

DOCKETED
USNRC
DUKE POWER COMPANY

POWER BUILDING
122 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

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VICE PRESIDENT
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July 16, 1980

Intervenor
EP-16
I-EP-16 5/7/84

DOCKET NUMBER **50-413/414 02**

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

Attention: Mr. A. Schwencer, Acting Chief
Licensing Branch No. 3

Re: Catawba Nuclear Station
Docket Nos.: 50-413 and -414

Dear Mr. Denton:

As requested by Mr. Darrell G. Eisenhut's letter of July 2, 1980,
evacuation time estimates for evacuation of various areas around
the Catawba 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.
William O. Parker, Jr.

ROS:vr
Attachments

cc: County Civil Preparedness Agency (Mecklenburg, Gaston, Lancaster,
York)
G. F. Maxwell, NRC/Catawba Construction

bcc: K. S. Canady
N. A. Rutherford
R. M. Koehler
L. Lewis
J. W. Hampton
Master File CN 801.01
Section File CN 801.01

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PDR ADOCK 05000413
G PDR

NUCLEAR REGULATORY COMMISSION
Docket No. **50-413/414** Official Ex. No. **EP-16**
In the matter of **Duke, Catawba 1.4.2**
Staff _____ IDENTIFIED ☒
Applicant _____ RECEIVED ☒
Intervenor ☒ REJECTED _____
Cont'g Off'r _____
Contractor _____ DATE **5/7/84**
Other _____ Witness _____
Reporter *M. Metzger*

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION

Attachment 1

EVACUATION TIME ESTIMATES

EVACUATION TIME ESTIMATES

(Including Notification) For Areas Near Catawba Nuclear Station
Clover, South Carolina

1. Area 1 consists of the NW, NNW, N, NNE, NE, ENE, E and ESE sectors at 0 to 2 miles from the Station. Population total is 785 of which 301 are average daily attendance at recreational areas on Lake Wylie.

Schools: None
Special Facilities: None
Population Concentrations: None

Notification Time:	70 minutes
Best Estimate Evaluation Time:	90 minutes
Adverse Weather Evacuation Time:	105 minutes
Evacuation Confirmation Time:	55 minutes

2. Area 2 consists of the SE, SSE, S, SSW, SW, WSW, W and WNW sectors at 0 to 2 miles from the Station. Population total is 911 of which 591 are average daily attendance at recreational areas on Lake Wylie.

Schools: None
Special Facilities: None
Population Concentrations: None

Notification Time:	60 minutes
Best Estimate Evacuation Time	90 minutes
Adverse Weather Evacuation Time:	105 minutes
Evacuation Confirmation Time:	45 minutes

3. Area 3 consists of the NW, NNW, N and NNE sectors at 2 to 5 miles from the Station. Population is 5,616 of which 2,940 are average daily attendance at recreational areas on Lake Wylie.

Schools: 1
Special Facilities: None
Population Concentrations: None

Notification Time:	75 minutes
Best Estimate Evacuation Time	110 minutes
Adverse Weather Evacuation Time	125 minutes
Evacuation Confirmation Time:	70 minutes

4. Area 4 consists of the NE, ENE, E and ESE sectors at 2 to 5 miles from the Station. Population total is 3,479 of which 727 are average daily attendance at recreational areas on Lake Wylie.

Schools: None
Special Facilities: None
Population Concentrations: None

Notification Time:	75 minutes
Best Estimate Evaluation Time	100 minutes
Adverse Weather Evacuation Time:	115 minutes
Evacuation Confirmation Time:	75 minutes

5. Area 5 consists of the SW, WSW, W and WNW sectors at 2 to 5 miles from the Station. Population total is 726 of which 3 are average daily attendance at recreational areas on Lake Wylie and 43 are industrial transients.

Schools: None
Special Facilities: None
Population Concentrations: None

Notification Time:	70 minutes
Best Estimate Evacuation Time:	95 minutes
Adverse Weather Evacuation Time:	110 minutes
Evacuation Confirmation Time	70 minutes

6. Area 6 consists of the SE, SSE, S and SSW sectors at 2 to 5 miles from the Station. Population total is 6,028 of which 1,658 are average daily attendance at recreational areas on Lake Wylie.

Schools: 1
Special Facilities: None
Population Concentrations: None

Notification Time:	65 minutes
Best Estimate Evacuation Time:	110 minutes
Adverse Weather Evacuation Time:	125 minutes
Evacuation Confirmation Time:	60 minutes

7. Area 7 consists of the NW, NNW, N and NNE sectors at 5 to 10 miles from the Station. Population total 3,141 of which 939 are average daily attendance at recreational areas on Lake Wylie and 560 are industrial transients.

