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NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

In the Matter of

CAROLINA POWER AND LIGHT CO. et al.
(Shearon Harris Nuclear Power Plant,
Units 1 and 2)

Docket 50-400 OL

ASLBP No. 82-468-01
OL

Wells Eddleman's Response to Applicants'
Interrogatories Re Eddleman 116.

G-1(a). I relied on the FSAR, see 5-14-82 filing and 6-28-82 amendment. I also rely on common sense and reasonable logic, and and experience on the training in fire-explosion safety and analysis I have.

(b) See (a). (c) See 5-14-82 filing, 6-28-82 amendment, and Board 1-11-83 order admitting Eddleman 116.

2(a) N/A (b), (c), (d) N/A. The Board order of 5-27-83 does not require identification of nonexperts -- it requires assertion of some other privilege if they are not identified.

3(a), (b), (c). No experts identified yet for witnesses. Parts (c) (ii) and (iii) are irrelevant and would be objected to.

4(a) The FSAR section 9 original version; I haven't had time to do a search to see which updates to it I possess. See 6-28-82 amendment re Eddleman 116. (b) Eddleman 116. (c) See the contention.

5(a) Will be identified in specific responses below. (b) see (a).

6(a) Will be identified in specific responses below. (b) see (a).

7(a) None identified yet; however, the FSAR, CP&L filings, and ^{on fire protection}

10 CFR 50 Appendix R are likely to be used. (b) not identified yet (pages).

specific interrogatory responses

116-1(a). Yes. (b) Not to my knowledge. See 6-28-82 amendments to 5-14-82 petition to intervene. (c) N/A.

116-2(a) I don't have a complete list, and am still analyzing and will also ask discovery of you re this, and will ask the Staff. Please note that just complying with regulations does not guarantee Harris plant safety (or the health and safety of the public) in the event of a fire. LO CFR 50 Appendix R obviously applies.

116-3(a) I don't know. (b) N/A (c) N/A. (d) Not analyzed yet.

116-4(a). I have not recently re-analyzed this section, but as I recall when I was putting together the 6-28-82 amendments I could find no reference to "fire resistive" or "fire resistant" that was not vague or otherwise unsatisfactory for (1) figuring out what it meant in practical terms, and (2) assuring safe shutdown or operation of Harris in the event of fire.

(b) I haven't had time to do an extensive search for this letter. I haven't located it, so I don't know now.

116-5(a). Look at the FSAR. I may have paraphrased in writing the 6-28-82 amendments. (b) See FSAR. I haven't had time to re-analyze to find the references yet. (c) I don't know. (d) I don't know. I have not located this document yet (see 4(b) above). I have located an August 2, 1982 CP&L "response" re fire etc which does not have page numbers I suspect that the fire barrier ratings would be based on tests not reflecting the actual possible fire conditions and/or actual behavior of materials and/or fires, and/or actual positions of the barriers or materials as installed. This is true of standard flame spread and fire tests for building materials and insulation in my experience. (e) N/A. (f) I have a document Serial # NLS 84-090 from McDuffie, CP&L to Denton NRC dated 2-24-84 which provides some handwaving, totally unsupported by specific references to items present, etc. Neither the analysis of

fires or the "justifications" for exemptions therein, provide any factual references ofr justification beyond blanket unsupported statements. The analysis is faulty from the word "go" (or is it the word "fire" in a crowded nuclear plant?), see e.g. at p.2:

"In general ... one can assume that the plant's defense in depth fire protection ~~XXXXXX~~ features will limit fire damage to the extent that unaffected plant systems will be able to attain safe shutdown." This assumption is unsupported by analysis. The defense in depth should be specifically shown adequate to deal with fires and in all cases limit fire damage so that unaffected plant systems will be able to attain safe shutdown. .

