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R. P. McDonald  
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April 25, 1985

Docket No. 50-348

Director, Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Mr. S. A. Varga

Joseph M. Farley Nuclear Plant - Unit 1  
Reactor Containment Building Integrated Leak Rate Test Supplement

Gentlemen:

Alabama Power Company submitted the report of the April 1984 Unit 1 periodic integrated leak rate test and a summary analysis of the final results of the local leak rate tests, which were performed since the previous integrated leak rate test, by letter dated July 13, 1984. The NRC Staff requested that a supplement to the report be submitted which would contain a summary of the as-found containment leakage derived from the local leak rate tests. Attachment 1 is a summary analysis of the as-found containment leakage from the local leak rate tests, as requested; and Attachment 2 contains the data for these same local leak rate tests.

If there are any further questions, please advise.

Yours truly,

R. P. McDonald

RPM/CJS:gri-D2  
Attachments

cc: Mr. L. B. Long  
Dr. J. N. Grace  
Mr. E. A. Reeves  
Mr. W. H. Bradford

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ATTACHMENT 1

As-Found - Local Leak Rate Test (LLRT) Summary for 3rd Refueling Outage  
February 23, 1982

Electrical Penetration Total	25.0 sccm
Type B Test (Less Electrical Pen.)	639.8 sccm
Type C Test Total (Valves in Series)	<u>838.4 sccm</u>

Total LLRT Leakage                      1,503.2 sccm

Maximum Allowable Leakage ( $.6L_a$ ) = 151,058.9 sccm  
1,503.2 sccm = 0.99% of Allowable Leakage

As-Found - Local Leak Rate Test (LLRT) Summary for 4th Refueling Outage  
March 21, 1983

Electrical Penetration Total	11.9 sccm *
Type B Test (Less Electrical Pen.)	1,996.4 sccm **
Type C Test Total (Valves in Series)	<u>11,097.5 sccm ***</u>

Total LLRT Leakage                      13,105.8 sccm

Maximum Allowable Leakage ( $.6L_a$ ) = 151,058.9 sccm  
13,105.8 sccm = 8.68% of Allowable Leakage

- \* WBII Outer Seal Leakage of 347,792 sccm not included since inner seal had had no observable leakage.
- \*\* Containment Auxiliary Access Hatch Inner Seal Leakage of 100,622 sccm not included since outer seal leakage is included in total. If Containment Auxiliary Access Hatch Inner Seal Leakage is included, total leakage = 113,727.8 sccm which is = 75.29% of Allowable Leakage.
- \*\*\* Penetration #61B leakage was off-scale (i.e., > 20,000) on instrumentation available at the time of the test. Subsequent to the 4th Refueling Outage, instrumentation has been procured to detect leakage up to 300,000 sccm. Assuming that Penetration #61B was leaking at 5 times the instrument reading capacity of 20,000 sccm, Penetration #61B leakage = 100,000 sccm. New total leakage, excluding Containment Auxiliary Access Hatch Inner Seal leakage, is 113,105.8 sccm = 74.87% of Allowable Leakage.

As-Found - Local Leak Rate Test (LLRT) Summary for 5th Refueling Outage  
April 18, 1984

Electrical Penetration Total	43.7 sccm
Type B Test (Less Electrical Pen.)	10,099.6 sccm
Type C Test Total (Valves in Series)	<u>2,632.3 sccm</u>

Total LLRT Leakage                      12,775.6 sccm

Maximum Allowable Leakage ( $.6L_a$ ) = 151,058.9 sccm  
12,775.6 sccm = 8.46% of Allowable Leakage.

## Attachment 2

Summary Data Of Unit 1 Local Leak Rate Tests Performed  
From The Unit 1 Containment Integrated Leak Rate Test Of 1981 Through The  
Unit 1 Containment Integrated Leak Rate Test Of 1984

### Contents

Unit 1 - Type C Test Summary - 3rd Refueling  
Unit 1 - Type B Test Summary - 3rd Refueling  
  
Unit 1 - Type C Test Summary - 4th Refueling  
Unit 1 - Type B Test Summary - 4th Refueling  
  
Unit 1 - Type C Test Summary - 5th Refueling  
Unit 1 - Type B Test Summary - 5th Refueling

## UNIT 1 - TYPE C TEST SUMMARY FOR 3rd REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
10	Q1E11V025A	10/03/81	191.70*		10/03/81	191.70*	
	Q1E11V026A	10/03/81	191.70*	95.90	10/03/81	191.70*	191.70
11	Q1E11V025B	10/04/81	28.90*		10/04/81	28.90*	
	Q1E11V026B	10/04/81	28.90*	14.45	10/04/81	28.90*	28.90
12	Q1P13V281	10/09/81	16.20*		10/09/81	16.20*	
	Q1P13V282	10/09/81	16.20*		10/09/81	16.20*	
	Q1P13V289	10/09/81	16.20*		10/09/81	16.20*	
	Q1P13V290	10/09/81	16.20*	8.10	10/09/81	16.20*	16.20
13	Q1P13V283	10/04/81	21.80*		10/04/81	21.80*	
	Q1P13V284	10/04/81	21.80*		10/04/81	21.80*	
	Q1P13V292	10/04/81	21.80*		10/04/81	21.80*	
	Q1P13V291	10/04/81	21.80*	10.90	10/04/81	21.80*	21.80
16	Q1E11V001A	10/08/81	2.60	2.60	10/08/81	2.60	2.60
18	Q1E11V001B	10/06/81	25.40	25.40	10/06/81	25.40	25.40
23	Q1E21V254	10/07/81	1.90		10/07/81	1.90	
	Q1E21V253A	10/07/81	1.90*		10/07/81	1.90*	
	Q1E21V253B	10/07/81	1.90*		10/07/81	1.90*	
	Q1E21V253C	10/07/81	1.90*	0.95	10/07/81	1.90*	1.90
24	Q1E21V257	11/13/81	1.00		11/13/81	1.00	
	Q1E21V258	11/13/81	1.60		11/13/81	1.60	
	Q1E21V119	11/13/81	0.50	0.50	11/13/81	0.50	1.60
25	Q1E21V115B	10/14/81	2.20	2.20	10/14/81	2.20	2.20
26	Q1E21V115C	10/06/81	1.90	1.90	10/06/81	1.90	1.90

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

\*Values represent total leakage from group sets of valves as physically tested.

