

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

January 6, 1986

Director of Nuclear Reactor Regulation
Attention: Mr. B. Youngblood, Project Director
PWR Project Directorate No. 4
Division of Pressurized Water Reactors (PWR)
Licensing A
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Youngblood:

In the Matter of the)
Tennessee Valley Authority)

- Docket Nos. 50-259
50-260
50-296
50-327
50-328
50-390
50-391
50-438
50-439

Enclosed is the TVA response to NRC's question 3 regarding the TVA Corporate Nuclear Performance Plan (NPP), which was transmitted to TVA by your December 20, 1985 letter to H. G. Parris. The responses to questions 1, 2, 4, and 5 were transmitted to you by my letter dated December 30, 1985.

If you have any questions, please get in touch with Jerry Wills at FTS 858-2683.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. W. Hufham
J. W. Hufham
Manager of Licensing

Sworn to and subscribed before me
this 6th day of January 1986

Tammy J. Downey
Notary Public
My Commission Expires May 3, 1989

Enclosure
cc: See page 2

3021
11

Add:

- AD - J. KNIGHT (LTR ONLY)
EB (BALLARD)
EICSB (ROSA)
PSB (GAMMILL)
RSB (BERLINGER)
FOR (BENAROVA)
EB (LIAW)
PSB (L. HULMAN)
EICSB (SRINIVASAN)
RSB (ACTING)
FOR (VASSALLO)
AD - G. LAINAS (LTR ONLY)
AD - D. CRITCHFIELD (LTR ONLY)
EB (W. JOHNSTON)
RSB (THOMAS)
EICSB (PARR)
FOR (W. REGAN)

8601080075 860106
PDR ADDOCK 05000259 PDR
P

Mr. B. J. Youngblood

January 6, 1986

cc (Enclosure):

U.S. Nuclear Regulatory Commission
Region II
Attn: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. James E. Taylor, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. R. J. Clark
Browns Ferry Project Manager
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20814

Mr. Carl Stahle
Sequoyah Project Manager
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20814

Question 3

Information regarding the actual staffing of the Office of Power and Engineering (Nuclear):

- a. Sizes and internal structure of the groups making up the Corporate support elements of the office.
- b. General qualifications of the staffs involved in terms of education and experience.
- c. Where the incumbents in the new office (down to the sub-manager level) served in the previous organization.

TVA Response

See the enclosure



ENCLOSURE 1

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Attachment 2 - Onsite Corporate Support

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ATTACHMENT 1

SUMMARY OF CORPORATE SUPPORT ORGANIZATION

ATTACHMENT 1

CORPORATE SUPPORT ORGANIZATION

Corporate support is defined as those groups or organizations whose primary mission is to provide direct support to the plant's operation and maintenance activities.

Included in corporate support are such functions and organization as engineering (both site and Knoxville based), central office support (both Chattanooga and Knoxville based), construction (excluding Watts Bar and Bellefonte Nuclear Plants), and site directors staff for each site.

Excluded are those organizations which provide corporate support on a time-distributed basis such as the Division of Personnel, Division of the Comptroller, Office of the General Council, Division of Purchasing, Power Services Shops, etc.

Listed below are the organizations that provide support to the operation and maintenance functions along with the size of each. The number provided are approximate as of November 30, 1985 and include managers, technicians, clerical, and administrative. They do not include trades and labor employees.

Power and Engineering (Nuclear)

Division of Quality Assurance	240
Licensing	36
Human Resources	33
Employee Concern	7
Nuclear Safety (NSRB)	<u>12</u>
Subtotal	328

Office of Engineering

Knoxville	1,425
Watts Bar (WBN)	50
Sequoyah (SQN)	120
Browns Ferry (BFN)	<u>137</u>
Subtotal	1,732

Office of Construction

BFN	31
SQN	<u>12</u>
	43

Site Director's Staff

BFN	305
SQN	233
WBN	<u>162</u>
Subtotal	395

Nuclear Operations

Nuclear Services	<u>820</u>
Subtotal	820

Nuclear Safety Review Staff

Subtotal	<u>40</u>
	40

Total	<u>3,358</u>
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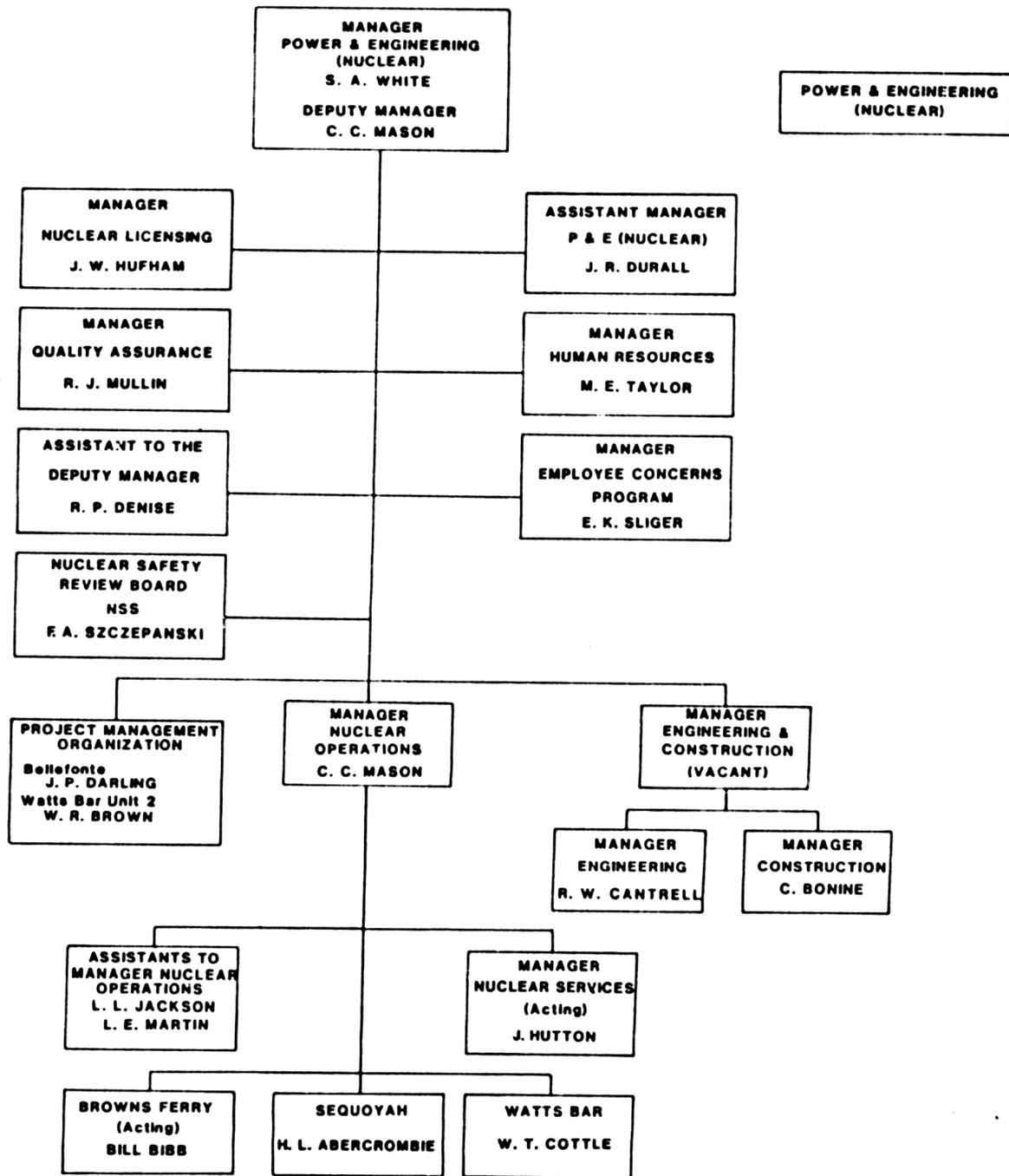
In the education summary charts, managers are defined as top manager down to the sub-manager (section supervisor, M-5).

PROJECT MANAGEMENT

EQ
R. A. SESSOMS

WELDING
J. W. COAN

CONFIGURATION MANAGEMENT
Z. M. KABIRI



ATTACHMENT 2

ONSITE CORPORATE SUPPORT

ONSITE CORPORATE SUPPORT

The onsite corporate support is comprised of a site director and five groups: Site Services, Design Services, Modifications, Personnel, Financial Planning as well as representatives from the Office of Engineering (OE) and Office of Construction.

Modifications is responsible for implementing all plant modifications and providing onsite personnel and other resources necessary to accomplish the modification workload through utilization of its own resources, other TVA organizations, or outside contractors.

Design Services is responsible for providing design engineering services needed for plant modifications and outages on other changes in accordance with criteria, standards, and quality requirements by OE. It provides design control, verification, and safety analysis of plant changes as well as maintaining plant configuration control. OE employees report functionally to this group.

Sites Services is responsible for providing direct onsite support to the plant in the areas of regulatory engineering, codes and standards, automated data processing, project engineering, drawings and vendor manuals, materials, administrative services, and interfacing with Power Stores and the Division of Purchasing.

ONSITE CORPORATE SUPPORT (CONTINUED)

The Personnel Staff is responsible for ensuring that TVA personnel policies are implemented and carried out onsite. This includes advertising vacant positions, reviewing selections, and processing and maintaining personnel action records for all site personnel actions.

The Financial Planning Staff coordinates the site financial resources to meet site needs. This includes advising and recommending expenditure levels to the site director, performing special projects and analytical studies, monitoring actual expenditures, and preparation of budgets.

