Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 323-5341

F. L. CLAYTON, JR.
Senior Vice President

Alabama Power
the southern electric system

August 10, 1979

Docket No. 50-348

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Denton:

Enclosed is Alabama Power Company's response to your letter requesting information on management and technical resources available to the company to handle unusual events.

Yours very truly,

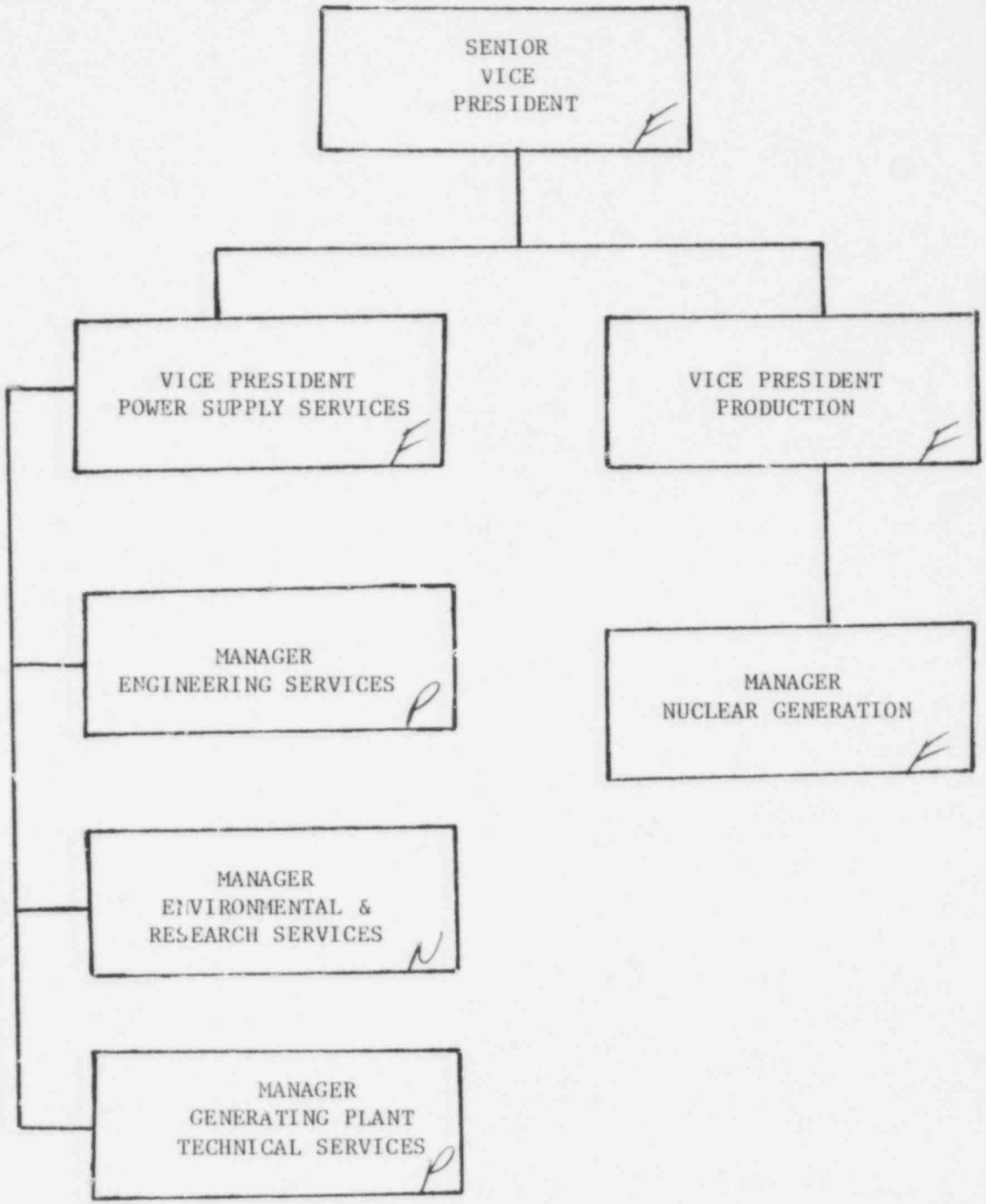
F. L. Clayton, Jr.

FLCjr/KAP/mmb

Enclosure

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge

MANAGEMENT



F. L. Clayton, Jr., Senior Vice President

1) Functions, Responsibilities, and Authority:

   1) Provide overall management of the Production and Power Supply Services departments and matters involving the company's electric power generation resources and recommend to the Executive Vice President plans for selection, placement, accountabilities, and development of managerial personnel within the Production and Power Supply Services departments.

   2) Participate with others in top management in formulating improvements in company policies, procedures and practices, and in assuming the effective implementation of those approved in order to facilitate the achievement of Alabama Power Company objectives.

   3) Serve as liaison with the responsible senior officer for advice and support involving legislative and regulatory acts affecting electric power generation.

   4) Has the authority to utilize any individuals or equipment of the Production and Power Supply Services Departments of the Company. He also has the authority to utilize personnel from Southern Company Services, the Architect-Engineer Service Company of the Southern Company System.

2) Educational Background:

   1948 - BS Degree in Mechanical Engineering.

   1960-1977 - Attended a number of training seminars on nuclear design concepts, licensing and fuels.

   1961-1962 - Nuclear Power Fundamentals taught by Southern Company Services in Birmingham, Alabama.

   1970 - Audited nuclear engineering course presented to thirty-five company engineers by University of Alabama.

3) Experience Background:

   a) Directly involved in the review of design and equipment evaluation of Farley Units No. 1 and No. 2 and the Barton Plant (now cancelled) from 1969 to present. Participated in the contractual negotiations for the NSSS and nuclear fuels.

      Line responsibility for the staffing, training and overall supervision of the operating staff and supporting forces for the Farley Plant since the beginning of this project.

   b) Nineteen years' field experience in fossil generation including twelve years as plant manager.

      Professional Engineer - State of Alabama.

R. P. MCDONALD, VICE PRESIDENT - POWER SUPPLY SERVICES

1. Functions, Responsibilities, and Authority:

   1) Provide overall management of the Power Supply Services Department and recommend to the Senior Vice President plans for selection, placement, accountabilities, and development of managerial personnel within the Power Supply Services Department.

   2) Participate vertically and horizontally with members of management in formulating and recommending to senior officers certain improvements in Company policies, procedures, and practices affecting the Power Supply Services Department and directing effective implementation of those approved in order to achieve the objectives of the Power Supply Services Department.

   3) Approve and monitor cost, schedule, and quality aspects of activities performed by the Power Supply Services Department.

   4) Serve as liaison with the responsible senior officer for advice and support involving legislative and regulatory acts affecting the Company's activities of the Power Supply Services Department.

   5) Coordinate within the Company those matters involving the off-site nuclear fuel cycle and serve as the Company interface for outside management and administrative support, including procurement, involving off-site nuclear fuel.

   6) Serve as member and Alternate Vice Chairman of the Nuclear Operations Review Board for Farley Nuclear Plant.

   7) Serve as member of the Southern Electric System Nuclear Safety Review Task Force.

   8) Provide through subordinate sections Project Engineering support of Farley Nuclear Plant in areas of licensing, design, construction, maintenance, procurement and technical liaison.

   9) The authority to allocate any personnel within Power Supply Services as necessary.

2. Educational Background:

   BS Degree in Engineering - U. S. Naval Academy

   MS Degree in Foreign Affairs - G. W. University

   Graduate of National War College

   Graduate of U. S. Navy Advanced Nuclear Power School

   Graduate of U. S. Navy Nuclear Power Prototype Training School

   Reactor Systems and Control Theory in Pressurized Water Reactor Plants - Bettis Laboratory

2. Educational Background: (Continued)

Qualified through training as Chief Reactor Operator and Chief Reactor Technician for S1W Nuclear Prototype Plant

Qualified as Chief Operator for the S3G Nuclear Prototype Plant

Qualified as Shipboard Engineering Officer for Nuclear Power Plants

Qualified as Shipboard Commanding Officer for U. S. Navy Nuclear Power Plants

(Above naval qualifications obtained based on written and oral examination process).

3. Experience Background:

Reactor Control Officer - S3G Prototype, U. S. Navy

Reactor Control Officer - Submarine U.S.S. Triton utilizing two General Electric S3G Pressurized Water Reactor Power Plants.

Engineering Officer for a Westinghouse S5W Pressurized Water Reactor Power Plant in a nuclear submarine.

Executive Officer for an S5W Power Plant in a nuclear submarine.

Commanding Officer for two S5W Power Plants in submarines.

Squadron Commander of Submarines using S5W Power Plants and a Nuclear Repair ship capable of repairing S5W Plants.

Naval experience in handling failure situations, studies and evaluations with the objective of preventing or controlling radioactive releases.

Naval experience in examination for adequacy of material, procedures, and personnel performance for Nuclear Power Plants.

Served in Office of the Chief of Naval Operations in conjunction with the Polaris, Poseidon and Trident Missile Programs on Nuclear Submarines.

Served as Manager - Operations Quality Assurance (for nuclear section) at Alabama Power Company for three years.

Served two years as member and Secretary of Nuclear Operations Review Board for Farley Nuclear Plant.

J. T. Young, Vice President

1) Functions, Responsibilities, and Authority:

a) Provide overall management of the Production Department and recommend to the Executive Vice President plans for selection, placement, accountabilities, and development of managerial personnel within the Production Department.

b) Participate vertically and horizontally with members of management in formulating and recommending to senior officers certain improvements in Company policies, procedures, and practices affecting the Production Department and directing effective implementation of those approved in order to achieve the objectives of the Production Department.

c) Approve and monitor costs, schedules, and quality aspects of Production Department activities.

d) Serve as liaison with the responsible senior officer for advice and support involving legislative and regulatory acts affecting Production Department activities.

e) Has the authority to utilize any individuals of the Production Department of the Company.

2) Educational Background:

1947 - BS Degree in Mechanical Engineering

1960-1977 - Attended a number of training seminars on nuclear design concepts, licensing and fuels.

1970 - Audited nuclear engineering course presented to thirty-five company engineers by University of Alabama.

3) Experience Background:

a) Directly involved in the review of design and equipment evaluation of Farley Units No. 1 and No. 2 and the Barton Plant (now cancelled) from 1969 to present.

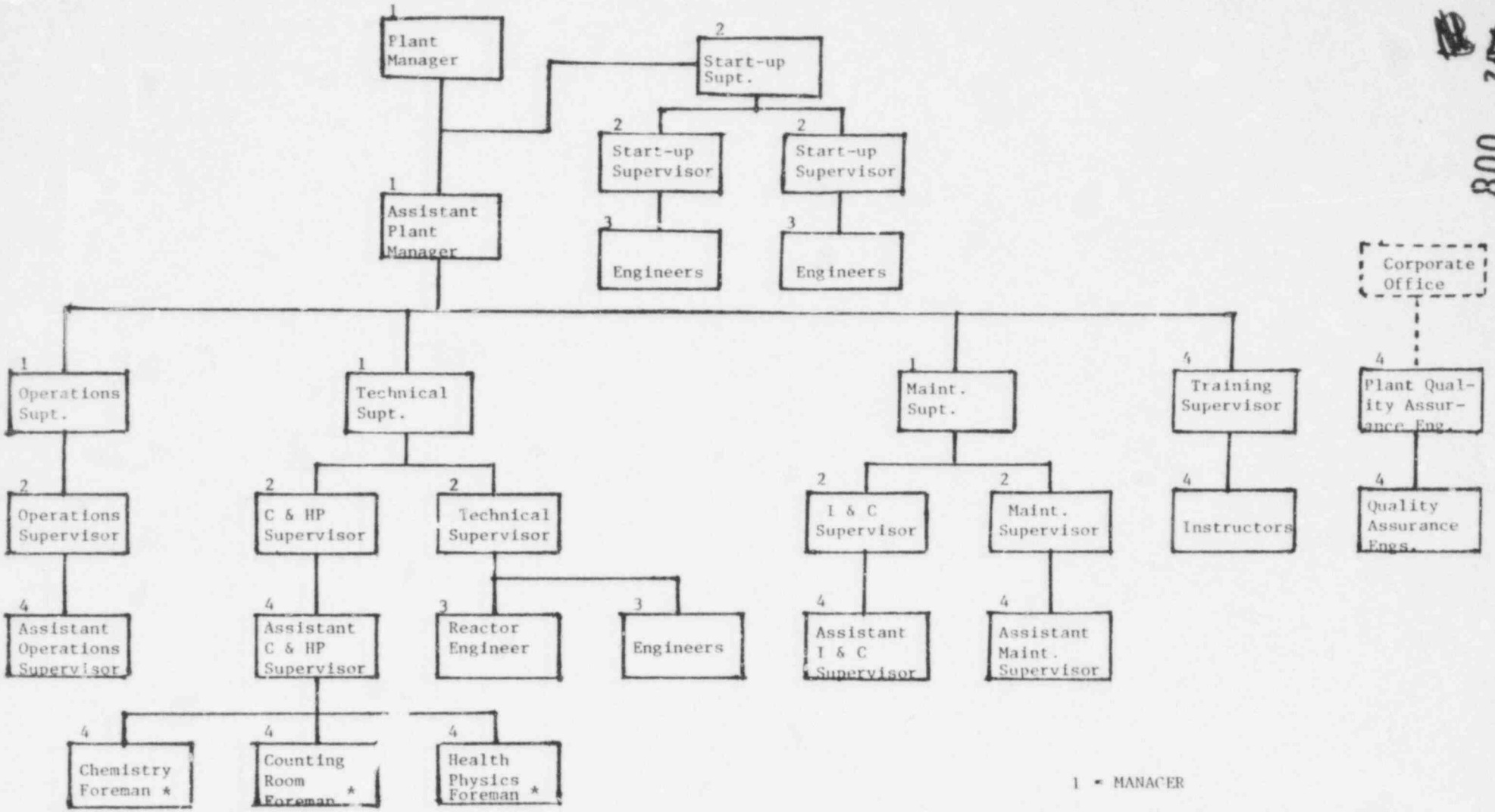
Line responsibility for the staffing, training and overall supervision of the operating staff and supporting forces for the Farley Plant since the beginning of this project.

b) Twenty years field experience in fossil generation from Engineer to Plant Manager.

Ten years General Office experience as General Manager - Production.

Six years experience as shipboard Engineering Officer, WWII and Korean War.

Professional Engineer - State of Alabama.



* Work function. Classification is Chemistry & Health Physics Foreman.

1 = MANAGER

2 = PROFESSIONAL - TECHNICAL

3 = DEGREED ENGINEER

4 = OTHER

POSITION FUNCTION DESCRIPTION

Plant Manager

1. Direct the management of the plant by planning, coordinating, and directing plant operation, maintenance, refueling, and technical activities.

2. Assure compliance with the operating license, State and Federal Regulations and Alabama Power Company policy.

3. Approve request for all modifications originated by the plant staff and forward, as directed to the Manager of Nuclear Generation for further approval. The Plant Manager shall approve implementation of all modifications whether originated by the Plant Staff or others.

4. Act as Chairman of the Plant Operations Review Committee (PORC). Direct the on-site review function of the PORC.

5. Act as Emergency Director should it be necessary to implement the Emergency Plan.

6. Maintain administrative control of special nuclear material at the plant.

POSITION FUNCTION DESCRIPTION

Assistant Plant Manager

1. Serves as the Emergency Director to meet requirements of the Plant Emergency and Security Plans.

2. Directs the management of the operation and maintenance of plant equipment to meet prescribed operating schedules within the bounds of plant license requirements.

3. Directs the management of plant technical services so that the units will be operated efficiently and safely.

4. Provides general supervision in the areas of radiation protection, chemistry, environmental monitoring, reactor physics, and fuel management to ensure compliance with federal, state, and company requirements.

5. Provides general supervision for plant storeroom activities so that sufficient parts and material are available for plant operation.

6. Directs the management of plant security activities to protect company employees and equipment.

7. Assumes the duties and authority of the Plant Manager in this position's absence.

POSITION FUNCTION DESCRIPTION

Operations Superintendent

1. Direct and monitor the overall operation of the plant in accordance with regulatory and licensing requirements.

2. Act as Emergency Director should it be necessary to implement the Emergency Plan.

3. Serve as a member of the Plant Operations Review Committee (PORC).

4. Recommend and approve changes to all safety related procedures affecting plant operations.

5. Assume overall plant site responsibility in absence of higher management authority to provide continuous supervision of all site activities.

POSITION FUNCTION DESCRIPTION

Technical Superintendent

1. Manages general plant engineering support including special projects, inspections, surveillance testing, special testing, design change determinations, and quality assurance procurement reviews to ensure effective operation of plant systems and compliance with federal regulations and license requirements.

2. Directs the health physics program for all plant personnel, contract personnel, and visitors to ensure that exposure to radiation and radioactive materials is maintained as low as reasonably achievable.

3. Manages reactor engineering support including core physics, fuel management, and special nuclear material accountability to ensure efficient utilization of nuclear fuel, compliance with federal regulations, and that the plant is operated in accordance with design parameters.

4. Directs the plant chemistry program to ensure the integrity of all plant fluid systems is maintained through chemical control.

5. Directs the radioactive waste management program to ensure effective coordination between the operations, maintenance, and chemistry and health physics groups to ensure efficient handling of wastes in plant and between plant personnel and offsite contract personnel to coordinate waste shipments and disposal.

6. Directs document control and technical reporting activities to ensure that plant operating data, reports, and other quality documents are generated and maintained in accordance with federal regulations and Company policy.

POSITION FUNCTION DESCRIPTION

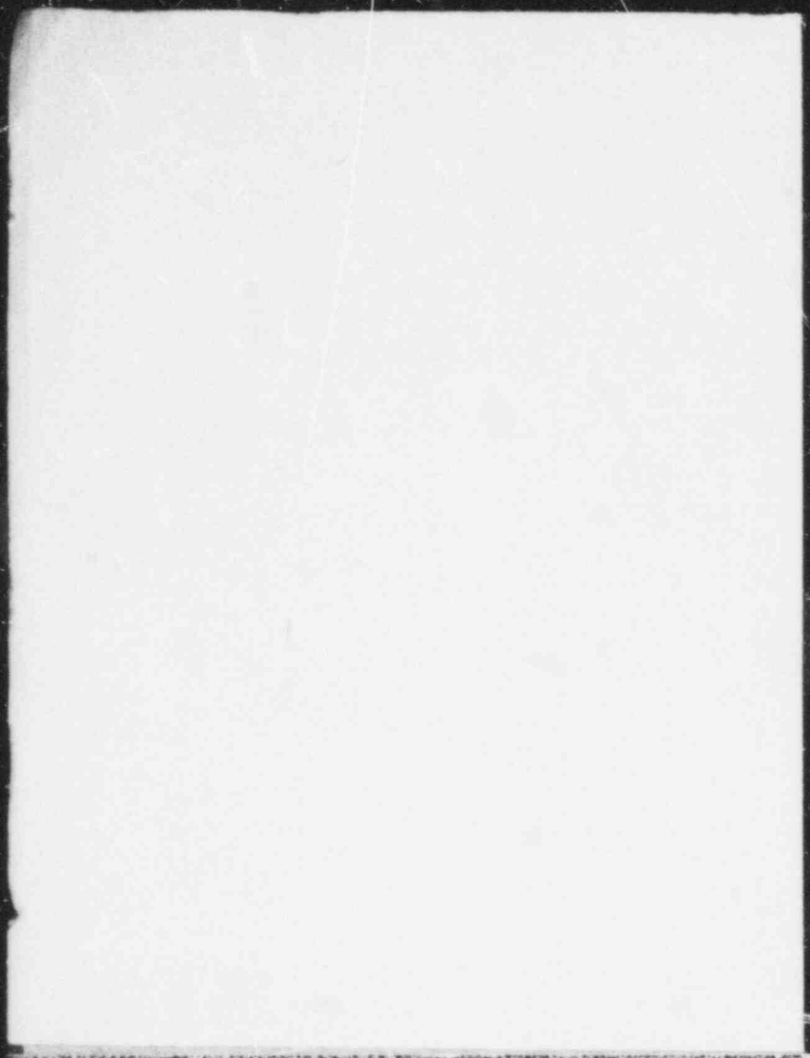
Maintenance Superintendent

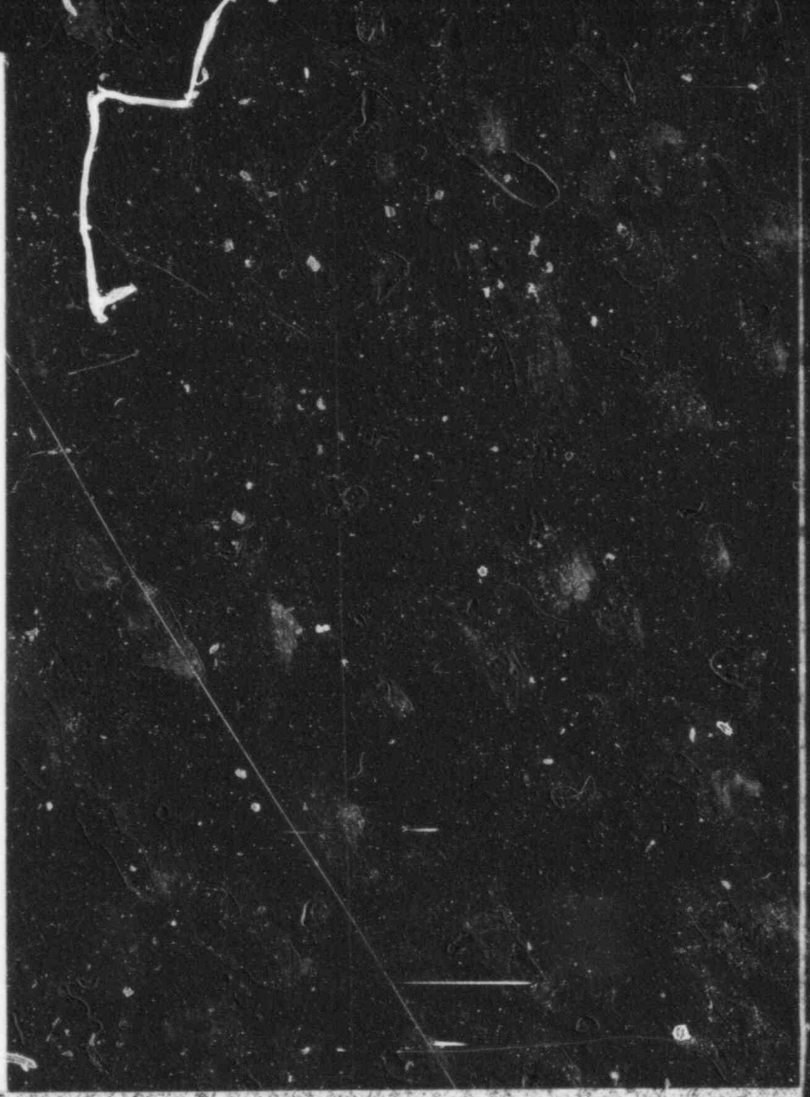
1. Manage and monitor all plant mechanical, electrical and instrumentation preventative and corrective maintenance.

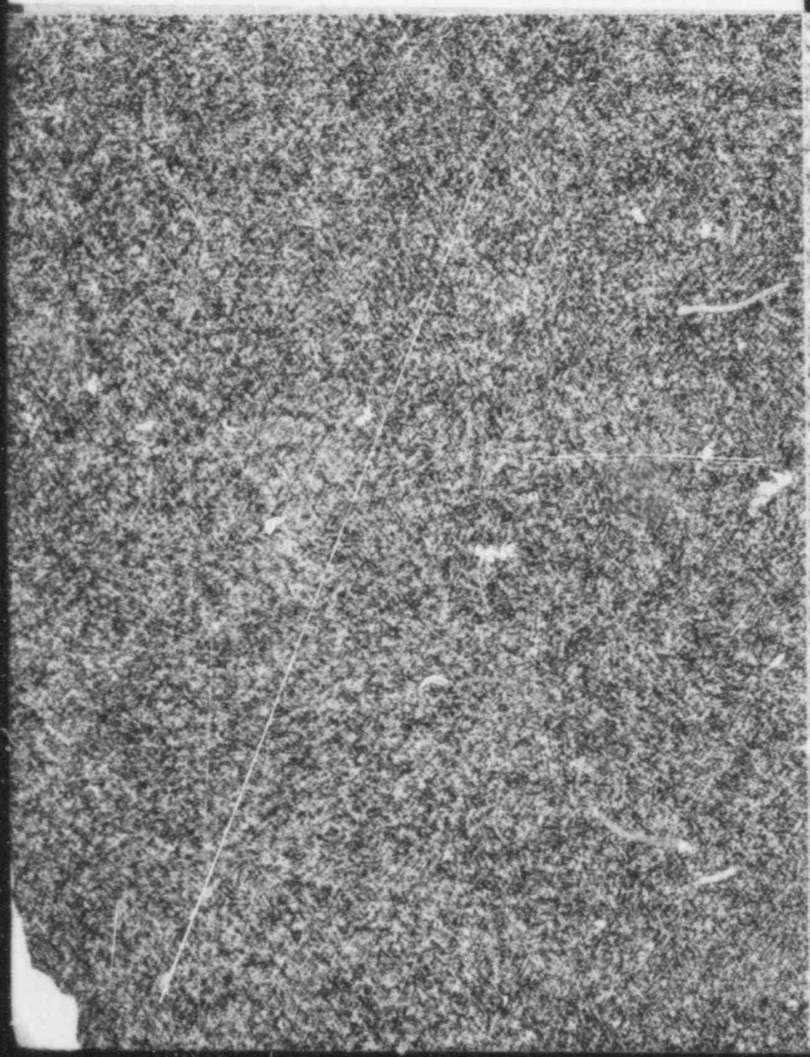
2. Assure compliance with commitments in operating license concerning maintenance activities.

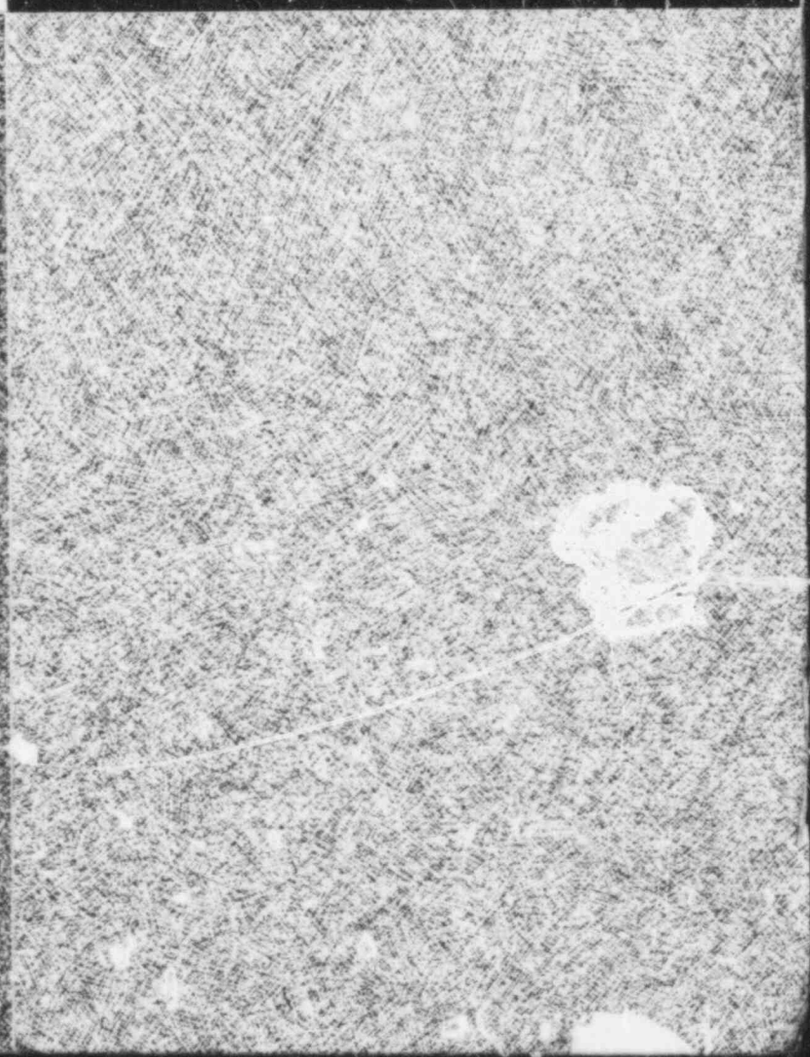
3. Assist in preparation of service contract specifications and monitor performance of contractors selected.