Schools: None
Special Facilities: None
Population Concentrations: None

Notification Time:	115 minutes
Best Estimate Evacuation Time:	185 minutes
Adverse Weather Evacuation Time:	200 minutes
Evacuation Confirmation Time:	160 minutes

8. Area 8 consists of the NE, ENE, E and ESE sectors at 5 to 10 miles from the Station. Population is 22,842 of which 11,148 are average daily attendance at recreational areas on Lake Wylie and 8,434 are industrial transients.

Schools: 7

Special Facilities: None

Population Concentrations: 2

Notification Time: 150 minutes

Best Estimate Evacuation Time: 205 minutes

Adverse Weather Evacuation Time: 220 minutes

Evacuation Confirmation Time: 165 minutes

9. Area 9 consists of the SW, WSW, W and WNW sectors at 5 to 10 miles from the Station. Population total is 5,931 with no average daily attendance at recreational areas and 1,345 industrial transients.

Schools: 2

Special Facilities: (Combined peak patient load is 99 with 34 requiring ambulance service)

Population Concentrations: 2

Notification Time: 150 minutes

Best Estimate Evacuation Time: 180 minutes

Adverse Weather Evacuation Time: 195 minutes

Evacuation Confirmation Time: 165 minutes

Special Facilities, Best Estimate

Evacuation Time: 390 minutes

Special Facilities, Adverse Weather

Evacuation Time: 450 minutes

10. Area 10 consists of the SE, SSE, S and SSW sectors at 5 to 10 miles from the Station. Population is 41,576 with no average daily attendance at recreational areas and 8,632 industrial transients.

Schools: 18 Technical Institutes: 1 Colleges: 3

Special Facilities: 5 (Combined peak patient load is 554 with 138 requiring ambulance service)

Population Concentrations: 1

Notification Time: 150 minutes

Best Estimate Evacuation Time: 180 minutes

Adverse Weather Evacuation Time: 195 minutes

Evacuation Confirmation Time: 165 minutes

Special Facilities, Best Estimate

Evacuation Time: 1935 minutes 32.25 HR

Special Facilities, Adverse Weather

Evacuation Time: 2445 minutes 40.75 HR

NOTES

1. Population and population distribution are based on the 1970 census. Population distributions for the year 1980 are based on projections made by the United States Department of Commerce, Bureau of Economic Analysis (Series E Projections).
2. Average daily attendance at recreational areas and daily industrial transient population is 1977 actual information obtained by contact with individual facilities.
3. Special facility patient load estimates represent current date (March, 1980).
4. Special facility evacuation times are reported for the combined patient load of all special facilities in an area rather than for each separate special facility. Patient loads were combined because of the transportation restrictions encountered when dealing with that percentage of patients which could not be evacuated by any means other than an ambulance. By evacuating that percentage of patients requiring ambulance service to shelters within the vicinity of Catawba Nuclear Station, rather than evacuating them to other hospitals or nursing homes, special facility evacuation times could be considered reduced, and in addition, special facility evacuation times greater than 240 minutes may be reduced by the utilization of ambulance service capability outside the counties included in the plume exposure pathway emergency planning zone. At this time specific agreements for this additional service have not been made.
5. Evacuation of any area would proceed to predesignated evacuation centers located outside the 10 mile Emergency Planning Zone. Evacuation times are calculated to evacuate only the required area (0-2 miles, 2-5 miles, or 5-10 miles for the respective 180 or 90 degree sector) and not for evacuees to physically reach a predesignated evacuation site.
6. Evacuation times are based on studies of population density, road capacity for evacuation of the designated area (i.e., 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10), nearness of volunteer and municipal agencies responsible for the actual evacuation planning plus experience and comments of the Area E, Emergency Management Coordinator, N. C. Department of Crime Control and Public Safety, and the County Manager of York County, S. C. Evacuation times for areas outside the 2 mile zone incorporate transit time for personnel passing through to reach their predesignated evacuation site, thereby increasing traffic on evacuation routes. The primary mode of transportation within Catawba's 10 mile radius is via private automobile.
7. Evacuation of educational facilities is not included in Special Facility times. Bus and private auto transportation out of an evacuation zone from the facility in session or during special activities are provided and are close at hand.

8. Notification times are included for each designated area. Present means of notification is via sirens, bullhorns and house-to-house warnings. Notification times for fishing and recreational boating on Lake Wylie and Catawba River assume that a direct contact search will be made utilizing police and coast guard auxiliary capabilities.
9. Local civil defense agencies were consulted in preparing the above evacuation time estimates. There were no areas of disagreement.

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION

Attachment 2

SITE MAP