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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, Units 1 and 2)	)	

TESTIMONY OF W. H. OWEN

Q. STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Warren H. Owen, and my business address is 422 South Church Street, Charlotte, North Carolina.

Q. STATE YOUR PRESENT JOB POSITION WITH DUKE POWER COMPANY AND DESCRIBE THE NATURE OF YOUR JOB.

A. I am Executive Vice President, Engineering & Construction. I am responsible for the departments that design, construct and provide the quality assurance for our generating facilities. I am also a member of the Board of Directors of the company and serve on the Executive Committee.

Q. DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND QUALIFICATIONS, INCLUDING YOUR PRIOR POSITIONS HELD WITH DUKE POWER.

A. I graduated from Clemson University in 1947 with a Mechanical Engineering degree and went to work for Duke Power in 1948. After assignments at two of the company's coal fired generating stations and the Production's Department General Office staff, I moved to the Design Engineering Department in 1961. In 1966 I was appointed the Principal Mechanical engineer in the Design Engineering Department. I served in that capacity until 1972 when I was appointed Vice President of the Department. In 1978 I

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became the Senior Vice President for Engineering and Construction and was elected to the Board of Directors of the company. In 1982 I was appointed Executive Vice President, Engineering and Construction, and remain in that position today.

I am a registered professional engineer in the States of North and South Carolina.

I have served in responsible positions in industry-related organizations such as the Electric Power Research Institute, the Edison Electric Institute, the Atomic Industrial Forum and the Institute for Nuclear Power Operations. Currently I am serving as Chairman of the AIF Policy Committee on Nuclear Regulation.

Q. DESCRIBE THE CORPORATE ORGANIZATION OF DUKE POWER COMPANY AS IT RELATES TO CONSTRUCTION, DESIGN ENGINEERING AND THE QUALITY ASSURANCE PROGRAM.

A. I have attached to my testimony an organizational chart included as Attachment 1 which shows those departments having a direct bearing on the construction and operation of our power generating facilities. The departments directly involved in the generation of electricity report to Austin C. Thies. These departments are responsible for the power generating facilities of the company, which are divided into three types; fossil plants, nuclear plants, and hydroelectric plants. Each plant type is within a department managed by a Vice President reporting to Austin Thies. The Fossil Production Department is responsible for the operation and the maintenance of the coal-fired generating stations on our system; the Nuclear Production Department is responsible for the operation and maintenance of the nuclear plants on our system; and the Operating Department is responsible for the operation and maintenance of the

hydroelectric plants on our system, and for dispatching all generation on the system

The three departments which are responsible for the design and construction of our generating stations all report to me. The Design Engineering Department is responsible for the complete design of generating facilities, including preparation of drawings, specification of equipment, and detailed information showing technical and quality requirements for construction of a station. These quality requirements are developed by the Design Engineering Department and reviewed by the Quality Assurance Department. The Construction Department is responsible for constructing the station in accordance with all the requirements imposed by the Design Engineering and Quality Assurance Departments.

The Quality Assurance Department is responsible for monitoring the work done in the Design Engineering and Construction Departments in accordance with all aspects of our quality assurance program. In addition the Quality Assurance Department monitors the operation of our nuclear power plants in accordance with the company's quality assurance program.

Q. DOES THIS CORPORATE ORGANIZATION DIFFER IN ANY SIGNIFICANT MANNER FROM THE ORGANIZATION IN 1981?

A. This organization, as it pertains to the engineering and construction functions of the company, does not differ in any significant manner from the organization in effect during 1981. In the Power Operations area, the Fossil Production and Nuclear Production Departments were formerly one department called Steam Production.

Q. DESCRIBE THE INTERFACE BETWEEN THE QA DEPARTMENT AND THE CONSTRUCTION DEPARTMENT ON THE CORPORATE LEVEL.

A. As the Executive Vice President for Engineering and Construction, I am the corporate officer with ultimate responsibility for quality assurance. Although the Construction and Quality Assurance Departments report to me, both departments function as independent organizations, each with its own department head, who is completely responsible for its work. The Construction Department is responsible for building the plant according to design, quality requirements, schedule, and budget. The Quality Assurance Department independently verifies the quality through tests and inspections, and is responsible for identifying and resolving quality problems.

