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SENIOR VICE PRESIDENT
NUCLEAR

March 7, 1984
BECO Ltr. #84-038

Director of Nuclear Reactor Regulation (12)
c/o Distribution Services Branch
Attention: Document Distribution Center Administrator
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docket No. 50-293
License No. DPR-35

Subject: Secondary Containment Leak Rate Test Report

Dear Sir:

A Secondary Containment Leak Rate Test (8.7.3) was satisfactorily performed on December 13, 1983 and is hereby reported as required by PNPS Technical Specification 6.9.C.3. This test was performed to verify secondary containment integrity at Refueling Outage #6 prior to refuel.

This secondary containment leak rate test demonstrated that the Standby Gas Treatment System (SGTS) was capable of maintaining greater than $\frac{1}{4}$ inch of water vacuum in the secondary containment, as required by PNPS Technical Specification 4.7.C.1.c.

The test was initiated through the use of permanently installed test switches which simultaneously isolated the normal secondary containment ventilation system and initiated the Standby Gas Treatment System.

Review and approval by the Boston Edison Company's Nuclear Engineering Department of the acceptance criteria of this test ensures that satisfactory results from its performance verifies the integrity of secondary containment.

The data obtained during the test is enclosed.

Very truly yours,

W D Harrington

William D. Harrington

PFG:caw
Attachment

Courtesy Copy to: Director, Inspection and Enforcement
Region I
U.S. Nuclear Regulatory Commission

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Secondary Containment Leak Rate
Signoff
Attachment A

A. Prerequisites (Step IV)

- | | |
|---|--------------------|
| 1. Watch Engineer permission to perform test | Initial <u>KT</u> |
| 2. Turbine Building, H&V System operating at $\approx -.03"$ Δp on operating floor and $\approx .04"$ in condenser compartment. | Initial <u>BWC</u> |
| 3. DP-A-22 and DP-A-32 calibrated | Initial <u>BWC</u> |
| 4. At least one door at each access closed | Initial <u>BWC</u> |
| 5. Standby gas treatment system operable | Initial <u>BWC</u> |
| 6. All automatic ventilation system isolation dampers operable or secured in the isolated condition | Initial <u>BWC</u> |
| 7. All manometers filled and zeroed | Initial <u>BWC</u> |
| 8. Secondary containment checkoff (Attachment B) complete | Initial <u>PDS</u> |
| 9. Reactor Building Truck Lock doors cycled. | Initial <u>BWC</u> |
| 10. Specific purpose for test performance | |

To demonstrate integrity of Secondary Containment at Refueling Outage #6 prior to refuel.

Purpose

- B. Test Performance
- | | | |
|---------------------|--------------|-----|
| Wind Direction | <u>450</u> | |
| Wind Velocity | <u>14</u> | mph |
| Barometric Pressure | <u>29.62</u> | "Hg |
| Outside Temperature | <u>53</u> | °F |
| Inside Temperature | <u>68</u> | °F |

1. Base Readings (Step 4)

Manometer ΔP Rx Bldg El 91'

N (1)	<u>+.08</u>	" H ₂ O
E (2)	<u>+.04</u>	" H ₂ O
W (3)	<u>+.08</u>	" H ₂ O
S (4)	<u>+.07</u>	" H ₂ O

Elevation 51' Turbine Building

Turb op. floor	<u>0</u>	" H ₂ O
Condenser Compt.	<u>0</u>	" H ₂ O

2. SGTS "A" Performance (Step 7) Inner Truck Lock door open, outer door shut.

Manometer Stabilization Time	<u>5</u>	Min.
DP-A-22	<u>.85</u>	"H ₂ O/ <u>3000</u> CFM
DP-A-32	<u>.05</u>	"H ₂ O/ <u>750</u> CFM

Total 3750 CFM

FI 8126 4000 CFM

Elevation 91' Rx Bldg. manometer.

