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SUBJECT: Forwards correction pages for 1986 Unit 2 ILRT final rept.

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OCT 27 1988

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Director of Nuclear Reactor Regulation  
Attention: Dr. W. R. Butler, Project Director  
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SUSQUEHANNA STEAM ELECTRIC STATION  
CORRECTIONS TO 1986 UNIT 2 ILRT REPORT  
PLA-3013 FILE R41-2A

Docket No. 50-388

Dear Dr. Butler:

Attached are correction pages for the 1986 Unit 2 ILRT Final Report. This report was submitted to you in accordance with the requirements of 10CFR50, Appendix J, V.B.1 via PLA-2758. The corrections involve the allowable bypass area number being incorrectly referenced on four pages.

If you have any questions, please contact us.

Very truly yours,

H. W. Keiser .

Attachment

cc: NRC Document Control Desk (original)  
NRC Region I  
Mr. M. C. Thadani, NRC Project Manager  
Mr. F. I. Young, NRC Sr. Resident Inspector

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## 1.0 INTRODUCTION

Successful periodic "as left" Integrated Leakage Rate (ILRT) and Drywell Bypass Tests were conducted on the Susquehanna Steam Electric Station (SSES) Unit 2 containment between June 8 and June 11, 1986. Several excessive leakage paths were isolated during the ILRT. All excessive leakage paths were repaired. Therefore the "as found" integrated leakage rate exceeded the maximum allowable leakage rate. These tests were performed to demonstrate that the containment leakage and drywell bypass leakage area under prescribed postaccident conditions do not exceed the allowable values specified in the SSES Unit 2 FSAR (Reference 1) and SSES Technical Specifications (Reference 2).

The tests were conducted in accordance with the requirements of the ILRT procedure (Reference 3), Appendix J to 10CFR50 (Reference 4), ANSI 56.8 (Reference 5), and BN-TOP-1 (Reference 6). Test results, which satisfied "as left" acceptance criteria are summarized below.

	Test Results	Allowable
ILRT Mass Point Leakage Rate*	0.585%/day	0.750%/day
ILRT Mass Point UCL*	0.588%/day	0.750%/day
ILRT Total Time Leakage Rate*	0.587%/day	0.750%/day
ILRT Total Time UCL*	0.629%/day	0.750%/day
Verification Mass Point Rate	1.426%/day	1.189-1.689%/day
Verification Total Time Rate	1.441%/day	1.191-1.691%/day
Drywell Bypass Area	0.008 sq in	0.770 sq in

\* The "as left" leakage rates and UCL's include penalties for nonstandard alignments and water level changes of 0.037 %/day. The "as found" leakage rate was approximately 2.6 %/day.

A summary of the test events and test chronology are presented in Section 2.0, Test Synopsis. Plant information, technical data, test results, and measurement system information are presented in Section 3.0, Test Data Summary. Test results are compared to the Acceptance Criteria in Section 4.0, Analysis and Interpretation. Referenced documents are listed in Section 5.0, References.

3. Test Pressure

Drywell	4.4 psig
Suppression Pool	0.0 psig

4. Maximum Allowable Bypass Area 0.770 sq in

5. Calculated Bypass Area 0.008 sq in

6. Report Printouts

The report printouts for the Drywell Bypass Area Test are provided in Appendix G.

E. Test Results - Type B and C

A summary of local leakage rate test results is provided in Appendix H.

F. Integrated Leakage Rate Measurement System

Instrument (no. of sensors)	Description	Data	
1. Absolute Pressure (2)	Mensor Quartz Monometer Model No. CEC402	Range: Accuracy: Sensitivity: Repeatability: Calibration Date:	0-100 psia 0.020 psia 0.001 psia 0.001 psia 6-5-86
2. Drybulb Temperature (24).*	Rosemont RTD Model No. 78-65-17	Range: Accuracy: Sensitivity: Repeatability: Calibration Date:	60-120 degrees 0.1 degrees F 0.1 degrees F 0.01 degrees F 5-28-86
3. Dewpoint Temperature (9)*	EG&G Model No. 660-S2	Range: Accuracy: Sensitivity: Repeatability: Calibration Date:	32-120 degrees 0.54 degrees F 0.54 degrees F 0.01 degrees F 5-29-86
4. Flow Meter (1)	Kurz Model No. 500-9	Range: Accuracy: Sensitivity: Repeatability: Calibration Date:	0-10 scfm 0.1 scfm 0.04 scfm 0.01 scfm 5-30-86

\* One drybulb and two dewcell sensors malfunctioned during the ILRT and were not used in the leakage rate calculations. Their volume fractions were redistributed to adjacent sensors.

Drybulb and dewpoint temperature sensor locations and volume fractions are provided in Table 1.



SUSQUEHANNA UNIT 2 DRYWELL BYPASS TEST  
 BYPASS AREA (SQUARE INCHES)  
 TOTAL TIME ANALYSIS

TIME AND DATE AT START OF TEST: 1830 611 1986  
 TEST DURATION: 2.00 HOURS

TIME	DRYTMP	DRYPRS	DRYVAP	SP TMP	SP PRS	SP VAP	AREA
1830	552.107	18.794	.213	545.774	14.333	.443	
1845	552.163	18.794	.216	545.866	14.344	.448	.01641
1900	552.200	18.794	.218	545.948	14.353	.453	.01220
1915	552.245	18.793	.220	546.014	14.359	.457	.00755
1930	552.274	18.793	.221	546.093	14.366	.461	.00678
1945	552.278	18.792	.223	546.171	14.375	.465	.00918
2000	552.279	18.791	.225	546.234	14.382	.468	.00908
2015	552.278	18.789	.228	546.287	14.389	.471	.00927
2030	552.268	18.788	.228	546.339	14.396	.474	.00933

S. P. FREE AIR VOLUME (CU. FT.) = 153220.0  
 COEFFICIENT OF DISCHARGE = .600

MEAN OF THE MEASURED BYPASS AREAS = .010  
 MAXIMUM ALLOWABLE BYPASS AREA = .770  
 THE LOWER 95% CONFIDENCE LIMIT = .004  
 THE UPPER 95% CONFIDENCE LIMIT = .011  
 THE CALCULATED BYPASS AREA = .008

SUSQUEHANNA UNIT 2 DRYWELL BYPASS TEST  
SUMMARY DATA

ALMAX = .770

VOLUME = 153220.0

COD = .600

TIME	DATE	DRYTMP	DRYPRS	DRYVAP	SP TMP	SP PRS	SP VAP	VOL
1730	611	551.557	18.773	.204	545.248	14.287	.415	153220.0
1745	611	551.743	18.786	.207	545.431	14.300	.423	153220.0
1800	611	551.892	18.791	.209	545.562	14.312	.432	153220.0
1815	611	552.006	18.793	.211	545.676	14.324	.437	153220.0
1830	611	552.107	18.794	.213	545.774	14.333	.443	153220.0
1845	611	552.163	18.794	.216	545.866	14.344	.448	153220.0
1900	611	552.200	18.794	.218	545.948	14.353	.453	153220.0
1915	611	552.245	18.793	.220	546.014	14.359	.457	153220.0
1930	611	552.274	18.793	.221	546.093	14.366	.461	153220.0
1945	611	552.278	18.792	.223	546.171	14.375	.465	153220.0
2000	611	552.279	18.791	.225	546.234	14.382	.468	153220.0
2015	611	552.278	18.789	.228	546.287	14.389	.471	153220.0
2030	611	552.268	18.788	.228	546.339	14.396	.474	153220.0
2045	611	552.264	18.787	.230	546.386	14.400	.477	153220.0





11/11/11

