



**GULF STATES UTILITIES COMPANY**

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AREA CODE 713 838-6631

February 13, 1985  
RBG- 20,141  
File No. G9.5, G9.8.6.2

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

Dear Mr. Denton:

River Bend Station - Unit 1  
Docket No. 50-458

Enclosed is the Gulf States Utilities Company (GSU) response to Safety Evaluation Report (SER) Confirmatory Item #56 - Personnel Resumes (SER Section 13.1.7, page 13-4). Enclosure 1 contains the resumes of all key personnel associated with the River Bend Nuclear Group (RBNG) while Enclosure 2 provides additional organizational discussion necessary since the submittal by J.E. Booker (GSU) to H.R. Denton (NRC) on January 24, 1985 (GSU Letter No. RBG-19971). Finally, the experience levels of individuals slated to be licensed operators will be addressed separately in the response to the letter from Mr. A. Schwencer (NRC) to Mr. W.J. Cahill (GSU) dated December 13, 1985.

The revisions and additions to the Final Safety Analysis Report (FSAR) contained in Enclosures 1 and 2 will be included in a future FSAR amendment.

Sincerely,

*Eddie R Grant*  
for J. E. Booker  
Manager-Engineering  
Nuclear Fuels & Licensing  
River Bend Nuclear Group

*JWL*  
JEB/WJR/JWL/je

Enclosures (2)

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ENCLOSURE 1

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APPENDIX 13A

This appendix contains resumes of key corporate personnel responsible for technical support, either directly or indirectly through the management of that support.

1. William J. Cahill, Jr. Senior Vice President -  
River Bend Nuclear Group
2. James C. Deddens Vice President -  
River Bend Nuclear Group
3. James G. Weigand Vice President - Safety and Environment  
~~Administration~~
4. James E. Booker Manager -  
Engineering, Nuclear Fuels,  
and Licensing
5. James M. Glazar Director -  
Nuclear Plant Engineering
6. William J. Reed, Jr. Director -  
Nuclear Licensing
7. John G. Cadwallader Supervisor -  
Emergency Planning
8. John E. Barry Supervisor -  
Nuclear Fuels
9. James A. Wright, Jr. Supervisor -  
Mechanical Engineering
10. Erwin J. Zoch Supervisor -  
Nuclear Engineering
11. Donald R. McCarter Director -  
Loss Prevention
12. William J. Odell ~~Director~~ Manager -  
~~Nuclear Training~~ Administration
13. Philip D. Graham Assistant Plant Manager - Technical  
Services

RBS FSAR

- |  |   |  |
|--|---|--|
| 14. Peter E. Freehill                                      | Superintendent -<br>Startup and Test/<br>Assistant Plant Manager -<br>Operations, Radwaste and Chemistry                  |  |
| 15. Maxey F. Cassada                                       | <del>Radiation Protection</del><br><del>Chemistry Supervisor</del><br>General<br>Operations Supervisor                    | Supervisor -<br>Radiological Programs                  |
| 16. Charles P. Bogolin                                     |   |  |
| 17. <del>Joe L. Burton</del><br>Alex Kowalczyk             | <del>General Maintenance</del><br><del>Supervisor</del>   | Assistant Plant Manager -<br>Maintenance and Materials |
| 18. Lionel R. Thompson                                     | Instrumentation and<br>Controls Supervisor  |  |
| 19. Gerald V. King   | <del>Technical Materials and Plant</del><br><del>Services Supervisor</del>  | Supervisor -<br>Plant<br>Services                      |
| 20. Dan Williamson   | Reactor Engineering<br>Supervisor   |  |
| 21. David L. Davenport                                     | Plant Security Supervisor<br>Executive  |  |
| 22. E. Linn Draper   | <del>Senior Vice President -</del><br>External Affairs and Production<br>Manager - Design Engineering, Technical Services |  |
| 23. <del>James H. Derr, Jr.</del><br>Kenneth W. Richardson | <del>Vice President - Power Plant</del><br><del>Engineering and Design</del>  | Department   |
| 24. Thomas C. Crouse                                       | Manager -<br>Quality Assurance<br>Engineering Quality Assurance Supervisor  |  |
| 25. <del>C. Lloyd Ballard</del><br>I.M. (Mike) Malik       | <del>Supervisor</del><br><del>Quality Engineering</del><br>Director   |  |
| 26. Phillip F. Tomlinson                                   | <del>Supervisor -</del><br>Operations Quality<br>Assurance  |  |
| 27. Glenn Kimmel   | <del>Supervisor</del><br><del>Quality Control</del>   | Operations Quality<br>Assurance Supervisor             |

INSERT →

~~Resumes for the following positions will be supplied in a  
future submittal:~~

- ~~1. Director - Support Services~~
- ~~2. Administrative Supervisor~~

Insert for page 13A-2

28. Thomas F. Plunkett	Plant Manager
29. Edwin M. Cargill, Jr.	Radiation Protection Supervisor
30. Melvin F. Sankovich	Director-Nuclear Fuels Design and Safety Analysis
31. Kenneth E. Suhrke	Manager-Project Planning and Coordination
32. John V. Conner	Supervisor-Environmental Services
33. David R. Reynolds	Supervisor-Support Services
34. Robert B. Stafford	Director-Quality Services
35. Kenneth C. Hodges	Systems Quality Assurance Supervisor
36. Robert E. Bailey	Operations Quality Control Supervisor
37. John G. Propson	Supervisor-Electrical Engineering
38. A. Khan	Supervisor-Engineering Analysis



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- ~~3. Radiation Protection Supervisor~~
- ~~4. Supervisor - Electrical Engineering~~
- ~~5. Supervisor - Civil Engineering~~
- ~~6. Supervisor - Engineering Analysis~~
- ~~7. Supervisor - Site Engineering~~
- ~~8. Director - Quality Services~~
- ~~9. Director - Operations QA~~
- ~~10. Supervisor - Quality Systems~~
- ~~11. Plant Manager~~

RBS FSAR

RESUME  
JAMES G. WEIGAND  
VICE PRESIDENT ~~ADMINISTRATION~~  
SAFETY AND ENVIRONMENT

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
U.S. Naval Academy Annapolis, Maryland	Marine Engineering	1958*	BS
University of Washington Seattle, Washington	Physical Oceanography	1962**	MS
University of Washington Seattle, Washington	Physical Oceanography	1964	PhD

\*Graduated with distinction

\*\*Elected to Sigma Xi - Scientific Honorary

Additional Courses or Training

Nuclear Power School - 12 month course in nuclear engineering at Mare Island, California and KAPL Laboratories, New York, 1966

Advanced Nuclear Engineering for Submarine Commanding Officers - 3 1/2 month course for submarine captains at the Naval Reactors offices under the direct supervision of Admiral H. G. Rickover, 1973

EXPERIENCE

Gulf States Utilities Company

Insert 1

- 2 ~~X~~. Vice President - Administration - 2/84 to <sup>12/84</sup> present.  
~~See Section 13.1.1.2.4 for responsibilities.~~

Insert 2

- 3 ~~Z~~. Vice President - Nuclear Operations - 10/16/82 to 02/84.
- 4 ~~B~~. Vice President - Nuclear Operations and Technical Systems - 5/1/80 to 10/15/82
- 5 ~~A~~. Vice President - River Bend Operations and Technical Systems - 1/1/80 to 5/1/80

The latter three positions entailed similar responsibilities; however, as the size and complexity of the River Bend Project grew, a

Insert 1 for page 13A-10

1. Vice President - Safety and Environment - 12/84 to present

See Section 13.1.1.2.4 for responsibilities.

Insert 2 for page 13A-10

Responsible for developing and maintaining the functions of emergency preparedness, site security, training, environmental monitoring, office services, records, procurement and accounting.

RBS FSAR

corporate rearrangement was made in order to yield separate, individual attention on the operations and the technical systems.

64. General Manager-Nuclear Projects - 1/1/79 to 1/1/80

Responsible for all aspects of GSU nuclear projects, specifically for the management of the construction of the River Bend Station located near St. Francisville, Louisiana.

75. Technical Assistant to the Chairman of the Board - 7/16/78 to 1/1/79

Responsible for managing the research and research support for the company, evaluating technological advances for company application, representing the Chairman's office as a member of the Strategic Planning Committee, and performing special projects as directed by the Chairman.

Office of Naval Education and Training

1. Staff Officer for the Chief - 10/76 to 7/16/78
2. Executive Assistant and Senior Aide to Vice Admiral James B. Wilson

Responsible for assigning and coordinating all administrative tasks for one of the Navy's largest commands with over 150,000 students and 20,000 staff.

Nuclear Powered Missile Submarine USSS Nathanael Green (SSBN 636)

1. Commanding Officer - 7/73 to 10/76

Completely responsible for the operation and maintenance of a half-billion dollar submarine.

Responsible for the training, leadership and performance of the officers and crew.

U.S. Navy

1. Executive Officer - 9/71 to 2/73 (Nuclear Powered Submarine)

Supervised the administration and training of a missile submarine crew.

RESUME  
 JAMES M. GLAZAR  
 DIRECTOR - NUCLEAR PLANT ENGINEERING

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Pennsylvania State University State College, Pennsylvania	Machine Design	1972	MSME
Newark College of Engineering Newark, New Jersey	Machine Design	1965	BSME

EXPERIENCEGulf States Utilities Company

1. Director - Nuclear Plant Engineering - 10/17/82 to present (see Section 13.1.1.2.5.1 for responsibilities)
2. Project Engineer - River Bend Nuclear Group - 5/1/78 to 10/15/82

Responsible for all design engineering activities associated with the River Bend Nuclear Project. Manage and control the efforts of the architect/engineer's (Stone & Webster) engineering organization, the nuclear steam supply system vendor (General Electric) and any other vendors as necessary to control the design of the plant.

Omaha Public Power District

1. Lead Mechanical Engineer in the Generating Stations Engineering Section - 2/1/76 to 5/1/78.

Job duties included project engineering functions involved with: 1) site security (Fort Calhoun Nuclear Station), 2) CE/DOE/OPPD Refueling Outage Reduction Program (Fort Calhoun Nuclear Station), and 3) High-pressure feedwater heaters replacement project (North Omaha fossil station). Duties included design coordination, planning, scheduling, financial estimating, and liaison with architect/engineers, vendors, contractors and plant operating personnel during design, contract



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March 1979                      Radiological Emergency Response  
   Planning Course  
   U.S. Nuclear Regulatory Commission  
   Jackson, Mississippi

April 1979                      Radiological Emergency Response  
   Operations Training Course  
   U.S. Nuclear Regulatory Commission  
   Las Vegas and Mercury, Nevada

December 1979                  Radiological Emergency Response  
   Coordinators Course  
   U.S. Nuclear Regulatory Commission  
   Wildwood, Florida

EXPERIENCE

Gulf States Utilities Company

1. Supervisor-Emergency Planning - 11/80 to present

Responsible for developing Emergency Response Plan for RBS. See Section ~~13.1.1.2.5.3~~ for additional description.                      13.1.1.2.8.3

Louisiana Hazardous Waste Management Division

1. Hazardous Waste Specialist- 9/80 to 11/80

Responsible for tracking shipments of hazardous waste and for developing emergency response system for waste spills.