Browns Ferry Nuclear Plant - Modifications

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	4	24	28
MS Eng/Rel Sci	-	1	1
PhD Eng/Rel Sci	-	-	-
BS Other	-	1	1
MS Other	-	-	-
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	<u>3</u>	<u>-</u>	3
Total	7	26	

Browns Ferry Nuclear Plant - Design Services

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	8	11	19
MS Eng/Rel Sci	3	1	4
PhD Eng/Rel Sci	-	-	-
BS Other	1	-	1
MS Other	-	1	1
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	<u>-</u>	<u>-</u>	1
Total	12	13	

Browns Ferry Nuclear Plant
 Site Services/Personnel/Financial Planning

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	16	12	28
MS Eng/Rel Sci	5	-	5
PhD Eng/Rel Sci	-	-	-
BS Other	1	1	2
MS Other	-	-	-
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	<u>6</u>	<u>-</u>	6
Total	28	13	

Browns Ferry Nuclear Plant - Office of Engineering
 Support Consists of 137 Employees Located Onsite

Onsite Corporate Support Browns Ferry Nuclear

Site Director's Staff	
Managers	47
Engineers/Professional	52
Office of Engineering	137
Office of Construction	31
Total	<u>267</u>

Sequoyah Nuclear Plant - Modifications

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	5	26	31
MS Eng/Rel Sci	1	-	1
PhD Eng/Rel Sci	-	-	-
BS Other	-	1	2
MS Other	-	-	-
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	-	<u>3</u>	3
Total	6	30	

Sequoyah Nuclear Plant - Design Services

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	4	2	6
MS Eng/Rel Sci	-	-	-
PhD Eng/Rel Sci	-	-	-
BS Other	-	-	-
MS Other	-	1	1
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	-	<u>-</u>	-
Total	4	3	

Sequoyah Nuclear Plant
 Site Services/Personnel/Financial Planning

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	11	13	24
MS Eng/Rel Sci	3	3	6
PhD Eng/Rel Sci	-	-	-
BS Other	3	2	5
MS Other	-	-	1
PhD Other	1	-	1
AS Degree	-	1	1
Nondegree	<u>2</u>	<u>2</u>	
Total	20	21	

Sequoyah Nuclear Plant - Office of Engineering
 Support Consists of 120 Employees Located Onsite

Onsite Corporate Support Sequoyah Nuclear

Site Director's Staff

Managers	30
Engineers/Professionals	54
Office of Engineering	120
Office of Construction	<u>12</u>
Total	216

Watts Bar Nuclear Plant - Modifications

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	2	17	19
MS Eng/Rel Sci	2	-	2
PhD Eng/Rel Sci	-	-	-
BS Other	-	-	-
MS Other	-	-	-
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	-	-	-
Total	4	17	

Watts Bar Nuclear Plant - Design Services

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	3	4	7
MS Eng/Rel Sci	1	-	1
PhD Eng/Rel Sci	-	-	-
BS Other	-	-	-
MS Other	-	-	-
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	-	-	-
Total	4	4	

Watts Bar Nuclear Plant

Site Services/Personnel/Financial Planning

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	7	8	15
MS Eng/Rel Sci	5	1	6
PhD Eng/Rel Sci	-	1	1
BS Other	3	1	4
MS Other	-	-	-
PhD Other	1	-	1
AS Degree	-	-	-
Nondegree	<u>1</u>	<u>-</u>	
Total	17	11	

Watts Bar Nuclear Plant - Office of Engineering
Support Consists of 50 Employees Located Onsite

Onsite Corporate Support Watts Bar Nuclear

Site Director's Staff	
Managers	95
Engineers/Professionals	124
Office of Engineering	<u>50</u>
Total	<u>269</u>

ATTACHMENT 3

OFFSITE CORPORATE SUPPORT

Offsite Corporate Support

The offsite corporate support is comprised of the following organizations/functions.

Quality Assurance

Nuclear Licensing

Human Resources

Employee Concern

Nuclear Safety Staff

Nuclear Services

Office of Engineering

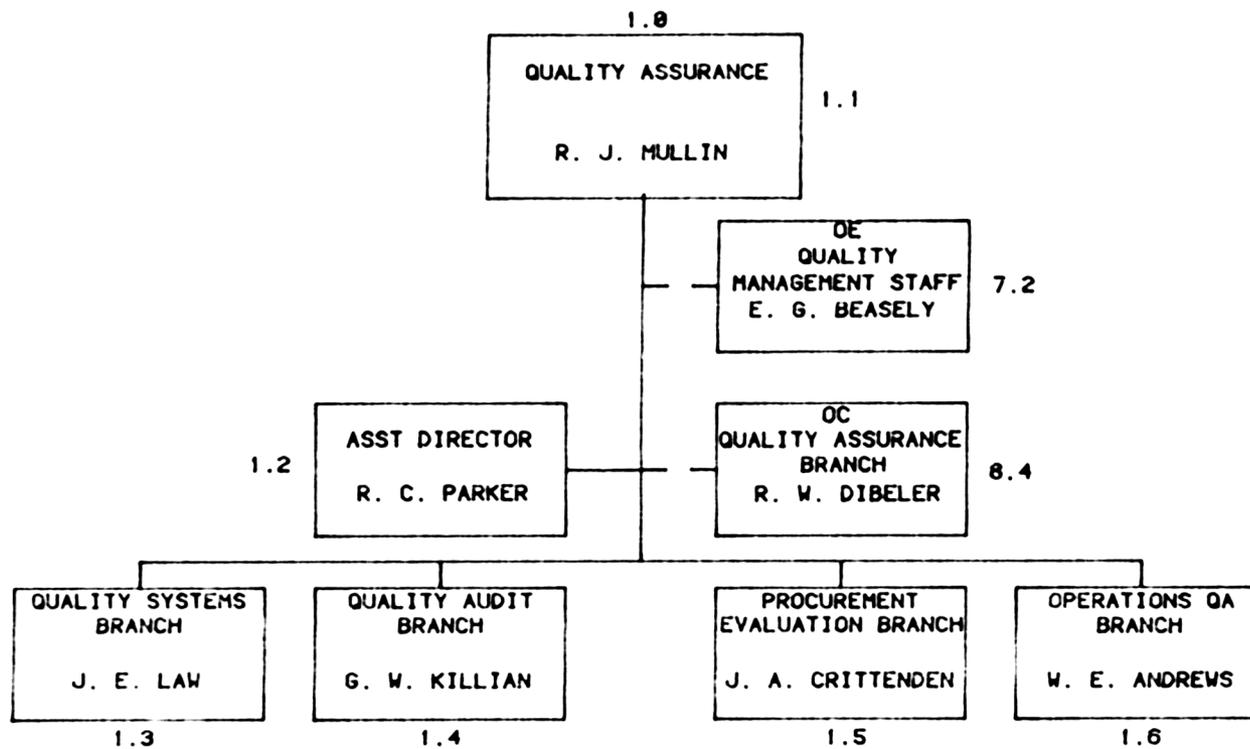
Office of Construction

Descriptions of these organizations are detailed separately in the following pages.

QUALITY ASSURANCE (QA)

The mission is to develop and maintain a quality assurance (QA) program for the design, construction, and operation of TVA nuclear facilities which meets TVA policy and regulatory requirements. Activities supporting the accomplishment of this mission include maintenance of the QA Topical Report which delineates TVA's QA program commitments to NRC; development and maintenance of the upper tier quality program policies and requirements for nuclear activities, including design, construction, and operation; definition of policy and requirements interpretations; definition and implementation of quality engineering and quality controls (QCs), surveillance, inspection, and verification activities in support of the site directors' ultimate responsibility for quality at the operating nuclear plants; and definition and implementation of a comprehensive audit program in compliance with nuclear regulatory requirements covering operation, modifications, support activities, and suppliers and an overview audit program of design and construction.

The above activities are functionally integrated with and supported by quality assurance organizations internal to TVA's design and construction organizations. Specifically, the Quality Management Staff in the Office of Engineering is responsible for assuring that an effective quality assurance program is established, implemented and applied during nuclear design activities. The Construction Quality Assurance Branch in the Office of Construction has the same responsibility during nuclear construction activities.



DIVISION OF QUALITY ASSURANCE
SUMMARY OF EDUCATION AND EXPERIENCE

<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
1.1 Robert J. Mullin	Division Director, Quality Assurance	M.S. Nuclear Engineering	13	Division Director, Quality Assurance
1.2 Richard C. Parker	Assistant Division Director, Quality Assurance	M.S. Nuclear Engineering	8	Assistant Division Director, Quality Assurance
1.3 James E. Law	Branch Chief, Quality Systems	M.S. Business Administration	8	Branch Chief, Quality Systems
1.4 Gerald W. Killian	Branch Chief, Quality Audit Evaluation	B.S. Industrial Management	11	Branch Chief, Quality Audit Assurance
1.5 James A. Crittenden	Branch Chief, Procurement	B.S. Electrical Engineering	14	Branch Chief, Procurement Evaluation
1.6 Walter E. Andrews	Branch Chief, Operations Quality Assurance	B.S. Electrical Engineering	23	Branch Chief, Operations Quality Assurance

Division of Quality Assurance

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	28	23	51
MS Eng/Rel Sci	6	2	8
PhD Eng/Rel Sci	-	-	1
BS Other	2	2	4
MS Other	1	-	1
PhD Other	-	-	-
AS Degree	3	1	4
Nondegree	<u>8</u>	<u>1</u>	9
Total	48	29	

QA - Engineering

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	18	-	18
MS Eng/Rel Sci	-	-	-
PhD Eng/Rel Sci	-	-	-
BS Other	2	-	2
MS Other	-	-	-
PhD Other	-	-	-
AS Degree	-	-	-
Nondegree	<u>4</u>	<u>5</u>	9
Total	24	5	

QA - Construction

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	3	2	5
MS Eng/Rel Sci	-	1	1
PhD Eng/Rel Sci	-	-	-
BS Other	-	-	-
MS Other	-	-	-
PhD Other	-	-	-
AS Degree	-	-	3
Nondegree	<u>2</u>	<u>1</u>	
Total	5	4	

QA for Power and Engineering (Nuclear)

Division of QA	
Manager	48
Engineer/Professional	29
Office of Engineering QA	
Manager	24
Engineer/Professional	5
Office of Construction QA	
Manager	5
Engineer/Professional	4
Total	<u>115</u>

