

December 29, 1980

FILE: NG-3514(B)(R)

SERIAL No.: NO-80-1927

Mr. Brian R. Grimes, Director
Emergency Preparedness Task Group
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT No. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
RESPONSE TO REQUEST FOR EVACUATION TIME ESTIMATES

Dear Mr. Grimes:

On November 29, 1979 the NRC requested that all licensees authorized to operate a nuclear power reactor provide evacuation time estimates for various sectors surrounding each facility. Carolina Power & Light Company (CP&L) advised the NRC by letter dated January 22, 1980 that we would be unable to provide you with meaningful data until specific emergency plans were developed in cooperation with State and local officials.

Since our response, we have undertaken an evacuation study for the 10 mile EPZ surrounding the Brunswick (BSEP) and Robinson (HBR) plants and herewith submit the preliminary results of that study. Please note that the information is presented in terms of planning zones established by State and local officials to conform with local geographic and demographic boundaries rather than the 22 1/2 degree sectors referred to in your initial request. Attachments 1.1 and 2.1 to this letter identify the planning zones for the BSEP and HBR 10 mile EPZ respectively. Attachments 1.2 and 2.2 summarize the preliminary results of the evacuation time study for BSEP and HBR respectively.

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411 Front Street, S.E., Box 1851, Atlanta, GA 30303

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The final evacuation time study reports are estimated to be completed by January 1, 1981. This study will be submitted to the appropriate State and local officials for review and comment during the month of January, 1981. It is estimated that the final evacuation time study report and related comments will be ready for submittal to you approximately February 1, 1981.

Please do not hesitate to contact my staff if you have any questions concerning this information.