Louisiana Nuclear Energy Division

1. Radiation Specialist- 7/77 to 9/80

From September 9/78 to 9/80, responsible for the establishment and maintenance of environmental surveillance programs and for the development of the State Peacetime Radiological Response Plan and local parish plans. Worked with NRC, FEMA, and Louisiana Environmental Control Commission concerning emergency response planning for fixed nuclear facilities.

Louisiana Division of Radiation Control

1. Health Physicist - 9/75 to 7/77



RBS FSAR

RESUME

JOHN E. BARRY  
SUPERVISOR - NUCLEAR FUELS

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Texas A&M University College Station, Texas	Nuclear Engineering	1970	BS
Lamar University Beaumont, Texas	Engineering	1981	MS

EXPERIENCE

Gulf States Utilities Company

1. Supervisor - Nuclear Fuels - 10/15/82 to present  
(see ~~Section 13.1.1.2.5.4~~ for responsibilities)  
    ↳ Sections 13.1.1.1.3 and 13.1.1.2.5.3
2. Supervisor - Out-of-Core Fuels - 1/1/80 to 10/15/82  
(Same duties as delineated in Section 13.1.1.1.3)
3. Nuclear Fuels Engineer - 10/1/77 to 1/1/80 (same  
duties as delineated in Section 13.1.1.1.3)

Governor's Energy Advisory Council

1. Nuclear Specialist - 1976 to 1977

Responsible for writeup and coordination of task force input for the GEAC report on nuclear power. Responsible for evaluation of President Carter's Energy Proposals on nuclear power and electrical generation (e.g., mandatory interconnect, bulk sales, and hydro-generation). Other responsibilities included:

Projection of Texas nuclear energy and uranium production.

Monitoring nuclear generation, process heat, waste disposal, uranium mining, and other projects in Texas.

Provision of liaison and assistance to federal agencies (e.g., the NRC, ERDA, FEA, and USGS) on matters of interest to Texas.

Follow nuclear generation and uranium exploration and production technology in Texas and nationally.

RBS FSAR

RESUME

WILLIAM J. ODELL  
~~DIRECTOR - NUCLEAR TRAINING~~  
MANAGER - ADMINISTRATION

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
University of Nebraska Lincoln, Nebraska	Physics and Mathematics	1965	BS

Additional Courses or Training

University of Virginia Management Development Series  
Enlisted and Officer Basic Submarine School, Nuclear  
Power School, Nuclear Plant Training  
Additional Military training in intercommunications,  
leadership and management, and command

EXPERIENCE

Gulf States Utilities Company

Insert

2 ~~1~~. Director - Nuclear Training - 8/83 to <sup>12/84</sup> ~~present~~

Responsible for the development, administration, and implementation of the nuclear training program to candidates for both licensed and nonlicensed positions, as well as the training program for the remainder of the River Bend Station Staff and River Bend Nuclear Group Personnel. Responsible for a full-scope, plant-referenced simulator used in the RO/SRO training courses.

Babcock & Wilcox's Nuclear Generating Division

1. Manager - Instruction Services, Training Engineering, and the Lynchburg Training Center - 11/79 to 8/83


Responsibilities included the operation of a training center that delivered nuclear plant operations training in the classroom and on a full-scope B&W nuclear power plant simulator, power plant technical training for engineers and technicians, and maintenance training. Also responsible for training program development, including the production of specific lesson materials, training aids, and instructor development.

Insert for page 13A-30

1. Manager - Administration - 12/84 to present

See Section 13.1.1.2.8 for responsibilities.

RBS FSAR

RESUME  
PHILIP D. GRAHAM  
ASSISTANT PLANT MANAGER  SERVICES  
TECHNICAL

EDUCATION


<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Old Dominion University Norfolk, Virginia	Electrical Engineering	1973	BS

Additional Courses or Training

Naval Nuclear Power Training School and Prototype - 1974  
NRC BWR and PWR Technology Course, including simulator  
training - 1979  
Lead Auditor Training and Certification as a QA Lead  
Auditor - 1980  
Training in Operational Quality Assurance Program - 1980  
Probabilistic Risk Assessment Training - 1980  
Procurement Quality Assurance Training - 1981  
Effective Management Training - 1982

EXPERIENCE

Gulf States Utilities Company

1. Assistant Plant Manager  Technical Services - 9/83 to present  
  
Responsible for the management of River Bend Station's Administrative and Technical Sections of the plant staff.
2. Director - Quality Assurance - 5/81 to 8/83  
  
Responsible for QA activities at River Bend Station including the monitoring of SWEC's QA program.
3. Technical/Administrative Assistant to the Senior Vice President of River Bend Nuclear Group - 1/81 to 5/81
4. Operational QA Supervisor - 3/80 to 1/81  
  
Developed the Final Safety Analysis Report Section 17.2 - QA during Operations and the Operational QA Manual for River Bend Station Operation Phase.

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RESUME

PETER E. FREEHILL

SUPERINTENDENT - STARTUP AND TEST  
ASSISTANT PLANT MANAGER - OPERATIONS , RADWASTE AND CHEMISTRY

EDUCATION

United States Navy Nuclear Power School, Nuclear Instrument School, Submarine School, and Submarine Electronics School

United States Navy S3G Reactor Prototype Training and Qualification as an S3G Naval Reactor Operator - 1961

United States Navy S5W Reactor Design School and Qualification as an S5G Naval Lead Reactor Operator - 1963

United States Navy S5G Reactor Design School and Qualification as an S5G Naval Lead Reactor Operator - 1964

AEC Senior Reactor Operator License for SEFOR (1968), Senior Reactor Operator Certification at Fukushima II BWR (1972), Cooper BWR (1973), and Brunswick II BWR (1975)

M.I.T. Nuclear Power Reactor Safety Course - 1982

EXPERIENCE

Gulf States Utilities Company

1. Superintendent - Startup and Test - 12/80 to present

See Sections 13.1.1.1.2.3 and 14.2.2.1.1 for responsibilities.

Assistant Plant Manager - Operations - 11/83 to ~~present~~ 12/84

See Section 13.1.2.2.2 for responsibilities.

Insert →

2. Acting Plant Manager - River Bend Station - 6/80 to 11/80

3. Operations Manager - River Bend Station - 12/79 to 6/80

Insert for page 13A-34

Assistant Plant Manager - Operations, Radwaste and Chemistry - 12/84  
to present

See Sections 13.1.2.1.1 and 13.1.2.2.2 for responsibilities.



RBS FSAR

RESUME

MAXEY F. CASSADA

~~RADIATION PROTECTION/CHEMISTRY SUPERVISOR~~  
SUPERVISOR - RADIOLOGICAL PROGRAMS

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
University of Nebraska Omaha, Nebraska	Business Administration	1980	Bachelor General Studies

Additional Courses or Training

Navy Nuclear Power Training Program - 1961/62  
Advanced Health Physics - Rockwell International - 1976  
Respiratory Protection Workshop - Los Alamos Scientific  
Laboratory - 1978  
Radiological Health Physics Course - University of  
Lowell - 1979  
Nuclear Electronics Technology Update - General  
Atomics - 1981  
Radioactive Waste Management Workshop - ASME/EPRI -  
1981/82  
Radiation Protection Training - INPO - 1982  
Radiation Issues for the Nuclear Industry - AIF  
Environmental Conference - 1982  
Assessment of Environmental Releases of Radioactivity -  
University of Washington at Seattle - 1982  
Radiation Dcsimetry Course - Louisiana State Univer-  
sity - 1983  
Chemistry Managers' Workshop - INPO - 1983  
Industrial Water Treatment Seminar - Betz Laborato-  
ries - 1983  
TLD Workshop - Panasonic - 1983  
Fundamentals of Ground-Water Quality Protection Work-  
shop - 1983

EXPERIENCE

Gulf States Utilities Company

Insert \_\_\_\_\_  
2 y. Radiation Protection/Chemistry Supervisor - 5/80 to  
~~present~~ 12/84

Responsible for the development and management of  
the Radiation Protection, Environmental, and  
Chemistry Programs (acquired Chemistry Program in  
March 1983) at River Bend Station to support the

Insert for page 13A-37

1. Supervisor - Radiological Programs - 12/84 to present

See Section 13.1.2.1.3 for responsibilities.

RBS FSAR

RESUME  
CHARLES P. BOGOLIN  
OPERATIONS SUPERVISOR  
GENERAL

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
George C. Wallace Community College Dothan, Alabama	Arts	1959	AA
Louisiana State University Baton Rouge, Louisiana	History	Presently classified a senior in the BA program	

Additional Courses or Training

Naval Submarine School - New London, Connecticut - 1961  
 Naval Nuclear Power School - Bainbridge, Maryland - 1963  
 Qualified on General Electric's D1G Land PWR and  
 Westinghouse's S5W Submarine PWR  
 Dairyland Power Cooperative RO Course (RO License  
 No. 2442 in May 1968 and qualified on the LaCrosse BWR)  
 Alabama Power Company SRO Course (SRO License No. 3134-1  
 in December 1977 and qualified on the Joseph Farley PWR)  
 Westinghouse Nuclear Power Training Program and PWR  
 Simulator Qualification - Zion, Illinois - 11/72 to 8/73  
 Currently undergoing SRO certification training program  
 with Gulf States Utilities Company for River Bend  
 Station

EXPERIENCE

Gulf States Utilities Company

1. <sup>General</sup> Operations Supervisor - <sup>12/84</sup> ~~8/81~~ to present

See Section ~~13.1.2.2.3~~ for responsibilities.

- 3 <sup>13.1.2.1.1</sup> Senior Shift Supervisor - 1/81 to 8/81

As assistant to the Operations Supervisor, the responsibilities of Senior Shift Supervisor included the execution of directives from the Operations Supervisor as well as being directly responsible for the operating staff. (See Sections 13.1.2.2.4 and 13.1.2.2.5 for additional details.)

Insert

Insert for page 13A-39

2. Operations Supervisor - 8/81 to 12/84

Same responsibilities as described above.

