Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 323-5341

F. L. CLAYTON, JR.
Senior Vice President

Alabama Power
the southern electric system

February 4, 1980

U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

Attn: Mr. Brian K. Grimes, Director
Emergency Preparedness Task Group

Gentlemen:

In response to your letter of November 29, 1979 and attachment titled, "Request for Evacuation Time Estimates (After Notification) for Areas Near Nuclear Power Plants", we are enclosing the requested data for the Joseph M. Farley Nuclear Plant.

The enclosed data are complete thanks to the excellent cooperation which we received from State Civil Defense and Radiological Health personnel and Local Civil Defense and Law Enforcement Officials in Alabama and Georgia.

If you have any questions regarding this submittal, please let us know.

Yours very truly,

F. L. Clayton, Jr.

FLCJr/WMJ:bhj

Attachment

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge

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EVACUATION TIME ESTIMATES (AFTER NOTIFICATION) FOR AREAS NEAR THE JOSEPH M. FARLEY NUCLEAR PLANT

As shown in the attached figure, the entire area surrounding the Joseph M. Farley Nuclear Plant within a circle of 10 miles radius has been divided into areas as follows:

DISTANCE	AREA
2 Miles	Two 180° Sectors
5 Miles	Four 90° Sectors
10 Miles	Four 90° Sectors

To avoid splitting Columbia, Alabama, the 11-1/4° boundary of the north and the 191-1/4° boundary of the south sector are used to define the 180° sector boundaries for a distance of two miles and one edge of each of the four 90° sectors for a distance of 10 miles.

The estimated times for a general evacuation of the population are given in Table I.

In Houston County, Alabama the following schools are listed as special facilities:

Ashford High School
Ashford Middle School
Webb Junior High School
Harmon School
Houston County School

However, they are not considered to pose a problem requiring additional time for evacuation. There are no special facilities in Early County, Georgia and Henry County, Alabama within the 10 mile distance.

The estimated times required for verification (confirmation) of evacuation are shown in Table II

No special evacuation problems were identified which should result in the need for consideration of alternative protective actions, such as sheltering, for the reduction of exposures.

With the exception of Ashford and Columbia, Alabama, the area surrounding the Farley Nuclear Plant is primarily rural and is sparsely populated. Based upon the 1970 census and an actual survey of each area, the population within the 10 mile EPZ in Houston County is estimated to be about 10,000. The estimates for Early County, Georgia and Henry County, Alabama are about 1,000 and 200 , respectively. Because of the low population density and good roads, as shown in the attached figure, no special evacuation problems are anticipated.

The evacuation and verification time estimates are based upon prior experience gained in small scale evacuations, actual exercises conducted by the Houston County Alabama Sheriff's Department and best estimates provided by local and state government officials. School buses will be used for evacuation of residents, who do not have private transportation, and for school students, if the evacuation occurs during a time when schools are in session. The respective County Sheriff's Departments and local Municipal Police Departments will be utilized for traffic control during the evacuation and for verification that evacuation has been accomplished.

The area in Henry County beyond the 7-mile line was not included in the original Emergency Plan. For this submittal, a special survey of the area was made for the number of residents, best evacuation routes and special facilities. From this survey, evacuation and verification times were estimated.

Alabama Power Company is in agreement with data supplied by State and Local officials in Alabama and Georgia.

