# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

#### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	
DUKE POWER COMPANY, ET AL.	Docket Nos. 50-413
(Catawba Nuclear Station, ) Units 1 and 2)	50-414

AFFIDAVIT OF JACK C. BRYANT
IN SUPPORT OF SUMMARY DISPOSITION
OF THAT PART OF PALMETTO ALLIANCE
CONTENTION 6 BASED ON ALLEGATIONS OF
NOLAN L. HOOPINGARNER AND WILLIAM RONALD MCAFEE

- I, Jack C. Bryant, state under oath that:
- 1. I am Senior Resident Inspector at the Oconee Nuclear Station for the Nuclear Regulatory Commission, Region II. From November 1972 through December 1982 I was a section chief in the Region II office in Atlanta, Georgia. In that capacity, I was involved throughout the ten year period as a supervisor of personnel who inspected the Catawba facility. I am personally knowledgeable of the matters set forth herein and the statements made are true and correct to the best of my knowledge. A statement of my professional qualifications is attached.
- 2. Palmetto Alliance's Contention 6 as originally proposed in this proceeding read as follows:

Substandard workmanship and poor quality control strongly suggest that actual plant construction is substantially below NRC standards in many safety related areas. Applicants have failed to provide a Quality Assurance program which meets the requirements of 10 CFR Part 50, App. B. and no reasonable

assurance exists that the plant can operate without endangering the health and safety of the public. The Commission has noted that "the regulated industry ... bears the primary responsibility for the proper construction and safe operation of licensed nuclear facilities." Federal Tort Claim of General Public Utilities Corp., et al. CLI 81-10, 13 NRC 773, 775-776 (1981). The NRC's Systematic Assessment of Licensee Performance Review Group found the Catawba facility "Below Average" among power reactor facilities under construction particularly "in the areas of quality assurance including management and training." NUREG 0834, NRC Licensee Assessments, August 1981, p. 8-1. A number of former Duke Power Company construction workers, including a certified Quality Control Inspector, have complained of systematic deficiencies in plant construction and company pressure to approve faulty workmanship.

In a Memorandum and Order of March 5, 1982, the Board conditionally admitted Contention 6 as proposed but noted that the contention as drafted, was "at best only marginally acceptable from the standpoint of specificity." The Board further noted that this contention "can be explored in discovery and we expect the intervenors to make [it] more specific, or to withdraw [it], following discovery."

3. In its December 1, 1982 Memorandum and Order the Board recast Contention 6 and accepted it for litigation in the proceeding. As recast by the Board, Palmetto Alliance's contention 6 now 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.

In deposition testimony given on May 19 and 20, 1983, in Charlotte, North Carolina, William Ronald McAfee and Nolan L. Hoopingarner presented what they stated to be all the facts upon which their portion of the contention was based.

4. I have reviewed this testimony and the facts stated. It is my belief that this testimony presents no evidence of systematic deficiencies in plant construction; no evidence of company pressure to approve faulty workmanship; and no reason to believe the plant cannot operate without endangering the health and safety of the public.

This conclusion is based on the following:

- a. The findings reported in 790 man days of inspection of Catawba by Region II-based inspectors from 1972 through 1982 and my discussions with those inspectors.
- b. The findings of the senior resident inspectors who were on site six months of 1980, eleven months of 1981, full time in 1982 and so far in 1983.
- c. My personal experiences at Catawba, including participation in two special inspections which involved many discussions with craftsmen and QC inspectors in which their opinions on quality of work, freedom from harassment, corrective action, and management accessibility to them were solicited.

### Allegations of Ronald McAfee

5. The allegations expressed by Mr. McAfee demonstrate a misinterpretation of Appendix B to 10 CFR 50, and, in general, a lack of understanding of the role of the QC program and the QC inspector. His description of events which convinced him the program was not working actually tends to demonstrate that the program was, indeed, working.