The Quality Assurance Department has complete independence with respect to setting quality requirements and defining the tests and inspections to identify problem areas if they exist, and has complete independence with respect to monitoring the resolution of any quality problems which develop.

The Quality Assurance and Construction Departments cooperate in the development of procedural requirements and the training of all employees so that these quality requirements are well understood. The two departments also cooperate in scheduling their work so that quality assurance inspection personnel will be available when needed.

The Quality Assurance Department has direct access to me to be sure that they have sufficient resources, both in number of employees and in technical skills, to fulfill their responsibilities. In addition the QA Department has direct and independent access to

me to discuss any problems associated with implementing the Quality Assurance Program.

Q. DESCRIBE THE INTERFACE BETWEEN THE QA DEPARTMENT AND THE DESIGN ENGINEERING DEPARTMENT AT THE CORPORATE LEVEL.

A. At the corporate level the interface between the Design Engineering Department and the Quality Assurance Department is very similar to that between the Quality Assurance Department and the Construction Department. The Quality Assurance Department works with the Design Engineering Department in specifying quality requirements for the plant and monitors the activities in the Design Engineering Department to confirm that all requirements of our quality assurance plan are met.

The Quality Assurance Department works with the Design Engineering Department in providing the training necessary so that design employees understand the quality requirements and the responsibilities of each department.

Q. IS DUKE POWER CAPABLE OF DESIGNING AND CONSTRUCTING SAFE ELECTRIC GENERATING PLANTS?

A. Yes. I believe that our plant experience amply demonstrates that we are capable of designing and building safe plants. As a matter of long-standing practice, Duke's management is committed to quality and public safety as related to design, construction and operation of its generating stations. Duke's design and construction experience has included many projects whose daily operations have a direct bearing on public safety. This experience includes some of the largest dams in the southeast, fossil-fired steam stations that continue to establish national efficiency records,

and two nuclear stations, McGuire and Oconee. These achievements would not have been possible without Duke's commitment to quality work. This same commitment to quality has been applied throughout the design, construction and testing of the Catawba Nuclear Station.

The organization for design of the Catawba Nuclear Station is essentially the same as that which designed and placed into operation both Oconee and McGuire.

Q. HOW LONG HAS DUKE POWER BEEN INVOLVED IN DESIGNING AND CONSTRUCTING ELECTRIC GENERATING PLANTS?

A. Duke Power Company has over 75 years experience in the design, construction and operation of electric generating plants. Currently, Duke has in operation eight fossil-fired steam electric plants, five nuclear units at two different plants, and 22 hydro electric plants, all of which (with the exception of Cliffside Unit 5) were designed and constructed by Duke.

Q. HOW LONG HAS DUKE POWER BEEN INVOLVED IN DESIGN AND CONSTRUCTION OF NUCLEAR GENERATING PLANTS?

A. Duke's involvement in nuclear power began in early 1950s when company personnel began receiving nuclear training. Since 1955, Duke personnel have been involved full-time on nuclear projects. Through Carolina-Virginia Nuclear Power Associates, Duke participated in design and operation of the Parr Reactor in South Carolina, which produced electricity from 1963 until 1967 as part of a five-year operating research program. The Catawba Station is very similar to the recently completed McGuire Nuclear Station located northwest of Charlotte on the shores of Lake Norman. The experience which was gained in the design, construction and

operation of the Oconee and McGuire Nuclear Stations has been applied fully to the design and construction of the Catawba Nuclear Station.

Key engineering personnel in the Duke organization have had prior nuclear experience as well as extensive experience in the electric power field. Duke has numerous engineers who have completed undergraduate and graduate level courses in nuclear engineering at major universities, and personnel who have been extensively trained through Duke's own in-house programs. I should note that Duke employs more than 400 registered professional engineers. I would also point out that many of the senior officers of the Company, such as Bill Lee, Doug Booth, myself, L. C. Dail, R. L Dick, George Grier, and others also are registered professional engineers.

Q. HOW DOES DUKE POWER COMPANY FULFILL ITS RESPONSIBILITIES TO THE PUBLIC, ITS INVESTORS AND ITS EMPLOYEES TO DESIGN A SAFE PLANT?