## UNIT 1 - TYPE C TEST SUMMARY FOR 3rd REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
27	Q1E21V115A	12/16/81	0.50	0.50	12/16/81	0.50	0.50
28	Q1E21V213	10/07/81	2.50		10/07/81	2.50	
	Q1E21V249A	10/07/81	2.50		10/07/81	2.50	
	Q1E21V249B	10/07/81	2.40	2.40	10/07/81	2.40	2.50
29	Q1E21V049	10/03/81	0.60		10/03/81	0.60	
	Q1E21V050	10/03/81	0.00	0.00	10/03/81	0.00	0.60
30	Q1B13V040	10/03/81	7.90		10/03/81	7.90	
	Q1B13V038	10/03/81	7.50	7.50	10/03/81	7.50	7.90
31	Q1G21V005	10/05/81	8.90		10/05/81	8.90	
	Q1G21V006	10/05/81	189.00		10/05/81	189.00	
	Q1G21V064	10/05/81	1.60	8.90	10/05/81	1.60	189.00
32	Q1P16V072	10/05/81	18.90		10/05/81	18.90	
	Q1P16V081	10/05/81	35.00	18.90	10/05/81	35.00	35.00
33	Q1GHV3380	10/05/81	53.00		10/05/81	53.00	
	Q1G21V204	10/05/81	Off Scale	53.00	12/31/81	243.00	243.00
42	Q1P17V083	10/04/81	5.00		10/04/81	5.00	
	Q1P17V082	10/04/81	127.40	5.00	10/04/81	127.40	127.40
43	Q1P17HV3045	10/04/81	325.00		10/04/81	325.00	
	Q1P17HV3184	10/04/81	1.00	1.00	10/04/81	1.00	325.00
44	Q1P17V097	10/04/81	Off Scale		12/01/81	1.50	
	Q1P17V099	10/04/81	339.00	339.00	10/04/81	339.00	339.00
45	Q1P17HV3095	10/06/81	18.10		10/06/81	18.10	
	Q1P17V159	10/06/81	6.50	6.50	10/06/81	6.50	18.10
46	Q1P17HV3443	10/06/81	14.00		10/06/81	14.00	
	Q1P17HV3067	10/06/81	1.10	1.10	10/06/81	1.10	14.00

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 3rd REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND MIN. PATH LEAKAGE (SCCM)	# DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
47	Q1P18V001	10/10/81	1.80*		10/10/81	1.80*	
	Q1P18V002	10/10/81	1.80*	0.90	10/10/81	1.80*	1.80
48	Q1P19HV3611	10/10/81	0.70		10/10/81	0.70	
	Q1P19V002	10/10/81	Off Scale	0.70	01/06/82	164.50	164.50
49	Q1E21V052	10/05/81	13.10		10/05/81	13.10	
	Q1E21V091	10/05/81	11.20	11.20	10/05/81	11.20	13.10
50	Q1P15HV3766	10/05/81	1.90		10/05/81	1.90	
	Q1P15HV3334	10/05/81	2.40	1.90	10/05/81	2.40	2.40
54	Q1E14V002	10/07/81	20.10		10/07/81	20.10	
	Q1E14HV3658	10/07/81	13.00	13.00	10/07/81	13.00	20.10
55	Q1E14V001	10/08/81	16.40		10/08/81	16.40	
	Q1E14HV3657	10/08/81	3.00	3.00	10/08/81	3.00	16.40
56	Q1P15HV3104	10/09/81	2.5		10/09/81	2.50	
	Q1P15HV3331	10/09/81	2.3	2.30	10/09/81	2.30	2.50
57	Q1P15HV3103	10/09/81	2.60		10/09/81	2.60	
	Q1P15HV3332	10/09/81	2.60	1.30	10/09/81	2.60	2.60
58	Q1P15HV3765	10/09/81	0.90		10/09/81	0.90	
	Q1P15HV3333	10/09/81	1.10	0.90	10/09/81	1.10	1.10
59	Q1B13V054	11/04/81	0.00		11/04/81	0.00	
	Q1E11V039A	11/04/81	0.00		11/04/81	0.00	
	Q1E11V039B	11/04/81	48.50		11/04/81	48.50	
	Q1E11V040	11/04/81	25.90		11/04/81	25.90	
	Q1E21V263A	11/04/81	22.30		11/04/81	22.30	
	Q1E21V263B	11/04/81	28.30	0.00	11/04/81	28.30	48.50

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

\*Values represent total leakage from group sets of valves as physically tested.

## UNIT 1 - TYPE C TEST SUMMARY FOR 3rd REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND MIN. PATH LEAKAGE (SCCM)	# DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
60	Q1P16V071	11/12/81	14.70		11/12/81	14.70	
	Q1P16V075	11/12/81	0.00	0.00	11/12/81	0.00	14.70
61A	Q1E23V022C	10/08/81	1.20*		10/08/81	1.20*	
	Q1E23V022D	10/08/81	1.20*		10/08/81	1.20*	
	Q1E23V023B	10/08/81	1.20*	0.60	10/08/81	1.20*	1.20
61B	Q1E23V024B	10/08/81	2.00*		10/08/81	2.00*	
	Q1E23V025B	10/08/81	2.00*	1.00	10/08/81	2.00*	2.00
62	Q1G21V082	10/09/81	2.10		10/09/81	2.10	
	Q1G21V001	10/09/81	4.50	2.10	10/09/81	4.50	4.50
63	Q1E21V058	10/09/81	3.80		10/09/81	3.80	
	Q1E21V059	10/09/81	2.80	2.80	10/09/81	2.80	2.80
64A	Q1B13V037	10/09/81	0.90		10/09/81	0.90	
	Q1B13V039	10/09/81	1.40	0.90	10/09/81	1.40	1.40
64B	Q1B13V026A	10/09/81	2.00		10/09/81	2.00	
	Q1B13V026B	10/09/81	1.90	1.90	10/09/81	1.90	2.00
66	Q1E23V025A	10/08/81	14.10*		10/08/81	14.10*	
	Q1E23V024A	10/08/81	14.10*	7.05	10/08/81	14.10*	14.10
67	Q1E23V022A	10/08/81	2.00*		10/08/81	2.00*	
	Q1E23V023A	10/08/81	2.00*		10/08/81	2.00*	
	Q1E23V022B	10/08/81	2.00*	1.00	10/08/81	2.00*	2.00
70	Q1E14V003	10/08/81	4.20		10/08/81	4.20	
	Q1E14V004	10/08/81	Off Scale	4.20	12/07/81	5.60	5.60
71	Q1P23V002A	10/03/81	90.00	90.00	10/03/81	90.00	90.00

\*Values represent total leakage from group sets of valves as physically tested.