- 6. It is the object of the QA/QC program to minimize errors, and, primarily, to verify that the plant is built correctly. It is essentially impossible that such a major construction job as building a nuclear power plant could be achieved with no errors having been made. QC inspections are performed to verify correct construction or to identify errors and verify that they are corrected.
- 7. Mr. McAfee's allegations are listed below. They are stated in brief form, since they are given in detail in Applicants' Motion for Partial Summary Disposition Regarding Palmetto Alliance Contention 6. I have reviewed the Applicants' motion and have no substantive disagreement.
- 8. Pouring concrete in rain and water standing on fresh concrete.

  The American Concrete Institute in ACI 318-63, paragraph 604, states that once concreting is started it shall be carried on as a continuous operation until the section is completed. Therefore, a pour in progress could be completed although rain had begun if, in the engineer's judgment, the integrity of the concrete would not be damaged. The ACI manual of concrete inspection, page 155, states that concrete shall be kept moist for at least seven days. It states also, "The preferred method of curing is by use of continuous sprays, flowing or ponded water, or continuously saturated coverings of sand, burlap, or other absorbent material." This quote makes it clear that water standing on fresh concrete does not have a deleterious effect. No threat to the health and safety of the public was identified in the allegation.

- 9. QA waiver of requirements on concrete forms. The civil engineer in charge of a pour has options—including waivers, under appropriate circumstances—which he may exercise based on conditions, his knowledge, and the procedures under which he is working. There is not enough information in this allegation to suggest that requirements were violated, and no substantive fact to indicate a threat to the health and safety of the public.
- 10. Concrete anchor bolts installed incorrectly. Mr. McAfee identified only one bolt which he inspected which he questioned. He questioned it because he could not determine the length, and was concerned that his supervisor did not want him to write a Nonconforming Item (NCI) Report on the bolt. Since length of an anchor bolt can easily be determined by ultrasonic measurement, there would be no need of the engineering evaluation which an NCI would require. Mr. McAfee stated that his supervisor told him the bolt had been measured and found to be correct and he would not show Mr. McAfee the record. An ultrasonic examination does not leave a visible record unless televised and recorded, which would be inappropriate for this minor measurement. In 1979 and 1980, as required by IE bulletin 79-02, a detailed review was made nationwide of methods and controls on anchor bolt installation. An extensive testing program was carried out at all sites to verify adequate installation. NRC inspections of bolt inspection and testing at Catawba revealed no problems which have not been corrected. See, Report Nos. 50-413, 414/79-03, 07, 22. There are no material facts to support this allegation.

- 11. <u>Poor document control</u>. Only one example of use of a superceded document was given. This item was corrected when the error was pointed out by the QC inspector. Verification that correct drawings were used is normally one of the functions of a QC inspector. It appears that the QC program was working. No threat to the health and safety of the public was identified in the allegation.
- 12. Rain in control room. Mr. McAfee states that after water leaked into the control room and into control panels a QC inspector wrote an NCI on the entire control room. He acknowledged that the equipment was inspected and proper corrective action was taken. Control room circuitry is probably the most tested equipment in the plan prior to operation. NRC inspectors are heavily involved in reviewing of test procedures, witnessing of tests, and examination of data to verify that specifications are met. There is no reason to suspect that any damage done will not be detected and corrected. The allegation identifies no threat to the health and safety of the public.
- 13. Partially installed cables not properly protected. Mr. McAfee stated that the situation was corrected when he called it to the foreman's attention. Safety related cables are inspected and tested prior to use. In addition, Duke Power Company uses armored cable extensively, which would tend to minimize damage to safety-related cable. If any cables were damaged, they should be detected during the checkout. No material facts which constitute a threat to the health and safety of the public were identified.

