

Carolina Power & Light Company

Raleigh, North Carolina 27602

March 25, 1970



Dr. Peter A. Morris, Director
Division of Reactor Licensing
United States Atomic Energy Commission
Washington, D. C. 20545

Regulatory

File Cy.

Re: Docket Nos. 50-324 and 50-325.

Dear Dr. Morris:

The Company transmits herewith additional information in support of its proposed reduction in the design pressure of the containment dry well and torus of the Brunswick units from 62 psig to 53 psig. This submittal is in response to a Staff request for specific data used in the calculation of the Brunswick containment design pressure.

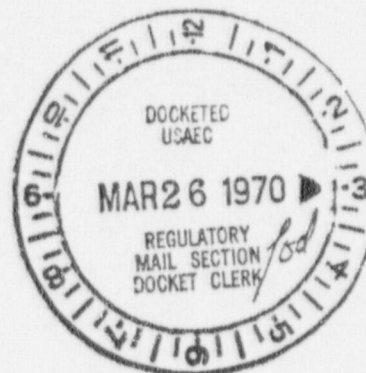
In order that the engineering and construction of the Brunswick units may proceed on schedule, the Company desires to discuss this submission with the Staff at the earliest possible date.

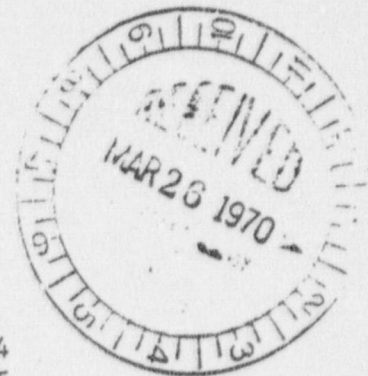
Very truly yours,

A handwritten signature in cursive script, appearing to read "J. A. Jones".

J. A. Jones
Vice President - Power Supply

JAJ:ej





In the Matter of)

CAROLINA POWER & LIGHT COMPANY)
(Brunswick Steam Electric Plant)
Units 1 and 2))

Docket Nos. 50-324
50-325

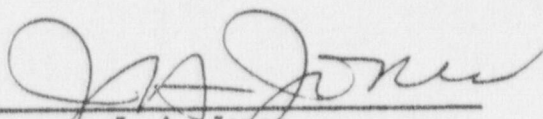
Regulatory

File Cy.

AFFIDAVIT OF J. A. JONES

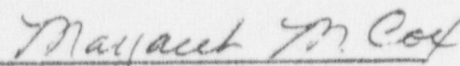
Received w/Ltr Dated 3-25-70

I, J. A. Jones, being duly sworn, depose and state that I reside in Raleigh, North Carolina; that I am Vice President, Power Supply, Carolina Power & Light Company; that I am fully cognizant of the contents of the foregoing document entitled "Brunswick Containment Analysis Data", and that the contents of the same are true and correct to the best of my knowledge.



J. A. Jones

Subscribed and sworn to before me this 25th day of March, 1970,
at Raleigh, North Carolina.




Notary Public

My commission expires: July 4, 1970

In the Matter of)
)
CAROLINA POWER & LIGHT COMPANY) Docket Nos. 50-324
(Brunswick Steam Electric Plant) 50-325
Units 1 and 2))

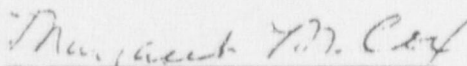
AFFIDAVIT OF J. A. JONES

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J. A. Jones

Subscribed and sworn to before me this 25th day of March, 1970,
at Raleigh, North Carolina.



Notary Public

My commission expires: July 1, 1970

BSEP 1 & 2
DOCKET NOS. 50-324 & 50-325

BRUNSWICK CONTAINMENT ANALYSIS DATA

Group 1 Data

Initial Pool Temperature	°F	90
Initial Wetwell Air Temperature	°F	90
Initial Drywell Temperature	°F	130
Initial Wetwell Pressure	PSIG	1.3
Initial Drywell Pressure	PSIG	1.3
Initial Wetwell Relative Humidity	%	100
Initial Drywell Relative Humidity	%	30
Downcomer Submergence	Ft.	4
Wetwell Pool Volume	Cu.Ft.	87300
Initial Reactor Power	MWT	2550
Initial Mass of Water in Reactor	Lb.	464,500
Initial Mass of Steam in Reactor	Lb.	18,200
Assume Enthalpy of Water	Btu/Lb.	545
Assumed Enthalpy of Steam	Btu/Lb.	1191

Group 2 Data

- (1) Reactor pressure versus time supplied in Table 1.
- (2) No feedwater flow assumed during blowdown. Feedwater enthalpy is less than saturated and would tend to depressurize vessel if flow included. Assuming no flow maximizes reactor pressure thereby maximizing loading on containment (effect small in any event).
- (3) Steam flow versus time provided in Table 1. This flow is handled merely as an outflow from vessel. Energy assumed dumped to main condenser.

Group 3 Data

- (1) Flow out of break provided in Table 1.
- (2) Energy rate out of break also provided in Table 1.

BSEP 1 & 2
DOCKET NOS. 50-324 & 50-325

TABLE 1
REACTOR CHARACTERISTICS DURING BLOWDOWN

<u>Time Sec.</u>	<u>Steamline Flow Lb/Sec.</u>	<u>Reactor Pressure PSIA</u>	<u>Liquid Flow Break Lb/Sec.</u>	<u>Liquid Enthalpy Btu/lb.</u>	<u>Steam Flow Break Lb/Sec.</u>	<u>Steam Enthalpy Btu/lb.</u>
0	2513	1020	38890	545	0	1191
.944	2513	1011	38770	543	0	1191.3
1.88	2390	1002	38630	542	0	1191.6
2.82	1570	993	38480	540	0	1192
3.44	150	993	38490	540	0	1192
4.07	0	999	38580	542	0	1191.7
5.32	0	1008	38720	543	0	1191.4
6.57	0	1013	38790	543	0	1191.2
8.82	0	1015	38810	544	0	1191
9.88	0	1005	16660	542	6261	1191.5
11.07	0	876	13260	522	5843	1196.2
12.32	0	750	10460	502	5388	1200
12.94	0	689	9221	490	5131	1201.4
15.44	0	470	5203	442	3955	1204.6
19.19	0	237	1749	372	2291	1200.5
26.19	0	57	39	259	561	1176.6