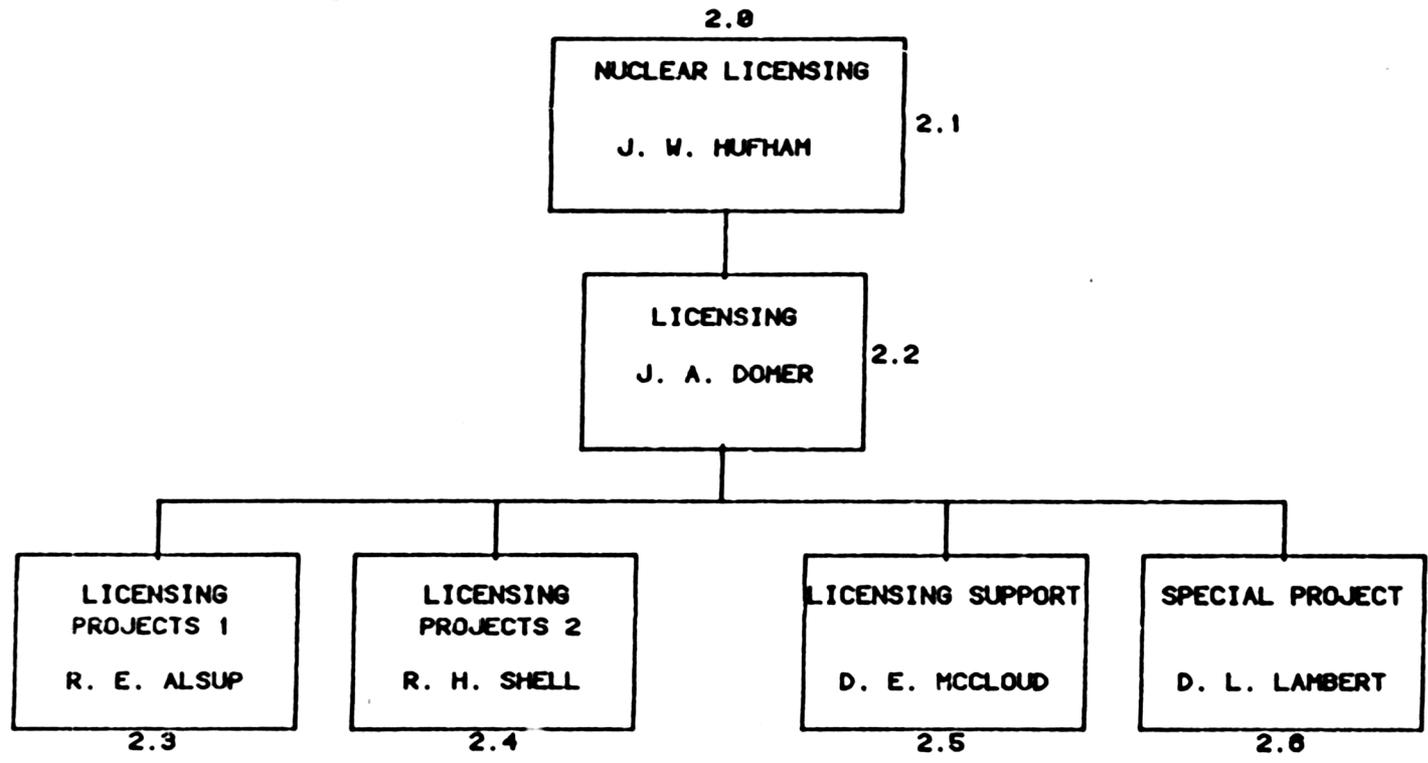
NUCLEAR LICENSING (NL)

NL is comprised of a manager, a branch chief, and 4 staffs. The mission of this organization is to provide direct technical support in the following areas: construction permits, nuclear material and fuel licenses, reload licenses, special project licenses, and operating licenses for nuclear facilities.

Nuclear Licensing

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	4	12	16
MS Eng/Rel Sci	2	13	5
PhD Eng/Rel Sci		1	1
BS Other			
MS Other			
PhD Other			
AS Degree			
Nondegree			
	—	—	
Total	6	16	

In addition, the Office of Engineering has 13 employees supporting licensing activities.



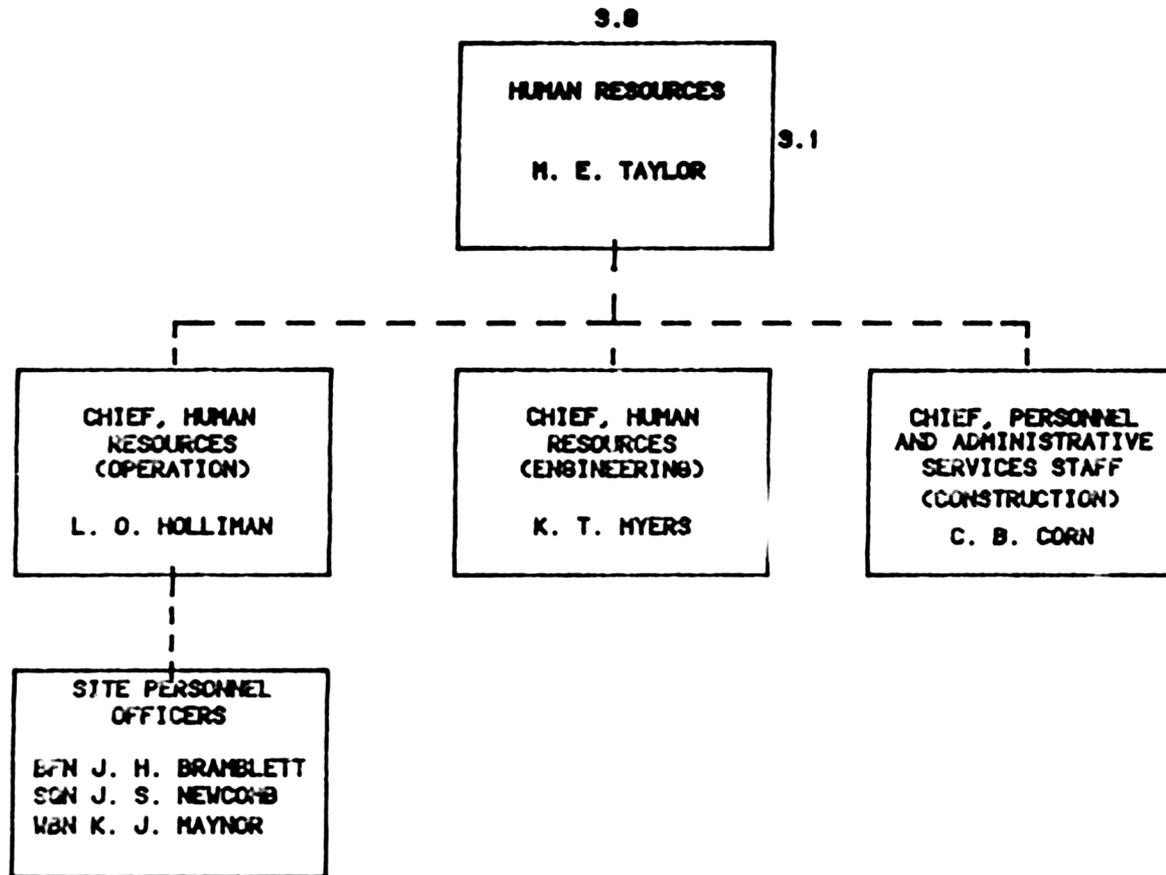
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NUCLEAR LICENSING
SUMMARY OF EDUCATION AND EXPERIENCE

	<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
2.1	James W. Hufham	Manager, Nuclear Licensing	M.S. Reactor Physics	6	Chief, Branch, Nuclear Services
2.2	James A. Domer	Branch Chief, Licensing	B.S. Mechanical Engineering	19	Supervisor, Section, Licensing
2.3	Robert E. Alsup	Supervisor, Section Licensing Project 1 Section	B.S. Nuclear Engineering	12	Supervisor, Section, Licensing Project 1 SQNP
2.4	Ralph H. Shell	Supervisor, Licensing Project 2 Section	B.S. Mechanical Engineering	14	Supervisor, Section, Licensing
2.5	Dennis E. McCloud	Supervisor, Licensing	B.S. Engineering Science	11	Supervisor, Section, License Support
2.6	David L. Lambert	Supervisor, Special Project	M.S. Physics	10	Supervisor, Section, Special Projects

HUMAN RESOURCES

The Human Resources manager has a common overall mission to plan and execute an effective and efficient integrated human resource program. This is accomplished through tight functional control of personnel staffs in Engineering, Construction and Operations, and ensure that the human resource program complies with TVA policies and procedures, TVA negotiated labor agreements, and Federal regulations applicable to TVA. Major functions of the program are: human resource development (nonmanagement and management employees), manpower planning and forecasting, classification and pay, union management relations, TVA equal opportunity program, organization structure and alignment, and special nuclear pay plans.



- - - DENOTES FUNCTIONAL CONTROL

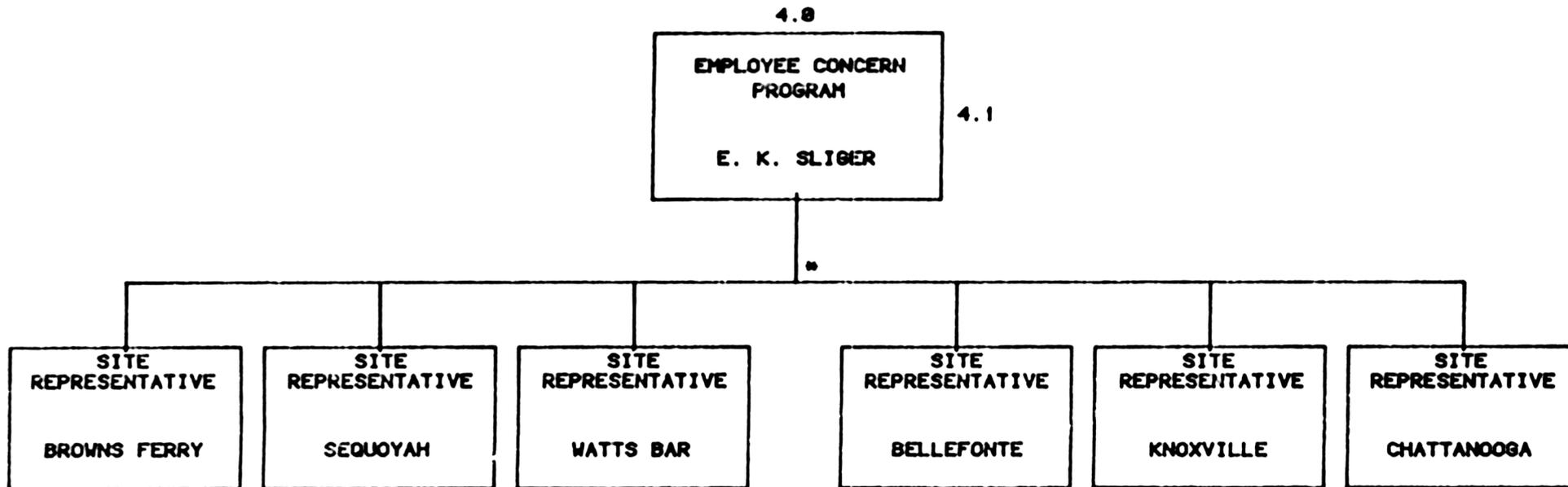
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HUMAN RESOURCES
SUMMARY OF EDUCATION AND EXPERIENCE

<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
3.1 Marilyn E. Taylor	Manager, Human Resources	----	6	Director, Division Personnel

EMPLOYEE CONCERN PROGRAM (ECP)

The ECP is comprised of a manager with one site representative at each location and is scheduled to be in place and functioning at all plant sites and in the central offices by February 1, 1986. The mission of this organization is to establish and maintain an ECP which addresses and resolves employee concerns identified within the nuclear organization and to promote this program with all levels of managers and employees within the P&E (Nuclear) organization.



