

DEPUTY MANAGER  
OFFICE OF NUCLEAR POWER  
CHARLES HAYDEN FOX, JR.

WORK EXPERIENCE

FEB 87 - PRESENT	DEPUTY MANAGER, ONP, TVA, CHATTANOOGA
SEPT 86 - FEB 87	TVA, ASSISTANT MANAGER OF NUCLEAR POWER, CHATTANOOGA, TENNESSEE
JAN 84 - AUG 86	DEPARTMENT OF ENERGY, ASSISTANT MANAGER OF PROJECT MANAGEMENT, SAVANNAH RIVER PLANT, AIKEN, S.C.
NOV 81 - JAN 84	ASSISTANT DIRECTOR FOR ENGINEERING, CLINCH RIVER BREEDER REACTOR PROJECT, OAK RIDGE, TENNESSEE
JUN 81 - NOV 81	ENGINEER MANAGER AND DEPUTY ENGINEER MANAGER AND DIRECTOR, SYSTEMS MANAGEMENT DIVISION (DUAL POSITION), ENRICHMENT EXPANSION PROJECTS OFFICE, DOE-OAK RIDGE OPERATIONS, GS-15, FUNCTIONED AS THE ENGINEER MANAGER JUNE 81 - NOV 81.
SEP 80 - NOV 81	DEPUTY ENGINEERING MANAGER, DEPT OF ENERGY, OAK RIDGE OPERATIONS, OAK RIDGE, TENNESSEE
SEP 77 - SEP 80	DIVISION DIRECTOR, SYSTEMS MANAGEMENT DIVISION, DEPARTMENT OF ENERGY, ENRICHMENT EXPANSION PROJECTS OFFICE, DOE-OAK RIDGE OPERATIONS, OAK RIDGE, TENNESSEE
SEP 76 - AUG 77	SYSTEMS ADVISOR TO DEPUTY MANAGER FOR ENRICHMENT EXPANSION PROJECTS, GS-15, DEPARTMENT OF ENERGY, DOE-OAK RIDGE OPERATIONS, OAK RIDGE, TENNESSEE
DEC 74 - SEP 76	SENIOR DEVELOPMENT ENGINEER, ATOMIC ENERGY COMMISSION, ENERGY RESEARCH AND DEVELOPMENT AGENCY, OAK RIDGE OPERATIONS, OAK RIDGE, TENNESSEE
JUN 74 - DEC 74	DEVELOPMENT ENGINEER, ATOMIC ENERGY COMMISSION, OAK RIDGE OPERATIONS, OAK RIDGE, TENNESSEE
JUL 73 - JUN 74	OPERATIONS ANALYST, ATOMIC ENERGY COMMISSION, OAK RIDGE OPERATIONS, OAK RIDGE, TENNESSEE

MAR 71 - JUL 73	TECHNICAL ANALYST, ATOMIC ENERGY COMMISSION, SAVANNAH RIVER PLANT OPERATIONS OFFICE, AIKEN, SOUTH CAROLINA
DEC 65 - SEP 68	ASSOCIATE DEVELOPMENT ENGINEER, UNION CARBIDE CORPORATION, OAK RIDGE, TENNESSEE
SEP 62 - DEC 64	ENGINEERING COOP STUDENT, TENNESSEE VALLEY AUTHORITY, CHATTANOOGA, TENNESSEE

#### CAREER HIGHLIGHTS

- o Was responsible for all facets of project management activities (design, engineering, and construction) at the Savannah River Plant, Aiken, S.C., for approximately 800 active projects ranging in size from less than \$1 million to \$900 million throughout the spectrum of technical complexity. The projects included The Defense Waste Processing Facility; The Naval Fuel Manufacturing Facility; the Steel Creek Dam Project which permitted the restart of the L Production Reactor; the Replacement Tritium Facility; and The Fuel Production Facility.
- o Provided engineering management and direction for all aspects of Clinch River Breeder Reactor Plant (CRBRP) Project, including technical supervision and contract administration of the CRBRP and supporting activities; managed CRBRP applied base research and development work at the reactor manufacturers and national laboratories; maintained overall supervision of programmatic and technical aspects of CRBRP and related activities, including all RRT technical and programmatic reviews and evaluations.

#### EDUCATION

JUN 66	B.S. NUCLEAR/MECHANICAL ENGINEERING, TENNESSEE TECHNOLOGICAL UNIVERSITY
FEB 68	M.S. NUCLEAR/MECHANICAL ENGINEERING, NORTH CAROLINA STATE UNIVERSITY
MAY 74	Ph.D. NUCLEAR ENGINEERING (MINOR-MECH. ENGR.), NORTH CAROLINA STATE UNIVERSITY

#### LICENSES/CERTIFICATES

LICENSED PROFESSIONAL ENGINEER, CERTIFICATE E-18590

DIRECTOR, DIVISION OF NUCLEAR SERVICES  
JAMES L. MCANALLY

WORK EXPERIENCE

MAR 87 - PRESENT	DIRECTOR, DIVISION OF NUCLEAR SERVICES, TVA, CHATTANOOGA
JAN 87 - MAR 87	MANAGER, CORRECTIVE ACTION PROGRAM, TVA, CHATTANOOGA
OCT 86 - JAN 87	ACTING MANAGER, PLANNING AND FINANCIAL STAFF, TVA, CHATTANOOGA
MAY 86 - OCT 86	HEAD OF BUDGET AND COST CONTROL STAFF, TVA, CHATTANOOGA
1980 - MAY 86	CHIEF, FINANCIAL MANAGEMENT STAFF, PLANNING AND BUDGET, OFFICE OF THE GENERAL MANAGER, TVA, KNOXVILLE, TENNESSEE
1978 - 1980	SENIOR PROGRAM MANAGER--COORDINATION OF ENGINEERING SERVICES FOR UNION CARBIDE CORPORATION AND DEPARTMENT OF ENERGY, OAK RIDGE, TENNESSEE; AND RESIDENT MANAGER, EGYPT--CONSTRUCTION CONTRACT MANAGER FOR EGYPTIAN ELECTRIC AUTHORITY, GILBERT/COMMONWEALTH, READING, PENNSYLVANIA
1977 - 1978	PROJECT ENGINEER, CONSTRUCTION CONTRACT MANAGER FOR SUNDESERT NUCLEAR PROJECT, SAN DIEGO GAS AND ELECTRIC COMPANY, SAN DIEGO, CALIFORNIA
1972 - 1977	COMMONWEALTH EDISON COMPANY, CHICAGO, ILLINOIS--PROJECT MANAGER FOR BYRON AND BRAIDWOOD NUCLEAR PLANT PROJECTS; SITE ADMINISTRATOR AT LASALLE COUNTY NUCLEAR STATION CONSTRUCTION SITE; AND, SENIOR ENGINEER ON THE CLINCH RIVER LIQUID METAL FAST BREEDER REACTOR
1970	SENIOR ENGINEER, ANALYSIS OF PLANT DYNAMICS FOR LOFT REACTOR IN WATER REACTOR SAFETY PROGRAM, IDAHO NUCLEAR CORPORATION, IDAHO FALLS, IDAHO

1968 - 1970	SENIOR ENGINEER, WESTINGHOUSE ELECTRIC CORPORATION, ADVANCED REACTOR DIVISION, MADISON, PENNSYLVANIA
1966	REACTOR ENGINEER, LOCKHEED NUCLEAR CORPORATION, DAWSONVILLE, GEORGIA
1962 - 1967	LICENSED NUCLEAR REACTOR OPERATOR, USAEC OP 1588, DEPARTMENT OF NUCLEAR ENGINEERING, TAUGHT BASIC ENGINEERING AND STRENGTH OF MATERIALS IN THE ENGINEERING SCIENCES DEPARTMENT, PURDUE UNIVERSITY, LAFAYETTE, INDIANA

EDUCATION

1962	B.S., NUCLEAR ENGINEERING, UNIVERSITY OF TENNESSEE
1966	M.S., NUCLEAR ENGINEERING, PURDUE UNIVERSITY
1968	PhD., NUCLEAR ENGINEERING, PURDUE UNIVERSITY
1972	M.B.A., HARVARD UNIVERSITY, 1972

LICENSES/CERTIFICATES

LICENSED NUCLEAR REACTOR OPERATION, USAEC OP 1588



DIRECTOR OF NUCLEAR TRAINING  
R. JOE JOHNSON

WORK EXPERIENCE

MAY 86 - PRESENT	DIRECTOR, NUCLEAR TRAINING, TVA, CHATTANOOGA
NOV 79 - MAY 86	CHIEF, NUCLEAR TRAINING BRANCH, TVA, SEQUOYAH
APR 77 - NOV 79	COORDINATOR, POWER PRODUCTION TRAINING CENTER, TVA, SEQUOYAH
FEB 69 - APR 77	ASSOCIATE PROFESSOR, SCHOOL OF NUCLEAR ENGINEERING, GEORGIA TECH
SEP 67 - FEB 69	NUCLEAR ENGINEER, WESTINGHOUSE
JUN 67 - SEP 67	ASEE-NASA SUMMER FACULTY FELLOW, MARSHALL SPACE FLIGHT CENTER
SEP 66 - FEB 69	ASSISTANT PROFESSOR, SCHOOL OF NUCLEAR ENGINEERING
JUN 63 - SEP 63	NUCLEAR ENGINEER, BABCOCK & WILCOX CO.
SEP 58 - SEP 61	U.S. AIR FORCE, AIR WEATHER OFFICER
JUN 58 - SEP 58	ENGINEER IN TRAINING, BABCOCK & WILCOX CO.