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 3rd REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND MIN. PATH LEAKAGE (SCCM)	# DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
72	Q1P23V002B	10/03/81	60.90	60.90	10/03/81	60.90	60.90
78	Q1G21HV3377	10/07/81	2.00		10/07/81	2.00	
	Q1G21HV3376	10/07/81	1.90*		10/07/81	1.90*	
	Q1G21V291	10/07/81	1.90*	1.90	10/07/81	1.90*	2.00
82	Q1P11V001	10/07/81	19.30		10/07/81	19.30	
	Q1P11V002	10/07/81	3.90	3.90	10/07/81	3.90	19.30
93	Q1E13V003A	10/03/81	19.70*		10/03/81	19.70*	
	Q1E13V004A	10/03/81	19.70*	9.85	10/03/81	19.70*	19.70
94	Q1E13V003B	10/03/81	0.00*		10/03/81	0.00*	
	Q1E13V004B	10/03/81	0.00*	0.00	10/03/81	0.00*	0.00
95	Q1G31V012	10/07/81	22.00		10/07/81	22.00	
	Q1G31V013	10/07/81	4.50	4.50	10/07/81	4.50	22.00
97B	Q1P19V004	10/09/81	2.70		10/09/81	2.70	
	Q1P19HV2228	10/09/81	9.80	2.70	10/09/81	9.80	9.80
103	Q1E23V002	10/08/81	2.40*		10/08/81	2.40*	
	Q1E23V003	10/08/81	2.40*	1.20	10/08/81	2.40*	2.40

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

\*Values represent total leakage from group sets of valves as physically tested.



UNIT 1  
TYPE B TEST SUMMARY - 3rd REFUELING

NOZZLE NO.	TPNS NO.	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
EA01	Q1T52A003-A	10/10/81	0.00		0.00
EA02	Q1T52A004-A	10/12/81	0.34		0.34
EA03	Q1T52B014-A	10/10/81	0.00		0.00
EA05	Q1T52B001-A	10/10/81	0.00		0.00
EA06	Q1T52B005-A	10/10/81	18.37	11/16/81	0.07
EA09	Q1T52B002-A	10/10/81	0.00		0.00
EA10	Q1T52A001-A	10/10/81	0.00		0.00
EA11	Q1T52A002-A	10/10/81	0.00		0.00
EB01	Q1T52B019-A	10/13/81	0.07		0.07
EB05	Q1T52B007-A	10/10/81	0.34		0.34
EB09	Q1T52B006-A	10/13/81	0.34	01/07/82	0.03
EC01	Q1T52B013-1	10/10/81	0.00		0.00
EC03	Q1T52B012-1	10/10/81	0.00		0.00
EC07	Q1T52B009-A	10/12/81	0.00		0.00
EC08	Q1T52B010-4	10/10/81	0.00		0.00
EC10	Q1T52B008-4	10/10/81	0.17		0.17
WA02	Q1T52B015-B	10/12/81	0.00		0.00
WA03	Q1T52B023-B	10/12/81	0.00		0.00
WA05	Q1T52B046-B	10/12/81	0.00		0.00
WA06	Q1T52B047-B	10/12/81	0.00		0.00
WA07	Q1T52A005-B	10/12/81	0.00		0.00
WA08	Q1T52A006-B	10/12/81	0.00		0.00
WA09	Q1T52B018-B	10/12/81	0.00		0.00
WA10	Q1T52B016-B	10/12/81	0.00		0.00

UNIT 1  
TYPE B TEST SUMMARY - 3rd REFUELING

NOZZLE NO.	TPNS NO.	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
WA11	Q1T52B017-B	10/12/81	0.00		0.00
WA21	Q1T52B032-N	10/12/81	0.07		0.07
WA22	Q1T52B033-N	10/12/81	0.00		0.00
WA23	Q1T52B034-N	10/12/81	0.03		0.03
WA24	Q1T52B035-N	10/12/81	3.40		3.40
WB03	Q1T52B020-B	10/13/81	0.00		0.00
WB07	Q1T52B022-B	10/12/81	0.00		0.00
WB09	Q1T52B025-B	10/12/81	0.00		0.00
WB11	Q1T52B038-B	10/13/81	0.24	12/02/81	0.10
WE21	Q1T52B037-N	10/12/81	0.07		0.07
WB24	Q1T52B039-N	10/12/81	0.17		0.17
WC01	Q1T52B026-3	10/12/81	0.00		0.00
WC03	Q1T52B024-3	10/12/81	0.00		0.00
WC05	Q1T52B028-3	10/12/81	0.17		0.17
WC07	Q1T52B030-2	10/12/81	0.00		0.00
WC08	Q1T52B011-B	10/12/81	0.99		0.99
WC09	Q1T52B042-2	10/12/81	0.14		0.14
WC11	Q1T52B031-2	10/12/81	0.10		0.10
WC21	Q1T52B040-N	10/12/81	0.00		0.00
WC23	Q1T52B041-N	10/12/81	0.00		0.00

UNIT 1  
TYPE B TEST SUMMARY - 3rd REFUELING

PENETRATION NO.	TPNS	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
84	Equipment Hatch	02/09/82	12.80		12.80
86	Personnel Lock Interior	02/05/82	608.00	02/14/82	9.04
86	Personnel Lock Outer Door Between Seals	02/17/82	0.00		0.00
87	Aux Access Lock Outer Door Between Seals	02/23/82	0.00		0.00
87	Aux Access Lock Volume Between Doors	02/14/82	9.42		9.42
14	Fuel Transfer Tube - Bellows	12/30/81	0.50		0.50
14	Fuel Transfer Tube Blind Flange	01/18/82	9.10		9.10