*ALL POSITIONS TO BE FILLED AND IN PLACE BY FEBRUARY 1, 1986.

P&E (NUC) - HRM
12/28/85
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EMPLOYEE CONCERN PROGRAM
SUMMARY OF EDUCATION AND EXPERIENCE

<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
4.1 Eric Sliger	Manager, Employee Concerns	B.S. Nuclear Engineering	15	Supervisor, Section, Radiological Protection

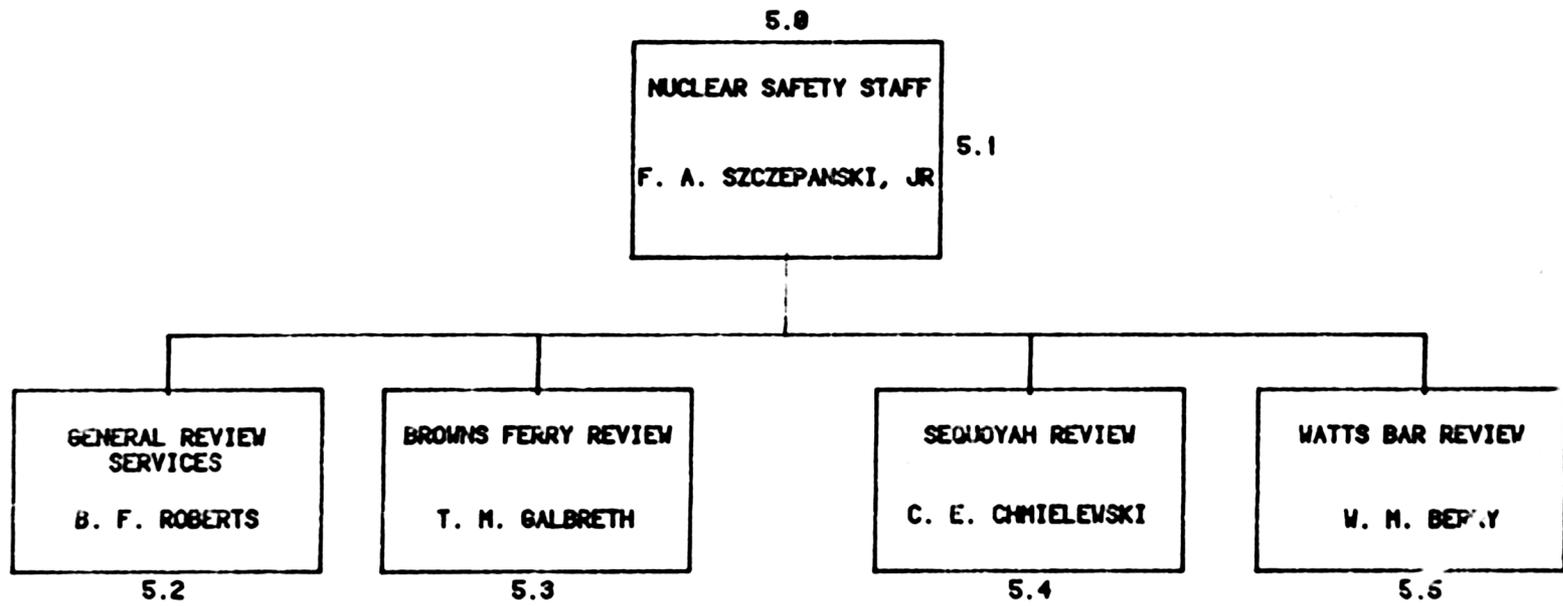
NUCLEAR SAFETY STAFF (NSS)

NSS is comprised of a chief and four review groups. The mission of this organization is to provide full-time member and technical support for the operating plants' Nuclear Safety Review Board (NSRB). This is accomplished through the three Plant Review Groups and a General Review Services Group. Additional members of the NSRB come from other management positions within TVA. These NSRB members serve part-time and are assisted by NSS.

The NSS organization is comprised of eight managers and supporting administrative and clerical personnel.

Nuclear Safety Staff (NSS)

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	4		4
MS Eng/Rel Sci	4		4
PhD Eng/Rel Sci			
BS Other			
MS Other			
PhD Other			
AS Degree			
Nondegree	—		
Total	8		



P&E (NUC) - HRM
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NUCLEAR SAFETY STAFF
SUMMARY OF EDUCATION AND EXPERIENCE

<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
5.1 Felix A. Szczepanski, Jr.	Chief, Nuclear Safety Staff	B.S. Science	18	Chief of Staff, Nuclear Safety
5.2 Barton F. Roberts	Nuclear Engineering General Review & Services	M.S. Physical Chemistry	15	Nuclear Engineer, Nuclear Safety
5.3 Timothy M. Galbreath	Nuclear Engineering, BFN Review	M.S. Nuclear Engineering	13	Nuclear Engineer, Nuclear Safety
5.4 Charles E. Chmielewski	Nuclear Engineering, SQN Review	M.S. Nuclear Engineering	5	Nuclear Engineer, Nuclear Safety
5.5 Wayne M. Berry	Nuclear Engineering, WBN Review	B.S. Nuclear Engineering	9	Nuclear Engineer, Nuclear Safety

DIVISION OF NUCLEAR SERVICES (NUC SVCS)

NUC SVCS is comprised of a division director and six branches. NUC SVCS is responsible for providing engineering and technical services in a broad range of disciplines to the nuclear sites on a requested basis. The mission of this organization is to (1) maintain centrally located specialized expertise where full-time plant staffing is not required or is difficult to maintain or where Power and Engineering (Nuclear) management has directed the need for consistency of program support between sites, (2) investigate issues affecting more than one site and issues not directly related to day-to-day site activities, and (3) provide technical support in establishing policy and monitoring and assessing plant performance in areas of operations and maintenance. This is accomplished through the Uranium Administration Branch (UAB), Radiological Health Staff (RHS), Uranium Operations Branch (UOB), Nuclear Training Branch (NTB), Risk Protection Branch (RPB), and the Maintenance and Engineering (M&E).

UAB is responsible for activities related to acquiring an adequate supply of uranium concentrates, including scheduling for TVA production.

RHS recommends and interprets policy for radiation protection and control programs for TVA activities where radiation and radioactive materials are used. This includes evaluating the adequacy of the implementation of radiation protection programs and evaluating plans for proposed and modified nuclear facilities relative to achieving ALARA goals.

DIVISION OF NUCLEAR SERVICES (NUC SVCS) (CONTINUED)

UOB is responsible for TVA uranium operations and for monitoring and evaluating contractor's activities for compliance with the technical aspects of plans and budgets approved by TVA.

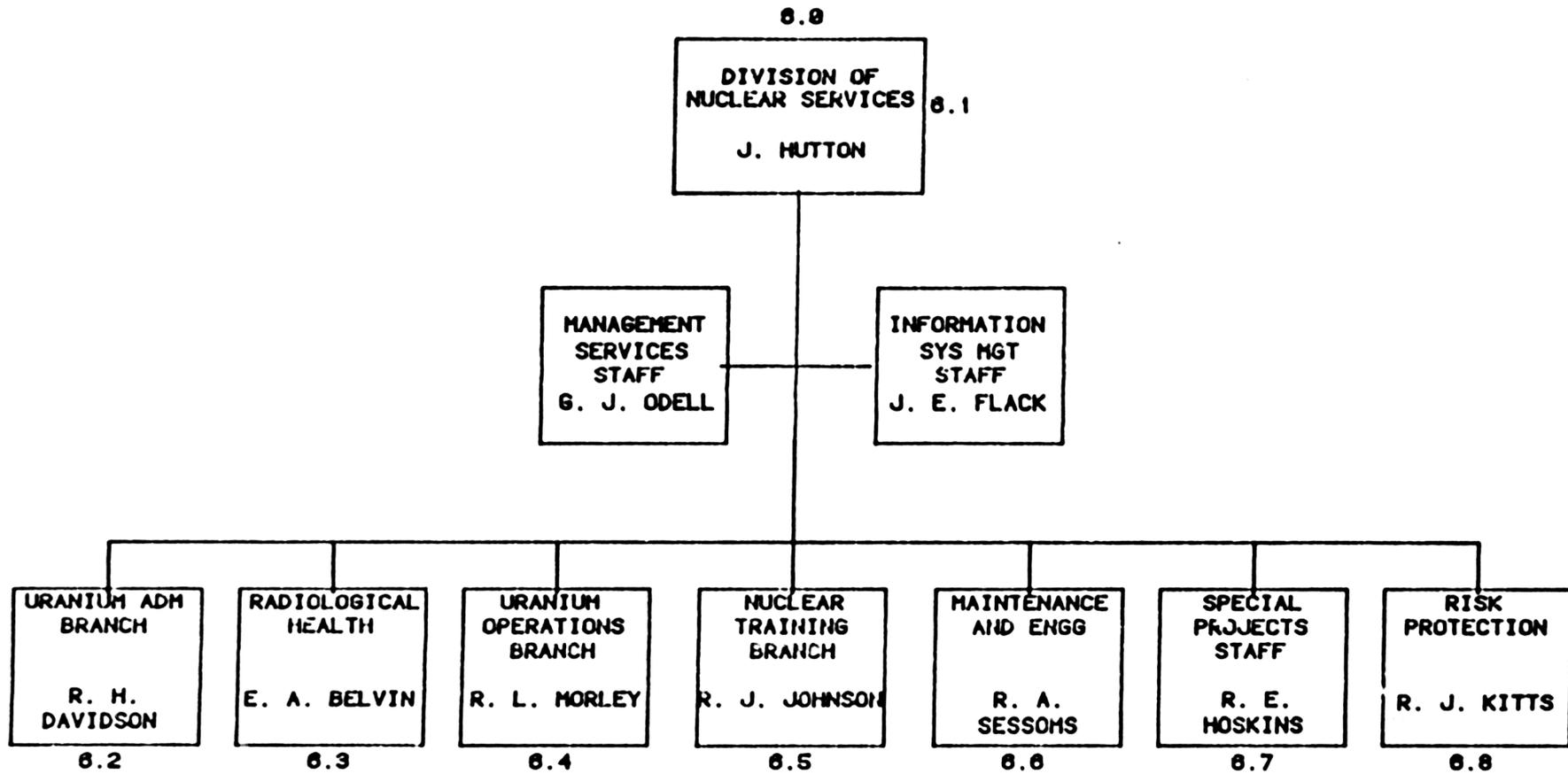
NTB is responsible for developing and administering all major technical training programs for the nuclear plants.