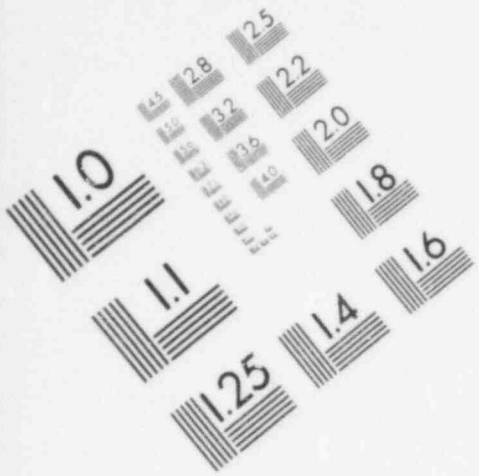
4. Serve as member of the Plant Operations Review Committee (PORC).











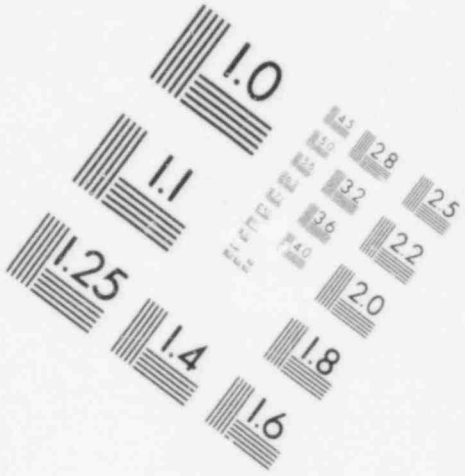
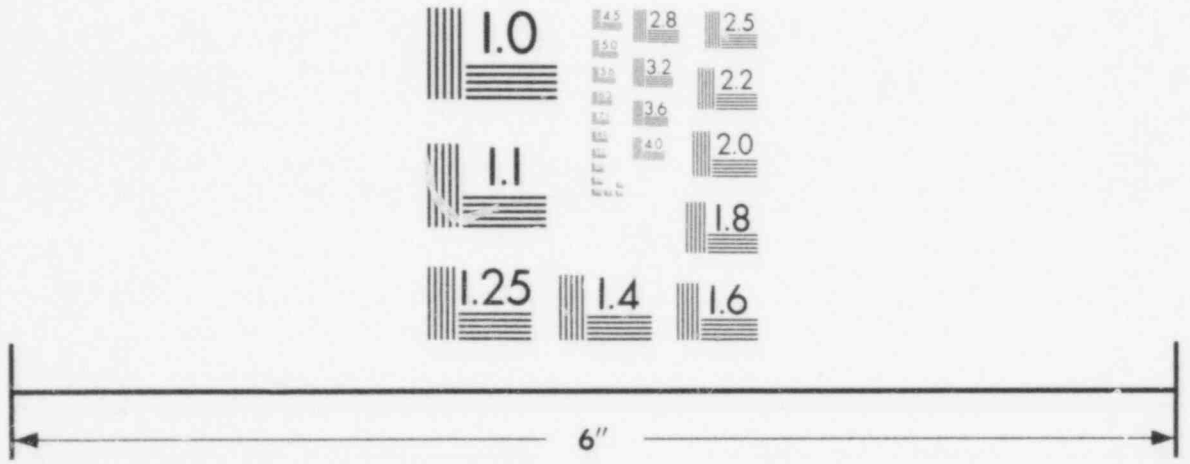
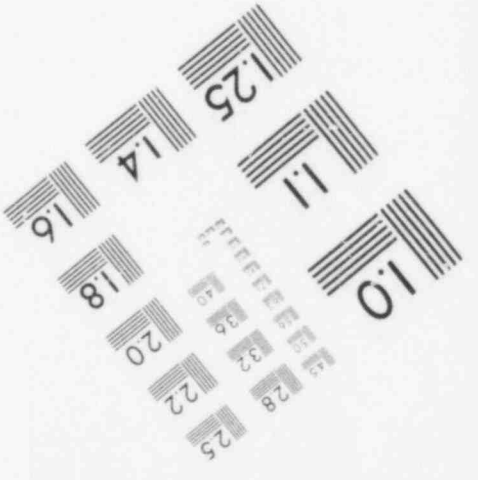
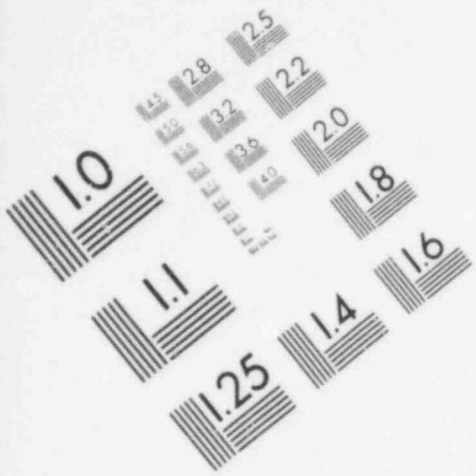
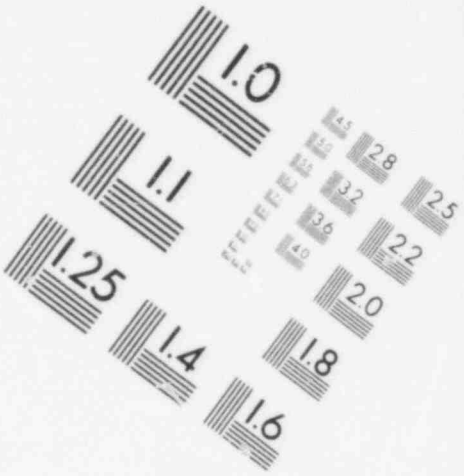


IMAGE EVALUATION TEST TARGET (MT-3)









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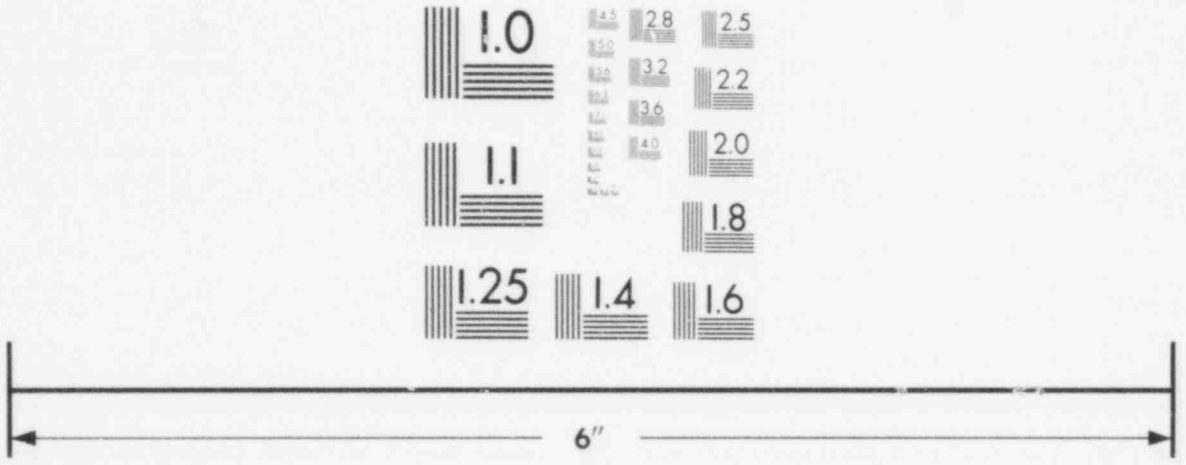
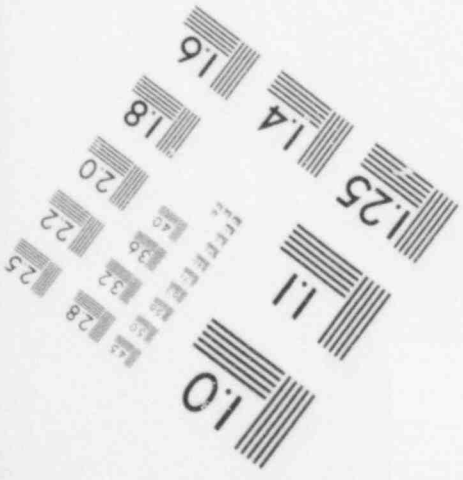
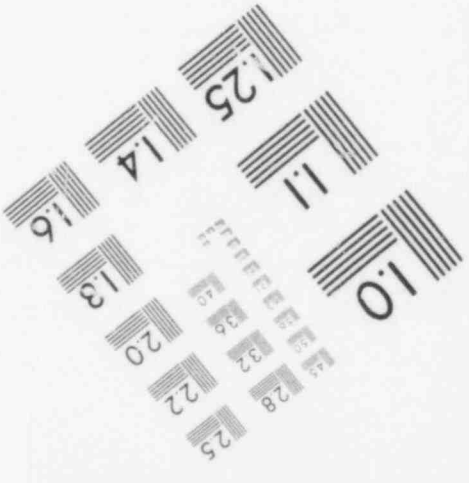
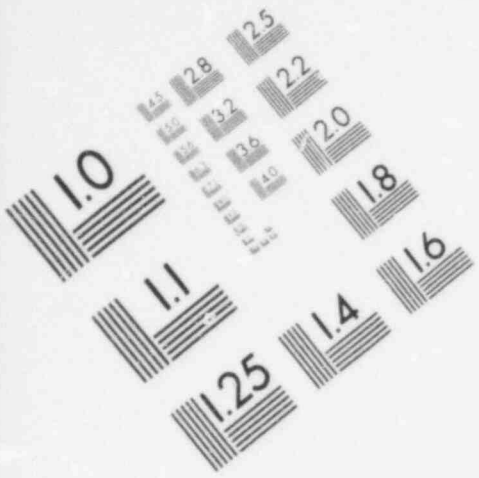








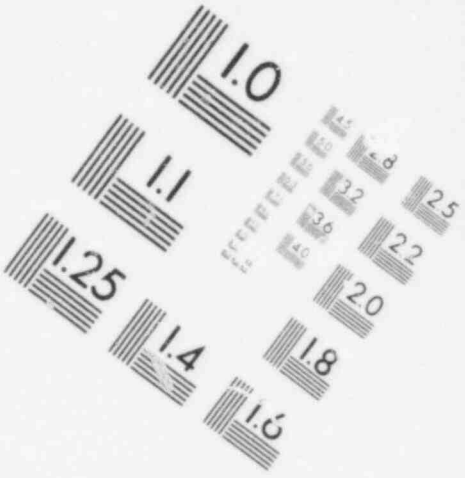
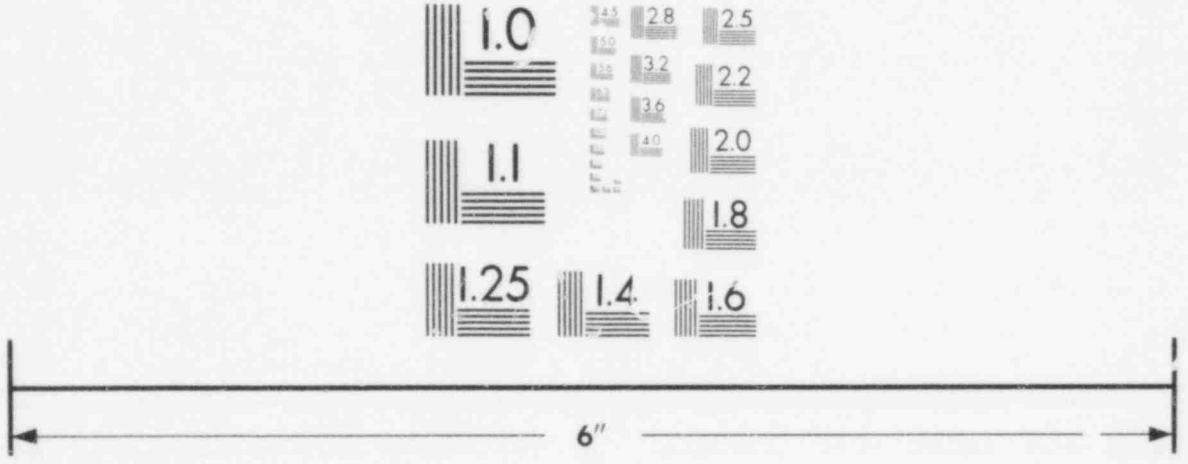
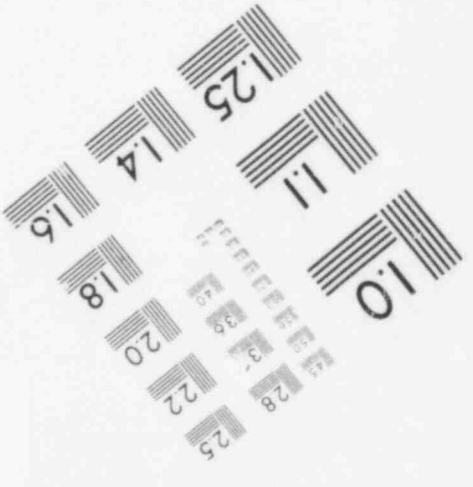


IMAGE EVALUATION TEST TARGET (MT-3)





POSITION FUNCTION DESCRIPTION

Startup Superintendent

1. Supervise and/or coordinate the activities of the Startup Testing Organization.

2. Assign overall test responsibility to the Startup Supervisor and to the Plant Staff Supervisors in cooperation with the Assistant Plant Manager.

3. Review, approve and recommend approval of test procedures, test procedure modification and test data in accordance with Startup Standards.

4. Review and recommend approval of requests for construction and engineering modifications or changes required during the test program.

5. Serve as chairman of the Joint Test Group (JTG).

6. Coordinate the preparation and maintenance of the Startup Manual, the Startup Scoping Index and Scoping prints.

7. Establish the prerequisites for and recommend the acceptance of system release from construction.

POSITION FUNCTION DESCRIPTION

Operations Supervisor

1. Directs and monitors operation of plant units to meet prescribed operating schedules within the boundaries of procedural controls and operating license requirements.

2. Develops, maintains and implements operating procedures to meet regulatory and licensing requirements.

3. Ensures that subordinates are properly trained and available to meet minimum shift staffing requirements of the operating licenses.

4. Directs the implementation of the waste management program to ensure that radioactive waste is processed, stored and disposed in accordance with approved plant procedures and directives of Chemistry/Health Physics Group.

5. Assumes overall plant site responsibility in absence of higher management authority to provide continuous supervision of all site activities.

POSITION FUNCTION DESCRIPTION

Chemistry & Health Physics Supervisor

1. Supervises and guides the radiological health support activities at the plant to ensure the development of a sound radiological protection program.

2. Supervises and coordinates the chemistry, health physics, and environmental monitoring activities to maintain the physical safety of personnel and the plant facility and to ensure that releases of radioactive materials to the environs are maintained as low as practicable.

3. Develops changes to and maintains an emergency plan to provide for the safety of plant personnel and the general public in the event of an emergency condition.

4. Supervises and monitors the radioactive waste management program to control shipping and receiving of all by-product, source, and special nuclear material except fuel.

5. Reviews technical reports of collected data to ensure compliance with federal regulatory requirements as well as technical specifications.

6. Coordinates environmental protection and emergency planning activities with public health departments, hospitals, local and state agencies to obtain support and cooperation in developing such programs.

POSITION FUNCTION DESCRIPTION

Technical Supervisor

1. Provides overall supervision of the plant technical group.

2. Supervises, directs, and coordinates the inspection, surveillance, and test programs.

3. Supervises the maintenance of plant technical and quality assurance records.

4. Supervises plant fuel management and special nuclear material accountability programs.

5. Determines need for design changes, directs the preparation of design change requests initiated by the plant staff, reviews design change proposals prepared by other organizations, and maintains a plant level design change control program.

6. Supervises the review and evaluation of operating data to determine plant operating deficiencies, to identify unfavorable trends, to ensure compliance with technical specifications and license provisions, and to meet requirements set by Company policy and federal regulatory agencies.

7. Supervises the preparation and processing of plant reports required by regulatory agencies and higher management and directs investigations of abnormal occurrences and incidents requiring special reports.

8. Supervises the preparation of quality assurance requirements and specifications.

9. Supervises surveillance and testing required to maintain reactor power distribution control and provides technical assistance for operations to determine control strategies for load following requirements.

10. Supervises fire protection program.

POSITION FUNCTION DESCRIPTION

Instrumentation and Controls Supervisor

1. Responsible for the maintenance of all plant instrumentation and controls systems. This responsibility shall include the planning and scheduling of all maintenance, repair and calibration activities in accordance with equipment needs, operational conditions, and license requirements.

2. Responsible for developing and maintaining a preventive maintenance program for instrumentation and control systems. This program will contain sufficient records to serve as a basis for verifying or altering equipment maintenance and inspection frequency.

3. Responsible for developing and maintaining the instrument maintenance procedures to carry out plant corrective or preventive maintenance.

4. Responsible for developing and maintaining surveillance test procedures and conducting such surveillance test as delineated in FNP-0-AP-5.

5. Responsible for originating reports on safety related equipment failure or malfunction, as required. The Instrumentation and Controls Supervisor shall initiate corrective action on such items and report such to the Operations Superintendent.

6. Responsible for the planning to insure adequate inventories of spare and renewal parts and consumable supplies associated with instrumentation and controls, maintenance are requisitioned in a timely manner.

POSITION FUNCTION DESCRIPTION

Maintenance Supervisor

1. Directs, plans, and schedules the mechanical and electrical maintenance activities to ensure that all plant equipment is in reliable and operable condition.

2. Monitors the performance of plant equipment to determine the need for removal from service for maintenance and corrective action as necessary.

3. Directs the development and writing of maintenance procedures.

4. Schedules and ensures the performance of plant surveillance testing activities and reviews test results to comply with federal regulations.

5. Participates in writing service contract specifications, makes recommendations on bidders, and evaluates contracts to assure that Company needs are met by the most economical and qualified contractor.

6. Monitors contract maintenance work and solves problems regarding the work to ensure compliance with contract specifications.

7. Establishes, reviews, and approves maintenance purchase orders to ensure that adequate quantities of space and renewal parts, materials, supplies, and maintenance equipment are available.

POSITION FUNCTION DESCRIPTION

Training Supervisor

1. Directs the training staff in the development, implementation and documentation of replacement personnel, requalification and general plant training programs, to insure compliance with regulatory requirements and to meet plant staffing requirements.

2. Coordinates training programs with other group supervisors to assure materials, facilities and qualified instructors are available on a timely basis.

3. Researches, evaluates and coordinates training services to assure that the training needs of the operating groups are provided for in a timely manner.

4. Evaluates both the effectiveness of training programs and trainee performance to determine if the desired objectives are being accomplished or if modifications are in order.

5. Establishes performance goals for training staff members and periodic review of progress toward goals with individuals to help improve both individual and group performance levels.

6. Coordinates the application for NRC licenses and license renewals to ensure that all pertinent materials are submitted properly and in a timely manner.

POSITION FUNCTION DESCRIPTION

Startup Supervisor

1. Coordinate and supervise activities of Test Engineers, Engineering Aides and members of plant staff assigned to support the test program.

2. Coordinate with Startup Services Lead Test Engineers the activities of the Startup Services Personnel.

3. Coordinate with Plant Supervisors to insure the maximum utilization of plant personnel and procedures in the test program.

4. Coordinate and supervise the preparation of test procedures.

5. Provide technical guidance and assistance in the preparation of test procedures. Write test procedures as assigned by Startup Superintendent.

6. Review, approve and recommend approval of test procedures, test procedure modifications and test data in accordance with established procedures.

7. Recommend approval of and schedule vendor representative assistance.

8. Coordinate system turnover and any subsequent system rework.

9. Review and recommend approval of requests for construction and engineering changes.

10. Review periodic progress reports and work schedules.

11. Assist in the preparation of special reports concerning startup activities when required.

12. Assure that required startup materials, instrumentation and consumable supplies are available to support scheduled startup activities.

13. Maintain a list of system discrepancies and deficiencies with the status of their resolution and correction for systems assigned to him.

14. Function as a Test Supervisor for those systems which he has been assigned direct responsibility or designate another Test Supervisor as defined and provided for in S/U Standard 6.

15. Coordinate and supervise activities of APCo plant personnel and Daniel Craft Personnel assigned to support the test program.

16. Establish the prerequisites for and recommend the acceptance of blue tag system release from construction.

POSITION FUNCTION DESCRIPTION

Assistant Operations Supervisor

1. Reviews surveillance test results and periodically inspects performance of such test to ensure compliance with plant procedures and operating licenses.

2. Develops shift schedules to meet license and operational requirements.

3. Coordinates on-shift operations group training and ensure documentation of such training to ensure compliance with the plant training program.

4. Coordinates plant lubrication program to ensure such activities are performed in accordance with the lubrication schedule.

5. Assumes the duties and authority of the Plant Supervisor-Operations (Nuclear) in this position's absence to provide continuous direction of all operations group activities.

POSITION FUNCTION DESCRIPTION

Assistant Chemistry & Health Physics Supervisor

1. Reviews surveillance test results and periodically reviews the performance of such tests to ensure compliance with plant procedures and operating licenses.

2. Develops work schedules to meet license and operational requirements.

3. Coordinates Chemistry & Health Physics Group activities with the activities of other plant groups to ensure maximum efficiency of all groups consistent with safety and licensing requirements.

4. Ensures that training and retraining of group personnel is accomplished and that records of such training are maintained to meet plant training requirements.

5. Initiates and organizes various reports of abnormal occurrences, operating summaries and off-normal conditions to meet the reporting requirements of the Nuclear Regulatory Commission.

6. Assumes the duties and authority of the Plant Supervisor Chemistry & Health Physics - Nuclear in the position's absence to provide continuous direction of all Chemistry & Health Physics Group activities.

POSITION FUNCTION DESCRIPTION

Assistant Instrumentation and Controls Supervisor

1. Conduct reviews of I & C Group Procedures.

2. Initiate, per FNP-O-AP-1, I & C Group procedure changes which are required due to procedural deficiency or plant design changes.

3. Review results of I & C Surveillance Tests and instrument maintenance activities involving safety related equipment and periodically observe performance of such tests to ensure compliance with plant procedures and NRC regulations.

4. Initiate reports as directed by the I & C Supervisor.

5. Coordinate scheduling of surveillance tests and instrument maintenance activities affecting plant operating status with other plant groups to ensure efficient activity completion.

6. Develop schedules for I & C Group preventative maintenance activities to ensure proper manpower utilization and effective instrument maintenance.

POSITION FUNCTION DESCRIPTION

Assistant Maintenance Supervisor

1. Assists in the direction and coordination of the mechanical and electrical maintenance activities to ensure that all plant equipment is in efficient and operable condition.

2. Assists in the development and writing of maintenance procedures.

3. Assists in the evaluation of personnel training and qualifications to ensure that such personnel are available and competent to perform maintenance activities.

4. Monitors the performance of plant equipment to determine the need for removal from service for maintenance and corrective action as necessary.

5. Supervises maintenance personnel as necessary to ensure efficient group capabilities and continuity of operations.

POSITION FUNCTION DESCRIPTION

Reactor Engineer

1. Prepares, supervises, and evaluates reactor physics tests required after fuel loading.

2. Maintains fuel management and special nuclear material inventory programs as delineated by Special Nuclear Material Accountability procedures.

3. Maintains a reactor core surveillance program to determine changes in reactor core kinetics and to assure compliance with Technical Specifications.

4. Prepares a program of refueling and power ascension testing which identifies the tests to be performed and the sequence of testing for each core loading evolution.

5. Maintains computer codes used for fuel burn-up and power distribution calculations.

POSITION FUNCTION DESCRIPTION

Generating Plant Engineer I

1. Supervises the performance of various tests and inspections and determines the validity of the results of test and inspections to verify compliance with technical specifications and license provisions.

2. Assists in the preparation and performance of reactor physics and power ascension tests, refueling operations, fuel management activities, and investigations of abnormal occurrences.

3. Evaluates the effectiveness of inspections and tests in improving plant performance and in identifying deficiencies and unfavorable trends to initiate action to improve test and inspection methods and procedures.

4. Prepares various routine plant reports.

5. Prepares design change proposals initiated by the plant staff.

6. Performs special engineering task to provide support to other plant staff groups.

POSITION FUNCTION DESCRIPTION

Generating Plant Engineer II

1. Prepares procedures for tests and inspections conducted by the technical group and reviews the results of tests and inspections.

2. Prepares various routine plant reports.

3. Performs special engineering tasks to support other plant staff groups.

4. Assist in the preparation and performance of reactor physics tests, power ascension tests, refueling operations, fuel management activities, and investigation of abnormal occurrences.

5. Develops and prepares computer programs to aid in solving engineering problems.

6. Reviews plant operating data and performance calculations to determine operating efficiencies and to identify undesirable trends.

7. Supervises the conduct of tests and inspections to verify equipment capability, design and reliability.

POSITION FUNCTION DESCRIPTION

Junior Engineer

1. Writes procedures, prepares technical reports, performs engineering calculations, and conducts reports and document research to provide support to all operational plant groups.

2. Performs plant performance evaluations to identify equipment and operating deficiencies.

3. Assists other plant engineers in the conduct of tests and inspections.

POSITION FUNCTION DESCRIPTION

Health Physics Foreman

1. Supervises subordinates in health physics, radiochemistry and environmental monitoring activities to ensure proper manpower allocations for each shift and to provide close direction of shift activities related to chemistry and radiation protection.

2. Prepares chemical and radiological reports required by Alabama Power Company and the Nuclear Regulatory Commission.

3. Plans and schedules required training and retraining of the chemistry and health physics personnel to ensure they are kept up-to-date on fundamental principles as well as safety and operating procedures.

4. Assumes the duties of the Plant Supervisor-Chemistry and Health Physics in this position's absence.

POSITION FUNCTION DESCRIPTION

Instructor

1. Prepares and instructs in replacement training programs to ensure that personnel satisfy training requirements.

2. Develops and presents retraining programs to ensure that plant personnel are familiar with safe operation and maintenance procedures at the facility.

3. Schedules personnel for training sessions to ensure that all person requiring replacement or retraining attend the programs.