A. We selected the Catawba design based on proven reliability and design concepts. The design philosophy used by the Company is a "defense in depth" concept. The first part of this concept is to design for maximum safety during normal operating conditions. This concept involves providing design features which are favorable to safe operation, features which emphasize the quality of backup systems, and a keen insight into the inspectability and testability of the plant and its systems. Duke Power is unique in that it designs, builds and operates its own power generating facilities. We have been able to take advantage of that uniqueness in a total integration of functions throughout the initial concept development,

design, construction, and start up testing of the plant. An Operational Review Board, headed by the Nuclear Production Department, provides feedback to Design Engineering concerning operating experience. Through that feedback and the Nuclear Production Department's involvement in reviewing each system concept, components and structures, inspectability, maintainability, and testability have been given due consideration.

The second part of the "defense in depth" concept requires that we postulate that highly improbable accidents will occur. Some of these assumed accidents are quite severe in their potential impact on plant systems. However, the systems and structures required to bring the plant to a safe condition following a postulated accident are designed to withstand these scenarios. All safety-related systems are designed to be redundant in that the accident is postulated to occur with one system not functioning.

The third part of the "defense in depth" concept is to go beyond that which might be called for under assumed accident conditions. Bulletins from the Nuclear Regulatory Commission, and a vast base of experience which has been gained from other utilities are all part of our input for a safe design.

Q. HOW DOES DUKE POWER COMPANY FULFILL ITS RESPONSIBILITY TO THE PUBLIC, ITS INVESTORS AND ITS EMPLOYEES TO CONSTRUCT A SAFE PLANT?

A. Since the initial design work of nuclear power plants in the early 1950s, many national standards, codes and regulatory requirements have been developed based on extensive government tests, industry and university research programs, and actual experience at operating nuclear stations.

Duke Power's philosophy regarding design and construction is to produce a quality product. More than 75 years of experience in designing and building generating facilities following this philosophy has resulted in a record second to none. This philosophy is carefully instilled in each practicing engineer to assure the continuation of a fine tradition of engineering excellence. Duke is also committed to fulfilling the requirements of various national codes associated with nuclear power plant design.

The Nuclear Regulatory Commission includes in its regulations certain general design criteria which all nuclear power reactors must fulfill. The Catawba Nuclear Station fulfills each general design criterion as described in Duke Power's application for an operating license.

Q. HOW DOES THE COMPANY ASSURE THAT THE PLANT IS BUILT IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS, AND THAT VARIATIONS FROM DESIGN SPECIFICATIONS DO NOT AFFECT THE QUALITY OR SAFETY OF THE PLANT?

A. The company assures that the plant is built in accordance with design specifications in several ways.

The Construction Department has in place an approved QA program which requires procedures and training to "build in" quality. The Quality Assurance Department inspects work to assure construction is in accordance with design drawings and specifications. The QA Department has in place approved procedures and personnel to independently inspect for quality and identify construction deficiencies. The Design, Construction, and Quality Assurance Departments see that the identified deficiencies are resolved. A thorough system of independent audits to assess

quality throughout the construction period is carried out by a Corporate QA Audit group, NRC resident and visiting inspectors, ASME programmatic surveys and onsite insurance agency inspectors. In addition, there is an Annual Management Audit conducted by experienced quality experts from other utilities.

During construction there are several formal programs to document changes in, or deviations from, design specifications necessary for one reason or another during plant construction. Variation Notices are written by Technical Support Engineers in the field with prior approval from Design Engineering when a deviation from design drawings is necessary because of interferences, the need for additional information, the desire to use a different option to facilitate construction, or for other reasons. These Variation Notices are reviewed in Design Engineering for concurrence with the change and to identify any adverse trends in particular areas of their work.

Design Engineering also uses the Design Nonconformance Procedure to document situations where designs released for construction do not fully conform with approved design criteria. The documentation, review, and corrective action resulting from these processes are trended, and action is taken to correct adverse trends. Occurrences of this nature at other Duke plants which involve nuclear safety are reviewed for potential impact on Catawba.