## UNIT 1 - TYPE C TEST SUMMARY FOR 4th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
10	Q1E11V025A	02/03/83	49.10*	24.55	02/03/83	49.10*	49.10
	Q1E11V026A	02/03/83	49.10*		02/03/83	49.10*	
11	Q1E11V025B	01/25/83	4.00*	4.00	01/25/83	4.00*	4.00
	Q1E11V026B	01/25/83	4.00*		01/25/83	4.00*	
12	Q1P13V281	01/27/83	3108.00*	1554.00	02/25/83	18.50*	18.50
	Q1P13V282	01/27/83	3108.00*		02/25/83	18.50*	
	Q1P13V301	01/27/83	3108.00*		02/25/83	18.50*	
	Q1P13V302	01/27/83	3108.00*		02/25/83	18.50*	
13	Q1P13V283	02/26/83	4.60*	2.30	02/26/83	4.60*	4.60
	Q1P13V284	02/26/83	4.60*		02/26/83	4.60*	
	Q1P13V303	02/26/83	4.60*		02/26/83	4.60*	
	Q1P13V304	02/26/83	4.60*		02/26/83	4.60*	
16	Q1E11V001A	02/02/83	4.50	4.50	02/02/83	4.50	4.50
18	Q1E11V001B	01/25/83	14.20	14.20	01/25/83	14.20	14.20
23	Q1E21V254	01/26/83	9.20	9.20	01/26/83	9.20	22.50
	Q1E21V253A	01/25/83	22.50*		01/25/83	22.50*	
	Q1E21V253B	01/25/83	22.50*		01/25/83	22.50*	
	Q1E21V253C	01/25/83	22.50*		01/25/83	22.50*	
24	Q1E21V257	03/09/83	5.00	2.90	03/09/83	5.00	5.00
	Q1E21V258	03/09/83	2.90		03/09/83	2.90	
	Q1E21V119	03/09/83	3.50		03/09/83	3.50	
25	Q1E21V115B	01/25/83	13.20	13.20	01/25/83	13.20	13.20
26	Q1E21V115C	01/25/83	12.60	12.60	01/25/83	12.60	12.60
27	Q1E21V115A	01/25/83	129.00	129.00	01/25/83	129.00	129.00

\*Values represent total leakage from group sets of valves as physically tested.

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 4th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
28	Q1E21V213	01/27/83	27.50*		01/27/83	27.50*	
	Q1E21V249A	01/27/83	27.50*		01/27/83	27.50*	
	Q1E21V249B	01/27/83	42.60	27.50	01/27/83	42.60	42.60
29	Q1E21V049	01/19/83	5.90		01/19/83	5.90	
	Q1E21V050	01/19/83	9.20	5.90	01/19/83	9.20	9.20
30	Q1B13V040	01/25/83	42.40		01/25/83	42.40	
	Q1B13V038	01/25/83	71.80	42.40	01/25/83	71.80	71.80
31	Q1G21V005	01/26/83	26.60		01/26/83	26.60	
	Q1G21V006	01/26/83	35.60		01/26/83	35.60	
	Q1G21V064	01/26/83	Off Scale	26.60	02/8/83	4.30	35.60
32	Q1P16V072	01/24/83	403.00		01/25/83	209.00	
	Q1P16V081	01/24/83	93.00	93.00	01/24/83	93.00	209.00
33	Q1G21HV3880	02/16/83	8.50		02/16/83	8.50	
	Q1G21V204	02/16/83	366.00	8.50	02/16/83	366.00	366.00
42	Q1P17V083	01/22/83	107.50		01/22/83	107.50	
	Q1P17V082	01/22/83	0.30	0.30	01/22/83	0.30	107.50
43	Q1P17HV3045	01/25/83	32.20		01/25/83	32.20	
	Q1P17HV3184	01/25/83	19.20	19.20	01/25/83	19.20	32.20
44	Q1P17V097	01/22/83	31.30		01/22/83	31.30	
	Q1P17V099	01/22/83	28.40	28.40	01/22/83	28.40	31.30
45	Q1P17HV3095	01/25/83	Off Scale		02/11/83	419.20	
	Q1P17V159	01/25/83	90.00	90.00	01/25/83	90.00	419.20
46	Q1P17HV3443	01/22/83	5.20		01/22/83	5.20	
	Q1P17HV3067	01/22/83	61.40	5.20	01/22/83	61.40	61.40

\*Values represent total leakage from group sets of valves as physically tested.

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 4th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
47	Q1P18V001	03/14/83	33.30*	16.65	03/14/83	33.30*	33.30
	Q1P18V002	03/14/83	33.30*		03/14/83	33.30*	
48	Q1P19HV3611	02/23/83	5.00	5.00	02/23/83	5.00	21.50
	Q1P19V002	02/23/83	Off Scale		02/25/83	21.50	
49	Q1E21V052	01/19/83	7.70	7.10	01/19/83	7.70	7.70
	Q1E21V091	01/19/83	7.10		01/19/83	7.10	
50	Q1P15HV3766	01/19/83	7.50	6.40	01/19/83	7.50	7.50
	Q1P15HV3334	01/19/83	6.40		01/19/83	6.40	
54	Q1E14V002	01/21/83	581.00	4.20	02/14/83	6.10	69.60
	Q1E14HV3658	01/21/83	4.20		02/15/83	69.60	
55	Q1E14V001	01/21/83	Off Scale	30.73	02/02/83	44.60	44.60
	Q1E14HV3657	01/21/83	30.73		01/21/83	30.73	
56	Q1P15HV3104	01/24/83	6.40	6.40	01/24/83	6.40	18.40
	Q1P15HV3331	01/24/83	18.40		01/24/83	18.40	
57	Q1P15HV3103	01/24/83	26.50	17.90	01/24/83	26.50	26.50
	Q1P15HV3332	01/24/83	17.90		01/24/83	17.90	
58	Q1P15HV3765	02/01/83	4.40	4.40	02/01/83	4.40	5.20
	Q1P15HV3333	02/01/83	5.20		02/01/83	5.20	
59	Q1B13V054	02/25/83	11.40	5.00	02/25/83	11.40	11.40
	Q1E11V039A	02/26/83	5.00*		02/26/83	5.00*	
	Q1E11V039B	02/26/83	5.00*		02/26/83	5.00*	
	Q1E11V040	02/26/83	5.00*		02/26/83	5.00*	
	Q1E21V263A	02/26/83	5.00*		02/26/83	5.00*	
	Q1E21V263B	02/26/83	5.00*		02/26/83	5.00*	

\*Values represent total leakage from group sets of valves as physically tested.