4. Maintains a U.S. NRC Senior Reactor Operator License.

B. Plant Staff Positions

1. Plant Manager

A. Educational Background

B.S. Industrial Engineering, Auburn University, 1967

M.S. Nuclear Engineering, Georgia Tech, 1971

Training

Westinghouse Fundamental Reactor Training (5 mo, 1972)

Westinghouse Design Lecture Series (1 mo, 1972)

Westinghouse Systems Training (4 mo, 1973)

APCo Theory Review (2 mo 1973)

Cold License Training (4 mo, 1973)

B. Experience

1. Nuclear

a. Directly Related

1970-72 (12 mos) - Senior Engineer, APCo -Attended Georgia Tech (12 mos) - Monitored design and FSAR development for FNP
1972-77 (36 mos) - Operations Supervisor, APCo, FNP
1977-78 (11 mos) - Assistant Plant Manager, APCo, FNP
1978-Present (14 mos +) - Plant Manager, APCo, FNP

b. Other

None Applicable

2. Other

1966 (3 mos) - Student Power Plant Engineer.

1967-68, 1970 (8 mos) -Junior Engineer, APCo (fossil plant).

1968-1970 (24 mos) - U.S. Army Corps of Engineers

C. Licenses

Senior Reactor Operators License

2. Assistant Plant Manager

A. Educational Background

B.S., Physics, North Georgia College, 1965

M.S. Physics, Auburn University, 1968

Additional graduate work, NE, Georgia Tech, 1971

Training

SRO Cold License Training Zion, Illinois, (24 wks, 1972)

Hot License Training, (26 wks, 1977)

Simulator Training, (1 wk, 1977)

B. Experience

1. Nuclear

a. Directly Related

1965-1967 (28 mos) - Research assistantship, Nuclear Science Center, Auburn University. Duties consisted of assisting with assembly of charged particle accelerator, performing electronic and

source acceptance tests on newly received nuclear instrumertation, and conducting basic research in the fiel of gamma ray spectroscopy.

1968 (6 mos) - Health physics technician, Auburn University. Performed routine health physics duties such as surveying, decontamination and personnel dosimetry. Also wrote computer programs for theoretical calculations of beta dose rates for various isotopes.

1972 (6 mos) - As part of the Farley Nuclear Plant training program, worked at the Georgia Tech Research Center with the Health Physics Group performing and supervising health physics activities in conjunction with the operation of the Georgia Tech research reactor, hot cell complex, and high-level radiochemistry laboratories.

1972 (6 mos) - Assigned to APCo general office to assist in preparation of the FNP FSAR and coordinate the Farley emergency plan.

1973-76 (42 mos) - Chemistry and Health Physics Supervisor, APCo, FNP

1976-78 (18 mos) - Technical Superintendent, APCo, FNP.

1978 (3 mos) - Operations Superintendent, APCo, FNP.

1978-Present (11 mos +) - Assistant Plant Manager, APCo, FNP.

b. Other

1968-70 (24 mos) Lieutenant, U. S. Army Special Projects Officer. Duties included a study of the Army's nucleonics calibration system and a study of radioluminous materials usable on field equipment.

2. Other

1970-71 (9 mos) - Physics instructor, Enterprise State Junior College

1971 (6 mos) - Junior engineer, fossil-fired power station. Duties consisted of water chemistry analysis, water treatment, operation of plant demineralizers, and maintenance of control systems associated with water treatment.

C. Licenses

NRC SRO License 1977

3. Operations Superintendent

A. Educational Background

B.S., General Science, Troy State University, 1975

Training

U.S. Navy, I.C. "A" School, 1961

U.S. Navy, Basic Nuclear Power School, 1962

U.S. Navy, Nuclear Prototype Training, 1963

U.S. Navy, Westinghouse Rod Control, 1965

U.S. Navy, Daystrom Nuclear Inst., 1965

Westinghouse Simulator Training (2 wks), 1973

Simulator Retraining (3 day), 1978

B. Experience

1. Nuclear

a. Directly Related

1978-Present - Operations Superintendent, APCo, FNP

1978 (4 mos) - Technical Superintendent, APCo, FNP

1975-78 (35 mos) - Training Supervisor, APCo, FNP

1973-75 (23 mos) - On-site Training Coordinator, Westinghouse, NSD. (assigned to FNP site) - conducted cold license training of APCo personnel.

1972-73 (10 mos) - Lead Audit Engineer, Westinghouse, NSD - conducted and evaluated NRC type operator

examinations and taught courses on Westinghouse NSSS.

1968-72 (48 mos) - Senior Reactor Operator, University of Missouri at Rolla, Research & Training Reactor

1961-68 (84 mos) - U S. Navy, 5 years in Nuclear Propulsion Program. Qualified Reactor Operator and Engineering Watch Supervisor.

b. Other

None

2. Other

None Applicable

C. Licenses

SRO 2929-1 at FNP

4. Technical Superintendent

A. Educational Background

B.S., Chem. Emory Univ., 1970

M.S., NE, Ga. Inst. Tech., 1971

Training

W-2500 Computer Programming (5 wk, 1973)

W-2500 Computer Hardware (8 wk, 1973)

Nuclear Power Plant Instrumentation (6 wk, 1973)

P-2000 DEH Computer Maintenance (4 wk, 1973)

W I&C Engineers Course (12 wk, 1974)

SRO Cold License Training
(Zion, Ill., 21 wk, 1975-76)

B. Experience

1. Nuclear

a. Directly Related

1973 (9 mos) - Generating Plant Engineer II, APCo, FNP

1974-75 (24 mos) - I&C Foreman, APCo, FNP

1976 (6 mos) - Generating Plant Engineer I, APCo, FNP

1976-78 (26 mos) - I&C Supervisor, APCo, FNP

1978-Present (11 mos +) - Technical Superintendent, APCo, FNP

b. Other

1971-73 (16 mos) - Nuclear Research Officer, Air Force Weapons Laboratory, Nuclear Safety Branch - Performed Reactor Safety compliance inspections at the Nuclear Aerospace Research Facility Materials Test Reactor, Ft. Worth, Texas.

2. Other

None Applicable

C. Licenses

None

(W SRO certification, 1976)

5. Maintenance Superintendent

A. Educational Background

BSEE - Auburn, 1959

Training

W I&C Engineer's Course (3 mos, 1972)

W Reactor Operator Training (6mos, 1973)

B. Experience

1. Nuclear

a. Directly Related

1973-77 - Startup Supervisor, APCo, FNP

1977-78 (9 mos) - Startup Superintendent, APCo, FNP

1978-Present (11 mos +) - Maintenance Superintendent, APCo, FNP

b. Other

None Applicable

2. Other

1959-61 - Associate Eng., Boeing Aircraft Co.

1961-71 - Instrumentation Eng. & Group Leader - Vitro Services Inc. - Marshall Space Flt. Ctr.

1971-72 - Gen. Plant Eng. I, Gorgas Steam Plant, APCo

C. Licenses

None

6. Startup Superintendent

A. Educational Background

BS-ME, Purdue University, 1959

B. Experience

1. Nuclear

a. Directly Related

1978-Present (11 mos +) - Startup Superintendent, APCo, FNP

1976-78 (33 mos) - Startup Supervisor, APCo, FNP

1974-76 (25 mos) - GPE I (Startup Engineer), APCo, FNP

1973-74 (12 mos) - GPE II (Startup Engineer), APCo, FNP

b. Other

None Applicable

2. Other

6/1959-11/1973 - Employed as Design Engineer, Senior Engineer and Principal Engineer by General Dynamics, Vitro Services and Brown Engineering respectively. Duties included design, testing and inspection of various systems which involve the following disciplines: thermodynamics, heat transfer, fluid flow, mathematics, stress analysis, and control system logic. The time spent in each of these areas is in excess of

five years due to the overlapping responsibilities in most of the projects or programs.

C. Licenses

Registered Professional Engineer - State of Alabama (#8081)

EIT - State of Indiana (#9654)

7. Startup Supervisor

A. Educational Background

BEE, Auburn University, 1966

MS, EE, Auburn University, 1968

Training

Bettis Reactor Engineering School, USAEC (5 mos, 1969)

B. Experience

1. Nuclear

a. Directly Related

1968-73 (5 yrs) - Staff Engineer, Division of Naval Reactors, USAEC, Washingston, D.C. (active duty Navy officer). Electrical/I&C staff engineer for A/W prototype, and AZW/A1G reactor plants for aircraft carriers. Involved in equipment specification & testing and reactor safety analyses.

1973-74 (12 mos) - Generating Plant Engineer II, APCo, FNP

1974-76 (31 mos) - Generating Plant Engineer I, APCo, FNP

1977-Present (30 mos +) - Startup Supervisor, APCo, FNP

b. Other

None Applicable

2. Other

1966-68 (18 mos) - Graduate Research Assistant, Auburn University, Investigation of Gyropscopic Guidance System Response & Undergradu te Teaching.

C. Licenses

Professional Engineer License, State of Alabama (#10744)

8. Operations Supervisor

A. Educational Background

Bachelor Mechanical Engineering, Auburn University, 1971

Training

9/6/76-11/26/76 - APCo Preliminary License Review Series (onsite)

11/29/76-12/21/76 - Westinghouse Preliminary License Review Series (onsite)

12/31/76-1/7/77 Westinghouse Prelicense Simulator Referesher Training

B. Experience

1. Nuclear

a. Directly Related

1973 (1 yr) - Generating Plant Engineer II, APCo, Zion, Ill. (9 mo), FNP (3 mo)

1974-77 (45 mo) - Plant Quality Assurance Engr. I, APCo, FNP

801 029

1977-Present (22 mo +) - Operations Supervisor, APCo, FNP

b. Other

None Applicable

2. Other

1968-69 (9 mo) - Student Engineer, Boeing Co., Huntsville, AL - support of engineering staff on Saturn V ground support equipment group.

1969-70 (6 mo) - Student Engineer - Gulf Power Co., Pensacola, FL - electrical distribution system engineering group.

1970 (3 mo) - Student Engineer, Gulf Power Co., Crist Steam Plant, Pensacola, FL.

1971-73 (16 mo) - Junior Engineer, APCo, Barry Steam Plant, Bucks, AL.

C. Licenses

Senior Reactor Operator License - FNP Unit 1

Engineer In Training - State of Alabama

9. Chemistry & Health Physics Supervisor

A. Educational Background

BS, Mathematics, Auburn University, 1969

Training

Naval Nuclear Power School, (6 mo, 1970)

Naval Prototype Training (6 mo, 1970)

USS SKATE Shipboard Training (4 mo, 1971)

APCo SRO Training (4 mo, 1975)

Westinghouse Simulator (1 wk, 1977)

Westinghouse Zion Simulator (1 wk, 1978)

APCo FNP License retraining (1 wk, 1978, 1 wk, 1979)

Completed Nuclear Engineering courses GES 471 and GES 472 through the University of Alabama correspondence center (1976-77).

B. Experience

1. Nuclear

a. Directly Related

1971-72 (11 mo) - Electrical Officer, USS SKATE*

1972-73 (15 mo) - Supply Officer, USS SKATE*

1973-74 (7 mo) - Main Propulsion Assistant, USS SKATE*

1974-75 (10 mo) - Operations Officer, USS SKATE*

1975-76 (6 mo) - Eng. Aide I, APCo FNP

1976-77 (12 mo) - Shift Foreman, APCo, FNP

1977-78 (12 mo) - Plant Instructor, APCo, FNP

1978-Present (14 mo +) - C&HP Supervisor, APCo, FNP

*Stood watch as Engineering Officer of the Watch, Engineering Duty Officer & Ship's Duty Officer.

b. Other

None Applicable

2. Other

1969 (3 mo) - Midshipman, USS GEORGE WASHINGTON

1969 (3 mo) - Graduate Teaching Assistant, mathematics, Auburn University

C. Licenses

SRO - APCo - FNP - #SOP-2923 - March 22, 1977 (Renewed March 22, 1979)

10. Technical Supervisor

A. Educational Background

BS, Mechanical Engineering, Auburn University, 1963

MS, Nuclear Engineering, Georgia Tech, 1972

Training

Westinghouse Station Nuclear Engineer Program (6 wks, 1973)

APCo SRO Training (6 mos, 1978)

Westinghouse SRO Training (Zion) (6 mos, 1972)

B. Experience

1. Nuclear

a. Directly Related

1972-79 - Technical Supervisor Farley Nuclear Plant

b. Other

None Applicable

2. Other

1968-70 - Plant Engineer, Barry Steam Plant - Responsible for initial startup testing of Unit 5, plant performance testing, and plant design changes.

C. Licenses

SRO

11. Instrumentation & Controls Supervisor

A. Educational Background

BSEE, Florida Institute of Technology, 1971

Training

7300 Protection Systems (1 wk, 1977)

Nuclear Inst. System (2 wk, 1977)

Solid State Protection Sys (2 wk @ W Balt, 1976)

L&N Control System (2 wk, 1977)

Digital Rod Pos Ind System (1 wk, 1978)

7300 Process Control System (3 wk, 1976)

B. Experience

1. Nuclear

a. Directly Related

1974 (12 mos) - Generating Plant Engineer II, assigned to Unit 1 Startup Group, APCo, FNP

1975-76 (12 mos) - I&C Foreman, APCo, FNP

1976-77 (12 mos) - Generating Plant Engineer I, I&C, APCo, FNP

1978 (12 mo) - Assistant I&C Supervisor, APCo, FNP

1978-Present (12 mo +) - I&C Supervisor, APCo, FNP

b. Other

None Applicable

2. Other

1968-74 (60 mos) - Engineer/Scientist McDonnell Douglas Corp. Kennedy Space Center, FL. Prepared, implemented and reviewed results of inspection and test procedures on instrumentation and control equipment.

1964-68 (60 mos) - Engineering Draftsman McDonnell Douglas Corp Kennedy Space Center, FL. Prepared for airborne instrumentation and control equipment. Prepared schematic and logic diagrams for

instrumentation equipment.

C. Licenses

None

12. Maintenance Supervisor

A. Educational Background

BS in Electrical Engineering from University of Nebraska, 1966

1 year of graduate school completed toward MS in Ocean Engineering at University of Rhode Island.

Training

9/1966-3/1967 - U.S. Navy Nuclear Power School Officer Course

4/1967-10/1967 - U.S. Navy Nuclear Prototype Training Officer Course D-1-G Prototype

11/1967-4/1968 - U.S. Navy Submarine School Officer Course

9/1975-10/1975 - APCo Reactor Fundamental

11/1975-4/1976 - FNP Systems

7/1978-11/1978 - FNP Hot License

B. Experience

1. Nuclear

a. Directly Related

1967-75 - U.S. Navy Engineering Officer of the watch

5/1968-2/1970 & 9/1970-2/1971 - U.S. Navy Main Propulsion Assistant, S-5-W Reactor

7/1973-3/1975 - U.S. Navy Engineer Officer

6/1975-6/1976 - APCo Nuclear Submarine Generating Plant Engineer I, FNP

6/1976-Present - APCo Maintenance Supervisor, FNP

b. Other

2/1970-2/1971 - U.S. Navy Damage Control Assistant

2/1971-5/1973 - U.S. Navy Instructor, U.S. Naval Submarine School

2. Other

None Applicable

C. Licenses

Senior Reactor Operator

13. Reactor Engineer

A. Educational Background

BS, Electrical Engineering, GA Inst. Tech, 1971

MS, Nuclear Engineer, GA Inst. Tech, 1972

Training

Westinghouse PWR Training (6 mos, Zion, Ill, 1972-73)

Westinghouse Station Nuclear Eng. Training (3 mos, 1973)

W NSSS Systems Training (5 mos, 1974, FNP)

APCo On-site Training for NRC License (6 mos, 1976)

B. Experience

1. Nuclear

a. Directly Related

10/1972-7/1973 (9 mos) - Junior Eng., APCo, FNP

8/1973-7/1974 (12 mos) - Gen. Plant Eng II, APCo, FNP

7/1974-1/1978 (42 mos) - Gen Plant Eng I, APCo, FNP

1/1978-Present (18 mos +) - Reactor Engineer, APCo, FNP

b. Other

None Applicable

2. Other

1/1968-9/1970 - EE Co-op student with TVA. Worked in fossil plants and electrical design departments

C. Licenses

NRC Senior Reactor Operator's License 3/1977-present #SOP-2918-1

Registered Professional Engineer - Alabama #11855 2/1978

14. Generating Plant Engineer - Supervising

A. Educational Background

AA Degree - Gulf Coast College, 1969

BSME - University of Florida, 1972

Training

None

B. Experience

1. Nuclear

a. Directly Related

5/1972-12/1973 - Jr. Engineer, Const. Q.A., APCo, FNP

12/1973-12/1975 - Project Eng. II, Const. Q.A., APCo, FNP

12/1975-1/1976 - Gen. Plt. Eng II, Production Startup, APCo, FNP

1/1976-9/1978 - Gen. Plt. Eng. I, Production Startup, APCo, FNP

9/1978-Present - GPE -Supervising, Production Startup, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

Alabama Registered Professional Engineer #12122

15. Generating Plant Engineer I

A. Educational Background

Electrical Technology - North Dakota State School of Science, 1963

BS, Electrical Engineering - University of North Dakota, 1972

Training

None Applicable

B. Experience

1. Nuclear

a. Directly Related

1963-68 - Argonne Nat. Lab. (Reactor Operator) Experimental Breeder Reactor

1972-74 - Bechtel Power Corp. (Startup Eng.) Duane Arnold (BWR)

1974-75 - Bechtel Power Corp. (Project Startup Eng.) Edwin I Hatch (BWR)

1975-76 - Bechtel Power Corp. (Startup Group Supervisor) Edwin I Hatch (BWR)

1976-77 - Bechtel Power Corp. (Project Startup Eng.) J.M. Farley (PWR)

1977-78 - Bechtel Power Corp. (Electrical Site Liaison Eng) SNUPPS Project Wolf Creek Plant (PWR)

1978-Present - Gen. Plant Eng. I, APCo, FNP

b. Other

None Applicable

2. Other

1957-61 - U.S. Navy Electricians Mate 2/C

C. Licenses

None

(Reactor Operator certificate from Argonne National Lab.)

16. Generating Plant Engineer I

A. Educational Background

BEE, Auburn University, 1970

Training

S5W Nuclear Engineering, Charleston Naval Shipyard (6 mo, 1971)

B. Experience

1. Nuclear

a. Directly Related

1970-71 (18 mo) - Electrical Engineer (Nuclear), GS-5&6, Control & Instrumention Division, Charleston Naval Shipyard: Prepared overhaul and test procedures for S5W Naval Reactor Plant Systems and components.

1971-74 (28 mo) - Nuclear Engineer, GS-9&11, Control & Instrumentation Division, Charleston Naval Shipyard: Responsibility for overhaul and retrofit procedure preparation, testing, co-ordination & scheduling for primary plant instrumentation and several auxiliary systems on S5W and S3G naval reactor plants. Wrote and reviewed receipt-inspection

and maintenance procedures for reactor plant components and test equipment. Taught classes in primary plant instrumenation and other auxiliary systems as a part of S5W Nuclear Engineering Courses.

1974-Present (36 mo +) - Generating Plant Engineer II, Startup, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

17. Generating Plant Engineer I

A. Educational Background

BSEE, University of Miami, 1967

Graduate Study - University of Florida and West VA. University

Training

FNP Systems Training (partial approx 5 weeks total, 1974 and 1977)

Diaster Control Officer Training (1 wk, Eglin AFB FL, date unknown)

B. Experience

1. Nuclear

a. Directly Related

1972-74 (20 mo) - Elec. Test Eng. at

Newport News Shipbuilding. (Startup testing on GE 3 Loop PWR, Navy surface ship (DLGN))

1974-75 (23 mos) - Gen. Plant Eng. II, APCo, FNP

1975-78 (29 mos) - Asst Plant QA Eng., APCo, FNP

1978-Present (15 mos +) - Gen. Plant Eng. I, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None Applicable

18. Generating Plant Engineer I

A. Educational Background

BSEE, Tuskegee Institute, 1969

Training

Nuclear Power School - Knolls Atomic - (21 wks, 1976)

B. Experience

1. Nuclear

a. Directly Related

1978-Present (13 mos) - Generating Plant Engineer I, APCo, FNP

b. Other

1975-78 (30 mos) - Power Systems Engr - Knolls Atomic Lab (GE) worked on

the S6G Project as a systems Engr. Duties involved the steam generator water level control system and the transisitorized nuclear instrumentation system.

2. Other

1969-70 (14 mos) - Field Eng for Westinghouse, worked in the startup phase of power (elec) equipment in steel mills.

1970-72 (22 mos) - Production Engr for Northern States Power Co. (NSP). Duties were inspecting plant equipment during plant trips and outages and modification of plant drawings as required.

1972-75 (25 mos) - Honeywell Inc. (Aero-Space) worked as an Evaluations Engr in the area of Digital/Anolog Electronics. Security clearance obtained.

C. Licenses

None

19. Generating Plant Engineer I

A. Educational Background

BS, Mechanical Engineer, Auburn University, 1971

Training

None

B. Experience

1. Nuclear

a. Directly Related

1977-78 (12 mos) - Generating Plant Engineer II, APCo, FNP

1978-Present (18 mos +) - Generating Plant Engineer I, APCo, FNP

B. Other

None Applicable

2. Other

1972-76 (60 mos) - Test Engineer, Newport News Shipbuilding. Responsible for writing, performing, and evaluating tests on Nuclear Powered Cruisers undergoing construction (excluding Rx related sys).

C. Licenses

Professional Engineer License, 1978

20. Generating Plant Engineer I

A. Educational Background

BS, Mechanical Engr, Clemson University, 1970

Training

U.S. Navy Nuclear Power School, 1972

Nuclear Prototype Training (S3G), 1973

B. Experience

1. Nuclear

a. Directly Related

1973-77 (48 mos) - Operating Nuclear Propulsion Unit (SSN-661) Qualified Eng Officer of Watch/Eng. Watch Supervisor, Engineering Planned Maintenance Coordinator, responsible

for Nuclear-Mechanical QA and Maintenance testing.

1977-78 (12 mos) - Generating Plant Engineer II, APCo, FNP

1978-Present (12 mos +) - Generating Plant Engineer I, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

21. Generating Plant Engineer I

A. Educational Background

BS, Nuclear Engineer, North Carolina State University, 1968

Training

Army Nuclear Powerplant Operator's Course with I&C specialty (1968-70, 1½ yrs.)

Army Radiological Health & Safety Course (1973, 5 wks.)

FNP Plant Systems Orientation (1977, 2 wks)

B. Experience

1. Nuclear

a. Directly Related

1970-73 (~36 mos) - I&C Supervisor & Plan Equipment Operator, SM-1

Nuclear Plant, Fort Belvoir, Virginia

1973-76 (~39 mos) - Qualified as Equipment Operator; became C&HP Supervisor - Sturgis Floating Nuclear Powerplant, Gatun Lake, Canal Zone.

1976-77 (12 mos) - Generating Plant Engineer II, APCo, FNP

1977-Present (24 mos +) - Generating Plant Engineer I, APCo, FNP

22. Generating Plant Engineer I

A. Educational Background

BS, Nuclear Engineering, Mississippi State University, 1974

Training

None Applicable

B. Experience

1. Nuclear

a. Directly Related

1977-78 (12 mos) - Field Engineer with Southern Company Services, assigned to FNP Start-up Group, Units 1 & 2

1978-Present (8 mos +) - Generating Plant Engineer I, FNP Technical Staff, APCo

b. Other

1975-77 (34 mos) - Systems Engineer with Southern Company Services Mechanical-Nuclear Design Dept. Responsible for system design, material specification & procurement, transient analysis, dynamic analysis & shielding - worked on plants Barton and Hatch (BWR's) and plants Farley and Vogtle (PWR's).

1974 (1 wk.) - Operated PCA & BSR reactors at Oak Ridge National Laboratory while in school.

2. Other

5 semesters as co-op student engineer with Southern Company Services, Nuclear Systems Dept.

1 semester as co-op student engineer with Southern Company Services, Mechanical-Nuclear Design Dept.

C. Licenses

None

23. Generating Plant Engineer I

A. Educational Background

BS, Mechanical Engineering, University of Alabama, 1963

Training

None Applicable

B. Experience

1. Nuclear

a. Directly Related

1976 (1 yr) - Generating Plant Engineer II, APCo, FNP

1977-Present (2 yrs +) - Generating Plant Engineer I, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

24. Generating Plant Engineer I

A. Educational Background

BEE, City College of N.Y., 1957

MSEE, University of Mo. at Rolla, 1966

Training

W-7300 System Inst. (2 wks., 1978)

DRPI Hardware Course (1 wk., 1978)

Numerous short courses in the U.S. Army including computer applications, value engineering and public relations.

B. Experience

1. Nuclear

a. Directly Related

1978-Present - Generating Plant Engineer I, Startup, APCo, FNP

b. Other

None Applicable

2. Other

20 years as an officer in the U.S. Army Corps of Engineers serving in various Technical and Administrative positions including 2 yrs (1960-62) as an Inst. in Control Circuitry of Portable Generators.

C. Licenses

None

25. Generating Plant Engineer II

A. Educational Background

BEE, Georgia Tech, 1951

Training

W I&C Engineers Courses (5 wks, 1976)

W-2500 Computer Hardware (10 wks, 1977)

P-2000 DEH Computer Maint. (9 wks, 1978)

L&N I&C DFB/300 Hardware (2 wks, 1977)

Foxboro I&C Hardware (1 wk, 1976)

B. Experience

1. Nuclear

a. Directly Related

1976 (4 mos) - Instrument Serviceman, APCo, FNP

1976-77 (12 mos) - Control Technician, APCo, FNP

1977-Present (22 mos +) - Generating Plant Engineer II, APCo, FNP

b. Other

None Applicable

2. Other

1951-67 (16 yrs. 8 mos) - Engineer, U.S. Steel Corp.

1967-75 - Self employed Engineer in servicing and manufacturing of Electronic Control Systems.

1975-76 (8 mos) - Instrument Serviceman, APCo, Barry Steam Plant

C. Licenses

Professional Engineer, State of Alabama, Registration No. 3356

26. Generating Plant Engineer II

A. Educational Background

BS, Engineering Science (Nuclear Engineering), Tenn. Tech University, 1973

MBA, Management Memphis State University, 1975

Training

Operator Training Course - Institute for Nuclear Studies, Memphis State University, 1976 (6 mos)

B. Experience

1. Nuclear

a. Directly Related

1976 (6 mos) - Junior Engineer, APC, FNP

1977-Present (2½ yrs +) - Generating Plant Engineer II, APCo, FNP

b. Other

None Applicable

2. Other

2 yrs - co-op with NASA, Marshall Space Flight Center, AL., concerning laser doppler velocimeters for gas flows, studies aircraft wingtip trailing vortex formation and wind tunnel flows, developed laser radar.

4 yrs - USAF as an interceptor weapons control systems mechanic (airborne tracking radar). Also performed aircraft weapons loading operations both conventional and nuclear.

