

3. In February 1986, within days of my arrival at TVA, Mr. Drotleff, who was the senior SWEC engineering manager to whom I reported, asked me to review the technical responses to the so-called NSRS perceptions which were being drafted. I did so, and provided marked up drafts, with comments, to either Mr. Dick Kelly or Mr. Jim Huston, in QA, who were overseeing this activity. I also recall discussing the substance of the responses with Mr. Huston, but I cannot recall the details of that discussion.

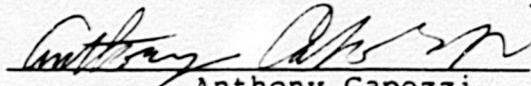
4. I did not work with Mr. Kirkebo in my review. As the individual responsible for Engineering Assurance, it was important for my comments and review to proceed independently of the engineering organization's review.

5. I reported back to Mr. Drotleff my satisfaction with the responses after I completed my review. I recall that at the time, I was aware that a number of other non-TVA personnel -- Mr. White's senior advisors and non-TVA staff -- were also reviewing the technical responses, in addition to myself and Messrs. Drotleff, Kirkebo, Kelly and Huston. I'm not sure specifically who the other reviewers were.

6. In addition to reviewing the technical responses, I decided to pull together and review recent independent reviews of QA activities at Watts Bar that had been conducted by outside organizations, including NRC audits and inspections, INPO, and other reviews in order to better understand the past report card of the Watts Bar QA program. I undertook this substantial

effort, which amounted to reviewing some two to three feet of paper. It was my judgment at the time that the independent reviews of the QA program as implemented at Watts Bar for the most part were quite favorable. This documentation was sent down to the Quality Assurance Group in Chattanooga.

7. I was not interviewed by the NRC on my review of the technical responses, or on any related matter.


Anthony Capozzi

Subscribed and sworn to before me
this 15th day of November, 1988.


Notary Public
State of Tennessee at Large

My Commission expires: 1/19/91.

**DETAILED EXPERIENCE RECORD
CAPOZZI, ANTHONY P.**

TENNESSEE VALLEY AUTHORITY, KNOXVILLE, TENNESSEE (February 1987 to Present)

Appointments:

Manager of Engineering Assurance, Division of Nuclear Engineering - February 1987 to Present

As MANAGER OF ENGINEERING ASSURANCE (February 1987-Present), manage and direct the work of Engineering Assurance in Nuclear Engineering (DNE) to ensure the quality of the work performed. Develops and administers DNE-level procedures for conducting engineering work in accordance with Nuclear Regulatory Commission and other applicable quality assurance requirements.

STONE & WEBSTER ENGINEERING CORPORATION, BOSTON, MASSACHUSETTS (October 1972 to February 1987)

Appointments:

Advisor to TVA, Engineering Assurance Activities - February 1986

Assistant Chief Engineer, Engineering Assurance Division - April 1983

Project Quality Assurance Manager, Permian Basin Project - July 1980

Supervisor of Engineering Services, Engineering Assurance Division - December 1974

Lead Engineer of Engineering Services, Engineering Assurance Division - May 1974

Engineering Assurance - October 1972

As ADVISOR (February 1986-January 1987) to Tennessee Valley Authority (TVA) upper management, Mr. Capozzi provides experience and expertise in setting up an Engineering Assurance organization to oversee engineering and design activities for all its nuclear plants. As part of this assignment, developed oversight review programs to regain confidence of the engineering and design which supports plant hardware. These programs include in-depth technical reviews of engineering changes made to the operating plants (Sequoyah units 1 and 2 and Browns Ferry 1, 2, and 3) since receiving an Operating License. The programs are structured to ensure the engineering changes made were technically acceptable and provide required level of confidence for restart of the units that are presently shut down. Reconciling design control issues is a major feature of the program. This includes providing confidence that modifications are supported by engineering analysis and proper documentation with conformance to licensing commitments. This is accomplished by reestablishing the design basis, establish plant configuration, and system evaluations. A similar program has been developed for TVA's Watts Bar Nuclear Plant (NTOL). All these programs are being developed and implemented with extensive NRC interface and are proving to be accomplishing their intended objectives.

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Prior to joining SWFC, he was employed by General Dynamics, Quincy Shipbuilding Division, where he held positions of a Manufacturing Engineer, Manufacturing Coordinator, and finally as Facilities Engineer. He has also been self-employed as a home builder and in providing construction estimates. Prior to joining General Dynamics, Quincy Shipbuilding Division, he was employed by Newport News Shipbuilding & Dry Dock Company as a Nuclear Engineer in preparation for the second refueling of the U.S.S. Enterprise.

