

January 14, 1985

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USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
CAROLINA POWER & LIGHT COMPANY)	
and NORTH CAROLINA EASTERN)	Docket No. 50-400 OL
MUNICIPAL POWER AGENCY)	
)	
(Shearon Harris Nuclear Power)	
Plant))	

APPLICANTS' MOTION FOR SUMMARY
DISPOSITION OF EDDLEMAN 215(3)

Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency ("Applicants") hereby move the Atomic Safety and Licensing Board ("Board"), pursuant to 10 C.F.R. § 2.749, for summary disposition in Applicants' favor of Eddleman Contention 215(3). As discussed herein, there is no genuine issue as to any fact material to Eddleman Contention 215(3), and Applicants are entitled to a decision in their favor on Eddleman Contention 215(3) as a matter of law.

This motion is supported by:

1. "Applicants' Statement of Material Facts As To Which There Is No Genuine Issue To Be Heard on Eddleman 215(3)";
2. "Affidavit of Robert Klimm on Eddleman 215(3)" ("Klimm Affidavit");
3. "Affidavit of Dennis S. Miletic on Eddleman 215(3)" ("Miletic Affidavit"); and

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4. "Applicants' Memorandum of Law In Support of Motions For Summary Disposition of Emergency Planning Contentions," (filed October 8, 1984).

I. PROCEDURAL BACKGROUND

Eddleman Contention 215 was initially advanced in "Wells Eddleman's Contentions On the Emergency Plan (2d Set)" (April 12, 1984), and admitted as a contention in this proceeding in the Board's "Memorandum and Order (Further Rulings on Admissibility of Offsite Emergency Planning Contentions Submitted By Intervenor Eddleman)" (June 14, 1984), at 24, where the Board directed Mr. Eddleman to further specify Eddleman 215. Eddleman 215(3) was submitted in "Wells Eddleman's Response to Board Order Requiring Additional Specification of Contention #215" (June 19, 1984). The Board ruled on Mr. Eddleman's further specification of Eddleman 215 in its "Memorandum and Order (Rulings on Specification of Eddleman Offsite Emergency Planning Contention 215 and on the Admissibility of Eddleman Contentions On the Public Information Brochure)" (October 4, 1984), at 2-4. Eddleman 215(3) thus contends:

In violation of 10 C.F.R. 50.47(b)(10) CP&L's evacuation time study does not conform to NUREG-0654 Appendix 4 and will not provide accurate and useful guidelines for the choice of protective actions during an emergency because the study contains numerous so-called "conservatisms" including those referring to recreational populations and vehicle capacity factors (see e.g. sections 3-3 and 3-6) which may force evacuation time estimates upwards and provide

inaccurate estimates for decisionmakers during an emergency, in the opinion of expert Paul Holmbeck. Potential hazards of such "conservatisms" are discussed in the 1984 Byron partial initial decision under emergency planning. [These conservatisms include:]

The apparent assumption that those households without vehicles will automatically evacuate with neighbors (or can) at the rate of one vehicle per household.

Applicants have served one set of interrogatories and request for production of documents on Mr. Eddleman on the subject of Eddleman 215(3). See "Applicants' Emergency Planning Interrogatories and Request For Production of Documents To Intervenor Wells Eddleman (First Set)" (August 9, 1984), at 21-22. "Wells Eddleman's Response to Applicants' 8-09-84 Emergency Planning Interrogatories" was filed September 7, 1984. Mr. Eddleman has served two sets of interrogatories on Applicants on the subject of Eddleman 215(3). See "Wells Eddleman's General Interrogatories to Applicants Carolina Power & Light, et al. (9th Set)" (June 29, 1984) at 14-16 and "Wells Eddleman's General Interrogatories to Applicants Carolina Power & Light, et al. (10th Set)" (August 9, 1984) at 19-20. "Applicants' Response to Wells Eddleman's General Interrogatories to Applicants (Ninth Set)" was filed on July 25, 1984 and "Applicants' Response to Wells Eddleman's General Interrogatories (Tenth Set)" was filed on September 7, 1984.

Mr. Eddleman served two sets of interrogatories on the NRC Staff and one set on FEMA on the subject of Eddleman 215(3).