C. Licenses

None

27. Generating Plant Engineer II

A. Educational Background

BS, Nuc. Eng. Lowell Tech Inst., 1974

Training

None

B. Experience

1. Nuclear

a. Directly Related

1974-76 - Test Eng. on S6G Navy Nuclear Propulsion Plant, Newport News Shipbuilding

1976-78 - Junior Engineer, APCo, FNP

1978-Present - GPE II, APCo, FNP

b. Other

None Applicable

2. Other

1966-70 - Avionics Specialist, U.S. Air Force

C. Licenses

None

28. Generating Plant Engineer II

A. Educational Background

AA, Gulf Coast Community College, 1974

BS, NE, University of Florida, 1977

Training

1967-68 (12 mos) - U.S. Navy Nuclear Power School; qualified electric plant control and on the GE S5G reactor prototype

1969-70 (9 mos) - USS Bainbridge DLGN-25; qualified electric plant control panel on the GE D1G destroyer reactor plant

B. Experience

1. Nuclear

a. Directly Related

1977-79 (18 mos) - Junior Engineer, APCo, FNP

1979-Present (6 mos +) - Generating Plant Engineer II, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

29. Generating Plant Engineer II

A. Educational Background

BEE, Auburn University, 1972

MSE, University of AL-Huntsville, 1979

Training

APCo - Industrial and Commercial Power Distribution, (10 wk, 1973)

W - Steam Turbine WTA voltage regulator and supervisory instrument maintenance (1 wk, 1978)

B. Experience

1. Nuclear

a. Directly Related

1977-79 (19 mos) - Sr. Engr. II, Generating Plant Tech Services, APCo, FNP

1979-Present (4 mos +) - Generating Plant Engr. II, Tech Group, APCo, FNP

b. Other

None Applicable

2. Other

2/76-9/77 - Northrop, Services, Inc., Huntsville, AL. - Systems engineer supporting NASA-Marshall Space Flight Center contract NAS8-31644. Prepeared electromagnetic interference and ligtning design and test requirements for the Space Shuttle electrical systems. Developed math model and computer program to predict electromagnetic interference in a space vehicle. Documentation was published as a Northrup Technical Report No. TR-222-1834.

8/72-2/76 - Alabama Power Company, Eufaula, AL - Senior II - District engineer with the Eufaula District Power Delivery Section. Supervised a distribution line construction crew. Prepared economic studies for system expansion and forecasts of future energy requirements. Planned substation sites and distribution line routes. Determined load flow, voltage drops and short circuit requirements of distribution system.

30. Generating Plant Engineer II A. Educational Background

BS/EE, Tuskegee Institute, 1977

Training

None

B. Experience

1. Nuclear

a. Directly Related

1977-78 (18 mos) - Junior Engineer, APCo, FNP

1978-Present (7 mos +) - Generating Plant Engineer II, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

31. Generating Plant Engineer II

A. Educational Background

BS, Nuclear Science, VA. Polytechnic Inst., 1975

Training

W-2500 compute programming (4 wk, 1977)

W-2500 Process Operating System (2 wk, 1977)

B. Experience

1. Nuclear

a. Directly Related

1977-78 (18 mos) - Junior Engr., APCo, FNP

1978-Present (6 mos +) - Generating Plant Engr. II, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

32. Junior Engineer

A. Educational Background

BS, NE University of Tennessee, 1978

Training

None

B. Experience

1. Nuclear

a. Directly Related

1978-Present (10 mos +) -Junior Engineer, APCo, FNP

B. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

33. Junior Engineer

A. Educational Background

BEE, Electrical, Auburn University, 1978

Training

U.S. Navy Nuclear Power School (26 wks, 1967)

Navy Nuclear Power Plant Operator S1W Prototype (26 wks, 1967-68)

Enlisted Basic Submarine School (8 wks, 1968)

Navy Electrician Class "A" School (14 wks, 1966)

B. Experience

1. Nuclear

a. Directly Related

1979-Present (2 mos +) - Junior Engineer, APCo, FNP

b. Other

1968 (1 yr) - Electrician on USS Woodrow Wilson (Nuclear Sub)

1969-72 (3 yrs) - Electrician on USS Fulton (Nuclear Sub support ship)

1966 (6 mos) - Radioactive Decontamination Team on board USS Sperry

2. Other

1978-79 (10 mos) - Jr. Engineer, APCo, Power Distribution in Anniston, AL.

1976-78 (2 yrs) - Master Electrician (City of Auburn, AL)

1973-76 (3 yrs) - Residential and Commercial Elect. (Palmer Elec.)

1977 (4 mos) - Industrial Electrician (Ohio Ferro Alloys)

C. Licenses

34. Junior Engineer

A. Educational Background

BS, Nuclear Engineering, Univ of Tennessee, 1978

14 hrs. Nuclear Fusion (graduate courses), Univ of Tenn, 1978

Training

W-2500 computer program (6 wk, 1978)

B. Experience

1. Nuclear

a. Directly Related

1978-Present (12 mos +) - Junior Engineer, APCo, FNP

b. Other

None Applicable

2. Other

1978 (6 mos) - TVA - Engineer Aid, computer work, Knoxville, TN

1976-77 (18 mos) - Continential Tool & Engineering Drafting, design of simple gauges and machines, dimensional checks and QA.

C. Licenses

35. Assistant Operations Supervisor

A. Educational Background

High School, Parrish High, 1956

G. C. Wallace, Dothan, AL, 1½ yr

1975-76 - pi[illegible] engineering

Training

(8 mos 1/71-8/71) - ICS (correspondent course) - Nuclear refresher,

1972 (1 mo) - Basic math & science (General Physics Corp.)

1972-73 (10 mos) - Westinghouse cold license training

1974 (1 mo) - Westinghouse design lecture series

1974 (6 mo) - APCo Systems Training

B. Experience

1. Nuclear

a. Directly Related

1972-77 (5 yr) - Shift Foreman - Nuclear, APCo, FNP

1977-78 (12 mo) - Shift Supervisor - Nuclear, APCo, FNP

1978-Present - Assistant Operations Supervisor, APCo, FNP

b. Other

None Applicable

2. Other

1961 (2 mos) - Crusher & conveyor helper - fossil

1961-62 (4 mos) - Lab helper, APCo, fossil

1962-63 (13 mos) - Laborer, APCo, fossil

1963-65 (26 mos) - Aux. Operator, APCo, fossil

1965-68 (39 mos) - Assistant Plant Operator, APCo, fossil

1968-72 (40 mos) - Plant Operator, APCo, fossil

1972 (10 mos) - Shift Foreman, APCo, fossil

C. Licenses

SRO License #2925, 3/22/77

SRO License #2925-1, 3/22/79

(W SRO Certification, 1973)

36. Assistant C&HP Supervisor

A. Educational Background

AS, Electrical Engineering Tech Southern Technical Institute, 1972

Training

Health Physics Laboratory Training (48 wk, 1955)

Applied C&HP Training at Nuclear Power Plant (8 wk, 1974)

Health Physics and Radiation Protection Course (10 wk, 1975)

Health Physics Training Course (8 wk, 1976)

Applied C&HP Training at Nuclear Power Plant (5 wk, 1976)

B. Experience

1. Nuclear

a. Directly Related

1954-58 (48 mos) - Technician in Health Physics Savannah River Plant - E.I. Dupont

1958-64 (64 mos) - Inspector in Health Physics Savannah River Plant - E.I. Dupont

1964-65 (6 mos) - Hot Cell Complex, Technician, Georgia Institute of Technology

1965-70 (60 mos)- Radiation Monitor Georgia Institute of Technology

1970-73 (35 mos) - Safety Engineer Assistant, Georgia Institute of Technology

1973 (7 mos) - Health Physicist, Georgia Institute of Technology

1973-77 (44 mos) - Chemistry and Health Physics Technician, APCo, FNP

1977-78 (17 mos) - Chemistry and Health Physics Foreman, APCo, FNP

1978-Present (13 mos +) - Assistant Chemistry and Health Physics Supervisor, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

37. C/HP Foreman
Health Physics

A. Educational Background

High School grad, Adanston, W. VA., 1969

Training

Basic Propolsion and Engineering School NTC Great Lakes, Ill. (3 mos, 1970)

Machinist Mate "A" School, NTC Great Lakes, Ill (3 mos, 1970)

Nuclear Power School, Bainbridge MD, (6 mos, 1970-71)

Naval Nuclear Power Training Unit S1C, Windsor, Ct. (9 mos, 1971) E.L.T.

Submarine School, Submarine Danoge Control School, New Londen, Ct. (2 mos, 1971-72)

Maintenance & Repair of M.S.A. respiration regulators, Farley Nuclear Plant, Ashford, AL (1 day, 1977)

Generating Chemistry & Supervising Management Training, G. C. Wallace Community College, Dothan, AL (3 mos, 1977)

Health Physics Technician Training Oak Ridge, TN (5 wks, 1978)

Health Physics Technician Training, Farley Nuclear Plant, (6 wks, 1976)

B. Experience

1. Nuclear

a. Directly Related

1971 (9 mos) - Engineering Laboratory Technician and Mechanical/Electrical Operator, S1C Nuclear Power Training Unit, Windsor Ct.

1972-73 (15 mos) - Engineering Laboratory Technician/Mechanical Operator, U.S.S. W. H. Bates (SSN-680)

1973-74 (14 mos) - Leading Engineering Laboratory Technician, U.S.S. Tinosa (SSN-606)

1974-75 (18 mos) - Squadron Engineering Asst. - Commander Submarine Squadron, Ten Staff - U.S.S. Fulton (AS-11)

1976-78 (29 mos) - Chemistry and Health Physics Technician, APCo, FNP

1978-Present (12 mo +) - Chemistry and Health Physics Foreman, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

38. Chemistry & Health Physics Foreman (Counting Room)

A. Educational Background

2 years, Architectual Design, Augusta School of Technology, 1971

4 years, Computer Science, Troy State University, presently attending (25 hrs. required for B. Science)

Training

Radiochemistry Training Course, Savannah River Plant, (8 wks, 1962)

Radiochemistry Technician Training, Fla. Power and Light (2 wks, 1972)

Chemical, Biological, & Radiological Training, U.S. Army (6 wks, 1969)

PWR Design Lecture Series, FNP, (2 wks, 1974)

PWR Radiochemistry School, Pittsburgh, PA, (3 mos, 1975)

B. Experience

1. Nuclear

a. Directly Related

1962 (111 mos) - E.I. DuPont, Savanah River Plant, Radiochemistry Technician. Radiochemistry related responsibilities. Production reactors.

7			1971 (36 mos) - Florida Power and Light Co., Test Engineer. Startup and operation of 2 Westinghouse PWRs. Radiochemistry, Radwaste, and Effluent related responsiblities. 1974-76 (33 mos) - Chemistry and Health Physics Technician, APCo, FNP 1976-Present (31 mos +) - Chemistry and Health Physics Foreman, APCo, FNP
		b. Other	None Applicable
		2. Other	None Applicable
	C.	Licenses	None
39. Chemistry & Health Physics Foreman (Chemistry)	A.	Educational Background	BS in Chemistry, University of Alabama, 1971
		Training	W PWR Chemists Course (12 wk, 1974) Radiological Safety Officer's Crs., U.S. Army (3 wks, 1973) FNP C&HP Technician Training Crs (8 wks, 1976) Chemical, Biological, & Radiological Officer Basic Crs (9 wks, 1972)

FNP Rx Operator B Phase Tng (8 wks, 1974)

B. Experience

1. Nuclear

a. Directly Related

1974-76 (30 mos) - C&HP Technician, APCo, FNP

1977-Present (31 mos +)- C&HP Foreman, APCo, FNP

b. Other

1972-74 (22 mos) - U.S. Army Chemical, Biological, Radiological Laboratory Officer, U.S. Army Chemical Center and School, FT. McClellan, AL and U.S. Army Ordnance Center and School, Aberdern Proving Group, MD

2. Other

None Applicable

C. Licenses

None

40. Assistant I&C Supervisor

A. Educational Background

AA Brevard Community College

Attended Engineering courses at Florida Technological University (no degree) 1970-76

Training

Nuclear Instrumentation (2 wk, 1977)

Solid State Protection System (2 wks, 1977)

L&N Controls and Systems (2 wks, 1977)

Radiation Monitoring Systems (1 wk, 1976)

7300 Process Control System (3 wks, 1976)

B. Experience

1. Nuclear

a. Directly Related

1976 (6 mos) - Instrument Serviceman

1977-78 (12 mos) - Control Technician

1978 (6 mos) - Instrument Foreman

1978-Present (10 mo +) - Assistant Instrumentation Supervisor

b. Other

None Applicable

2. Other

1968-72 (48 mos) - Electronics Technician for Grumman Aerospace Corp., Cape Kennedy, Fla - Ground testing and pre-launch check-out of the lunar module.

1966-68 (34 mo) - Electronics Technician for Chrysler Corp. at Cape Kenndy, Fla. Ground check-out and flight systems configuration for launch.

1962-65 (48 mos) - Electronics Technician for U.S. Air Force assigned to launch operations and check-out on the atlas "F" ICBM at

Plattsburgh AFB, New York.

1972-75 (34 mos) - Project Technician for Chrysler Corp. Cape Kennedy, Fla - Prelaunch check-out of Saturn 1 launch vehicle. (See attached sheet)

C. Licenses

None

41. Assistant Maintenance Supervisor

A. Educational Background

High School grad, 1951

Auto-Diesel College, 1955

Training

Navy Nuclear Power Prototype (6 mos, 1962)

Bettis Atomic Lab. (5 wks, 1962)

Welding School (6 wks, 1962)

Navy Nuclear Power Prototype Instructor (4 mos, 1965)

Navy Nuclear Power Prototype EOOW (4 mos, 1967)

Navy Nuclear Power School Instructor (6 mos, 1971)

B. Experience

1. Nuclear

a. Directly Related

1963-65 (32 mos) - Engine Room Supervisor on board U.S.S.

Henry Clay - Qualified on all 'M' Division Officer S1C Prototype

1966-69 (36 mos) - Instructor, EOOW, 'M' Division Officer S1C Prototype.

1970-71 (24 mos) - Engineering Watch Supervisor, LPO, U.S.S. Hawkbill - S5W Reactor Plant

1971-74 (36 mos) - Instructor, Section advisor, Navy Nuclear Power School.

1974-75 (9 mos) - Engineering Watch Supervisor, Engineering leading petty officer. U.S.S. James Madison.

1975-76 (13 mos) - Mechanical Foreman North Anna & Surry Nuclear Power Plants VEPCO.

1976-77 (16 mos) - Maintenance Foreman, APCo, FNP

1977-Present (16 mos +) - Assistant Maintenance Supervisor, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

42. Training Supervisor

A. Educational Background

AA, Wallace Community College, 1978

40 hrs. toward BS, Troy State University

Training

1966-67 (48 wks) - U.S. Navy Electronics School

1968 (26 wks) - U.S. Navy Nuclear Power School

1968-69 (26 wks) - U.S. Navy Prototype S1W

1976 (20 wks) - APCo Cold License Training

1976 (1 wk) - Westinghouse Simulator Training

B. Experience

1. Nuclear

a. Directly Related

1969-72 (24 mos) - U.S. Navy Reactor Operator S5W Reactor

1972-74 (30 mos) - U.S. Navy EOOW - A3W/A4G Reactors

1975-78 (39 mos) - Plant Instructor, APCo, FNP

1978-Present (15 mos +) - Training Supervisor, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

Senior Operators License #2930-1

43. Plant Instructor

A. Educational Background

Auburn University, 1966

University of South Alabama, 1966-68

Training

Westinghouse PWR Training, (9 mos, 1972-73)

B. Experience

1. Nuclear

a. Directly Related

1972-75 (31 mos) - Plant Operator - Nuclear, APCo, FNP

1975-77 (24 mos) - Shift Foreman - Nuclear, APCo, FNP

1977-Present - Plant Instructor, APCo, FNP

b. Other

None Applicable

2. Other

1969-72 (40 mos) - Assistant Plant Operator, APCo, Barry Steam Plant

C. Licenses

Senior Operators License #2920

801 071

44. Plant Instructor

A. Educational Background

Associate Degree in Electronics, Los Angeles City College, 1976

BAS in Nuclear Management, Troy State University, 1979

U.S. Navy Elect. Tech. A-1, A-2, A-3 Schools, (1/71-11/71)

U.S. Navy Nuclear Power School and S1W Prototype Training (2/72-3/73)

Training

U.S. Navy - Electronic Test Equipment School (1 wk)

U.S. Navy - Naval Scuba Diver School (1 mo)

APCo - Rod Control and Solid State Protection System Schools (3 wks, 1977)

APCo - Hot License Class Training (6 mos, 1978)

Westinghouse - PWR Simulator Training Program

B. Experience

1. Nuclear

a. Directly Related

1970-76 - U.S. Navy -qualified reactor operator, shutdown manuvering area watch, and engineering watch supervisor on SSBN 601, S5W Core II; qualified Shift Supervisor @ Subase Nuclear Planning Office, Pearl Harbor. Shift Supervisor duties included procedure planning for nuclear repairs

on Nuc. Subs., incorporating rad. con., welding standards, hydro. standards, freeze seals, cleanliness standards, and N.D.T. standards.

b. Other

4/77-5/78 (13 mos) - APCo - Instrument Serviceman - Maintenance on Westinghouse NIS, 7300 Protection and Control Systems, and Turbine Control and Aux. Systems. Maintenance on various electronic and pneumatic control systems. Knowledge on West catalytic H_2 recombiner, gas analyzers, and controls. Responsible for design changes and modifications to enhance the systems operation. Understand interactions between recombiner and waste gas systems.

5/1978-Present (14 mos) - APCo - Plant Instructor - Teach Rad. worker and respiratory protection training; also Assistant Plant Operator and Plant Operator Training.

2. Other

None Applicable

C. Licenses

USN Reactor Operator S1W
Prototype S5W Core IV (2/1972)

USN Reactor Operator SSEN 601
S5W Core II (6/1973)

NRC - SRO License - Farley Nuclear Plant - West. PWR (12/1978)

45. Plant Instructor

A. Educational Background

Gadsden State Jr. College, 1966-68

Basic Electronics (2 qtrs), Data Processing (5 qtrs)

Training

W onsite N-Plant Operator Training (9 mos, 1974)

W SRO Cold License Training (Zion, Ill.) (21 wks, 1975-76)

APCo Pre-license Review (6 mos, 1976)

B. Experience

1. Nuclear

a. Directly Related

1974-75 (14 mos) - Assistant Plant Operator - Nuclear

1975-76 (11 mos) - Plant Operator - Nuclear

1976-78 (24 mos) - Shift Foreman - Nuclear

1978-Present - Plant Instructor

b. Other

None Applicable

2. Other

1971-74 (34 mos) - Assistant Plant Control Operator - Fossil

C. Licenses

SRO License No. SOP-2927-1

46. Plant Instructor

A. Educational Background

AA, G. C. Wallace Jr. College, 1978

Training

Basic Electronics & Electricity, (1 mo, 1970)

Electronic's Mate "A" School, (3 mo, 1970)

Naval Nuclear Power School, (6 mo, 1970)

Naval Nuclear Prototype - S5G, (6 mo, 1970-71)

Naval Submarine School, (2 mo, 1971)

Naval Scuba Diving School, (1 mo, 1973)

Naval Motor-Generator School, (1 wk, 1973)

Naval Mag-Amp Theory School, (1 wk, 1973)

APCo Reactor Fundamentals, (3 mos, 1975)

APCo Asst. Plant Oper. Course, (6 mos, 1975-76)

APCo Systems Qualification, (comp. 1976)

Univ. of Missouri (Rolla) -Reactor Trng, (2 wks, 1976)

APCo Pre-license Review Series - Cold License (6 mos, 1976-77)

West. PWR Simulator Trng - Option III, (2 wks, 1977)

West. PWR Simulator Retraining, (3 da, 1978)

APCo License Requal, (1 wk, 1979)

B. Experience

1. Nuclear

a. Directly Related

1970-71 - Naval Electrical Oper Trainee at S5G prototype

1971-75 - Naval Electrical Operator onboard nuclear submarine - Qualified shutdown maneuvering watch - responsible for shipboard electrical systems and for reactor safety/protection while shutdown.

1975-77 (18 mo) - Asst. Plant Oper, APCo, FNP

1977-78 (12 mos) - Engr Aide I, APCo, FNP - Assigned to training dept for development and presentation of FNP Training Programs

1978-Present (14 mos +) - Plant Instructor, APCo, FNP

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

NRC RO License, 1977 (Lic #OP-4265)

NRC SRO License, 1978 (Lic #SOP-3270)

47. Quality Assurance Engineer

A. Educational Background

BS, ME, Auburn Univ., 1973

Training

Westinghouse Station Nuclear Engr's Course (12 wk, 1974)

On-Site FNP Systems & Nuclear Theory Training (6 mo, 1974-75)

Participation in Core Loading, Zero Power Physics Testing & Power Ascension Testing at Donald C. Cook Nuclear Plant (6 wk, 1974-75)

Westinghouse Operational Core Analysis Package Training (2 wk, 1976)

SRO Hot License Training, (6 mo, 1978)

Bechtel Auditor Training Course, (1 wk, 1977)

B. Experience

1. Nuclear

a. Directly Related

1973-74 (12 mos) - Jr. Engr., APCo, FNP

1974-76 (24 mos) - Generating Plant Engr. II, APCo, FNP

1976-77 (10 mos) - Generating Plant Engr. I, APCo, FNP

1977 (8 mos) - Generating Plant Engr-Supervising, APCo, FNP

1977-Present (21 mos +) - Plant QA Engr., APCo, FNP

b. Other

None Applicable

2. Other

1970-72 (15 mos) - Co-op student, APCo, Barry Steam Plant

C. Licenses

NRC SRO License, 12/1/78

48. QA Engineer II

A. Educational Background

BS, Chemistry - Calif. State College, Bakersfield, CA, 1975

MS, Nuclear Engr - Univ. of New Mexico, 1976

Training

SRO Hot License Training (1/79 to present)

W Simulator Training - Startup Certif. (1 wk)

Accident & Transient Operation (1 wk)

B. Experience

1. Nuclear

a. Directly Related

1977-Present (24 mos +) - Operations Quality Assurance Engineer

b. Other

None Applicable

2. Other

None Applicable

C. Licenses

None

49. QAE II

A. Educational Background

MS, Nuclear Engineering, Univ. Wisconsin, Madison, 1975

BS, Physics, Ga. Inst. Tech, Atlanta, Ga., 1974

Training

BWR Nuclear Engineering (Reactor Engineering), San Jose, CA., (4 wks, 1976)

BWR Systems, (Com. Ed., LaSalle, Co. Sta. Marseilles, Ill.), (5 wks, 1976)

Auditor Training, (1 wk, 1978)

B. Experience

1. Nuclear

a. Directly Related

1976-78 (24 mos) - Technical Staff Engineer (Nuclear Engineer), LaSalle County Station, (Com

Ed), BWR - development & conduct of preoperational and startup test procedures

1977-78 (6 mos) - Nuclear Engineer in training, Presden Station (Com Ed), BWR performed reactor core monioring.

1978-1979 (11 mos +) - Operations Quality Assurance Engineer, APCO, FNP

b. Other

1975 (3 mos) - Summer Assistant, Wisconsin Electric Power Co., Nuclear Project Ofc - developed fuel cycle management computer programs for Westinghouse PWR.

2. Other

None Applicable

C. Licenses

None

50. Quality Assurance Engineer II A. Educational Background

BS, NE, Univ. of Fla, 1976

Training

Training as outlined in ANSI N45.2.23 for Lead Auditor qualification

Bechtel Auditor Training Course (1 wk)

B. Experience

1. Nuclear

a. Directly Related

1978-Present (14 mos +) - Operations Quality Assurance Engineer II, APCo, FNP

b. Other

None Applicable

2. Other

1977-78 (12 mos) - APCo, Barry Steam Plant, Junior Engineer

1974-76 (12 mos)- Working for various engineering consulting firms.

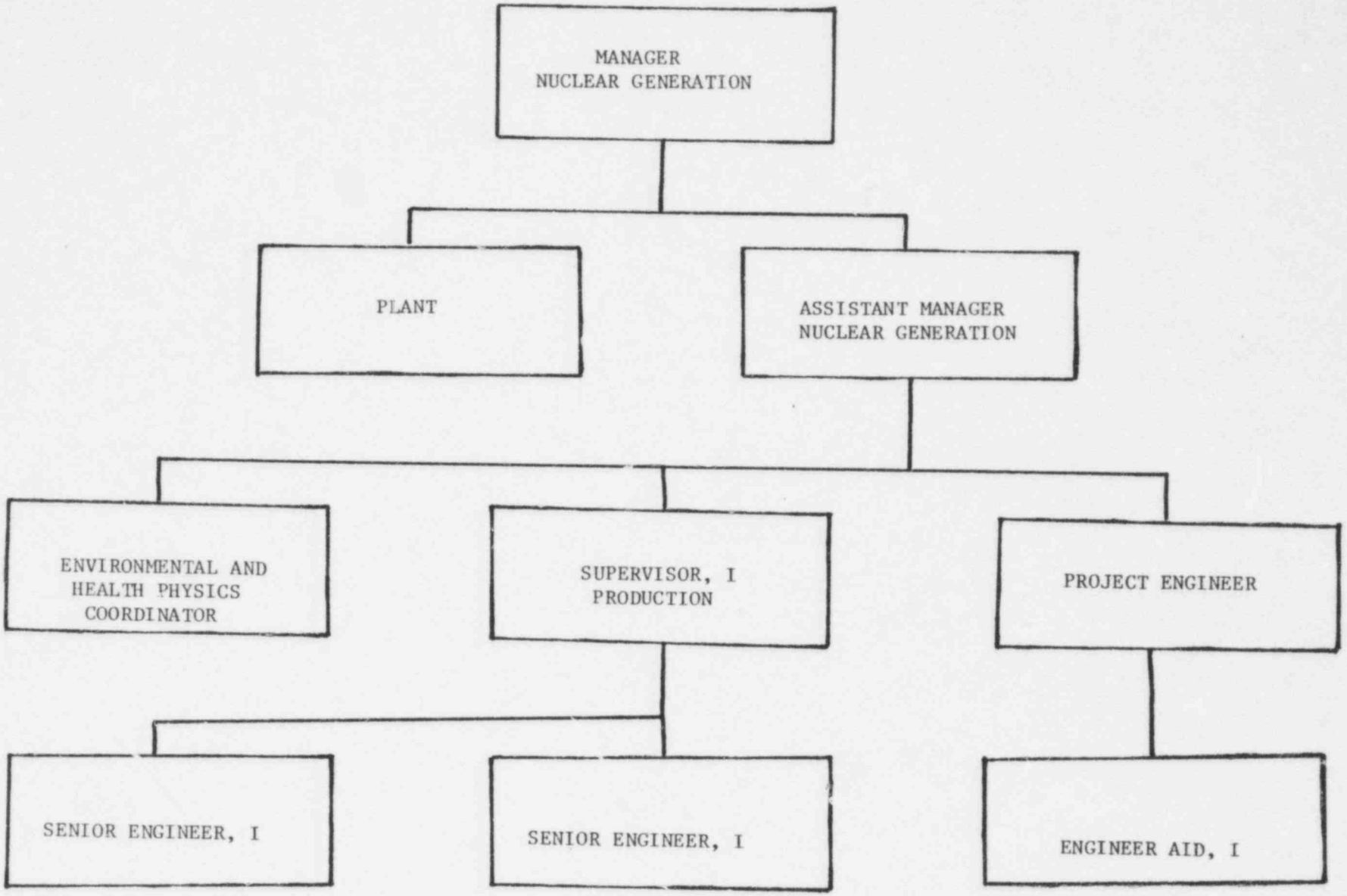
1972-74 (24 mos) - Hospital Plant Operation

C. Licenses

None

Cerification - Engineer in Training - State of Alabama, 1979

PRODUCTION NUCLEAR SECTION



NUCLEAR GENERATION

FUNCTIONS AND RESPONSIBILITIES:

1. Organize the administration, maintenance and operation of nuclear generating plants to assure reliable and economic generation as required by the system.