- 14. Welding inspector stress. Mr. McAfee did not identify any welds which he believed were not properly inspected nor any specific incidents of conflict. No threat to the health and safety of the public was identified.
- 15. Inadequate QC inspector training and inadequate testing of electrical inspector candidates. Mr. McAfee did not state that his own training was inadequate. He was concerned that his instructor received direction from a Duke employee at another site, and that his certification was not signed by his own instructor. He also stated that candidates were advised as to what material would be covered on tests, but not the specific questions. The allegation does not bring up anything that appears unusual. It is my own experience that an instructor usually is not the head of a training organization, and degrees, diplomas, or certifications generally are signed by persons who outrank the instructors. Also, it is not unusual for an instructor to highlight materials that will be covered on examinations. Region II inspectors have attended QC training classes at Catawba, examined the training program at Catawba and found no substantive problems. Report Nos. 50-413, 414/77-10. The allegation raised no issue that implies a threat to the health and safety of the public.
- 16. Mr. McAfee was instructed not to write NCI's but to get the crafts to correct deficiencies where possible. Mr. McAfee apparently believes that there is something basically wrong with not writing an NCI on any discovered discrepancy, and that he was required to do so by law. However, there is no law which states that all discrepancies must be

recorded on an NCI or similar device. An NCI at Catawba requires two evaluations each by two levels of supervision in a minimum of two departments. One specific instance mentioned by McAfee, inability to determine the length of a bolt by external markings, does not need an engineering evaluation. The simple solution is to measure the bolt by ultrasonic examination. The same logic applies elsewhere. When the crafts have made a minor erro, which can easily be corrected by placing the equipment in its designed condition, there is no need of an engineering evaluation. NCI's and other corrective actions at Catawba have been the subject of numerous inspections by Region II inspectors. While NRC inspectors have on occasion found inadequate descriptions of problems and corrective actions taken, in almost all cases the actual corrective action was satisfactory and complete. Mr. McAfee notes no discrepant condition which was not corrected. His remarks indicate that the QC system was working, and reveal no threat to the health and safety of the public.

17. Blue-print changes to reflect construction errors. Mr. McAfee has described the system for correction of errors in supports and restraints pretty much as it is, except that a few steps were left out. The system is described in Region II Report No. 50-413, 414/81-02. Briefly, a deficiency detected in the installation of a support or restraint is examined by the onsite technical support group and onsite design liaison team. Their findings are discussed with the corporate design office. If analysis reveals the support to be acceptable as built, the design office issues a revised drawing to show the as-built

support as is. It is required that drawings accurately reflect the as-built plant. If analysis shows the support as built to be unsatisfactory, it is replaced or corrected. The allegation raises no issue that affects the health and safety of the public.

- 18. Welding inspector sign-off and impact of unstable scaffolding on welding and welding inspection. Mr. McAfee acknowledges that difficulty in getting welding inspector sign-off and alleged unsafe scaffolding did not prevent him from doing his job properly. Nor does he claim to be aware of any occasion where these conditions resulted in unsatisfactory work. A similar allegation, made by Nolan Hoopingarner, concerning unsafe scaffolds was inspected by Region II and reported in Report No. 50-413, 414/80-08. That report states that the Region II inspector discussed the subject with craft workers, QC and QA inspectors, and safety assistants and supervisors. There were no statements made that supported the concern. These workers stated that scaffolds and platforms are built to satisfy the craft workers, including welders, additional work areas are provided upon request, and craft work including welding is not started until the worker, or welder, is satisfied that the work platform is safe and adequate for the job requirements. No related concerns were expressed to support the employee's concern. The allegation provides no evidence of any threat to the health and safety of the public.
- 19. The QA program does not meet the requirements of Appendix B,
  Criteria II, XIII, XV and XVI. The Catawba QA program, as defined by
  Duke Power Company Topical Report-Duke 1, has been examined in depth by
  NRC Reactor Licensing and by Region II. The Report was accepted as meeting

the requirements of Appendix B. Mr. McAfee quoted portions of Criterion II, Quality Assurance Program, suggesting that the concern about scaffolds, discussed immediately above, supports a conclusion that Criterion II was not followed. As noted above, however, the Region II investigation of this allegation showed that the allegation was not substantiated. Therefore, Mr. McAfee has not raised a material fact concerning compliance with Criterion II.