See "Wells Eddleman's Interrogatories to NRC Staff and FEMA (4th Set)" (June 29, 1984) at 9-11; and "Wells Eddleman's Second Round Interrogatories and Request for Production of Documents to NRC Staff on Contentions 215 and 224" (September 5, 1984). "Fema Staff Response to Interrogatories Propounded By Intervenor Wells Eddleman" was filed on August 14, 1984; "NRC Staff Response to Interrogatories Propounded By Wells Eddleman on June 29, 1984 on Contentions 215 and 224" was filed on August 29, 1984; and "NRC Staff Response to Second Round Interrogatories Dated September 5, 1984 Propounded by Wells Eddleman on Contentions 215 and 224" was filed on September 26, 1984. The NRC Staff/FEMA did not file any discovery requests on Eddleman 215(3). The last date for filing discovery on the contention was August 9, 1984.^{1/} Discovery on this contention

^{1/} In its "Memorandum and Order (Rulings on Specification of Eddleman Offsite Emergency Planning Contention 215 and on the Admissibility of Eddleman Contentions on the Public Information Brochure)" (October 4, 1984), the Board directed that discovery on Eddleman 215 "will close on January 4, 1985." Applicants believe that the Board may have been unaware that the parties have heretofore treated Eddleman 215 -- including all four alleged conservatisms -- as a part of the first group of emergency planning contentions admitted in this proceeding (i.e., all emergency planning contentions admitted prior to the August 3, 1984 Board order). As such, the parties have already conducted discovery on Eddleman 215, including all four of the alleged conservatisms. Indeed, Mr. Eddleman propounded two rounds of discovery to Applicants, in addition to his discovery of the NRC Staff/FEMA. And Applicants filed a set of discovery requests on the subject of Mr. Eddleman. This discovery was completed on the schedule for discovery on the first group of admitted emergency planning conten-

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is, therefore, complete.

Eddleman Contention 215(3) is classified as an emergency planning contention to be addressed in the hearing scheduled to commence June 18, 1985. Written direct testimony on the contention is scheduled to be filed June 3, 1985. Further, the Board and the parties have established January 14, 1985 as the last day for filing summary disposition motions on this contention. Thus, the instant motion is timely, and Eddleman Contention 215(3) is ripe for summary disposition.

II. GOVERNING LEGAL STANDARDS

A. Summary Disposition

"Applicants' Memorandum of Law In Support of Motions For Summary Disposition of Emergency Planning Contentions," filed October 8, 1984, is fully applicable to this Motion and is incorporated by reference herein.

B. Substantive Law

The Commission's emergency planning regulations require the preparation of "an analysis of the time required to evacuate * * *." 10 C.F.R. Part 50, App. E, § IV. As noted in

(Continued)

tions. No party objected to any discovery request as premature on the ground that the specific conservatisms had not yet been ruled upon. Accordingly, discovery on Eddleman 215(3) was completed even before the Board ruled on the admissibility of the four alleged conservatisms.

footnote 1 to 10 C.F.R. § 50.47, the standards embodied in the emergency planning regulations are further addressed by NUREG-0654/FEMA-REP-1, "Criteria For Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness In Support of Nuclear Power Plants" (Rev. 1, November 1980).

NUREG-0654 Criterion J.10.1 provides that plans shall include:

1. Time estimates for evacuation * * * based on a dynamic analysis * * * for the plume exposure pathway emergency planning zone (See Appendix 4).

Appendix 4 to NUREG-0654 sets forth the regulatory acceptance criteria for evacuation time estimate studies ("ETES").

Appendix 4 specifies that, in estimating demand:

The number of permanent residents shall be estimated using the U.S. Census data or other reliable data, adjusted as necessary, for growth. * * * This population shall then be translated into two subgroups: 1) those using autos and [2] those without autos. The number of vehicles used by permanent residents is estimated using an appropriate auto occupancy factor. A range of two to three persons per vehicle would probably be reasonable in most cases.

NUREG-0654, at 4-2 to 4-3. Appendix 4 emphasizes that:

* * * special attention must be given to those households not having automobiles. The

public transport-dependent population must, therefore, be considered as a special case.

NUREG-0654, at 4-3.

Finally, NUREG-0654, Appendix 4 directs:

An estimate of the time required to evacuate that segment of the non-car-owning population dependent upon public transport shall be made, in a similar manner to that used for the auto-owning population. This estimate shall include consideration of any special services which might be initiated to serve this population subgroup. Such services might include fixed-route departures from designated assembly points.

NUREG-0654, at 4-9.

III. ARGUMENT

Applying the Commission's summary disposition standards to the facts of this case, it is clear that the instant motion for summary disposition should be granted. Applicants do not differ with Mr. Eddleman as to the need for realistic evacuation time estimates. To the contrary, as described below, the very assumption challenged in Eddleman 215(3) was included in the ETE methodology to ensure that the ETE realistically reflected the traffic which would be associated with evacuation of the non-auto-owning population.