RBS FSAR

RESUME  
JOE L. BURTON  
GENERAL MAINTENANCE SUPERVISOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Mississippi State University Mississippi State, Mississippi	Nuclear	1973	BS Engineering
Louisiana State University Baton Rouge, Louisiana	Nuclear Engineering	1979	MS

Additional Courses or Training

Combustion Engineering's PWR Course - 1973  
NUS Corporation's Introduction to Nuclear Power Course - 1974  
Louisiana State University's Improving Project Management (1977) and Maintenance Management (1979) Course in their MBA Program  
American Management Association's Appraising Management Efficiency Course - 1982  
Southern Methodist University's Assertiveness Training Course - 1983  
GSU Personnel Training Courses in Management Skills, Productivity, Interviewing, Speech, and Communications  
Computer Software Knowledge in Neutron Transport, Statistics, and Optimization Codes

EXPERIENCE

Gulf States Utilities Company

1. General Maintenance Supervisor - 2/84 to present  
See Sections 13.1.1.1.2.4 and 13.1.2.1.2 for maintenance section descriptions and 13.1.2.2.9 for responsibilities.
2. General Maintenance Supervisor - Louisiana Station - 7/79 to 2/83  
Similar responsibilities as currently described at River Bend Station, except Louisiana Station consisted of 12 gas units.

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3. Engineer - Power Plant Engineering and Design - 2/79 to 7/79

Project Engineer responsible for developing cogeneration projects with industrial consumers. Involved in conceptual designs, engineering, contractual/financial details, and licensing.

4. Engineer - Consumer Services - 8/77 to 2/79

Same responsibilities as in Power Plant Engineering and Design; however, as conceptual projects grew in size and approached completion, reorganization occurred.

5. Engineer - Power Plant Construction - 7/76 to 8/77

Involved in the initial site preparation of River Bend Station and environmental modifications required at Louisiana Station.

6. Engineer - Louisiana Station - 9/74 to 7/76

Staff Engineer providing station operations support.

7. Engineer - System Production - 6/73 to 9/74

Staff Engineer providing system operating support.

PROFESSIONAL DATA

Professional Engineer in Texas (Nuclear) and Louisiana (Mechanical)  
Masters thesis publication entitled "An Analysis of Neutral Beam Injection Penetrations in Current Tokamak Designs"  
ANS Summer 1980 Transactions publication entitled "Neutral Beam Injection Penetrations"



## RESUME

ALEX KOWALCZUK  
ASSISTANT PLANT MANAGER -  
MAINTENANCE AND MATERIALS

### EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
North Carolina State University, Raleigh, North Carolina	Chemistry	1971	BS

#### Addition Courses or Training

U.S. Army, Fort Belvoir, Virginia - Nuclear Power Plant Operator Training - 1964  
General Electric Company - Radiological Engineering for Health Physicists - 1973  
U.S. Nuclear Regulatory Commission - PWR/BWR Facilities - 1976  
Consumers Power Company - Licensed Operator Training, Midland Nuclear Plant - 1980  
General Electric Company - Turbine Generator Mechanisms - 1983  
University of Michigan - Executive Program - 1984

### EXPERIENCE

#### Gulf States Utilities Company

1. Assistant Plant Manager - Maintenance and Materials - 1/85 to present

See Sections 13.1.2.1.2 and 13.1.2.2.2 for responsibilities.

#### Consumers Power Company

1. Plant Superintendent - 1982 to 1984

Managed the activities of about 350 people and directed the development of the operating, maintenance, chemistry, radiation safety, planning and scheduling programs and the associated organizations for the Midland Nuclear Plant. Acted for the Plant Manager in his absence.

2. Chemistry/Health Physics Superintendent - 1980 to 1982

Directed the chemistry, radiation safety and environmental programs at the Palisades Nuclear Plant.

3. Chemistry/Health Physics Superintendent - 1978 to 1980

Same responsibilities as those described above except at the Midland Nuclear Plant.

U.S. Nuclear Regulatory Commission

1. Radiation Specialist - 1975 to 1978

Carolina Power and Light Company

1. Environmental and Radiation Control Supervisor - 1971 to 1975

Managed development and implementation of plant chemistry, environmental and radiation safety programs including facilities and equipment design, staffing, training, procedures, equipment, licensing, startup, operation and budget responsibilities. Responsible for initial operation, modification and maintenance of water purification, water treatment and radioactive waste systems. Experienced in SAR and ER preparation and accident analysis

North Carolina State University, Raleigh, North Carolina

1. Laboratory Supervisor and Reactor Operator - 1968 to 1971

U.S. Army

1. Health Physics/Chemistry Technician and Instructor and Reactor Operator - 1964 to 1968

Experienced as plant chemistry/radiation safety technician, equipment operator and control room operator and in developing and implementing training programs in the Engineer Reactors Group at Fort Belvoir, Virginia.

2. Chemical Staff Specialist - 1962 to 1964

Experienced in predicting and evaluating nuclear weapons effects and in implementing large scale monitoring and decontamination operations.

3. Test Technician - 1962

Experienced in monitoring and measuring radioactive materials and large scale decontamination operations at the Nevada Test Site.

RBS FSAR

RESUME

LIONEL R. THOMPSON  
INSTRUMENTATION AND CONTROLS SUPERVISOR

EDUCATION

Pratt & Whitney Aircraft Company's Electronic Technician  
Apprentice Course - 1967  
United States Air Force's Guidance System Mechanics  
School, Basic Electronics Program, and a variety of  
technical seminars  
Bentley Nevada Corporation's Vibration Systems Seminar  
University of Maine's Introduction to Microprocessors  
Course  
Westinghouse Corporation's Electro-Hydraulic Governor  
System Seminar  
Parker-Hannifin Corporation's Tube Fitting and Fab-  
rication Seminar  
Combustion Engineering Corporation's Reactor Protection  
System Seminar and Control Element Drive System Seminar  
Analysis and Measurement Services' Industrial Ther-  
mometry Seminar and Sensor Response Time Testing  
Seminar  
Gulf States Utilities Company's Computerized Plant Main-  
tenance and Material Maintenance System Seminar, as  
well as courses in management, productivity,  
interviewing, and assessor/appraisal training  
Southern Methodist University's Training for Managers  
Course  
American Management Association's Improving Managerial  
Skills for the New or Prospective Manager course

EXPERIENCE

Gulf States Utilities Company

1. Instrumentation and Controls Supervisor - 11/81 to  
present

See Section ~~13.1.2.2.10~~<sup>9</sup> for responsibilities.  
~~13.1.2.1.2~~

2. Instrumentation and Controls Foreman - 8/80 to  
11/81

The acting Instrumentation and Controls Supervisor  
responsible for developing philosophies concerned  
with procedure development (surveillance, device,  
administration), spare parts evaluation, building  
layouts, FSAR review for compliance to NRC  
regulations, and a primary standard's laboratory

RBS FSAR

RESUME  
GERALD V. KING  
SUPERVISOR - ~~TECHNICAL MATERIALS AND~~  
~~AND~~ PLANT SERVICES

EDUCATION

George C. Wallace State Community College, Dothan, Alabama (1974/75), and Wilkes College, Wilkes Barre, Pennsylvania (1978); course work and credit toward a Computer Science degree

NASA and General Electric's Aerospace course in Cryogenics; pressure and vacuum; pendant crane; high-pressure gas; electrical and electrical studies - 1969

OSHA Certified Construction Safety Course - 1976

ASME Nuclear Section Code Seminar - 1979

Drexel University's IEEE Qualification Seminar for Electrical Equipment - 1980

EXPERIENCE

Gulf States Utilities Company

1. Supervisor - ~~Technical Materials and~~ Plant Services - 3/84 to present. See Sections ~~13.1.2.1.5~~ and ~~13.1.2.2.14~~ for responsibilities. ~~13.1.2.1.4~~
2. Supervisor - Quality Systems - 2/84 to 03/84
3. Supervisor - Operational Quality Assurance - 9/81 to 2/84
4. Supervisor - Quality Engineering - 7/80 to 9/81

Daniel International Corporation

1. Senior Quality Assurance Engineer - 10/78 to 7/80

Worked on the Enrico Fermi II Project and responsible for review and approval of contractor's QA program and implementing procedures for work on safety-related systems. Certified as lead auditor conducting audits of Civil, Electrical, Mechanical, and HVAC Contractors for compliance to their QA programs. Promoted to Assistant QA Manager and

RBS FSAR

RESUME  
DAVID L. DAVENPORT  
PLANT SECURITY SUPERVISOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
University of Nebraska Omaha, Nebraska	Law Enforcement and Corrections	1970	BS

Additional Courses or Training

South Carolina State Law Enforcement Division's Private Security Instructor's Course  
ATF's Bombs and Explosives Seminar

EXPERIENCE

Gulf States Utilities Company

1. Plant Security Supervisor - 1980 to present  
See <sup>Sections 13.1.1.2.8.4 and</sup> ~~Section~~ 13.6, RBS Physical Security Plan, for responsibilities.

Sizemore Security International, Inc.

1. Director - Coastal Region - 1978 to 1980  
Responsible for the development of the region, acquisition of new business, and the hiring and training of personnel. Achieved a 1000-percent growth rate over an 18-month period.

Georgia Power Company

1. Superintendent - Uniform Security - 1978  
Supervised the activities of 240 uniformed security personnel through seven plant security supervisors at two nuclear and five hydro/fossil power plants. Member of planning group for development of security at the nuclear sites. Designed programs, established goals, and developed procedures.
2. Nuclear Plant Security Supervisor - Edwin I. Hatch Nuclear Power Plant - 1977 to 1978



RBS FSAR

RESUME

E. LINN DRAPER, JR.

~~SENIOR VICE PRESIDENT - EXTERNAL AFFAIRS~~  
~~EXECUTIVE~~ AND PRODUCTION

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Rice University Houston, Texas	--	1964	BA
Rice University Houston, Texas	Chemical Engineering	1965	BS
Cornell University Ithaca, New York	Nuclear Science and Engineering	1970	PhD

EXPERIENCE

Gulf States Utilities Company

1. ~~Senior Vice President - External Affairs~~ - <sup>Executive</sup> ~~10/82~~ <sup>and Production</sup> ~~to~~ <sup>12/84</sup> present

Production ~~Responsible for the Public Affairs, Legal Services, and Rates and Regulatory Affairs Departments of Gulf States Utilities Company.~~ ~~Chairman~~ Nuclear Review Board for River Bend Nuclear Group.

- Insert ~~3~~ 2. Senior Vice President - Engineering and Technical Services - 9/81 to 10/82

- 4 3. Vice President - Nuclear Technology - River Bend Nuclear Group - 5/80 to 9/81

- 5 4. Vice President and Technical Assistant to the Chairman of the Board - 2/16/80 to 5/1/80

Responsible for managing the research and development budget and for keeping the Chairman up-to-date on alternate energy technologies, specializing in nuclear applications.

- 6 5. Technical Assistant to the Chairman of the Board - 2/1/79 to 2/16/80

Responsibilities same as above.



Insert for page 13A-52

2. Senior Vice President - External Affairs - 10/82 to 12/84

Same responsibilities as described above except for Production.