Criterion XIII, Handling, Storage and Shipping, requires that measures be established to control certain activities. Mr. McAfee identified only one concern -- control room leaking -- which he alleged violated this criterion. However, as discussed above, this one incident was documented and corrected. There is no material fact tending to show that there is an ongoing or repetitive problem in this area.

Criterion XV, Nonconforming Materials, Parts or Components, partially quoted in the allegation, actually refers to purchased equipment prior to installation, which is evident when the entire criterion is read. It is not relevant as used by Mr. McAfee. In any event, Mr. McAfee identified being encouraged to work with the crafts to correct discrepancies as indicating non-compliance with this criterion. As discussed above, Mr. McAfee has misinterpreted the purpose of this provision, which does not require documentation of minor discrepancies. Therefore, no material fact showing non-compliance has been asserted.

Criterion XVI, Corrective Action, is quoted to show that NCI's should have been written. Criterion XVI requires that conditions adverse to quality shall be promptly identified and corrected. Mr. McAfee's testimony clearly states that this was done. Criterion XVI also states that

significant conditions adverse to quality shall be documented, the cause determined, and action taken to prevent recurrence. Mr. McAfee did not identify any significant deficient condition for which this action was not taken. Nothing was identified in this allegation which constitutes a threat to the health and safety of the public.

#### Deposition of Nolan Hoopingarner

- 20. Mr. Hoopingarner's allegations mostly are concerned with personnel safety and do not relate to health and safety of the public in operation of Catawba. Some of his allegations relate to nuclear safety only in a general way and there are very few specifics.

  Mr. Hoopingarner's allegations were presented to the NRC resident inspector in 1980 and were investigated by the resident and two Region-based inspectors at that time. Nothing of significance was found at that time. Their findings are reported in Report Nos. 50-413, 414/80-8 and 80-19.
- 21. The allegations following are grouped below to exclude those which do not relate to nuclear safety.
  - a. No cooperation between crafts
  - b. Welders and pipefitters did not get along well together
  - Electrical cords unsafe (cords to tools)
  - d. Workers gambling
  - e. Green water in building
  - f. Argon hoses on floor
  - g. Acetylene bottle on its side

- h. Extra expense of building and rebuilding scaffolds
- i. Refueling diesel engines while running
- j. Careless use of insect spray
- k. Guards holding up traffic in parking lot
- 1. Man brought back to work too soon after injury
- m. Foremen sitting in map shacks talking to girls
- n. Workers loafing
- o. Company pressure to keep quiet about worker safety standards
- p. Failure to take corrective action on worker safety suggestions
- q. Scaffolds were not built properly
- r. Bent air ducts were a worker safety hazard
- s. A foreman liked to put his knife against people
- Mr. Hoopingarner did not attach any nuclear safety significance to items (a) through (s), and there does not appear to be any; therefore they fall outside the scope of the issues raised by Contention 6 as admitted.
- 22. The following three items raised by Mr. Hoopingarner are not significantly different from similar concerns stated by Mr. McAfee and discussed in paragraphs 12, 13, and 18, and need not be addressed here. The items reflect no threat to the health and safety of the public:
  - a. Rainwater on control room panels
  - b. Electrical cables on the floor being walked on and having things dropped on them
  - c. Welders could not work properly because they were on unsafe scaffolds