EDUCATION

1958	B.S. MECHANICAL ENGINEERING, GEORGIA INSTITUTE OF TECHNOLOGY
1962	M.S. MECHANICAL ENGINEERING, CALIFORNIA INSTITUTE OF TECHNOLOGY
1966	PHD NUCLEAR ENGINEERING, GEORGIA INSTITUTE OF TECHNOLOGY

DIRECTOR OF NUCLEAR ENGINEERING  
JOHN A. KIRKEBO

WORK EXPERIENCE

MAR 87 - PRESENT	DIRECTOR OF DIVISION OF NUCLEAR ENGINEERING, TVA, KNOXVILLE
OCT 86 - MAR 87	LOANED EMPLOYEE TO DIVISION OF NUCLEAR ENGINEERING, TVA, KNOXVILLE (SWEC)
SEP 86 - OCT 86	DIRECTOR OF DIVISION OF NUCLEAR ENGINEERING, TVA KNOXVILLE (SWEC)
JAN 86 - SEP 86	MANAGER OF ENGINEERING AND TECHNICAL SERVICES, DIVISION OF NUCLEAR ENGINEERING, TVA, KNOXVILLE (SWEC)
1983 - 1986	SENIOR PROJECT ENGINEER, GULF STATES UTILITIES COMPANY, RIVER BEND STATION, UNIT 1 (SWEC)
1978 - 1983	PROJECT ENGINEER RIVER BEND STATION (SWEC)
1976 - 1978	ASSISTANT PROJECT ENGINEER (SWEC)
1975 - 1976	PROJECT COORDINATING ENGINEER, VIRGINIA ELECTRIC AND POWER COMPANY, NORTH ANNA POWER STATION, UNITS 1 AND 2 (SWEC)
1974 - 1975	LEAD POWER ENGINEER, STANDARD NUCLEAR PLANT, NEW ENGLAND ELECTRIC SYSTEM (SWEC)
1973 - 1974	PRINCIPAL NUCLEAR ENGINEER, VIRGINIA ELECTRIC AND POWER COMPANY, NORTH ANNA POWER STATION, UNITS 3 AND 4 (SWEC)
1971 - 1973	NUCLEAR SYSTEMS ENGINEER, SWEC
1969 - 1971	WEAPONS DEPARTMENT HEAD, RANK OF LIEUTENANT, OPERATIONAL READINESS OF THE POLARIS MISSILE WEAPONS SYSTEM, FLEET BALLISTIC MISSILE SUBMARINE REACTOR CONTROL DIVISION OFFICER, NUCLEAR REACTOR PROPULSION SYSTEM
1964 - 1969	U.S. NAVY NUCLEAR POWER PROGRAM

EDUCATION

1964 B.S. CIVIL ENGINEERING, UNIVERSITY OF WASHINGTON

U.S. NAVY NUCLEAR POWER PROGRAM, GRADUATE-LEVEL COURSES IN  
NUCLEAR REACTOR SYSTEMS AND PLANT ENGINEERING

LICENSES AND REGISTRATIONS

REGISTERED PROFESSIONAL ENGINEER (MECHANICAL), STATE OF LOUISIANA

ACTING DIRECTOR, NUCLEAR CONSTRUCTION AND PROJECT MANAGER  
WATTS BAR CONSTRUCTION PROJECT  
ROBERT A. PEDDE

WORK EXPERIENCE

JAN 87 - PRESENT	ACTING DIRECTOR, NUCLEAR CONSTRUCTION
JUL 86 - PRESENT	PROJECT MANAGER, WATTS BAR CONSTRUCTION PROJECT, TVA, WATTS BAR NUCLEAR SITE
JUN 84 - JUL 86	ASSISTANT TO THE MANAGER, OFFICE OF CONSTRUCTION, TVA, KNOXVILLE
MAY 82 - JUN 84	ASSISTANT TO MANAGER, DIVISION OF CONSTRUCTION
JUL 80 - MAY 82	COST MANAGEMENT SPECIALIST, OFFICE OF ENGINEERING DESIGN AND CONSTRUCTION, TVA, KNOXVILLE
APR 77 - JUL 80	SUPERVISOR, PLANNING AND SCHEDULING SECTION, OFFICE OF ENGINEERING DESIGN AND CONSTRUCTION, TVA, KNOXVILLE
APR 76 - APR 77	SUPERVISOR, PROJECT CONTROL SECTION, DIVISION OF CONSTRUCTION, OFFICE OF ENGINEERING DESIGN AND CONSTRUCTION, TVA, WATTS BAR NUCLEAR PLANT
OCT 74 - APR 76	PROJECT CONTROL ENGINEER, DIVISION OF CONSTRUCTION, OFFICE OF ENGINEERING DESIGN AND CONSTRUCTION, TVA, WATTS BAR NUCLEAR PLANT
AUG 72 - OCT 74	CIVIL ENGINEER, DIVISION OF CONSTRUCTION, OFFICE OF ENGINEERING DESIGN AND CONSTRUCTION, TVA, WATTS BAR NUCLEAR PLANT
JAN 72 - AUG 72	CIVIL ENGINEER, DIVISION OF CONSTRUCTION, OFFICE OF ENGINEERING DESIGN AND CONSTRUCTION, TVA, SEQUOYAH NUCLEAR PLANT
JUL 70 - JAN 72	U.S. ARMY
APR 70 - JUL 70	CIVIL ENGINEER, DIVISION OF CONSTRUCTION, TVA, CUMBERLAND STEAM PLANT

EDUCATION

1970 B.S. CIVIL ENGINEERING, MICHIGAN STATE UNIVERSITY

SITE DIRECTOR/PROJECT MANAGER  
BELLEFONTE NUCLEAR PLANT  
JAMES P. DARLING

WORK EXPERIENCE

OCT 85 - PRESENT	SITE DIRECTOR/PROJECT MANAGER, TVA, BELLEFONTE NUCLEAR PLANT
JUL 85 - OCT 85	ASSISTANT MANAGER, POWER & ENGINEERING (NUCLEAR), TVA, CHATTANOOGA
OCT 84 - JUL 85	MANAGER, OFFICE OF NUCLEAR POWER, TVA, CHATTANOOGA
APR 81 - OCT 84	DEPUTY MANAGER, OFFICE OF POWER, TVA, CHATTANOOGA
DEC 79 - APR 81	MANAGER OF POWER ENGINEERING, OFFICE OF POWER, TVA, CHATTANOOGA
AUG 77 - DEC 79	DIRECTOR, DIVISION OF FUELS, TVA, CHATTANOOGA
MAY 77 - AUG 77	ASSISTANT DIRECTOR, DIVISION OF POWER RESOURCE PLANNING, TVA, CHATTANOOGA
MAR 73 - MAY 77	BRANCH CHIEF, DIVISION OF POWER RESOURCE PLANNING, TVA, CHATTANOOGA
JUN 71 - MAR 73	ASSISTANT BRANCH CHIEF, DIVISION OF POWER RESOURCE PLANNING, TVA, CHATTANOOGA
SEP 67 - JUN 71	POWER PROGRAM ANALYST, OFFICE OF POWER, TVA, CHATTANOOGA
AUG 66 - SEP 67	RESEARCH ANALYST, FINANCIAL PLANNING STAFF, TVA, CHATTANOOGA
DEC 65 - AUG 66	MECHANICAL ENGINEER, DIVISION OF POWER PRODUCTION, POWER PLANT MAINTENANCE, TVA, CHATTANOOGA
MAR 59 - DEC 65	POWER SUPPLY ENGINEER, DIVISION OF POWER SUPPLY PLANNING, TVA, CHATTANOOGA
OCT 59 - APR 60	U.S. ARMY