The Harris ETE was prepared utilizing a state-of-the-art computer simulation designed to project evacuation times as accurately as possible. However, even state-of-the-art methodology requires the use of some simplifying assumptions, to generate input data for the computer simulation. Klimm Affidavit, ¶ 3. Indeed, NUREG-0654 itself recognizes that some such assumptions must be made. NUREG-0654 requires only that the analyses identify the assumptions which underlie the time estimates. See NUREG-0654, at 4-2, 4-7; Klimm Affidavit, ¶ 3. The simplifying assumption challenged in this contention -- that non-auto-owning households will evacuate at the rate of one vehicle per household -- is clearly identified in section 3.1.2 of the ETE. See also ETE, § 2.2

Mr. Eddleman cites Commonwealth Edison Co. (Byron Nuclear Power Station, Units 1 and 2), LBP-84-2, 19 N.R.C. 36 (1984), in support of his Contention 215. However, nothing in that decision proscribes the use of reasonable assumptions to facilitate an evacuation time analysis. Indeed, it is clear that the Byron Board recognized that using some assumptions is permissible. See generally Byron, supra, 19 N.R.C. at 253-63. The Byron Board did caution against using "Conservatisms," or assumptions that result in overestimating evacuation times, without labeling them as such. The Board did not, however, conclude that conservative assumptions are improper. According to the Board, "[c]onservatisms may remain in the [Evacuation

Time] Study provided that they are clearly identified as such and quantified." 19 N.R.C. at 263. Similarly, in admitting Eddleman Contention 215, the Licensing Board here stated: "We see no objection to the estimates' containing clearly marked conservatisms, as long as the estimates also contain results based on more realistic assumptions, or assess the effects of the conservatisms [citing Byron]." See "Rulings on Specification of Eddleman Offsite Emergency Planning Contention 215 and on the Admissibility of Eddleman Contentions on the Public Information Brochure" (October 4, 1984), at 4-5.

In any event, as discussed below, the assumption in the ETE that non-auto-owning households would evacuate at the rate of one vehicle per household is not a "conservatism" that results in an overestimate of evacuation times. Rather, the stated assumption is a practical means of simulating the traffic which would be generated within the EPZ in the provision of transportation assistance for non-auto-owning households in an evacuation of the Harris EPZ.

In the event of an actual evacuation due to an emergency at the Harris plant, transportation for all non-auto-owning households would be furnished through rides with friends, neighbors, or relatives, or through coordinated efforts by state and county emergency preparedness officials. Klimm Affidavit, ¶ 6; Miletic Affidavit, ¶ 2. (Of course, the exact number of vehicles necessary to evacuate this population category

would vary based upon several factors, including the type and numbers of transportation resources available at the time of the evacuation.) Klimm Affidavit, ¶ 6.

The assumptions used to develop the evacuation time estimates presented in the Harris ETE (including the methodology used to estimate vehicle demand of permanent residents) were developed based upon informal discussions held with state and county emergency preparedness officials, empirical data on past evacuations, and the knowledge and experience obtained by HMM Associates in conducting similar evacuation time studies for more than 20 nuclear power plant sites throughout the country. Klimm Affidavit, ¶ 4. The assumption that non-auto-owning households (like auto-owning households) would evacuate at the rate of one vehicle per household was specifically reviewed with the local emergency preparedness officials and was determined to be appropriate as the most realistic means of representing the evacuation traffic which would be generated in the provision of transportation assistance (by friends or family, or emergency response personnel) for non-auto-owning households. Klimm Affidavit, ¶ 7.

Thus, in practice, the assumption that non-auto-owning households would each generate the traffic associated with one vehicle is a reasonable means of simulating traffic along the roadway network, following internal routes to collect non-auto-owning passengers. (This traffic could range from

cars or vans going to individual homes to pick up evacuees,^{2/} to larger vehicles -- such as buses -- traveling from one pick-up point to another to pick up evacuees.) Klimm Affidavit, ¶ 8.

Mr. Eddleman has asserted that "[t]he ETEs need to be computed in an accurate manner without using the conservatism * * *." See 9/7/84 Responses to Interrogatories, at Response 215-10. As discussed above, the assumption challenged in Eddleman 215(3) is not a "conservatism." But, in any event, a reduction of a total of 410 (or 655) vehicles^{3/} would not reduce evacuation time estimates appreciably -- i.e., a reduction of 10 minutes might result from changing the assumption to (in effect) reflect no vehicles to evacuate the non-auto-owning population. Klimm Affidavit, ¶ 9. Of course, such a change would then underestimate the time required for evacuation. Klimm Affidavit, ¶ 9 n.4.