Yours very truly,



E. E. Utley
Executive Vice President
Power Supply and
Engineering & Construction

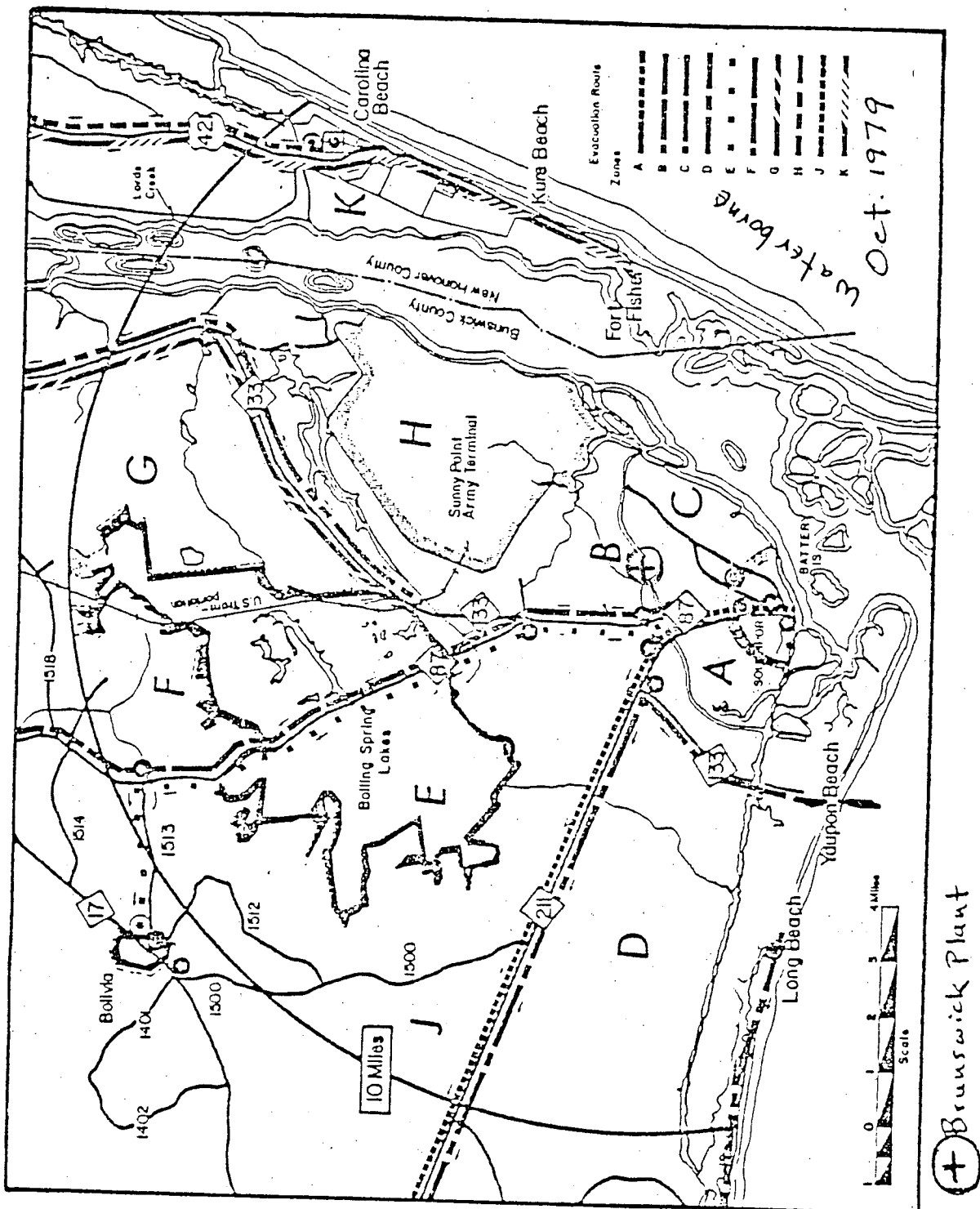
SDF/dk (N #13)
Attachment

cc: Mr. J. D. Neighbors

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LETTER TO NRC/EVACUATION TIME STUDY BRUNSWICK PLANT

STATE & LOCAL PLANNING ZONES - 10 MILE EPZ



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CAROLINA POWER & LIGHT COMPANY

Attachment 1.2
December 18, 1980

Letter to NRC/Evacuation Time Study: Brunswick Plant

Preliminary Results of Evacuation Time Study - 10 Mi. EPZ

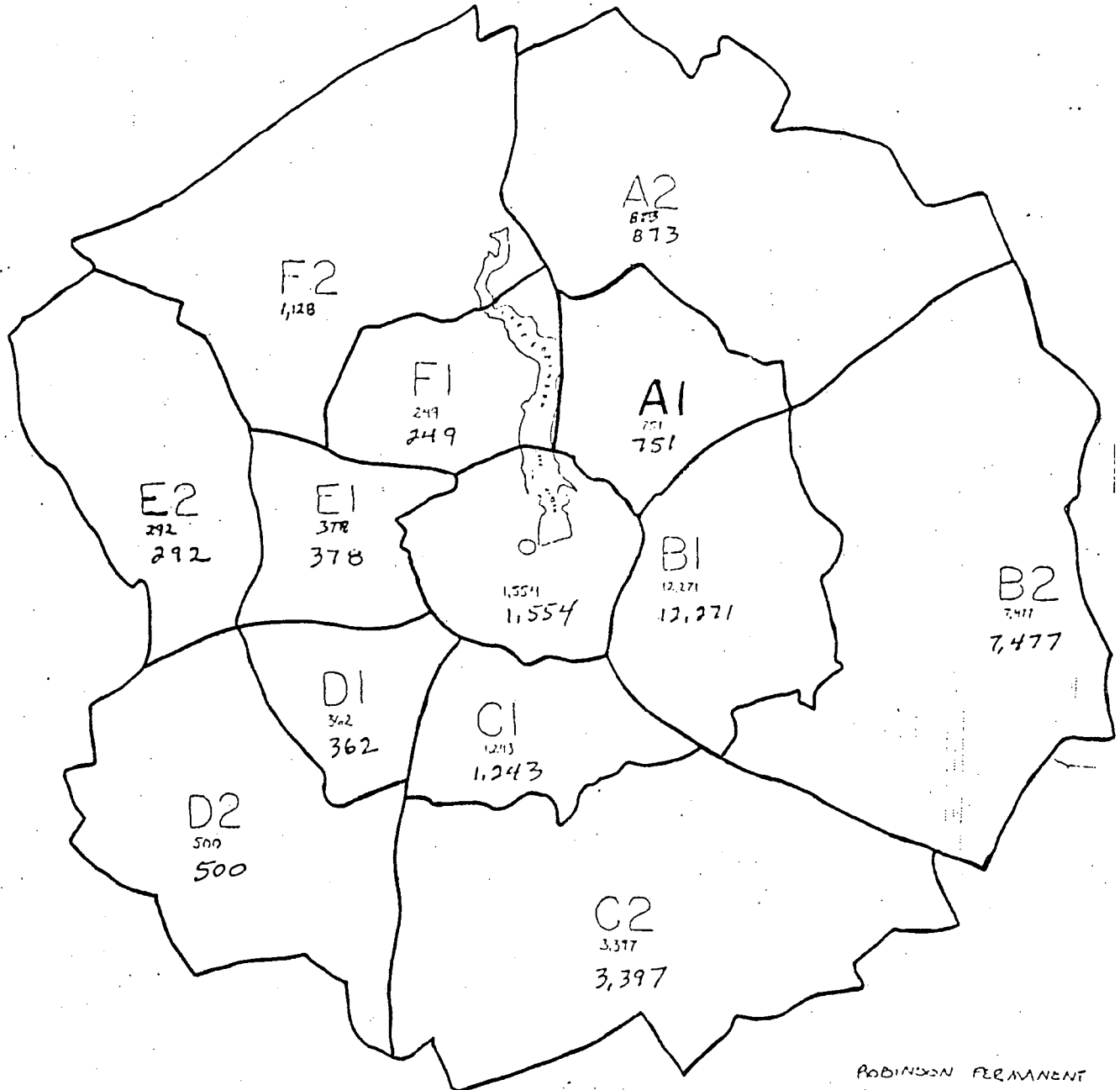
<u>Planning Zones</u>	<u>Resident Population</u>	<u>Peak Population</u>	<u>Evacuation Time - Minutes</u>		
			(a)	(b)	(c)
A	1,770	3,972	155	359	421
B	284	704	55	55	60
C	1,442	1,542	155	359	421
D	1,895	16,027	155	359	421
E	829	829	155	359	421
F	709	709	51	48	51
G	300	300	48	48	48
H	106	706	48	48	48
J	170	170	48	48	48
K	3,815	30,551	64	395	295 *
Waterborne		1,256	120	395	120 *