- 23. Diesel generator room flooded by rain water. This event occurred on September 29-30, 1979 due to a seven inch rainfall and the incomplete status of construction. Duke Power Company notified Region II on October 1; the event was inspected by a Region II inspector on October 2 and 3, 1979; and corrective action was inspected on subsequent inspections. By October 2, all equipment in the rooms, including the diesel generator, and stored equipment, had been inspected by Duke and vendor engineers. Initial plans for restoration had been drawn up. Subsequently, all equipment involved was restored to proper condition. In addition to the above, the diesel generators receive extensive checkout prior to plant operation. There is no threat to the health and safety of the public caused by this event.
- 24. Welder quenching a weld with a wet rag. Mr. Hoopingarner mentions seeing a weld quenched with a wet rag and later stated that he saw a wet rag applied to a red spot. It is not clear whether he saw a rag applied to a red hot pipe or whether he witnessed liquid penetrant red dye being wiped off. This matter was inspected in the RII investigation of Hoopingarner's allegations in 1980, and the named welder and others questioned denied quenching of welds. It is extremely unlikely that much quenching could be done with a wet rag. The affidavit of J. C. Rogers of Duke Power Company includes a statement that this form of quenching is permitted. Mr. Hoopingarner acknowledges that he knows nothing about welding and does not know good welds from bad. All safety related welds receive nondestructive examination. There is no evidence given of an event which would constitute a threat to the health and safety of the public.

- 25. <u>Valves installed backwards</u>. Mr. Hoopingarner stated no personal knowledge of valves being installed backwards nor whether or not any had not been corrected if so installed. It is extremely unlikely that a valve with directional flow could be installed backwards and remain uncorrected. Mr. Hoopingarner's deposition testimony indicates that he was aware of the valves because he saw the paperwork on them, indicating that the error had been identified and would be corrected. No material evidence is given which suggests a threat to the health and safety of the public.
- 26. <u>Misaligned pipe in penetrations</u>. Mr. Hoopingarner's deposition states that the pipe was supported by temporary hangers, and that he saw no problem in those pipes already permanently installed. In addition, piping generally is designed for the correct position when at operating temperature. This could be different from the cold position. Pipe systems are inspected by Applicant during initial heatup to verify proper configuration. The allegation provides no evidence of a threat to the health and safety of the public.
- 27. The following allegations are grouped since they were given to a Region II inspector by Mr. Hoopingarner:
  - a) Rebar touching the ground in the rebar storage area
  - b) Three sections of stainless steel piping touching the ground at the piping field fab shop
  - c) Manholes open on the condensate and the reactor water storage tanks

- d) Scaffold boards on piping and electrical cable lying on the floor
- Sections of piping lying on the concrete floor in the auxiliary building

The inspector's findings are given in Report No. 50-413, 414/80-19 as follows:

- (a) The rebar was determined to be material that was stored at the site but destined for use at other sites. The applicant detailed a crew to make the necessary corrections.
- (b) The three sections of fabricated piping touching the ground were identified as sections 2NV 147-BB, 2ND1-9 and 2 NI 7, which are components of safety-related systems. Duke Power Company's Topical Report commits to the requirements of ANSI 45.2.2 which requires equipment to be placed on cribbing to avoid flooding. This piping will be flushed and cleaned before the system is placed in service, therefore this noncompliance will be identified as a deficiency 414/80-19-01, Stainless steel piping on the ground at the pipe fab shop.
- (c) Investigation revealed that the tanks with open manholes were still in the erection stage with work being performed inside. Once the tanks are completed the storage requirements will be in effect.
- (d) The scaffold boards found on piping in the Unit 1 auxiliary feedwater pump room and pit, and the mechanical penetration room were found to conflict with the requirements of construction procedure Serial Number 371, Protection and

Preservation of Installed Equipment. Also one cable (1\*CA529) found touching the floor was determined to be safety related. These items are identified as a deficiency 413/80-19-01, Scaffolding on piping and cable on floor.

(e) The piping found lying on the concrete floor in Auxiliary
Building 1 was determined to be stored within the scope of the
storage procedures in that the areas were dry and the floor
drains were operational.

Correction of these items was essentially complete before the inspector left the site and Mr. Hoopingarner was so advised by the inspector. The two citations written were the lowest category and were for minor procedural violations. The items were corrected and constitute no threat to the health and safety of the public.