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 4th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
60	Q1P16V071	01/24/83	9.00		01/24/83	9.00	
	Q1P16V075	01/24/83	153.00	9.00	01/24/83	153.00	153.00
61A	Q1E23V022C	01/19/83	16565.00*		01/31/83	7.40*	
	Q1E23V022D	01/19/83	16565.00*		01/31/83	7.40*	
	Q1E23V023B	01/19/83	16565.00*	8282.50	01/31/83	7.40*	7.40
61B	Q1E23V024B	01/19/83	Off Scale*		02/03/83	8.40*	
	Q1E23V025B	01/19/83	Off Scale*	Off Scale <sup>1</sup>	02/03/83	8.40*	8.40
62	Q1G21V082	01/24/83	4.50		01/24/83	4.50	
	Q1G21V001	01/24/83	8.20	4.50	01/24/83	8.20	8.20
63	Q1E21V058	01/19/83	Off Scale		01/22/83	39.00	
	Q1E21V059	01/19/83	70.10	70.10	01/19/83	70.10	70.10
64A	Q1B13V037	01/25/83	27.50		01/25/83	27.50	
	Q1B13V039	01/25/83	33.80	27.50	01/25/83	33.80	33.80
64B	Q1B13V026A	01/22/83	3.50		01/22/83	3.50	
	Q1B13V026B	01/22/83	4.70	3.50	01/22/83	4.70	4.70
66	Q1E23V025A	01/19/83	6.40*		01/19/83	6.40*	
	Q1E23V024A	01/19/83	6.40*	3.20	01/19/83	6.40*	6.40
67	Q1E23V022A	01/18/83	14.30*		01/18/83	14.30*	
	Q1E23V023A	01/18/83	14.30*		01/18/83	14.30*	
	Q1E23V022B	01/18/83	14.30*	7.65	01/18/83	14.30*	14.30
70	Q1E14V003	01/19/83	82.10		01/19/83	82.10	
	Q1E14V004	01/19/83	Off Scale	82.10	02/03/83	0.80	82.10
71	Q1P23V002A	02/16/83	39.20	39.20	02/16/83	39.20	39.20

\*Values represent total leakage from group sets of valves as physically tested.

<sup>1</sup>Off Scale means beyond the range of the leak rate monitor, > 20,000 SCCM.

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 4th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
72	Q1P23V002B	02/16/83	10.60	10.60	02/16/83	10.60	10.60
78	Q1G21HV3377	03/12/83	4.20		03/12/83	4.20	
	Q1G21HV3376	03/12/83	4.60*		03/12/83	4.60*	
	Q1G21V291	03/12/83	4.60*	4.20	03/12/83	4.60*	4.60
82	Q1P11V001	01/26/83	146.30		01/26/83	146.30	
	Q1P11V002	01/26/83	12.40	12.40	01/26/83	12.40	146.30
93	Q1E13V003A	01/22/83	598.00*		01/22/83	598.00*	
	Q1E13V004A	01/22/83	598.00*	299.00	01/22/83	598.00*	598.00
94	Q1E13V003B	01/22/83	0.80*		01/22/83	0.80*	
	Q1E13V004B	01/22/83	0.80*	0.40	01/22/83	0.80*	0.80
95	Q1G31V012	01/19/83	28.61		01/19/83	28.61	
	Q1G31V013	01/18/83	13.20	13.20	01/18/83	13.20	28.61
97B	Q1P19V004	01/18/83	9.20		01/18/83	9.20	
	Q1P19HV2228	01/19/83	4.00	4.00	01/19/83	4.00	9.20
103	Q1E23V002	01/19/83	6.50*		01/19/83	6.50*	
	Q1E23V003	01/19/83	6.50*	3.25	01/19/83	6.50*	6.50

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

\*Values represent total leakage from group sets of valves as physically tested.



UNIT 1  
TYPE B TEST SUMMARY - 4th REFUELING

NOZZLE NO.	TPNS NO.	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
EA01	Q1T52A003-A	01/12/83	0.204		0.204
EA02	Q1T52A004-A	01/12/83	0.238		0.238
EA03	Q1T52B014-A	01/12/83	0.714		0.714
EA05	Q1T52B001-A	01/12/83	0.170		0.170
EA06	Q1T52B005-A	01/12/83	0.270		0.270
EA09	Q1T52B002-A	01/12/83	0.238		0.238
EA10	Q1T52A001-A	01/12/83	0.270		0.270
EA11	Q1T52A002-A	01/12/83	0.306		0.306
EB01	Q1T52B019-A	01/12/83	0.034		0.034
EB05	Q1T52B007-A	01/12/83	0.000		0.000
EB09	Q1T52B006-A	01/12/83	1.700		1.700
EC01	Q1T52B013-1	01/11/83	0.034		0.034
EC03	Q1T52B012-1	01/12/83	0.068		0.068
EC07	Q1T52B009-A	01/12/83	0.027		0.027
EC08	Q1T52B010-4	01/12/83	0.170		0.170
EC10	Q1T52B008-4	01/12/83	0.170		0.170
WA02	Q1T52B015-B	01/11/83	0.068		0.068
WA03	Q1T52B023-B	01/11/83	0.034		0.034
WA05	Q1T52B046-B	01/11/83	0.170		0.170
WA06	Q1T52B047-B	01/12/83	0.102		0.102
WA07	Q1T52A005-B	01/13/83	0.340		0.340
WA08	Q1T52A006-B	01/11/83	0.238		0.238
WA09	Q1T52B018-B	01/11/83	0.068		0.068
WA10	Q1T52B016-B	01/10/83	1.020		1.020

