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MAR 6 1996

SERIAL: BSEP 96-0083

U. S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
SECOND INSERVICE INSPECTION INTERVAL EXTENSION

Gentlemen:

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of Carolina Power & Light Company's (CP&L) intent to extend the second 10-year inspection interval for the Brunswick Steam Electric Plant, Units 1 and 2. Based on this extension, the second 10-year inspection interval will cover the period from July 10, 1986 until May 10, 1998.

The extension of the current 10-year interval is being made in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Subarticle IWA-2400(c) based on: (1) the allowance for interval increases and decreases of up to 12 months and (2) the allowance for unit out-of-service time. The interval extension is being made in accordance with the ASME Code, Section XI; therefore, NRC review and approval of this interval extension is not required. A discussion of the current second 10-year inspection interval extension is enclosed.

Please refer any questions regarding this submittal to Mr. George Honma at (910) 457-2741.

Sincerely,

G. D. Hicks
Manager — Regulatory Affairs
Brunswick Nuclear Plant

WRM/wrm

Enclosures

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cc:

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NRC Senior Resident Inspector - Brunswick Units 1 and 2:

U.S. Nuclear Regulatory Commission
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The Honorable H. Wells
Chairman - North Carolina Utilities Commission
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Mr. Billy Walker
N.C. Department of Labor
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ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2 DOCKET NOS. 50-325 AND 50-324 LICENSE NOS. DPR-71 AND DPR-62 SECOND INSERVICE INSPECTION INTERVAL EXTENSION

PURPOSE:

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of Carolina Power & Light Company's (CP&L) extension of the second 10-year inspection interval for the Brunswick Steam Electric Plant, Units 1 and 2. Based on this extension, the second 10-year inspection interval will cover the period from July 10, 1986 until May 10, 1998.

BACKGROUND:

The general requirements for inspection intervals that apply to the Brunswick Steam Electric Plant are outlined in the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (the Code), Section XI, 1980 Edition with Addenda through Winter 1981, subarticle IWA-2400. Subarticle IWA-2400(a) states that in-service examinations and system pressure tests required by subsections IWB, IWC, and IWD will be completed during each of the inspection intervals (i.e., 120 months) for the service lifetime of the unit. The inspection interval is determined by calendar years following placement of the unit into commercial service. The current second 10-year inspection interval schedule (i.e., Program B) that is being implemented by the Brunswick Plant covers the period from July 10, 1986 to July 10, 1997.

Subarticle IWA-2400(c) provides two allowances for extending the above inspection intervals. One of these two allowances states that each inspection interval may be decreased or extended by as much as one year. However, adjustments to inspection intervals are not to cause successive intervals to be altered by more than one year from the original pattern of intervals.

On August 5, 1994 (Reference 1), the NRC staff was notified of CP&L's intent to extend the second 10-year inspection interval for both units from July 10, 1996 to July 10, 1997. The basis for the one year extension was the out of service time during the 1992 forced outages. Since Unit 2 was out of service for only a period of approximately twelve months, an extension of one year was implemented to maintain a common expiration date for both units. The out of service time associated with the B209R1 outage was not factored into this extension request.

DISCUSSION:

As stated above, inspection intervals may be decreased or extended by as much as one year. During the first 10-year inspection interval for Unit 2, approximately eight months of the allowed one year extension was used. The first 10-year inspection interval for Unit 1 was decreased by approximately eight months. Thus, Unit 1 has not used any of the allotted one year extension, and Unit 2 has used some of the allotted one year extension.

In addition to the allowed one year adjustment, Subarticle IWA-2400(c) provides a second allowance which states that each inspection interval may be extended for a period equivalent to the time the unit is out of service continuously for six months or more. The adjustment to the inspection interval for out of service time also extends the original pattern of successive intervals accordingly.

During the second 10-year inspection interval, Unit 1 was continuously out of service for greater than twenty-one months. Twelve months of this out of service time were used during the first extension of this interval. Therefore, the remaining nine months of out of service time can be used to support an additional extension. In addition to the remaining out of service time, the one year interval extension can also be used to extend the second 10-year inspection interval. Based on the above, the Unit 1 second 10-year inspection interval can be extended up to twenty-one months.

Unit 2 was continuously out of service for greater than eighteen months during the second 10-year inspection interval. Since twelve months of the out of service time were used during the first extension of this interval, six months of the out of service time remain to support an additional extension. In addition to the remaining six months of out of service time, four months of the allowed one year interval extension can also be used to extend the second 10-year inspection interval. Using the remaining four months of the allotted one year extension, the expiration date for the successive intervals for Unit 2 cannot be altered. Based on the above discussion, the Unit 2 second 10-year inspection interval can be extended up to ten months.