Notes:

- Under the evacuation time column the headings are as follows:
 - (a) = Resident/Winter Average
 - (b) = Summer Peak Population - Average Weather
 - (c) = Summer Peak Population - Adverse Weather
 - Average people per household = 2.8 residents
 - Alerting time = 1.5 to 2.0 hours
 - Evacuation Confirmation Time = From 2.5 to 9.5 hrs.
 - Special Facility Population = Industry, Schools, Hospital and Nursing Homes.
 - Evacuation Time includes 30 minute "Delay Time", for time between issuance of evacuation order and entry into evacuation network.
 - Peak Population = Resident Population plus Tourists, Industry, and Hospital/Nursing Homes.
 - Planning Zones A, C, D, and E share a common evacuation route as do Zones G, H, and J. The evacuation time for each zone therefore is based on the total population of all the zones that feed people into the evacuation route. The capacity of each evacuation route is assumed to be 850 cars/lane/hour based on FEMA CPG 2-8-C, January 1979.
- * Indicated adverse weather evacuation times are reduced due to the estimated area population being lower during adverse weather conditions

DEC. 18, 1980

LETTER TO NRC/EVACUATION TIME STUDY - ROBINSON PLANT



ROBINSON PLANT
POPULATION IN STATE
PLANNING ZONES
DEC. 1980

CAROLINA POWER & LIGHT COMPANY

Attachment 2.2
December 18, 1980

Letter to NRC/Evacuation Time Study: Robinson Plant

Preliminary Results of Evacuation Time Study - 10 Mi. EPZ

<u>Planning Zones</u>	<u>Resident Population</u>	<u>Peak Population</u>	<u>Evacuation Time - Minutes</u>		
			(a)	(b)	(c)
Center	1,554	2,104	314	391	278
A-1	751	751	158	186	143
A-2	873	873	158	186	143
B-1	12,271	20,521	314	391	278
B-2	7,477	8,535	314	391	278
C-1	1,243	1,841	314	391	278
C-2	3,397	3,642	314	391	278
D-1	362	362	158	186	143
D-2	500	500	158	186	143
E-1	378	378	158	186	143
E-2	292	374	158	186	143
F-1	249	499	158	186	143
F-2	1,128	1,128	158	186	143

Notes:

1. Peak Population = Resident population plus Industry, Schools, Hospital/Nursing Homes and Recreation Areas.
2. Average people per household = 2.8 residents.
3. Alerting Time = 1.5 to 2.0 Hours to complete w/existing resources.
4. Under the evacuation time column, headings are as follows:

(a) = Weekday, average weather
(b) = Weekday, adverse weather
(c) = Weekend, average weather

Evacuation time includes 30 minute "Delay Time"

5. Evacuation Confirmation time: From 1.0 to 5.5 Hours
6. Planning Zones Center, B-1, B-2, C-1, and C-2, share a common evacuation route as do the balance of the zones. The evacuation time for each zone therefore is based on the total population of all the zones that feed people into the evacuation route. The capacity of each evacuation route is assumed to be 850 cars/lane/hour based on FEMA CPG 2-8-C, January 1979.

(P#12)