

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
DUKE POWER COMPANY, <u>et al.</u>	)	Docket Nos. 50-413
	)	50-414
(Catawba Nuclear Station,	)	
Units 1 and 2)	)	

AFFIDAVIT OF L. R. DAVISON  
PALMETTO ALLIANCE'S CONTENTION NO. 6

1. My name is L. R. Davison. I am employed by Duke Power Company as Catawba Project QA Manager. I have been employed in this position since 1982. My professional qualifications are contained in an attachment to this affidavit.

2. In the position that I hold, I am responsible for Quality Assurance at Catawba. As a part of that responsibility, I am also responsible for the quality of work, for assuring that QA requirements are fulfilled, for detecting defects in the quality of work and assuring that such is corrected, for assuring QA inspectors receive proper training, testing and supervision.

3. The purpose of this affidavit is to address some of the concerns raised by Messers. McAfee and Hoopingarner in support of Alliance's Contention No. 6., which reads:

"Because of systematic deficiencies in plant construction and company pressure to approve faulty workmanship, no reasonable assurance exists that the plant can operate without endangering the health and safety of the public."

4. Mr. McAfee alleges (MD Tr. 13) that concrete poured on the wall above what is called the interior doghouse of Unit 1 containment (MD Tr. 72)

is of concern because it was poured while it was raining. ACI-301-72 "Specifications for Structural Concrete (as referenced in Catawba Concrete Specification CNS-1109.00-1) permits the pouring of concrete during rain. A review of concrete records for the period of January-March 1978 reveals two instances that could possibly fit the description of the allegation. In both instances, the pours were found to be acceptable.

5. Mr. McAfee alleges that QA waived requirements on concrete forms in order to let Construction Department make pours. MD Tr. pp. 13, 73-74. There are a number of requirements in preparing for a concrete pour depending on the various items that are embedded from rebar and plates to piping and conduit. Some of these requirements can be waived with authorization without compromising public health and safety. For example, in a concrete pour which has no embedded electrical components the electrical inspection can be waived.

6. Mr. McAfee alleges that leakage of rain in to control room from the roof compromised control room boards. MD Tr. pp. 17, 86-88. The incident in question, which occurred in 1978, was written up by the QA Department as a non-conforming item. The condition was evaluated by an electrical engineer and a civil engineer. They determined that the control room boards were not damaged. Corrective action to dry the equipment and repair the roof was expeditiously completed.

7. Mr. McAfee alleges that pulled cables were not properly protected. MD Tr. pp 18, 88-89. Inspection instructions for cable pulling require that cable ends be protected from damage due to construction activities or moisture. M-41B SIN9 Rev 0 Step 5. In the event unprotected cable ends are discovered, corrective action is taken.

The cables at Catawba have armor to protect them from damage. Cables are inspected to assure that the armor is not damaged. In the event tests or inspections uncover damaged cable, such will be resolved before operation.

8. Mr. McAfee alleges that he received second-hand training. MD Tr. p. 20. At the time Mr. McAfee was trained and certified as a Level I Inspector, the QA Departments' electrical inspector trainer (qualifying individual, Ken Schmidt,) had delegated the performance of the training for Level I inspector at Catawba to Jim Allgood.

This delegation of training was allowed by QA Procedure J-1, Rev 5, ¶4.3.2. Mr. Allgood is a highly qualified electrical engineer. Mr. Allgood was provided outlines of classes that were being used by Mr. Schmidt at other Duke sites so that he could pattern his classes after those of Mr. Schmidt. Mr. Schmidt also provided Mr. Allgood with tests for other sites and instructed Mr. Allgood to rewrite and adapt these test for Catawba. QA Procedure J-1, Rev 5, ¶4.4.1. Mr. Schmidt discussed the training program with Mr. Allgood at various times while Mr. Allgood was developing and teaching classes and modifying tests. This dialogue was designed to assist Mr. Allgood in resolving any problems that he was having. It also served as a means for Mr. Schmidt to keep informed of what Mr. Allgood was teaching the inspectors and satisfy himself that proper training was being given.

I am satisfied, and have been so informed by Mr. Schmidt, that Mr. Allgood's training program was full and complete.

9. Mr. McAfee alleges that there was inadequate testing of his class of QA electrical inspector candidates because the class was in effect told what the test was going to be. MD Tr. p. 95. Mr. McAfee's class was not provided with the questions to the test beforehand. Rather, the training classes

consisted of both theory and practical information. The most important part of the information given in classes to candidate inspectors is what they will use everyday during the inspection process - items such as what to inspect, how often to inspect, what are the acceptance/rejection criteria are stressed. These items were emphasized in classes as important to know. These items are also the ones that constituted the majority of the test questions.

