



Carolina Power & Light Company

SEP 04 1984

SERIAL: NLS-84-371

Director of Nuclear Reactor Regulation  
Attention: Mr. D. B. Vassallo, Chief  
Operating Reactors Branch No. 2  
Division of Licensing  
United States Nuclear Regulatory Commission  
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 1  
DOCKET NO. 50-325/LICENSE NO. DPR-71  
REQUEST FOR LICENSE AMENDMENT AND EXEMPTION  
FROM 10 CFR 50, APPENDIX J EXTENSION OF  
UNIT 1 LOCAL LEAK RATE TESTS

Dear Mr. Vassallo:

SUMMARY

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light Company (CP&L) hereby requests a revision to the Technical Specifications (TS) for the Brunswick Steam Electric Plant, Unit No. 1. The proposed change revises section 4.6.1.2.d to allow a one-time only deferment of required Type B and C local leak rate tests (LLRTs) until the next refueling outage scheduled to begin on or before March 31, 1985. Section 4.6.1.2.d requires performance of LLRTs at least once per 24 month interval based on the requirements of 10 CFR 50, Appendix J, Section D, Part 2. Therefore, an exemption to 10 CFR 50 Appendix J is also requested. A listing of the valves and penetrations involved in this request, their size (applicable to penetrations only), results of the previous LLRTs, and the current test due dates are provided in Attachment 1. These due dates range from December 1984 to March 1985. Additionally, Section 4.6.1.2.f is also revised to allow a one-time only deferment of main steam line isolation valve (MSIV) leak testing until the March 31, 1985 refueling outage. The current due date for the MSIV leak testing is March 18, 1985.

DISCUSSION

In granting a similar request to Tennessee Valley Authority for Browns Ferry 2, the NRC stated that the intent of Appendix J was that isolation valves be tested during refueling outages. Carolina Power & Light Company is presently scheduled to conduct a refueling outage for Brunswick-1 beginning on or before March 31, 1985. The proposed amendment would allow these tests to be postponed until that refueling outage. Such an extension is desirable in order to maintain personnel exposures as-low-as-reasonably achievable (ALARA). With the current LLRT schedule, mid-cycle LLRT's would need to be performed again early in Brunswick-1 Cycle 5 to return to a schedule which is coincident with the Unit 1 refueling interval. Performance

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of mid-cycle LLRT's now and during the next fuel cycle would result in increased exposure of personnel of approximately 20 man-rem which is not consistent with CP&L's ALARA policy.

In addition, the NRC stated in its consideration of the TVA request, that the test interval for Type C tests in Appendix J was based on two years of expected exposure of components to service conditions. In the case of the valves referred to in our request, approximately eight months of the two-year period since the valves were last tested was spent in an extended maintenance outage during which the components were not exposed to an operating environment.

Technical Specification Section 4.6.1.2.f requires that the main steam line isolation valves be leak tested at least once per 18 months. The MSIVs were last tested on May 3, 1983. Utilizing the maximum surveillance period of 125 percent, the latest required performance date is March 18, 1985. The requested extension results in only an additional 12 days, or a 1.75 percent increase, in the maximum surveillance interval permitted by the TS.

#### SIGNIFICANT HAZARDS ANALYSIS

Carolina Power & Light Company has reviewed this request and determined that, for purposes of a 10 CFR 50.92 definition, a significant hazards consideration may be involved. However, CP&L believes that deferment of the LLRT and MSIV leak test due dates will not result in a significant increase in risk to the public's health and safety for the following reasons:

1. The majority of the tests requiring extensions are for valves and penetrations which are not exposed to harsh environments and typically exhibited satisfactory test results.
2. Subsequent to the last performance of these LLRTs an eight month outage ensued during which the valves and penetrations were not subject to normal operating conditions thus reducing the potential degradation during this period.
3. The TS limit for LLRT leakage is 159.78 SCFH (calculated in accordance with TS section 3.6.1.2). The present recorded LLRT leakage for Brunswick-1 is approximately 58 SCFH below this limit. In addition, the TS limit of 159.78 SCFH is only 60 percent of the total allowable containment leakage calculated using 10 CFR 100 guidelines. Therefore, the present recorded LLRT for Brunswick-1 is approximately 38 percent of that allowed by 10 CFR 100 guidelines.
4. Actual containment leakage during a LOCA would require leakage by two valves in series. Most LLRTs are performed between these valves, resulting in greater recorded leakage than would most probably occur during a LOCA.

