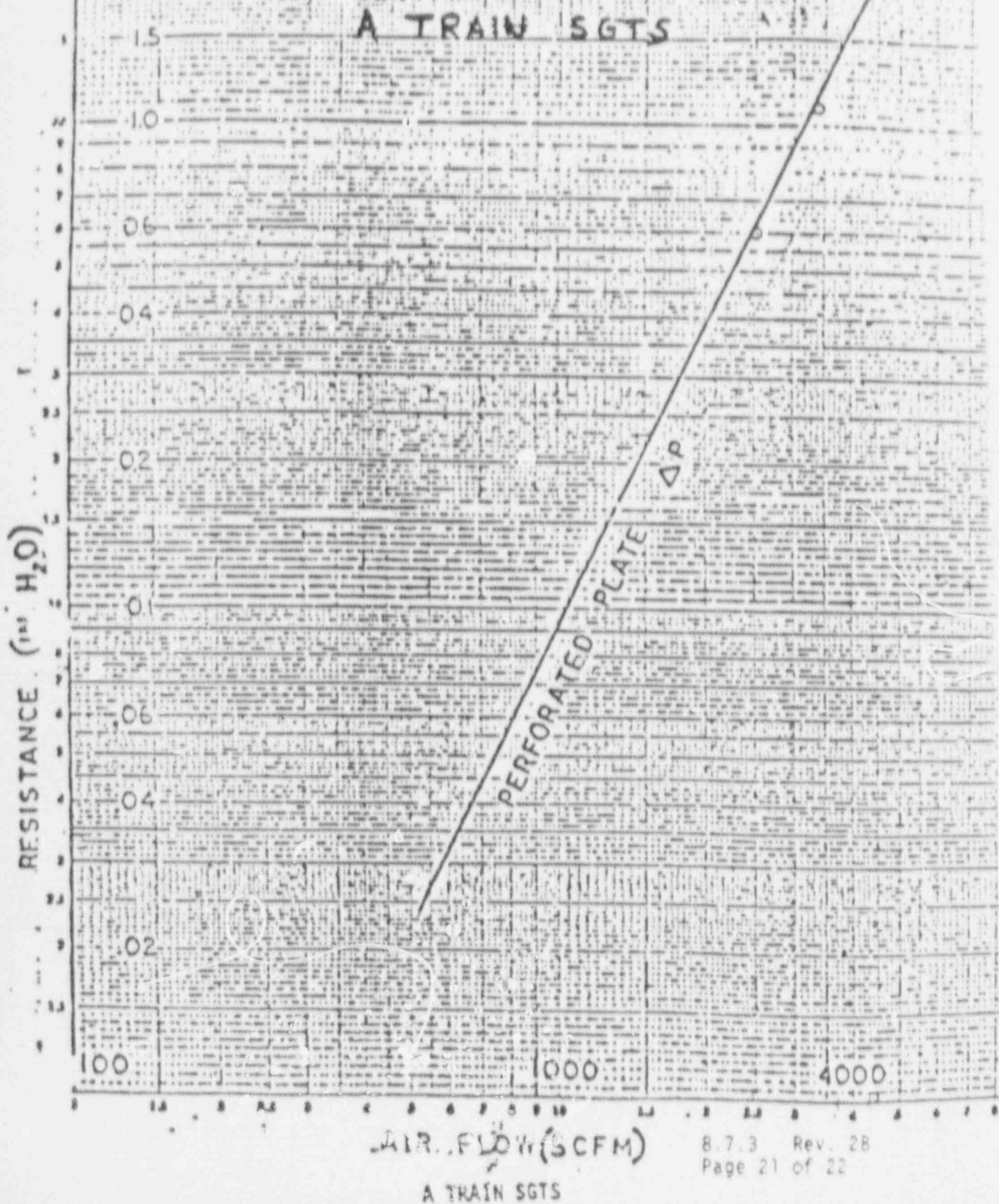
Inspected by k. Mederios/V. Magnatta /Date 5/5/91  
Signature

