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RELATED CORRESPONDENCE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

9/5/84

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

DOCKETED
USNRC

'84 SEP -7 11:07

In the Matter of

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

OFFICE OF SECRETARY
DOCKETING & SERVICE

Docket 50-400 OL

ASLBP No. 82-468-01
OL

Wells Eddleman's Second Round Interrogatories
& Request for Production of Documents to NRC Staff
on Contentions 215 and 224

On 6/29/84 Wells Eddleman filed a first round of discovery to NRC Staff on Contentions 215 and 224. Since Staff's reviewer was unavailable to respond on time, Staff counsel and Eddleman agreed to a second round of discovery on Contentions 215 and 224 after Staff's response was filed. (Staff has not filed any interrogatories to Eddleman on these contentions.) On 8/29/84 NRC Staff filed responses to the first round interrogatories. The questions below are the second round of interrogatories on these contentions. The Board approved this procedure on July 31, 1984.

General Interrogatories

28. Is the single page consisting of a checklist "Evaluation of Evacuation Time Estimate" (Shearon Harris) all the documentation (including handwritten notes, calculations, etc) that exists from Dr. Urbanik's review of the Harris Evacuation Time Estimates (ETEs)? If not, please identify all such documents related to this review.

29. Please identify authors and ^{their} addresses for all documents identified in response to first or second round interrogatories on 215 and 224.

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30. Where do the criteria for the evaluation of ETEs used

in Dr. Urbanik's review of the Harris ETEs come from? Please identify all documents containing such criteria.

Specific Ints. 224-3. Are there any criteria for the kinds of severe

weather conditions that should be applied to evacuation time estimates?

If so, please identify all such criteria applicable to the Harris ETEs

and all documents containing such criteria.

224-4. Have you made any determination of the effect of weather conditions (a) analyzed in the ETEs (b) stated in contention 224

on the Harris ETEs, on any basis other than what the ETEs say?

If so, what is your basis and what is your determination? Please

identify all documents related to such determination.

224-5. Are there any data sources describing how various kinds of adverse weather, including (a) rain (b) heavy rain (c) fog

(d) freezing rain (e) snow (f) ice, affects (i) highway capacity

(ii) highway capacity for curving two-lane roads such as exist

in the Harris EPZ (iii) traffic speeds (iv) safe traffic speeds

on curving two-lane roads such as are found in the Harris EPZ

(v) traffic accident rates? Please identify all such data sources

fully. If any were not used in your evaluation of the Harris ETEs

then please state, for each such data source, all reasons why you did

not use it in evaluating the Harris ETEs.

215-10. Please explain all reasons for each check (X) mark

made on the "Evaluation of Evacuation Time Estimate" for Shearon Harris.

Please explain the criteria for "adequate" on each item ~~xxx~~ in the Evaluation.

215-11. Do the evaluation criteria for the ETEs ensure

that an ETE evaluated as "adequate" is not inaccurate due to

conservatism in the assumptions used in the ETE? If so, how (explain

in as much detail as you know, please)? If not, why not?

215-12. Which assumptions, if any, in the Harris ETEs, do

you consider "conservative"? For each, please explain why you consider

it "conservative" and how each such assumption affects the ETEs.

Please identify all documents which contain information which in your opinion tends to show, or shows, that any assumption in the Harris ETEs is conservative. Please state which assumptions relate to which documents, and for each assumption, state the qualitative (or quantitative, if known) effect on evacuation time for the Harris EPZ that results from that assumption.

215-13. Do you believe that every assumption made in the Harris ETEs is accurate? If not, which are inaccurate (please list)? Please identify all documents and information which supports your belief regarding the accuracy (or inaccuracy) of each assumption in the Harris ETEs.

215-14. Which assumptions in the Harris ETEs have you evaluated (please list)? Of these, which did you evaluate for accuracy (please check off on list, or list separately)? Of what, other than evaluating accuracy, did your evaluation of assumptions in the Harris ETEs consist? What did you specifically do in evaluating the assumptions in the Harris ETEs?

