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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

BEFORE ADMINISTRATIVE JUDGES

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

DOCKETED  
BRANCH

In the Matter of

CAROLINA POWER & LIGHT COMPANY  
AND NORTH CAROLINA MUNICIPAL POWER  
AGENCY NO. 3

Docket Nos. 50-400 OL  
50-401 OL

(Shearon Harris Nuclear Power Plant,  
Units 1 and 2)

April 5, 1983

RICHARD WILSON RESPONSE TO APPLICANTS'  
INTEROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS (Third Set)

Answers to General Interrogatories

- 1 (a) I relied on a biostatistician in the formulation of all parts of my contention. I do not believe that his identity, as my advisor, is substantially important at this stage of this proceeding.
- (b) We have a general knowledge of experimental design and statistical analysis. See answers to specific interrogatories for more detailed discussion of the current stage of our analysis.
- (c) See (b) above.
- 2 (a) I relied on the same biostatistician.
- (b) I was assisted by this person in the preparation of each response to specific interrogatories.
- 3 (a) I have not selected any expert witnesses yet.
- (b) See 3 (a)

DS03

- 4 (a) We used only the FSAR and ER sections on radiological monitoring and Revision 3 of NUREG 0472. I do not believe specific page citations are meaningful at this point. A detailed ~~agreement~~<sup>argument</sup> which will rely on information gained through discovery will include page citations.
- (b)(c) Again, detailed argument depends on the results of discovery. See answers to specific interrogatories.
- 5 (a)(b) See responses to 4(a). We also used the enclosures included in your interrogatories.
- 6 (a) None
- (b) See (a)
- 7 (a) I have not selected any documents for exhibit.
- (b) See (a)

#### ANSWERS TO SPECIFIC INTEROGATORIES

- IVC-1 No, we do not know that  $S_b$  will not vary.
- IVC-2  $S_b$  is an empirically derived quantity and as such has some sampling variance associated with it. We believe that the methods by which the controls are taken could significantly affect the process. At the present time we do not have enough information about this control method to judge the effects of seasons on the process.
- IVC-3 We have no set expectations at present due to lack of information on the control collection process.
- IVC-4  $S_b$  is an empirically derived quantity and as such has some sampling variance associated with it. We believe that the methods by which the controls are taken could significantly affect the process. At the present time we do not have enough information about this control method to judge the effects of time-of-day on the process.

- IVC-5 We have not set expectations at present due to lack of information on the control collection process.
- IVC-6  $S_b$  is an empirically derived quantity and as such has some sampling variance associated with it. We believe that the methods by which the controls are taken could significantly affect the process. At the present time we do not have enough information about this control method to judge the effects of weather on the process.
- IVC-7 We have not set expectations at present due to lack of information on the control collection process.
- IVC-8 No, we cannot withdraw it.
- IVC-9 We feel that the control collection method may consistently underestimate the levels of potential danger. Accordingly, we feel that the types of safeguards might be added to the procedure. One safeguard would collect information on all counts and the other safeguard would be a two stage sampling scheme aimed at ~~resetting~~ <sup>reacting</sup> to any detection of abnormal levels.
- IVC-10 A split sample involves the partitioning of a homogeneous sample into several subsamples which are analyzed separately by independent laboratories for quality control. The results of the measurement procedures are compared to check the primary procedures for errors of bias and calibration.
- IVC-11 Yes, we were aware of this fact.
- IVC-12 No, we cannot withdraw it.
- IVC-13 The procedure does not satisfy our concern completely because we do not have sufficient information on the process. For example, "mean results of cross-check analysis" could signify mean over several split samples, or over several tests within a split sample, or some combination of the two. In a similar manner there are other questions which we must have answered before we can feel comfortable with the procedure.

IVC-14 If the cross-check analysis is performed sufficiently well then your pledge to "resolve the problem" will be adequate for our needs assuming that resolution is done as quickly as feasible.

*Richard Wilson*



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

83 APR -8 10:45

In the matter of CAROLINA POWER & LIGHT CO. Et al. ) Dockets 50-400  
Shearon Harris Nuclear Power Plant, Units 1 and 2 ) and 50-401 O.L.

CERTIFICATE OF SERVICE

I hereby certify that copies of Richard Wilson Response to Applicants'

Interrogatories and Request for Production of Documents (Third Set)

HAVE Been served this 5th day of April 1983, 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 \_\_\_\_\_

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Certified by \_\_\_\_\_

*Richard Wilson*