2. Budget adequate funds to operate and maintain the nuclear generating plants.

3. Review data and reports from nuclear generating plants to confirm efficient operation and maintenance of the plants.

4. Review the basic design plans for new plants and for alterations to existing plants to assure that proposed designs are acceptable for the purpose.

5. Originate policies for the operation and maintenance of nuclear generating plants.

6. Audit nuclear generating plants for adherence to government regulations and Company and Departmental procedures.

7. Approve requisitions, expense accounts, invoices and receiving reports to assure an adequate supply of supplies and materials for nuclear generating plants at an economic cost.

8. Handle labor relations problems involving nuclear generating plants.

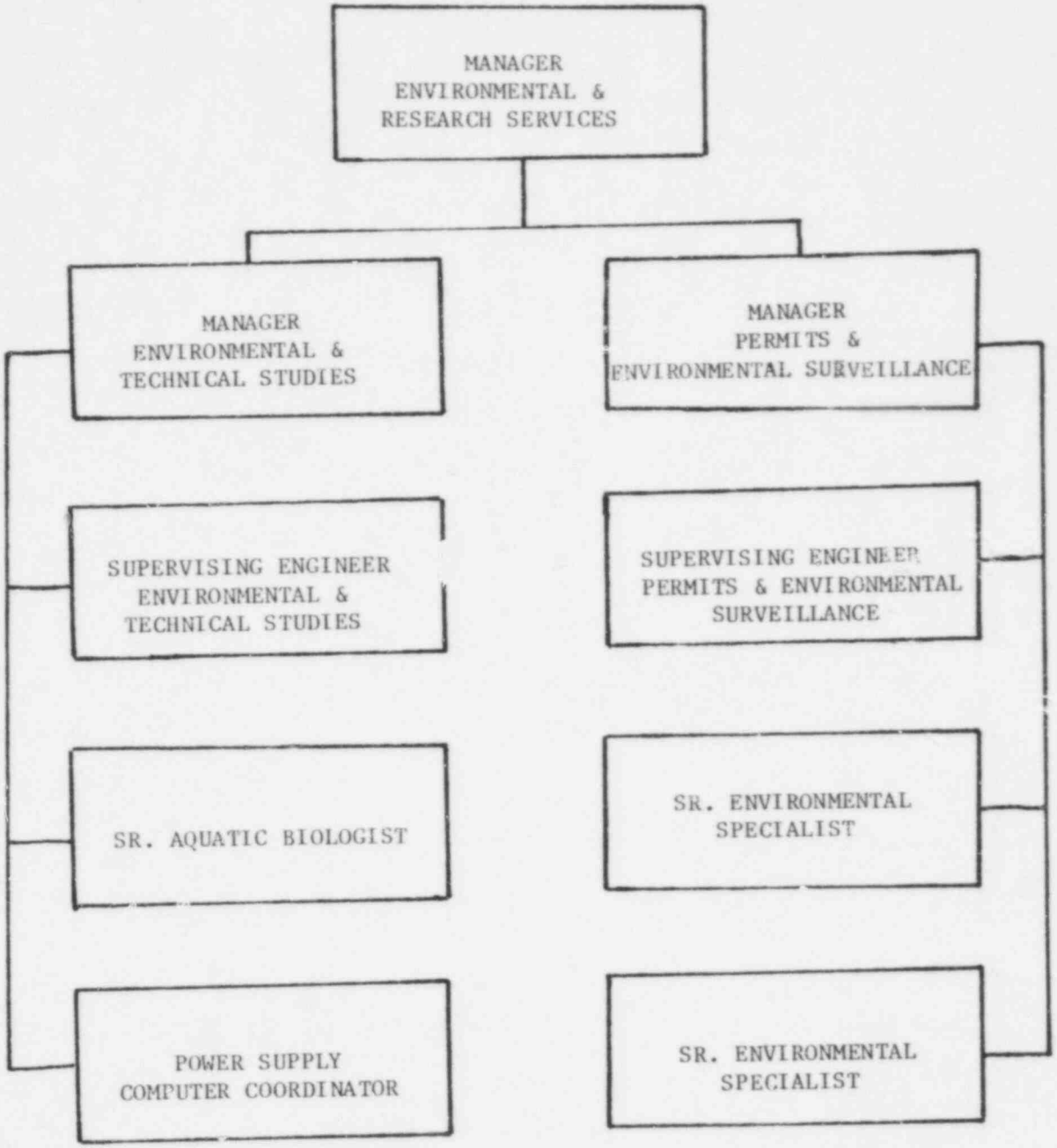
DEPARTMENTAL TITLE PRODUCTION

SECTION TITLE NUCLEAR GENERATION

NO. OF MANAGERS (M) SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
2	1	3	2	B.S. Engineering Physics	1	1. Nuclear Power Field (Utility or Non-Utility)	67	Reactor Operations Training	7		SRO License	1
				B.S. Physics	1	2. Engineering Management (Utility or Non-Utility, supervisor and above)	18	Initial Plant Startup and Testing	6		SRO License (Expired 3/79)	1
				B.S. Chemistry	2	3. Total Utility Experience (Nuclear or Non-Nuclear)	61	Reactor Operations	8			
				B.S. Electrical Engineering	1			Health Physics	17			
				B.S. Mechanical Engineering	3			Core Analysis	2			
				M.S. Chemistry	1			Systems Analysis	5			
				M.S. Nuclear Engineering	1			USNRC Inspection	4.5			
				Ph.D. Chemistry	1			Nuclear Management	12			
								Nuclear Procurement	6			
								Licensing	3			
								Mechanical Engineering		12.5		
								Fossil Startup		5		
								Chemist		8		
								System Chemist		4		
								Electrical Engineer		2		

*(F) - Full-Time Nuclear Experience
(N) - Non-Nuclear Experience

ENVIRONMENTAL AND RESEARCH SERVICES



ENVIRONMENTAL & RESEARCH SERVICES

FUNCTIONS & RESPONSIBILITIES:

1. Conduct analytical engineering studies in areas of thermal discharges, hydrology, hydro generation, air diffusion modeling, and wastewater treatment.

2. Direct siting studies and environmental report preparation for generating plant expansion.

3. Review and make recommendations on pending legislation and regulations in areas of water and air, land use, and other environmental matters.

4. Manage activities to provide biological impacts of Company generating plant operations.

5. Obtain and administer environmental permits for construction and operation of Company facilities.

6. Provide technical coordination for construction, maintenance and operation of ambient air monitoring systems to provide requisite air quality compliance data required by state and local air pollution agencies.

7. Manage field and laboratory activities to provide analytical services to Company operations.

8. Provide software services to department users, evaluate new areas of departmental computer applications, and coordinate departmental requirements with Corporate Systems Department.

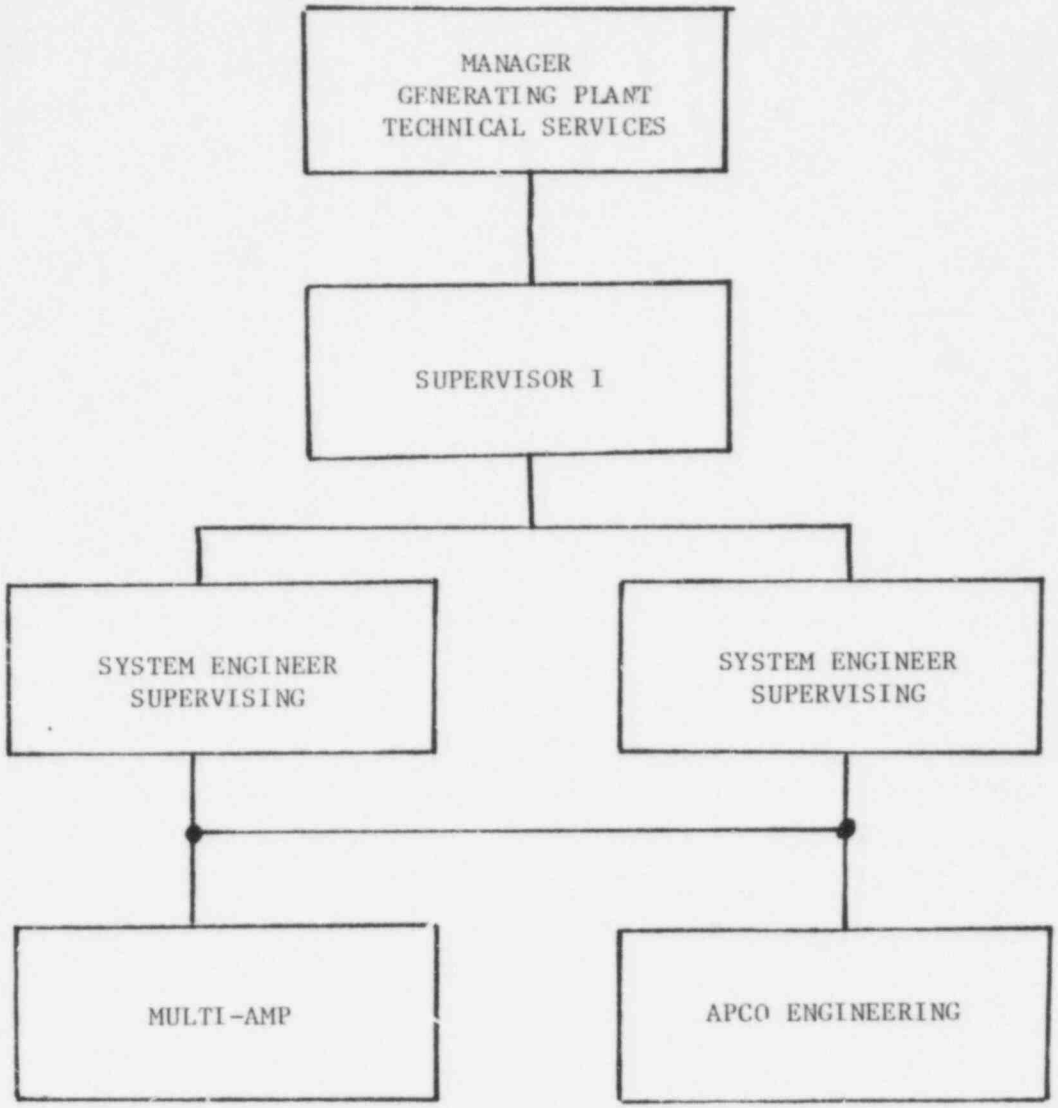
9. Manage software systems utilized by Company Ambient Air Monitoring System and provide departmental interface.

10. Serve as primary contact between Company and environmental regulatory agencies.

11. Serve as initial interface between Company and counsel in assessing impacts of environmental laws and regulations on Company's operations.

12. Serve as Chairman of Company's Research Committee, member of Southern Company Services Research Committee, and administer Company's procedures for tracking research and development expenditures.

GENERATING PLANT TECHNICAL SERVICES



GENERATING PLANT TECHNICAL SERVICES

FUNCTIONS & RESPONSIBILITY:

1. Perform testing and calibration of protective, control, battery, metering and switchgear equipment as an integral part of the plant maintenance force and during the construction of new facilities.
2. Provide a reservoir of electrical expertise that is readily available for detailed involvement during emergency or other situations that affect generation.
3. Perform fault studies, problem analyses, and other electrical calculations associated with the review of settings and application of protective relays and devices as necessitated by changes in the operating plant or during construction of new facilities.
4. Provide electrical engineering expertise available to plant management for problem solving, consultation, or special assignments as required to improve generation capability and availability.

DEPARTMENTAL TITLE POWER SUPPLY SERVICES

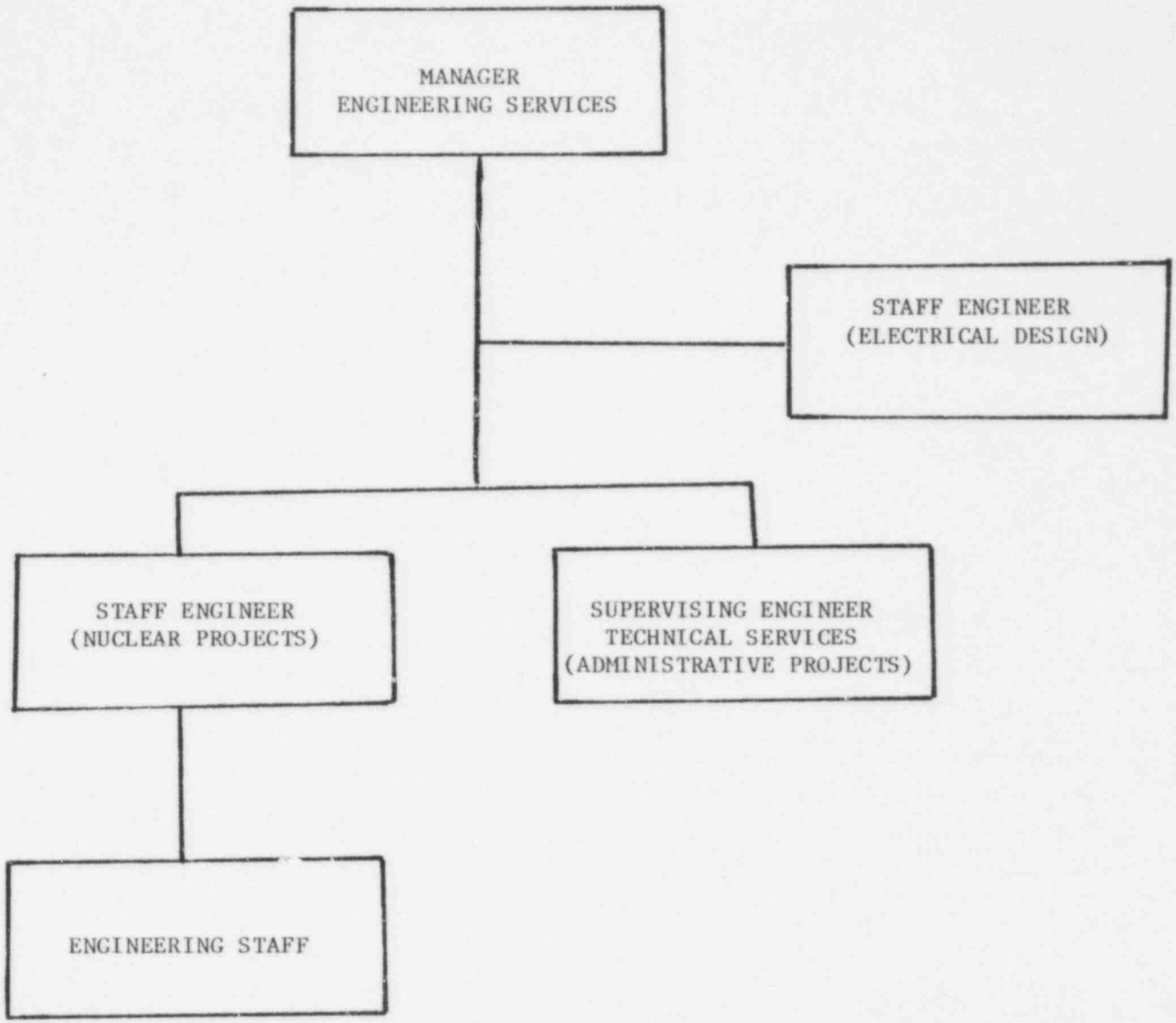
SECTION TITLE GENERATING PLANT TECHNICAL SERVICES

NO. OF MANAGERS (M) SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	1	6		BSEE	8	1. Nuclear Power Field (Utility or Non-Utility)	17	Electrical Engineering	27	22	Limit Torque Valves	4
			1	Technician (High School)	1	2. Engineering Management (Utility or Non-Utility, supervisor and above)	8	Instrumentation/Control		4	Excitation Controls	5
											Metering	2
						3. Total Utility Experience (Nuclear or Non-Nuclear)	39					
						Multi-Amp Contract[1]						
		2		BSEE	2	1. Nuclear Power Field (Utility or Non-Utility)	4	Electrical Engineering	13	61	Limit Torque Valves	5
			5	Technician (High School)	5	2. Engineering Management (Utility of Non-Utility, supervisor, and above)	3	Instrumentation/Control	1	14		
						3. Total Utility Experience (Nuclear or Non-Nuclear)	59					

***(F) - Full-Time Nuclear Experience**
(N) - Non-Nuclear Experience

[1]Multi-Amp Contract is projected to terminate September, 1980. Multi-Amp provides additional technical expertise that is used to perfo field testing and calibration of electrical equipment during startup. These technicians are also used maintenance, trouble, analys , repair, and other activities associated with the operating unit and are an integral part of Generating Plant Technical Services.

ENGINEERING SERVICES



DEPARTMENTAL TITLE POWER SUPPLY SERVICES

SECTION TITLE ENGINEERING SERVICES

NO. OF MANAGERS (M) SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	2	8		B.S. Electrical Engineering	2	1. Nuclear Power Field (Utility or Non-Utility)	50	Electric Engineering		36	SRO License	1
				B.S. Civic Engineering	2	2. Engineering Management (Utility or Non-Utility), Supervisor and above)	44	Mechanical Engineering	14	37		
				B.S. Mechanical Engineering	4			Civil and Architectural		14		
				M.S. Aerospace Engineering	1	3. Total Utility Experience (Nuclear or Non-Nuclear)	112	Instrumentation/Controls	1	9		
				M.S. Mechanical Engineering	1			Hydro		11		
				M.S. Nuclear Engineering	1			Licensing	10	2		
								Environmental	1	6		
								Quality Assurance	7	1		

*(F) - Full-Time Nuclear Experience
(N) - Non-Nuclear Experience

POWER SUPPLY SERVICES DEPARTMENT
ENGINEERING SERVICES SECTION

FUNCTIONS & RESPONSIBILITIES:

1. Performs design reviews of proposed generating plant installations and modifications.

2. Provides project engineering functions relating to the design, construction, modification, and maintenance of generating plant facilities which include project planning; coordination of design and engineered procurement; review and approval of engineering design invoices and engineered procurement recommendations; liaison between Production, constructor, and designer; establishing and monitoring project milestone schedules, and review of budget estimates.

3. Coordinates budgeting and accounting matters including the off-site nuclear fuel cycle, and

4. Provides engineering support services to other departments of the Company and to legal counsel as requested.

COMPANIES CONTRACTED BY APCO

1. All contracts expire December 31, 1979.

2. Orders with all the contracted companies may be placed by telephone.

3. During normal plant operation the Manager of Nuclear Generation has the authority to allocate resources. During an emergency the plant manager, logistics engineer, and manpower engineer may also order resources. The logistics engineer and manpower engineer are members of the general office staff.

APPLIED PHYSICAL TECHNOLOGY - provide technical support, assistance and consulting services.

APPLIED RADIOLOGICAL CONTROLS, INC. - provide the services of Health Physics Technicians.

CENTER FOR APPLIED ISOTOPE STUDIES (University of Georgia)
Analytical services for environmental samples and SITU Gamma measurements to be made in the plant vicinity with self-contained mobile unit.

CHEM-NUCLEAR SYSTEMS, INC. - radioactive waste solidification, disposal and services described in the contract.

DANIEL CONSTRUCTION - contracted to construct Farley Unit 2.

DAVCON - perform the maintainence on the operating Farley Unit 1 plant.

EBERLINE INSTRUMENT CORP. -
1. repair and calibration, including transportation of radiation survey instruments.
2. personnel and environmental dosimetry services.
3. radioactivity analyses of environmental samples.

RAD SERVICES, INC. - provide the services of Health Physics Technicians.

WESTINGHOUSE ELECTRIC CORP. -
1. provide service engineers as necessary for inspection and repair of the turbine.
2. provide craft labor and supervision for turbine, generator and associated equipment.
3. miscellaneous materials and supplies for the turbines.
4. engineering support for design changes or modifications.
5. general agreement stating that Westinghouse will supply any assistance requested by Alabama Power Company.

NRC

REQUEST FOR INFORMATION

OF

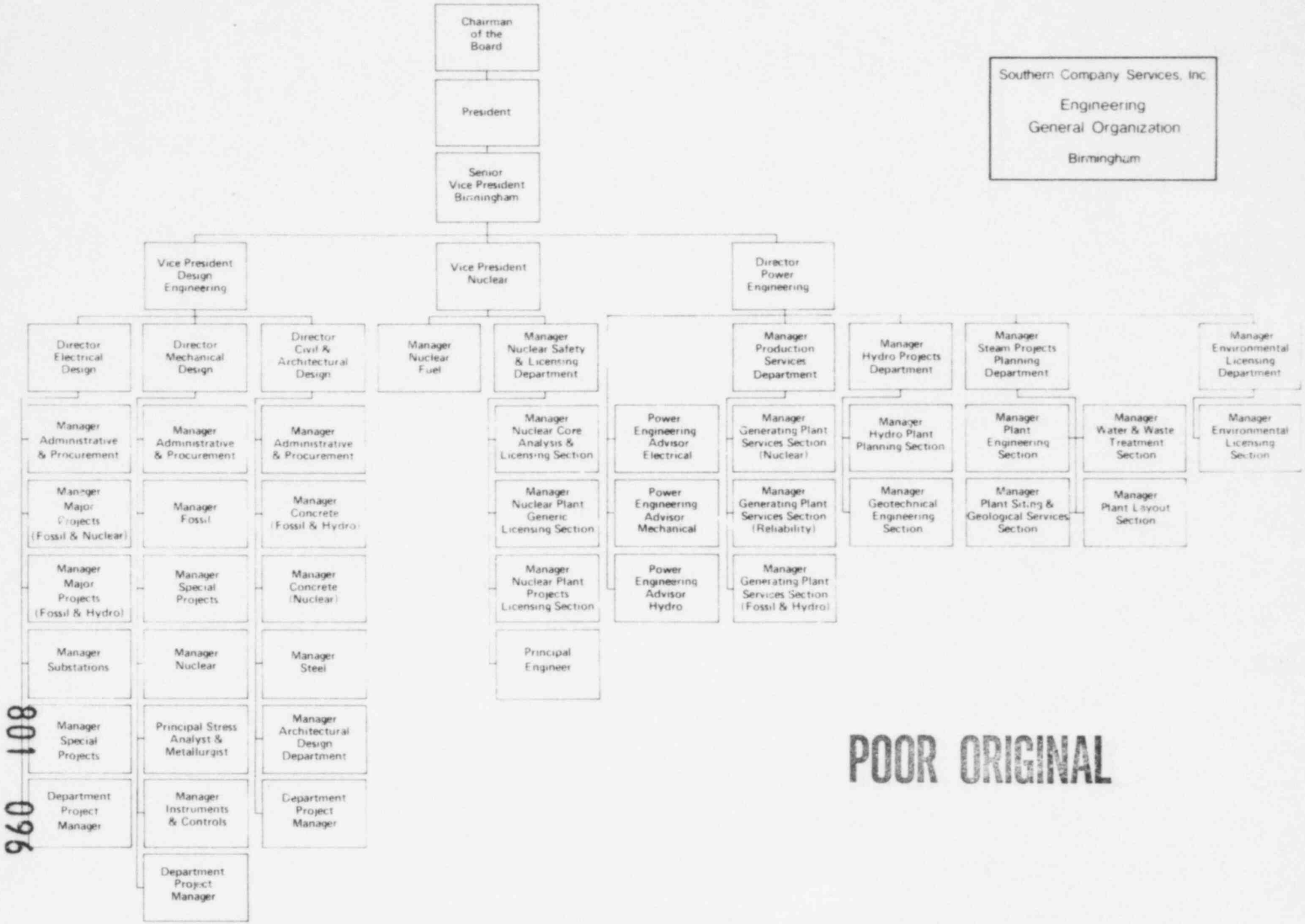
TECHNICAL RESOURCES

JOSEPH M. FARLEY NUCLEAR PLANT

SOUTHERN COMPANY SERVICES
BIRMINGHAM

SOUTHERN COMPANY SERVICES, INC.
TECHNICAL RESOURCES

A description of the technical resources employed at Southern Company Services, Inc. is provided in this section. This description consists of organizational charts which illustrate the appropriate departments within Southern Company Services that can provide technical support in the event of an emergency. In addition, a functional description of each department/section (unit/subunit) is provided along with a tabulation of the educational background and applicable work experience of the personnel within these units.



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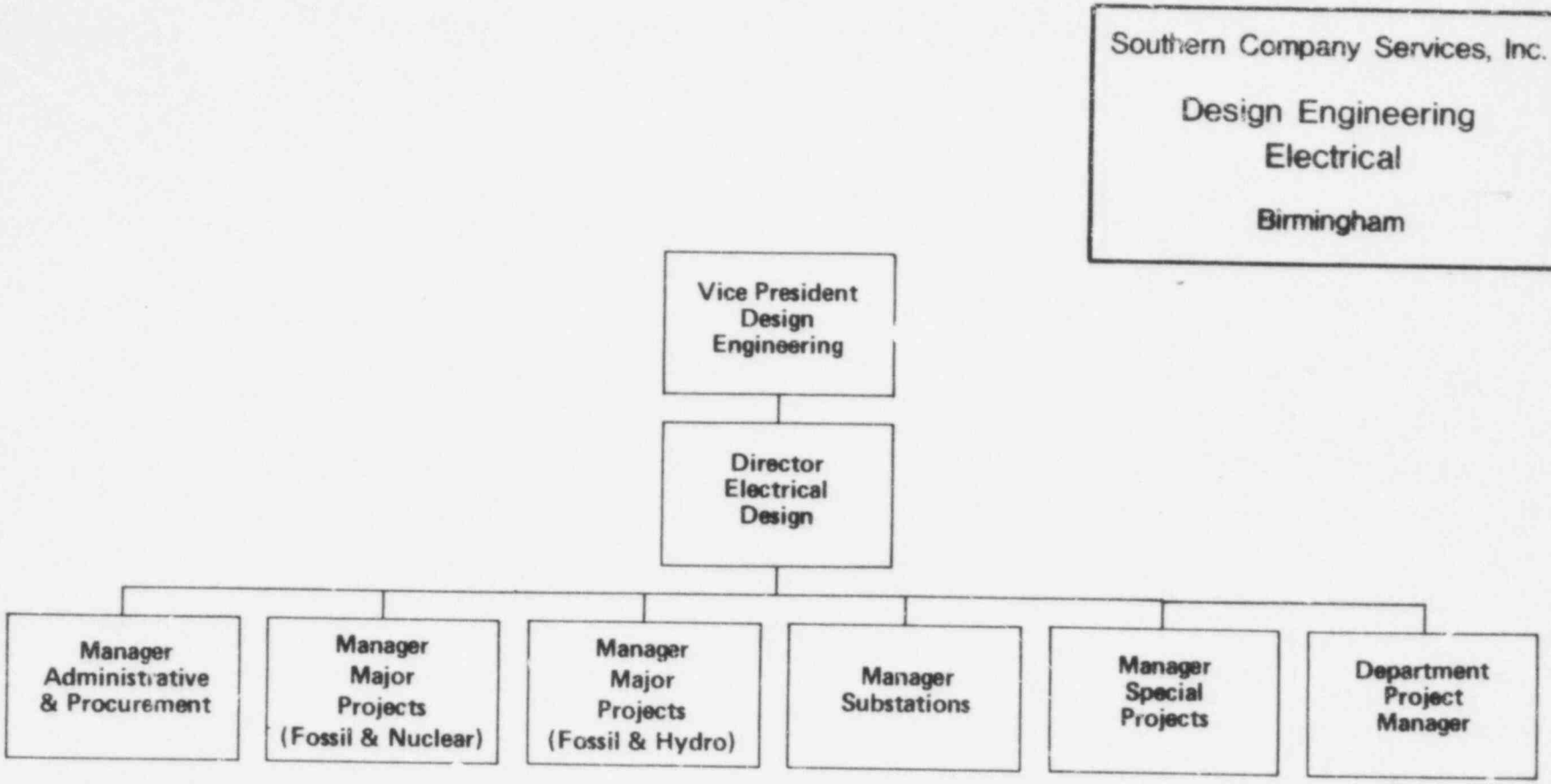
Southern Company Services, Inc.
Design Engineering
Electrical
Birmingham
Vice President
Design
Engineering
Director
Electrical
Design
Manager
Administrative
& Procurement
Manager
Major
Projects
(Fossil & Nuclear)
Manager
Major
Projects
(Fossil & Hydro)
Manager
Substations
Manager
Special
Projects
Department
Project
Manager

2

801 097

NRC Request for Information
Southern Company Services, Inc.
Birmingham

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES OF THE ELECTRICAL DESIGN DISCIPLINE

This discipline is responsible for the detail design of the electrical facilities that form an integral part of the plant and in some cases for system facilities such as substations. This includes all of the transformers, switchgear, wiring and related controls, and control equipment in the plant in addition to the lighting in and around the building and all of the communication equipment. This discipline consists of the following departments:

Administrative and Procurement Department

This department has overall responsibility for procurement of electrical material and equipment. This group's activities include obtaining an acceptable bid list, and preparing and issuing material and equipment inquiries. This group, with necessary review and input from the design departments, tabulates and evaluates bids and makes the purchase recommendation to the operating company. This group has the responsibility for preparation of material and equipment requisitions.