RBS FSAR

RESUME  
JAMES H. DERR, JR.  
VICE PRESIDENT - POWER PLANT  
ENGINEERING AND DESIGN

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Williamson Trade School Media, Pennsylvania	---	1940	Trade

Additional Courses or Training

Hays Combustion School correspondence course  
McNeese University courses in Advanced Algebra  
Louisiana State University courses in Electrical  
Fundamentals  
University of Michigan course in Business Administra-  
tion - 1966  
Gas-Cooled Reactor course in San Diego, California - 1968  
Stone & Webster Management Training Course - 1976

EXPERIENCE

Gulf States Utilities Company

1. Vice President - Power Plant Engineering and Design - 9/77 to present

Responsible for fossil site selection for Gulf States Utilities Company, as well as any site work necessary for construction permits. Also responsible for providing engineering support to all fossil units and RBS, as requested by Nuclear Plant Engineering.

Coordinates the fossil plant environmental programs; any support requested by RBNG; Gulf States Utilities Research and Design efforts into wind and solar power, coal gasification, and hydrological/geothermal projects; as well as providing plant services and studies to all fossil units. Member of RBNG Nuclear Review Board (NRB).

2. Manager - Power Plant Engineering and Design - 1975 to 1977

RBS FSAR

Responsible for the engineering and design aspects of all fossil units as well as the nuclear units at River Bend Station and Blue Hills.

3. Manager - Construction - 1971 to 1975

Responsible for all Gulf States Utilities Company fossil and nuclear unit design, engineering, and construction. Involved in obtaining the construction permit for RBS.

4. Superintendent - Construction - 10/70 to 10/71

5. Construction Engineer - Power Plant Construction - 1/65 to 10/70

6. Maintenance Supervisor - Sabine Station - 6/61 to 1/65

Involved in two startups.

7. Test Supervisor - Nelson Station - 6/58 to 6/61

Involved in three startups.

8. Test Engineer - Riverside - 10/54 to 6/58

9. Assistant to Superintendent - Louisiana Station - 1951 to 10/54

10. Test Department - various jobs - 1/48 to 1951

11. Office Engineer - 1/45 to 1/48

12. Department Clerk - 1/43 to 1/45

13. United States Navy, San Diego, California - 11/41 to 1/43

Attached to the Seaman Guard responsible for Naval Base security.

14. Student Engineer - 7/40 to 11/41

PROFESSIONAL DATA

Member of the Louisiana Engineering Society

RBS FSAR

RESUME  
KENNETH W. RICHARDSON  
MANAGER - DESIGN ENGINEERING

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Virginia Polytechnic Institute Blacksburg, Virginia	Mechanical Engineering	1964	AAS
Emory and Henry College Emory, Virginia	Physics	1970	BS
Pennsylvania State University State College, Penn- sylvania	Nuclear Engineering	1971	MS Coursework

Additional Courses or Training

- Stone & Webster Management School - Utility Management -  
1981  
Harvard University School of Public Health - Hazardous  
Waste Management - 1982

EXPERIENCE

Gulf States Utilities Company

1. Manager-Design Engineering - 1979 to present

Responsible for providing design engineering and consulting engineering services for all of Gulf States Utilities' existing and new power plants. Corporate responsibility for environmental affairs and regulatory interface. Responsible for transmission and substation engineering.

2. Project Manager-River Bend Plant - 1978 to 1979

Responsible for all aspects of the River Bend Nuclear Project, including engineering, construction, and plant operations.

Omaha Public Power District

1. Section Manager-Generating Station Engineering - 1976 to 1977

Began as head of nuclear engineering department, responsible for all aspects of the utility's involvement in nuclear power plant design, construction, and operation. As section manager, was responsible for all engineering aspects of power plant design, including fossil and nuclear units. This responsibility included immediate direction to mechanical, civil, electrical, and nuclear engineering departments for new and existing plant design, engineering studies, regulatory interfaces, and cost-benefit analysis.

General Atomic Company

1. Project Licensing Engineer - 1972 to 1975

Responsible for assessment of the safety and licensing adequacy of major power plant projects. Was involved in the technical analysis of plant safety issues and the representation of the company before regulatory bodies.

PROFESSIONAL DATA

- Member of the Texas Mining & Reclamation Association
- Member of the Beaumont Environmental Activities Committee
- Member of the Edison Electric Institute Construction Committee
- Member of the Southeastern Electric Exchange Generating Plant Construction Committee
- Member of four GSU corporate committees to develop policy in their areas:
  - Capital Recovery Committee
  - Short Range Production Planning Committee
  - Real Estate Revenue Steering Committee
  - Nuclear Review Board

RBS FSAR

RESUME  
C. LLOYD BALLARD  
SUPERVISOR - QUALITY ENGINEERING

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Southern Louisiana University Hammond, Louisiana	Industrial Management Technology	1971	BS

Additional Courses or Training

Magnaflux Corporation's Visual Inspection and Basic Ultrasonics Testing courses  
L. Marvin Johnson Company's Quality Assurance Engineering and Audit Technique courses  
Department of Navy's Radiographic Interpretation and UT Inspection of Structural Weld courses  
General Electric's NSSS Equipment Installation course  
Teledyne Engineering Services Code Design of Nuclear Components course  
American Welding Society's Fundamentals of Weld Inspection course  
Krautkramer Ultrasonics, Inc., Weld Inspection course  
Eastman Kodak Company's Industrial Radiography course  
American Management Association's Management Principles and Improving Managerial Performance courses

EXPERIENCE

Gulf States Utilities Company

1. Supervisor - Quality Engineering - 2/84 to present.  
See Section 17.2.1.2.8 for responsibilities.
2. Supervisor - Quality Systems - 9/81 to 2/84
3. QA Engineer - 9/79 to 9/81



Pennsylvania Power & Light Company

1. Senior QA Analyst - 9/77 to 9/79

While employed at the Susquehanna Steam Electric Station, principal areas of responsibility were installation, repair, and rework of piping, valves, and pumps; reactor pressure vessel fabrication and internals installation and fuel pools erection; and review of construction and erection procedures and activities, fabrication drawings, code and specification requirements, and other documents utilized in performing construction quality assurance auditing and surveillance activities. Possessed ASNT qualifications for Level II Radiographic Interpretation, Level II Visual Inspection, and Level II Ultrasonic Examination.

Bechtel Power Corporation

1. Quality Assurance Engineer - 4/74 to 9/77

While employed at the Susquehanna Steam Electric Station, primary duties included performing quality audits and monitoring construction and quality activities in the areas of containment vessel erection, reactor pressure vessel fabrication and internals installation, fuel pool erection, and control rod drive piping and valve installation for programmatic and implementation requirements. Acted as an interface for Nuclear Regulatory Commission inspectors during site inspections. Provided corrective actions and responded to any findings as a result of the inspections.

Delta Southern Company

1. Quality Assurance Engineer - 6/73 to 4/74

Main areas of responsibility were inspection and nondestructive examination. Reviewed customer drawings and specifications to determine fabrication and inspection requirements. Verified the implementation and documentation of the fabrication and inspection requirements. Also responsible for the scheduling of radiography on two shifts.

RBS FSAR

Ballard & Sons Service

1. Auto Mechanic - 6/72 to 6/73

United States Navy - 2/71 to 6/72

1. Civilian employee involved in a rotating training program and after completion permanently assigned to the Nondestructive Testing Department to monitor the work activities of Destroyer Escort contract at Avondale Shipyard, and verified that work operations and examinations were performed in accordance with Department of Defense requirements.

PROFESSIONAL DATA

Member of the American Society for Quality Control

RBS FSAR

RESUME

I.M. (MIKE) MALIK  
ENGINEERING QUALITY ASSURANCE SUPERVISOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Punjab University Lahore, Pakistan	Physics & Mathematics	1967	BS
Lamar University Beaumont, Texas	Business Administration	1974	MBA
Lamar University Beaumont, Texas	Civil Engineering	1976	MS

Additional Courses or Training

Center for Professional Advancement, New Brunswick, New Jersey -  
Metallurgy for Non-Metalurgists - 1/83  
General Atomic, San Diego, California - Lead Auditor's Training  
Course, 8/81; Fundamentals of QA, 1/81  
McDonnell Douglas, Houston, Texas - STRUDL Computer Program - 9/77  
Carboline Company, St. Louis, Missouri - Corrosion Control  
Seminar - 1/79  
Portland Cement Association, Skokie, Illinois - Advanced Concrete  
Technology, 3/79; Level II Inspector (Nuclear), 2/81; Level  
III Inspector Engineer (Nuclear), 5/83  
University of Missouri, Rolla, Missouri - 5th Annual Fundamentals  
of Deep Foundation Design - 11/79  
L. Marvin Johnson and Associates - QA Engineering for Nuclear  
Power Industry - 12/80  
ASCI, Portland, Oregon - Construction Project Administration and  
Field Management - 4/80  
Various GSU courses in supervision, BWR Technology and human relations

EXPERIENCE

Gulf States Utilities Company

1. Engineering Quality Assurance Supervisor - 10/84 to present

See Section 17.2.1.2.8 for responsibilities.

2. Senior Quality Assurance Engineer - 3/83 to 10/84

Assistant to the Supervisor - Operations QA, in charge of the  
department in his absence. Interfaced with NRC and all levels

of GSU and Stone & Webster management. Performed surveillances and audits of Plant Staff activities as related to Start-up & Test and Operations of RBS. Reviewed procedures and completed system turnover packages to ensure compliance with the requirements set forth in PSAR, FSAR, 10CFR50 Appendix "B", OQA Manual, ANSI Standards and Regulatory Guides.

3. Lead Civil/Structural QA Engineer - 10/80 to 3/83

Responsibilities included safety-related construction and inspection activities. Performed vendors and site audits. Planned and executed quality activities through systematic verifications which included but were not limited to review, surveillances, audits, inspection activities and evaluations of not only GSU but contractors, their suppliers and subsuppliers to assure their compliance with GSU's quality commitments to NRC.

4. Civil Engineer - 1/77 to 10/80

Responsibilities included analysis, design and on-site inspection of line and substation foundations and structures. Road design and site preparation for various company owned locations. Utilized and developed computer programs for analysis and design of structures. Wrote, modified and updated construction specifications. Developed standard specifications. Activity coordination between consulting firms and the company including most analysis of various projects.

Gulf Coast Area Subsidence Research Program

1. Research Assistant - 1/75 to 5/75

Responsibilities included running lab tests, data analysis, study and comparison of different soil samples at varying depths.

Southland Corporation

1. Store Manager - 1972 to 1975

Industrial Air and Hydraulics

1. Inventory Control Assistant - 1971 to 1972

Mian Imtiaz Mills, Pakistan

1. Assistant Manager - 1967 to 1971

Job involved cost estimates, project budget, forecasts and employees' supervision during construction phase of the project.