EDUCATION

1959	B.S. MECHANICAL ENGINEERING, TENNESSEE TECHNOLOGICAL UNIVERSITY
1967	M.S. INDUSTRIAL ENGINEERING, STANFORD UNIVERSITY
1969	MBA, UNIVERSITY OF CHATTANOOGA

NUCLEAR SITE DIRECTOR  
SEQUOYAH NUCLEAR PLANT  
HERBERT L. ABERCROMBIE

WORK EXPERIENCE

NOV 84 - PRESENT	SITE DIRECTOR, TVA, SEQUOYAH NUCLEAR PLANT
APR 84 - NOV 84	DIRECTOR, DIVISION OF NUCLEAR SERVICES, TVA, CHATTANOOGA
SEP 81 - APR 84	ASSISTANT MANAGER, NUCLEAR PRODUCTION, TVA, CHATTANOOGA
JUL 79 - SEP 81	POWER PLANT SUPERINTENDENT, TVA, BROWNS FERRY NUCLEAR PLANT
MAR 77 - JUL 79	ASSISTANT POWER PLANT SUPERINTENDENT, TVA, BROWNS FERRY NUCLEAR PLANT
JAN 70 - MAR 77	POWER PLANT OPERATIONS SUPERINTENDENT, TVA, SEQUOYAH NUCLEAR PLANT
MAY 68 - JAN 70	POWER PLANT OPERATIONS SUPERVISOR, POWER PRODUCTION, TVA, CHATTANOOGA
JUL 66 - MAY 68	PERSONNEL OFFICER, POWER PRODUCTION, TVA, CHATTANOOGA
NOV 63 - JUL 66	SHIFT ENGINEER, DIVISION OF POWER PRODUCTION, TVA
DEC 53 - NOV 63	UNIT OPERATOR, DIVISION OF POWER PRODUCTION, TVA. PROGRESSIVE ASSIGNMENTS AFTER COMPLETION OF TVA'S STUDENT GENERATING PLANT OPERATOR (SGPO) TRAINING PROGRAM
DEC 50 - DEC 53	U.S. NAVY

EDUCATION

APPLIED SCIENCE DEGREE IN PROGRESS, UNIVERSITY OF ALABAMA (109 HOURS COMPLETED)

ASSISTANT TO THE MANAGER OF NUCLEAR POWER  
LARRY L. JACKSON

WORK EXPERIENCE

DEC 86 - PRESENT	ASSISTANT TO THE MANAGER OF NUCLEAR POWER, TVA, CHATTANOOGA
OCT 86 - DEC 86	ASSISTANT MANAGER OF NUCLEAR POWER (STAFFS), TVA, CHATTANOOGA
DEC 85 - OCT 86	ASSISTANT TO THE MANAGER OF NUCLEAR POWER, TVA, CHATTANOOGA
APR 80 - DEC 85	CHEMISTRY DEPARTMENT MANAGER, EVALUATION TEAM MANAGER, CORPORATE EVALUATOR, CHEMISTRY AND RADIOLOGICAL PROTECTION EVALUATOR, INSTITUTE OF NUCLEAR POWER OPERATIONS
MAY 78 - APR 80	RADIATION SPECIALIST, U.S. NRC
FEB 72 - MAY 78	CHEMISTRY AND HEALTH PHYSICS SUPERVISOR CHEMISTRY AND HEALTH PHYSICS FOREMAN, FARLEY NUCLEAR PLANT, ALABAMA POWER COMPANY
JUN 70 - FEB 72	CHEMISTRY TECHNICIAN ON STARTUP OF TWO SUPERCRITICAL FOSSIL FUELED PLANTS, ALABAMA POWER COMPANY
JUN 65 - JAN 70	U.S. ARMY, PROGRESSED FROM SECOND LIEUTENANT TO CAPTAIN CHEMICAL CORPS

EDUCATION

1965      B.A. CHEMISTRY - UNIVERSITY OF NORTH ALABAMA

MANAGER OF NUCLEAR PERSONNEL  
MARILYN E. TAYLOR

WORK EXPERIENCE

FEB 86 - PRESENT	MANAGER OF NUCLEAR PERSONNEL, OFFICE OF NUCLEAR POWER, TVA, CHATTANOOGA
OCT 85 - FEB 86	MANAGER, HUMAN RESOURCES, POWER AND ENGINEERING (NUCLEAR), TVA, CHATTANOOGA
AUG 79 - OCT 85	DIRECTOR, DIVISION OF PERSONNEL, TVA, KNOXVILLE
AUG 74 - AUG 79	MANAGER, INDUSTRIAL RELATIONS, KAISER SAND AND GRAVEL COMPANY, PLEASANTON, CALIFORNIA
DEC 72 - AUG 74	EMPLOYEE DEVELOPMENT COORDINATOR, KAISER INDUSTRIES, OAKLAND, CALIFORNIA
MAY 68 - DEC 72	TRAINING SUPERVISOR, KAISER INDUSTRIES, OAKLAND, CALIFORNIA
JUN 65 - MAY 68	EMPLOYMENT INTERVIEWER, KAISER INDUSTRIES, OAKLAND, CALIFORNIA

EDUCATION

1961-62 SACRAMENTO CITY COLLEGE, SACRAMENTO, CALIFORNIA

LICENSES/CERTIFICATES

1973 ADULT EDUCATION TEACHING CREDENTIAL, SACRAMENTO, CALIFORNIA



CHAIRMAN, NUCLEAR SAFETY REVIEW BOARDS  
WILLIAM H. HANNUM

WORK EXPERIENCE

AUG 86 - PRESENT	CHAIRMAN, NUCLEAR SAFETY REVIEW BOARDS, TVA, CHATTANOOGA
AUG 82 - AUG 86	DIRECTOR, WEST VALLEY PROJECT OFFICE, U.S. DEPARTMENT OF ENERGY, WEST VALLEY, NEW YORK
77 - AUG 82	DEPUTY DIRECTOR GENERAL, OECD NUCLEAR ENERGY AGENCY; PARIS, FRANCE
76 - 77	DEPUTY MANAGER, IDAHO OPERATIONS OFFICE, ERDA, IDAHO FALLS, IDAHO
73 - 76	ASSISTANT DIRECTOR FOR NUCLEAR SAFETY, REACTOR DEVELOPMENT DIVISION, U.S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION, WASHINGTON, DC.
68 - 73	CHIEF, REACTOR PHYSICS, U.S. ATOMIC ENERGY COMMISSION, WASHINGTON, DC.
67 - 68	EXCHANGE SCIENTIST, U.K. ATOMIC ENERGY ESTABLISHMENT, WINFRITH, DORSET, ENGLAND
63 - 67	ASSISTANT GROUP LEADER, LOS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO
58 - 63	SENIOR SCIENTIST, BETTIS ATOMIC POWER LABORATORY, WEST MIFFLIN, PENNSYLVANIA

EDUCATION

1958	PhD PHYSICS, YALE UNIVERSITY
1956	MS PHYSICS, YALE UNIVERSITY
1954	AB PHYSICS, PRINCETON UNIVERSITY

MANAGER, EMPLOYEE CONCERN PROGRAM  
ERIC K. SLIGER

WORK EXPERIENCE

DEC 85 - PRESENT	MANAGER, EMPLOYEE CONCERN PROGRAM
FEB 85 - DEC 85	STAFF ASSISTANT, OFFICE OF NUCLEAR POWER, TVA, CHATTANOOGA
NOV 84 - FEB 85	SUPERVISOR, REGULATORY ENGINEERING, TVA, CHATTANOOGA
JAN 80 - NOV 84	SUPERVISOR, RADIOLOGICAL EMERGENCY PREPAREDNESS, TVA, CHATTANOOGA
JUL 78 - JAN 80	NUCLEAR ENGINEER, NUCLEAR GENERATOR BRANCH, TVA, CHATTANOOGA
JUN 77 - JUL 78	NUCLEAR ENGINEER, PREOP TEST, TVA, WATTS BAR NUCLEAR PLANT
OCT 75 - JUN 77	CLINCH RIVER BREEDER REACTOR PROJECT-STAFF ENGINEER-PROJECT MANAGER-CONTRACTS
JUL 71 - SEP 75	LT., U.S. NAVY, NAVY NUCLEAR POWER OPERATIONS (SUBMARINE)
JUN 70 - JUL 71	NUCLEAR ENGINEER, REACTOR ENGINEERING, TVA, CHATTANOOGA