RPB is responsible for providing corporate policies and standards for the development and maintenance of Power and Engineering (Nuclear) protection programs, which include: loss prevention; nuclear insurance; nonradiological environmental; security, including unescorted access and safeguards information; and emergency preparedness.

M&E is responsible for providing direct technical support to the nuclear plants in the areas of M&E, including mechanical engineering; reactor engineering; electrical, instrumentation, and controls engineering; fuel management; and core design.

Division of Nuclear Services

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	64	139	203
MS Eng/Rel Sci	31	45	76
PhD Eng/Rel Sci	7	4	11
BS Other	3	21	24
MS Other	7	6	13
PhD Other			1
AS Degree	2	3	5
Non-Degree	<u>22</u>	<u>9</u>	31
Total	136	227	



P&E(NUC)-HRM
12/28/85
JHNUCSVS

DIVISION OF NUCLEAR SERVICES
SUMMARY OF EDUCATION AND EXPERIENCE

<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
6.1 John W. Hutton	Division Director, Nuclear Services	B.S. Mechanical Engineering	11	Branch Chief, Nuclear Services, WBNP
6.2 Robert H. Davidson	Branch Chief, Uranium Administration	M.S. Business Administration	20	Branch Chief, Uranium Administration
6.3 Ernest A. Belvin	Manager, Radiological Services	B.S. Chemistry	21	Manager, Radiological Services
6.4 Richard L. Morley	Branch Chief, Uranium Operations	B.S. Geology	10	Branch Chief, Uranium Operations
6.5 R. Joe Johnson	Branch Chief, Nuclear Training	Ph.D. Nuclear Engineering	9	Branch Chief, Nuclear Training
6.6 Richard A. Sessoms	Manager, Maintenance & Engineering	B.S. Nuclear Engineering	13	Manager, Maintenance & Engineering
6.7 Raymond E. Hoskins	Staff Chief, Special Projects	B.S. Mechanical Engineering	18	Chief Staff, Special Projects
6.8 Bonnie J. Kitts	Branch Chief, Risk Protection	M.S. Education	14	Supervisor, Section, Risk Protection

OFFICE OF ENGINEERING (OE)

(NUCLEAR)

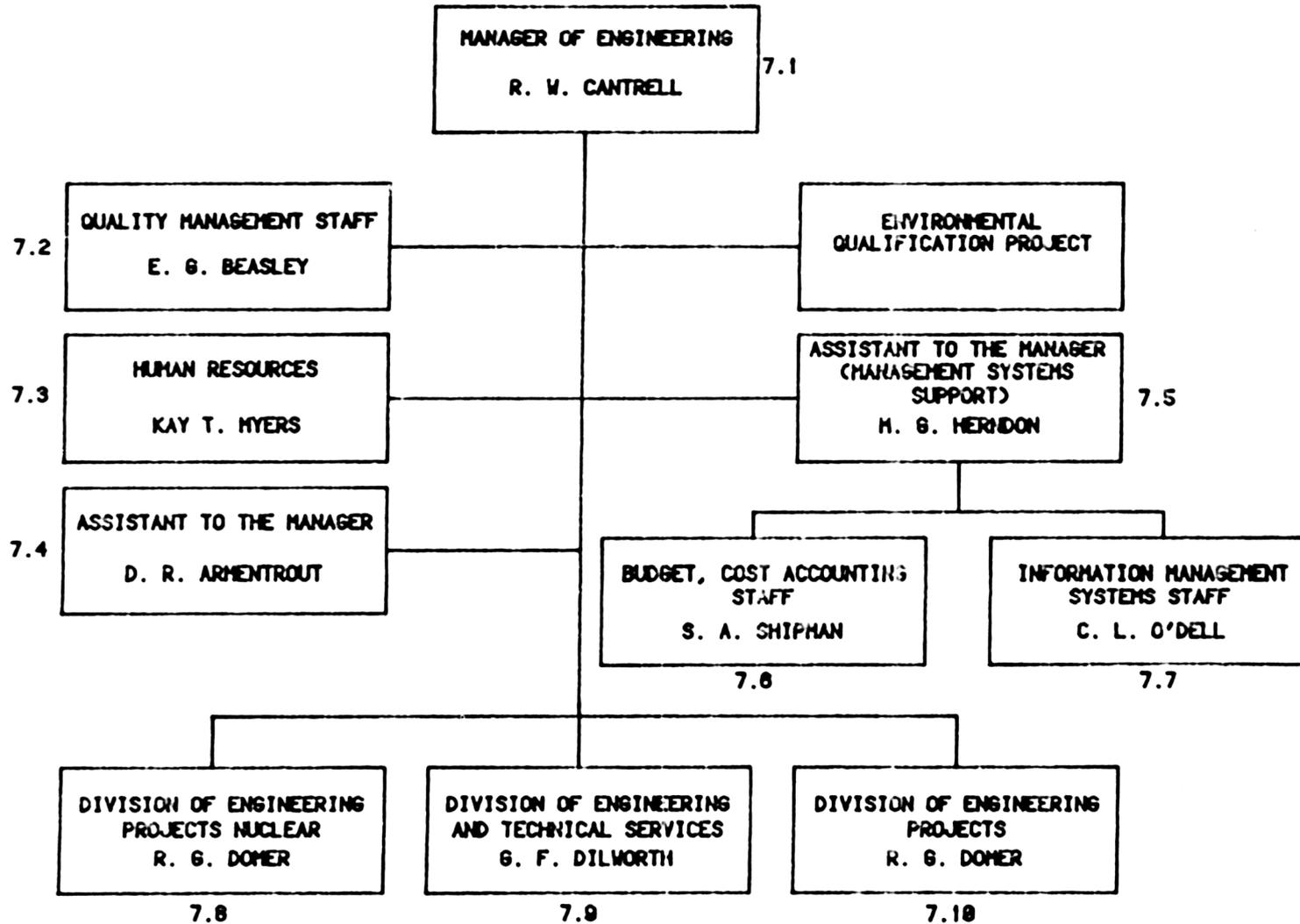
The OE is responsible for design integrity of TVA nuclear facilities. The organization consists of three divisions: Engineering Projects Nuclear, Engineering Projects, and Engineering and Technical Services.

Office of Engineering

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
BS Eng/Rel Sci	239	666	905
MS Eng/Rel Sci	72	147	219
PhD Eng/Rel Sci	5	6	11
BS Other	22	55	77
MS Other	4	11	15
PhD Other	-	-	-
AS Degree	1	7	8
Nondegree	<u>9</u>	<u>18</u>	27
Total	352	910	

OFFICE OF ENGINEERING
DECEMBER 1985

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OFFICE OF ENGINEERING
SUMMARY OF EDUCATION AND EXPERIENCE

<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
7.1 Robert W. Cantrell	Manager, Office of Engineering	B.S. Electrical Engineering	31	Manager, Office of Engineering
7.2 E. Gray Beasley	Chief of Staff, Quality Management	M.S. Mechanical Engineering	35	Chief of Staff, Quality Management
7.3 Kay T. Myers	Manager, Human Resources	B.S. Business Administration	11	Manager, Human Resources
7.4 Daryl R. Armentrout	Assistant to Manager, Office of Engineering	Ph.D. Chemical Engineering	18	Assistant to Manager, Office of Engineering
7.5 Morris G. Herndon	Assistant to Manager, Office of Engineering	B.S. Electrical Engineering	19	Assistant to Manager, Office of Engineering
7.6 Samuel A. Shipman	Budget Officer, Budget, Cost Accounting Staff	B.S. Civil Engineering	14	Budget Officer, Cost, Budget Accounting Staff
7.7 Charles L. O'Dell	Chief, Information Management Systems Staff	B.S. Industrial Engineering	13	Chief, Information Management Systems Staff

DIVISION OF ENGINEERING PROJECTS NUCLEAR

The Division of Engineering Projects Nuclear (DEPN) is comprised of six projects and one staff and is responsible for managing and administering the requirements and resources for the nuclear projects for OE.

The Division Services Staff (Nuclear) provides administration and support to the projects on budget costs and schedules.

The Bellefonte, Browns Ferry, Sequoyah, and Watts Bar Nuclear plants' engineering projects establishes and maintains the project scope, costs, schedules, budgets, quality, etc., for that respective project.

The Investment Recovery Project is responsible for managing the TVA program for handling excess inventories resulting from the cancellation or deferral of the nuclear plant construction program.

The Welding Project is responsible for examining and verifying that the TVA-performed welding of structures, piping systems, and other safety-related plant components meet regulatory requirements.

DIVISION OF ENGINEERING PROJECTS NUCLEAR

DECEMBER 1985

7.8

DIRECTOR OF
ENGINEERING
PROJECTS NUCLEAR

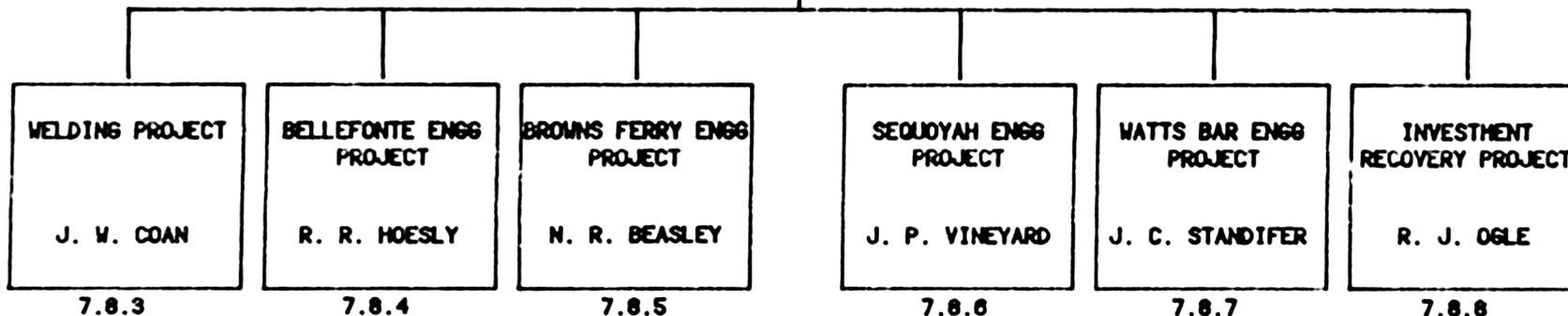
R. G. DOMER

7.8.1

DIVISION
SERVICES STAFF

B. H. HIXSON

7.8.2



12/30/85
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OFFICE OF ENGINEERING
DIVISION OF EDUCATION AND EXPERIENCE
SUMMARY OF EDUCATION AND EXPERIENCE