Safety-related mechanical systems in the plant undergo an extensive verification program, code stamping, and review by an authorized nuclear inspector from the American Society of Mechanical Engineers, (ASME). This process is designed to assure that the constructed condition of the safety-related mechanical

systems in the plant is correctly represented by the mathematical models which have been used to analyze the performance of the mechanical systems under associated operating and postulated accident conditions. The code stamp, or N-stamp, is a designation which is applied only after all the assemblies and components of a system have been certified to meet the rigorous standards of the American Society of Mechanical Engineers. In addition, systems and components require a rigorous startup and operational testing program which provides a final check prior to operating the plant.

Safety related electrical systems similarly undergo a rigorous inspection and functional testing program to confirm the constructed condition of each system. This program coupled with the startup and operational testing program assures that electrical systems consistently perform in accordance with specified design requirements.

Finally, because Design Engineering is an in-house organization of Duke Power Company, there is a close professional relationship between those who design the plant, those who build the plant, and those who operate the plant. The near geographical proximity of the design organization to the site permits frequent visits to Catawba by Design Engineering personnel to gain first-hand information about the progress of construction, to witness implementation of the design, and to review circumstances which could impact current or future design concepts.

Q. DOES THE DESIGN ENGINEERING DEPARTMENT HAVE A PROGRAM IN PLACE TO IDENTIFY AND CORRECT SYSTEMATIC DESIGN DEFICIENCIES?

A. Yes. Design Engineering is responsible for trending Variation Notices and reporting results to responsible groups. The collection and dissemination of data is coordinated for the department by the Projects Management Division. Design Engineering is also responsible for taking corrective action on all adverse trends identified by QA through construction Nonconforming Item Reports and Design Nonconformances.

The purpose of this review is to detect unfavorable trends as early as possible and to determine if additional corrective action is needed. This corrective action assures the cause of the problem is identified and appropriate steps are taken to preclude future problems.

Q. DOES THE CONSTRUCTION DEPARTMENT HAVE A PROGRAM IN PLACE TO IDENTIFY AND CORRECT SYSTEMATIC CONSTRUCTION DEFICIENCIES?

A. Yes. Each of the QA procedures used at the Catawba Construction site provides a clear method to identify and correct discrepancies. In addition, there are several procedures written specifically to identify, resolve and correct discrepancies. These are the Nonconforming Item Report, the Variation Notice, and Construction Discrepancies Procedures.

Q. HAVE YOU BEEN INVOLVED IN THE PROCESS WHICH SET THE PAY CLASSIFICATION FOR INSPECTORS?

A. I was not actually involved in the evaluation process, though I understand how it works. The evaluation process is described at greater length in the testimony of Mr. Grier, who was involved in the evaluation process. I was, however, the one who made the decision on the pay reclassification.

As background, I should mention that when we originally set up the welding inspector program, we recruited the inspectors from the crafts. That is, they were actually welders. We offered them more money than they made as craft, primarily because at that time we wanted persons with at least two year's experience as welders to be welding inspectors. Later, it became clear that the welding inspection job did not require experience as a welder. Instead, it required training in techniques being developed for welding inspection. It was then that, using techniques provided to us by our salary administration consultant, we began to reevaluate the job requirements for the welding inspectors, along with all other quality assurance inspectors.

Q. WERE YOU INVOLVED IN THE PAY RECOURSES BY WELDING INSPECTORS AFTER THE PAY RECLASSIFICATION?

A. No, I was not directly involved. However, as the recourse procedure was carried out, Gail Addis kept me advised of developments.

Q. WHEN DID YOU FIRST BECOME AWARE OF THE SAFETY CONCERNS EXPRESSED BY WELDING INSPECTORS AT CATAWBA?

A. I first became aware of potential safety concerns expressed by the welding inspectors at Catawba in early December of 1981. These concerns were brought to my attention by Gail Addis, who had been involved with the employee recourse procedure filed as a result of the pay adjustment for QA inspectors.

Q. WHAT DID YOU DO AFTER THESE CONCERNS CAME TO YOUR ATTENTION?

A. When Ms. Addis came to me to report these concerns, I immediately asked her to write a memorandum to set out all the concerns as they had been reported to her. I also informed Bill Lee of the fact that these concerns had been raised during the pay recourse process. We decided that a task force should be appointed to investigate the situation. Within a day or two I appointed a Task Force to determine whether technical inadequacies existed at the plant and what the scope of the problem was. This Task Force subsequently has become known as Task Force I. I instructed this Task Force to complete their assignment and report back to me by the end of the year. This they did.