D. B. Vassallo

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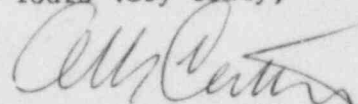
5. The increase in the likelihood of an increase in the leak rate for the MSIVs resulting from the 12-day (1.75 percent) increase in the maximum surveillance frequency permitted by the TS is minimal.
6. Previous test results (see Attachment 1) indicated leakage in only one set of MSIVs. The recorded leakage was 4.141 SCFH, only 36 percent of the allowable leakage of 11.5 SCFH.

ADMINISTRATIVE INFORMATION

The proposed revision to the Brunswick-1 TS is provided in Attachment 2. Carolina Power & Light Company has evaluated this request in accordance with the provisions of 10 CFR 170.12 and has determined that a license amendment application fee is required. A check for \$150.00 is enclosed in payment of this fee.

Should you have any questions concerning this submittal, please contact Mr. Sherwood R. Zimmerman at (919) 836-6242.

Yours very truly,



A. B. Cutter - Vice President  
Nuclear Engineering & Licensing

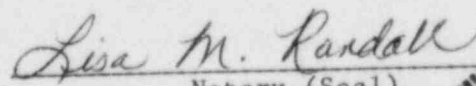
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Attachments

cc:Mr. D. O. Myers (NRC-BNP)  
Mr. J. P. O'Reilly (NRC-RII)  
Mr. M. Grotenhuis (NRC)

Mr. Dayne H. Brown  
Radiation Protection Branch  
Division of Facility Services  
Department of Human Resources

A. B. Cutter, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.

My commission expires: 5/18/88

  
Notary (Seal)



## ATTACHMENT 1

TEST NO.	EQUIPMENT TESTED	MAXIMUM PENETRA- TION LINE SIZE (INCHES)	PREVIOUS TEST RESULTS (SCFH)	TEST DUE DATE
E-1	X100A ELECTRICAL	N/A	0	12-12-84
E-2	X100B ELECTRICAL	N/A	0	12-12-84
E-3	X100C ELECTRICAL	N/A	0	12-12-84
E-4	X100D ELECTRICAL	N/A	0	12-12-84
E-5	X100E ELECTRICAL	N/A	0	12-14-84
E-6	X100F ELECTRICAL	N/A	0	12-14-84
E-7	X100G ELECTRICAL	N/A	0	12-14-84
E-8	X100H ELECTRICAL	N/A	0	12-14-84
E-9	X101A ELECTRICAL	N/A	0	12-13-84
E-10	X101C ELECTRICAL	N/A	0	12-13-84
E-11	X101D ELECTRICAL	N/A	0	12-18-84
E-12	X101F ELECTRICAL	N/A	0	12-18-84
E-13	X102A ELECTRICAL	N/A	0	12-13-84
E-14	X102B ELECTRICAL	N/A	0	12-13-84
E-15	X102C ELECTRICAL	N/A	0	12-14-84
E-16	X102E ELECTRICAL	N/A	0	12-14-84
E-17	X102F ELECTRICAL	N/A	0	12-14-84
E-18	X012H ELECTRICAL	N/A	0	12-18-84
E-19	X103A ELECTRICAL	N/A	0	12-13-84
E-20	X103B ELECTRICAL	N/A	0	12-16-84
E-21	X014A ELECTRICAL	N/A	0	12-13-84
E-22	X104B ELECTRICAL	N/A	0	12-13-84
E-23	X104C ELECTRICAL	N/A	0	12-14-84
E-24	X104E ELECTRICAL	N/A	0	12-14-84
E-25	X104F ELECTRICAL	N/A	0	12-16-84
E-26	X104G ELECTRICAL	N/A	0	12-18-84
E-27	X105B ELECTRICAL	N/A	0	12-12-84
E-28	X015C ELECTRICAL	N/A	0	12-12-84
E-29	X015D ELECTRICAL	N/A	0	12-14-84
E-30	X105E ELECTRICAL	N/A	0	12-13-84
E-31	X015G ELECTRICAL	N/A	0	12-14-84
E-32	X105H ELECTRICAL	N/A	0	12-14-84
E-33	X015J ELECTRICAL	N/A	0	12-18-84
E-34	X015K ELECTRICAL	N/A	0	12-18-84
E-35	X232B ELECTRICAL	N/A	0	12-18-84
E-36	X232B ELECTRICAL	N/A	0	12-18-84
H-2	PERSONAL LOCK TO DRYWELL LINER SEAL	N/A	0	01-19-85
M-2	CAC-V5 INBOARD O-RINGS	N/A	0	12-31-84
M-3	CAC-V6 INBOARD O-RINGS	N/A	0	12-31-84
M-4	CAC-V7 INBOARD O-RINGS	N/A	0	02-21-85
M-5	CAC-V9 INBOARD O-RINGS	N/A	0	12-23-84
M-6	CAC-V16 INBOARD O-RINGS	N/A	0	12-26-84
M-7	CAC-V17 INBOARD O-RINGS	N/A	0	03-14-85
B21-2	B21-F010B	18	0	01-12-85