No engineers in this group are assigned to Plant Farley; however, ten engineers could be made available on a full-time basis in the event of an emergency.

Major Projects Department-Fossil and Nuclear and Major Projects Department-Fossil and Hydro

Each of the two Major Projects departments is responsible for the detail design in the areas of control and circuitry as well as plant layout for the major structures of the plant, except for the physical aspects of the high-voltage and low-voltage switch yards, the circuitry aspects of the high-voltage switch yard, and those areas of the plant assigned to the Special Projects Department. Within a department, a major project or retrofit project is assigned to two project engineers: one is responsible for control schemes, elementaries, control panels, and wiring diagrams; the other is responsible for indoor electrical, conduit and grounding, and all other physical aspects of plant electrical layout. Both are responsible for providing information to the procurement group to assist in the purchase of materials and equipment. Responsibilities include preparation and maintenance of drawings and other documents to support these activities, as well as the construction schedule.

Three engineers in the Major Projects-Fossil and Nuclear Department are assigned on a full-time basis to Plant Farley. Four engineers are assigned on a part-time basis. These engineers, along with 34 additional engineers and 9 designers, could be made available on a full-time basis in the event of an emergency.

No engineers in the Major Projects-Fossil & Hydro Department are assigned specifically to Plant Farley; however, 18 engineers could be made available on a full-time basis in the event of an emergency.

Substations Department

This department is responsible for detail design for both layout and circuitry of plant high-voltage substations and transmission substations for the Southern electric system companies. It is also responsible for the physical layout of the low-voltage switchyard for all plants for all operating companies, as well as all areas of design for combustion turbine installations. In connection with these areas, the department is responsible for providing information to the Administrative and Procurement Department to assist in the purchase of material and equipment. Responsibilities include preparation and maintenance of drawings and other documents required to support these activities, as well as the support of construction.

One engineer is assigned on a part-time basis to Plant Farley. This engineer, along with 13 additional engineers, could be made available on a full-time basis in the event of an emergency.

Special Projects Department

This department has responsibility for detail design of miscellaneous areas of the plant as assigned for each project. On a generating plant these may include: plant-wide normal and emergency lighting systems, plant-wide communications, water treatment plants, service building, fire pump houses, coal or bulk materials handling systems, cooling towers, and other areas as defined by the discipline director.

On existing plants, retrofit work normally falls within the responsibilities of this department. The detail design is for both the physical layout and circuitry. Also, the department is responsible for providing information to the Administrative and Procurement Department to assist in the purchase of materials and equipment. These responsibilities involve the preparation and maintenance of drawings and other documents required to support design as well as the construction schedule.

Five engineers are assigned on a part-time basis to Plant Farley. These engineers, along with 14 additional engineers, could be made available on a full-time basis in the event of an emergency.

Department Project Manager

The department project manager is responsible for coordination of electrical activities associated with the Vogtle Nuclear Plant project organization. He is supported by personnel distributed through the various departments in the Electrical Design Discipline. Even though the department project manager is assigned full-time on the Vogtle Project, his expertise could be made available on a full-time basis to Plant Farley in the event of an emergency.

DEPARTMENT TITLE Electrical Design Discipline

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS
M	S	E	O				
7	24	144	9	B.S. Electrical Eng.	95	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	269
				B.S. Engineering	12		
				B.S. Physics	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	318
				B.S. Mechanical Eng.	1		
				B.S. Industrial Technology	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON NUCLEAR)	1070
				M.S. Electrical Eng.	5		
				M.S. Engineering	2		
				Masters of Business Administration	1		

TECHNICAL EXPERIENCE	*MAN-YEARS F	*MAN-YEARS N
1 REACTOR PHYSICS		
2 ELECTRICAL ENGINEERING	107	567
3 HEALTH PHYSICS		1
4 MECHANICAL ENGINEERING		5
5 CIVIL AND ARCHITECTURAL		
6 INSTRUMENTATION/CONTROLS	8	51
7 HYDRO		4
8 METALLURGICAL		
9 LICENSING		
10 ENVIRONMENTAL		
11 GEOLOGICAL		
OTHERS AS APPLICABLE		
12 Procurement	13	49
13 Plant Engineering	5	
14 Quality Assurance	4	5

SPECIAL TRAINING	NUMBER OF PERSONS
Introduction to Nuclear Power Course	11
Boiler Water Reactor Training Course	13
Pressurized Water Reactor Training Course	2
Digital Logic Fundamentals	1
Application of Protective Relay Design	3
Fundamentals of Station Auxiliary Design	2
Control Systems	1
Nuclear Overview Course	23
Simulator Training	2
Southern Company Services Nuclear Power Course	2
Nuclear Plant Design Criteria - Codes, Standards, Regulatory Criteria and Guides by Southern Company Services	3
Nuclear Safety Reliability Course	1
Pressurized Water Reactor Operator Training Course (Instructor)	1
Dynamic Seismic Analysis	1
Reliability Technology and Fault Tree Analysis	1
Military-Navy	

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Electrical Design Discipline

SECTION TITLE Administrative and Procurement

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	3	7		B.S. Electrical Eng.	7	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	16	1 REACTOR PHYSICS				
				B.S. Engineering	3			2 ELECTRICAL ENGINEERING	5	51		
				B.S. Physics	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	31	3 HEALTH PHYSICS				
				B.S. Industrial Technology	1			4 MECHANICAL ENGINEERING				
				Masters of Business Administration	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON NUCLEAR)	104	5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE:				
								12 Procurement	13	49		
								13 Plant Engineering	5			
								14 Quality Assurance	4	5		

*(F) FULL TIME NUCLEAR EXPERIENCE
(N) NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Electrical Design Discipline

SECTION TITLE Major Projects-Fossil and Nuclear

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	6	35	9	B.S. Electrical Eng.	40	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	152	1 REACTOR PHYSICS		1	Simulator Training	2
				B.S. Engineering	2			2 ELECTRICAL ENGINEERING	139	316	Introduction to Nuclear Power	6
				M.S. Engineering	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	94	3 HEALTH PHYSICS		1	Boiling Water Reactor Training Course	8
				M.S. Electrical Eng.	4			4 MECHANICAL ENGINEERING			Pressurized Water Reactor Training Course	1
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	406	5 CIVIL AND ARCHITECTURAL			Southern Company Services Nuclear Power Course	1
								6 INSTRUMENTATION/CONTROLS	8	30	Application of Protective Relay Design	2
								7 HYDRO			Nuclear Plant Design Criteria-Codes, Standards, Regulatory Criteria and Guides by Southern Company Services	3
								8 METALLURGICAL			Nuclear Overview	12
								9 LICENSING			Nuclear Safety Reliability Course	1
								10 ENVIRONMENTAL			Pressurized Water Reactor Training Course (Instructor)	1
								11 GEOLOGICAL			Dynamic Seismic Analysis	1
								OTHERS AS APPLICABLE			Reliability Technology and Fault Tree Analysis	1
								12			Military-Navy	1
								13			Fundamentals of Station Auxiliary Design	1
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Electrical Design Discipline

SECTION TITLE Major Projects-Fossil and Hydro

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	6	12		B.S. Electrical Eng. B.S. Engineering M.S. Engineering	18 1 1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY) 2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE) 3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	24 90 199	1 REACTOR PHYSICS 2 ELECTRICAL ENGINEERING 3 HEALTH PHYSICS 4 MECHANICAL ENGINEERING 5 CIVIL AND ARCHITECTURAL 6 INSTRUMENTATION/CONTROLS 7 HYDRO 8 METALLURGICAL 9 LICENSING 10 ENVIRONMENTAL 11 GEOLOGICAL OTHERS AS APPLICABLE 12 13 14	20	180 2 21	Introduction to Nuclear Power Boiling Water Reactor Training Course Pressurized Water Reactor Training Course	3 3 1

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

142-9

DEPARTMENT TITLE Electrical Design Discipline

SECTION TITLE Substations

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	4	10		B.S. Electrical	13	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	27	1 REACTOR PHYSICS			Nuclear Overview Course	11
				B.S. Engineering	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	30	2 ELECTRICAL ENGINEERING	21	123		
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	146	3 HEALTH PHYSICS				
								4 MECHANICAL ENGINEERING				
								5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Electrical Design Discipline

SECTION TITLE Special Projects

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O) M	S	E	O	EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS
1	5	14		B.S. Electrical Eng.	15
				B.S. Engineering	5
				B.S. Mechanical Eng.	1
				M.S. Electrical Eng.	1

ENGINEERING EXPERIENCE	MAN YEARS
1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	29
2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	45
3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	152

TECHNICAL EXPERIENCE	*MAN-YEARS F	N
1 REACTOR PHYSICS		
2 ELECTRICAL ENGINEERING	40	170
3 HEALTH PHYSICS		
4 MECHANICAL ENGINEERING		3
5 CIVIL AND ARCHITECTURAL		
6 INSTRUMENTATION/CONTROLS		
7 HYDRO		4
8 METALLURGICAL		
9 LICENSING		
10 ENVIRONMENTAL		
11 GEOLOGICAL		
OTHERS AS APPLICABLE		
12		
13		
14		

SPECIAL TRAINING	NUMBER OF PERSONS
Introduction to Nuclear Power Course	1
Boiling Water Reactor Training Course	1
Digital Logic Fundamentals	1
Application of Protective Relay Design	1
Fundamentals of Station Auxiliary Design	1
Control Systems	1

*(F) FULL TIME NUCLEAR EXPERIENCE
(N) NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Electrical Design Discipline

SECTION TITLE Department Project Manager

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1				B.S. Electrical Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	11	1 REACTOR PHYSICS	11	22	Introduction to Nuclear Power Course	1
						2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	18	2 ELECTRICAL ENGINEERING			Boiling Water Reactor Training Course	1
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	32	3 HEALTH PHYSICS				
								4 MECHANICAL ENGINEERING				
								5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

11

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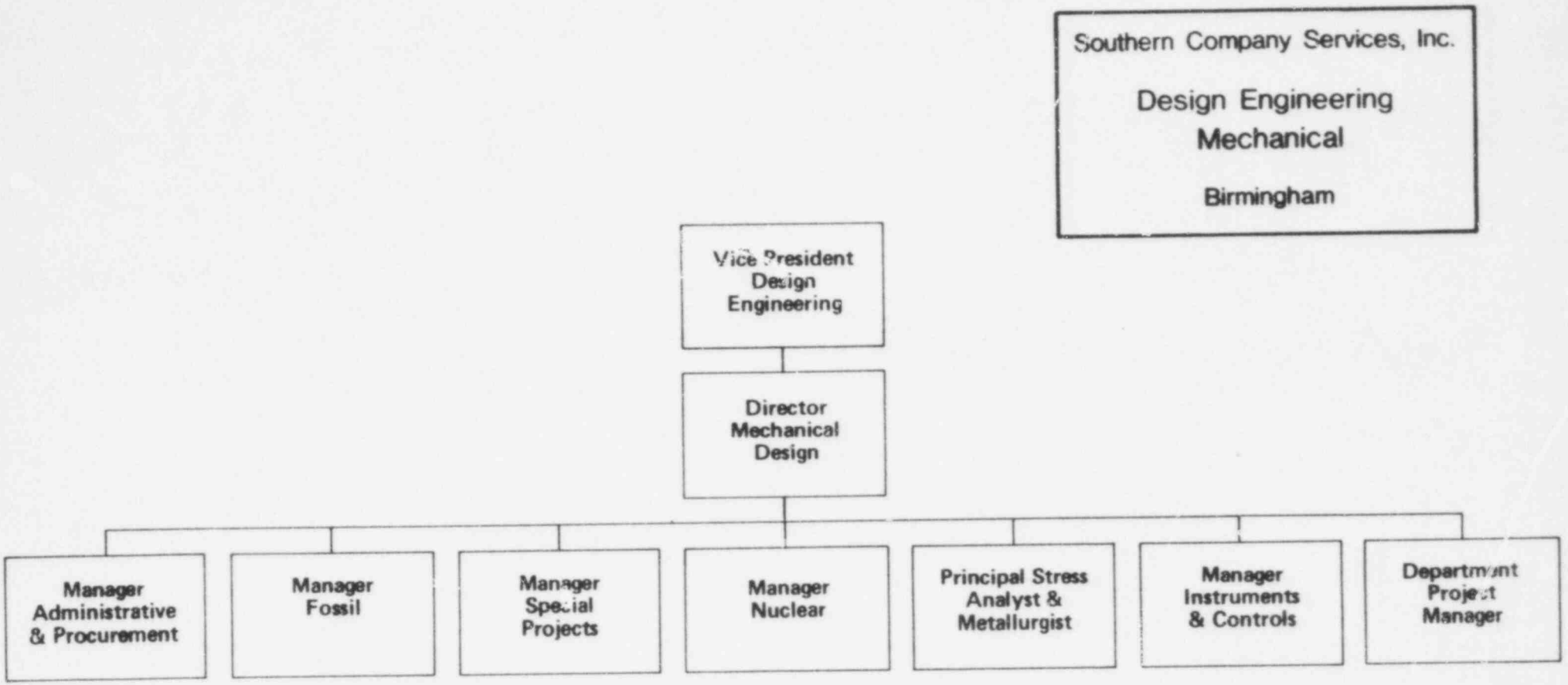
F FULL TIME NUCLEAR EXPERIENCE
N NON-NUCLEAR EXPERIENCE

142-9


Southern Company Services, Inc.
Design Engineering
Mechanical
Birmingham
Vice President
Design
Engineering
Director
Mechanical
Design
Manager
Administrative
& Procurement
Manager
Fossil
Manager
Special
Projects
Manager
Nuclear
Principal Stress
Analyst &
Metallurgist
Manager
Instruments
& Controls
Department
Project
Manager

NRC Request for Information
Southern Company Services, Inc.
Birmingham

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES
OF THE MECHANICAL DESIGN DISCIPLINE

The departments of the Mechanical Design Discipline are responsible for the detail design of all mechanical systems and equipment in generating facilities designed by Southern Company Services. This includes piping, pumps, valves, heat exchangers, and related equipment that are used to move water, steam, and other fluids. It also includes the heating, ventilating, and air-conditioning systems, fire protection systems, bulk material handling systems, and general responsibility for design of the control room, plus detail design of the mechanical controls. This discipline consists of the following departments:

Administrative and Procurement Department

This department has overall responsibility for procurement of all mechanical piping and equipment, and final approval of all equipment/service specifications prepared by the Mechanical Design Discipline. This department's activities include obtaining an acceptable bid list; and preparing, reviewing, and issuing the material and equipment inquiries after preparation by the other Mechanical Design departments. This department, with necessary review and input from the other departments and disciplines, tabulates and evaluates bids and makes the purchase recommendations to the operating company. This department also has the responsibility for preparing all mechanical material and equipment requisitions for materials and services engineered by Steam Projects Planning and Production Services department contracts for field erected systems.

Three engineers who are not assigned specifically to Plant Farley could be made available on a full-time basis in the event of an emergency.

Systems Design Department-Fossil

This department is responsible for detail design of the fluid systems (steam, condensate, air, gases, oil, liquid fuels, and water), except for fire protection, HVAC, and some others assigned to the Special Projects Department, which are required for fossil projects. This department is also responsible for the detail plant arrangement and assistance in procurement of equipment. This includes preparation and maintenance of drawings and documents required to support plant arrangement detail and equipment procurement, as well as the support of construction, startup, and initial operation required by the operating company for fossil projects.

No engineers are assigned to Plant Farley; however, 22 engineers could be made available on a full-time basis in the event of an emergency.

Special Projects Department

This department is responsible for the design, arrangement, and assistance in procurement of equipment and materials for heating, ventilating, air-conditioning systems, make-up water treatment systems, and fire protection systems for all major projects.

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Special Projects Department (Continued)

Eight engineers and designers are assigned on a part-time basis to Plant Farley. These personnel, along with an additional three engineers and designers, could be made available on a full-time basis in the event of an emergency.

Nuclear Department

This department is responsible for detail design of the fluid systems (steam, condensate, air, gases, water, oil, and liquid or gaseous fuels), except for fire protection, HVAC, and some others assigned to the Special Projects Department, which are required for nuclear projects. The department is also responsible for the details of plant arrangement and assistance in procurement of equipment. This includes preparation and maintenance of drawings and documents required to support the activities of plant arrangement detail and equipment procurement, as well as the support of construction, startup, and initial operation of nuclear plants as required by the operating company.

One engineer is assigned on a full-time basis to Plant Farley and four engineers are assigned on a part-time basis. These engineers, along with 18 additional engineers and one designer, could be made available on a full-time basis in the event of an emergency.

Principa Stress Analyst and Metallurgist

This group is responsible for performing piping and dynamic analysis, special analysis for piping and mechanical equipment, addressing metallurgical considerations, and reviewing and approving welding and nondestructive testing procedures. This group is also responsible for the interpretation of ASME, ASTM, and other mechanical-related codes and standards (except fire protection codes) for the discipline.

No engineers are assigned specifically to Plant Farley; however, 14 engineers and 1 designer could be made available on a full-time basis in the event of an emergency.

Instrumentation and Controls Department

This department is responsible for the design and assistance in procurement of control and instrumentation equipment for the mechanical systems designed by the Mechanical Discipline. This department is also responsible for the physical arrangements of the control room and control boards, the design of water sampling systems, and the preparation of all functional control diagrams. The I&C Department provides input to other departments to aid in the development of P&IDs.

Two engineers are assigned on a part-time basis to Plant Farley. These engineers, along with five additional engineers and two designers, could be made available on a full-time basis in the event on an emergency.

Department Project Manager

The department project manager is responsible for coordinating mechanical activities associated with the Vogtle Nuclear Plant project organization. He is supported by personnel distributed throughout the various departments in the Mechanical Design Discipline.

Although the department project manager is assigned full-time on the Vogtle Project, his expertise could be made available on a full-time basis on Plant Farley in the event of an emergency.

DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)			
M	S	E	O
8	21	56	7

EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS
3 years toward B.S. degree	2
Associate in Applied Science	1
Associate in HVAC Technology	1
Associate in Mechanical Design	1
Associate in Computer Science	1
Military-Electronics	1
Correspondence School-Air Conditioning	1
B.S. Mechanical Eng.	60
B.S. Aerospace Eng.	7
B.S. Chemical Eng.	1
B.S. Electrical Eng.	4
B.S. Industrial Eng.	3
B.S. Industrial Management	1
B.S. Nuclear Eng.	4
B.S. Civil Eng.	1
B.S. Physics	2
B.S. Math	1
B.S. Chemistry	1
B.S. Engineering	2
M.S. Mechanical Eng.	4
M.S. Engineering	1
M.S. Industrial Management	1
M.S. Chemistry	1
M.S. Aerospace Eng.	2
M.S. Physics	1

ENGINEERING EXPERIENCE	MAN-YEARS
1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	373
2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	293
3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	829

TECHNICAL EXPERIENCE	*MAN-YEARS F	*MAN-YEARS N
1 REACTOR PHYSICS		
2 ELECTRICAL ENGINEERING	1	14
3 HEALTH PHYSICS		3
4 MECHANICAL ENGINEERING	273	573
5 CIVIL AND ARCHITECTURAL		2
6 INSTRUMENTATION/CONTROLS	52	101
7 HYDRO		7
8 METALLURGICAL	17	41
9 LICENSING		
10 ENVIRONMENTAL		13
11 GEOLOGICAL		
OTHERS AS APPLICABLE		
12 Stress Analysis	37	97
13 Aerospace		37
14		

SPECIAL TRAINING	NUMBER OF PERSONS
Introduction to Nuclear Power Course	8
Boiling Water Reactor Training Course	10
Pressurized Water Reactor Training Course	2
Nuclear Overview	1
Southern Company Services Nuclear Power Course	2
Simulator Training	2
Pump Design Seminar	1
Instrumentation & Control School	1
Seismic Analysis Course	3

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE Administrative and Procurement

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		3		B.S. Mechanical Eng.	3	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	12	1 REACTOR PHYSICS			Boiling Water Reactor Training Course	2
				B.S. Aeronautical Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	51	2 ELECTRICAL ENGINEERING			Pressurized Water Reactor Training Course	1
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	46	3 HEALTH PHYSICS			Pump Design Seminars	1
								4 MECHANICAL ENGINEERING	10	56		
								5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS		1		
								7 HYDRO				
								8 METALLURGICAL		1		
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12 Stress Analysis		18		
								13				
								14				

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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801 112

DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE Systems Design-Fossil

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	6	16		Associate in Applied Science	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	16	1 REACTOR PHYSICS			Simulator Training	1
				B.S. Mechanical Eng.	22	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	72	2 ELECTRICAL ENGINEERING			Introduction to Nuclear Power Course	1
				B.S. Aerospace Eng.	1			3 HEALTH PHYSICS				
				M.S. Engineering	1			4 MECHANICAL ENGINEERING	20	292	Southern Company Services Nuclear Power Course	1
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	224	5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) FULL TIME NUCLEAR EXPERIENCE
(N) NON NUCLEAR EXPERIENCE

142-9

DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE Special Projects

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	3	5	3	Associate HVAC Technology	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	68	1 REACTOR PHYSICS			Introduction to Nuclear Course	1
				Correspondence School - Air Conditioning	1			2 ELECTRICAL ENGINEERING	1			
				B.S. Mechanical Eng.	6	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	39	3 HEALTH PHYSICS			Boiling Water Reactor Training Course	1
				B.S. Chemical Eng.	1			4 MECHANICAL ENGINEERING	56	107		
				B.S. Electrical Eng.	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	154	5 CIVIL AND ARCHITECTURAL		1	Nuclear Overview Course	1
				B.S. Industrial Eng.	2			6 INSTRUMENTATION/CONTROLS	1	2	Instrumentation and Controls School	1
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL		13		
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12 Stress Analysis	2	2		
								13 Aerospace Eng.		5		
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

142-9

DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE Nuclear

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	5	18	1	Associate Mechanical (2-year program)	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	161	1 REACTOR PHYSICS			Introduction to Nuclear Power Course	4
				B.S. Mechanical Eng.	15	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	33	2 ELECTRICAL ENGINEERING		1	Boiling Water Reactor Training Course	3
				B.S. Nuclear Eng.	4			3 HEALTH PHYSICS			SCS Nuclear Power Course	1
				B.S. Aerospace Eng.	2			4 MECHANICAL ENGINEERING	152	46	Seismic Analysis Course	3
				B.S. Engineering	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	188	5 CIVIL AND ARCHITECTURAL		1		
				B.S. Industrial Management	1			6 INSTRUMENTATION/CONTROLS				
				M.S. Mechanical Eng.	1			7 HYDRO				
				M.S. Industrial Management	1			8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE:				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE Principal Stress Analyst and Metallurgist

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	4	10	1	Associate Computer Science	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	45	1 REACTOR PHYSICS			Introduction to Nuclear Power Course	1
				Military/Electronics	1			2 ELECTRICAL ENGINEERING				
				B.S. Civil Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	25	3 HEALTH PHYSICS				
				B.S. Mechanical Eng.	8			4 MECHANICAL ENGINEERING	14	34		
				B.S. Physics	2			5 CIVIL AND ARCHITECTURAL				
				B.S. Aerospace Eng.	3	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	64	6 INSTRUMENTATION/CONTROLS				
				B.S. Chemistry	1			7 HYDRO				
				B.S. Math	1			8 METALLURGICAL	17	41		
				B.S. Engineering	1			9 LICENSING				
				M.S. Physics	1			10 ENVIRONMENTAL				
				M.S. Mechanical Eng.	3			11 GEOLOGICAL				
				M.S. Chemistry	1			OTHERS AS APPLICABLE:				
				M.S. Aerospace Eng.	2			12 Stress Analysis	35	77		
								13 Aerospace Eng.		32		
								14				

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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801 116

DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE Instrumentation and Controls

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	3	4	2	3 years toward B.S. degree	2	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	51	1 REACTOR PHYSICS			Boiling Water Reactor Training Course	3
				B.S. Industrial Eng.	1			2 ELECTRICAL ENGINEERING		13		
				B.S. Electrical Eng.	3	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	31	3 HEALTH PHYSICS		3	Pressurized Water Reactor Training Course	1
				B.S. Mechanical Eng.	4			4 MECHANICAL ENGINEERING		1		
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	109	5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS	51	98	Simulator Training	1
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Mechanical Design Discipline

SECTION TITLE Department Project Manager

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1				B.S. Mechanical Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	10	1 REACTOR PHYSICS			Introduction to Nuclear Power Course	1
						2 ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	9	2 ELECTRICAL ENGINEERING			Boiling Water Reactor Training Course	1
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	22	3 HEALTH PHYSICS				
								4 MECHANICAL ENGINEERING	11	5		
								5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO		6		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) FULL TIME NUCLEAR EXPERIENCE
(N) NON-NUCLEAR EXPERIENCE

