

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

84 SEP 19 11:46

SECRET

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Glenn O. Bright  
Dr. James H. Carpenter  
James L. Kelley, Chairman

In the Matter of

CAROLINA POWER AND LIGHT CO. et al.  
(Shearon Harris Nuclear Power Plant,  
Units 1 and 2)

Dockets 50-400 OL  
50-401 OL

RESPONSE TO "APPLICANTS' EMERGENCY PLANNING INTER-  
ROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS  
TO SPONSORS OF EPJ-1 AND EPJ-2 (FIRST SET)"

On 9 August 1984 Applicants served the above-titled interrogatories on sponsors of contentions EPJ-1 and EPJ-2. (snow and ice, and transportation of people without cars). Intervenors have obtained by telephone extensions of time to respond, with final due date of 17 September 1984.

General Interrogatories

- 1(a). Daniel F. Read, P.O. Box 2151, Raleigh, NC 27602  
Employer: North Carolina Court of Appeals, Raleigh, NC  
John D. Runkle, P.O. Box 4135, Chapel Hill, NC 27515-4135  
Employer: Conservation Council of North Carolina, Chapel Hill, NC, and self  
Richard Wilson, 729 Hunter Street, Apex, NC 27502  
Employer: Wake Health Services, Apex, NC

1(b). All three listed above have personal knowledge of general population response and traffic conditions during annual snowfalls in central North Carolina. All three have personal knowledge of same under ice conditions. All three have lived in this area for five years or more.

Wilson and Read have personal knowledge of the working habits of their neighbors and similarly economically situated

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perons in the area around the plant. Both have travelled through, and are familiar with, the area around the plant.

1(c). Such personal knowledge supports all allegations in both contentions.

2(a). None

2(b). See response to 2(a).

3(a). Unknown at this time.

3(b). See Response to 3(a).

3(c). See Response to 3(b).

4(a). North Carolina Emergency Response Plan in Support of the Shearon Harris Nuclear Power Plant (hereinafter "ERP"), 1984.

4(b). EPJ-1 and EPJ-2.

4(c). All allegations in each contnetion.

5(a). See responses to specific interrogatories, documents will be identified as appropriate.

5(b). See Response to 5(a).

6(a). See response to specific interrogatories, information will be identified as appropriate.

6(b). See Response to 6(a).

7(a). Unknown at this time.

7(b). See Response to 7(a).

Specific Interrogatories

EPJ-1-1(a). In central North Carolina, "severe snow and ice conditions" may be anything more than  $\frac{1}{2}$ " of snow in a 24-hour period.

EPJ-1-1(b). Approximately, on the average, two to five times per year.

EPJ-1-2(a). The principal effect which the ERP has failed to consider is the effect of snow and ice on evacuation time.

EPJ-1-2(b). The "Evacuation Time Estimates for the Plume Exposure Pathway," (hereinafter "ETE"), served by Applicants on or about 29 December 1983, upon which the evacuation time estimates (ERP, p. 51) are based, designates "adverse weather" as rainy day in the fall. None of the other emergency response activities/<sup>in the ERP</sup>which require road transportation, too numerous to list here without undue burden, take into account possible problems arising from snow or ice conditions.

EPJ-1-3(a). The adverse weather assumption (ETE pp. 1-3) fails to include snow or ice conditions. These conditions occur frequently enough during the winter in central North Carolina that they should be considered a normal event. The ERP simply identifies a range of response options (ERP, p. 46); to the extent that the evacuation option may be unrealistic under snow and ice conditions, the plan should clearly so state.

EPJ-1-3(b). See Response EPJ-1-3(a).

EPJ-1-4(a). Intervenors have not done sufficient analysis to identify in "detail and quantity" the effect on evacuation times of the alleged failure. As a general matter, intervenors are aware that road transportation may be difficult if not impossible under snow and ice conditions, for a substantial portion of the population. Intervenors' position is that it is initially Applicant's responsibility to do the kind of detailed analysis of normal weather conditions that this

question appears to demand.

EPJ-1-4(b). See Responses 1(b) and EPJ-1-4(a).

EPJ-1-5(a). The ERP (p. 50) simply states that evacuation routes will be cleared as "under normal conditions." An emergency is not a "normal condition." See e.g., 1 Shorter Oxford English Dictionary 606 (1933). ("sudden or unexpected occurrence"). Particularly, crews will be working in areas subject to radioactive contamination and may not work effectively or at all, and may be hindered more than usual by persons attempting to evacuate before the roads are clear. Road clearing crews may choose not to enter areas near the plant or to approach the plant. They may not choose to clear all roads where evacuees may live under the pressure of time and circumstances likely to prevail in an accident situation.

EPJ-1-5(b). See Responses 1(b) and EPJ-1-5(a), and intervenors' general knowledge of human behavior.

EPJ-1-6(a). Intervenors have not conducted the type of detailed analysis this question requires.

EPJ-1-6(b). See Response EPJ-1-6(a).

EPJ-1-7(a). Personal knowledge of the typical times to clear roads in the general area of the plant with the existing snow removal equipment, and reading the ERP and ETE.

EPJ-1-7(b). As drafted, the general area around the plant. Intervenors have not yet done the type of detailed analysis of expected travel times in order to answer this question precisely.

EPJ-1-7(c). Unknown.

EPJ-1-7(d). Not applicable.