UNIT 1  
TYPE B TEST SUMMARY - 4th REFUELING

NOZZLE NO.	TPNS NO.	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
WA11	Q1T52B017-B	01/10/83	0.034		0.034
WA21	Q1T52B032-N	01/10/83	0.000		0.000
WA22	Q1T52B033-N	01/10/83	0.340		0.340
WA23	Q1T52B034-N	01/10/83	0.170		0.170
WA24	Q1T52B035-N	01/10/83	3.060		3.060
WB03	Q1T52B020-B	01/11/83	0.034		0.034
WB07	Q1T52B022-B	01/11/83	0.170		0.170
WB09	Q1T52B025-B	01/11/83	0.170		0.170
WB11	Q1T52B038-B	01/12/83	347,792.000†	02/08/83	0.000
WB21	Q1T52B037-N	01/10/83	0.068		0.068
WB24	Q1T52B039-N	01/10/83	0.000		0.000
WC01	Q1T52B026-3	01/11/83	0.136		0.136
WC03	Q1T52B024-3	01/11/83	0.136		0.136
WC05	Q1T52B028-3	01/11/83	0.102		0.102
WC07	Q1T52B030-2	01/11/83	0.102		0.102
WC08	Q1T52B011-B	01/11/83	0.000		0.000
WC09	Q1T52B042-2	01/10/83	0.068		0.068
WC11	Q1T52B031-2	01/10/83	0.102		0.102
WC21	Q1T52B040-N	01/10/83	0.238		0.238
WC23	Q1T52B041-N	01/10/83	0.270		0.270

†This penetration was determined to be leaking through the outer penetration seal. No leakage through the inner seal was observed.

UNIT 1  
TYPE B TEST SUMMARY - 4th REFUELING

PENETRATION NO.	TPNS	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
84	Equipment Hatch	03/17/83	1785.00		1785.00
86	Personnel Lock Interior	03/15/83	4.50	09/14/83	0.30
86	Personnel Lock Outer Door Between Seals	03/18/83	0.00		0.00
87	Aux Access Lock Outer Door Between Seals	03/18/83	0.00		0.00
87	Aux Access Lock Volume Between Doors	03/18/83	100,622.00*	03/18/83	4.30
14	Fuel Transfer Tube - Bellows	03/14/83	2.90		2.90
14	Fuel Transfer Tube Blind Flange	03/14/83	204.00		204.00

\* Containment Auxiliary Access Hatch Inner Seal Leakage of 100,622 SCCM should not be included in total As-found Containment Leakage since Outer Seal Leakage (penetration 87) is included in Total.

## UNIT 1 - TYPE C TEST SUMMARY FOR 5th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
10	Q1E11V025A	03/05/84	229.00*	114.50	03/05/84	229.00*	229.00
	Q1E11V026A	03/05/84	229.00*		03/05/84	229.00*	
11	Q1E11V025B	02/27/84	3.80*	1.90	02/27/84	3.80*	3.80
	Q1E11V026B	02/27/84	3.80*		02/27/84	3.80*	
12	Q1P13V282	03/03/84	Off Scale*	110.00 <sup>1</sup>	03/14/84	110.00*	110.00
	Q1P13V301	03/03/84	Off Scale*		03/14/84	110.00*	
	Q1P13V281	03/03/84	Off Scale*		03/14/84	110.00*	
	Q1P13V302	03/03/84	Off Scale*		03/14/84	110.00*	
13	Q1P13V283	03/02/84	Off Scale*	438.00 <sup>1</sup>	03/15/84	438.00*	438.00
	Q1P13V284	03/02/84	Off Scale*		03/15/84	438.00*	
	Q1P13V304	03/02/84	Off Scale*		03/15/84	438.00*	
	Q1P13V303	03/02/84	Off Scale*		03/15/84	438.00*	
16	Q1E11V001A	03/05/84	74.70	74.70	03/95/84	74.70	74.70
18	Q1E11V001B	02/27/84	17.30	17.30	02/27/84	17.30	17.30
23	Q1E21V253A	03/05/84	5.30*	5.30	03/05/84	5.30*	21.30
	Q1E21V253B	03/05/84	5.30*		03/05/84	5.30*	
	Q1E21V253C	03/05/84	5.30*		03/05/84	5.30*	
	Q1E21V254	03/05/84	21.30		03/05/84	21.30	
24	Q1E21V257	02/29/84	66.40	59.30	02/29/84	66.40	66.40
	Q1E21V258	02/29/84	59.30		02/29/84	59.30	
	Q1E21V119	02/29/84	61.40		02/29/84	61.40	
25	Q1E21V115B	02/16/84	14.30	14.30	02/16/84	14.30	14.30

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

\*Values represent total leakage from group sets of valves as physically tested.

<sup>1</sup>Primary leakage was represented by one valves, therefore, Minimum Leakage was determined to be as written after repairing valve.

## UNIT 1 - TYPE C TEST SUMMARY FOR 5th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND MIN. PATH LEAKAGE (SCCM)	#	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
26	Q1E21V115C	02/16/84	20.10	20.10		02/16/84	20.10	20.10
27	Q1E21V115A	02/16/84	99.20	99.20		02/16/84	99.20	99.20
28	Q1E21V249A	02/16/84	21.60			02/16/84	21.60	
	Q1E21V213	02/16/84	21.60			02/16/84	21.60	
	Q1E21V249B	02/16/84	25.40	21.60		02/16/84	25.40	25.40
29	Q1E21V049	02/14/84	12.40			02/14/84	12.40	
	Q1E21V050	02/14/84	13.60	12.40		02/14/84	13.60	13.60
30	Q1B13V040	02/15/84	79.70			02/15/84	79.70	
	Q1B13V038	02/15/84	80.70	79.70		02/15/84	80.70	80.70
31	Q1G21V005	02/16/84	25.20			02/16/84	25.20	
	Q1G21V006	02/16/84	7.90			02/16/84	7.90	
	Q1G21V064	02/16/84	Off Scale	7.90		02/26/84	16.60	25.20
32	Q1P16V072	02/16/84	194.30*			02/16/84	194.30*	
	Q1P16V081	02/16/84	194.30*	97.15		02/16/84	194.30*	194.30
33	Q1G21HV3880	03/31/84	6.80			03/31/84	6.80	
	Q1G21V204	03/31/84	Off Scale	6.80		04/03/84	293.00	293.00
42	Q1P17V083	02/29/84	117.00			02/29/84	117.00	
	Q1P17V082	02/29/84	6.00	6.00		02/29/84	6.00	117.00
43	Q1P17HV3045	02/27/84	Off Scale			03/20/84	21.60	
	Q1P17HV3184	02/27/84	67.00	67.00		02/27/84	67.00	67.00
44	Q1P17V097	02/27/84	Off Scale			03/09/84	29.00*	
	Q1P17V099	02/27/84	Off Scale	29.00 <sup>2</sup>		03/09/84	29.00*	29.00