TEST NO.	EQUIPMENT TESTED	MAXIMUM PENETRA- TION LINE SIZE (INCHES)	PREVIOUS TEST RESULTS (SCFH)	TEST DUE DATE
B21-3	B21-F032A, E41-F006	18	5.4	03-17-85
B21-4	B21-F032B, E51-F013, G31-F039	18	0.7	03-03-85
CAC-1	CAC-V47	1	0	12-31-84
CAC-2	CAC-V48	1	0.5	12-30-84
CAC-4	CAC-V7, V8, V22	20	5.4	02-22-85
CAC-5	CAC-V9, V10, V23	18	2.3	12-23-84
CAC-6	CAC-X20A, V16	20	0.7	12-26-84
CAC-7	CAC-X20B, V17	20	0	12-26-84
CAC-9	CAC-PV1200B	1	0	12-16-84
CAC-10	CAC-PV1261	1	0	12-16-84
CAC-11	CAC-PV1227A	1	0	12-14-84
CAC-12	CAC-PV1227B	1	0	12-14-84
CAC-14	CAC-PV1227E	1	0	12-15-84
CAC-15	CAC-FV1260	1	0	12-15-84
CAC-16	CAC-FV1231B	1	0	12-14-84
CAC-17	CAC-PV3440	1.25	0	12-15-84
CAC-18	CAC-PV12250	1.25	0	12-15-84
CAC-19	CAC-PV12110	1	0	12-14-84
CAC-20	CAC-PV1262	1	0	12-14-84
CAC-21	CAC-PV1208A	1	0	12-13-84
CAC-22	CAC-FV1209B	1	0	12-13-84
CAC-23	CAC-PV1205E	1	0	12-13-84
CAC-24	CAC-PV1215E	1	0	12-14-84
CAC-25	CAC-PV1211E	1.25	0	12-14-84
CAC-26	CAC-PV3439	1.25	0	12-14-84
CAC-27	CAC-PV3441	1.25	0	12-15-84
CAC-28	CAC-PV3442	1.25	0	12-15-84
CAC-29	CAC-PV3437	1.25	0	12-14-84
CAC-30	CAC-PV3438	1.25	0	02-23-85
CAC-39	CAC-PV1218C	0.75	0	12-16-84
CAC-40	CAC-PV1219B	2.0	0	12-20-84
CAC-41	CAC-PV1225C	2.0	0	12-18-84
CAC-42	CAC-PV1209D	1.0	0	12-18-84
E11-1	E11-F008, F009	20	5.2	03-10-85
E11-2	E11-F011A	4	0	03-28-85
E11-3	E11-F011B	4	5.5	12-30-84
E11-4	E11-F015A, F017A	24	2.1	03-08-85
E11-5	E11-F015B, F017B	24	0	01-24-85
E11-6	E11-F016A, F021A	14	0	03-26-85
E11-8	E11-F020A	24	13.5	03-29-85
E11-11	E11-F024A, F027A, F028A	16	0	02-02-85
E11-12	E11-F024B, F027B, F028B	16	0	01-28-85
E11-13	E11-F025A	0.75	0	02-04-85
E11-14	E11-F025B	0.75	0	01-17-85
E11-15	E11-F037D	0.75	0.1	12-22-84
E11-16	E11-F037B	0.75	0	12-16-84
E11-17	E11-F043D	0.75	0.1	12-22-84