<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
7.8.1 Ronald G. Domer	Director, Engineering Projects	Ph.D. Mechanical Engineering	25	Director, Engineering Projects
7.8.2 Basil H. Hixson	Chief, Division Services Staff	M.S. Business Administration	10	Chief, Division Services Staff
7.8.3 James W. Coan	Project Manager, Welding Project	B.S. Civil Engineering	17	Project Manager, WBNP, Engineering Project, Division of Engineering Projects, Nuclear
7.8.4 Richard R. Hoesly	Project Manager, BLNP, Engineering Project	B.S. Aeronautics Engineering	14	Staff Engineer, BLNP Engineering Project Division of Engineering Projects, Nuclear
7.8.5 N. Revis Beasley	Project Manager, BFNP, Engineering Project	B.S. Mechanical Engineering	15	Project Manager, BFNP, Engineering Project
7.8.6 James P. Vineyard	Project Manager, SQNP, Engineering Project	B.S. Civil Engineering	26	Project Manager, SQNP, Engineering Project
7.8.7 Jimmy C. Standifer	Project Manager, WBNP, Engineering Project	B.S. Electrical Engineering	23	Project Manager, BLNP, Engineering Project, Division of Engineering Projects, Nuclear
7.8.8 Ronald J. Ogle	Project Manager, Investment Recovery	B.S. Electrical Engineering	21	Project Manager, Investment Recovery

DIVISION OF ENGINEERING AND TECHNICAL SERVICES

The Division of Engineering and Technical Services consists of an Assistant to the Division Director (Electrical Issues Program), two staffs, and six branches which provide engineering resources, consultant services, technical direction and services, expertise, and technical and administrative direction of these resources to the Division of Engineering Projects Nuclear and the Division of Engineering Projects, by maintaining a central body of expertise and experience in all necessary engineering disciplines and technical specialties.

The Assistant to the Division Director (Electrical Issues Program) is responsible for ensuring that all electrical systems in place in TVA's nuclear plants perform their intended safety functions.

The Technical and Administrative Staff provides management, technical, and administrative support to these organizations on workload and engineering resource planning, prepares and administers the division's budget, and provides contract administration for personal services and architect-engineer contracts, and provides contract services for acquisition of equipment, materials, supplies, etc., for OE.

The Personnel Services Staff provides personnel services for OE, implementing plans for recruiting, staffing, management/employee training, personnel administration programs, policies, procedures, and EEO/affirmative action programs.

DIVISION OF ENGINEERING AND TECHNICAL SERVICES (CONTINUED)

The Engineering and Computer Methods Branch provides resources in the areas of assessment, application, development, maintenance, and planning of scientific and business computer application systems.

The Civil Engineering Branch provides resources in the areas of structural and civil engineering, engineering mechanics, geology, site development and project layout, highway, railroad, and bridge engineering, piping analysis, and pipe support design.

The Nuclear Engineering Branch provide resources in the areas of nuclear features and systems and nuclear steam supply systems contract administration, overall plant safety, radiation control and protection; radwaste and environmental control; nuclear licensing and regulatory compliance, preoperational and startup testing; codes, standards, metallurgy, and welding engineering; and quantitative analysis, reliability, availability, and risk analysis.

The Quality Engineering Branch provides resources in the areas of vendor surveillance, procurement document quality requirement review and plant surveys to determine bidder's capabilities and creates and maintains the primary vendor record source.

DIVISION OF ENGINEERING AND TECHNICAL SERVICES (CONTINUED)

The Electrical Engineering Branch provides resources in the areas of electrical systems engineering, electrical equipment contract engineering, instrumentation and controls engineering, communications systems engineering, and operator interface computer applications engineering.

The Mechanical Engineering Branch provides resources in all areas of basic plant arrangements and mechanical systems/equipment, and mechanical, environmental, chemical, fire protection, and health and safety engineering.

DIVISION OF ENGINEERING AND TECHNICAL SERVICES
DECEMBER 1985

7.9

DIRECTOR OF ENGINEERING
AND TECHNICAL SERVICES
G. F. DILWORTH

7.9.1

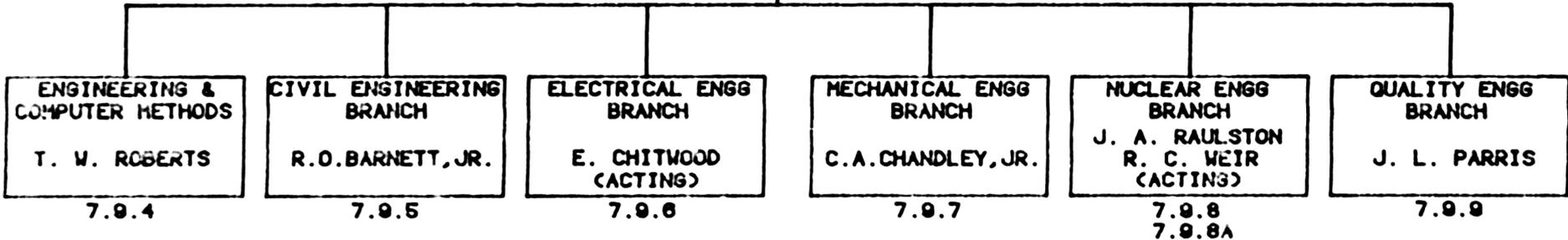
ASSISTANT TO DIVISION
DIRECTOR (ELECTRICAL
ISSUES)
JIMMY D. COLLINS

7.9.2

PERSONNEL SERVICES
STAFF
KAY T. MYERS

TECHNICAL AND
ADMINISTRATIVE STAFF
JOHN R. LYONS

7.9.3



12/30/85
DIRENGG

OFFICE OF ENGINEERING
 DIVISION OF ENGINEERING AND TECHNICAL SERVICES
 SUMMARY OF EDUCATION AND EXPERIENCE

	<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
7.9.1	G. F. Dilworth	Director, Engineering and Technical Services	B.S. Mechanical Engineering	26	Director, Engineering and Technical Services
7.9.2	Jimmy D. Collins	Assistant to Division Director (Electrical Issues)	B.S. Electrical Engineering	16	Project Engineering, WBNP,
7.9.3	John R. Lyons	Chief, Technical and Administrative Staff	M.S. Nuclear Engineering	12	Chief, Technical and Administrative Staff
7.9.4	Thomas W. Roberts	Chief, Engineering and Computer Methods Branch	B.S. Civil Engineering	20	Chief, Engineering and Computer Methods
7.9.5	Robert O. Barnett	Chief, Civil Engineer, Civil Engineering Branch	B.S. Civil Engineering	20	Chief, Civil Engineer, Civil Engineering Branch
7.9.6	Eugene Chitwood	Chief, Electrical Engineer, Electrical Engineering Branch	B.S. Electrical Engineering	27	Acting Branch Chief, Engineer, Electrical Engineering Branch
7.9.7	C. A. Chandley, Jr.	Chief, Mechanical Engineer, Mechanical Engineering Branch	B.S. Mechanical Engineering	27	Chief, Mechanical Engineer, Mechanical Engineering Branch
7.9.8	John A. Paulston	Chief, Nuclear Engineer, Nuclear Engineering Branch	B.S. Nuclear Engineering	16	Chief, Nuclear Engineer, Nuclear Engineering Branch
7.9.8.a	Randall C. Weir	Chief, Nuclear Engineer (Acting)	M.S. Mechanical Engineering	15	Mechanical Engineer, Nuclear Engineering Branch, Division of of Engineering Design
7.9.9	John L. Parris	Chief, Quality Engineering Branch	M.S. Business Administration	17	Chief, Quality Engineering Branch