PROFESSIONAL DATA

Registered Professional Engineer - Texas  
Qualified Lead Auditor per ANSI N45.2.23  
AWS Welding Inspector  
Member of the American Society for Quality Control  
Member of the American Society of Civil Engineers



RBS FSAR

RESUME

PHILLIP F. TOMLINSON

~~Supervisor~~ - OPERATIONS QUALITY ASSURANCE  
DIRECTOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
University of Colorado Boulder, Colorado	Electrical Engineering	1971	BS

Additional Courses or Training

United States Navy Electronics Training (1964), Enlisted Nuclear Power Training (1966), Officer's Nuclear Power Training (1977), Submarine Officer's Advanced Training (1975), Radiological Controls Training (1977), and Navigational Training (1979)

EXPERIENCE

Gulf States Utilities Company

Insert

- 2 ~~1~~. Supervisor - Operations QA - 3/84 to <sup>12/84</sup> ~~present~~  
See Section 17.2.1.2.9 for responsibilities.
- 3 ~~2~~. Acting Supervisor - Operations QA - 2/84 to 3/84  
Same duties as described above.
- 4 ~~3~~. Acting Supervisor - Quality Engineering - 12/83 to 2/84
- 5 ~~4~~. Senior QA Engineer - 2/83 to 12/83  
Responsible for Equipment Qualification; Lead Electrical and I&C QA Engineer; qualified and certified as a QA Auditor

United States Navy - 2/63 to 2/83

1. USS John C. Calhoun Ballistic Submarine - 7/79 to 2/83  
Attained the rank of Lieutenant Commander; received the Navy Achievement Medal; Ship's Navigation and Communications Officer

Insert for page 13A-62

1. Director - Operations QA - 12/84 to present

See Section 17.2.1.2.5 for responsibilities.

RESUME  
GLENN KIMMEL  
~~SUPERVISOR - QUALITY CONTROL~~  
OPERATIONS QUALITY ASSURANCE SUPERVISOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Oklahoma State University Stillwater, Oklahoma	Agriculture	1969	BS
Tulsa Junior College Tulsa, Oklahoma	Quality Control Technology	1979	Certifi- cate of Completion

Additional Courses or Training

Metals Engineering Institute's Quality Inspection Course (1977) and Fundamentals of Nondestructive Testing (1978)

L. Marvin Johnson and Associates, Inc., Quality Assurance Engineering for Nuclear Power Industries Course (1980) and Certification as a Professional QA Lead Auditor per ANSI N45.2-23 (1980)

J.M. Juran Corp.'s Management of Quality Course - 1981

IEEE, Inc., IEEE Standards Seminar on Qualification of Safety-Related Equipment for Nuclear Power Generating Stations - 1982

EXPERIENCE

Gulf States Utilities Company

Insert

- 2 ~~1~~. Supervisor - Quality Control - 6/83 to present  
See Section 17.2.1.2.10 for responsibilities.
- 3 ~~2~~. Quality Assurance Engineering Staff - 9/82 to 6/83  
Responsible for technical document review in Mechanical Section.
- 4 ~~3~~. Quality Assurance Systems Staff - 6/80 to 9/82  
Responsible for QA Audit Program

Insert for page 13A-64

1. Operations Quality Assurance Supervisor - 12/84 to present

See Section 17.2.1.2.9 for responsibilities.

RBS FSAR

RESUME  
THOMAS F. PLUNKETT  
PLANT MANAGER

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
University of Wisconsin Madison, Wisconsin	Mechanical Engineering	1961	BS
University of Wisconsin Madison, Wisconsin	Mechanical Engineering	1962	MS

Additional Courses or Training

Illinois Power Company - BWR Fundamentals and Clinton Power Station Systems

EXPERIENCE

Gulf States Utilities Company

1. Plant Manager - 9/84 to present

See Sections 13.1.1.2.6 and 13.1.2.2.1 for responsibilities.

Illinois Power Company

1. Power Plant Manager - 1977 to 8/84 -

Responsible for the Clinton Power Station during the construction phase of the project.

Indiana & Michigan Electric Company - 1969 to 1977

1. Technical Supervisor - D.C. Cook Nuclear Station

Responsible for checkout, preoperational and startup testing for D.C. Cook Units 1 & 2. Also responsible for nuclear and performance engineering, control and instrumentation, chemistry, radiation protection and environment activities.

2. Startup Engineer/Reactivity Analyst -  
Zion 1, Commonwealth Edison Company

On loan from American Electric Power.

McDonnell Douglas Corporation - 1962 to 1969



1. Project Engineer in charge of nuclear power systems for the Advanced Systems Division.
2. Nuclear Engineer performing reactor and shield physics calculations, nuclear materials selection and thermal/hydraulic analyses on nuclear power/propulsion systems.

PROFESSIONAL DATA

Member of the American Nuclear Society

Author of six technical papers and one technical journal article.

RBS FSAR

RESUME

EDWIN M. CARGILL, JR.  
RADIATION PROTECTION SUPERVISOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Athens State College Athens, Alabama	Chemistry	1979	BS

EXPERIENCE

Gulf States Utilities Company

1. Radiation Protection Supervisor - 10/84 to present

See Section 13.1.2.1.3 for responsibilities.

Tennessee Valley Authority

1. Assistant Plant Health Physicist - 8/81 to 10/84

Responsible for inplant health physics activities at the Browns Ferry Nuclear Plant, including the supervision of 5 health physics shift supervisors and all plant health physics technicians. Qualified to represent the Plant Health Physicist for all plant functions.

2. Assistant Plant Health Physicist - 8/80 to 8/81

Responsible for providing health physics support for refueling and modification outages including a torus modification in the Browns Ferry Nuclear Plant. Supervised approximately 60 personnel including 3 supervisors.

3. Health Physicist - 6/79 to 8/80

Responsible for inplant Browns Ferry training, dose data processing and control, whole body counting, mask fits and training, and radwaste shipping.

4. Senior Health Physics Technician - 8/77 to 6/79

Provided instruction for health physics technician training classes and 40-hour health physics course for operations personnel, including relicensing. Developed lesson plans and scripts for various training modules including the general health physics orientation.

5. Health Physics Technician - 5/74 to 8/77

Provided health physics coverage for maintenance and outage activities at the Browns Ferry Nuclear Plant.

Reynolds Electrical and Engineering Corporation - 8/64 to 5/74

1. Radiation Safety Monitor at the Nevada Test Site.

RBS FSAR

RESUME

MELVIN F. SANKOVICH

DIRECTOR - NUCLEAR FUELS DESIGN AND SAFETY ANALYSIS

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Ohio University Athens, Ohio	Mechanical Engineering	1951	BS
Massachusetts Institute of Technology Cambridge, Massachusetts	Mechanical Engineering	1959	MS

EXPERIENCE

Gulf States Utilities Company

1. Director - Nuclear Fuels Design and Safety Analysis - 6/84 to present  
See Section 13.1.1.2.5.3 for responsibilities.

Babcock and Wilcox

1. Manager - Fuel Marketing Department - 7/76 to 6/84  
Responsible for market evaluation, product definition, planning, and sale of nuclear fuel and services for both B&W and competitor - supplied reactors.
2. Department Manager and Officer of the Babcock - Brown Boveri GmbH Company - 11/73 to 7/76  
Responsible for fuel marketing and erection of the planned fuel plant in Germany.
3. Manager - Fuel Engineering Department - 1/70 to 11/73  
Managed a department consisting of approximately 100 technical professionals and the R&D expenditures of approximately \$4 million/year
4. Manager - Preliminary Design Section  
Responsible for design development of Nuclear Island including: reactor vessel and internals, steam generator, pressurizer and the core and its components.

5. Manager - Thermal Hydraulic Section

Analysis and testing of reactor vessels and internals, advanced test reactors, steam generators, fuel assemblies and test loops.

6. Stress Analyst

Design and analysis of all ASME pressure vessels and steam generators.

PROFESSIONAL DATA

Registered Professional Engineer - Ohio  
Member of Phi Kappa Tau - Engineering Honorary  
Chairman - 1973 ANS Fuel Assembly Standards Committee  
Chairman - ANS Topical Meeting, LWR Fuel Performance  
Chairman - B&W Fuel Product Board  
Chairman - B&W Design Review for Fuel Assemblies  
Holder of 5 patents for Reactors and Fuel Assemblies  
Author of numerous ANS and AIF papers.



RBS FSAR

RESUME  
KENNETH E. SUHRKE  
MANAGER - PROJECTS  
PLANNING AND COORDINATION

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
University of Wisconsin Madison, Wisconsin	Mechanical Engineering	1963	BS
University of Wisconsin Madison, Wisconsin	Nuclear Engineering	1964	MS

EXPERIENCE

Gulf States Utilities Company

1. Manager - Projects Planning and Coordination - 12/84 to present  
See Section 13.1.1.1.1.8 for responsibilities.

Babcock and Wilcox - 9/64 to 12/84

1. Vendor Interface Manager responsible for the B&W/I&C vendor supply of a highly visible \$30 million I&C equipment upgrade program for several nuclear power plants under construction.
2. Manager of Project Engineering with technical responsibility for quality, cost and schedule performance for major technical projects in B&W's commercial Nuclear Power Generation Division.
3. Engineering Shift Manager for the B&W office team supporting Metropolitan Edison during the TMI-2 incident.
4. I&C Equipment Engineering Manager responsible for the functional design definition and procurement of control and protection instrument systems for the B&W NSSS.
5. Licensing Manager responsible for providing B&W's licensing support to utility customers seeking construction permits and operating licenses from the NRC (AEC) as well as obtaining NRC Preliminary Design Approval of the B&W Standard Plant design.
6. Site Operations Manager responsible for B&W's on-site advice and consultation during the pre-startup testing of an NSSS.
7. Service Manager responsible for developing and providing B&W's recommendations for testing and operating the NSSS.

8. Field Service Engineer responsible for B&W's on-site advice during construction and start-up of fossil fired steam generators in the United States and Europe.

RBS FSAR

RESUME

JOHN V. CONNER

SUPERVISOR - ENVIRONMENTAL SERVICES

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Texas A&M University College Station, Texas	Wildlife Management & Journalism	1964	BS
Texas A&M University College Station, Texas	Fisheries Science	1966	MS
Tulane University New Orleans, Louisiana	Biology	1977	PhD

Additional Courses or Training

Betz Laboratories, Water Treatment in the Power Industry  
J.T. Baker Chemical Company, Hazardous Chemicals Safety Course  
and Workshop; Management and Disposal of Hazardous and Chemical  
Wastes  
Professional Seminar Associates, Inc., Environmental Regulation and  
Compliance; Environmental Auditing  
Louisiana State University, Chemodynamics: Environmental Movement  
of Chemicals in Air, Water, and Soil  
Southern University, Environmental Chemistry  
University of Michigan, Vegetation Remote Sensing  
Harvard University, Environmental Radiation Surveillance  
HMM Associates, Inc., Meteorology and Nuclear Power  
Lion Technology, Inc., Hazardous Waste Management  
Babcock & Wilcox, Applied Radiochemistry for BWRs

EXPERIENCE

Gulf States Utilities Company

1. Supervisor - Environmental Services - 3/83 to present  
See Section 13.1.1.2.4.5 for responsibilities.
2. Non-Radiological Environmental Specialist - 4/82 to 3/83  
Responsibilities similar to those described above exclusive  
of radiological and meteorological monitoring program

U.S. Army Corps of Engineers

1. Fisheries Research Biologist - 5/81 to 4/82

Responsible for analyst and interpretation of larval fish data from studies of the Mississippi River; review/editing of technical reports on the Mississippi and other rivers; and design of future river studies.