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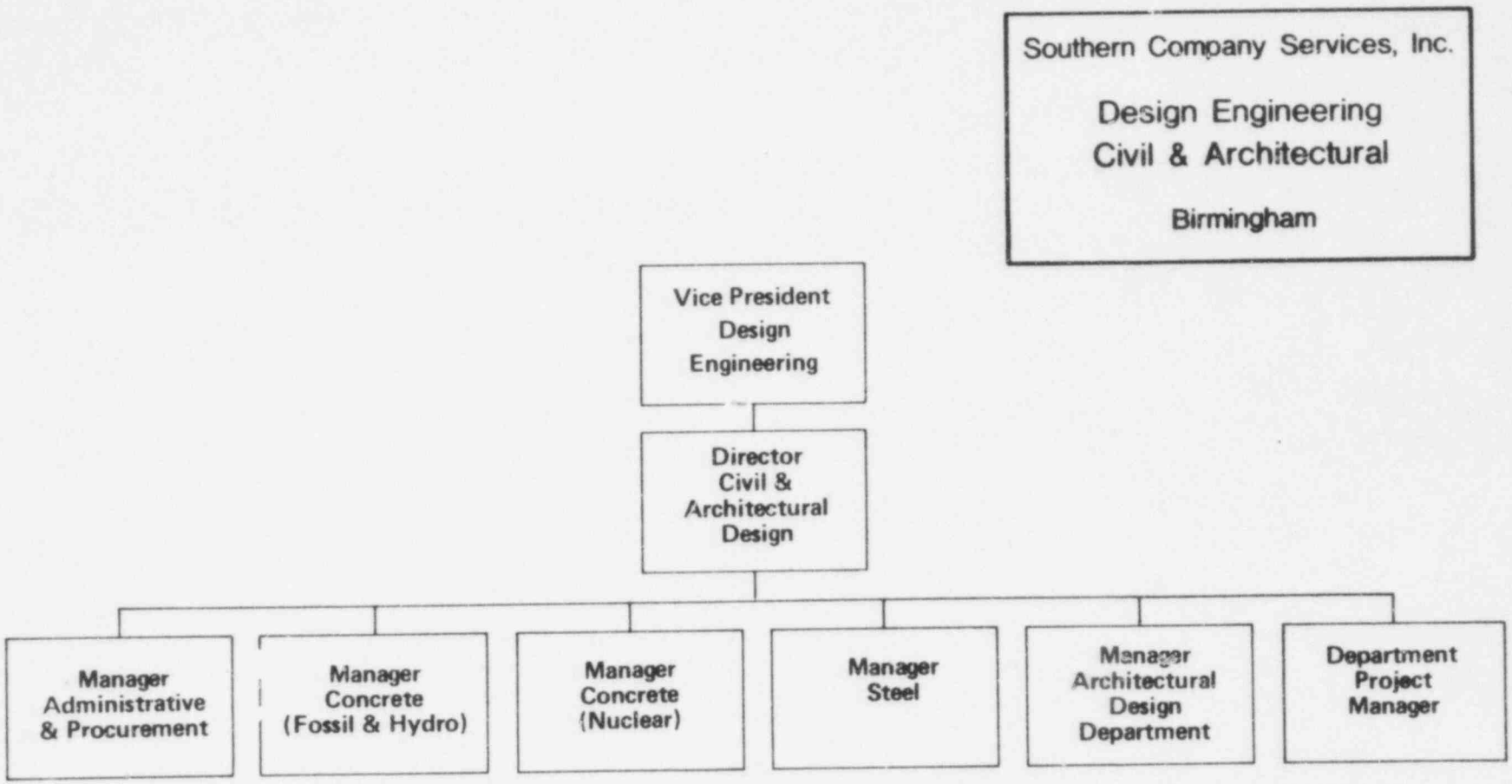
801 118


Southern Company Services, Inc.
Design Engineering
Civil & Architectural
Birmingham
Vice President
Design
Engineering
Director
Civil &
Architectural
Design
Manager
Administrative
& Procurement
Manager
Concrete
(Fossil & Hydro)
Manager
Concrete
(Nuclear)
Manager
Steel
Manager
Architectural
Design
Department
Department
Project
Manager

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES
CIVIL AND ARCHITECTURAL DISCIPLINE

Civil and Architectural Design is responsible for providing the civil engineering and related architectural designs for all electric generating units within the Southern electric system. This includes all major fossil, nuclear, and hydro projects as established by the system generating expansion plan as well as modifications to existing units. Major responsibilities include grading and drainage, roads, railroads, concrete design, structural steel design, and architectural design. This discipline consists of the following departments:

Administrative and Procurement Department

This department plans, schedules, controls, and supervises the major procurement activities of Civil and Architectural Design. Major activities include assisting in the preparation of specifications, inquiry documents, bid analyses and purchase recommendations, contract documents, and engineering requisitions.

One engineer is assigned on a full-time basis to Plant Farley. This engineer, along with seven additional engineers, could be made available on a full-time basis in the event of an emergency.

Civil Design Department-Concrete (Fossil and Hydro)

This department is responsible for the design and/or detailing of generating plant concrete structures and foundations, for related engineering services, and for certain procurement activities. This department ensures that these activities are acceptable and are interfaced with the overall project design, procurement, and construction schedules in a timely and effective manner.

Nine engineers are assigned on a part-time basis to Plant Farley. These engineers, along with 10 additional engineers, could be made available on a full-time basis in the event of an emergency.

Civil Design Department-Concrete (Nuclear)

This department is responsible for the design of nuclear generating plant and transmission facility foundations and reinforced concrete structures; the analysis of nuclear generating plant structures for dynamic (seismic), wind (tornadic), and other non-normal loadings; the design of generating plant yard civil facilities including grading, drainage, roads and railroads; the coordination of civil and architectural modifications at operating generating plants; the civil, foundation, and reinforced concrete design for modifications at operating generating plants; and related engineering assignments and certain procurement activities. The department ensures that these activities are acceptable and are interfaced with the project design, procurement, and construction schedules in a timely and effective manner.

Nine engineers are assigned on a part-time basis to Plant Farley. These engineers, along with 13 additional engineers, could be made available on a full-time basis in the event of an emergency.

Civil Design Department-Steel

This department is responsible for the design of generating plant structural framing, related engineering services, and initiation of procurement activities for generating plant materials. Further, this department makes certain that these activities are performed properly and are interfaced with the overall project design, procurement, and construction schedules in a timely and effective manner.

Thirteen engineers are assigned part-time to Plant Farley; however, these engineers, along with an additional 17 engineers, could be made available on a full-time basis in the event of an emergency

Architectural Design Department

This department is responsible for the total architectural design of generating plants and associated structures. This department ensures that these activities are acceptable and are interfaced with the overall project design, procurement, and construction schedules in a timely and effective manner.

No architects are assigned specifically to Plant Farley; however, six architects could be made available on a full-time basis in the event of an emergency.

Department Project Manager

The department project manager is responsible for coordinating civil and architectural activities associated with the Vogtle Nuclear Plant project organization. He is supported by personnel distributed throughout the Civil and Architectural Discipline.

The department project manager is assigned full-time to the Vogtle Project, but his expertise could be made available on a full-time basis for Plant Farley in the event of an emergency.

DEPARTMENT TITLE Civil and Architectural Discipline

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
7	19	64	2	B.S. Civil Eng.	73	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	257	1 REACTOR PHYSICS			Concrete for the Authorized Nuclear Inspector Course	1
				B.S. Mechanical Eng.	1			2 ELECTRICAL ENGINEERING		2		
				B.S. Engineering	3	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	324	3 HEALTH PHYSICS	5			
				B.S. Aerospace Eng.	3			4 MECHANICAL ENGINEERING	2	30	Boiling Water Reactor Training Course	6
				B.S. Structural Eng.	1			5 CIVIL AND ARCHITECTURAL	285	744		
				B.S. Building Construction	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	1071	6 INSTRUMENTATION/CONTROLS			Fatigue Concept in Design Course	1
				B.S. Engineering Mechanics	1			7 HYDRO		115		
				M.S. Engineering	3			8 METALLURGICAL			Buckling of Nuclear Containment Vessels Course	1
				M.S. Structural Eng.	4			9 LICENSING	1			
				M.S. Civil Eng.	3			10 ENVIRONMENTAL		3		
				Ph.D. Civil Eng.	1			11 GEOLOGICAL			Introduction to Nuclear Power Course	4
				Ph.D. Structural Eng.	1			OTHERS AS APPLICABLE				
				Industrial Management Correspondence Course	1			12 Topographic	2		Design against Wind and Tornadoes for Nuclear Plants Course	1
								13 Aerospace		22		
				Bachelor of Architecture	1			14				
				Masters of Business Administration	1						Nuclear Overview Course	2
				J.D., Law	1						Southern Company Services Nuclear Power Course	2

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Civil and Architectural Discipline

SECTION TITLE Administrative and Procurement

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		8		B.S. Civil Eng.	8	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	32	1 REACTOR PHYSICS				
				B.S. Mechanical Eng.	1			2 ELECTRICAL ENGINEERING				
				M.S. Engineering	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	80	3 HEALTH PHYSICS				
				M.S. Structural Eng.	1			4 MECHANICAL ENGINEERING		5		
				J.D., Law	1			5 CIVIL AND ARCHITECTURAL	60	87		
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	163	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO		12		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12 Topographic	2			
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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801 123

DEPARTMENT TITLE Civil and Architectural Discipline

SECTION TITLE Civil Design-Concrete (Fossil & Hydro)

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	4	15		B.S. Civil Eng.	20	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	11	1 REACTOR PHYSICS			Southern Company Services Nuclear Power Course	2
				M.S. Civil Eng.	2			2 ELECTRICAL ENGINEERING				
				M.S. Structural Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	60	3 HEALTH PHYSICS				
				Masters of Business Administration	2			4 MECHANICAL ENGINEERING				
								5 CIVIL AND ARCHITECTURAL	11	139		
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	160	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO		21		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12 Aerospace		9		
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Civil and Architectural Discipline

SECTION TITLE Civil Design-Concrete (Nuclear)

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	5	17		B.S. Civil Eng.	17	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	123	1 REACTOR PHYSICS			Concrete for the Authorized Nuclear Inspector Course	1
				B.S. Aerospace Eng.	2			2 ELECTRICAL ENGINEERING		2		
				B.S. Engineering	2	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	36	3 HEALTH PHYSICS				
				B.S. Building Construction	1			4 MECHANICAL ENGINEERING		5	Boiling Water Reactor Training Course	1
				B.S. Structural Eng.	1			5 CIVIL AND ARCHITECTURAL	124	78		
				M.S. Engineering	2	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	220	6 INSTRUMENTATION/CONTROLS			Fatigue Concept in Design Course	1
				M.S. Structural Eng.	2			7 HYDRO		19		
				Ph.D. Civil Eng.	1			8 METALLURGICAL			Buckling of Nuclear Containment Vessels Course	1
				Ph.D. Structural Eng.	1			9 LICENSING	1			
								10 ENVIRONMENTAL				
								11 GEOLOGICAL			Introduction to Nuclear Power Course	2
								OTHERS AS APPLICABLE:				
								12 Aerospace		13	Design against Wind and Tornadoes for Nuclear Plants Course	1
								13				
								14				

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

142-9

DEPARTMENT TITLE Civil and Architectural Discipline

SECTION TITLE Civil Design-Steel

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	6	24		Industrial Management Correspondence Course	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	53	1 REACTOR PHYSICS			Introduction to Nuclear Power Course	1
				B.S. Civil Eng.	26	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	60	2 ELECTRICAL ENGINEERING				
				B.S. Engineering	1			3 HEALTH PHYSICS			Boiling Water Reactor Training Course	5
				B.S. Aerospace Eng.	1			4 MECHANICAL ENGINEERING		15		
				B.S. Engineering Mechanics	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	323	5 CIVIL AND ARCHITECTURAL	46	282	Nuclear Overview Course	2
				M.S. Civil Eng.	1			6 INSTRUMENTATION/CONTROLS				
								7 HYDRO		57		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL		3		
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Civil and Architectural Discipline

SECTION TITLE Architectural Design

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGER* (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	4		2	Bachelor of Architecture	4	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	21	1 REACTOR PHYSICS			Introduction to Nuclear Power Course	1
						2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	49	2 ELECTRICAL ENGINEERING				
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	153	3 HEALTH PHYSICS	5			
								4 MECHANICAL ENGINEERING	2	5		
								5 CIVIL AND ARCHITECTURAL	27	123		
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO		6		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) FULL TIME NUCLEAR EXPERIENCE
(N) NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Civil and Architectural Discipline

SECTION TITLE Department Project Manager

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1				B.S. Civil Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	7	1 REACTOR PHYSICS				
						2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	14	2 ELECTRICAL ENGINEERING				
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	22	3 HEALTH PHYSICS				
								4 MECHANICAL ENGINEERING				
								5 CIVIL AND ARCHITECTURAL	7	15		
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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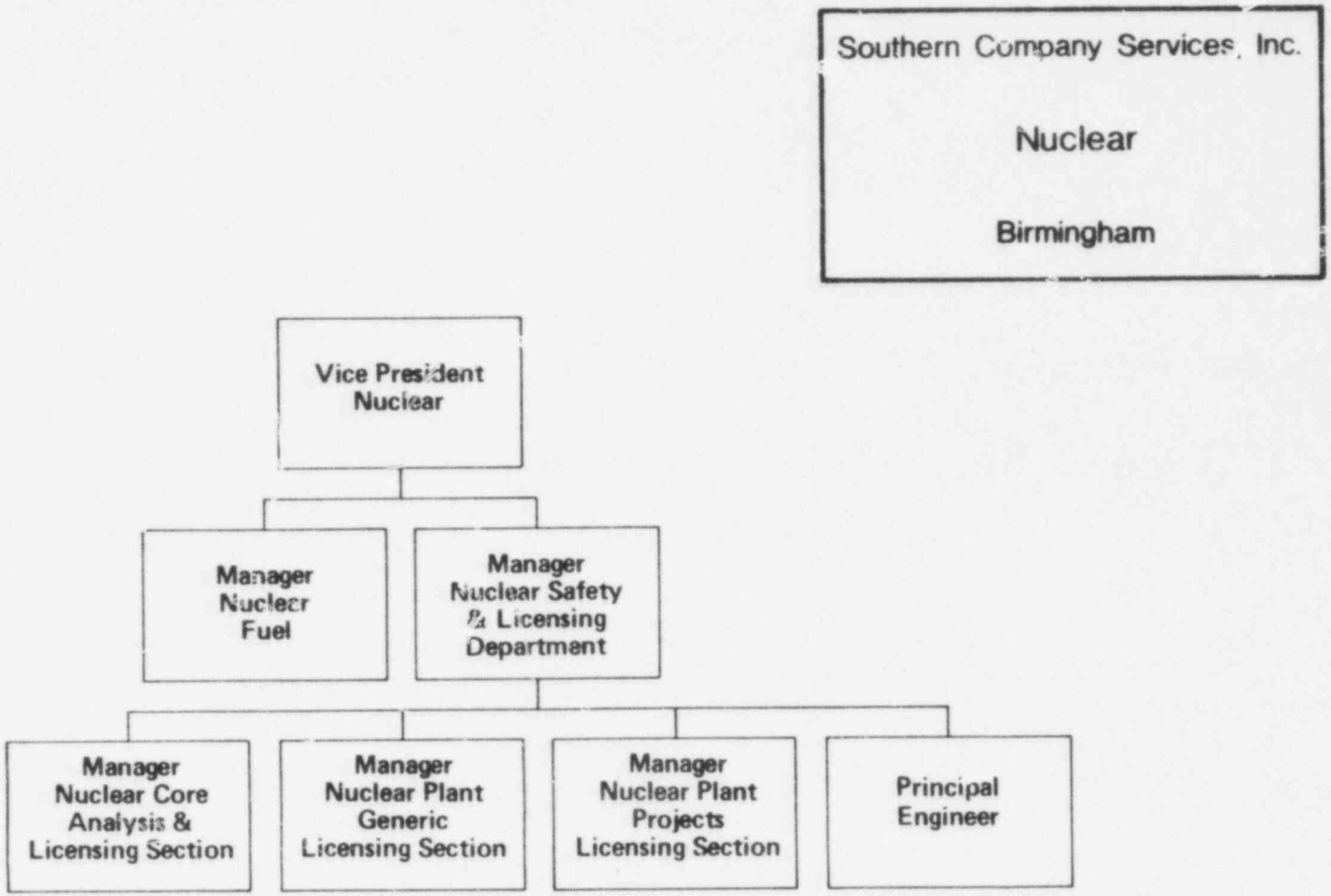
Southern Company Services, Inc.
Nuclear
Birmingham
Vice President
Nuclear
Manager
Nuclear
Fuel
Manager
Nuclear Safety
& Licensing
Department
Manager
Nuclear Core
Analysis &
Licensing Section
Manager
Nuclear Plant
Generic
Licensing Section
Manager
Nuclear Plant
Projects
Licensing Section
Principal
Engineer

NRC Request for Information
Southern Company Services, Inc.
Birmingham

DESCRIPTION OF FUNCTIONS AND RESPONSIBILTIES
OF THE NUCLEAR FUEL SECTION

The Nuclear Fuel Section performs the following functions: (1) conducts programs for the procurement of uranium; conversion, enrichment, fabrication and spent fuel disposition to meet the requirements of systems nuclear plants; (2) administers system nuclear fuel cycle contracts; (3) provides nuclear fuel fabrication quality assurance, and material accountability services and (4) provides nuclear fuel costs, estimates, and other information as required to support budgeting, accounting, finance rates, system planning, and system management.

One engineer is assigned on a full-time basis to Plant Farley. This engineer, along with four additional engineers, could be made available on a full-time basis in the event of an emergency.

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DEPARTMENT TITLE Nuclear Fuel

SECTION TITLE Nuclear Fuel

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		5		B.S. Engineering Physics	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	29	1 REACTOR PHYSICS				
				B.S. Mechanical Eng.	1			2 ELECTRICAL ENGINEERING				
				B.S. Nuclear Eng.	3	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)		3 HEALTH PHYSICS				
				B.S. Aerospace Eng.	1			4 MECHANICAL ENGINEERING	1			
				M.S. Mechanical Eng.	1			5 CIVIL AND ARCHITECTURAL				
				M.S. Nuclear Eng.	3	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	29	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12 Nuclear Fuel Procurement	22			
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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NRC Request for Information
Southern Company Services, Inc.
Birmingham

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES OF THE NUCLEAR SAFETY AND LICENSING DEPARTMENT

Department Responsibilities

The Nuclear Safety and Licensing Department's responsibilities include establishing safety-related design criteria for the nuclear units; managing the safety and licensing review of the nuclear generating plants and sites by the NRC; providing technical and licensing support in selecting nuclear generating plant sites; providing safety and licensing support for system operating nuclear units; and providing the technical and analytical capability necessary to support procurement, licensing, and use of nuclear fuel so as to maximize power capability within existing safety, licensing, and performance limitations. This department consists of the following sections:

Nuclear Core Analysis and Licensing Section

This section is responsible for providing necessary computer analysis capability for core simulation and verification of operation within safety limitations; providing necessary system technical know-how in core performance and protection, and core safety and licensing requirements; performing licensing evaluations of prospective bidders and proposals, reviewing and verifying selected vendor design work, and preparing and/or approving fuel and core design-related licensing material for both initial and reload cores; performing analyses and projections of current and anticipated operations, and developing operating recommendations consistent with safety and licensing, and fuel warranty limitations.

Two engineers are assigned on a full-time basis to Plant Farley. These engineers, along with three additional engineers and one engineering analyst, could be made available on a full-time basis in the event of an emergency.

Nuclear Plant Generic Licensing Section

This section is responsible for distributing regulatory information; reviewing abnormal occurrences to determine their effect on licensing and coordinating all responses to the regulatory agencies; resolving specific generic concerns of the NRC and following NRC licensing strategies; reviewing licensing-related studies and reports of NRC, NSSS vendors, and architectural engineering firms; providing technical support in selection of nuclear generating plant sites and site report preparations to be filed with the NRC; coordinating review and preparation of significant deficiency reports; participating in meetings with regulatory agencies and public hearings on an as-needed basis; establishing generic design criteria for design of nuclear plants as related to nuclear safety and NRC licensing requirements; participating in engineering design reviews to assure safety and licensing requirements are considered as related generic safety and licensing concerns.

Two engineers are assigned on a part-time basis to Plant Farley. These engineers, along with two additional engineers and a technical aide, could be assigned on a full-time basis in the event of an emergency.

Nuclear Plant Project Licensing Section

This section is responsible for coordinating preparation of Safety Analysis Reports, responses to NRC questions, and plant technical specifications; interfacing with the NRC during licensing reviews for construction permits and operating licenses; coordinating preparations for meetings with regulatory agencies and for public hearings; providing input to environmental reports as required; providing licensing support for system operating nuclear units; reviewing significant deficiencies for project consistency; coordinating performance of failure modes and effects analysis for safety systems; and participating as required in engineering design reviews to assure that all committed safety and licensing requirements are properly considered.

There is one engineer assigned to Plant Farley on a full-time basis. This engineer, along with three additional engineers, could be made available on a full-time basis in the event of an emergency.

Principal Engineer

It is the responsibility of the principal engineer to obtain, maintain, and implement the computer programs necessary to provide the required fuel management support for the operating nuclear plants. The principal engineer is assigned full-time to Plant Farley.

DEPARTMENT TITLE Nuclear Safety and Licensing

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
4		14	2	B.S. Mechanical Eng.	3	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	116	1 REACTOR PHYSICS	36		Boiling Water Reactor Training Course	5
				B.S. Electrical Eng.	3			2 ELECTRICAL ENGINEERING		3		
				B.S. Aerospace Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	32	3 HEALTH PHYSICS	2	1	Introduction to Nuclear Power Course	4
				B.S. Physics	7			4 MECHANICAL ENGINEERING	11			
				B.S. Math	1			5 CIVIL AND ARCHITECTURAL			Pressurized Water Reactor Training Course	7
				B.S. Chemical Eng.	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	109	6 INSTRUMENTATION/CONTROLS		3		
				B.S. Metallurgical Eng.	1			7 HYDRO				
				B.S. Nuclear Eng.	2			8 METALLURGICAL	1	1		
				B.S. Engineering	1			9 LICENSING	60		Simulator Training	6
				M.S. Mechanical Eng.	1			10 ENVIRONMENTAL	3			
				M.S. Electrical Eng.	3			11 GEOLOGICAL				
				M.S. Nuclear Eng.	11			OTHERS AS APPLICABLE				
				M.S. Physics	1			12				
				M.S. Engineering	1			13				
				M.S. Metallurgical Eng.	1			14				
				Masters of Business Administration	1							
				Ph.D. Nuclear Eng.	2							

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Nuclear Safety and Licensing

SECTION TITLE Nuclear Core Analysis and Licensing

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O) M	S	E	O	EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS F	N	SPECIAL TRAINING	NUMBER OF PERSONS
1		5	1	B.S. Physics	5	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	31	1 REACTOR PHYSICS	25			
				B.S. Math	1			2 ELECTRICAL ENGINEERING				
				B.S. Nuclear Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	1	3 HEALTH PHYSICS				
				M.S. Nuclear Eng.	6			4 MECHANICAL ENGINEERING	2			
								5 CIVIL AND ARCHITECTURAL				
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	25	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING	5			
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Nuclear Safety and Licensing

SECTION TITLE Nuclear Plant Generic Licensing

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		4	1	B.S. Engineering	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	32	1 REACTOR PHYSICS	1		Boiling Water Reactor Training Course	1
				B.S. Electrical Eng.	1			2 ELECTRICAL ENGINEERING		3		
				B.S. Metallurgical Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	3	3 HEALTH PHYSICS	2	1	Pressurized Water Reactor Training Course	2
				B.S. Physics	1			4 MECHANICAL ENGINEERING	9			
				B.S. Nuclear Eng.	1			5 CIVIL AND ARCHITECTURAL				
				M.S. Electrical Eng.	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	34	6 INSTRUMENTATION/CONTROLS		3		
				M.S. Engineering	1			7 HYDRO				
				M.S. Metallurgical Eng.	1			8 METALLURGICAL	1	1		
				M.S. Nuclear Eng.	2			9 LICENSING	19			
				Masters of Business Administration	1			10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
				Ph.D. Nuclear Eng.	1			12				
				B.S. Mechanical Eng.	1			13				
								14				

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*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

DEPARTMENT TITLE Nuclear Safety and Licensing

SECTION TITLE Nuclear Plant Project Licensing

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		4		B.S. Mechanical Eng.	2	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	33	1 REACTOR PHYSICS			Boiler Water Reactor Training Course	3
				B.S. Electrical Eng.	2			2 ELECTRICAL ENGINEERING				
				B.S. Aerospace Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	10	3 HEALTH PHYSICS			Introduction to Nuclear Power Course	4
				M.S. Mechanical Eng.	1			4 MECHANICAL ENGINEERING	7			
				M.S. Electrical Eng.	2			5 CIVIL AND ARCHITECTURAL			Pressurized Water Reactor Training Course	3
				M.S. Nuclear Eng.	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	33	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL			Simulator Training Course	3
								9 LICENSING	26			
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Nuclear Safety and Licensing

SECTION TITLE Principal Engineer

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
		1		B.S. Physics	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	10	1 REACTOR PHYSICS	21			
				M.S. Physics	1			2 ELECTRICAL ENGINEERING				
				M.S. Nuclear Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON UTILITY, SUPERVISOR AND ABOVE)	11	3 HEALTH PHYSICS				
				Ph.D. Nuclear Eng.	1			4 MECHANICAL ENGINEERING				
								5 CIVIL AND ARCHITECTURAL				
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	7	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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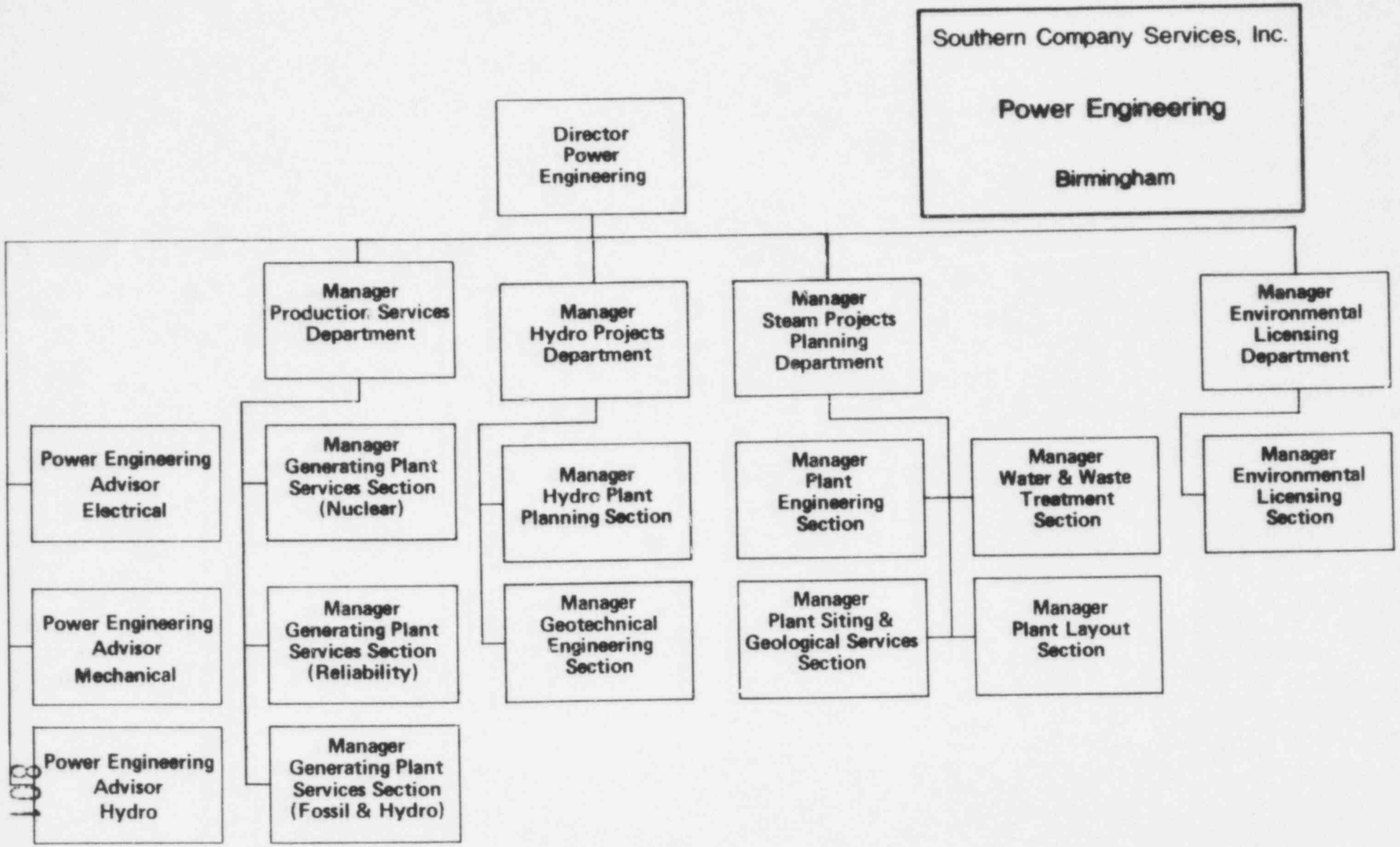
Southern Company Services, Inc.
Power Engineering
Birmingham
Director Power Engineering
Manager Production Services Department
Manager Hydro Projects Department
Manager Steam Projects Planning Department
Manager Environmental Licensing Department
Power Engineering Advisor Electrical
Power Engineering Advisor Mechanical
Power Engineering Advisor Hydro
Manager Generating Plant Services Section (Nuclear)
Manager Generating Plant Services Section (Reliability)
Manager Generating Plant Services Section (Fossil & Hydro)
Manager Hydro Plant Planning Section
Manager Geotechnical Engineering Section
Manager Plant Engineering Section
Manager Plant Siting & Geological Services Section
Manager Water & Waste Treatment Section
Manager Plant Layout Section
Manager Environmental Licensing Section

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES OF THE POWER ENGINEERING ADVISOR-ELECTRICAL

The power engineering advisor-electrical is responsible for providing specialized technical expertise to support Power Engineering. The advisor plans, coordinates, directs, and performs tests of equipment in fossil, hydro, and nuclear generating plants. The testing activities are a means of monitoring equipment performance to maintain a high level of plant efficiency and availability. The advisor also helps solve operating plant problems, with assistance from other engineers in Southern Company Services as needed.