\*Values represent total leakage from group sets of valves as physically tested.

<sup>2</sup>V097's leak was Off Scale, which is also V099 boundary valve, therefore, Minimum Leakage determined after V097 was repaired.

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 5th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND MIN. PATH LEAKAGE (SCCM) #	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
45	Q1P17HV3095	02/26/84	Off Scale		03/05/84	214.00	
	Q1P17V159	02/26/84	303.50	303.50	02/26/84	303.50	303.50
46	Q1P17HV3443	02/27/84	101.30		02/27/84	101.30	
	Q1P17HV3067	02/27/84	82.20	82.20	02/27/84	82.20	101.30
47	Q1P18V001	03/20/84	53.00*		03/20/84	53.00*	
	Q1P18V002	03/20/84	53.00*	26.50	03/20/84	53.00*	53.00
48	Q1P19HV3611	03/02/84	15.00		03/02/84	15.00	
	Q1P19V002	03/02/84	57.40	15.00	03/02/84	57.40	57.40
49	Q1E21V052	02/13/84	6.30		02/13/84	6.30	
	Q1E21V091	02/13/84	10.40	6.30	02/13/84	10.40	10.40
50	Q1P15HV3766	02/13/84	3.50		02/13/84	3.50	
	Q1P15HV3334	02/13/84	3.70	3.50	02/13/84	3.70	3.70
54	Q1E14V002	03/19/84	4.10		03/19/84	4.10	
	Q1E14HV3658	03/19/84	8.50	4.10	03/19/84	8.50	8.50
55	Q1E14HV3657	03/19/84	4.00		03/19/84	4.00	
	Q1E14V001	03/19/84	134.40	4.00	03/19/84	134.40	134.40
56	Q1P15HV3104	02/14/84	3.80		02/14/84	3.80	
	Q1P15HV3331	02/14/84	5.00	3.80	02/14/84	5.00	5.00
57	Q1P15HV3103	02/15/84	27.00		02/15/84	27.00	
	Q1P15HV3332	02/15/84	13.80	13.80	02/15/84	13.80	27.00
58	Q1P15HV3765	02/18/84	14.20		02/18/84	14.20	
	Q1P15HV3333	02/18/84	24.80	14.20	02/18/84	24.80	24.80

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

\*Values represent total leakage from group sets of valves as physically tested.

## UNIT 1 - TYPE C TEST SUMMARY FOR 5th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
59	Q1B13V039B	03/08/84	3.00*		03/08/84	3.00*	
	Q1E11V039A	03/08/84	3.00*		03/08/84	3.00*	
	Q1E11V263A	03/08/84	3.00*		03/08/84	3.00*	
	Q1E11V263B	03/08/84	3.00*		03/08/84	3.00*	
	Q1E21V054	03/08/84	0.80		03/08/84	0.80	
	Q1E21V040	03/08/84	3.00*	0.80	03/08/84	3.00*	3.00
60	Q1P16V075	02/16/84	Off Scale		03/05/84	162.40	
	Q1P16V071	02/16/84	127.30	127.30	02/16/84	127.30	162.40
61A	Q1E23V022C	02/15/84	30.00*		02/15/84	30.00*	
	Q1E23V022D	02/15/84	30.00*		02/15/84	30.00*	
	Q1E23V023B	02/15/84	30.00*	15.00	02/15/84	30.00*	30.00
61B	Q1E23V024B	02/15/84	17.40*		02/15/84	17.40*	
	Q1E23V025B	02/15/84	17.40*	8.70	02/15/84	17.40*	17.40
62	Q1G21V082	02/17/84	19.30		02/17/84	19.30	
	Q1G21V001	02/17/84	19.60	19.30	02/17/84	19.60	19.60
63	Q1E21V058	02/14/84	893.70		03/09/84	140.00	
	Q1E21V059	02/14/84	170.20	170.20	02/14/84	170.20	170.20
64A	Q1B13V037	02/13/84	19.50		02/13/84	19.50	
	Q1B13V039	02/13/84	37.50	19.50	02/13/84	37.50	37.50
64B	Q1B13V026A	02/13/84	7.60		02/13/84	7.60	
	Q1B13V026B	02/13/84	4.60	4.60	02/13/84	4.60	7.60
66	Q1E23V025A	02/15/84	11.30*		02/15/84	11.30*	
	Q1E23V024A	02/15/84	11.30*	5.65	02/15/84	11.30*	11.30

\*Values represent total leakage from group sets of valves as physically tested.