Louisiana State University, Baton Rouge, Louisiana

1. Assistant Professor of Fisheries, School of Forestry and Wildlife Management - 1/72 to 4/82

Responsible for the direction of ecological studies on the Mississippi River, floodplain swamps and upland streams near St. Francisville, La. Associate member of the Graduate School faculty responsible for instruction and advanced-degree committees participation.

Tulane University, New Orleans, Louisiana

1. Teaching Assistant and NSF Research Fellow, Department of Biology - 8/70 to 1/72

Texas A&M University, College Station, Texas

- i. Fisheries Advisor, Office of International Programs - 1/69 to 8/70

Member of team contracted to the U.S. Agency for International Development for development of an agricultural university in East Pakistan including curriculum development and research project design/implementation

2. Instructor/Research Associate, Department of Wildlife Science - 1/66 to 1/69

Taught several fisheries-related courses; and supervised the ecological study of a low-salinity marsh system and the impact of thermal discharge

PROFESSIONAL DATA

Member of the American Fisheries Society

- President of the Early Life History Section (1982 - 1983)
- Member of the Career Opportunities Committee (1982 - 1984)

Member of the American Society of Ichthyologists and Herpetologists

Member of the Southeastern Fishes Council

Author of over 55 publications

Certified Fisheries Scientist

RBS FSAR

RESUME

DAVID B. REYNOLDS  
SUPERVISOR-SUPPORT SERVICES

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Louisiana Tech University Roustan, Louisiana	Business Administration	1967	--
S.F. Austin University Nacogdoches, Texas	Business Administration	1970	122 hrs.

Additional Courses or Training

Graduate of U.S. Navy Nuclear Power School for Mechanical Operators (NEC3355)

Attended U.S. Navy Courses: Machinist Mate School, Nuclear Academics, Basis Nuclear Power School and Nuclear Prototype Training

Additional naval training in thermal insulation, diesel engines, sound analysis, QA, materials maintenance, steam components and various leadership/command courses

Attended various GSU training courses including record management, preparing administrative manuals, project management and supervisory/leadership workshops

EXPERIENCE

Gulf States Utilities Company

1. Supervisor-Support Services - 12/84 to present

See Section 13.1.1.2.8.2 for responsibilities.

2. Supervisor-Administrative Support-1/80 to 12/84

Same duties as described above.

3. Coordinator-Project Administration-8/78 to 1/80

Responsible for procedure development, organizational development, administrative support to the project team; coordination and review of design changes requested by the Architect/Engineer; and task analysis/job description writing for both corporate and project personnel.

4. Nuclear Planning Specialist - 11/77 to 8/78

Responsible for the development of operational programs (including security, fire protection, permanent records, technical library), system review, supporting Project Engineering on design concerns and technical assistance to the project recruiting effort.

U.S. Navy - 5/71 to 4/77

Six years active duty primarily spent on the nuclear submarine U.S.S. Tecumseh (SSBN-628). Participated in seven FBM patrols as a member of the Machinery Division in the Engineering Department. Job requirements included the operation and maintenance of the reactor, steam plant and associated auxiliaries, ship's emergency diesel, air conditioning, hydraulics, and high pressure air. Primary watch stations included Roving Watch and Diesel Operator on shutdown plant; Engineering Watch Supervisor and Engine Room Supervisor on patrol.

PROFESSIONAL DATA

Member of the Nuclear Records Management Association  
Member of the Atomic Industrial Forum



RBS FSAR

RESUME

ROBERT B. STAFFORD  
DIRECTOR-QUALITY SERVICES

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Tulsa Junior College Tulsa, Oklahoma	Mechanical Engineering	1974	Associate

Additional Courses or Training

General Atomics Lead Auditor Course  
ASME Section III Piping Short Courses  
General Atomic Procurement QA Course  
AMA QC Management Course  
Drexel University, IEEE-Qualification of Safety-Related Equipment  
North American Rockwell-Hardness Testing Course  
Brown & Root, Inc. NDE Courses  
NUS Coordination Operational Considerations Course

EXPERIENCE

Gulf States Utilities Company

1. Director-Quality Services - 4/84 to present  
See Section 17.2.1.2.6 for responsibilities.
2. Technical Assistant to the Senior Vice President - RBNG -  
9/83 to 3/84  
Responsible for the researching, expediting and channeling of  
information for decision making causing potential problems to  
surface and formulating solutions or alternatives before the  
problems become critical.
3. Engineering Quality Assurance Supervisor - 9/81 to 9/83  
See Section 17.2.1.2.8 for responsibilities.
4. Systems Quality Assurance Supervisor-1/79 to 9/81  
See Section 17.2.1.2.7 for responsibilities.

5. Supervisor - Quality Surveillance - 1/77 to 1/79

Responsible for assuring the quality of procured materials, equipment and services for the construction of both RBS and the Nelson Coal Station.

Brown and Root, Inc.

1. Senior Quality Control Inspector - 4/74 to 12/76

Responsible for control of purchased products such as; pressure vessels, heat exchangers, storage tanks, piping boilers, ducts and electrical control panels, and directing the activities of other inspection personnel.

Telex Computer Projects

1. Quality Control Inspector - 9/68 to 4/74

Responsible for the quality of fabricated and machined parts and their compliance to Military Specifications, as well as for checking the accuracy of engineering drawings and calculations for tape and disc drives.

North American Rockwell

1. Quality Control Inspector - 1/68 to 9/68

Responsible for the quality of fabricated and machined parts and their compliance to Military Specifications in the Boeing 747, Apollo Mission and ASAF missile projects.

Crescent Precision Products

1. Quality Control Inspector - 6/66 to 1/68

Responsible for the Liquid Penetrant, Magnetic Particle, Ultrasonics (straight beam), Hardness Testing and dimensional inspection of parts for the Bell Helicopter.

PROFESSIONAL DATA

Certified Lead Auditor, ANSI N45.2.23  
Certified Level II NDE Examiner  
Certified Harness Testor

RBS FSAR

RESUME  
KENNETH C. HODGES  
SYSTEMS QUALITY ASSURANCE SUPERVISOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Southeastern Louisiana College Hammond, Louisiana	Chemistry	1967	BS
University of Georgia Athens, Georgia	Inorganic Chemistry	1974	PhD

EXPERIENCE

Gulf States Utilities Company

1. Systems Quality Assurance Supervisor - 5/84 to present  
See Section 17.2.1.2.7 for responsibilities.
2. Senior Quality Assurance Engineer - Operations - 8/83 to 5/84  
Responsible for assuring quality during the Start-Up/Operation phase of River Bend Station
3. Quality Assurance Engineer - Operations - 1/83 to 7/83  
Same responsibilities as described above.
4. Quality Assurance Engineer - Construction and NRC Compliance Coordinator - 9/81 to 1/83  
Responsible for the development and implementation of the GSU Site NRC Item Tracking and Verification of corrective action implemented with respect to NRC items.
5. Quality Assurance Engineer - Construction and Civil/Structural - 1/79 to 9/81  
Responsible for Quality Assurance activities in the Civil/Structural disciplines.

Daniel International Corporation

1. Quality Control Inspector (Civil - Level II) - December 1978 to November 1979.

Responsible for the quality control testing of water, cement, admixtures, sand, aggregates, concrete and rebar at the construction site of Union Electric's Callaway County Nuclear Power Plant.

2. Quality Control Inspector (Civil - Level I) - January 1977 to December 1977.

Same responsibilities as described above.

University of Georgia, Athens, Georgia

1. Post Doctoral Research Associate - 10/75 to 9/76

Performed basic synthetic research utilizing a plasma generated from a radio frequency generator.

2. Research Associate - 10/74 to 10/75

Performed basic synthetic research with flouro-phosphorus compounds.

U.S. Army - 9/69 to 6/71

1. Final rank Sp/5

PROFESSIONAL DATA

Member of the American Chemical Society  
5 Research publication pertaining to chemistry research

RBS FSAR

RESUME

ROBERT E. BAILEY  
OPERATIONS QUALITY CONTROL SUPERVISOR

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Massasoit Community College Brockton, Massachusetts	General	1977	30 hrs.

Additional Courses or Training

Sheppard Institute of Technology  
General Dynamics Department of Radiology

EXPERIENCE

Gulf States Utilities Company

1. Operations Quality Control Supervisor - 1/85 to present  
See Section 17.2.1.2.10 for responsibilities.
2. Engineering Quality Assurance Supervisor - 1982 to 1/85  
See Section 17.2.1.2.8 for responsibilities.

Burns and Roe, Inc.

1. Senior Construction Engineer - 1980 to 1982  
Responsible for the implementation of the Quality Surveillance Program on the three unit, Big Cajun #2, coal-fired electric generating station consisting of the preparation of checklists for all phases of electrical, instrumentation, mechanical and civil work including material receipt, storage, and maintenance; the coordination and review of the surveillances performed by discipline construction engineers; and the follow-up on resolution and disposition of non-conformances and discrepancies.

Worley Engineering, Inc.

1. Inspection Supervisor - 1980  
Established a complete inspection program that consisted of writing electrical, instrumentation, mechanical and civil

inspection procedures and checklists or the Esso Refinery in Marsa El Brega, Libya.

Mercury Company of Norwood, Inc.

1. Quality Assurance Manager - 1978 to 1980

Responsible for the Mercury Quality Assurance Program at the Waterford 3 Nuclear Power Plant including electrical and mechanical checkout of all Mercury installed instrumentation; qualification of welding operators and procedures; writing and revising standard operating procedures and QA Manual; review of project documents, purchase requisitions, and orders; performance of internal and external audits; maintenance of QA records; Level III Non-Destructive examination; and coordination of Training and Indoctrination Program.

Bergen-Paterson Pipe Support

1. Quality Assurance Manager - 1977 to 1978

Responsible for all Quality Control functions at manufacturing facility, including internal and external audits; writing and revising standard operating procedures; training and indoctrination program; measurement and test equipment program; and maintenance of welding procedures and welder performance qualifications.

Mercury Company of Norwood, Inc.

1. Quality Control Technician - 1973 to 1977

Responsible for conducting inspections of electro-mechanical control assemblies and shop fabricated piping assemblies; performing internal and external audits; maintenance of welding procedures and welder performance qualifications; electrical and mechanical checkout of control panels and transmitter racks; Senior Maintenance Inspector Vermont Yankee Nuclear Power Station and Pilgrim Nuclear Power Station.