TEST NO.	EQUIPMENT TESTED	MAXIMUM PENETRA- TION LINE SIZE (INCHES)	PREVIOUS TEST RESULTS (SCFH)	TEST DUE DATE
E11-19	E11-F037C	0.75	0	12-16-84
E11-20	E11-F043C	0.75	0	12-16-84
E11-22	E11-F037A	0.75	0	12-16-84
E11-23	E11-F097	4	0	01-11-85
E11-24	E11-F007A	4	0	02-01-85
E11-25	E11-F007B	4	0	01-28-85
E11-26	E11-F103A	1	0	02-02-85
E11-27	311-F103B	1	0	01-18-85
CAC-45	CAC-PV1219C	0.75	0	12-17-84
E11-28	E11-F055A	4	0	02-04-85
E11-29	E11-F055B	4	0	01-05-85
E11-30	E11-V20	0.75	0	02-04-85
E11-31	E11-V21	0.75	0	01-05-85
E11-32	E11-F029	1	0	02-22-85
E21-1	E21-F001A	14	3.6	02-21-85
E21-2	E21-F001B	14	0.1	12-29-84
E21-3	E21-F004A, F005A	10	0	02-18-85
E21-4	E21-F004B, F005B	10	0.1	12-23-84
E21-5	E21-F015A	10	0	02-21-85
E21-6	E21-F015B	10	0	12-29-84
E21-7	E21-F031A	3	0	02-21-85
E21-8	E21-F031B	3	0	01-19-85
E41-1	E41-F002, F003	10	0	03-22-85
E41-2	E41-F012	4	0	12-19-84
E41-3	E41-F042	16	0	12-19-84
E41-4	E41-F022, F040	2	0	02-10-85
E41-6	E41-F075, F079	2	0	12-19-84
E41-7	E41-PV1218D, 1220D	1	0	12-28-84
E41-8	E41-PV1219D, 1221D	1	0	02-18-85
E51-2	E51-F019	2	0	12-17-84
E51-3	E51-F031	6	0	12-16-84
E51-4	E51-F002, F028	2	0	02-04-85
G16-1	G16-F003, F004	3	0	01-28-85
G16-2	G16-F019, F020	3	0.7	01-27-85
SA-1	SA-V448	1	0	02-23-85
SA-2	SA-V449	1	0	03-23-85
TIP-1	TIP-V1	3/8	0	12-17-84
TIP-2	TIP-V2	3/8	0	12-17-84
TIP-3	TIP-V3	3/8	0	12-17-84
TIP-4	TIP-V4	3/8	0	12-17-84
TIP-5	TIP N <sub>2</sub> CHECK VALVE	3/8	0	12-17-84
TIP-6	TIP N <sub>2</sub> SOLENOID VALVE	3/8	0	12-17-84

Main Steam Isolation Valves

B21-F022A, F028A	24	0	03-18-85
B21-F022B, F028B	24	0	03-18-85
B21-F022C, F028C	24	4.141	03-18-85
B21-F022D, F028D	24	0	03-18-85