The power engineering advisor-electrical is not specifically assigned to Plant Farley but could be made available on a full-time basis in the event of an emergency.

DEPARTMENT TITLE Power Engineering

SECTION TITLE Power Engineering Advisor-Electrical

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O) M	S	E	O	EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS
		1		B.S. Electrical Eng.	1

ENGINEERING EXPERIENCE	MAN YEARS
1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	
2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	8
3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	28

TECHNICAL EXPERIENCE	*MAN YEARS F	N	SPECIAL TRAINING	NUMBER OF PERSONS
1 REACTOR PHYSICS				
2 ELECTRICAL ENGINEERING		28		
3 HEALTH PHYSICS				
4 MECHANICAL ENGINEERING				
5 CIVIL AND ARCHITECTURAL				
6 INSTRUMENTATION/CONTROLS				
7 HYDRO				
8 METALLURGICAL				
9 LICENSING				
10 ENVIRONMENTAL				
11 GEOLOGICAL				
OTHERS AS APPLICABLE				
12				
13				
14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES OF THE POWER ENGINEERING ADVISOR-MECHANICAL

The power engineering advisor-mechanical is responsible for providing specialized technical expertise to support Power Engineering. The advisor plans, coordinates, directs, and performs tests of equipment in fossil, hydro, and nuclear generating plants. The testing activities are a means of monitoring equipment performance to maintain a high level of plant efficiency and availability. The advisor also helps solve operating plant problems, with assistance from other engineers in Southern Company Services as needed.

The power engineering advisor-mechanical is not specifically assigned to Plant Farley but could be made available on a full-time basis in the event of an emergency.

DEPARTMENT TITLE Power Engineering

SECTION TITLE Power Engineering Advisor-Mechanical

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
		1		B.S. Mechanical Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)		1 REACTOR PHYSICS			Introduction to Nuclear Power Course	1
						2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	12	2 ELECTRICAL ENGINEERING				
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	27	3 HEALTH PHYSICS				
								4 MECHANICAL ENGINEERING		27		
								5 CIVIL AND ARCHITECTURAL				
								6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON NUCLEAR EXPERIENCE

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DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES OF THE POWER ENGINEERING ADVISOR-HYDRO

The power engineering advisor-hydro is responsible for providing specialized technical expertise to support Power Engineering. The advisor is responsible for hydraulic model studies, and safety inspections of dams and other hydraulic structures associated with hydro, fossil, and nuclear plants within the Southern electric system.

The power engineering advisor-hydro is not specifically assigned to Plant Farley but could be made available on a full-time basis in the event of an emergency.

DEPARTMENT TITLE Power Engineering

SECTION TITLE Power Engineering Advisor-Hydro

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
		1		B.S. Civil Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	15	1 REACTOR PHYSICS				
				M.S. Hydraulics	1			2 ELECTRICAL ENGINEERING				
						2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	20	3 HEALTH PHYSICS				
								4 MECHANICAL ENGINEERING				
								5 CIVIL AND ARCHITECTURAL	1	1		
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	30	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO	5	23		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

142-9

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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NRC Request for Information
Southern Company Services, Inc.
Birmingham

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES
OF THE PRODUCTION SERVICES DEPARTMENT

The purpose of the Production Services Department is to monitor fossil, hydro, and nuclear power plant performance, to provide engineering and licensing support for all operating units, and to develop and implement programs for measuring, evaluating, and improving feedback and assistance to planners and designers in the resolution of power plant problems. This department consists of the following sections:

Generating Plant Services-Nuclear

This section is responsible for developing, scheduling, and providing specialized engineering services essential to the coordination of operation and design of nuclear power plants, systems, or components. This includes assistance in assuring coordination between system design criteria and operating practices and procedures, short-range resolution of operating problems to maintain plant availability, assuring design reviews of newly operating plants are conducted and documented to yield a complete review of the effectiveness of plant design, and assuring that nuclear plant operation is in compliance with contract requirements.

Two engineers are assigned to Plant Farley on a full-time basis. These engineers, along with two additional engineers, could be made available on a full-time basis in the event of an emergency.

Generating Plant Services-Reliability

This section is responsible for the coordination and execution of highly specialized technical and administrative engineering services essential to developing and implementing the reliability and maintainability program. This section is responsible for providing technical information and guidance concerning reliability and maintainability to Southern Company Services personnel, operating company personnel, and other groups involved in similar activities inside and outside of the Southern electric system.

There are no engineers assigned to Plant Farley; however, one engineer and an engineering analyst could be made available on a full-time basis in the event of an emergency.

Generating Plant Services-Fossil and Hydro

This section is responsible for developing, scheduling, and providing specialized engineering services essential to the coordination of operation and design of fossil, hydro, and combusion turbine power plant systems or components. This includes assistance in assuring coordination between system design criteria, operating practices and procedures, short-range resolution of operating problems to maintain plant availability, and assuring that design reviews of newly operating plants are conducted and documented to yield a complete review of the effectiveness of plant design.

There are no engineers assigned to Plant Farley; however, 11 engineers could be made available on a full-time basis in the event of an emergency.

DEPARTMENT TITLE Production Services

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
4	2**	14	1	B.S. Mechanical Eng.	13	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	54	1 REACTOR PHYSICS	2		Boiling Water Reactor Training Course	4
				B.S. Engineering	2			2 ELECTRICAL ENGINEERING	5	6	Pressurized Water Reactor Training Course	3
				B.S. Electrical Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	48	3 HEALTH PHYSICS	1			
				B.S. Aerospace Eng.	2			4 MECHANICAL ENGINEERING	13	102	Simulator Training	2
				B.S. Industrial Eng.	2			5 CIVIL AND ARCHITECTURAL			Reliability Engineering Course	1
				B.S. Mathematics	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	175	6 INSTRUMENTATION/CONTROLS	8	14	Level 1 Nondestructive Examinator	1
				M.S. Nuclear Eng.	3			7 HYDRO				
				M.S. Mechanical Eng.	2			8 METALLURGICAL		1		
				Ph.D. Nuclear Eng.	1			9 LICENSING	3			
				Law Degree	1			10 ENVIRONMENTAL		1		
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE:				
								12 Maintenance	2	3		
								13 Reliability Eng.	1	4		
								14				

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*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

**1 position vacant

DEPARTMENT TITLE Production Services

SECTION TITLE Generating Plant Services-Nuclear

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		4		B.S. Mechanical Eng.	4	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	30	1 REACTOR PHYSICS	1		Boiling Water Reactor Training Course	2
				B.S. Engineering	1			2 ELECTRICAL ENGINEERING	4	5		
				B.S. Electrical Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	13	3 HEALTH PHYSICS			Pressurized Water Reactor Training Course	2
				M.S. Nuclear Eng.	1			4 MECHANICAL ENGINEERING	9	15		
								5 CIVIL AND ARCHITECTURAL				
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	56	6 INSTRUMENTATION/CONTROLS		5	Simulator Training	2
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Production Services

SECTION TITLE Generating Plant Services-Reliability

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		1	1	B.S. Mechanical Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	13	1 REACTOR PHYSICS	1		Boiling Water Reactor Training Course	1
				B.S. Mathematics	1			2 ELECTRICAL ENGINEERING	1	1		
				B.S. Aerospace Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	8	3 HEALTH PHYSICS	1		Reliability Engineering Course	2
				M.S. Nuclear Eng.	1			4 MECHANICAL ENGINEERING				
				Ph.D. Nuclear Eng.	1			5 CIVIL AND ARCHITECTURAL				
				Law Degree	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	16	6 INSTRUMENTATION/CONTROLS	6	4		
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12 Reliability Engineering	1	4		
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Production Services

SECTION TITLE Generating Plant Services-Fossil and Hydro

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1	2**	9		B.S. Mechanical Eng.	7	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	11	1 REACTOR PHYSICS			Boiling Water Reactor Training Course	1
				B.S. Engineering	1			2 ELECTRICAL ENGINEERING				
				B.S. Industrial Eng.	2	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	16	3 HEALTH PHYSICS			Pressurized Water Reactor Training Course	1
				B.S. Aerospace Eng.	1			4 MECHANICAL ENGINEERING	4	56		
				M.S. Mechanical Eng.	2			5 CIVIL AND ARCHITECTURAL				
				M.S. Nuclear Eng.	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	72	6 INSTRUMENTATION/CONTROLS	2	5	Level 1 Nondestructive Examinator	1
								7 HYDRO				
								8 METALLURGICAL		1		
								9 LICENSING	3			
								10 ENVIRONMENTAL		1		
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12 Maintenance	2	3		
								13				
								14				

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*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON NUCLEAR EXPERIENCE

**1 position vacant

NRC Request for Information
Southern Company Services, Inc.
Birmingham

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITES
OF THE HYDRO PROJECTS DEPARTMENT

The Hydro Projects Department is responsible for performing specifically assigned duties which relate to their particular area of technical expertise on any given project concerning geotechnical, hydraulic, and hydrological plant engineering. The listing of department sections follows:

Hydro Plant Planning Section

This section is responsible for cofferdam and stream diversion design, hydraulic design of concrete structures, hydrologic studies, specification and procurement of hydro plant equipment, thermal analysis of cooling ponds, and thermal and chemical plume predication of waste water discharges into streams and lakes.

No engineers are assigned specifically to Plant Farley; however, 11 engineers could be made available on a full-time basis in the event of an emergency.

Geotechnical Engineering Section

This section is responsible for the final location, design, and drawings of earth dams and field inspection required for construction thereof. It is also responsible for the periodic inspection of existing earth structures within the Southern electric system and for recommending and inspecting remedial measures where necessary. These functions are performed on hydro, fossil, and nuclear plants as required.

No engineers are assigned specifically to Plant Farley; however, five engineers could be made available on a full-time basis in the event of an emergency.

DEPARTMENT TITLE Hydro Projects

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
**3	4	12		B.S. Civil Eng.	13	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	7	1 REACTOR PHYSICS			Introduction to Nuclear Power Course	1
				B.S. Agricultural Eng.	1			2 ELECTRICAL ENGINEERING				
				B.S. Geological Eng.	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	55	3 HEALTH PHYSICS			Design of Embankment Dams	1
				B.S. Irrigation Eng.	2			4 MECHANICAL ENGINEERING	1	7		
				B.S. Mechanical Eng.	1			5 CIVIL AND ARCHITECTURAL	16	23	Instrumentation of Soil and Rock	1
				M.S. Engineering	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	115	6 INSTRUMENTATION/CONTROLS				
				M.S. Geological Eng.	1			7 HYDRO	6	81		
				M.S. Civil Eng.	5			8 METALLURGICAL				
				M.S. Fluid Mechanics	1			9 LICENSING	1	1		
				M.S. Power and Machinery	1			10 ENVIRONMENTAL	2	2		
				M.S. Water Resources Eng.	1			11 GEOLOGICAL		1		
				Ph.D. Civil Eng.	2			OTHERS AS APPLICABLE				
								12				
								13				
								14				

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*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

**Position vacant

DEPARTMENT TITLE Hydro Projects

SECTION TITLE Hydro Plant Planning

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O) M	S	E	O	EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS
**1	4	7		B.S. Civil Eng.	7
				B.S. Agricultural Eng.	1
				B.S. Irrigation Eng.	2
				B.S. Mechanical Eng.	1
				M.S. Fluid Mechanics	1
				M.S. Civil Eng.	2
				M.S. Power and Machinery	1
				M.S. Water Resources Eng.	1
				Ph.D. Civil Eng.	1

ENGINEERING EXPERIENCE	MAN YEARS
1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY	5
2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	33
3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	82

TECHNICAL EXPERIENCE	*MAN-YEARS F	N
1 REACTOR PHYSICS		
2 ELECTRICAL ENGINEERING		
3 HEALTH PHYSICS		
4 MECHANICAL ENGINEERING	1	7
5 CIVIL AND ARCHITECTURAL	2	14
6 INSTRUMENTATION/CONTROLS		
7 HYDRO	3	63
8 METALLURGICAL		
9 LICENSING	1	1
10 ENVIRONMENTAL	2	1
11 GEOLOGICAL		
OTHERS AS APPLICABLE		
12		
13		
14		

SPECIAL TRAINING	NUMBER OF PERSONS
Introduction to Nuclear Power Course	1

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

** Position vacant

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DEPARTMENT TITLE Hydro Projects

SECTION TITLE Geotechnical Engineering

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		5		B.S. Civil Eng.	5	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	2	1 REACTOR PHYSICS			Design of Embankment Dams	1
				B.S. Geological Eng.	1			2 ELECTRICAL ENGINEERING				
				M.S. Civil Eng.	3	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	10	3 HEALTH PHYSICS			Instrumentation of Soil and Rock	1
				M.S. Geological Eng.	1			4 MECHANICAL ENGINEERING				
				Ph.D. Civil Eng.	1			5 CIVIL AND ARCHITECTURAL	14	5		
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	24	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO	3	14		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL		1		
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES OF THE STEAM PROJECTS PLANNING DEPARTMENT

The Steam Projects Planning Department is responsible for plant siting; the development of conceptual designs; the preparation of site and equipment arrangement drawings for new fossil and nuclear projects, combustion turbine projects, and retrofit projects; the procurement of major mechanical equipment including engineering studies relating to equipment and conceptual design; and special studies relating to operating problems. This department consists of the following sections:

Plant Engineering Section

This section is responsible for performing engineering studies to establish the basic functional concepts and design criteria for new fossil and nuclear generating units; performing engineering studies to evaluate equipment and system modifications on existing units, including backfit of environmental protection systems; developing specifications, evaluating proposals, and recommending purchase of major power plant equipment, including backfit of environmental protection systems; and providing technical assistance during the design and operation of generating units to insure proper use and performance of the major equipment.

No engineers are assigned specifically to Plant Farley; however, 11 engineers could be made available on a full-time basis in the event of an emergency.

Plant Siting and Geological Services Section

This section is responsible for coordinating efforts required to bring together the various engineering, administrative, and legal activities necessary to locate, investigate, and acquire generating plant sites of all types for the Southern electric system. This section also provides geological expertise in conjunction with plant siting and related activities.

One engineer is assigned to Plant Farley on a part-time basis. This engineer, along with one additional engineer, could be made available on a full-time basis in the event of an emergency.

Water and Waste Treatment Section

This section is responsible for the preparation of site water and waste management studies for nuclear and fossil generating plants involving feasibility, basic functional design concepts for equipment specifications, economic analysis; water and waste water treatment and chemical process design; and the environmental impact of the complete site water and waste water requirements. Activities relating to environmental impacts are coordinated with the Environmental Licensing Department. Responsibilities also include the preparation of specifications, evaluating proposals, and recommending the selection of vendors for water and waste treating and chemical equipment.

Water and Waste Treatment (Continued)

One engineer is assigned on a part-time basis to Plant Farley. This engineer, along with one additional engineer, could be made available on a full-time basis in the event of an emergency.

Plant Layout Section

This section is responsible for preparing conceptual drawings, which include site arrangement drawings and equipment layouts; evaluating engineering designs as related to plant layout; and giving preliminary departmental approval to all drawings and layouts. This section also provides information to the department siting section for their use in evaluation of potential sites, design inputs for equipment specifications, and nuclear unit conceptual drawings for the Preliminary and Final Safety Analysis Reports and Environmental Report.

There are no personnel assigned to Plant Farley; however, the section manager has the expertise which could be made available on a full-time basis in the event of an emergency.

DEPARTMENT TITLE Steam Projects Planning

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS
M	S	E	O		
5		15		2 years toward B.S. degree	1
				B.S. Mechanical Eng.	14
				B.S. Biological Eng.	1
				B.S. Mathematics	1
				B.S. Geology	3
				B.S. Chemical Eng.	1
				M.S. Nuclear Eng.	1
				M.S. Mechanical Eng.	2
				M.S. Engineering	1
				M.S. Geology	1
				Masters of Business Administration	1

ENGINEERING EXPERIENCE	MAN-YEARS
1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	60
2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	61
3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	219

TECHNICAL EXPERIENCE	*MAN-YEARS F	*MAN-YEARS N
1 REACTOR PHYSICS		
2 ELECTRICAL ENGINEERING		
3 HEALTH PHYSICS		
4 MECHANICAL ENGINEERING	18	118
5 CIVIL AND ARCHITECTURAL		
6 INSTRUMENTATION/CONTROLS		2
7 HYDRO		
8 METALLURGICAL		4
9 LICENSING	19	
10 ENVIRONMENTAL	12	5
11 GEOLOGICAL	14	34
OTHERS AS APPLICABLE		
12 Water and Waste	6	21
13 Treatment		
14		

SPECIAL TRAINING	NUMBER OF PERSONS
Introduction to Nuclear Power Course	1
Boiling Water Reactor Training Course	2
Radiological Monitoring Course	1

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Steam Projects Planning

SECTION TITLE Plant Engineering

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS
M	S	E	O				
1		11		B.S. Mechanical Eng.	11	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	23
				B.S. Biological Eng.	1		
				B.S. Mathematics	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	27
				M.S. Nuclear Eng.	1		
				M.S. Mechanical Eng.	1		
				Masters of Business Administration	1	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	69
				M.S. Engineering	1		

TECHNICAL EXPERIENCE	*MAN YEARS F	*MAN YEARS N
1 REACTOR PHYSICS		
2 ELECTRICAL ENGINEERING		
3 HEALTH PHYSICS		
4 MECHANICAL ENGINEERING	1	61
5 CIVIL AND ARCHITECTURAL		
6 INSTRUMENTATION/CONTROLS		2
7 HYDRO		
8 METALLURGICAL		4
9 LICENSING	9	
10 ENVIRONMENTAL	2	5
11 GEOLOGICAL		
OTHERS AS APPLICABLE		
12		
13		
14		

SPECIAL TRAINING	NUMBER OF PERSONS
Boiling Water Reactor Training Course	2
Radiological Monitoring Course	1

*(F) - FULL-TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Steam Projects Planning

SECTION TITLE Plant Siting and Geological Services

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O) M	S	E	O	EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS
1		2		B.S. Geology	3	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	14
				M.S. Geology	1	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	57

TECHNICAL EXPERIENCE	*MAN-YEARS F	N	SPECIAL TRAINING	NUMBER OF PERSONS
1 REACTOR PHYSICS				
2 ELECTRICAL ENGINEERING				
3 HEALTH PHYSICS				
4 MECHANICAL ENGINEERING				
5 CIVIL AND ARCHITECTURAL				
6 INSTRUMENTATION/CONTROLS				
7 HYDRO				
8 METALLURGICAL				
9 LICENSING	10			
10 ENVIRONMENTAL	10			
11 GEOLOGICAL	14	34		
OTHERS AS APPLICABLE				
12				
13				
14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Steam Projects Planning

SECTION TITLE Water and Waste Treatment

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS
M	S	E	O		
1		2		B.S. Mechanical Eng.	2
				B.S. Chemical Eng.	1
				M.S. Mechanical Eng.	1

ENGINEERING EXPERIENCE	MAN YEARS
1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	6
2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	9
3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	37

TECHNICAL EXPERIENCE	*MAN-YEARS F	*MAN-YEARS N
1 REACTOR PHYSICS		
2 ELECTRICAL ENGINEERING		
3 HEALTH PHYSICS		
4 MECHANICAL ENGINEERING		9
5 CIVIL AND ARCHITECTURAL		
6 INSTRUMENTATION/CONTROLS		
7 HYDRO		
8 METALLURGICAL		
9 LICENSING		
10 ENVIRONMENTAL		
11 GEOLOGICAL		
OTHERS AS APPLICABLE		
12 Water and Waste Treatment	6	21
13		
14		

SPECIAL TRAINING	NUMBER OF PERSONS
Introduction to Nuclear Power Course	1

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE: Steam Projects Planning

SECTION TITLE: Plant Layout

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1				Two years Undergraduate	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	8	1 REACTOR PHYSICS				
						2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	10	2 ELECTRICAL ENGINEERING				
								3 HEALTH PHYSICS				
								4 MECHANICAL ENGINEERING	8	25		
								5 CIVIL AND ARCHITECTURAL				
						3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	33	6 INSTRUMENTATION/CONTROLS				
								7 HYDRO				
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL				
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE:				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

142-9

NRC Request for Information
Southern Company Services, Inc.
Birmingham

DESCRIPTION OF FUNCTIONS AND RESPONSIBILITIES
OF THE ENVIRONMENTAL LICENSING DEPARTMENT

This department is responsible for the review of the environmental aspects of proposed modifications in plant design and operation of the Southern electric system generating plants; and the development of environmental Technical Specifications, environmental reports, and environmental sections of Safety Analysis Reports. The departmental section description follows.

Environmental Licensing Section

This section is responsible for implementing the review of the environmental aspects of proposed modifications in plant design and operation of the Southern electric system generating plants; and the development of environmental Technical Specifications, environmental reports, and environmental sections of Safety Analysis Reports.

There is one engineer assigned part-time to Plant Farley. This engineer, along with three additional engineers, could be made available on a full-time basis in the event of an emergency.

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DEPARTMENT TITLE Environmental Licensing

SECTION TITLE

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN-YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
2		4		B.S. Industrial Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	12	1 REACTOR PHYSICS				
				B.S. Mechanical Eng.	2			2 ELECTRICAL ENGINEERING				
				B.S. Biology	2	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY SUPERVISOR AND ABOVE)	31	3 HEALTH PHYSICS				
				B.S. Environmental Eng.	1			4 MECHANICAL ENGINEERING		7		
				M.S. Industrial Eng.	1			5 CIVIL AND ARCHITECTURAL		7		
				M.S. Environmental Eng.	2	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON NUCLEAR)	52	6 INSTRUMENTATION/CONTROLS				
				M.S. Civil Eng.	1			7 HYDRO		8		
								8 METALLURGICAL				
								9 LICENSING				
								10 ENVIRONMENTAL	8	18		
								11 GEOLOGICAL	10	31		
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

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DEPARTMENT TITLE Environmental Licensing

SECTION TITLE Environmental Licensing

PROFESSIONAL/TECHNICAL PERSONNEL INFORMATION

NO. OF MANAGERS (M), SUPERVISORS (S), ENGINEERS (E), OTHER PERSONNEL (O)				EDUCATIONAL BACKGROUND DEGREE, DESCRIPTION	NUMBER OF PERSONS	ENGINEERING EXPERIENCE	MAN YEARS	TECHNICAL EXPERIENCE	*MAN-YEARS		SPECIAL TRAINING	NUMBER OF PERSONS
M	S	E	O						F	N		
1		4		B.S. Industrial Eng.	1	1. NUCLEAR POWER FIELD (UTILITY OR NON-UTILITY)	10	1 REACTOR PHYSICS				
				B.S. Mechanical Eng.	1			2 ELECTRICAL ENGINEERING				
				B.S. Biology	2	2. ENGINEERING MANAGEMENT (UTILITY OR NON-UTILITY, SUPERVISOR AND ABOVE)	19	3 HEALTH PHYSICS				
				B.S. Environmental Eng.	1			4 MECHANICAL ENGINEERING		2		
				M.S. Industrial Eng.	1			5 CIVIL AND ARCHITECTURAL		3		
				M.S. Environmental Eng.	2	3. TOTAL UTILITY EXPERIENCE (NUCLEAR OR NON-NUCLEAR)	20	6 INSTRUMENTATION/CONTROLS				
				M.S. Civil Eng.	1			7 HYDRO		2		
								8 METALLURGICAL				
								9 LICENSING	8	13		
								10 ENVIRONMENTAL	8	21		
								11 GEOLOGICAL				
								OTHERS AS APPLICABLE				
								12				
								13				
								14				

*(F) - FULL TIME NUCLEAR EXPERIENCE
(N) - NON-NUCLEAR EXPERIENCE

142-9

69

801 164

ENCLOSURE 2

DESCRIPTION OF BECHTEL CONTRACTUAL ARRANGEMENT

Southern Company Services, Inc. as a service company to the Southern Company, the parent company, is responsible to provide engineering, design, technical and other specialized services to the parent company and its system operating companies.

Southern Company Services, Inc. has engaged Bechtel Power Corporation to perform work, engineering, design and consulting services for construction and/or operational support on the nuclear power plants of the Southern Company's system operating companies.

Bechtel Power Corporation is available to work on short notice when required; for instance by a phone call from a recognized supervisor of the plant. Normal requests for work by Bechtel Power Corporation will be initiated by the system operating companies utilizing established procedures. Bechtel Power Corporation has assigned a project engineer for each nuclear plant responsible to allocate their resources in performing the assigned duties.

The present contract with Bechtel Power Corporation does not have a termination date. Administration of the contract details is provided by Southern Company Services.