- 28. Improper contact between stainless steel and carbon steel. At one time, it was considered to be possibly deleterious for stainless steel to be abraided by carbon steel and many utilities had procedures forbidding it, though it was not a code requirement. This is no longer a common practice. Though some surface rust might result from the abrasion, it is essentially a cosmetic defect, no harm is done and there is no threat to health and safety of the public.
- 29. Water on floor where concrete had been poured. There is no problem with forms being wet when concrete is poured. Procedures require that excess water be removed prior to pouring. Mr. Hoopingarner gives no basis for stating that water was in the firms when concrete was

poured and does not make this claim. The fact that freshly poured concrete in forms is in contact with water is not a problem, as was discussed in the McAfee allegations. This allegation provides no material facts which constitute a threat to the health and safety of the public.

- 30. Workers under the influence of alcohol and drugs.

  Mr. Hoopingarner acknowledged that he had never seen a QC inspector taking drugs or alcohol. Presumably any shoddy work performed would be detected by QC inspectors. Mr. Hoopingarner declined to identify any users of drugs and alcohol so that their work may be reinspected. He also could not state that any work was done incorrectly due to drugs. Therefore, no material facts were presented which constitute a threat to the health and safety of the public.
- 31. Harassment QC inspector harassed by welder and his foreman.

  This appears to be the same allegation given to the NRC resident inspector which was investigated and reported in Report No. 50-413, 414/80-08. The QC inspector involved informed the Region II inspector that he was not intimidated by occasional criticism by craftsmen and their supervisors. He stated that he had the support of his own supervision and his supervisor had not threatened him with firing. The allegation was not supported and does not reflect a threat to the health and safety of the public.
- 32. <u>Harassment and pressure to approve faulty work</u>. Mr. McAfee and Mr. Hoopingarner alleged some harassment of personnel and pressures to approve faulty work or to take shortcuts. Two special team

inspections were conducted at Catawba, one in November 1979 and the in January 1981. During the 1979 inspection, private interviews were held with 57 individuals, primarily craftsmen, QC inspectors, and craft foremen. Report No. 50-413, 414/79-21. They were asked at the interviews if they had any outstanding concerns about the quality of construction; if they were aware of any instances where construction did not meet prescribed specifications, codes, standards or other requirements and where corrective action was not taken; and if they were aware of any day to day problems or irregularities affecting quality of which they believed NRC should be informed. Several of those interviewed mentioned occasions where extra work was required to repair poor work caused by haste or improper planning. None professed knowledge of any poor work which had not been identified by QC and subsequently corrected.

A trial construction team inspection was conducted at Catawba on January 26-February 6, 1981. One goal of that inspection was to determine management involvement in site problems. Also, an integral part of that inspection was to determine by observation and conversation the qualifications of craftsmen and QC personnel and to question these people concerning the availability of assistance when needed, relationship between work groups, any indication of harassment of inspectors or workers, and worker recourse if they were harassed or saw poor workmanship. The inspectors concluded from interviews, observation and review of site and company policies that management and supervision were available to employees at a very low threshold.

No one who was questioned acknowledged harassment of anyone. The inspectors decided it unlikely that harassment detrimental to quality work could develop under the conditions observed. Report No. 50-413, 414/81-02.

#### Conclusion

- 33. In conclusion, Mr. McAfee and Mr. Hoopingarner have not presented any facts to support the allegation of systematic deficiencies in construction and company pressure to approve faulty workmanship. Systematic implies a system, method, or plan which routinely produces deficient work on a recurring basis. There is no indication that this is the case at Catawba. The allegations list isolated instances of construction errors, or events which the allegers perceived to be errors. With the thousands of workers involved and the size of the job, some errors are bound to occur. It is a major purpose of QC to detect any such errors and see that they are corrected. The allegers' depositions show that this was done. There was no testimony given which indicates that the alleged discrepant work was part of a pattern of repetitive behavior. Mr. Hoopingarner's deposition states that he believed "systematic" to mean anything pertaining to the reactor system. The allegers' depositions, the applicants' affidavit, and the Region II inspections cited show that, even though errors occurred, they were corrected. They give no indication that deficiencies exist which should inhibit the licensing of the Catawba plant.
- 34. Also, no evidence was presented to show that there was any pressure by the licensee to approve faulty workmanship. Mr. McAfee was paid by the Applicants to detect faulty workmanship and to have it corrected. His testimony is that deficiencies he and others identified were corrected. He gave no testimony that faulty work was not corrected or that he was told not to have it corrected. Mr. McAfee's only

