

December 31, 1984

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

In the Matter of

CAROLINA POWER & LIGHT COMPANY  
AND NORTH CAROLINA EASTERN  
MUNICIPAL POWER AGENCY

(Shearon Harris Nuclear Power Plant)

Docket No. 50-400 OL

APPLICANTS' MOTION FOR SUMMARY DISPOSITION  
OF EDDLEMAN CONTENTION 224

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.749 of the Nuclear Regulatory Commission's Rules of Practice, Applicants Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency hereby move the Atomic Safety and Licensing Board for summary disposition in Applicants' favor of Eddleman Contention 224. For the reasons explained herein, Applicants respectfully submit that there is no genuine issue as to any fact material to this contention and that Applicants are entitled to a favorable decision on this contention as a matter of law.

In support of this Motion, Applicants rely upon the attached Affidavit of Robert D. Klimm in Support of Applicants' Motion for Summary Disposition of Eddleman Contention 224, Applicants' Statement of Material Facts as to Which There is No Genuine Issue to be Heard on Eddleman Contention 224, Applicants' Memorandum of Law in Support of Motions for Summary Disposition on Emergency Planning Contentions, and the pleadings and discovery filed in this proceeding regarding Eddleman Contention 224.

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## II. BACKGROUND

Eddleman Contention 224 was initially advanced in "Wells Eddleman's Contentions on the Emergency Plan (2d Set)" (April 12, 1984). Eddleman 224 was 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 26. In its June 14, 1984 order, the Board did not specify the precise verbiage of Eddleman 224. The Applicants, Mr. Eddleman, and the NRC Staff then entered into a stipulation codifying certain admitted contentions. See "Joint Stipulation Codifying Certain Admitted Contentions" (October 12, 1984). In their "Joint Motion for Approval of Stipulation Codifying Certain Admitted Contentions" (October 12, 1984), the Applicants, Mr. Eddleman, and the NRC Staff requested approval of the verbiage of Eddleman 224. On December 6, 1984, the Board granted the joint motion of the parties. See "Order Approving Joint Stipulation Codifying Certain Admitted Contentions" (December 6, 1984). As stipulated by the parties and approved by the Board, Eddleman 224 contends:

In violation of 10 C.F.R. 50.47(a)(1) and (2) and (b)(10) the HMM study is defective because it does not identify the adverse weather frequency used (NUREG-0654, App. A, IV-A, p. 4-6). Such a defective study is unreliable for guiding emergency response personnel in decision making.

Applicants have served one set of interrogatories and request for production of documents on Mr. Eddleman on the subject of Eddleman 224. See "Applicants' Emergency Planning Interrogatories and Request for Production of Documents to Intervenor Wells Eddleman (First Set)" (August 9, 1984), at 22-23. "Wells Eddleman's Response to Applicants' 8-09-84 Emergency Planning Interrogatories" was filed on September 7, 1984. Mr. Eddleman has served two sets of interrogatories on the Applicants on the subject of Eddleman Contention 224. See "Wells Eddleman's General Interrogatories to Applicants Carolina Power & Light, et al. (Tenth Set)" (August 9,

1984), at 18. "Applicants' Response to Wells Eddleman's General Interrogatories to Applicants (Ninth Set)" was filed July 23, 1984; and Applicants' Response to Wells Eddleman's General Interrogatories to Applicants (Tenth Set)" was filed September 7, 1984. Mr. Eddleman has served two sets of interrogatories on the NRC Staff and one set on FEMA regarding Eddleman Contention 224. See "Wells Eddleman's Interrogatories to NRC Staff and FEMA (Fourth Set)" (June 29, 1984), at 8; and "Wells Eddleman's Second Round Interrogatories & Request for Production of Documents to NRC Staff on Contentions 215 and 224," (September 5, 1984), at 1-2. "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 Contention 224. The last date for filing discovery on the contention was August 9, 1984. Discovery on this contention is, therefore, complete.

Eddleman Contention 224 is classified as an emergency planning contention to be addressed in the hearings 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 224 is ripe for summary disposition.