CERTIFICATIONS

Lead Auditor Qualifications to ANSI N45.2.23
Quality Engineer (Certification Number E-7550)

TECHNICAL SOCIETIES

Honorary Member of Lions Club - Woburn, Massachusetts
National Honor Society
American Society for Quality Control
Voice of Energy

PAST CLEARANCES

AEC "L" Clearance
Department of Defense Security Clearance

CAPOZZI, ANTHONY P.

January 1987
ASSISTANT CHIEF ENGINEER
ENGINEERING ASSURANCE DIVISION

EDUCATION

Lowell Technological Institute - B.S. in Textiles 1963-1967
Newport News Shipbuilding & Dry Dock Company - Nuclear Reactor Theory Course
Summer of 1967
Parklawn Memorial Park, Hampton, Virginia - Sales Course Fall of 1968
Woburn High School - High Honors 1963
ASQC Quality Engineering Courses 1979 and 1980
Various Stone & Webster Continuing Education Courses and Management Workshops

EXPERIENCE SUMMARY

Mr. Capozzi has 19 years of experience in the engineering industry. Currently, as Assistant Chief Engineer of the Engineering Assurance Division, he is directly responsible for all facets of the Audit Program, Procurement of Engineering Services, and the Corporation Problem Report System. He has formalized and implemented a technical audit program for assessing the adequacy of the design process for a number of major nuclear power projects. This program has been accepted by the NRC as an alternative to IDIs and IDVPs. Presently Mr. Capozzi is on assignment to Tennessee Valley Authority (TVA) as an Advisor to TVA upper management and is providing experience and expertise in setting up an Engineering Assurance organization to oversee engineering and design activities for all its nuclear plants. As part of this assignment he has developed oversight review programs to regain confidence of the engineering and design which supports plant hardware.

Since joining Stone & Webster Engineering Corporation (SWEC) in 1972, Mr. Capozzi has been instrumental in developing and implementing a unique program to control engineering services procurements for nuclear, fossil, hydroelectric, and other projects. He has served as Supervisor of the Procured Services Group and was responsible for managing and controlling engineering services such as site environmental and geotechnical studies required in the design and licensing of power plants. He was also responsible for overall coordination of Engineering Department activities in regards to assisting the Procurement Quality Assurance Division of the QA Department on hardware audits and surveys. Emphasis in this program has been in the environmental qualification of class 1B equipment in a harsh and mild environment. Mr. Capozzi has also held positions of Project Quality Assurance Manager, Engineering Assurance Lead Engineer, and Engineering Assurance Engineer. He was also assigned to the Internal Audit Group of the Engineering Assurance Division as an Engineering Assurance Engineer. Special assignments in this group included a paper study and a specification study to minimize paper and streamline specifications respectively.

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As SUPERVISOR of the Engineering Services Group of the Engineering Assurance Division (December 1974-March 1983) and also served as Project Quality Assurance Manager for the Permian Basin Project in addition to supervisory responsibilities during July 1980-December 1982. Responsibilities include the following:

1. Supervise and coordinate the review and approval of Scope of Work Documents and Purchase Requisitions for procuring engineering services for the Engineering Department.
2. Supervise and coordinate the review and approval of supplier QA programs and procedures for engineering services.
3. Supervise and coordinate the scheduling, preparation, and reporting of preaward surveys of suppliers for engineering services including client participation and involvement.
4. Supervise and coordinate the scheduling, preparation, and reporting of postaward audits of suppliers for engineering services including client participation and involvement.
5. Supervise and coordinate the preparation and updating of engineering services technical procedures.
6. Participate in client, NRC, and QA Department audits of the Engineering Services Group.
7. Provide assistance to engineering department personnel and clients on the various aspects of engineering services, i.e., procurement document preparation, supplier's QA program requirements, supplier surveys, and supplier audits.
8. The above responsibilities have been exercised on a wide range of engineering services in connection with the design and licensing of fossil, hydroelectric, and nuclear power plants. Some examples of the types of engineering services with which he has been involved are listed below:
 - a. Seismic qualification testing
 - b. Hydraulic model studies and numerous test programs.
 - c. Engineering and design services

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- d. Test borings and subsurface explorations
- e. Meteorology and air quality monitoring programs
- f. Data reduction and digitizing services
- g. Computer services
- h. Aquatic and terrestrial ecology studies
- g. Computer services
- h. Aquatic and terrestrial ecology studies
- i. Reading of groundwater test wells
- j. Geologic investigations
- k. Water quality studies
- l. Noise studies
- m. Calibration and material engineering services
- n. Rock dating tests (K - Ar radiometric dating)
- o. Soils testing and classification
- p. Gyroscopic measurements
- q. Gas tracer studies
- r. Resonant column tests
- s. In-situ velocity measurements and seismicity analysis
- t. Offshore refraction, geophysical logging, verticality, and uphold survey
- u. Maintenance of instrumentation for earthquakes
- v. Geologic mapping

