

June 8, 1988

UNITED STATES NUCLEAR REGULATORY COMMISSION  
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

_____	)	
In the Matter of	)	
	)	
Public Service Company of	)	
New Hampshire, et al.	)	Docket No. 50-443 OL-1
	)	
(Seabrook Station, Units 1 & 2)	)	ONSITE EMERGENCY
	)	PLANNING & TECHNICAL
	)	ISSUES
_____	)	

AFFIDAVIT OF ROBERT D. POLLARD

I, Robert D. Pollard, being duly sworn, depose and say:

1. My name is Robert D. Pollard. My business address is 1616 P Street, N.W., Washington, D.C. 20036.

2. Since February 1976, I have been employed as a nuclear safety engineer by the Union of Concerned Scientists. Previously, I was employed by the U.S. Nuclear Regulatory Commission as a licensing project manager for commercial nuclear power plants.

3. The purpose of this affidavit is to describe the unresolved technical issues raised in affidavits filed in support of "Applicants' Suggestion of Mootness," filed May 19, 1988.

4. The technical issues regarding which there remains significant question fall in four principal categories:

a) the adequacy of Applicants' efforts to identify all instances in which RG-58 coaxial cable is used at Seabrook Station.

b) the adequacy of Applicant's efforts to determine

the exact physical location of the RG-58 cable that has been identified as being used at Seabrook Station:

c) the validity of Applicants' assertion that all identified uses of RG-58 coaxial cable involve non-Class 1E or non-safety functions or applications, including those instances where Applicants propose to replace the RG-58 coaxial cable with RG-59.

d) the adequacy of the environmental qualification of RG-59 coaxial cable in those instances where Applicants propose to replace the RG-58 coaxial cable with RG-59 cable.

5. The means used in an attempt to identify all applications of RG-58 coaxial cable in the Seabrook Station was to use the Computerized Conduit and Cable Schedule Programs (CASP) Design Guide to generate a list of installed cables having the cable code TA6Y. Bergeron Affidavit at paragraphs 4-6.

6. Mr. Bergeron claims that "an independent review was performed and verified that all RG-58 had been identified ..." Id., paragraph 16. However, while this review "was performed by different individuals," it cannot be construed as an independent review because it only "essentially replicated the review described above, using the same information sources." Id.

7. Having two or more individuals query the same computer based listing of cables cannot provide an independent review of the validity of the data base of the computer. There are three

cable designations that differ only in the last character, i.e., TA6T, TA6Y, and TA6U, and the three characters, T, Y, and U, are adjacent on a standard keyboard. NECNP Ex. 4, Encl. 1, App. A. Thus, the possibility of erroneous data entries is not insignificant. Errors in data entry would not be discovered by asking the computer the same questions twice.

8. Similarly, if output from CASP was used as instructions to the workers installing the cable, the possibility of interchanging cable types TA6T, TA6Y, and TA6U during installation is not insignificant. Again, such errors would not be revealed by making duplicative inquiries to the computer.

9. Applicants further claim that the independent review "included an evaluation of Seabrook Station electrical schematic drawings for RG-58 applications." Bergeron Affidavit, paragraph 16. This statement fails to show how the review of the drawings was done or how it contributed to the independence of the review. Schematic drawings frequently do not include information about the type of cable used. However, even assuming such information is on the schematic drawings, Applicants are silent about what, if any, effort was made to determine whether the drawings reflect the as-built plant. Furthermore, if the information in CASP regarding cable type was obtained from the schematic drawings, or vice versa, the drawing review would provide no independence.

10. A genuinely independent review to determine whether all RG-58 applications have been identified would involve not only

different individuals, but a different technique as well. For example, the sum of the cable lengths used during installation of each identified use of RG-58, plus the remaining length of RG-58 on hand, should approximate the total length of RG-58 purchased. While this type of check may not succeed in identifying every RG-58 application, it may disclose gross errors in identification of RG-58 applications.

