

03/18/83

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
CAROLINA POWER AND LIGHT COMPANY AND)	Docket Nos. 50-400 OL
NORTH CAROLINA EASTERN MUNICIPAL)	50-401 OL
POWER AGENCY)	
)	
(Shearon Harris Nuclear Power Plant,)	
Units 1 and 2))	

NRC STAFF INTERROGATORIES
TO WELLS EDDLEMAN

The NRC Staff hereby requires the Intervenor, Wells Eddleman, pursuant to 10 C.F.R. § 2.740b, to answer separately and fully, in writing and under oath or affirmation, the following interrogatories on or before April 6, 1983.

GENERAL INTERROGATORIES FOR EACH CONTENTION

Provide for each of your contentions numbered 22, 29, 30, 37B, 41, 45, 64(f), 65, 67, 75, 80, 83, and 84, separately by each contention, the following information.

INTERROGATORY 1

Identify by name, business or personal address, and telephone number each person upon whom you rely to substantiate your assertion of inadequacy of Applicant's or Staff analysis.

INTERROGATORY 2

Set forth the professional qualifications of each person identified in response to Interrogatory 1.

DESIGNATED ORIGINAL

Certified By

[Handwritten Signature]
DS07

INTERROGATORY 3

Provide a summary of the views of each person identified in response to Interrogatory 1.

INTERROGATORY 4

Identify by author, title, date of publication, publisher, and present location, all books, texts or other graphic material upon which the persons identified in response to Interrogatory 1 rely to substantiate their position.

INTERROGATORY 5

Will you voluntarily make available to the NRC Staff for inspection and copying all materials identified in response to Interrogatory 4.

INTERROGATORY 6

Identify by name, telephone number and address, all persons which you intend to use as witnesses at the evidentiary hearings.

INTERROGATORY 7

Set forth the professional qualifications of each person identified in response to Interrogatory 6.

INTERROGATORY 8

Summarize the position of each person identified in response to Interrogatory 6.

INTERROGATORY 9

Have you, or anyone in your behalf, made any calculations or analysis to substantiate all or any part of your contention.

INTERROGATORY 10

If the answer to Interrogatory 9 is yes, provide the names, telephone number, and business or personal address of all persons who have made such calculations or analysis.

INTERROGATORY 11

If the answer to Interrogatory 9 is yes, provide a summary of all such calculations or analysis.

INTERROGATORY 12

If the answer to Interrogatory 9 is yes, will you voluntarily make available to the NRC Staff all such calculations or analysis for inspection and copying.

INTERROGATORY 13

Provide the name, telephone number and address of each and every persons who answered these interrogatories. Where more than one person contributed to an answer, identify all persons who contributed to the answer and indicate her or his contribution.

SPECIFIC INTERROGATORIES

EDDLEMAN CONTENTIONS 29 and 30

INTERROGATORY 14

Identify all deficiencies in design and equipment in the Harris facility that, at normal full power operation, will prevent the Harris facility from being operated in conformity with 10 C.F.R. Part 50 Appendix I.

INTERROGATORY 15

Set forth each and every fact, including the source thereof, within your possession or control, which tends to support your assertion that Carolina Power and Light Company will intentionally operate the Harris facility in violation of 10 C.F.R. Part 50 Appendix I.

INTERROGATORY 16

Set forth in quantitative terms, the degree to which Applicants have underestimated the release of radioiodine to the environment during normal full power operation of the Harris facility.

INTERROGATORY 17

Describe the systems and pathways by which radioiodine will escape to the environment and quantify the amount so escaped.

INTERROGATORY 18

Set forth your assumptions, parameters, methodology, calculations and analysis which support your assertion in Contention 29 that radioiodine in excess of amounts permitted by 10 C.F.R. Part 50 Appendix I will be released in the environment during normal operations of the Harris facility.

INTERROGATORY 19

Identify and describe all deficiencies in the radiation detection equipment at Harris that will lead to any incorrect assessment of the amount of radioactive being released to the environment at Harris.

CONTENTION 41

INTERROGATORY 20

Identify specifically the defects you allege now exist in the Applicant's QA/QC programs for inspection of safety-related pipe hanger welds.

INTERROGATORY 21

Set forth any and all facts within your possession and control that would demonstrate that, as of the date of these interrogatories, there are defective safety-related pipe hanger welds in the Harris facility.

CONTENTION 64f

INTERROGATORY 22

Identify all aspects of the design of spent fuel casks to be used to transport spent fuel from Harris which fail to meet the NRC regulatory criteria as set forth in 10 C.F.R. § 73.31 and 32 and 10 C.F.R. Part 71 Appendices A and B.