Q. DID YOU ADVISE NRC OF THE ACTIONS BEING TAKEN BY THE COMPANY WITH RESPECT TO THESE CONCERNS.

A. Yes, NRC was notified in January 1982 by J. R. Wells.

Q. PLEASE EXPLAIN THE MANAGEMENT DECISIONS TO INITIATE THE VARIOUS TASK FORCE INVESTIGATIONS.

A. As I indicated above, when I appointed Task Force I, I wanted a judgement by experienced people to determine whether a problem existed and, if so, its magnitude and potential scope. When I received the report from Task Force I, it was clear to me that there were technical concerns which should be investigated.

Consequently, I appointed a second Task Force, which we refer to as the Technical Task Force. I instructed the Technical Task Force to assure that they had all the technical concerns expressed by the welding inspectors. I directed them to evaluate thoroughly each of these concerns. My intent in appointing this Technical Task Force was to assure that all the technical concerns

the welding inspectors had were brought out so that they could be investigated and evaluated fully, and, if necessary, corrective action could be taken. My aim in doing so was to determine if any of these concerns represented the possibility of unsafe or inadequate construction at Catawba.

Q. DID YOU INDICATE IN YOUR INSTRUCTIONS TO THE TECHNICAL TASK FORCE THAT YOU EXPECTED THEM TO REACH ANY PARTICULAR DECISION?

A. Absolutely not. My instructions to them were consistent with what I mentioned above. I told them I wanted all the concerns out and a complete evaluation of each.

Q. WHY DID YOU RETAIN LEWIS ZWISSLER OF MANAGEMENT ANALYSIS COMPANY.

A. I retained the Management Analysis Corporation (MAC) to review the activities of the Technical Task Force in order to provide an independent view of their investigation, evaluation, and recommendations. I asked Mr. Zwissler, whom MAC assigned to the matter, to review the approach and methods used by the Technical Task Force to assure that it obtained all the concerns; to review their approach and method in evaluating and resolving the concerns; and to review the qualifications of the individuals involved to assure that they were qualified to make the sorts of determinations they would have to make. I asked Mr. Zwissler to review the Task Force resolutions to ensure completeness and quality of work and to prepare a written report on the entire process as an independent report for Duke Management. I also

asked Mr. Zwissler to conduct his work so that he would be prepared, if necessary, to testify in the licensing proceedings for Catawba.

Q. WERE YOU INVOLVED WITH THE NONTECHNICAL TASK FORCE?

A. Not directly, but I did review the recommended actions from that Task Force.

Q. WERE YOU INVOLVED IN THE IMPLEMENTATION OF THE RECOMMENDATIONS ISSUED BY ANY OF THE TASK FORCES?

A. Not directly. However, I was kept fully advised of corrective actions planned.

Q. DESCRIBE YOUR ROLE IN IMPLEMENTING THE RECOMMENDATIONS OF THE TECHNICAL TASK FORCE.

A. My primary role was to provide my full support to department heads who were assigned actions by Task Force.

Q. DID IMPLEMENTATION OF THE TASK FORCE RECOMMENDATION AFFECT THE DEPARTMENTS UNDER YOUR SUPERVISION?

A. Yes, to some extent. No major organizational changes were made in any of the three departments. The majority of the changes, of course, were made in the Quality Assurance Department, and the testimony of Mr. Grier discusses those in some detail. So far as the Construction Department was concerned, changes were made in procedures, and training programs in the area of communications and interpersonal relationships were implemented. Design Engineering changed certain of its procedures to conform with changes in procedures made by the Construction Department.

Q. HOW WOULD YOU DESCRIBE THE PRIMARY CONCERNS OF THE WELDING INSPECTORS?

A. I believe that the welding inspectors felt they did not have adequate management and supervisory support in doing their jobs. I attributed that feeling to a failure to achieve adequate communication on the part of management and supervision. The task of the welding inspectors is to document variation from procedures. Resolution of those variations is in many instances not their responsibility; it is the responsibility of others within the organization. This should have been more clearly communicated to the welding inspectors by management and supervision. It apparently was not, and in instances where welding inspectors documented variations, and it was subsequently determined that work was acceptable as performed, the inspectors believed this constituted a lack of support primarily because questions they raised were not satisfactorily answered. The reasons for the decision that the work was acceptable should have been clearly communicated to them.

