

August 6, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DOCKETED
NRC

'84 AGO -8 P12:25

In the Matter of)
CAROLINA POWER AND LIGHT COMPANY AND)
NORTH CAROLINA EASTERN MUNICIPAL)
POWER AGENCY)
(Shearon Harris Nuclear Power Plant,)
Units 1 and 2)

OFFICE OF SECRETARY
DOCKETING
Docket Nos. 50-400 OL
50-401 OL

NRC STAFF REPLY FINDINGS CONCERNING
EDDLEMAN CONTENTION 8F(1), JOINT CONTENTION II(e)
AND JOINT CONTENTION II(c)

I. INTRODUCTION

On July 20, 1984, Intervenor Wells Eddleman filed his proposed findings of fact concerning Eddleman Contention 8F(1). "Wells Eddleman's Proposed Findings and Conclusions Concerning Contention 8F1 (Coal Particulates)" [hereinafter Eddleman Findings]. On July 24, 1984, pursuant to an extension of time granted by the Board, Joint Intervenor filed proposed findings on Joint Contentions II(e) and II(c). "Joint Intervenor's Findings of Fact on Joint Contentions II(e) and II(c)" [hereinafter Joint Intervenor's Findings]. This reply addresses only what the Staff considers to be significant errors with either Mr. Eddleman's or Joint Intervenor's findings. All of the issues raised by these parties have been dealt with in detail by the Staff in its own proposed findings. Therefore, the fact that a given finding is not mentioned in this reply is not indicative of agreement with that finding. The Staff reply to those findings is set forth below.

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II. EDDLEMAN CONTENTION 8F(1)

Mr. Eddleman makes two findings which the Staff believes require a reply. First, Mr. Eddleman performs some calculations based on a hypothetical question he posed to Dr. Hamilton. Eddleman Findings at ¶ 12. He concludes that, as a result of these calculations, there could be an upper bound of approximately 800 deaths over the forty year operating life of the Harris facility attributable to the fuel cycle to support the operation of Harris. Id. The use of Dr. Hamilton's hypothetical number in this fashion is not supported by the record.

Dr. Hamilton was asked to provide a statistical upper limit on the mortality resulting each year from air pollution. Eddleman, Tr. 1309. Dr. Hamilton provided that estimate using the sulfate damage function, which is a different damage function from that used in either Dr. Hamilton's or the Staff's analysis provided for this contention. See Hamilton, Tr. 1309. Dr. Hamilton made it clear that he did not believe the hypothesis proposed by Mr. Eddleman was applicable to the subject of this contention. Hamilton, Tr. 1313. Dr. Hamilton did not accept the assumption that the damage function he used to derive his estimates of deaths from air pollution and the damage function for fine particulates employed by the Staff were necessarily interchangeable. Hamilton, Tr. 1312. Therefore, this proposed finding is not supported by the record and should not be adopted by the Board.

The second issue raised by Mr. Eddleman in his proposed findings is the appropriateness of limiting the consideration of health effects of coal particulates to a fifty-mile radius around the emissions source. Eddleman Findings at ¶ 14. The record demonstrates that, in fact, it was

appropriate for the Staff to limit its consideration of the health effects of coal particulates to a 50-mile radius surrounding the emission source. See, "NRC Staff Proposed Findings of Fact and Conclusions of Law Regarding Eddleman Contention 8F(1), Joint Contention II(e), and Joint Contention II(c)" at ¶¶ 54-55 [hereinafter Staff Proposed Findings].

III. JOINT CONTENTION II(e)

The first issue raised by Joint Intervenors in their proposed findings regarding Joint Contention II(e) which requires a reply is the role of tritium in the calculation of doses due to the attachment of radionuclides to coal fly ash. Joint Intervenors' Findings at ¶ 6. This issue was discussed in detail in the record, and this discussion amply supports the correctness of Applicants' treatment of this issue. See, Staff Proposed Findings at ¶¶ 104-105, 122, 124, and 129. Therefore, Joint Intervenors' findings on this issue should not be adopted.

Joint Intervenors next contend that Applicants made no effort to determine what the size range of particles is in the vicinity of the Harris plant. Joint Intervenors' Findings at ¶ 8. This finding does not reflect the totality of Applicants' testimony and therefore should not be adopted by the Board. Applicants did testify that they expected the dominant mode of particles around Harris to be the accumulation mode, and gave their reasons for this expectation. Mauro-Schaffer ff. Tr. 1605 at 11; Staff Proposed Findings at ¶ 120. Therefore, Applicants have addressed the issue of particle sizes expected around Harris.

Finally Joint Intervenors next make the statement that Applicants have made no study of the absorption or adsorption of noble gases onto coal fly ash. While the citation provided supports this statement, the statement does not reflect the totality of the record. Applicants went on to state that they have looked into the adsorption of noble gases onto activated charcoal. Mauro, Tr. 1937. It was activated charcoal which formed the basis for Applicants' calculation of the fraction of noble gases released from Harris which would be expected to attach to fly ash. Applicants pointed out that the use of activated charcoal is a conservatism in their calculations. Mauro-Shaffer ff. Tr. 1605 at Attachment 2 at 2-1 and 2-2. See, Staff proposed Findings at ¶¶ 116-117. Therefore, Intervenors' statement should not be adopted by the Board.

IV. JOINT CONTENTION II(c)

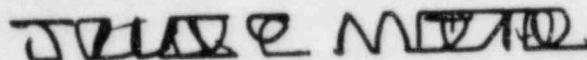
In their findings on this contention, Joint Intervenors have attempted to expand the scope of the contention as set for litigation by the Board.

Joint Intervenors state: "Both the Applicants and the Staff have underestimated the longterm health effects of normal radiation releases as they examine the effects over an arbitrarily short period of time and disregard certain health effects." Joint Intervenors' Findings at 6. The contention clearly limits litigation to the question of whether the Applicants and Staff have estimated health effects over an arbitrarily short period of time. Therefore, those findings of Joint Intervenors relating to the types of health effects considered in the Staff's and Applicants' analyses, such as proposed findings 22 and 27 should be disregarded by the Board.

V. CONCLUSION

For the reasons set forth above, the Staff concludes that Eddleman proposed findings number 12 and 14 should not be adopted by the Board, and that portions of Joint Intervenors' findings 8, 9, 22 and 27 should not be adopted by the Board. As stated above, the remaining issues raised by Intervenors have been addressed in detail in the Staff's Proposed Findings. To the extent that Intervenors Proposed Findings are in conflict with the Staff's Proposed Findings, we reaffirm our Findings.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "JANICE E. MOORE". The signature is stylized and somewhat cursive.

Janice E. Moore
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 6th day of August, 1984.

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF REPLY FINDINGS CONCERNING EDDLEMAN CONTENTION 8F(1), JOINT CONTENTION II(e) AND JOINT CONTENTION II(c)" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system (*), this 6th day of August, 1984.

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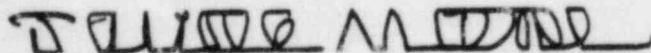
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