INTERROGATORY 23

Set forth all facts in your possession and control that indicate that the spent fuel casks to be used at the Harris facility will not comply with NRC's requirements set forth in 10 C.F.R Part 70.

CONTENTION 65

INTERROGATORY 24

Set forth all facts within your possession or control which would indicate that there are voids over one inch in diameter in the base mat or containment structure at the Harris facility.

INTERROGATORY 25

Identify any and all voids known to you or your advisors or consultants to exist at the present time in the base mat or containment structure at Harris.

INTERROGATORY 26

Identify and describe the defects in the base mats and containment at the Callaway, Wolf Creek and Farley facilities which you allege to exist due to construction by Daniel International.

INTERROGATORY 27

Set forth the source of the facts for your reply to Interrogatory number 26.

CONTENTION 75

INTERROGATORY 28

Identify each genus and species of clam, oyster or marine growth that you allege will grow and live in the condensers.

INTERROGATORY 29

For each species of fauna identified in response to Interrogatory 28, describe the physical path taken by such species from the environment to the condenser.

INTERROGATORY 30

Set forth the time period from the commencement of power operation to when the clam, oyster or marine growth will impair the safe shut down of the facility.

INTERROGATORY 31

Identify by name of station and name of impoundment each and every coal or nuclear commercial power station in North Carolina which has been adversely affected by the species identified by you in your response to Interrogatory 28.

INTERROGATORY 32

For each power station identified in your response to Interrogatory 31 describe the degree to which the cooling water intake was reduced and the period of time it took for this to occur.

INTERROGATORY 33

Does the ultimate heat sink cool the reactor by feeding water to the condenser below the turbines.

CONTENTION 80

INTERROGATORY 34

Identify each of the deficiencies you allege in mixing and dispersion models for gas and liquids containing radiation used in the Harris FSAR.

INTERROGATORY 35

Describe the nature of the deficiencies identified by you in response to Interrogatory 34 and quantitatively describe the result of said deficiencies.

INTERROGATORY 36

Is the radioactive monitoring equipment at Harris adequate to detect radiation emissions which would exceed 10 C.F.R. Part 20 limits.

INTERROGATORY 37

Is the radiation monitoring equipment at Harris adequate to detect radiation emissions which would exceed 10 C.F.R. Part 50 Appendix I.

INTERROGATORY 38

If your answer to Interrogatory 36 or 37 is negative, then identify by monitor and location each monitor you allege to be inadequate.

INTERROGATORY 39

Set forth the test or historical data which supports your response to Interrogatory number 38 and identify the source of that data.

INTERROGATORY 40

Identify each and every deficiency in the NRC Regulatory Guides 1.109 and 1.113, copies of which are attached.

INTERROGATORY 41

Set forth the concentration model, including all relevant parameters and methodology used by you to conclude that rain falling on a radioactive plume would cause doses beneath the plume to exceed 10 C.F.R. Part 20 permissible limits; include the amount of radioactivity released by the facility, the time duration, the stability class, wind speed, direction of wind, height of plume and distance from the facility of the occurrence of rain so that your reply is quantitatively meaningful.

CONTENTIONS 83 AND 84

INTERROGATORY 42

Identify each element, or chemical compound, which you allege will be discharged into the cooling lake which will form a carcinogenic compound.

INTERROGATORY 43

Identify each and every resulting carcinogenic entity in the Harris lake.

INTERROGATORY 44

Quantify in terms of amount and time duration, the elements and compounds identified by you in response to Interrogatory number 42.

INTERROGATORY 45

Describe the physical process by which these elements and compounds will form carcinogenic entities.

INTERROGATORY 46

Describe the amount and concentration of those alleged carcinogens in the Harris cooling lake, including your models, calculations and analysis.

INTERROGATORY 47

Describe the process, and quantify, of biological intake into the human body of the entities identified by you in response to Interrogatory number 43.

INTERROGATORY 48

Set forth all authority upon which you rely to substantiate your allegation that swimming in the Harris lake will result in the accumulation of carcinogenic entities in the body of the swimmer.

INTERROGATORY 49

Quantitatively describe the amount of water which will be discharged from the Harris cooling lake into the Cape Fear River and the resulting concentration of Harris cooling lake water in the Cape Fear River. Your assumption, parameters, methodology, calculation and analysis should be set forth so that your reply is objectively meaningful.

Respectfully submitted,

Charles A. Barth

Charles A. Barth
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 1st day of March, 1983