General Dynamics, Electric Boat Division

1. Radiographer - 1972 to 1973

Performed radiographic inspection of nuclear components and piping in accordance with Navships 250-1500-1, 250-637-3 and Military Standard 271A.

U.S. Air Force

1. Electro-Mechanical Technician - 1968 to 1972

Maintained teletype and other computer equipment.



PROFESSIONAL DATA

Senior Member of the American Society for Quality Control  
Member of the American Welding Society  
Affiliate Member of the American Society of Mechanical Engineers  
Certified ANSI Lead Auditor  
Certified Level III NDT Examiner

RBS FSAR

RESUME

JOHN G. PROPSON  
SUPERVISOR - ELECTRICAL ENGINEERING

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Milwaukee School of Engineering Milwaukee, Wisconsin	Electrical Engineering	1973	BS

Additional Courses or Training

Brown & Root's "Construction Engineering Development Program"  
Washington Public Power Supply System's "Introduction to Boiling  
Water Reactors" Course  
Gulf States Utilities Company's "BWR Technology" Course  
Drexel University's IEEE 323 Equipment Qualification Seminar  
Zerex Corporation's "Management for Motivation" and "Management  
Discussion Skills" Courses.

EXPERIENCE

Gulf States Utilities Company

1. Supervisor - Electrical Engineering - 4/84 to present

Responsible for the Electrical Engineering Section of Nuclear Plant Engineering, all electrical equipment and systems at River Bend Station, all changes to the design of electrical equipment and systems before and after commercial operation, and assuring current and future designs are operable and licensable.

Burns and Roe, Inc.

1. Lead Electrical Engineer - 10/78 to 3/84

Primary function to lead and provide the day to day guidance of the WNP#2 site electrical engineering department which consists of up to 35 people including engineers, designers, draftsmen and support personnel. Responsible for all on-site electrical engineering which involves modifying and developing engineering calculations, specifications, and drawings including arrangements, layouts, diagrams and schematics in accordance with project design criteria. Additionally responsible for maintaining interface and coordination with home office engineering and other engineering disciplines, contractors, start-up, operations and the owner.

2. Electrical Engineer - 3/78 to 10/78

Provided technical assistance in the site engineering group at WNP#2 for the technical disposition and resolution of contractor and/or owner requests for information including raceway interferences, physical installation problems, drawing discrepancies, wiring changes and system operations clarifications; technical disposition and resolution to Quality Control Non-Conformance Reports; technical evaluation and approval of contractor supplied components including raceway fittings, lighting panels, contractors, and relays.

Washington Public Power Supply System

1. Construction Engineer - Electrical - 6/77 to 3/78

Duties in the electrical construction management organization of WNP#2 including researching drawings, procedures and specifications to find and resolve potential installation problems before they occurred; expediting and coordinating resolutions to problems of a technical nature; generating site support work orders when required to the contractor for work required in addition to the original contract scope; monitoring the prime electrical contractor's progress and installation and providing assurance that installation was in accordance with the required drawings and specifications; and coordinating field efforts of the electrical contractor to meet the construction schedule.

Brown and Root, Inc.

1. Electrical Engineer - 5/73 to 6/77

Duties for 3 years at the Brunswick Nuclear Power Plant and 1 year at the South Texas Project included researching drawings and specifications for material and requisitioning electrical material as required for construction and maintenance; drafting and approving construction procedures for electrical installations and construction testing; directing various subcontractor work and coordinating it with ongoing construction activities; and resolving engineering and construction discrepancies and interpreting specifications, drawings and procedures.

PROFESSIONAL DATA

Registered Professional Engineer - Washington  
Member of the Institute for Electronics and Electrical Engineers  
(IEEE)

RBS FSAR

RESUME

DR. A. M. KHAN

SUPERVISOR - ENGINEERING ANALYSIS

EDUCATION

<u>School and Location</u>	<u>Major</u>	<u>Date</u>	<u>Degree</u>
Purdue University W. Lafayette, Indiana	Nuclear Engineering	1969	PhD
Massachusetts Institute of Technology Cambridge, Massachusetts	Nuclear Engineering	1966	MS
Tokyo University Tokyo, Japan	Mechanical Engineering	1963	MS
Punjab University Lehore, India	Mechanical Engineering	1959	BS

EXPERIENCE

Gulf States Utilities Company

1. Supervisor - Engineering Analysis - 2/80 to present

Responsible for nuclear safety and accident analysis, preparation of a RBS transient analysis and core damage recovery training, implementation of EPRI's RASP package and associated technology transfer to GSU, as well as supporting the RBNG in the area of safe plant operation.

Power Authority of the State of New York

1. Senior Nuclear Reactor Engineer - 5/75 to 2/80

Responsible for reactor performance evaluation of the Indian Point #3 nuclear power plant. Also responsible for fuel fabrication contract administration, fuel management and core modeling, and reload safety and accident analysis.

KANUPP Nuclear Power Project, Pakistan

1. Director - Nuclear Power Division - 1969 to 1975

Responsible for providing all technical and engineering support to KANUPP plant operations, power planning and load forecasting, and coordinating nuclear power planning and training activities of CENTO member countries.

2. Senior Technical Engineer - 1963 to 1969

Responsible for the plutonium recycle studies at KANUPP as well as fuel management studies and code development.

Federal University, Rio de Janeiro, Brazil

1. Consulting and Visiting Professor - 1971 to 1973.

While on leave from KANUPP to the Brazilian AEC, responsibilities included teaching graduate courses in Reactor Theory and Power Economics, as well as providing fuel management details for the Angra Criticality studies.

## RBS FSAR

## RIVER BEND STATION POSITION

Responsibility for the overall fire protection program is assigned to the Vice President, River Bend Nuclear Group, Gulf State Utilities Company, who retains the ultimate responsibility, even though formulation and assurance of program implementation is delegated. Personnel to whom authority for implementation and formulation is delegated are trained commensurate with the level within the program with which they deal. The RBS Plant Manager is responsible for the formulation and implementation of the fire protection program. The Assistant Plant Manager - Services is responsible for development of the fire protection program, including assisting in the development of the fire protection-related training program and maintaining, inspecting, and testing all fire protection equipment. Resumes for personnel in the above referenced positions are provided in Appendix 13A. The Director - Loss Prevention will be available to RBS as a consultant in matters regarding fire protection. A resume is included in Appendix 13A.

13

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Section 13.2.1.1.11 provides complete details regarding staffing, training, and maintaining the competence of the Station's firefighting and operating crews.

13

## 9A.3.2.2 Design Bases

The overall fire protection program should be based upon evaluation of potential fire hazards throughout the plant and the effect of postulated design basis fires relative to maintaining ability to perform safety shutdown functions and minimize radioactive releases to the environment.

## RIVER BEND STATION POSITION

The fire hazards analysis of all plant areas is provided in Section 9A.2. The analysis includes the evaluation of postulated design basis fires involving both permanent and/or transient combustibles on systems and equipment required for safe plant shutdown and to minimize potential radioactive releases to the environment.

## 9A.3.2.3 Backup

Total reliance should not be placed on a single automatic fire suppression system. Appropriate backup fire suppression capability should be provided.



RBS FSAR

Technical 13 program implementation is delegated. Personnel to whom authority is delegated for implementation and formulation of the program are trained to their levels of responsibility.

The Assistant Plant Manager - Services is responsible for development of the fire protection program, including assisting in the development of the fire protection-related training program, and maintaining, inspecting, and testing all fire protection equipment. The Director - Loss Prevention will be available to RBS as a consultant in matters regarding fire protection.

The fire protection program utilizes the defense-in-depth concept to fire protection in fire areas important to safety. The following methods are used to prevent fires from starting.

1. Use of noncombustible materials to the greatest extent practical.
2. Use of administrative controls for: bulk storage of combustible materials; transient fire loads; ignition sources; removal of all waste; periodic housekeeping, inspections, fire watch, etc.
3. Taking necessary action from the result of updating of fire hazard analysis and QA programs.

If a fire occurs, it is detected, controlled, and rapidly extinguished using the following methods and equipment:

1. Appropriate detectors, control panels, and alarm/signaling systems.
2. Control spreading of fire using materials with a rating of 25 or less for flame spread, fuel contribution, and smoke distribution.
3. Fire-rated barriers and seals.
4. Emergency lighting and communications.
5. Smoke and heat venting facilities.
6. Drainage facilities.
7. Testing and maintenance of fire protection equipment.
8. Fire water tanks, fire pumps, yard hydrants, stand-pipe and hose systems, sprinkler and spray systems,

taken to locate the compressor in areas free of dust and contaminants.

#### RIVER BEND STATION POSITION

The site fire brigade is trained and equipped to ensure an adequate manual fire fighting capability for protection of safety-related structures, systems, and components. Five members of each shift (a Nuclear Control Operator, two Nuclear Equipment Operators or one Nuclear Control Operator and one Nuclear Equipment Operator depending on shift experience, one Test Technician - Nuclear, and one Chemistry, Technician or Radiation Protection Technician, but not both) have fire brigade duties and are required to pass an annual physical examination. The Nuclear Control Operator acts as fire brigade leader and informs the Shift Supervisor from the scene of the fire. The fire brigade leader understands the effects of fire and fire suppressants on safe shutdown capability (two additional brigade members possess similar knowledge).

Insert

Turnout coats, boots, gloves, hard hats, portable hand lights and extinguishers are provided for fire brigade members. Page party/public address (PP/PA) equipment is available for emergency communications. In the main control room 10 full-face, positive pressure, self-contained breathing apparatuses (SCBA), and 3 spare air bottles per SCBA are provided for fire brigade use. Each SCBA supplies one individual for 1 hour during moderate exertion. Routine replenishment is available through a cascade system located onsite with offsite replenishment available through compressed gas suppliers in the Baton Rouge area.

#### 9B.4.9 Fire Brigade Training (Item III.I of Appendix R)

The fire brigade training program shall ensure that the capability to fight potential fires is established and maintained. The program shall consist of an initial classroom instruction program followed by periodic classroom instruction, fire fighting practice, and fire drills.

##### 1. Instruction

- a. The initial classroom instruction shall include:

Insert for page 9B.4-7

These shift members normally include a Nuclear Control Operator, two Nuclear Equipment Operators, one Test Technician - Nuclear and one Chemistry Technician or Radiation Protection Technician, but not both. If sufficient numbers of trained personnel are not available from the above, other individuals who are qualified as fire brigade members will be assigned to that shift to complete the five man fire brigade.

ensure that River Bend Station is completed on schedule and budget; 2) Contract Management, which entails monitoring contracts and procurement for the station; 3) Project Engineering, which is responsible for directing the A/E and GSU engineering and construction activities, and; 4) Startup and Test, which includes preparation of procedures and startup and testing activities. His principal activities include:

1. Coordinating, accounting, budgeting, and scheduling activities to ensure adequacy of cost records and accomplishing completion of the River Bend Nuclear Station on schedule and within budgetary constraints.
2. Directing the monitoring of contracts and the procurement effort required for the construction of the River Bend Nuclear Station.
3. Directing the A/E and GSU engineering effort to ensure implementation of the plant design and arranging the necessary support of the design and construction process.
4. Ensuring the development of plans and procedures to accomplish objectives of the startup and test phase of the project and directing the startup and test program.

