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AUTH. NAME: PARKER, W.O. AUTHOR AFFILIATION: Duke Power Co.
 RECIP. NAME: REID, R.W. RECIPIENT AFFILIATION: Operating Reactors Branch 4

SUBJECT: Responds to NRC 791129 ltr & provides evacuation time estimates for various areas around util.

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422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

January 31, 1980

TELEPHONE: AREA 704
373-4083

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Mr. R. W. Reid, Chief
Operating Reactors Branch No. 4

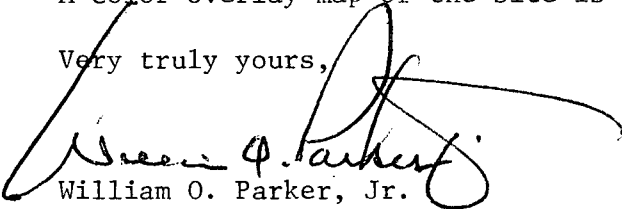
Re: Oconee Nuclear Station
Docket Nos.: 50-269, -270, -287

Dear Sir:

As requested by Mr. Brian K. Grimes' letter of November 29, 1979, evacuation time estimates for evacuation of various areas around the Oconee Nuclear Station are provided in Attachment 1.

A color overlay map of the site is provided as Attachment 2.

Very truly yours,


William O. Parker, Jr.

ROS/sch
Attachments

cc: County Civil Preparedness Agency (Oconee, Pickens)

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Oconee Nuclear Station

Attachment 1

Evacuation Time Estimates

Evacuation time estimates (including notification) for the areas identified on the attached site map are provided below:

1. Area 1 includes the NNE, NE, ENE, E, ESE, SE, SSE, and South sectors within 0-2 miles of Oconee Nuclear Station. Population total is 700 of which 445 are peak attendance at recreational areas on Lake Keowee and Hartwell. There are no special facilities or population concentrations within this area.

Notification Time:	15 minutes
Best Estimate Time:	60 minutes
Adverse Weather Evacuation Time:	80 minutes
Evacuation Confirmation Time:	20 minutes

2. Area 2 includes the SSW, SW, WSW, W, WNW, NW, NNW, and North sectors within 0-2 miles of Oconee Nuclear Station. Population total is 2774 of which 2711 are peak attendance at recreational areas on Lake Keowee. There are no special facilities within the area. There is one housing subdivision in the area.

Notification Time:	20 minutes
Best Evacuation Time:	60 minutes
Adverse Weather Evacuation Time:	70 minutes
Evacuation Confirmation Time:	20 minutes

3. Area 3 includes the NNE, NE, ENE and East sectors in 2-5 miles of Oconee Nuclear Station. Population total is 1877 of which 42 are peak attendance at recreational areas on Lake Keowee. There are two (2) nursing homes in the area and also the town of Six Mile, S. C. The nursing homes have a total of 75 patients, of which 50 would require ambulance for transportation. There is a staff of 35 during the day and 15 on shift and weekends.

Notification Time:	45 minutes
Best Evacuation Time:	180 minutes
Adverse Weather Evacuation Time:	240 minutes
Best Evacuation Time; Special Facilities	210 minutes
Best Evacuation Time; Adverse Weather for Special Facilities:	300 minutes
Evacuation Confirmation Time:	30 minutes

4. Area 4 includes the ESE, SE, SSE, and South sectors in 2-5 miles of Oconee Nuclear Station. Population total is 1640 of which 324 are peak attendance at recreational areas on Lake Hartwell. There are no special facilities or large population concentrations within the area.

Notification Time:	35 minutes
Best Evacuation Time:	90 minutes
Adverse Weather Evacuation Time:	120 minutes
Evacuation Confirmation Time:	30 minutes

5. Area 5 includes the SSW, SW, WSW, and West sectors within 2-5 miles of Oconee Nuclear Station. Population total is 1475, of which 420 represent peak attendance at recreational areas on Lake Keowee. There are no special facilities or large population concentrations within the area.

Notification Time:	45 minutes
Best Evacuation Time:	90 minutes
Adverse Weather Evacuation Time:	120 minutes
Evacuation Confirmation Time:	30 minutes

6. Area 6 includes the WNW, NW, NNW, and North sectors in 2-5 miles of Oconee Nuclear Station. Population total is 3037, of which 2568 represent peak attendance at recreational areas on Lake Keowee. There are no special facilities or population concentrations within the area.

Notification Time:	30 minutes
Best Evacuation Time:	90 minutes
Adverse Weather Evacuation Time:	120 minutes
Evacuation Confirmation Time:	20 minutes

7. Area 7 includes the NNE, NE, ENE, and East sectors within 5-10 miles of Oconee Nuclear Station. Population total is 5861, of which 294 represent peak attendance at recreational areas on Lake Keowee. There are no special facilities or large population concentrations within the area.

