

Georgia Power Company
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Georgia Power

the southern electric system

D. O. Foster
Vice President and Project
General Manager
Vogtle Project

June 1, 1984

Director of Nuclear Reactor Regulation
Attention: Ms. Elinor G. Adensam, Chief
Licensing Branch #4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

File: X7N13.3
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NRC DOCKET NUMBERS 50-424 AND 50-425
CONSTRUCTION PERMIT NUMBERS CPPR-108 AND CPPR-109
VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 AND 2
REQUEST FOR ADDITIONAL INFORMATION - EMERGENCY PLAN

Dear Mr. Denton:

In response to a request for additional information from the NRC staff during the May 15, 1984 meeting on Emergency Planning, six copies of the following information are enclosed to facilitate your review:

- Estimate of population density by sector
- Description of SRP responsibilities
- Evacuation time estimate
- Description of EPZ including map of area

If you have any questions concerning the enclosed information, do not hesitate to contact us.

Yours truly,

D. O. Foster

DOF/RLK/js

Enclosure

cc: M. A. Miller
R. A. Thomas
J. A. Bailey
O. Batum
L. T. Gucwa
G. F. Trowbridge, Esquire
G. Bockhold, Jr.
D. G. Eisenhut

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ENCLOSURE

Population Density Estimate

Table 1 attached provides a summary of the projected residential population by sector for the areas within the 10 mile EPZ for Plant Vogtle. The projected population is for the year 1987 and was prepared using the methodology described in Appendix 2A of the VEGP FSAR. For the purpose of the projection, the resident population within the Savannah River Plant was assumed to be zero. Provisions for protection of the personnel within the Savannah River Plant are described in the SRP Responsibilities section of this enclosure.

TABLE 1
 Population By Sectors and Annular Rings
 0- to 10- mile Radius Total

<u>SECTOR</u>	<u>1</u> <u>MILE</u>	<u>2</u> <u>MILE</u>	<u>3</u> <u>MILE</u>	<u>4</u> <u>MILE</u>	<u>5</u> <u>MILE</u>	<u>6</u> <u>MILE</u>	<u>7</u> <u>MILE</u>	<u>8</u> <u>MILE</u>	<u>9</u> <u>MILE</u>	<u>10</u> <u>MILE</u>	<u>TOTAL</u>
N	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	3	0	3	0	5	11
SE	0	0	0	3	28	31	35	6	18	27	148
SSE	0	0	0	0	6	64	88	119	88	74	439
S	0	0	0	0	6	35	59	29	24	35	188
SSW	0	3	3	3	3	15	6	24	29	56	142
SW	0	300	8	6	25	11	15	18	26	88	497
WSW	0	0	3	0	14	45	42	50	11	0	165
W	0	8	11	48	22	9	18	35	50	29	230
WNW	0	70	258	14	20	3	9	37	37	34	482
NW	0	136	6	43	86	0	56	7	20	7	361
NNW	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>6</u>
TOTAL	0	517	289	117	210	216	331	331	303	355	2669

Savannah River Plant Responsibilities

Staff level discussions with SRP have been in progress for some time to define the SRP/Plant Vogtle interface. SRP has indicated that they will assume the responsibility for implementing any needed protective measures on Federal Property in South Carolina. They estimate implementation of any protective measures can be accomplished within thirty minutes. These agreements and definition of responsibilities will be formally documented with the Vogtle Emergency Plan.

Evacuation Time Estimates

Evacuation time data was collected in 1980 by State of Georgia, Civil Defense Division staff. This report (copy attached) was developed pursuant to an NRC request (reference letter from B. Grimes, 12/26/79) and followed the format indicated in that request.

A few comments are appropriate to clarify the potential usefulness of this data.

1. The total population data (2540) is consistent with current projections (see population density data earlier) and thus the time estimates are still valid.
2. The notification times (from 0.5 to 3 hours) should be disregarded since a prompt (15 minute) notification system is required.
3. The evacuation times were generated for quadrants not sectors and thus are conservative estimates.