negative testimony concerning corrective action was that it was not done by NCI reports. Criterion XVI, Corrective Actions, to Appendix B does not require that every deficiency be documented by NCI or equivalent paper work. There is no purpose in an engineering evaluation of a deficiency when the corrective action is clear and the corrective action brings the equipment into compliance with specifications, or if the deficiency is not a repetitive item requiring engineering investigation and evaluation. In such case, the deficiency is not significant within the meaning of Criterion XVI.

35. Mr. Hoopingarner's allegations concerning pressure were vague and frequently hearsay. His complaints about scaffolds do not affect the integrity of the plant, and were not agreed with by the craftsmen about whom he expressed concern. Part of his deposition dealt with alleged pressure not to talk to NRC. During one of the special inspections discussed in paragraph 32, above, the applicants encouraged workers to talk to the NRC inspectors. Approximately 30 site workers took advantage of the opportunity. According to the lead Region II inspector, Mr. Hoopingarner was one of those who did. No one interviewed in either inspection showed any fear of reprisal.

36. In summary, the Staff supports the Applicants' motion that the portion of Contention 6 dealing with the allegations of Mr. McAfee and Mr. Hoopingarner has not been supported by material facts and should be dismissed.

JACK C. BRYDAT

Subscribed and sworn to before me this 2 day of August, 1983

Notary Public

My commission expires:

My COMMISSION EXPIRES AUGUST 20, 1989.

## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

#### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	
DUKE POWER COMPANY, ET AL.	Docket Nos. 50-413 50-414
(Catawba Nuclear Station, )	

#### CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF ANSWER SUPPORTING APPLICANTS' MOTION FOR PARTIAL SUMMARY DISPOSITION OF PALMETTO ALLIANCE CONTENTION 6" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, by deposit in the Nuclear Regulatory Commission's internal mail system, or, as indicated by double asterisks, by express mail, this 3rd day of August, 1983:

\*James L. Kelley, Chairman Administrative Judge Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, DC 20555

Dr. A. Dixon Callihan Administrative Judge Union Carbide Corporation P. O. Box Y Oak Ridge, TN 37830

Dr. Richard F. Foster Administrative Judge P. O. Box 4263 Sunriver, Oregon 97702

Richard P. Wilson, Esq. Assistant Attorney General P. O. Box 11549 Columbia, South Carolina 29211

Jesse L. Riley Carolina Environmental Study Group 854 Henley Place Charlotte, North Carolina 28207 \*\*Robert Guild, Esq.
Attorney for the Palmetto Alliance
P. O. Box 12097
Charleston, South Carolina 29412

Palmetto Alliance 2135½ Devine Street Columbia, South Carolina 29205

J. Michael McGarry, III, Esq. Debevoise and Liberman 1200 17th Street, NW Washington, DC 20036

William L. Porter, Esq. Albert V. Carr, Esq. Ellen T. Ruff, Esq. Duke Power Company P. O. Box 33189 Charlotte, NC 28242

- \*Carole F. Kagan, Attorney Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Washington, DC 20555
- \*Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Washington, DC 20555
- \*Atomic Safety and Licensing Appeal Board Panel U.S. Nuclear Regulatory Commission Washington, DC 20555
- \*Docketing & Service Section Office of the Secretary U.S. Nuclear Regulatory Commission Washington, DC 20555

George E. Johnson Counsel for NRC Staff