The assumptions incorporated into the Harris ETE are consistent with those used by HMM Associates in its compilation of similar analyses for other nuclear power plant sites. Most of the more than twenty evacuation time analyses prepared by HMM

^{2/} For purposes of estimating evacuation times, it does not matter whether such vehicles are operated by friends or family, or by emergency workers. The effect of such traffic is the same. Klimm Affidavit, ¶ 8 n.3.

^{3/} These figures represent the number of non-auto-owning households within the EPZ, as derived from Census data. Compare ETE, § 3.1.2 with "Affidavit of Kevin Twine on Wilson 12(b)(3) and EPJ-2" (January 14, 1985), ¶¶ 3-6.

Associates already have been found acceptable by the NRC; the remaining analyses are currently under review. Klimm Affidavit, ¶¶ 3, 10. Indeed, Dr. Urbanik, who reviews evacuation time analyses for the NRC Staff, has already reviewed the Harris ETE and has concluded that all aspects of the Harris ETE -- specifically including the assumptions used -- are "adequate" (his highest rating), and consistent with the guidance in NUREG-0654, Appendix 4. See Attachment to Staff's 8/29/84 Responses to Interrogatories; Staff's 9/26/84 Responses to Interrogatories, at Response 215-4. FEMA, too, has concurred in the reasonableness of the ETE assumptions, noting, "The Evacuation Time Estimates (ETE) study appears to comply with NUREG-0654 guidelines." See FEMA 8/14/84 Responses to Interrogatories, at Response 1.

In summary, the methodology for the Harris ETE utilized a state-of-the-art computer simulation that has been used at numerous nuclear sites throughout the country and that has previously been approved by the NRC; and the assumptions incorporated in the Harris ETE are consistent with those in HMM's other NRC approved analyses. As explained above, the assumption that non-auto-owning households would evacuate at the rate of one vehicle per household was employed as a practical means of simulating the evacuation traffic which would be generated in the provision of transportation assistance (by friends or family, or emergency response personnel) for non-auto-owning

households. Thus, the assumption is fully justified and results in realistic estimates of the evacuation times for the Harris EPZ. Contrary to Mr. Eddleman's assertions, the assumption is not a "conservatism" that results in an overestimate of evacuation times. Klimm Affidavit, ¶ 10.

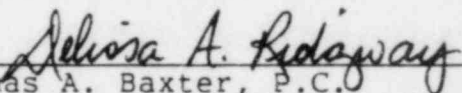
Mr. Eddleman has completely failed to provide any authority to support his assertion that the challenged assumption is a "conservatism" that skews the results of the ETE. His contention refers only to "the opinion of expert Paul Holmbeck" to support his allegations. However, the Licensing Board in Byron, supra, characterized Mr. Holmbeck as simply a "well-informed layman." 19 N.R.C. at 254. In contrast, the impressive expert credentials of Dr. Urbanik are described in Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), LBP-84-37, 20 N.R.C. 933, 994 n.12 (1984), and the professional qualifications of Mr. Klimm and Dr. Mileti are set forth in the resumes attached to their respective affidavits.

Mr. Eddleman cannot avoid summary disposition of Eddleman 215(3) on the basis of guesses or suspicions, or on the hope that at the hearing Applicants' evidence may be discredited or that "something may turn up." See Gulf States Utilities Co. (River Bend Station, Units 1 and 2), LBP-75-10, 1 N.R.C. 246, 248 (1975). In the face of the sworn discovery responses of Dr. Urbanik, and the Affidavits of Mr. Klimm and Dr. Mileti, the unsupported, lay opinions of Messrs. Eddleman and Holmbeck are simply insufficient to invoke a hearing on Eddleman 215(3).

IV. CONCLUSION

There is no genuine issue of material fact to be heard on the issue of the use of the challenged assumption -- that households without cars would evacuate at the rate of one car per household -- to realistically simulate the traffic which would be generated within the EPZ in the provision of evacuation transportation for non-auto-owning households. Accordingly, Applicants' Motion For Summary Disposition of Eddleman 215(3) should be granted.

Respectfully submitted,



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Dated: January 14, 1985

UNITED STATES OF AMERICA
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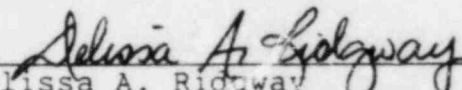
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OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH
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CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Motion For Summary Disposition of Eddleman 215(3)," "Applicants' Statement of Material Facts As To Which There Is No Genuine Issue To Be Heard On Eddleman 215(3)," "Affidavit of Robert Klimm on Eddleman 215(3)," and "Affidavit of Dennis S. Miletic on Eddleman 215(3)" were served this 14th day of January, 1985, by deposit in the U.S. mail, first class, postage prepaid, upon the parties listed on the attached Service List.



Delissa A. Ridgway

Dated: January 14, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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