A more current evacuation study is planned and will be submitted with the general Emergency Plan Revision.

RECEIVED

FEB 29 1980

ENV. AFFAIRS



STATE OF GEORGIA
Department of Defense
Civil Defense Division

OFFICE OF THE STATE DIRECTOR
POST OFFICE BOX 18055

Atlanta, Ga.
30316



MAJ GEN BILLY M. JONES
DIRECTOR

27 February 1980

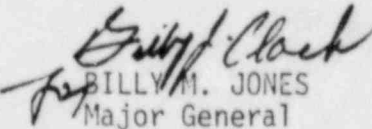
Mr. T. E. Byerley
Manager of Environmental Affairs
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Dear Mr. Byerley:

Enclosed is the evacuation data for the ten mile emergency planning zone surrounding Vogtle Nuclear Plant. With the exception of less than two square miles of uninhabited river swamp in Richmond County, the entire Georgia portion of the EPZ lies within Burke County.

I trust that this information will satisfy the requirements set forth in the Nuclear Regulatory Commission letter of December 26, 1979. Additional assistance on this matter and all future requests for state support in off site Radiological Emergency Planning should be directed to this department.

Sincerely,


BILLY M. JONES
Major General
Director

Attachments:
(as stated)

cc: Bill Cline - DNR/EPD
Wendell Brinson - Field
Coordinator
Wilbur Singley - CDD,
Waynesboro-Burke Co.

EVACUATION TIME ESTIMATE (AFTER NOTIFICATION)
FOR THE VOGTLE NUCLEAR POWER PLANT

The ten mile EPZ was divided into sectors in accordance with the NRC reporting format. See the attached map.

The estimated times for a general evacuation of the population located within the ten mile EPZ are given in Table I. The following data is referenced to the numbered requirements set forth in the NRC reporting format.

- Item 1. See Table I.
- Item 2. a. The Girard Elementary School with a normal population of 300 is located within the 5-10 mile sector. According to local officials, the school could be evacuated rapidly and within the time listed in Table I.
b. The town of Girard with an estimated population of 350 could be evacuated within the time listed in Table I.
c. No other special facilities are located within the ten mile EPZ.
- Item 3. See Table I.
- Item 4. The Waynesboro-Burke County Civil Defense has an approved emergency operations plan which provides for warning and evacuation.
- Item 5. a. There are no insurmountable obstacles to evacuation in the ten mile EPZ. Hilly, dirt surfaced roads in the SE sector are slick and occasionally impassable during heavy rain, but the problem areas can be avoided. This situation is reflected in the times listed for the "Worst Case Evacuation."
b. The town of Girard with an estimated population of 350 would not require any special consideration for evacuation.
- Item 6. The data was developed by the local Civil Defense Director with the assistance of two members of the CD organization, one of which resides within the ten mile EPZ. First hand knowledge of the subject area, plus experiences with real and exercise emergency operations within the county, provided the background upon which this data is based.

All of the times given for notification and verification are based on the assumption that one to four mobile teams would be employed in the operation. It was further assumed that the actual evacuation would take place by private vehicle and Burke County school buses traveling their normal routes to pick-up persons requiring public transportation.

The local Department of Natural Resources ranger will be responsible for the notification and evacuation of recreationists on the Savannah River.