I base my conclusion in this regard on the involvement and oversight I had with the welding inspector concerns. As I have mentioned above, that involvement began with the pay recourse matter and though I was not involved directly in the recourse, Ms. Addis kept me informed of events. In addition, I am of course thoroughly familiar with the reports of the Task Forces. I have reviewed each and have discussed the findings and conclusions with the members.

Q. THE CONCERNS EXPRESSED BY THE WELDING INSPECTOR WERE INITIALLY CHARACTERIZED AS CONCERNS AFFECTING THE QUALITY OF WORK OR THE SAFETY OF THE CATAWBA PLANT.

IN YOUR VIEW, DID THE CONCERNS EXPRESSED BY THE WELDING INSPECTORS AFFECT THE QUALITY OR THE SAFETY OF THE CATAWBA PLANT?

A. No. They did not express any concerns which would adversely affect either the quality or the safety of the plant.

Q. IN YOUR VIEW, DID THIS EXPRESSION OF CONCERNS BY THE WELDING INSPECTORS INDICATE THAT THERE WAS A BREAKDOWN IN THE QA PROGRAM AT CATAWBA OR THAT THE QA PROGRAM WAS NO LONGER WORKING AT CATAWBA?

A. No. Quite the contrary. The discussions and communications between management and employees that took place in late 1981 and 1982 clearly showed that employee recourse procedures were in place and working. As I noted above, the concerns voiced by the inspectors centered on communications problems, in that questions they raised were not being fully answered. All of the review clearly showed that our QA program was in place and working.

Q. ARE YOU FAMILIAR WITH THE 1981 SALP REPORT?

A. Yes.

Q. THE 1981 SALP REPORT RATES THE CATAWBA PROJECT "BELOW AVERAGE", BASED IN PART ON CRITICISM OF THE QA PROGRAM. IN YOUR VIEW, DOES THIS SALP REPORT INDICATE THAT THERE ARE SIGNIFICANT OR SYSTEMATIC DEFICIENCIES IN DESIGN OR CONSTRUCTION, OR THE QA PROGRAM, AT CATAWBA?

A. No. The 1981 SALP report covered a period from September 1979 through August 1980. Based on an analysis of the basis for the 1981 SALP report, I concluded that all the items leading to that 1981 rating were satisfactorily corrected prior to issuance of the

report. The 1981 SALP Report was based on data generated months before the report was issued. The period covered by the 1981 SALP Report happened to coincide with a period of extremely heavy construction activity at Catawba. Naturally during such a period there were more violations recorded. The 1981 SALP Report based its ratings on the number of violations with little attempt to account for other factors, such as construction activity. Therefore, Catawba was given a "Below Average" rating. Under such circumstances the "Below Average" rating does not indicate either systematic or significant deficiencies in the QA program at Catawba.

In our view the rating was not justified and we have told the NRC this. Among other things, the 1981 SALP Report does not take into account corrective action taken by Duke. In any event, a "Below Average" rating does not indicate systematic or significant deficiencies. The NRC itself has said that "[a] rating of below average does not mean that a facility was unsafe or that its operation or construction should be stopped." So the NRC's own words preclude drawing that conclusion. In addition, I do think it is significant to note that two subsequent SALP reports have given Catawba very high marks, particularly in the Quality Assurance area.

Q. DESCRIBE WHAT WAS DONE IN RESPONSE TO THE VIOLATIONS COVERED BY THE 1981 SALP REPORT.

A. No response was necessary at the time of the report because as I noted above, the nonconformances covered by the report had all been resolved previously. As I mentioned, the report was issued long after the data on which it was based was generated.

I hereby certify that I have read and understand this document, and believe it to be my true, accurate and complete testimony.