Notification Time:	75 minutes
Best Evacuation Time:	210 minutes
Adverse Weather Evacuation Time:	270 minutes
Evacuation Confirmation Time:	50 minutes

8. Area 8 includes the ESE, SE, SSE, and South within 5-10 miles of Oconee Nuclear Station. Population total is 25,181, of which 2737 represent peak attendance at recreational areas on Lake Hartwell. This area includes the towns of Norris, Central and Clemson, S.C. There are no special facilities within the area.

Notification Time:	60 minutes
Best Evacuation Time:	180 minutes
Adverse Weather Evacuation Time:	250 minutes
Evacuation Confirmation Time:	50 minutes

9. Area 9 includes the SSW, SW, WSW, and West sectors within 5-10 miles of Oconee Nuclear Station. Population total is 18,304 of which 1895 are peak attendance at recreational areas on Lake Keowee. This area includes the towns of Seneca, West Union and Walhalla, S. C. There is one hospital and one nursing home adjacent.

The hospital has a total of 125 patients of which 60 would require ambulances for transportation. There is a staff of 250 during the day and 150 on shift and weekends.

The nursing home has a total of 79 beds of which 50 would require ambulance for transportation when occupied. There is a staff of 98 full time employees.

Notification Time:	75 minutes
Best Evacuation Time:	210 minutes
Adverse Weather Evacuation Time:	270 minutes
Best Evacuation Time, Special Facilities	500 minutes
Best Evacuation Time: Adverse Weather for Special Facilities:	590 minutes
Evacuation Confirmation Time:	50 minutes

10. Area 10 includes the WSW, NW, NNW, and North sectors in 5-10 miles of Oconee Nuclear Station. Population total is 4839 of which 1560 are peak attendance at recreational areas. The only population concentrations are the small towns of Salem and Tamassee, S.C. There are no special facilities within the area.

Notification Time:	75 minutes
Best Evacuation Time:	210 minutes
Adverse Weather Evacuation Time:	270 minutes
Evacuation Confirmation Time:	50 minutes

NOTES

1. The 0-2 mile population is based on an actual house count conducted on January 17 and 18, 1980. Pickens and Oconee County populations within 5 miles are based on 3.14 and 3.16 persons/household, respectively (1970 Census).

Population within the 5 to 10 mile radius of Oconee is based on the 1970 Census, adjusted by Projections Economics Activity in South Carolina Series E Population December 1975 by U. S. Army Corps of Engineers, South Carolina Division. The disaggregation of the county subdivisions into each radial sector is based on road densities, population accumulations, land usage and general area information.

Recreation figures based on information supplied by Duke Power Company Recreation Section for Lake Keowee and the U. S. Army Corps of Engineers for Lake Hartwell. (Figures for Lake Keowee include visits to access areas, visits to seasonal shoreline dwellings and public recreation facilities around the Lake. Figures for Lake Hartwell are for individual public facilities on and around the Lake.)

The following roads in the Oconee Nuclear Station area are capable of handling 55 mph speeds:

SC 183

SC 130 (except in the Northwest at the intersection of County Road 128).

SC 188 south of Crooked Creek. SC 188 north from Crooked Creek to the intersection with SC 183 is capable of 35 to 45 mph speeds.

SC 133 (except within Six Mile town limits and in Clemson near its intersection with US 76-123. Posted 133 speed limits are 35 and 45 mph).

SC 28 between Seneca and Walhalla.

US 76-123 (Posted speed limits range from 35 to 45 mph in the commercialized areas along this route in Clemson and in the Seneca area).

Speeds for county roads within the 5-mile radius range from 35 to 45 mph.

2. Evacuation times are based on studies of population density, road capacity to evacuation shelter sites outside the 10 mile zone, and the topography around Oconee Nuclear Station. Primary evacuation method is via private automobile since the area within Oconee's 10 mile Emergency Planning Zone is primarily a rural area not dependent on mass transportation facilities.
3. Notification times are included for each area. Present means of notification is via local radio and TV facilities, and outside emergency services. The outside emergency services include the S. C. Highway Patrol, County Sherriff's Department, County Civil Defense Agencies, and Local Police and Fire Departments. Notification by outside services will be performed by utilizing vehicle sirens, bullhorns, and house-to-house warning. These times are calculated based on County & State personnel being on ready standby to perform required notification.

NOTES (cont.)

4. Evacuation of schools is not included since bus and private auto transportation is provided or close at hand for schools in session or during special activities.
5. In reference to Areas 3 & 9, data shown concerning hospitals and nursing homes is current as of January 1980.
6. Local civil defense agencies were consulted in preparing the above evacuation time estimates with the exception of the estimates for special facilities located in Areas 3 and 9. There were no areas of disagreement.

DUKE POWER COMPANY

Oconee Nuclear Station

Attachment 2

Site Map