TABLE I

General Evacuation of the Population from the
Plant Vogtle Ten Mile Plume Exposure EPZ

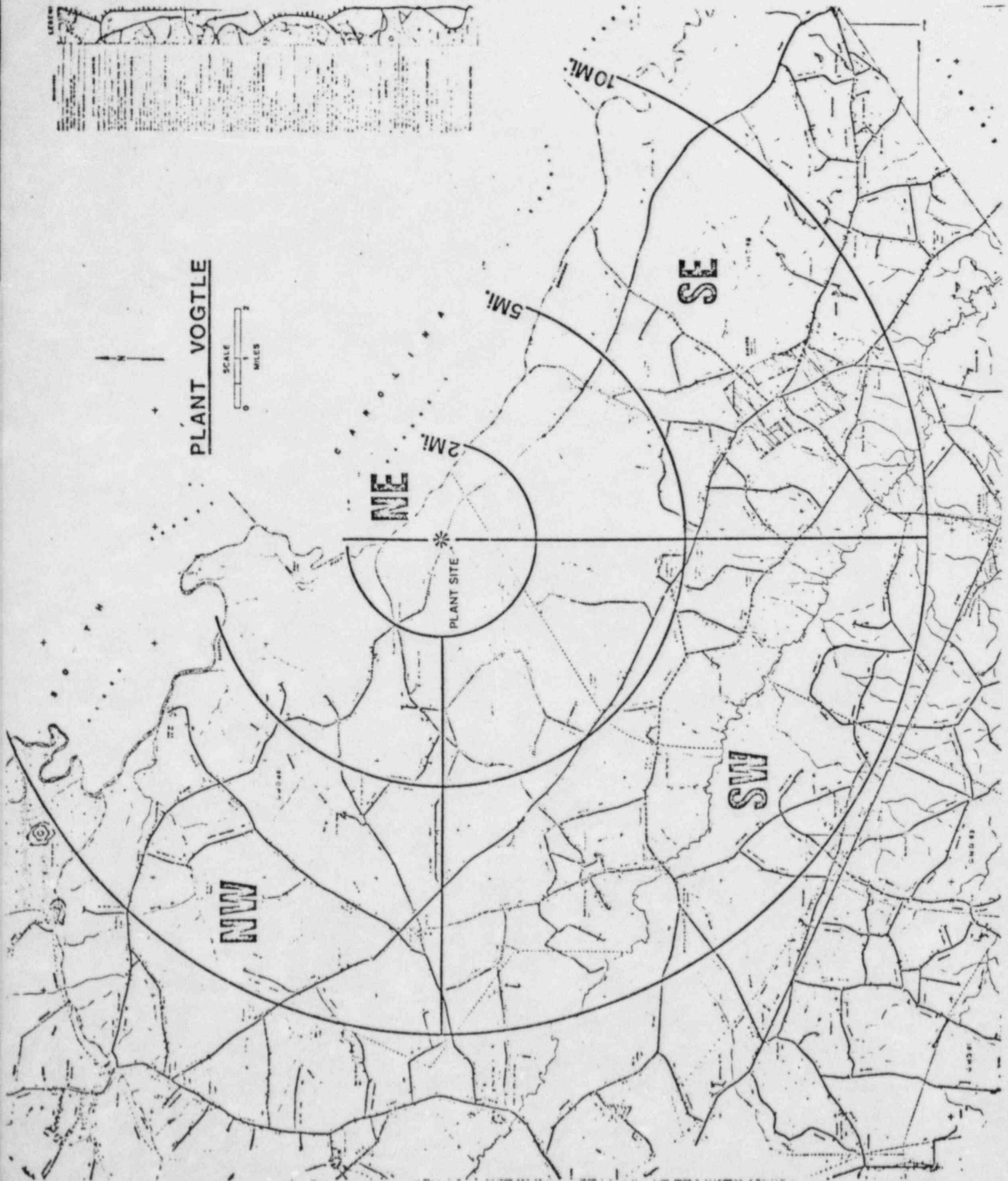
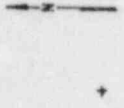
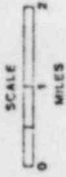
Action	NE (E 180° Sector)			SE			SW			NW (W 180° Sector)		
	2 mi	5 mi	10 mi	2 mi	5 mi	10 mi	2 mi	5 mi	10 mi	2 mi	5 mi	10 mi
Population	10	-	-	-	40	750	-	125	800	300	125	400
Notification	0.5	-	-	-	0.5	2.75	-	0.75	3.0	0.75	0.5	2.0
Day Evacuation	0.25	-	-	-	1.0	3.0	-	1.0	3.0	0.5	0.75	3.0
Worst Case Evacuation	0.75	-	-	-	1.25	4.0	-	1.5	4.0	1.5	1.5	4.0
Confirmation	0.25	-	-	-	0.75	3.0	-	0.5	3.5	0.25	0.5	1.5

Times are given in hours.