EDUCATION

1970      B.S. NUCLEAR ENGINEER, UNIVERSITY OF TENNESSEE

MANAGER, PLANNING AND FINANCIAL STAFF  
S. B. FISHER

WORK EXPERIENCE

JAN 87 - PRESENT	MANAGER, PLANNING AND FINANCIAL STAFF, TVA, CHATTANOOGA, TENNESSEE
JAN 85 - JAN 87	PRESIDENT, FISHER SERVICES INC., MANAGEMENT CONSULTING FIRM, AUGUSTA, NEW JERSEY
MAR 80 - JAN 85	DIRECTOR, FISCAL AND INFORMATION MANAGEMENT, GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION, PARSIPPANY, NEW JERSEY
SEPT 72 - MAR 80	CONTROLLER AND DIRECTOR OF FINANCE, MARTIN MARIETTA CORPORATION, DENVER, COLORADO
MAY 68 - SEPT 72	CORPORATE FINANCIAL ANALYST, FAIRCHILD INDUSTRIES, GERMANTOWN, MARYLAND
SEPT 59 - MAY 68	BUSINESS MANAGER, RESEARCH AND DEVELOPMENT AND INFORMATION SYSTEMS GROUPS, MARTIN MARIETTA CORPORATION, DENVER, COLORADO
SEPT 53 - SEPT 59	SUPERVISOR COST ACCOUNTING AND FINANCIAL ANALYST, GENERAL ELECTRIC, CINCINNATI, OHIO

EDUCATION

1949	B.A. INDUSTRIAL MANAGEMENT - UNIVERSITY OF KENTUCKY
1952	ACCOUNTING STUDIES - UNIVERSITY OF LOUISVILLE
1954	LAW STUDIES - SALMON P. CHASE COLLEGE OF LAW

SPECIAL ASSISTANT TO THE MANAGER OF NUCLEAR POWER  
TISH B. JENKINS

WORK EXPERIENCE

APR 86 - PRESENT	SPECIAL ASSISTANT TO THE MANAGER OF NUCLEAR POWER, TVA, CHATTANOOGA
MAY 83 - APR 86	NUCLEAR RESEARCH PROJECTS BRANCH MANAGER, TVA, CHATTANOOGA
DEC 81 - MAY 83	ASSISTANT MANAGER OF OFFICE OF ECONOMIC AND COMMUNITY DEVELOPMENT, TVA, KNOXVILLE
NOV 79 - DEC 81	DISTRICT ADMINISTRATOR IN OFFICE OF THE GENERAL MANAGER, TVA, CLEVELAND, TENNESSEE
JUL 77 - NOV 79	BOILING WATER REACTOR LICENSING SECTION SUPERVISOR, TVA CHATTANOOGA
MAY 73 - JUL 77	NUCLEAR ENGINEER IN SAFETY AND LICENSING, TVA, CHATTANOOGA

EDUCATION

1972	B.S. PHYSICS AND MATH - WESTERN KENTUCKY UNIVERSITY
1973	M.S. NUCLEAR PHYSICS - WESTERN KENTUCKY UNIVERSITY
1977	EIT CERTIFICATE, STATE OF TENNESSEE

MANAGER, NUCLEAR POWER INFORMATION STAFF  
CAROL E. AYERS

WORK EXPERIENCE

MAR 87 - PRESENT	MANAGER, NUCLEAR POWER INFORMATION, TVA, CHATTANOOGA, TENNESSEE
1986 - MAR 87	PUBLIC AFFAIRS SPECIALIST, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, MARSHALL SPACE FLIGHT CENTER, ALABAMA
1984 - 1986	PUBLIC AFFAIRS SPECIALIST, U.S. DEPARTMENT OF ENERGY, OAK RIDGE OPERATIONS, OAK RIDGE, TENNESSEE
1983 - 1984	PUBLIC AFFAIRS SPECIALIST, U.S. DEPARTMENT OF ENERGY, OFFICE OF FOSSIL ENERGY, WASHINGTON, D.C.
1981 - 1983	CHIEF OF PUBLIC INFORMATION BRANCH, PROJECT MANAGEMENT CORPORATION, CLINCH RIVER BREEDER REACTOR PROJECT, OAK RIDGE, TENNESSEE
1980 - 1981	WRITER/EDITOR, U.S. DEPARTMENT OF ENERGY, TECHNICAL INFORMATION CENTER, OAK RIDGE, TENNESSEE
1975 - 1980	INFORMATION OFFICER, U.S. DEPARTMENT OF ENERGY, PITTSBURGH ENERGY TECHNOLOGY CENTER, PITTSBURGH, PENNSYLVANIA
1973 - 1975	SCIENCE WRITER, GENERAL MOTORS RESEARCH LABORATORY, WARREN, MICHIGAN
1970 - 1973	ASSISTANT EDITOR, AMERICAN CHEMICAL SOCIETY, ENVIRONMENTAL SCIENCE AND TECHNOLOGY MAGAZINE, WASHINGTON, D.C.

EDUCATION

1968	B.S., PLANT SCIENCE, WEST VIRGINIA UNIVERSITY
1970	M.S., PLANT SCIENCE, UNIVERSITY OF DELAWARE

MANAGER, EMPLOYEE CONCERN TASK GROUP  
WILLIAM R. BROWN, JR.

WORK EXPERIENCE

JAN 87 - PRESENT	MANAGER, EMPLOYEE CONCERN TASK GROUP, TVA
OCT 86 - JAN 87	ACTING DIRECTOR, NUCLEAR CONSTRUCTION, TVA
MAR 86 - OCT 86	DEPUTY DIRECTOR, NUCLEAR CONSTRUCTION, TVA
OCT 85 - MAR 86	PROJECT MANAGER, WATTS BAR NUCLEAR PLANT, TVA
MAR 82 - OCT 85	PROJECT MANAGER, BELLEFONTE NUCLEAR PLANT, OFFICE OF ENGINEERING DESIGN AND CONSTRUCTION, TVA
FEB 80 - MAR 82	ASSISTANT MANAGER, OFFICE OF CONSTRUCTION, TVA, KNOXVILLE
AUG 78 - FEB 80	CONSTRUCTION ENGINEER, DIVISION OF CONSTRUCTION, TVA, KNOXVILLE
MAR 77 - AUG 78	ASSISTANT CONSTRUCTION ENGINEER, DIVISION OF CONSTRUCTION, TVA, HARTSVILLE NUCLEAR PLANT
MAY 76 - MAR 77	SUPERVISOR, ELECTRICAL ENGINEERING UNIT, DIVISION OF CONSTRUCTION, TVA, HARTSVILLE NUCLEAR PLANT
APR 73 - MAY 76	SUPERVISOR, INSTRUMENTATION UNIT, DIVISION OF CONSTRUCTION, TVA, BROWNS FERRY NUCLEAR PLANT
JUL 70 - APR 73	ELECTRICAL ENGINEER AND INSTRUMENT ENGINEER, DIVISION OF CONSTRUCTION, TVA, BROWNS FERRY NUCLEAR PLANT
MAR 68 - JUL 70	RESEARCH ENGINEER, THE BOEING COMPANY, CAPE KENNEDY, FLORIDA
NOV 66 - FEB 68	FIELD ENGINEER, CHRYSLER CORPORATION, CAPE KENNEDY, FLORIDA
NOV 65 - NOV 66	FLIGHT TEST ENGINEER, GENERAL DYNAMICS CORPORATION, CAPE KENNEDY, FLORIDA