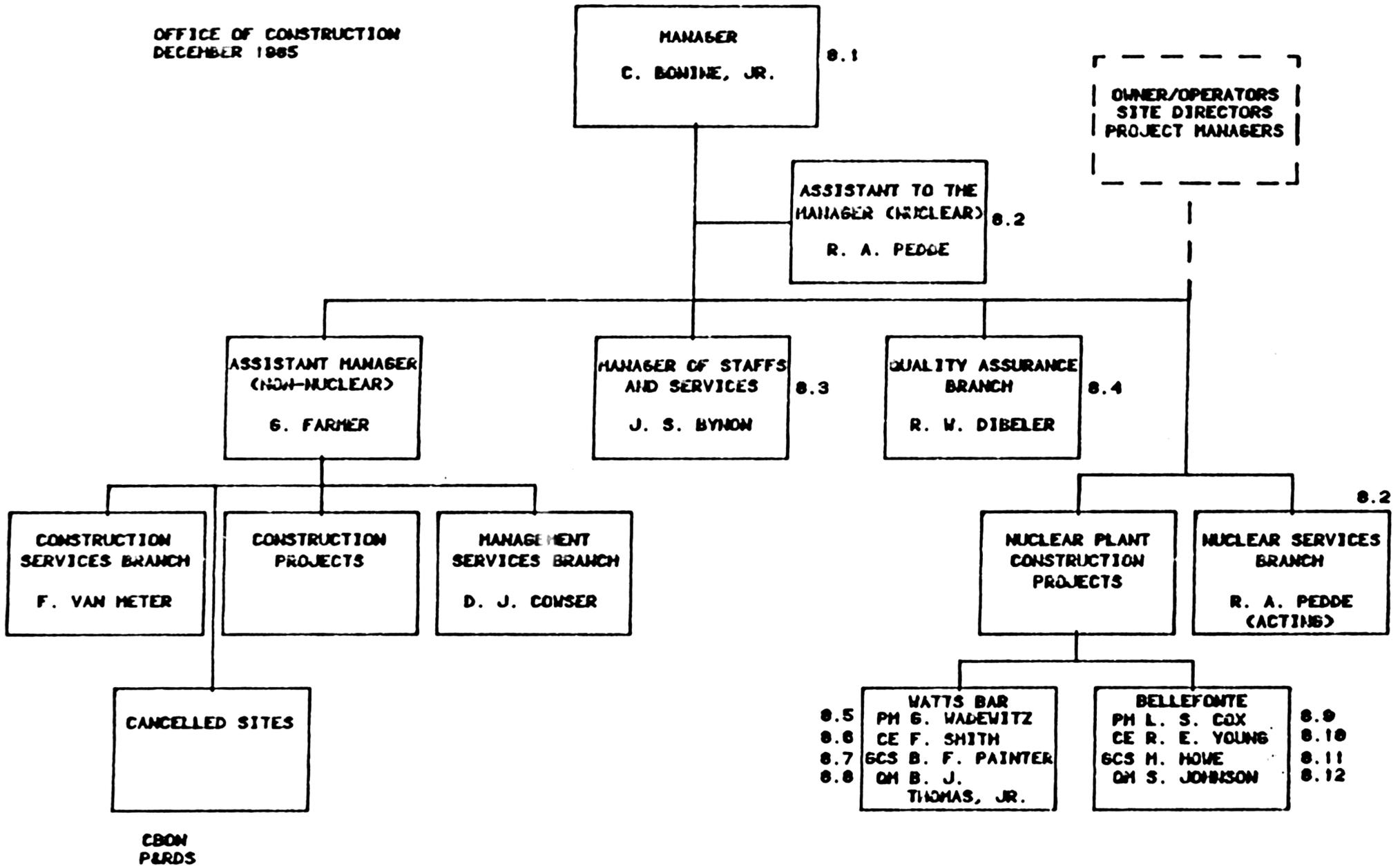
OFFICE OF CONSTRUCTION (OC) - NUCLEAR

OC (Nuclear) provides high quality, cost-competitive construction services. It carries out or obtains the construction in accordance with approved designs of structures, power plants, facilities, and engineering works coming under the construction responsibility of the Manager of Engineering and Construction, including all pertinent works connected with the completion of projects for operation. It provides management, field engineering, and craft services for approved modifications, rehabilitation, major additions and improvements to existing plants, structures, and facilities. Upon request, it also performs miscellaneous construction or maintenance for other program organizations as is determined to be feasible and economical. It maintains TVA's core capability for the efficient management and performance of construction and modification services.

Office of Construction

<u>Degree</u>	<u>Manager</u>	<u>Engineer/Professional</u>	<u>Total</u>
B.S. Eng/Rel Sci	49	106	155
M.S. Eng/Rel Sci	3	3	6
Ph.D. Eng/Rel Sci	-	-	-
B.S. Other	9	7	16
M.S. Other	1	-	1
Ph.D Other	-	-	-
A.S. Degree	1	2	3
Nondegree	<u>46</u>	<u>11</u>	57
Total	109	129	

OFFICE OF CONSTRUCTION
DECEMBER 1985



OFFICE OF CONSTRUCTION
SUMMARY OF EDUCATION AND EXPERIENCE

	<u>Name</u>	<u>Job Title</u>	<u>Education</u>	<u>TVA Time (Years)</u>	<u>Previous Assignment</u>
8.1	Charles Bonine, Jr.	Manager, Office of Construction (Nuclear)	B.S. Civil Engineering	36	Manager, Office of Construction
8.2	Robert A. Pedde	Assistant to Manager of Construction (Nuclear)	B.S. Civil Engineering	16	Assistant to Manager of Construction (Nuclear)
8.3	John S. Bynon, Sr.	Manager, Staffs and Services	B.S. Management	35	Manager, Staffs and Services
8.4	Raymond W. Dibeler	Branch Chief, Quality Assurance	----	13	Branch Chief, Quality Assurance
8.5	Guenter Wadewitz	Project Manager, WBNP	B.S. Electrical Engineering	35	Project Manager, WBNP
8.6	Floyd Smith, Jr.	Construction Engineer, WBNP	B.S. Civil Engineering	12	Assistant Construction Engineer, WBNP
8.7	Bennie F. Painter	Construction Superintendent, WBNP	----		Construction Superintendent, BLNP
8.8	Bobby J. Thomas, Jr.	Quality Manager, WBNP	B.S. Civil Engineering	19	Quality Manager, BLNP
8.9	Lonnie S. Cox	Project Manager, BLNP	B.S. Civil Engineering	24	Proj Manager, YCNP
8.10	Ronald E. Young	Construction Engineer, BLNP	B.S. Industrial Engineering	17	Construction Engineer, BLNP
8.11	Maxell Howe	Construction Superintendent, BLNP	----	16	Assistant Construction Superintendent, BLNP
8.12	Shelton Johnson	Quality Manager, BLNP	B.S. Mechanical Engineering	24	Quality Manager, WBNP

ATTACHMENT 4

RESUMES

1.1 NAME: ROBERT J. MULLIN

TITLE: DIVISION DIRECTOR, QUALITY ASSURANCE

EDUCATION: 1959 B.S. CHEMISTRY, ILLINOIS INSTITUTE OF TECHNOLOGY
1964 M.S. NUCLEAR ENGINEERING, UNIVERSITY OF ILLINOIS

LICENSE/
CERTIFICATES: 1968 REGISTERED PROF ENGI

TVA
EXPERIENCE: 10/84 - 00/00 DIR, DIVISION
CHAT QA
SUPERVISOR: J. P. DARLING
DUTIES: ESTABLISH AND IMPLEMENT A QUALITY
ASSURANCE (QA) PROGRAM FOR NUCLEAR PLANT
DESIGN, CONSTRUCTION, AND OPERATION

08/81 - 10/84 ASST DIR. DIVISION
CHAT FUELS DIRS OFC
SUPERVISOR: A. T. MULLINS
DUTIES: SUPERVISE ACTIVITIES OF THREE BRANCHES
RESPONSIBLE FOR URANIUM SUPPLY,
CONVERSION ENRICHMENT, FAB, ENGINEERING,
AND PLANNING

12/74 - 08/81 CHIEF
CHAT FUELS URANIUM ADM
SUPERVISOR: J. P. DARLING
DUTIES: URANIUM SUPPLY
URANIUM MINIMUM AND MILLING

04/78 - 12/79 CH, BRANCH
CHAT FUELS NUC FUEL
SUPERVISOR: J. P. DARLING
DUTIES: RESPONSIBLE FOR ENGINEERING AND TECHNICAL
ASPECTS OF NUCLEAR FUEL SUPPLY CONTRACTS

12/75 - 04/78 NCLR ENGR
CHAT FUELS NUC FUEL
SUPERVISOR: R. H. DAVIDSON
DUTIES: ASSISTANT BRANCH CHIEF

01/73 - 12/75 SUP, SECTION
CHAT PRP NUCLR ENG N FUELS ENG
SUPERVISOR: R. H. DAVIDSON
DUTIES: NUCLEAR FUELS ENGINEERING & DEVEL
NUCLEAR FUELS QA
NUCLEAR FUELS MATERIAL CONTROL AND ACCTG

NAME: ROBERT J. MULLIN (CONTINUED)

OTHER

EXPERIENCE: 06/64 - 09/68 NUC ENGR, SUPT OF REORATORY
NUCLEAR ENGINEER
REPAIRS, ALTERATIONS, MAINTENANCE, SCHEDULE, AND
COORDINATION OF REACTOR PLANT TO MEET
EXPERIMENTERS NEEDS (SUPERVISION)

MILITARY

EXPERIENCE: 06/59 - 99/99 CAPTAIN (O-6) U.S. NAVY
NUCLEAR AND CHEMICAL WARFARE DEFENSE

1.2 NAME: RICHARD C. PARKER

TITLE: ASSISTANT DIVISION DIRECTOR, QUALITY ASSURANCE

EDUCATION: 1963 B.S. PHYSICS, UNIVERSITY OF LOUISVILLE
1970 M.S. NUCLEAR ENGINEERING, UNIVERSITY OF WASHINGTON

NON-DEGREE COURSEWORK: 11/81 - 11/81 QUALITY CONTROL CIRCLES AND
PRODUCTIVITY MGT
UNIVERSITY OF TENNESSEE

TVA EXPERIENCE: 08/84 - 00/00 ASST DIR, DIVISION
CHAT QA
SUPERVISOR: R. J. MULLIN
DUTIES: ASSIST TO THE DIRECTOR IN MANAGEMENT OF
TVA'S NUCLEAR QA PROGRAM

02/84 - 08/84 MGR, TECH SUPP
CHAT NUC PR TECH SPT
SUPERVISOR: H. J. GREEN
DUTIES: SUPERVISE DIVISION OF NUCLEAR POWER
QUALITY ENGINEERING, TRAINING, AND
EMERGENCY PREPAREDNESS BRANCHES

02/83 - 02/84 CH, BRANCH
CHAT NUC PR QUAL ENG
SUPERVISOR: H. J. GREEN
DUTIES: MANAGE DIVISION OF NUCLEAR POWER QA
PROGRAM INCLUDING PROGRAMS, PLANT QA
STAFFS AND ISI INSPECT ACTIVITIES

12/79 - 02/83 ASST DIR, DIVISION
CHAT NUC PR DIRS OFC
SUPERVISOR: JACK CALHOUN
DUTIES: FUNCTIONAL SUPERVISION OF DIVISION STAFFS
(QA, PERSONNEL, MANAGEMENT SERVICES,
SAFETY, FIRE PROTECTION)

03/79 - 12/79 SUP, STAFF
CHAT P PROD DIRS OFC
SUPERVISOR: JACK CALHOUN
DUTIES: DEVELOP AND MAINTAIN OPERATIONAL QA
MANUAL FOR NUCLEAR PLANTS - SUPERVISE
FIELD QC STAFF

01/78 - 03/79 SUP, STAFF
CHAT P PROD DIRS OFC
SUPERVISOR: JACK CALHOUN
DUTIES: DEVELOP AND MAINTAIN OPERATIONAL QA
MANUAL FOR NUCLEAR PLANTS - SUPERVISE
FIELD QC STAFF

NAME: RICHARD C. PARKER (CONTINUED)

OTHER

EXPERIENCE: 05/72 - 01/78 U.S. NUCLEAR REGULATORY COMMISSION
REACTOR INSPECTOR
PRIN INSPECTOR FOR BW AND PWR IN PREOPERATIONAL
TESTING, STARTUP, AND OPERATIONS PHASE

MILITARY

EXPERIENCE: 06/63 - 08/69 LIEUTENANT U.S. NAVY
QUALIFIED NUCLEAR WATCH OFFICER, NUCLEAR ENGINEER-
ING DIV OFFICER (ELECT & REACTOR CONTROL DIVISION)