### III. APPLICABLE LAW

The well-defined standards applicable to motions for summary disposition under 10 C.F.R. §2.749 are discussed in detail in Applicants' Memorandum of Law in Support of

Motions for Summary Disposition on Emergency Planning Contentions, filed in this proceeding on October 8, 1984. Applicants rely upon the discussion therein, which is incorporated by reference, and upon the discussion herein regarding the application of those standards to Eddleman Contention 224.

Detailed criteria for evacuation time analyses related to emergency planning for nuclear power plants are contained in Appendix 4 to NUREG-0654, the criteria document for emergency response plans issued jointly by the Nuclear Regulatory Commission (NRC) and the Federal Emergency Management Agency (FEMA). Eddleman Contention 224 claims that the "Evacuation Time Estimates for the Plume Exposure Pathway Emergency Planning Zone of the Shearon Harris Nuclear Power Plant" (October 1983) (hereinafter "ETE") prepared for Applicants by HMM Associates, Inc. is defective "because it does not identify the adverse weather frequency used." The relevant portion of Appendix 4 referenced in Eddleman Contention 224 states:

Two [weather] conditions— normal and adverse — are considered in the [evacuation time] analyses. Adverse conditions would depend on the characteristics of a specific site and could include flooding, snow, ice, fog, or rain. The adverse weather frequency used in this analysis shall be identified and shall be severe enough to define the sensitivity of the analysis to the selected events. These conditions will affect both travel times and capacity.

NUREG-0654, at 4-6.

Although Eddleman Contention 224 does not provide any reasoning, it claims that the lack of an adverse weather frequency in the ETE violates provisions of the NRC's emergency planning rule, 10 C.F.R. §50.47(a)(1) and (2), and (b)(10). Those sections state:

(a)(1) Except as provided in paragraph (d) of this section [pertaining to issuance of low power licenses], no operating license for a nuclear power reactor will be issued unless a finding is made by NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

(2) The NRC will base its finding on a review of the Federal Emergency Management Agency (FEMA) findings and determinations as to whether State and local emergency plans



are adequate and whether there is reasonable assurance that they can be implemented, and on the NRC assessment as to whether the applicant's onsite emergency plans are adequate and whether there is reasonable assurance that they can be implemented. A FEMA finding will primarily be based on a review of the plans. Any other information already available to FEMA may be considered in assessing whether there is reasonable assurance that the plans can be implemented. In any NRC licensing proceeding, a FEMA finding will constitute a rebuttable presumption on questions of adequacy and implementation capability. Emergency preparedness exercises (required by paragraph (b)(14) of this section and Appendix E, Section F of this part) are part of the operational inspection process and are not required for any initial licensing decision.

(b) The onsite and, except as provided in paragraph (d) of this section, offsite emergency response plans for nuclear power reactors must meet the following standards:

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(10) A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

#### IV. ARGUMENT

A. The Harris ETE Meets the Criteria in Appendix 4 of NUREG-0654 by Modeling Evacuation Times During an Adverse Weather Condition that Occurs Frequently Enough to be Realistic and, Thus, to Provide Information That is Useful in Protective Action Decisionmaking.

Appendix 4 to NUREG-0654 requires that an evacuation time analysis for a nuclear power plant evaluate evacuation times during adverse weather conditions as well as normal or fair weather conditions. NUREG-0654, at 4-6. Eddleman Contention 224 centers upon language in Appendix 4 stating that the "adverse weather used in this analysis shall be identified and shall be severe enough to define the sensitivity of the analysis to the selected events." Id. The intent of this language is to ensure that the adverse weather condition modeled in the evacuation time analysis occurs often enough and is severe enough to warrant the assessment of its effect on evacuation time. Klimm

Affidavit, ¶5. Appendix 4 does not specify any range of acceptable quantitative frequencies for the adverse weather conditions nor does it require that the choice of an adverse weather scenario be based upon its frequency relative to other potential scenarios. The important point is not the precise quantitative frequency of the condition, but that the condition chosen occurs with adequate frequency to provide practical information to emergency planners in the event that protective actions must be taken during adverse conditions. Id.