11

13.1.1.2.7 Plant Manager

The Plant Manager is responsible for the overall safe, reliable, and efficient operation of River Bend Station; maintaining compliance with the requirements of the operating license and technical specifications; maintaining a properly trained and licensed operating staff; and maintaining River Bend Station security. Additional discussion is contained in Section 13.1.2.2.1.

13

and,

Insert 1

Insert 2

13.1.1.3 Qualifications of Headquarters Staff

13.1.1.3.1 General

Members of the <sup>support</sup> headquarters staff (personnel in the Engineering, Nuclear Fuels, and Licensing Departments) available for the technical support of RBS possess the education, experience, and skill that provide reasonable assurance that decisions and actions during the design, procurement, construction, testing, quality assurance, and

Insert 3

11

Insert 1 for page 13.1-13

In addition, he is responsible for the station preoperational and startup testing program.

Insert 2 for page 13.1-13

#### 13.1.1.2.7 Manager - Quality Assurance

The responsibilities, duties and support staff for the Manager - Quality Assurance are described in Section 17.2.

#### 13.1.1.2.8 Manager - Administration

The Manager - Administration is responsible for the departments of Nuclear Training, Plant Security, post-license Emergency Planning and Administrative Support as described below.

##### 13.1.1.2.8.1 Director - Nuclear Training

The Director - Nuclear Training is responsible for the development, administration, and implementation of the nuclear training program to candidates for both licensed and non-licensed positions and the training program for the remainder of the River Bend Station staff and River Bend Nuclear Group personnel. He is also responsible for a full-scope, plant-referenced simulator used in RO/SRO training courses. See Section 13.2 for a further description of the RBS Training Program.

##### 13.1.1.2.8.2 Supervisor - Support Services

Supervisor

~~The Director~~ Support Services is responsible for Records Management so that sufficient records shall be maintained in accordance with 10CFR50 Appendix B, Criterion 17, and Document Control so that issuance of documents (instructions, procedures, and drawings) is in accordance with 10CFR50 Appendix B, Criterion 6. His additional responsibilities are as follows: ||

1. Originating and maintaining out-of-plant procedures, including the review, comment, and approval of new or revised out-of-plant procedures.
2. Plant accounting and office administration.

##### 13.1.1.2.8.3 Supervisor - Emergency Planning

The Supervisor - Emergency Planning is responsible for developing a satisfactory emergency response plan for RBS that meets regulatory requirements to support the operating license application, and ensure such a plan remains up-to-date and cognizant of regulatory requirements. He is also responsible for the interfaces between local and state emergency response programs.



Plant management and technical support is present or on call at all times. This shift composition provides adequate manpower to cover operating contingencies which can reasonably be expected to occur, and if necessary, implement the Emergency Plan.

| 13

Insert 1 →

Insert 2 13.1.2.1.2 Maintenance Section

The maintenance section is responsible for all mechanical, electrical, and I&C maintenance activities in the plant. The maintenance section is under the responsibility and authority of the ~~General Maintenance Supervisor, who reports to~~ the Assistant Plant Manager, ~~Operations?~~

Insert 3

The maintenance section also provides trained personnel and supervision to perform the tasks related to supplies and spare parts for the plant.

| 11

13.1.2.1.3 Radiation Protection ~~Chemistry~~ Section

The radiation protection section is responsible for establishing and implementing the RBS radiation protection program. ~~and is responsible for the sampling and analysis of plant fluid systems.~~ This includes ensuring that radiation exposure is kept as low as reasonably achievable (ALARA) and within the guidelines of 10CFR20. This section also ensures that all plant staff, contractors, and visitors to RBS have received proper radiation training and are monitored for radiation in accordance with the Radiation Protection Manual and NRC regulations. This section certifies that all radioactive material meets DOT, NRC, and receiver requirements prior to being removed from RBS.

| 11

Insert 4

The radiation protection ~~chemistry~~ section is under the responsibility and authority of the ~~Radiation Protection/Chemistry Supervisor, who reports to the~~ Assistant Plant Manager ~~Operations?~~

| 11

| 11

Insert 5

13.1.2.1.4 Technical Staff Section

| 13

Services

DELETE AND REPLACE WITH INSERT 6

The technical staff section is responsible for all plant and reactor engineering activities at the plant. This section



Insert 5 for page 13.1-15

The Supervisor - Radiological Programs is responsible for the management of the RBS radiation protection program and the direction of all radiation protection department personnel. He supervises the radiation and personnel monitoring programs, the ALARA program, the respiratory protection program, and the whole body counting program. He ensures that adequate radiation protection training has been given to all plant staff and emergency team members and that they have completed training and medical qualifications prior to working in radiation areas.

The normal backup to the Supervisor - Radiological Programs is the Radiation Protection Supervisor. The qualifications of both of these individuals are provided in Appendix 13A.

Insert 6 for page 13.1-15

comprised of the Technical Staff and Plant Services group. The Technical Staff includes the following four supervisors and their respective staffs: Process Systems Supervisor, Computer Systems Supervisor, Control Systems Supervisor and Reactor Engineering Supervisor. These individuals report to the Assistant Plant Manager - Technical Services and are responsible for plant systems engineering, performance evaluation, technical support and instrumentation and control engineering at RBS. In addition, the Technical Staff has the responsibility for development of the fire protection program, including assisting in the development of the fire protection-related training program, as well as maintaining, inspecting, and testing of all fire protection equipment (see Section 9A.3.2.1 for additional discussion).

The Plant Services group is under the direction of the Plant Services Supervisor who in turn reports to the Assistant Plant Manager - Technical Services. The Plant Services group directs station procedure preparation, coordinates the station corrective action program and coordinates station review of technical information supplied by various sources, including vendors, INPO, and the NRC. In addition, this section coordinates activities with offsite GSU administrative and licensing groups to ensure interface with plant administration.

The backup to the Supervisor of Radiological Programs is qualified in accordance with the December 1979 revision of ANSI 3.1. The standard specifies, as a minimum, that the backup is required to have a BS degree in science or engineering (or the equivalent), 2 years of experience in radiation protection, 1 year of which is in nuclear power plant experience, 6 months of which would be onsite.

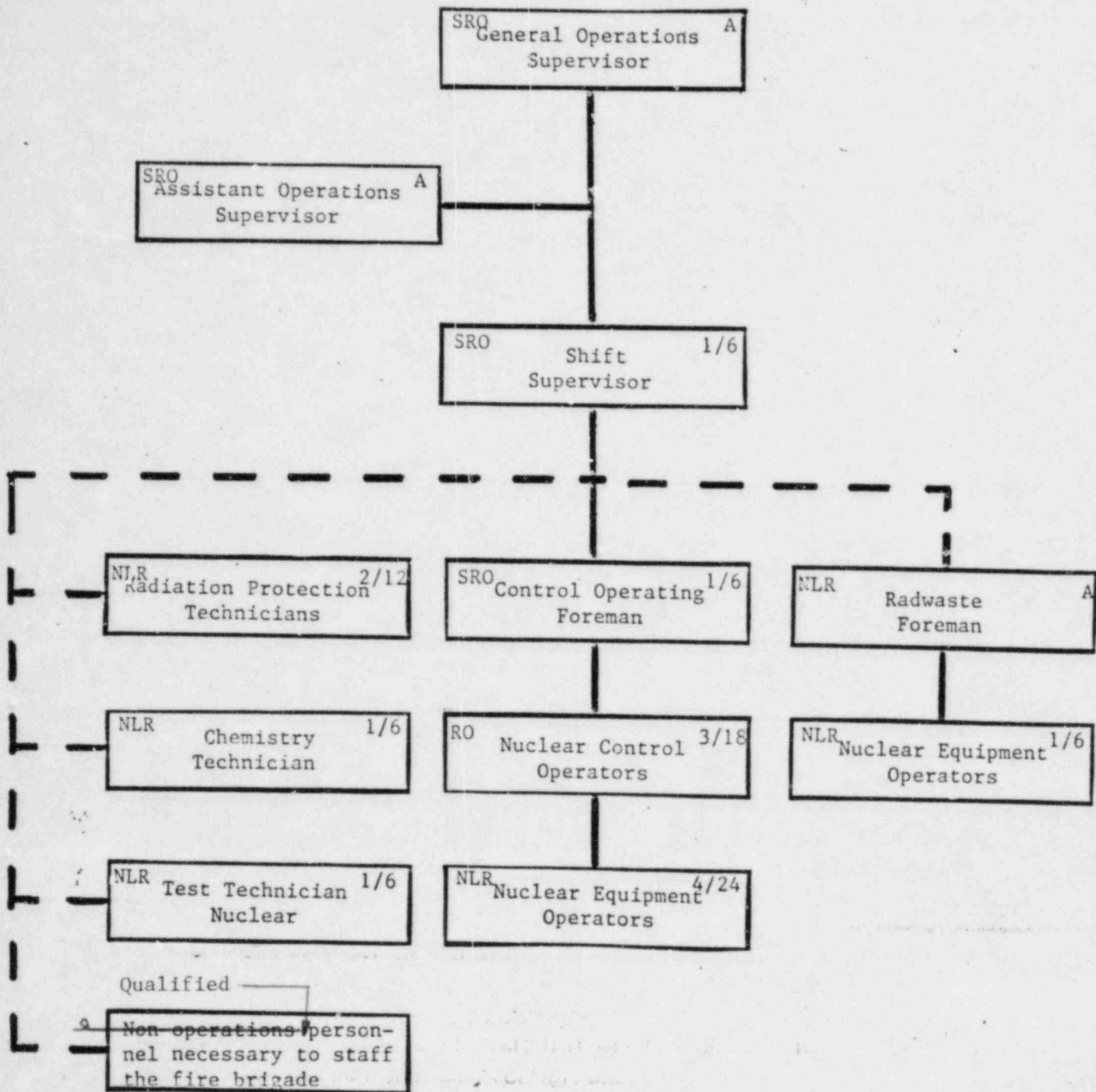


Figure 13.1-5

River Bend Station  
Shift Organization

NOTES:

- A Not on shift; Shown for clarity only
- \* Trained to a level equivalent to a Shift Technical Advisor (STA)

NOTES:

- SRO Senior Reactor Operator
- RO Reactor Operator
- NLR No license required
- x/y Number per shift/Total staff