Mr. McAfee also alleges that Mr. Richard Bunton did not appear to be qualified to be a certified QA electrical inspector. Mr. Bunton has many years experience in electrical and instrumentation construction type work. He has worked for Duke for approximately 5 years and has performed satisfactorily during that time. Based on his successful completion of Duke's Training program for certification and on the job performance Mr. Bunton is considered fully qualified. He also has the respect of craft personnel as someone who knows what he is doing.

10. Mr. Hoopingarner alleges that because of shaky scaffold, welders performed faulty welds. HD Tr. Vol. 1, p. 13; Vol. 2, pp. 5, 7, 9, 11-13. Depending on the class, pipe welds receive various inspection. Higher class welds (i.e., class A, B, and C) receive a cleanliness, fit-up and final visual inspection. Non-destructive examinations (NDE) are performed on Classes A and B. The above inspections are performed on all welds of these classes regardless of where they may be located and corrective action is taken as necessary.

11. Mr. Hoopingarner alleges that scaffold boards were improperly placed on pipes and unistrut. HD Tr. Vol. 1, p. 19; Vol. 2, pp. 34, 63-65. The inspection procedure for piping (QA procedure M-8) details requirements for inspection personnel to use which would detect any

abnormal bends or dips in piping. Corrective action would be taken in instances of excessive damage.

12. Mr. Hoopingarner alleges the contact of carbon steel and stainless steel compromises the integrity of the materials. HD Tr. Vol. 2, p. 67. Duke practice is not to store carbon steel in contact with stainless steel items. "In general, there is no harm whatsoever in contact between carbon steel and stainless steel materials." Construction procedure 170. The basic reason for minimizing contact is to reduce superficial rusting and the cleaning that rusting would cause. Metallurgically no harm will occur due to superficial rusting resulting from carbon - stainless steel contact.



I, L. R. Davison, of lawful age, being duly sworn, state that I have reviewed the foregoing affidavit, and that the statements contained therein are true and correct to the best of my knowledge and belief.

L. R. Davison  
L. R. Davison

Subscribed and sworn to before me  
this 15<sup>th</sup> day of July, 1983

Marguerite G. Jennings (Watson)  
Notary Public

My commission expires: 8-1-84

RESUME  
OF  
LARRY R. DAVISON

July 1983

- EDUCATION:
- 1) Graduate of Cedartown High School  
Cedartown, GA, 1963
  - 2) Graduate of Georgia Institute of Technology,  
Atlanta, GA, with the degree "Bachelor of  
Mechanical Engineering", 1967
  - 3) Completed 6 months theoretical and 6 months  
practical training on Naval Nuclear Propulsion  
Plants, 1968
  - 4) Completed 6 months Naval Submarine School, 1969
- EXPERIENCE:
- 1) U.S. Navy, Ensign to Lieutenant, 1967-1971.  
Attended 18 months schooling and served 2-1/2  
years on board the nuclear ballistic missile  
"USS Nathaniel Greene", SSBN 636. Served  
as Auxiliary Division Officer, Damage Control  
Assistant and Communications Officer. Qualified  
as Engineering Officer of the watch and as  
OOD.
  - 2) Duke Power Company, 1971 - Present
    - 1971 - 1973 Assistant Field Engineer-  
Worked in the welding technical  
support group of the Construction  
Department at the Oconee Nuclear  
Station construction site.
    - 1973 - 1974 Associate Field Engineer-  
In charge of welding and NDE inspection  
in the Construction Department at  
the Oconee Nuclear Station construction  
site.
    - 1974 - 1981 Senior QC Engineer-  
In charge of all QC inspections in  
the Construction Department at the  
Catawba Nuclear Station construction  
site. Includes one year assignment  
to the Quality Assurance Department  
working in in-service inspection for  
Oconee Nuclear Station during a  
delay in the construction of  
Catawba Nuclear Station.
    - 1981 - 1982 QA Manager Projects-  
Responsible for all QA activities at  
three construction sites;  
McGuire Nuclear Station, Catawba Nuclear  
Station, and Cherokee Nuclear Station.

1982 - Present      Project QA Manager-  
Responsible for all QA  
activities at the Catawba Nuclear  
Station construction site.

PROFESSIONAL: 1) Registered Professional Engineer in the states  
of North and South Carolina.

2) Member of the American Society of Mechanical  
Engineers.