As Mr. Klimm explains, the adverse weather condition used in the Harris ETE is a heavy rainstorm resulting in a 25 percent reduction in roadway capacity and travel speed within the EPZ. It was selected after consideration of a number of adverse weather scenarios including snow, rain and fog. Klimm Affidavit, ¶7. The basis for choosing a heavy rain scenario was a review of weather frequency and severity data contained in the Shearon Harris Final Safety Analysis Report and discussions with state and local emergency preparedness officials. Although only one adverse weather condition was modeled in the ETE, that condition is generally representative of other adverse conditions, including light snow and fog, where visibility is impaired, roadway capacity is reduced, and normal traffic operations impeded in terms of their effect on evacuation times. Klimm Affidavit, ¶6. Heavy rain was chosen because it was deemed to occur often enough and to be severe enough to provide realistic and useful guidance to emergency planners in determining what protective actions to take in adverse conditions generally. Klimm Affidavit, ¶6.<sup>1</sup>

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<sup>1</sup>During discovery on this contention, the NRC Staff submitted the review report prepared by its consultant, Dr. Thomas Urbanik II, on the Harris ETE. Dr. Urbanik concluded that the methodology used was "adequate" (which is his highest rating) and consistent with guidance in NUREG-0654, Appendix 4. See Attachment to "NRC Staff Response to Interrogatories Propounded by Wells Eddleman on June 29, 1984 on Contentions 215 and 224" (August 29, 1984); and "NRC Staff Response to Second Round Interrogatories Dated September 5, 1984 Propounded by Wells Eddleman on Contentions 215 and 224" (September 16, 1984) at 4.

B. Quantitative Data on the Frequency of Heavy Rainfall in the Harris EPZ Confirm That the Adverse Weather Scenario Selected is Appropriate.

In order to confirm the appropriateness of using a heavy rain scenario, quantitative data on the frequency of heavy rainstorms have been collected. As Mr. Klimm describes, information on the average frequency of thunderstorms and time periods in which precipitation exceeds one-half inch per hour was collected for the Raleigh-Durham Airport which is located approximately nineteen miles from the Harris Plant. Klimm Affidavit, ¶7. The results are summarized in Attachment B to Mr. Klimm's Affidavit. This quantitative information on the frequency of heavy rainstorms confirms that heavy rainstorms occur with sufficient frequency to provide useful guidance in emergency planning.

C. The ETE will be Amended to Include Quantitative Information on the Adverse Weather Frequency.

As explained in Mr. Klimm's Affidavit, the Harris ETE will be amended to reflect quantitative data on the frequency of heavy rain that have been collected. The verbiage to be inserted into the section of the ETE pertaining to methodology is attached to Mr. Klimm's Affidavit as Attachment C. Attachment B to his Affidavit will also be included in the ETE as a table. Klimm Affidavit, ¶8. With these additions, the ETE will comport fully with the language in Appendix 4 to NUREG-0654 which calls for inclusion of information on the frequency of the adverse weather condition used.

D. There is No Issue of Material Fact and Applicants are Entitled to a Decision in Their Favor As a Matter of Law on Eddleman Contention 224.

Because the adverse weather condition used in the Harris ETE (heavy rain) comports with the purposes of the criteria in Appendix 4 and because the ETE will be amended to provide additional quantitative information on the frequency of that condition, there are no remaining issues to be resolved concerning Eddleman Contention 224. The ETE, as amended, will comply fully with the criteria in Appendix 4

and accordingly will comport fully with provisions of the emergency planning rule. There is no issue of material fact as to Eddleman Contention 224, and Applicants are entitled to a favorable decision on this Motion as a matter of law.

IV. CONCLUSION

Based on the foregoing, Applicants respectfully request that this Motion for Summary Disposition of Eddleman Contention 224 be granted.

This 31<sup>st</sup> day of December, 1984.

Submitted by:

*Dale E. Hollar*

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