	Actual	Corrected
N (1)	<u>-.16</u> "H ₂ O	<u>-.24</u> "H ₂ O
E (2)	<u>-.22</u> "H ₂ O	<u>-.26</u> "H ₂ O
W (3)	<u>-.17</u> "H ₂ O	<u>-.25</u> "H ₂ O
S (4)	<u>-.18</u> "H ₂ O	<u>-.25</u> "H ₂ O

Average corrected monometer DP -.25 " H₂O

Elevation 51' Turb Bldg manometers

Turb op Floor .01 "H₂O

Condenser Compt. 0 "H₂O

Net Change from Base Turb .01 " H₂O
Cond 0 " H₂O

Standby fan reverse rotation Yes No ✓ (Step 9)

3. SGTs "B" Performance (Step 7) Inner truck lock door open, outer door shut.

Manometer stabilization time 5 Min.

DP-A-22 .05 "H₂O 750 CFM

DP-A-32 .90 "H₂O 3100 CFM

Total 3850 CFM

FI 8126 4000 CFM

Elevation 91' Rx Bldg Manometers

	Actual	Corrected
N (1)	<u>-.15</u> "H ₂ O	<u>-.23</u> "H ₂ O
E (2)	<u>-.22</u> "H ₂ O	<u>-.26</u> "H ₂ O
W (3)	<u>-.18</u> "H ₂ O	<u>-.26</u> "H ₂ O
S (4)	<u>-.18</u> "H ₂ O	<u>-.25</u> "H ₂ O

Average corrected manometer DP -.25 " H₂O

Elevation 51' Turb Bldg manometers

Turb op Floor -.02 "H₂O

Condenser Compt. 0 "H₂O

Net Change from Base Turb -.02 " H₂O
Cond 0 " H₂O

Standby fan reverse rotation Yes No ✓ (Step 9)

4. SGTs "A" Performance (Step 7) Inner door shut, outer door open.

Manometer Stabilization Time 5 Min.
 DP-A-22 .85 "H₂O/ 3000 CFM
 DP-A-32 .66 "H₂O/ 810 CFM
 Total 3810 CFM
 FI 8126 4000 CFM

Elevation 91' Rx Bldg. manometer.

	Actual		Corrected	
N (1)	<u>-.17</u>	"H ₂ O	<u>-.25</u>	"H ₂ O
E (2)	<u>-.24</u>	"H ₂ O	<u>-.28</u>	"H ₂ O
W (3)	<u>-.17</u>	"H ₂ O	<u>-.25</u>	"H ₂ O
S (4)	<u>-.18</u>	"H ₂ O	<u>-.25</u>	"H ₂ O
Average corrected monometer DP			<u>-.2575</u>	"H ₂ O

Elevation 51' Turb Bldg manometers

Turb op Floor 0 "H₂O
 Condenser Compt. 0 "H₂O
 Net Change from Base Turb 0 "H₂O
 Cond 0 "H₂O

Standby fan reverse rotation Yes No / (Step 9)

5. SGTs "B" Performance (Step 7) Inner door shut, outer door open.

Manometer stabilization time 5 Min.
 DP-A-22 +0.06 "H₂O 825 CFM
 DP-A-32 +0.86 "H₂O 2900 CFM
 Total 3725 CFM
 FI 8126 4000 CFM

Elevation 91' Rx Bldg Manometers

	Actual		Corrected	
N (1)	<u>-.18</u>	"H ₂ O	<u>-.26</u>	"H ₂ O
E (2)	<u>-.25</u>	"H ₂ O	<u>-.29</u>	"H ₂ O
W (3)	<u>-.17</u>	"H ₂ O	<u>-.25</u>	"H ₂ O
S (4)	<u>-.18</u>	"H ₂ O	<u>-.25</u>	"H ₂ O
Average corrected DP			<u>-.2625</u>	"H ₂ O

Elevation 51' Turb Bldg manometers

Turb op Floor -.01 "H₂O
 Condenser Compt. -.01 "H₂O
 Net Change from Base Turb -.01 "H₂O
 Cond -.01 "H₂O

Standby fan reverse rotation Yes No ✓ (Step 9)