11. The Applicants also fail to address whether any RG-58 was purchased under purchase orders other than 9763-006-113-19. Furthermore, the cable designation TA6Y designates any cable that is coaxial, single conductor, color coded black with red tracer, and having an undefined conductor size. FSAR, Table 3, page 6-2. (This portion of the FSAR was filed as Attachment 1 to "NRC Staff Response to NECNP Supplemental Memorandum on Environmental Qualification of RG-58 Coaxial Cable," dated April 8, 1988.)

12. In sum, Applicants have failed to establish that they have identified all applications of RG-58 coaxial cable in Seabrook Station.

13. Applicants claim that the "CASP" system "provides the controls to identify and maintain cable routes and termination locations for each uniquely identified plant cable." Bergeron Affidavit, paragraph 5. I disagree. The CASP system may have been intended to accomplish those tasks, but the actual location and routing of each cable depends on how accurately the construction work force followed the cable installation instructions pro-

vided by CASP.

14. One method of verifying the actual location of a particular cable is to attach a signal generator to the cable and then physically trace the cable length with a signal detector. Instead, Applicants have apparently simply assumed that the CASP data base reflects the configuration of the as-built plant. Tracing the route of each cable using "Seabrook Station Cable raceway drawings" (Bergeron Affidavit, paragraph 7 (emphasis added)) is not equivalent to physically tracing the actual routing of each cable. Nor is it clear whether the review "to determine if the other cables routed along with the RG-58 cable(s) were Class 1E (i.e., safety-related) or Non-Class 1E (i.e., nonsafety-related)" was conducted by reviewing installation instructions or by actual inspection of cables routed with RG-58 cables.

15. In sum, the Applicants appear to have made no attempt to verify the actual location of the RG-58 cables or the designation (as Class 1E or Non-Class 1E) of other cables routed with RG-58 cables by physical inspection. Instead, reliance is placed on drawings or the CASP data base with no assurance that such information accurately reflects the as-built plant.

16. Applicants claim that all 126 identified applications of RG-58 cables are nonsafety-related. Bergeron Affidavit, paragraph 6. This is a new claim but Applicants present no information that permits an evaluation of that claim. Without this

information, I am unable to express an opinion as to whether Applicants have correctly classified the cable applications as nonsafety-related.

17. Applicants also fail to provide any meaningful information that would allow me to evaluate the safety classification of the 12 RG-58 cables that they intend to replace with RG-59 cable. The general description of the cable applications given in Mr. Kotkowski's affidavit at paragraph 3 lacks sufficient specificity with respect to the identity of the equipment served or its location in the plant.

18. Applicants also fail to describe what environmental qualification specifications are prescribed for RG-58 cable, and thus must be met by the RG-59 cable that is to be substituted for it. As discussed in my affidavit, filed in support of "NECNP's Motion to Reopen the Record and Admit New Contention," dated February 2, 1988, the RG-59 cable fell below the required insulation resistance of 10,000 Megohms during the environmental qualification test to which it was subjected by the manufacturer.

19. Applicants have claimed elsewhere that the 10,000 Megohm Insulation Resistance requirement was a purchasing specification rather than an environmental qualification requirement for the RG-59 cable. "Applicants' Opposition to Motion of NECNP to Reopen the Record and Admit Late-filed Contention," dated February 12, 1988, Bergeron Affidavit at 2.

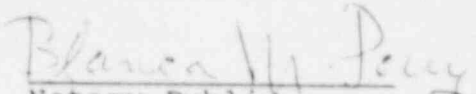
20. This explanation is unsatisfactory for two reasons.

First, Applicants have never provided any documentation of the actual environmental qualification specifications for RG-59 cable, other than to offer their own unsupported judgment as to the "reasonable" specifications for the cable. Id., Bergeron Affidavit at 4.

21. Second, Applicants have provided no information to show that the environmental qualification performance of RG-59 coaxial cable is sufficient for the applications of RG-58 cable for which RG-59 will be substituted.

  
Robert D. Pollard

Subscribed and sworn to before me on this 8th day of June, 1988.

  
Notary Public

My commission expires:

6-30-1992

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