EDUCATION

B.S. ELECTRICAL ENGINEERING, TENNESSEE TECHNOLOGICAL UNIVERSITY

MANAGER, MANAGEMENT TRAINING  
MARILYN S. BLACKBURN

WORK EXPERIENCE

MAR 87 - PRESENT	MANAGER, MANAGEMENT TRAINING AND DEVELOPMENT, TVA, CHATTANOOGA, TENNESSEE
OCT 84 - MAR 87	ORGANIZATIONAL DEVELOPMENT CONSULTANT, DIVISION OF PERSONNEL, TVA
OCT 82 - OCT 84	TRAINING OFFICER, MANAGEMENT SKILLS ASSESSMENT PROJECT, DIVISION OF PERSONNEL, TVA
AUG 81 - OCT 82	CONSULTANT, ORGANIZATION DEVELOPMENT TRAINING, MARKET RESEARCH, ATLANTA, GEORGIA
SEP 79 - AUG 81	RESEARCH ANALYST, TRAINING EVALUATION, PERSONNEL RESEARCH, DIVISION OF PERSONNEL, TVA
OCT 75 - JAN 77	EMPLOYMENT SPECIALIST, DEPARTMENT OF EMPLOYMENT SECURITY, STATE OF TENNESSEE

EDUCATION

1981	M.S., INDUSTRIAL PSYCHOLOGY, UNIVERSITY OF TENNESSEE
1978	B.S., BUSINESS ADMINISTRATION, UNIVERSITY OF TENNESSEE

DIRECTOR, NUCLEAR QUALITY ASSURANCE  
NICHOLAS C. KAZANAS

WORK EXPERIENCE

MAR 87 - PRESENT	DIRECTOR NUCLEAR QUALITY ASSURANCE, TVA, CHATTANOOGA (GPU NUCLEAR)
AUG 86 - MAR 87	DIRECTOR ENGINEERING PROJECTS, GPU NUCLEAR CORPORATION, PARSIPPANY, NEW JERSEY
NOV 81 - AUG 86	DIRECTOR QUALITY ASSURANCE, GPU NUCLEAR CORPORATION, PARSIPPANY, NEW JERSEY
NOV 79 - NOV 81	MANAGER OF QUALITY ASSURANCE FOR THREE MILE ISLAND UNITS 1 AND 2, GENERAL PUBLIC UTILITIES, PARSIPPANY, NEW JERSEY
AUG 79 - NOV 79	TMI PROJECT MANAGER FOR PIPING CORROSION PROBLEMS, THREE MILE ISLAND UNIT 2, GENERAL PUBLIC UTILITIES, PARSIPPANY, NEW JERSEY
MAR 79 - AUG 79	TMI-2 ACCIDENT RESPONSE TEAM, THREE MILE ISLAND UNIT 2, GENERAL PUBLIC UTILITIES, PARSIPPANY, NEW JERSEY
MAR 78 - MAR 79	MANAGER OF QUALITY ASSURANCE, GPU SERVICE CORPORATION FOR FORKED RIVER NUCLEAR STATION, GENERAL PUBLIC UTILITIES, PARSIPPANY, NEW JERSEY
NOV 74 - MAR 78	QUALITY ASSURANCE PROGRAM MANAGER, PERRY NUCLEAR POWER PLANT UNITS 1 AND 2, GILBERT/COMMONWEALTH, READING, PENNSYLVANIA
JUN 74 - NOV 74	QUALITY ASSURANCE ASSISTANT PROGRAM MANAGER, PERRY NUCLEAR POWER PLANT UNITS 1 AND 2, GILBERT/COMMONWEALTH, READING, PENNSYLVANIA
JAN 74 - JUN 74	OPERATIONS MANAGER - GENERAL ATOMICS - GULF NUCLEAR FUELS COMPANY, NEW HAVEN, CONNECTICUT
SEP 72 - JAN 74	PRODUCTION MANAGER - GENERAL ATOMICS - GULF NUCLEAR FUELS COMPANY, NEW HAVEN, CONNECTICUT
1970 - SEP 72	CHIEF METALLURGIST/ ENGINEER IN CHARGE OF METALLURGY - UNITED NUCLEAR FUELS, NEW HAVEN, CONNECTICUT



1962 - 1967

MATERIALS ENGINEER/PROJECT ENGINEER - PRESSURE  
VESSELS/APPLIED RESEARCH METALLURGIST - UNITED  
AIRCRAFT CORPORATION HAMILTON STANDARD  
DIVISION, WINDSOR LOCKS, CONNECTICUT

EDUCATION

1962 B.S. METALLURGICAL ENGINEERING, LAFAYETTE COLLEGE

1969 M.B.A. PRODUCTION MAJOR, UNIVERSITY OF HARTFORD

DIRECTOR OF NUCLEAR SAFETY AND LICENSING  
RICHARD L. GRIDLEY

WORK EXPERIENCE

JAN 86 - PRESENT	DIRECTOR OF NUCLEAR SAFETY AND LICENSING, TVA, CHATTANOOGA (GE)
AUG 79 - JAN 86	MANAGER, FUEL AND SERVICES LICENSING, NUCLEAR ENERGY BUSINESS OPERATION; GENERAL ELECTRIC (GE), SAN JOSE, CALIFORNIA
MAR 77 - AUG 79	MANAGER, OPERATING REACTOR LICENSING, BWR PROJECTS DEPARTMENT, GE
NOV 74 - MAR 77	MANAGER, BWR TRAINING SERVICES, BWR PROJECTS DEPARTMENT, GE
DEC 69 - NOV 74	MANAGER, BWR TRAINING, ATOMIC POWER EQUIPMENT DEPARTMENT, GE
DEC 67 - DEC 69	MANAGER, BWR TRAINING CENTER, ATOMIC POWER EQUIPMENT DEPARTMENT, GE, MORRIS, ILLINOIS
JAN 65 - DEC 67	SPECIALIST, CUSTOMER TRAINING, ATOMIC POWER EQUIPMENT DEPARTMENT, GE, SAN JOSE, CALIFORNIA
JAN 62 - JAN 65	REACTOR OPERATIONS ENGINEER, ATOMIC POWER EQUIPMENT DEPARTMENT, GE, SAN JOSE, CALIFORNIA
JAN 61 - JAN 62	ENGINEER, NEW PRODUCTION REACTOR, HANFORD ATOMIC POWER OPERATION, GE, RICHLAND, WASHINGTON.
JAN 57 - JUN 61	REACTOR ENGINEER, REACTOR SPECIALIST, SHIFT SUPERVISOR REACTOR OPERATIONS, HANFORD ATOMIC POWER OPERATIONS, GE, RICHLAND, WASHINGTON
FEB 51 - APR 53	U.S. ARMY - KOREA

EDUCATION

1957      B.S. GENERAL ENGINEERING, UNIVERSITY OF PORTLAND

NUCLEAR SITE DIRECTOR, BROWNS FERRY NUCLEAR PLANT  
H. P. POMREHN

WORK EXPERIENCE

JUN 86 - PRESENT	NUCLEAR SITE DIRECTOR, BROWNS FERRY NUCLEAR PLANT, TVA (BECHTEL)
1985 - JUN 86	PROJECT MANAGER, WESTERN POWER DIVISION, KOREAN NUCLEAR PROJECTS UNITS 5, 6, 7, AND 8 - BECHTEL POWER CORPORATION
1982 - 1985	DEPUTY MANAGER, BUSINESS DEVELOPMENT AND BUSINESS DEVELOPMENT MANAGER - BECHTEL POWER CORPORATION
1975 - 1982	PROJECT ENGINEER AND DIVISION CHIEF PLANT DESIGN ENGINEER - BECHTEL POWER CORPORATION
1967 - 1975	ASSISTANT CHIEF NUCLEAR AND ENVIRONMENTAL SYSTEMS ENGINEER, ENGINEERING SUPERVISOR, AND SENIOR ENGINEER - BECHTEL POWER CORPORATION
1964 - 1967	PROJECT SCIENTIST, NUCLEAR POWER REACTOR OPERATION - HOLMES AND WARVER
1960 - 1964	NAVAL REACTORS BRANCH - U.S. NAVY

EDUCATION

1960	B.S., MECHANICAL ENGINEERING, UNIVERSITY OF SOUTHERN CALIFORNIA
1965	M.S., ENGINEERING, GEORGE WASHINGTON UNIVERSITY
1969	M.S., INDUSTRIAL ENGINEERING (OPERATIONS RESEARCH), UNIVERSITY OF SOUTHERN CALIFORNIA
1975	Ph.D., ENGINEERING, UNIVERSITY OF SOUTHERN CALIFORNIA