Since a common expiration date for both units is desired, the second 10-year inspection interval for Unit 1 will only be extended for ten months to coincide with the ten months interval extension allowed for Unit 2. The new expiration date for Unit 1 and Unit 2 second 10-year inspection interval will be May 10, 1998. Attachment 1 provides a time line of milestones involving the inservice inspection intervals as well as Unit 1 and Unit 2 outage periods during the second 10-year inspection interval.

IN-SERVICE TESTING PROGRAM:

The extension to the second 10-year inspection interval for the Brunswick Plant also applies to the In-Service Testing (IST) Program. While it is not mandatory to maintain identical intervals for IST and ISI Programs, it is beneficial for the Brunswick Plant to maintain the same edition of the Code for plant activities related to the ASME Code, Section XI.

Section 50.55a of Title 10 of the Code of Federal Regulations defines the requirements for applying industry codes and standards to boiling and pressurized water-cooled nuclear power facilities. 10 CFR 50.55a(f)(4) requires that IST in each 120-month interval following the initial interval be conducted in compliance with the requirements of the latest edition and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) in effect 12 months before the start of the interval. Even though requirements for inservice testing outlined in 10 CFR 50.55a(f) do not discuss interval extensions, Section XI of the ASME Code is incorporated by reference in the regulation.

Since the general requirements of subsection IWA of the ASME Code, Section XI apply to both IST and ISI, compliance to 10 CFR 50.55a is satisfied. The NRC guideline document for IST Program, NUREG-1482 (section 3.3.1) also supports this position.

CONCLUSION

The ten month extension to the second 10-year inspection interval ISI and IST Programs meets the requirements of subarticle IWA-2400 of the ASME Code, Section XI and complies with the requirements of 10 CFR 50.55a. Even though 10 CFR 50.55a does not discuss extending inspection intervals, Section XI of the ASME Code is incorporated by reference in the regulation. Therefore, compliance to the ASME Code, Section XI by the Brunswick Plant also assures compliance to 10 CFR 50.55a.

REFERENCES:

1. Letter from R. P. Lopriore (CP&L) to Document Control Desk (USNRC) dated August 5, 1994.
2. NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants," April 1995.
3. American Society of Mechanical Engineers Code, Section XI, 1980 Edition with Addenda through Winter 1981.

ATTACHMENT 1

INSPECTION INTERVAL TIME LINE

U1 Placed in Commercial Service	3/77→	←11/75	U2 Placed in Commercial Service
Approval to Begin the Second 10-Year Inspection Interval for Each Unit on a Common Date was Granted by NRC.	7/1/85→	←7/1/85	Approval to Begin the Second 10-Year Inspection Interval for Each Unit on a Common Date was Granted by NRC.
		←11/2/85	Original First Inspection Interval Expiration Date for U2
Start of the Second 10-Year Inspection Interval for Each Unit on a Common Date	7/10/86→	←7/10/86	Start of the Second 10-Year Inspection Interval for Each Unit on a Common Date
B106R1 Outage (119 Days)	2/14/87→		
Original First Inspection Interval Expiration Date for U1	3/17/87→		
		←1/2/88	B208R1 Outage (117 Days)
B107R1 Outage (155 Days)	11/10/88→		
		←9/9/89	B209R1 Outage (188 Days)
B108R1 Outage (152 Days)	9/27/90→		
		←9/11/91	B210R1 Outage (115 Days)
U1 Forced Outage & B109R1 Outage (660 Days)	4/21/92→	←4/21/92	U2 Forced Outage (389 Days)
		←3/26/94	B211R1 Outage (96 Days)
Notified the NRC Staff of intent to extend the Second 10-Year Inspection Interval from 7/10/96 to 7/10/97.	8/5/94→	←8/5/94	Notified the NRC Staff of intent to extend the Second 10-Year Inspection Interval from 7/10/96 to 7/10/97.
B110R1 Outage (50 Days)	4/1/95→		
Original Second 10-Year Inspection Interval Expiration Date	7/10/96→	←7/10/96	Original Second 10-Year Inspection Interval Expiration Date
		←2/96	B212R1 Outage
B111R1 Outage	9/96→		
Current Second 10-Year Inspection Interval Expiration Date	7/10/97→	←7/10/97	Current Second 10-Year Inspection Interval Expiration Date
		←9/97	B213R1 Outage
B112R1 Outage	4/98→		
New Second 10-Year Inspection Interval Expiration Date	5/10/98→	←5/10/98	New Second 10-Year Inspection Interval Expiration Date