EPJ-1-8(a). Unknown.

EPJ-1-8(b). Not applicable.

EPJ-1-9. The times identified in the ERP for/adverse weather evacuation in (p. 51), if achieved, appear reasonable. Refer to them for hour and minute readings. If roads can be cleared so that those times are achieved, the roads will have been cleared within a reasonable time.

EPJ-1-10. In Intervenor's opinion, at the present time, this must be accomplished if the integrity of the plan options in adverse weather conditions is to be maintained. Otherwise, the plan is based on incorrect assumptions, and may be unworkable under normal snow and ice conditions.

EPJ-1-11. As indicated in the above responses, Intervenor's have not yet done much of the analysis needed to answer this question fully.

EPJ-1-12. See Response EPJ-1-11.

EPJ-2-1(a). No.

EPJ-2-1(b). Not applicable.

EPJ-2-2. Yes.

EPJ-2-3. The estimates contained in the ETE simply relate general population to automobile ownership without any attempt to estimate (1) household where the principal or only automobile is away from the home for substantial periods (e.g. principal wage earner at work), (2) percentage of automobiles not in service at any particular time, or (3) percentage of automobiles likely immobilized by adverse weather (long, unplowed driveway in snowstorm, slick tires, mud, etc.). Further investigation may yield other basis.

EPJ-2-4(a). It is subject to the same defects in methodology identified in Response EPJ-2-3.

EPJ-2-4(b). Not quantified at the present time.

EPJ-2-5(a). Same response as Response EPJ-2-4(a).

EPJ-2-5-(b). Same response as Response EPJ-2-4(b).

EPJ-2-6(a). Same response as Response EPJ-2-4(a).

EPJ-2-6(b). Same response as Response EPJ-2-4(b).

EPJ-2-7(a). No such estimate appears at the cited page.

EPJ-2-7(b). See Response EPJ-2-7(a).

EPJ-2-8. The ERP presently requires that they walk (no other means being available) to undesignated pick-up points. One solution would be to arrange to have the persons picked up at their homes, thus avoiding lengthy walks under emergency conditions. In terms of getting to pick-up points, the contention does not seek to litigate how, other than walking, persons should get to pick-up points, but rather the likely time such walking might involve, especially in the context of the lack of specificity for the locations of such points.

EPJ-2-9(a). Location of persons without transportation, access to evacuation routes, time to walk to pick-up point, after notification, availability of transportation, distance from plant.

EPJ-2-9(b). Common sense. The factors listed are not essential: e.g., it may not be necessary to identify all persons without transportation if sufficient numbers of pick-up points are designated. Intervenors have not yet attempted to develop a quantifiable basis for these criteria.

EPJ-2-10(a). Pick-up points should be established before an accident requiring evacuation occurs, and updated as necessary as part of an ongoing emergency preparedness plan.

EPJ-2-10(b). Common sense. In addition, Intervenor believe that it will be impossible to establish pick-up points and notify the population under emergency conditions within a reasonable and orderly evacuation.

EPJ-2-11(a). See Response EPJ-2-10(a) and Response EPJ-2-10(b).

EPJ-2-11(b). See Response EPJ-2-11(a).

and EPJ-2-13

EPJ-2-12/ Based on consideration to date, the ERP should provide that pick-up points be designated before operation of the plant. Pick-up points should be located close enough to the locations of those that need them so that they may be evacuated in times compatible with those estimated in the ETE. This may require an inventory of such persons, or it may require provision of sufficient transportation to ensure that even substantial errors in estimation will not result in failure to evacuate such persons promptly. Basis as described in the foregoing responses. Intervenor have not undertaken extensive research on this issue and further suggestions may be forthcoming.

I hereby affirm that I have prepared the responses, above, totalling seven (7) pages. The answers contained herein are true and correct to the best of my knowledge.



Daniel F. Read  
PO Box 2151  
Raleigh, NC 27602

STATE OF NORTH CAROLINA, COUNTY OF WAKE  
I, Debbie T. Barnes (Truelove), notary public of the state and county aforesaid, do hereby certify that Daniel F. Read appeared before me and executed the foregoing this 17 day of September, 1984.

Commission expires:

2-3-86  
Debbie T. Barnes

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of CAROLINA POWER & LIGHT CO.  
et al., Shearon Harris Nuclear Plant, Units 1 & 2

Dockets  
50-400,  
50-401

CERTIFICATE OF SERVICE

I hereby certify that copies of Response to Applicants EP Interrogatories  
to Sponsors of EPJ-1 & EPJ-2 were served this 17 day  
of September, 1984, by deposit in the U.S. Mail, first-  
class postage prepaid, upon all parties whose names appear  
below, except those whose names are marked with an asterisk,  
for whom service was accomplished by hand delivery.

~~James L. Kelley, Esq./Mr. Glenn O. Fright/Dr. James Carpenter~~  
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U.S. Nuclear Regulatory Commission  
Washington, DC 20555  
(one each)

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U.S. Nuclear Regulatory Commission  
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Docketing and Service Section  
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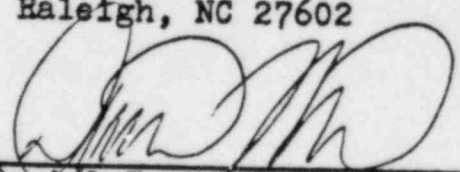
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