NUCLEAR SITE DIRECTOR  
WATTS BAR NUCLEAR PLANT  
GEORGE TOTO

WORK EXPERIENCE

AUG 86 - PRESENT	NUCLEAR SITE DIRECTOR, WATTS BAR NUCLEAR PLANT, TVA WESTINGHOUSE WATER REACTOR DIVISION (WRD)
FEB 85 - AUG 86	MANAGER OF REACTOR MECHANICAL PROJECTS, WESTINGHOUSE (WRD)
AUG 79 - FEB 85	MANAGER, ADVANCED ENGINEERING, WESTINGHOUSE ELECTRIC CORPORATION (WRD)
FEB 78 - AUG 79	MANAGER, A1W SHUTDOWN PROGRAM, NRF PROJECT, WESTINGHOUSE BETTIS ATOMIC POWER LABORATORY (WBAPL), WEST MIFFLIN, PA
FEB 74 - FEB 78	MEMBER OF GENERAL MANAGER'S STAFF, DUQUESNE LIGHT COMPANY, SPECIAL ASSIGNMENT, (WBAPL)
FEB 72 - FEB 74	MANAGER, FIELD ENGINEERING AND REFUELING OPERATIONS, NAVAL REACTORS PROGRAM, (WBAPL)
SEP 71 - FEB 72	MANAGER, FIELD ENGINEERING, NAVAL REACTORS PROGRAM, (WBAPL), WEST MIFFLIN, PA.
JAN 69 - SEP 71	RESIDENT MANAGER, FIELD ENGINEERING, SUBMARINE CONSTRUCTION, OVERHAUL & REFUEL, (WBAPL), BRMO, NEWPORT NEWS, VA.
OCT 66 - JAN 69	RESIDENT MANAGER, FIELD ENGINEERING, SUBMARINE CONSTRUCTION, OVERHAUL & REFUEL, (WBAPL), BRMO, PUGET SOUND
DEC 62 - OCT 66	SR. ENGINEER (TEST), FIELD ENGINEERING, REACTOR PLANTS FOR SUBMARINES, (WBAPL), BRMO GROTON, CONN.
JUL 61 - DEC 62	SR. ENGINEER, PLANT ANALYSIS, REACTOR PLANTS FOR SUBMARINES, (WBAPL), WEST MIFFLIN, PA.
DEC 59 - JUL 61	TEST ENGINEER, FIELD ENGINEERING, REACTOR PLANTS FOR SUBMARINES, (WBAPL), BRMO GROTON, CONN.

MAY 56 - DEC 59

ENGINEER, S5W POWER PLANT, PLANT ANALYSIS,  
REACTOR PLANTS FOR SUBMARINES, (WBAPL)

SEP 53 - APR 56

STARTUP & SHIFT SUPERVISOR, GASEOUS DIFFUSION  
PLANT, ENRICHED URANIUM, GOODYEAR ATOMIC  
CORP., PORTSMOUTH, OHIO

SUMMERS OF  
49, 50, 51, & 52

STUDENT ENGINEER, TESTING W J-34 JET ENGINE,  
CERTIFICATION OF COMPONENTS, U.S. NAVY YARD,  
PHILADELPHIA, PA., AERO ENG LAB

EDUCATION

SEP 49 - JUN 53

B.S. ELECTRICAL ENGINEERING, UNIVERSITY OF  
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LICENSES AND REGISTRATIONS

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DIRECTOR OF NUCLEAR MANAGER'S REVIEW GROUP  
RONALD K. SEIBERLING

WORK EXPERIENCE

APR 86 - PRESENT	DIRECTOR OF NUCLEAR MANAGER'S REVIEW GROUP, TVA, CHATTANOOGA (INPO)
1980 - APR 86	EVALUATION TEAM MANAGER FOR PLANT AND CORPORATE EVALUATIONS - INSTITUTE OF NUCLEAR POWER OPERATIONS
1979 - 1980	POWER RESOURCES MANAGER - MISSISSIPPI POWER AND LIGHT COMPANY
1976 - 1979	MAINTENANCE SUPERVISOR/OPERATIONS AND MAINTENANCE SUPERINTENDENT - GRAND GULF NUCLEAR STATION - MISSISSIPPI POWER AND LIGHT COMPANY
1972 - 1976	PROJECT OFFICER AT DIVISION NAVAL REACTORS - U. S. ATOMIC ENERGY COMMISSION, WASHINGTON, D.C. - U.S. NAVY
1969 - 1972	ENGINEER OFFICER OF NUCLEAR POWERED SUBMARINE, USS NARWHAL - U.S. NAVY
1962 - 1969	VARIOUS DIVISION OFFICER AND TRAINING ASSIGNMENTS IN TWO NUCLEAR POWERED SUBMARINES

EDUCATION

1962	B. S. MARINE ENGINEERING AND NUCLEAR SCIENCE - STATE UNIVERSITY OF NEW YORK MARITIME COLLEGE
	MBA PROGRAM - MISSISSIPPI COLLEGE - 15 HOURS COMPLETED

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APPENDIX 8

Status of Corporate Nuclear Performance Plan  
(Vol. 1) Commitments

<u>Commitment</u> <u>Item</u>	<u>Vol. 1</u> <u>Rev. 4</u> <u>Page</u>		<u>Status</u>	<u>Progress Applicable to Sequoyah Restart</u>
<u>III. Hiring, Development and Retention of Senior Nuclear Managers</u>				
1	54	TVA will continue the recruitment of experienced managers as well as other experienced professionals from the nuclear industry to serve as permanent TVA employees.	O	Since October 1985, 99 permanent TVA managers have been recruited and hired into mid-level and above positions. In addition, a nuclear recruiting organization has been established, with satellite operations stationed at Sequoyah, Chattanooga, and Knoxville.
2	55	ONP plans to develop experienced nuclear managers from within its own organization.	L	A Manager of Management Training has been hired to implement an ONP Management Training Program. In addition, a Program Manager has been assigned to develop requirements for the ONP Management Development and Training Program. The Program Manager will report, on a project basis, directly to the Manager, ONP.
<u>IV. Restructuring of TVA's Organization</u>				
3	70	ONP will develop standard procedures to control interfaces with support organizations.	L	The effort is part of the long term program as identified in commitment items 5 and 15. Development of Interoffice agreements has been initiated.
4	76	Position descriptions will be written for each of TVA's nuclear directors, managers, and specialists defining the duties and responsibilities for which an individual will be held accountable and against which performance will be measured. These descriptions will be reviewed and subject to approval by a review team composed of senior TVA and consultant personnel who will report to the Manager of Nuclear Power.	R	Position descriptions have been written and issued for management positions which were approved on October 31, 1986.
5	76	The Manager of Nuclear Power is providing guidance to the organization through the issuance of a Policy and Organization Manual that sets forth policy in major areas and defines the organizational structure (in command chart format) together with the charter for each key functional component of the organization.	R	The Policy and Organization Manual (P&OM) was issued 12/31/86.

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E. Improvements in Specific Functional Areas

1. Quality Assurance

6	80	The long-term program will result in a standardized Nuclear Quality Assurance Program for TVA.	L	The interim NQAM was approved and issued in November 1986. Topical Report Rev. 9 was released for NRC approval November 14, 1986.  Approval of the topical report was received January 30, 1987. A draft schedule for completion of the ultimate NQAM is under review. The draft schedule shows a completion date of October 16, 1987. The ultimate NQAM is being developed and is expected to be approved by June 30, 1987. Full implementation is planned for October 16, 1987.
7	81	Where required, additional QA or QC procedures will be written to cover new functions.	R	QA and QC procedures required for SQN startup have been written and are issued. Implementation will be complete when training has been verified on April 1, 1987.
8	81	DNQA internal QA and QC procedure will be consolidated into a single set of procedures. Functions that will be performed uniformly throughout DNQA will be identified and the multiple procedures that now exist will be replaced by a single procedure applicable to all organizations.	L	The consolidation and standardization of DNQA procedures are well under way. All internal procedures currently identified will be approved and issued in a single manual by July 1, 1987.
9	81	As new procedures are developed throughout the ONP, the DNQA will review and concur in those that implement quality assurance requirements.	O	ONP Directive 4.4 Rev 0 was approved on 11/5/86. It establishes the responsibility to DNQA to review and concur with new ONP procedures. QA Topical Report TVA-TR75-1A, Rev. 9 list all manuals covering quality related activities during design.