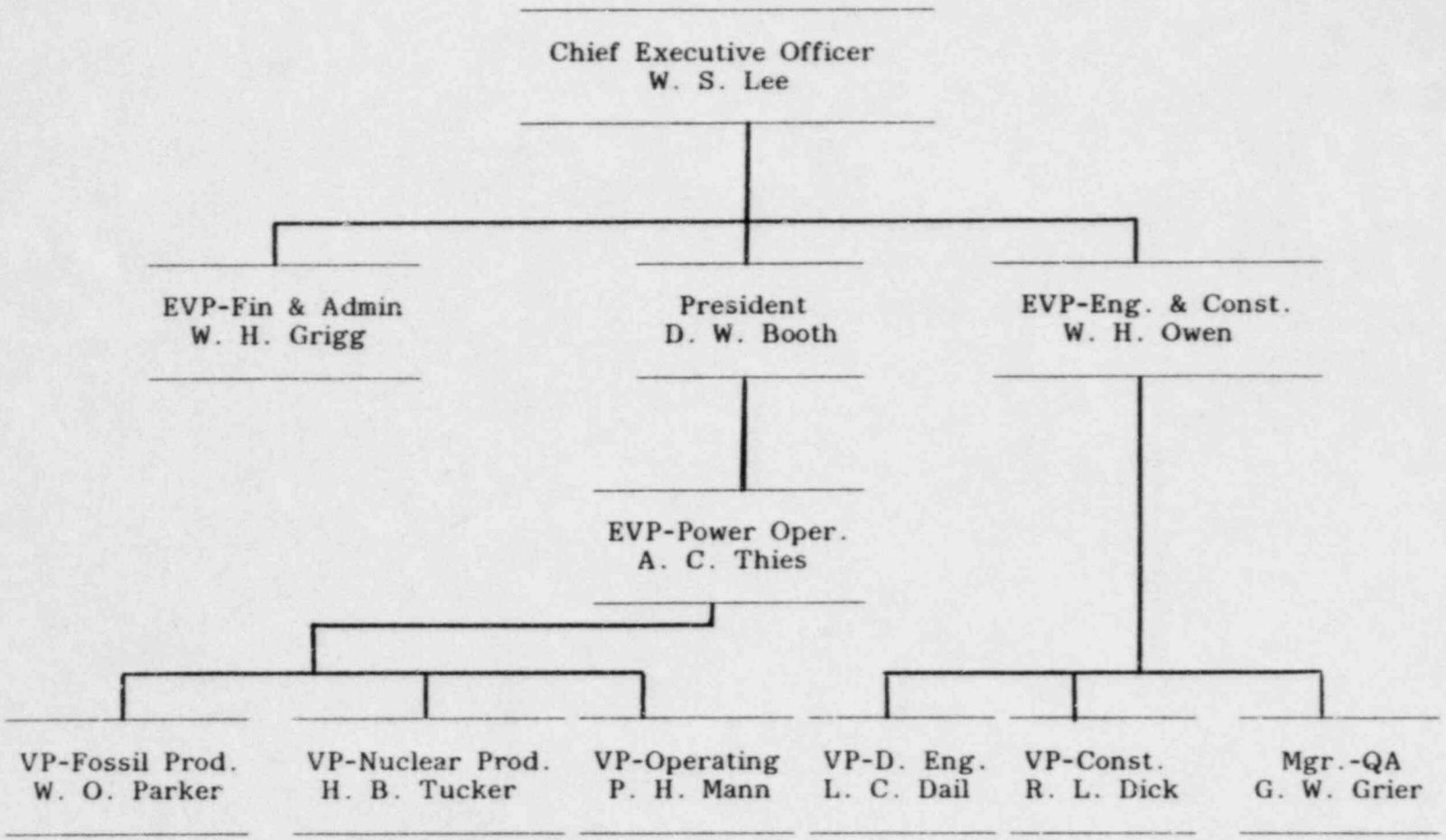
W. H. Owen

Sworn to and subscribed before me
this 24th day of September, 1983.

Notary Public

Commission Expires 7-28-86

Attachment 1



NUCLEAR REGULATORY COMMISSION

Docket No. 50-413 Official Exh. No. 1

In the matter of Catawba

Staff ______ IDENTIFIED ✓

Applicant ✓ RECEIVED ✓

Intervenor ______ REJECTED ______

Cont'g Off'r ______

Contractor ______ DATE 10/5/83

Other ______ Witness ______

Reporter Ron Graham