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

## UNIT 1 - TYPE C TEST SUMMARY FOR 5th REFUELING

PENE. NO.	VALVE NO.	DATE	AS FOUND LEAKAGE (SCCM)	AS FOUND # MIN. PATH LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)	MAX. AS LEFT LEAKAGE PER PENE.
67	Q1E23V022A	02/15/84	22.90*		02/15/84	22.90*	
	Q1E23V022B	02/15/84	22.90*		02/15/84	22.90*	
	Q1E23V023A	02/15/84	22.90*	11.45	02/15/84	22.90*	22.90
70	Q1E14V003	02/29/84	15.30		02/29/84	15.30	
	Q1E14V004	02/29/84	26.10	15.30	02/29/84	26.10	26.10
71	Q1P23V002A	04/02/84	35.00	35.00	04/15/84	57.60	57.60
72	Q1P23V002B	04/02/84	2.70	2.70	04/17/84	31.50	31.50
78	Q1G21HV3377	03/31/84	35.50		03/31/84	35.50	
	Q1G21V291	03/31/84	53.00*		03/31/84	53.00*	
	Q1G21HV3376	03/31/84	53.00*	35.50	03/31/84	53.00*	53.00
82	Q1P11HV3659	02/13/84	24.50		02/13/84	24.50	
	Q1P11V002	02/13/84	11.40	11.40	02/13/84	11.40	24.50
93	Q1E13V003A	02/22/84	715.10*		02/22/84	715.10*	
	Q1E13V004A	02/22/84	715.10*	357.55	02/22/84	715.10*	715.10
94	Q1E13V003B	02/18/84	3.30*		02/18/84	3.30*	
	Q1E13V004B	02/18/84	3.30*	1.65	02/18/84	3.30*	3.30
95	Q1G31V012	02/14/84	15.50		02/14/84	15.50	
	Q1G31V013	02/13/84	13.30	13.30	02/13/84	13.30	15.50
97B	Q1P19V004	02/13/84	7.20		02/13/84	7.20	
	Q1P19HV2228	02/13/84	7.60	7.20	02/13/84	7.60	7.60
103	Q1E23V002	02/18/84	22.30*		02/18/84	22.30*	
	Q1E23V003	02/18/84	22.30*	11.15	02/18/84	22.30*	22.30

#Maximum leakage from inside to outside containment through a penetration with all containment isolation valves for that penetration closed by normal operation.

\*Values represent total leakage from group sets of valves as physically tested.



UNIT 1  
TYPE B TEST SUMMARY - 5th REFUELING

NOZZLE NO.	TPNS NO.	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
EA01	Q1T52A003-A	02/16/84	0.068		0.068
EA02	Q1T52A004-A	02/17/84	1.020		1.020
EA03	Q1T52B014-A	02/16/84	0.068		0.068
EA05	Q1T52B001-A	02/16/84	0.000		0.000
EA06	Q1T52B005-A	02/16/84	0.000		0.000
EA09	Q1T52B002-A	02/16/84	0.000		0.000
EA10	Q1T52A001-A	02/17/84	0.068		0.068
EA11	Q1T52A002-A	02/17/84	1.020		1.020
EB01	Q1T52B019-A	02/15/84	0.000		0.000
EB05	Q1T52B007-A	02/17/84	0.000		0.000
EB09	Q1T52B006-A	02/16/84	0.000		0.000
EC01	Q1T52B013-1	02/15/84	1.020		1.020
EC03	Q1T52B012-1	02/16/84	0.170		0.170
EC07	Q1T52B009-A	02/17/84	0.000		0.000
EC08	Q1T52B010-4	02/16/84	2.380		2.380
EC10	Q1T52B008-4	02/16/84	0.000		0.000
WA02	Q1T52B015-B	02/15/84	0.000		0.000
WA03	Q1T52B023-B	02/15/84	0.000		0.000
WA05	Q1T52B046-B	02/14/84	0.544		0.544
WA06	Q1T52B047-B	02/14/84	0.000		0.000
WA07	Q1T52A005-B	02/15/84	0.442		0.442
WA08	Q1T52A006-B	02/18/84	0.102		0.102
WA09	Q1T52B018-B	02/14/84	0.000		0.000
WA10	Q1T52B016-B	02/13/84	0.000		0.000

UNIT 1  
TYPE B TEST SUMMARY - 5th REFUELING

NOZZLE NO.	TPNS NO.	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
WA11	Q1T52B017-B	02/13/84	0.238		0.238
WA21	Q1T52B032-N	02/14/84	0.000		0.000
WA22	Q1T52B033-N	02/14/84	0.034		0.034
WA23	Q1T52B034-N	02/14/84	0.000		0.000
WA24	Q1T52B035-N	02/13/84	1.290		1.290
WB03	Q1T52B020-B	02/15/84	0.000		0.000
WB07	Q1T52B022-B	02/14/84	0.000		0.000
WB09	Q1T52B025-B	02/14/84	0.068		0.068
WB11	Q1T52B038-B	02/14/84	0.034		0.034
WB21	Q1T52B037-N	02/13/84	0.170		0.170
WB24	Q1T52B039-N	02/13/84	0.170		0.170
WC01	Q1T52B026-3	02/15/84	0.170		0.170
WC03	Q1T52B024-3	02/15/84	2.483		2.483
WC05	Q1T52B028-3	02/14/84	0.408		0.408
WC07	Q1T52B030-2	02/14/84	0.000		0.000
WC08	Q1T52B011-B	02/17/84	0.000		0.000
WC09	Q1T52B042-2	02/16/84	0.000		0.000
WC11	Q1T52B031-2	02/13/84	0.000		0.000
WC21	Q1T52B040-N	02/13/84	16.660	03/16/84	0.140
WC23	Q1T52B041-N	02/13/84	0.170		0.170
WC02	Q1T52B053-B	03/20/84	0.018		0.018
EC05	----	03/26/84	10.500		10.500
EB10	Q1T52B052-4	03/20/84	0.195		0.195
EB04	----	03/26/84	4.200		4.200
EB02	----	03/26/84	0.000		0.000

UNIT 1  
TYPE B TEST SUMMARY - 5th REFUELING

PENETRATION NO.	TPNS	DATE	AS FOUND LEAKAGE (SCCM)	DATE	AS LEFT LEAKAGE (SCCM)
84	Equipment Hatch	04/11/84	30.55		30.55
86	Personnel Lock Interior	04/10/84	6200.00		6200.00
86	Personnel Lock Outer Door Between Seals	---	0.00		0.00
87	Aux Access Lock Outer Door Between Seals	---	0.00		0.00
87	Aux Access Lock Volume Between Doors	04/10/84	354.00		354.00
14	Fuel Transfer Tube - Bellows	04/08/84	3510.00	04/11/84	29.10
14	Fuel Transfer Tube Blind Flange	04/04/84	5.10		5.10