V. Restoring Employee Confidence in TVA Nuclear Management

1. Special Program at Watts Bar for Resolving Employee Concerns

10	98	After the review group identifies a generic condition, the appropriate site department will perform a root cause analysis of each such condition and will require TVA line management to evaluate the condition and recommend action to remedy the root cause of the condition.	L R (For Potential Safety Significant Conditions)	This is an ongoing item. The anticipated completion date is 4/87 for SQN restart items and 8/87 for total program closure (all plants).
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<u>Commitment Item</u>	<u>Vol. 1 Rev. 4 Page</u>		<u>Status</u>	<u>Progress Applicable to Sequoyah Restart</u>
11	100	TVA plans to make the results of the Watts Bar Employee Concern Special Program (WBECSP) available to all present TVA nuclear employees. The summary report will be available as requested to interested parties as well as to former TVA nuclear employees who left the nuclear program between March 31, 1985, and the date the summary report is issued.	L	This will be completed once the WBN ECSP is completed. A special program has been implemented to address SQN restart. Anticipated completion date is 4/87 for SQN restart items and 8/87 for total program closure (all plants).
12	100	The Office of General Counsel or the Inspector General will investigate and report separately on cases involving wrongdoing, misconduct, intimidation, or harassment.	O	40 I&H and safety related wrongdoing concerns expressed to QTC relate to SQN. 20 are closed and completed. 11 are inactive awaiting NRC information and will be administratively closed by 4/1/87 if no information received. The remaining 9 are in the investigation and report writing phase and will be completed by 4/1/87.
13A, B	101-105	TVA will review the WBECSP concerns and the ONPECP to identify any trends and the collective significance of the concerns, to identify the root causes of any adverse trends, and to develop appropriate corrective action.	O	The Employee Concerns Task Group (ECTG) has reviewed and identified all concerns for generic applicability to SQN. These trends are presently being evaluated for SQN restart and will be made available in a final report for SQN restart. Anticipated completion date is 4/87 for SQN restart items and 8/87 for total program closure (all plants). For the "new" Employee Concern Program (ECP), total data volume reached a point in August 1986, whereby meaningful trends were analyzed. These trends were reported on a monthly basis beginning in August 1986 to TVA higher level management, ECP site representatives, and the NRC. The enhanced computerized data base was made available to all ECP personnel on January 22, 1987. The data base is used for tracking and trending of employee concern information.

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<u>Commitment Item</u>	<u>Vol. 1 Rev. 4 Page</u>	<u>Status</u>	<u>Progress Applicable to Sequoyah Restart</u>
13C	103	The Site Representative will periodically determine employee understanding of and satisfaction with the ECP. 0	This activity is ongoing. Various means have been utilized to determine employee understanding of and satisfaction with the program. Selected interviews have been conducted, mini surveys have been conducted. Formal survey was released November 1986. Audit reports concerning the program have demonstrated employee understanding. Employee Concern Program Instruction 1, sec. 5.3, requires the subject activity.
VI. <u>Improvements in TVA's Nuclear Management Systems and Programs</u>			
C. <u>Improving Management Systems and Controls</u>			
1. <u>Improvements in Programs and Procedures</u>			
14	120-121	In the short term, TVA will prepare standards for developing directives and procedures for each of the headquarters departments and sites and will assure that those corporate-level nuclear procedures required to control corporate-level activities which support the safe operation of each nuclear plant are in place. Also in the short-term, the existing nuclear procedures at each site will be revised to correct documented deficiencies, reflect the new organization and reflect installed plant modifications. R	<ul style="list-style-type: none"> <li>(1) An interim directive defining the interim procedure system for SQN was approved and issued September 5, 1986.</li> <li>(2) A list of corporate-level procedures that are required for SQN startup has been compiled and is maintained by the Nuclear Procedures Branch. The list identifies corporate level procedures requiring revision.</li> <li>(3) SQN site procedures are being reviewed to identify those requiring revision. Of the total of 2623 procedures required, 34 percent are not required for restart 11 percent are required with no revision, 16 percent required have been revised, and 39 percent are in the revision process. Expect to be completed two months prior to restart.</li> </ul>
15	121	In the long term, TVA is developing an integrated Nuclear Procedures System to aid the administration of the ONP activities. The restructured ONP procedure hierarchy will consist of five (5) levels of documentation designated as Policies, Directives, Standards, Procedures, and Instructions. L	<ul style="list-style-type: none"> <li>(1) Status of policies is reported under commitment item 5.</li> <li>(2) The Policy and Directive governing the new Nuclear Procedures System have been approved and issued. Standards and Directives are under development.</li> </ul>

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2. Improvements in Planning and Integration of Nuclear Activities

16            125    The Planning and Financial Staff provides    L  
the overall direction to nuclear sites  
and headquarters departments in the execution  
of planning, scheduling, and financial  
activities of TVA's nuclear activities.

17            127    The Division of Nuclear Services will    L  
establish a system of data bases that  
can be utilized by the responsible ONP  
department using the concept of sharing  
computer-stored data among cooperating  
organizations.

The Management Controls and Financial Management Staffs have been formed under the Planning and Financial Staff to provide overall direction for ONP in planning, scheduling, and budgeting activities. The Financial Management Staff, responsible for budgeting activities and financial direction is essentially staffed. The Management Controls Staff, responsible for planning, scheduling, and cost engineering, is now being managed fully by TVA personnel. While key standards and directives are being defined and developed the staff will be working with sites and divisions to insure a consistent approach to cost and schedule activities. Formal reporting requirements of startup schedules from sites to the Manager of Nuclear Power are being implemented.

General

The organization structure and authority for Information Systems within Management Systems are pending corporate approval.

Personnel

The organization structure for Management Systems has been identified. Candidates for top level managerial positions in this organization have been interviewed. Personnel selections for additional positions are still hampered by the review process. The Manager of Management Systems has been approved.

Configuration Management

A comprehensive configuration control management program review has been done and detailed tasks to be accomplished have been identified.

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Document Control and Records Management

A review of the ONP Document Control and Records Management program and facilities has been initiated. Several issues are still pending in DCRM: (1) acquisition, control, and upgrading of RIMS and (2) integration of divisional document control units at all sites into one Document Control Unit per site. Implementation plans for this integration have been initiated at Knoxville, Sequoyah, Bellefonte, and Browns Ferry Nuclear Plants.

BFN, Division of Nuclear Engineering (DNE), and Division of Nuclear Services (DNS) have established that one organization onsite will be responsible for document control and records management and the associated reprographics and micrographics functions. A transition plan to bring nuclear RIMS into ONP has been prepared.

ADP

Centralized control of acquisition of software and equipment has been established, and the responsibility for software change control has been identified and instituted.

NQAM Part I, Section 2.2.1, Rev. 1, QA for Computer Software Systems was approved for implementation on February 14, 1987.

Additional personnel resources have been identified and are being acquired.

Responsibility for defining integration plan assigned to Planning Staff. Initial high-level studies complete. Project proposal underway to scope subject data bases and identify subject data base interfaces.

Review of the proposal at the 11/20/86 Information Systems managers meeting resulted in consensus agreement to the goals but disagreement in methodology for developing the data bases. By the end of March, 1987 a plan will be in place to identify the consensus strategy that will be utilized for this long term project.

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D. <u>Improving TVA's Nuclear Corrective Action Program</u>				
1. <u>Assuring Timely Corrective Action</u>				
18	135	The Tracking and Reporting of Open Items (TROI) computer system is being implemented as the single corporate system for tracking CAQs.	R	Essentially complete at SQN. DNQA internal procedures have been approved and issued. Training on DNQA Procedures to be complete by March 30, 1987.
19	136	The analysis of trend data will be the responsibility of line managers. DNQA will identify QA trend indicators and perform a corporate-wide QA trend analysis on an ongoing basis.	L	Implementation is nearly complete. QA is preparing monthly reports. The trend analysis program now includes all CAQs adverse trends based on these CAQs will be evaluated to determine their root cause, and recommendations made to remedy the problem.
2. <u>Identification of the Root Cause of Problems</u>				
20	137- 138	Each significant CAQ will be individually analyzed to determine its root cause and to recommend action to remedy that cause. CAQs will be categorized, such as, responsible group for cause, type of condition, type of matter or item which is deficient and immediate cause of the condition. Adverse trends will be evaluated to determine their root cause and to recommend action to remedy that cause, to enable management to perform its own assessment and ensure that appropriate remedial action is implemented.	O	A new CAQ procedure has been approved and issued and will be implemented throughout ONP within 120 days of its issue date. NQAM, Part I, Section 2.16, Rev. 1, corrective action was issued 11/10/86. March 30, 1987 is the implementation date. The program is in place and CAQs have been entered for trending.