CP&L, of course, doesn't want to really work on such an analysis: P.2 continues immediately after the above: "An extensive effort would be required to identify the effects of postulated fires in all potential plant locations on all the plant systems which are normally available to support safe shutdown. " Cp&l won't do that, they say. They identify, they claim, a minimum set of shutdown equipment. But then on the next page (3) they say they assume no piece of equipment required for safe shutdown is assumed to be out of service for maintenance. At p.4 they do not explain why no postulated fire can prevent reactor trips. What about cable fires? What about a fire that releases particles that foul terminal blocks or switches or relays? (e.g. jammed relays at Salem; DS-416's failing to operate). CP&L in its analysis assumes systems are operable rather than sh_owing how they can be kept operable in spite of possible fires (see e.g. pp 2-11 of this "anal'sis"). I am reviewing this document further and may have other updates to make re it (etc) later.

116-7(a) First, it's not clear that Applicants have identified the maximum credible fire for each area. Their "analysis" I reviewed for the 6-28-82 amendment was mostly just assertions. I am still analyzing this question. Of course "maximum credible" is an Achilles heel of the nuclear industry because y'all usually don't consider credible things that actually can happen or have happened.

116-8(a) I believe 10 CFR 50 App R. section L requires such capability, logically. I am still analyzing other rules re this, & other regs, requirements, publications, etc. will be looked into when I have time. Obviously if there's a reactor trip during a fire, the trip may be due to an accident. The firefighting capability necessary to maintain safe shutdown capability is required by Appendix R section L whenever the reactor is scrammed or otherwise shutdown. I presume this means shutdowns during accidents, too, as accidents are not specifically exempted from this requirement in Section L.

Moreover, the question shows CP&L's attitude toward safety, i.e. "if there's no rule requiring us to fight fires during an accident, you can't make us get ready to do it" as I would phrase your apparent position. Protection of the public health and safety logically requires that you be ready to fight fires whenever they threaten the public with radiation releases, and fires during accidents, especially those which threaten the equipment needed to keep the reactor safely shut down or get it shut down, obviously pose such a threat.

10 CFR 50 Appendix A General Design Criterion 3 says you shall minimize the effect of fires. No exception for fires during accidents is in that criterion. (b) See above. (c) N/A

116-9. Applicants say in that response that "SHNPP will have a procedure which provides for a fire brigade as per IAW BTP CMEB 9.5-1 Section C.3.b" This response is not verified (no statement under oath attached) and provides for a procedure, not for the brigade itself. CP&L is known for its failures to follow procedure (see E.g. pp 6-9 of ACRS subcommittee on Harris, Jan 3, 1984, transcript).

116-10. The following unverified statement is the entire response to 280.4 in your attachment A: "SHNPP will equip its fire brigade ~~brigade~~ with the minimum equipment listed in BTP CMEB 9.5-1 Section C.3.c."

116-11. The following unverified statement is the entire response to 280.5 in your attachment A: "SHNPP will have procedures which will require fire brigade drills as discussed in IAW BTP CMEB 9.5-1 Section C.3.D.7". Notice this says procedures, not drills. See 9 above re failure to follow procedure. Also, CP&L had procedures requiring leak rate tests on the Brunswick containment, or should have had them since the tests were required, and still didn't do the test for 4 years. CP&L's assertion, even if it said what you claim it does (it doesn't) is worthless because of such behavior by CP&L in the past. The response (unverified) says nothing about drills at regular intervals. It says "as discussed".

VERIFICATION

Wells Eddleman hereby affirms that the above responses are true to the best of his present knowledge and belief.

3-23-84



Wells Eddleman

PRODUCTION OF DOCUMENTS.

I believe the only documents referred to above are NPC documents or are already in your possession. Please contact me if there are others you need, and we'll find a mutually agreeable time & place to produce them.

3/23/84

NOTICE RE DOCUMENTS ON
JOINT SEVEN (Steam Generators)

and

Joint ONE (Management Incapability)

Wells Eddleman has received numbers of documents relevant to Joint Seven, and some others relevant to Joint one, within the last two weeks. He has not catalogued them yet. They can be made available for inspection and copying at a mutually agreeable time by contacting him.