- Notes:
1. Population estimates are for specific sectors as identified.
 2. Time requirements are cumulative. That is, the times required for notification, evacuation, and confirmation for the five to ten mile sector assumes that the two and five mile sectors are included.
 3. Sportsmen are not included in the above table. The Savannah River flows through the entire twenty mile diameter of the EPZ and it is impossible to estimate the number of boaters and fishermen likely to be present in any particular sector. It is estimated that as many as 300 sportsmen could be on the river on a good day. It would take approximately two hours to travel the affected stretch of river for notification, and up to three hours to evacuate the river. Confirmation would likewise take approximately two hours.
 4. Approximately 300 of the listed population within the 0-5 mile distance of the NW sector are construction workers and their families which will leave once the plant is completed.



PLANT VOGTLE



Emergency Planning Zones (EPZ)

The Plant Vogtle Plume Exposure EPZ consists of an area 10 mile radius, centered on the plant, with three regions excluded from the detailed planning process per 10 CFR 50.47(c)(2). These areas, indicated on the attached map, have been excluded from detailed planning primarily due to the absence of any resident population. The areas in Richmond County Georgia, and Aiken County South Carolina (Sector R) have no resident population and there appears to be minimal, if any, resident population in Barnwell and Allendale Counties, South Carolina (Sector F). Planning to assure protection of transient populations in these areas will be accomplished through formal agreements with the appropriate State and/or County governments. The State of South Carolina is in agreement with this approach as documented in their letter to the State of Georgia (January 17, 1984 - attached).

The State of South Carolina
Military Department



JAN 20 1984

OFFICE OF THE ADJUTANT GENERAL

January 17, 1984

T. ESTON MARCHANT
MAJOR GENERAL
THE ADJUTANT GENERAL

Mr. Billy Clack, Deputy Director
Georgia Emergency Management Agency
P. O. Box 18055
Atlanta, Georgia 30316

Dear Mr. Clack:

On January 10th we held a meeting with representatives of Georgia Power Company regarding the ten-mile Emergency Planning Zones for the Vogtle Nuclear Power Plant. Due to the distance of the plant from any South Carolina residents, and the low number of those actually living within the 10-mile zone, we have agreed to exclude this small South Carolina area from any formal emergency planning at the state level. We will, however, be including an appendix to the affected counties' emergency operations plans regarding the Vogtle Plant. As a result of this we are requesting that if there is an emergency at the plant which reaches the Alert or higher stage, GEMA notify our office. Our 24-hour number is 803-758-2826.

We will then notify SC DHEC and the affected counties, as needed. It is our understanding that Georgia Power and DOE/Savannah River Plant will be signing an agreement of mutual assistance. We will then help coordinate any technical response on our side of the river between DHEC and DOE/SRP.

We look forward to working with you on this. If you have any questions you can direct them to me or to John Bland, our coordinator for Area 5 of South Carolina.

Sincerely,

Joshua P. Moore
Director

JPM:JBB:ews

cc: Mr. William Ollinger, Georgia Power
Mr. Heyward Shealy, SC DHEC
Mr. John Merrick, DOE/SRP
Mr. Bobby Mauney, Coordinator, Aiken DEP
Mr. Harold Awbrey, Director Allendale DPA
Mr. Herman Wald, Coordinator Barnwell DPA

Emergency Preparedness Division
Rutledge Building 1429 Senate Street
Columbia, South Carolina 29201 (803) 758-2826

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