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3. Identification of Problems Applicable to More than One Plant

- |    |             |  |   |
|----|-------------|--|---|
| 21 | 139         | Licensing personnel, under the direction of the Director of Nuclear Safety and Licensing, will be responsible for managing the TVA Nuclear Operating Experience Review program system for internally and externally identified problems or events. This system will be used to develop experience review reports, screen information for applicability to TVA, and develop corrective recommendations or positions to be provided to sites, engineering and training personnel to take immediate corrective action if necessary. | R |
| 22 | 139-<br>140 | A corporate nuclear operating experience data base to interface with all facets of the TVA nuclear organization will provide the management tool to track all experience review items and to establish a feedback mechanism to ensure recommendations are factored into respective programs of operations, design, construction, and training.   | L |

Existing NER program being managed by DNS&L is being upgraded and restaffed. Information meetings have been held with NRC to include their methods and screening criteria into our program where feasible. Corporate and site schedules are being revised to strengthen the program by defining responsibilities and interfaces and developing a feedback mechanism for recommendations. Procedures for NER were issued in January 1987. The TVA NER Program has developed the interim procedure PMP 0601.01, Nuclear Experience Review. Division procedure DNSL-DVP-6.1-2, Rev. 0, has been written and approved (1/13/87). Implementation of these procedures will be in approximately 90 days. Job descriptions and personnel interviews have been completed. Personnel have been selected.

See progress on item 21. Presently there is a corporate data base which includes most (but not all) of the items described in PMP 0601.01. As experience is gained, enhancements will be made. Plans are to merge the NER data base into the singular data base being developed for TVA. At that time all major changes and requirements will be made.

E. Programmatic Improvements

1. Improvements in Operations

- |    |     |   |   |
|----|-----|---|---|
| 23 | 142 | TVA's nuclear management will monitor for procedural noncompliance when conducting plant performance assessments. Procedures will specify progressive disciplinary action for failure to follow procedures. | R |
| 24 | 142 | TVA has made plant-specific improvements in operator training.  | O |

QA policy issued.

Plant-specific improvements have been incorporated at WBN, SQN, and BFN. Training now in progress. Item is complete for SQN.

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25	143- 144		L	<p><u>DNE</u></p> <p>DNE has created a project services branch responsible to provide the Manager, Project Engineering and collectively the branch chiefs and director, schedule and cost progress for each unit. S&amp;W, GE, and Bechtel planners are augmenting TVA staffs; also hiring good people is quite possible in this area. A draft instruction manual has been prepared, as well as branch instructions on preparation of project reports, schedule analyses, and conduct of design review meetings.</p> <p>Operations Engineering Services (OES) is assisting the plants study their long-term maintenance needs, and introduce reliability-centered maintenance (RCM) similar to INPO pilot programs modeled on FAA experience. The next phase is to develop plan to implement RCM at each site after the respective restart. Planning of scheduled maintenance will be give greater attention.</p> <p>A draft of the Maintenance Directive was completed on October 1, 1986, and distributed for comments on October 3, 1986. The comments were incorporated into a second draft which was distributed to the maintenance working group on October 29, 1986.</p> <p>The first draft of the Chemistry and Radiochemistry Directive was completed on October 15, 1986, and has been distributed within TVA for comments. Resolution of comments and preparation of a final draft for submittal to the DSRC is anticipated by 4/15/87. The Chemistry Program Manager is working with SQN personnel to develop a model chemistry program for SQN which will be used as the basis for preparing the directive.</p> <p><u>DNS</u></p> <p>The organizational structure has been identified, and individuals have been assigned to assist in the development of directives and standards.</p> <p>Candidates for permanent headquarters staff positions not yet filled are being interviewed.</p>

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The Radiological Controls (RC) organization has been restructured. Out of six key managerial positions, one has been retained, three have been filled through recruitment from outside TVA, and two have been filled through reassignment.

The RC program is being enhanced and upgraded through changes in the dosimetry program, increased credential requirements for key positions, and enhancements to the Radiation Protection Plan.

Currently identified enhancements will be completed in 1987.

Planning and Financial Management

The status of this commitment relative to the Planning and Financial Staff is given in No. 16 above.

26                      144                      An expanded corporate nuclear performance reporting system is being developed to collect key performance indicators for trending an analysis                      L

The corporate-level performance report has been revised to include the INPO-suggested performance parameters and to include not only generation data but also data on compliance, health physics, safety, and cost. The performance reporting staff at SQN has been reorganized to allow it more convenient and ready access to pertinent performance data. The style and content of the BFN plant performance reports are being modified to more accurately reflect the information needs of the reviewing managers.

27                      144                      TVA will implement a system engineer program at each nuclear site.                      L

The System Engineering Section will be initially manned with approximately ten engineers prior to restart. The Sequoyah procedures will be developed as a long-term program.



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Status Progress Applicable to Sequoyah Restart

2. Improvements in Maintenance

28 146 The NMRG was charged with the responsibility of conducting a comprehensive review of corrective and preventive maintenance at Sequoyah, Browns Ferry, and Watts Bar Nuclear Plants.

The Nuclear Manager's Review Group (NMRG) has completed all work on a comprehensive review of maintenance at SQN, WBN, and BFN. The report of review results was submitted to NRC on September 30, 1986. Report was resubmitted 12/17/86 with action items assigned. Findings from the report are being evaluated and corrective action plans are being developed.

9 147 Improvements are being made in the nuclear site preventive maintenance programs to emphasize reducing recurring corrective maintenance requirements, improving use of predictive maintenance techniques, and minimizing preventive maintenance backlogs and deferrals. The results of analysis of equipment history and availability and NPRDS data will be fed into the preventive maintenance programs and shared between sites to obtain optimum preventive maintenance intervals.

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The organization is in the developmental stages to provide more management attention to maintenance activities. SQM-58 has been revised to include the trending program for NPRDS, 10 CFR 50.49 equipment, and other failure mechanisms. So far the plant has received three trending reports from NPRDS data base for review and analysis.

Efforts are under way to get a contractor on site to review SQN preventive maintenance program to include the following tasks: review vendor manuals, review existing PM activities and/or alternate predictive monitoring techniques, document basis for PM activities, establish master list of equipment with prioritization methods for planning, scheduling, and tracking.

10 148 The planning and scheduling process for maintenance activities is being upgraded so that the full scope of significant maintenance activities will be defined in advance of performing the activity, will be coordinated with the appropriate organizations, including operations and quality assurance, and will be completed prior to closeout of the work item.

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The planning organization is not fully implemented yet, however some of the positions have been filled. The plant is in the process of filling additional planning positions within the organization. The planning organization is in the process of implementing a program to prioritize, track, and coordinate maintenance work with the different organizations on site. The maintenance planners are having daily coordination meetings with appropriate interface organizations to plan, schedule, and coordinate maintenance activities for the following day. Major activities are either discussed in the daily meeting or in a specially called meeting which includes all affected plant organizations. Site procedures are being revised to reflect these coordination activities. Estimated completion dated is April 2, 1987. Continuous improvement is expected as implementation of the program progresses.

Status  
O - Ongoing Activity  
R - Restart of Sequoyah  
L - Long Term programs

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31	148- 149	L	I&C training programs have been accredited by INPO. Electrical and Mechanical Program for SQN and WBN have had initial evaluation by INPO (August 11-19, 1986). A followup visit should be conducted by INPO in early 1987 with accreditation expected by mid-year. The initial INPO visit for the BFN Electrical and Mechanical Program is scheduled for May 18-22, 1987. A followup visit will most likely occur later in 1987 with accreditation expected by early 1988.
3. <u>Improvements in Welding</u>			
32	150	R	The Phase II Welding Project report for Sequoyah has been submitted to and reviewed by NRC. NRC's Final Safety Evaluation Report for SQN is complete and is being reproduced for public distribution. Response to SER which completed this item, was submitted to NRC 1/30/87.
33	151	L	No further actions necessary for SQN restart.