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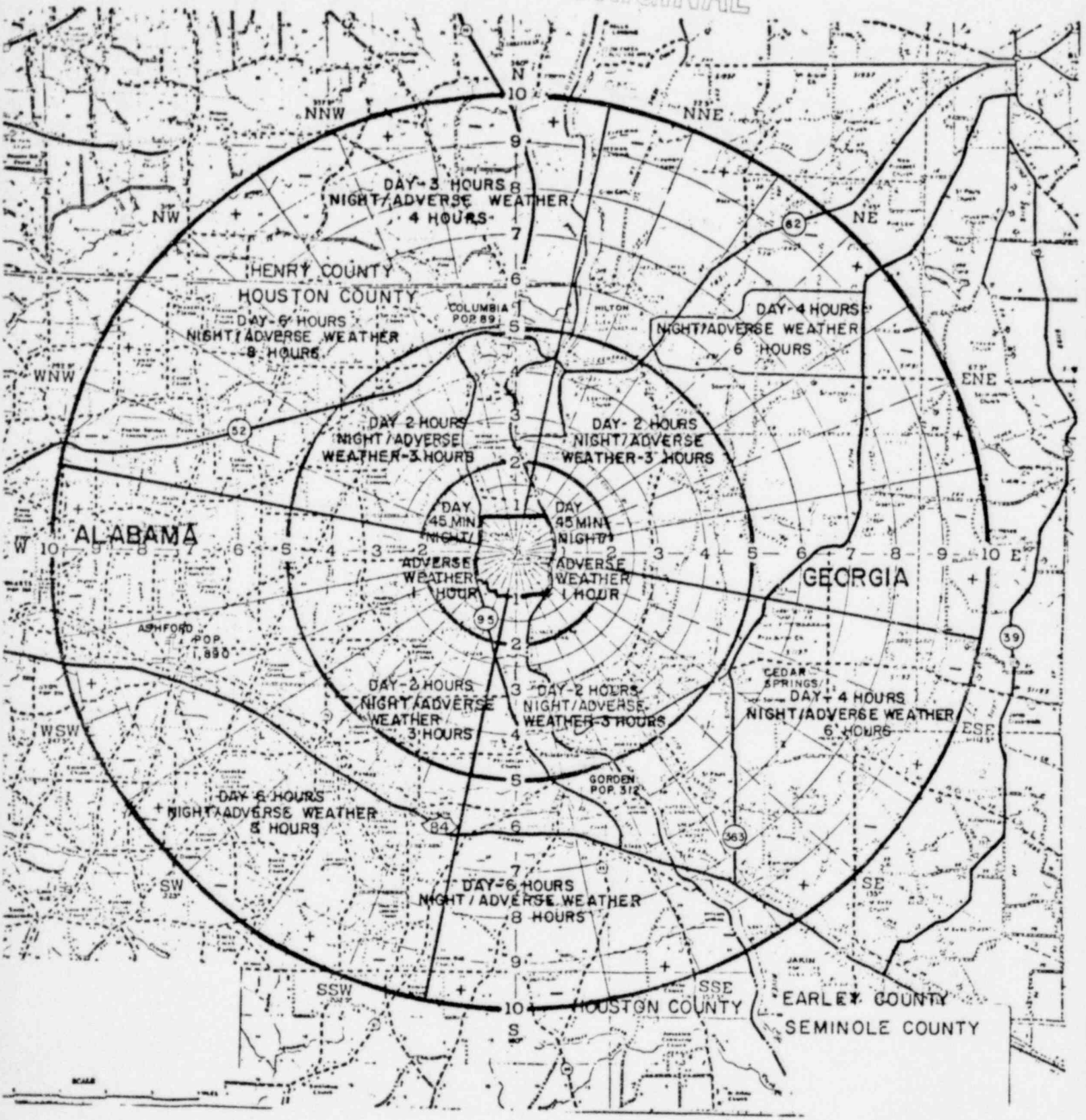

POPULATION EVACUATION
TIME ESTIMATES
JOSEPH M. FARLEY NUCLEAR PLANT

TABLE I

GENERAL EVACUATION OF THE POPULATION FROM THE
FARLEY NUCLEAR PLANT 10-MILE PLUME EXPOSURE EPZ

AREA	DISTANCE	ESTIMATED EVACUATION TIMES[1]	
		DAY	NIGHT/ADVERSE WEATHER
Two 180° Sectors			
Houston Co., Ala.	2 Miles	45 Mins.[2]	1 Hour[2]
Early Co., Ga.	2 Miles	45 Mins.[2]	1 Hour[2]
Four 90° Sectors			
Houston Co., Ala.	5 Miles	2 Hours	3 Hours
Early Co., Ga.	5 Miles	2 Hours	3 Hours
Four 90° Sectors			
Houston Co., Ala.	10 Miles	6 Hours	8 Hours
Early Co., Ga.	10 Miles	4 Hours	6 Hours
Henry Co., Ala.	10 Miles	3 Hours	4 Hours

(1) Estimates based on prior experience gained in small scale evacuations, actual exercises conducted by Houston County, Alabama Sheriff's Department and best estimates provided by local and state governmental officials. (Includes estimated verification times).

(2) Requires physical check for boaters, hunters, field workers, etc.

TABLE II

ESTIMATED VERIFICATION TIMES FOR CONFIRMING
POPULATION EVACUATION FROM FARLEY NUCLEAR PLANT
10-MILE PLUME EXPOSURE EPZ

AREA	DISTANCE	ESTIMATED VERIFICATION TIMES
Two 180° Sectors		
Houston Co., Ala.	2 Miles	30 Mins.
Early Co., Ga.	2 Miles	30 Mins.
Four 90° Sectors		
Houston Co., Ala.	5 Miles	1 Hour
Early Co., Ga.	5 Miles	1 Hour
Four 90° Sectors		
Houston Co., Ala.	10 Miles	2.5 Hours
Early Co., Ga.	10 Miles	2 Hours
Henry Co., Ala.	10 Miles	1 Hour [1]

(1) Night/Adverse Weather 1.5 Hours