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- w. Piezometer installation for environmental seepage analysis
 - x. Neutron activation and X-ray fluorescence analysis
 - y. Installation of heave monuments, test densification programs, exploratory shafts in frozen ground, petrographic analysis, spectroscopic scans, sediment sampling, and many others too numerous to list
 - z. Environmental qualification of class 1E equipment
9. Supervise and coordinate the Engineering Department activities in regards to assisting the Procurement Quality Assurance Division of the QA Department on hardware audits and surveys. Recent emphasis in this program has been in the environmental qualification of class 1E equipment in a harsh and mild environment.
10. Prepare budget estimates for Engineering Services Group activities.
11. Supervise and coordinate the preparation of a Project Quality Assurance Plan for the Salina Basin Project which is part of the National Waste Terminal Storage Program for permanent disposal of high level nuclear waste.
12. Perform the duties of Project Quality Assurance Manager on the Permian Basin Project which is part of the National Waste Terminal Storage Program for permanent disposal of high level nuclear waste. Responsibilities include the following:
- a. Develop and maintain the Quality Assurance Plan
 - b. Assist project personnel in implementing the Quality Assurance Plan
 - c. Coordinate vendor audits, surveys, and reviews of quality assurance program/procedures
 - d. Coordinate field inspections and surveillances of site activities
 - e. Coordinate internal audits of project activities
 - f. Coordinate review and approval of procurement documents for engineering services activities
 - g. Act as a focal point on all quality assurance matters including direct communication with the Office of Nuclear Waste Isolation of Battelle Memorial Institute

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- h. Provide consulting services to the University of Texas at Austin on Quality Assurance matters
- i. Prepare and monitor budgets for Quality Assurance activities

As LEAD ENGINEER of Engineering Services (May-December 1974)

Responsibilities included the following:

1. Review and approve Scope of Work Documents and Purchase Requisitions for procuring engineering services for the Engineering Department
2. Review and approve Supplier QA programs and procedures for engineering services
3. Coordinate the scheduling, performing, and reporting of preaward surveys of suppliers for engineering services.
4. Coordinate the scheduling, performing, and reporting of postaward surveys of suppliers for engineering services.

As ENGINEERING ASSURANCE ENGINEER (October 1972-May 1974)

Responsibilities included the following:

1. Scheduling, performing, and reporting internal Stone & Webster audit activities as appropriate.
2. Project Service Representative for the Wisconsin Electric Project
3. Perform special assigned tasks such as the following:
 - a. Paper Study (Forms and Reports)
 - b. Specification Study

GENERAL DYNAMICS, QUINCY SHIPBUILDING DIVISION, QUINCY, MASSACHUSETTS (January 1969-September 1972)

As FACILITIES ENGINEER (February-September 1972), function was the production responsibility of all new facility installations in regard to bidding on new contracts and writing/proposing of manufacturing plans on such contracts including equipment requirements. All manufacturing plans containing a step-by-step approach to an acceptable production scheme.

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Self-employed (Home Builder and Construction Estimates) (July 1971-February 1972)

As MANUFACTURING COORDINATOR (February-July 1971), function was to investigate and coordinate possible backcharges against various vendors from which the company purchased a cross section of products and services. Built up a case against their deficiencies and negotiated the money value of the claim based on the number of expended hours to eliminate such a deficiency, without legal proceedings. Successfully negotiated well in excess of \$250,000 with most of the backcharges dating back 2 to 3 years. Cleared up most of these cases without going the legal circuit.

As MANUFACTURING ENGINEER (January 1969-February 1971), work experience in the area of development and manufacturing engineering: working on such varied projects as Brazing Analysis, Forge Shop Study, Electrical Shop, Sheet Metal Shop, Automatic Burning Machines, Numerical Control, and Digital Readout. In conjunction with these projects, assigned to follow up all new facility installations, including the recommendation of any design changes, writing of appropriate process control procedures, adherence to ecological studies, and good shipyard practices. Two of the more predominant facilities were a pipe cleaning and a steel preparation/paint line facility. Troubleshooting various production problems in all these projects and recommending smoother and better flow were of major importance to job scope.

NEWPORT NEWS SHIPBUILDING & DRY DOCK COMPANY, NEWPORT NEWS, VIRGINIA (July 1967-January 1969)

As NUCLEAR ENGINEER, work experience was primarily in Nuclear Engineering. Worked in preparing for the second refueling of the U.S.S. Enterprise. Major emphasis on this preparation was to review drawings to be used on the refueling, having these drawings changed to suit refueling requirements, writing new procedures, and updating old ones, checking piping systems on a prototype Waterborne Expended Fuel Container, and correct valve lineups used on various systems. Worked in direct contact with the Navy in approving and scheduling of refueling drawings.