215-15. How much variability can there be, in your opinion, between each estimate of evacuation time in the Harris ETEs, and the actual time evacuation could take if it were ordered (a) under the same conditions the ETEs estimated the time for? (b) under other conditions not included in ETE assumptions?

Please give all reasons for your answers and identify all documents of analysis supporting each part of each answer.

(c) Could evacuation take (i) less (ii) more time than the Harris ETEs say, depending on the accuracy of assumptions in the ETEs?

Please identify all documents which you believe support your answers.

215-16. Has there ever been any test of fullscale evacuation of a nuclear power plant EPZ of about 10 miles radius? If so, how long did it take? Please identify all documents concerning it, and

how the evacuation time (actual) compared with any estimates of the evacuation time made before evacuation.

215-17. Have models of ~~ETM~~ evacuation such as NETVAC been applied to non-nuclear evacuation time estimates? If so, have any actual evacuations occurred for which NETVAC-based estimates exist? Please identify all documents concerning application of NETVAC or other similar evacuation time estimating models, and all documents concerning actual evacuations (and the times they took and/or the estimated evacuation times for them), for such non-nuclear evacuations.

215-18. Have there been any other tests of any kind of the accuracy of the NETVAC model or estimates based on it, for (i) nuclear plant-related evacuations from EPZs (ii) other evacuations? Please identify all documents concerning such evacuations and/or tests or the results of such tests, particularly results concerning the accuracy of the NETVAC model. If there were any assumptions introduced into the NETVAC model that adversely affected its accuracy for any such evacuation(s) or test(s), please identify each such assumption.

215-19. Do you know anything about the accuracy of assumptions in the Harris ETEs which you have not stated in response to above interrogatories? If so, what do you know and what assumptions or assumption does (do) it relate to? Please identify all documents supporting, related to, or forming the basis or part of the basis, for your answer for each assumption.

PRODUCTION OF DOCUMENTS

Wells Eddleman hereby requests NRC Staff to make available for inspection and copying all documents identified in response to the above interrogatories, at a mutually agreeable time and place.

Wells Eddleman
Wells Eddleman
9-5-81

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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Docket 50-400
O.L.

CERTIFICATE OF SERVICE

I hereby certify that copies of WE 2d round ^{DOCKETED} ~~interrogatories~~
and request for production of documents to NRC Staff on contentions
215 and 224

HAVE been served this 5 day of September ^{'84 SEP -7 AM 10:07} 1984, by deposit in
the US Mail, first-class postage prepaid, upon all parties whose
names are listed below, except those whose names are marked with
an asterisk, for whom service was accomplished by hand

* Judges James Kelley, Glenn Bright and James Carpenter (1 copy each)
Atomic Safety and Licensing Board
US Nuclear Regulatory Commission
Washington DC 20555

* George F. Trowbridge (attorney for Applicants)
Shaw, Pittman, Potts & Trowbridge
1800 M St. NW
Washington, DC 20036

Ruthanne G. Miller
ASLB Panel
USNRC Washington DC 20555

* Office of the Executive Legal Director
Attn Dockets 50-400/401 O.L.
USNRC
Washington DC 20555

E
Pigan
Crumly
Spence W. Perry
FEMA Room 840
500 C St. SW
Washington DC 20740

Docketing and Service Section (3x)
Attn Dockets 50-400/401 O.L.
Office of the Secretary
USNRC
Washington DC 20555

* Dan Read
CHANGE/FLP
5707 Wavcross
Raleigh, NC 27606

* John Runkle
CCNC
307 Granville Rd
Chapel Hill Nc 27514

Dr. Linda W. Little
Governor's Waste Mgt. Bd.
513 Albemarle Bldg.
325 N. Salisbury St.
Raleigh, NC 27611

* Travis Payne
Edelstein & Payne
Box 12607
Raleigh NC 27605

Robert Gruber
Exec. Director
Public Staff
Box 991
Raleigh NC 27602

Bradley W. Jones
USNRC Region II
101 Marietta St.
Atlanta GA 30303

Richard Wilson, M.D.
729 Hunter St.
Apex NC 27502

Certified by

W. W. Edleman