MR's issued for repairs \_\_\_\_\_  
as noted

Reviewed by T. Trepanier for CTE /Date 5/5/91

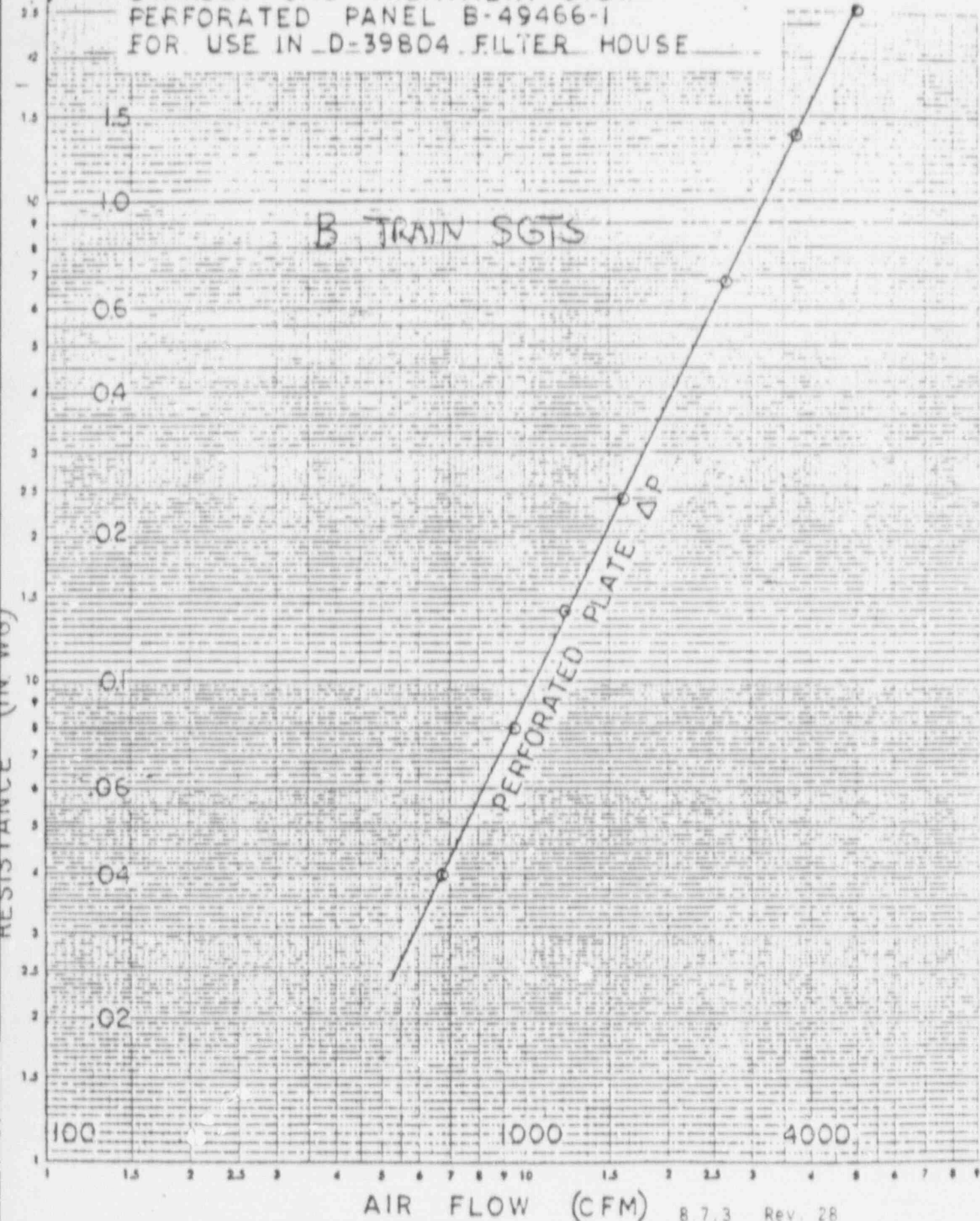
Approved by T. Trepanier /Date 5/5/91  
Watch Engineer

PILGRIM STATION  
STANDBY GAS TREATMENT SYST  
PERFORATED PANEL B-49466-2  
FOR USE IN D.39804 FILTER HOUSE



PILGRIM STATION  
STANDBY GAS TREATMENT SYST.  
PERFORATED PANEL B-49466-1  
FOR USE IN D-39804 FILTER HOUSE

ATTACHMENT 4  
Sheet 1 of 1



AIR FLOW (CFM)

B TRAIN SGTs