1.3 NAME: JAMES E. LAW

TITLE: BRANCH CHIEF, QUALITY SYSTEMS

EDUCATION: 1971 B.S. INDUSTRIAL MANAGEMENT, UNIVERSITY OF ALABAMA
1974 MB ADM, UT CHATTANOOGA

NON-DEGREE
COURSEWORK: 05/78 - 05/78 RELIABILITY SEMINAR
UNIVERSITY OF ARIZONA

LICENSE/
CERTIFICATES: 1976 ASQC - CERT. QU ENGR TN

TVA
EXPERIENCE: 08/84 - 00/00 CH, BRANCH
CHAT QA QUAL SYS
SUPERVISOR: R. J. MULLIN
DUTIES: SUPERVISED QUALITY PROJECTS, DEVELOPMENT,
APPLICATION GROUPS IN DEVELOPING AND
MAINTAINING WRITTEN QA PROGRAMS

03/84 - 08/84 HEAD, GROUP
CHAT NUC PR QUAL ENG
SUPERVISOR, W. E. ANDREWS
DUTIES: SUPERVISED TO COMPLIANCE, QUALITY
PROGRAMS, AND PROCUREMENT SECTIONS

08/82 - 03/84 SUP, SECTION
SQNP NUC PR QUAL ENG
SUPERVISOR: D. O. MCCLOUD
DUTIES: SUPERVISED 40 MAN STAFF OF INSPECTORS AND
QUALITY ENGINEERS PROVIDING QA SERVICES
TO SQNP

01/80 - 08/82 SUP, SECTION
CHAT NUC PR DIRS OFC QUAL PROGRAM
SUPERVISOR: W. E. ANDREWS
DUTIES: SUPERVISED QUALITY ENGINEERS IN
DEVELOPING/MAINTAINING THE OQAM

04/78 - 01/80 COORDINATOR
BFNP P PROD DIRS OFC FIELD QA
SUPERVISOR: R. C. PARKER
DUTIES: SUPERVISED INSPECTORS AND QA ENGRS OF THE
FIELD QA SECTION IN SUPPORT OF BFNP
OUTAGE WORK

OTHER
EXPERIENCE: 11/73 - 01/75 COMBUSTION ENGINEERING
QUALITY ASSURANCE ENGINEER II
DEVELOPMENT OF ASME SECTION III QA MANUALS FOR
MANUFACTURER OF NUCLEAR POWER PLANT COMPONENTS

NAME: JAMES E. LAW (CONTINUED)

OTHER

EXPERIENCE: 05/71 - 11/73 COMBUSTION ENGINEERING
(CONTINUED) PRODUCTION FOREMAN
RESPONSIBLE FOR QUALITY, SCHEDULE, DIRECT
LABORER PERFORMANCE, AND SAFETY IN THE MANUFACTURE
OF PWR PLANT COMPONENTS (SUPERVISION)

10/65 - 05/66 UNIVERSITY OF ALABAMA
ENGINEERING ASSISTANT
PERFORMED MATHEMATICAL CALCULATIONS, GRAPHING, AND
DRAFTING (SUPERVISION)

1.4 NAME: GERALD W. KILLIAN

TITLE: BRANCH CHIEF, QUALITY AUDIT

EDUCATION: 1964 B.S. INDUSTRIAL MANAGEMENT, AUBURN UNIVERSITY

NON-DEGREE
COURSEWORK: 01/76 - 03/76 BASIC ULTRASONIC EXAMINATION AND
RADIOGRAPHIC EXAMINATION
CHATTANOOGA STATE TECHNICAL
COMMUNITY COLLEGE

LICENSE
CERTIFICATES: 1971 CERT QUALITY ENGR
1976 ASNT LEVEL III NDE
1978 REGISTERED PROF ENGR

TVA
EXPERIENCE: 08/84 - 00/00 CH, BRANCH
CHAT QA QUALITY AUDIT
SUPERVISOR: R. J. MULLIN
DUTIES: DIRECTING THE TVA QUALITY AUDIT PROGRAM
FOR NUCLEAR POWER

10/82 - 10/84 HEAD, GROUP
CHAT OFF OF QA OPERS QA
DUTIES: QA POLICY AND PROCEDURES, AUDITOR TRNG
AND CERT, BR PROCEDURES, REVIEW
CONCURRENCE OF NUC PR QA PROCEDURES

12/81 - 10/82 SUP, SECTION
CHAT EN SPY QA AUDIT Q PLNG & ENG
SUPERVISOR: A. W. CREVASSE
DUTIES: QA POLICY AND PROCEDURES, AUDITOR TRNG
AND CERT, BR PROCEDURES, REVIEW
CONCURRENCE OF NUC PR QA PROCEDURES

11/79 - 12/81 QUAL ASSURANCE EVAL
CHAT POWER NUCL STS
SUPERVISOR: T. B. LEE
DUTIES: QA AUDITING OF NUCLEAR PLANT OPERATIONS

01/78 - 11/79 QUAL ASSURANCE COOR
SQNP POWER QA&AUDIT
SUPERVISOR: A. W. CREVASSE
DUTIES: MONITORED THE IMPLEMENTATION OF SQN QA
PROGRAM

06/75 - 01/78 QUAL ASSURANCE EVAL
CHAT POWER QA&AUDIT
SUPERVISOR: A. W. CREVASSE
DUTIES: QA TRAINING COORDINATOR FOR OFFICER OF
POWER

NAME: GERALD W. KILLIAN (CONTINUED)

TVA

EXPERIENCE: 12/74 - 06/75 QUAL ASSURANCE ENGR
(CONTINUED) CHAT POWER QA&AUDIT
SUPERVISOR: A. W. CREVASSE
DUTIES: QA AUDITOR
QC INSPECTION SUPERVISOR AT BFNP DURING
FIRE RESTORATION PROGRAM

OTHER

EXPERIENCE: 06/69 - 09/71 WESTINGHOUSE ELECTRIC CORPORATION
QUALITY ASSURANCE ENGINEER
DESIGN, IMPLEMENTATION, AND CONTROL OF QUALITY
SYSTEMS AND PROCEDURES USED IN MANUFACTURE OF
NUCLEAR STEAM EQUIPMENT

06/69 - 08/71 WESTINGHOUSE ELECTRIC
QUALITY ASSURANCE ENGINEER
ESTABLISHED, IMPLEMENTED, AND MONITORED QUALITY
REQUIREMENTS FOR NUCLEAR CODE COMPONENTS

08/65 - 11/67 COMBUSTION ENGINEERING COMPANY
PRODUCTION ANALYST
EXPEDITE FABRICATING OF PARTS AND SUB-ASSEMBLIES
THROUGH MANUFACTURING SHOPS

08/65 - 06/69 COMBUSTION ENGINEERING COMPANY
QUALITY ENGINEER II
MONITOR FABRICATION AND AUDIT PROCEDURES TO ASSURE
ADEQUATE PLANNED INSPECTION POINTS

08/65 - 05/69 COMBUSTION ENGINEERING COMPANY
PRODUCTION ANALYST AND QUALITY ENGINEER
ESTABLISHED, IMPLEMENTED, AND MONITORED QUALITY
REQUIREMENTS FOR NUCLEAR CODE COMPONENTS

1.5 NAME: JAMES A. CRITTENDEN

TITLE: BRANCH CHIEF, PROCUREMENT EVALUATION

EDUCATION: 1970 B.S. ELECTRICAL ENGINEERING, UNIVERSITY OF CALIFORNIA,
LOS ANGELES

TVA
EXPERIENCE: 08/84 - 00/00 CH, BRANCH
KNOX QA

03/84 - 08/84 SUP, SECTION
BLNP QA QA STAFF Q ENG & CONT
SUPERVISOR: WALTER ANDREWS
DUTIES: SUPERVISED ALL ACTIVITIES OF THE QA STAFF
AT THE BLNP

09/83 - 03/84 SUP, UNIT
BLNP NUC PR QUAL ENG
SUPERVISOR: LARRY MCCLOUD
DUTIES: SUPERVISED ALL ACTIVITIES OF THE FIELD
QUALITY ENGINEERING SECTION

11/82 - 09/83 SUP, SECTION
KNOX OGM OQA

07/81 - 11/82 NCLR ENGR
KNOX OGM NSRS

02/78 - 07/81 SUP, UNIT
SURG CONST PHIPPS B

03/77 - 02/78 SUP, SECTION
KNOX EN DES QUAL EN

09/74 - 03/77 QUAL ASSURANCE EVAL
KNOX EN DES T&A SVS

01/74 - 09/74 QUAL ASSURANCE ENGR
KNOX EN DES T&A SVS

06/71 - 01/74 ELEC ENGR
KNOX

OTHER
EXPERIENCE: 03/70 - 06/71 LOS ANGELES DEPARTMENT WATER AND POWER
ELECTRICAL ENGINEER
WROTE SPECIFICATIONS FOR TRANSFORMERS, CIRCUIT
BREAKERS, AND OTHER POWER EQUIPMENT

08/65 - 02/67 AEROMECHANISMS, INC.
ENGINEERING ASSISTANT
WROTE ASSEMBLY AND CALIBRATION PROCEDURES FOR
AIRCRAFT INSTRUMENTS, EVALUATED VARIOUS DESIGNS

NAME: JAMES A. CRITTENDEN (CONTINUED)

MILITARY
EXPERIENCE: 11/59 - 11/63 E-4 USAF

1.6 NAME: WALTER E. ANDREWS

TITLE: BRANCH CHIEF, OPERATIONS QA

EDUCATION: 1962 B.S. ELECTRICAL ENGINEERING, TENNESSEE TECHNICAL UNIVERSITY

NON-DEGREE
COURSEWORK: 11/81 - 11/81 QUALITY CONTROL CIRCLES AND PRODUCTION BY MANAGEMENT
UNIVERSITY OF TENNESSEE

TVA
EXPERIENCE: 02/84 - 00/00 CH, QUAL ENG BRANCH
CHAT NUC PR TECH SPT

12/79 - 02/84 CH STAFF
CHAT NUC PR DIRS OFC

08/74 - 12/79 SUP, NUC PLT QA STAFF
SQNP NUC PR SQNP

11/72 - 08/74 ELEC ENGR
SQNP P PROD P PLT MT SQNP PREOP TS

05/71 - 11/72 ELEC ENGR
CHAT P PROD P PLT MT PLT ELECTRIC

04/64 - 05/71 ELEC ENGR
CHAT P PROD P PLT MT PLT ELECTRIC

05/63 - 04/64 ELEC ENGR
TUSC P PROD ST EL GEN

03/63 - 05/63 ELEC ENGR
WILS P PROD HYDRO GEN

06/62 - 03/63 ELEC ENGR
CHAT P PROD P PLT MT PLT ELECTRIC

2.1 NAME: JAMES W. HUFHAM

TITLE: MANAGER, NUCLEAR LICENSING

EDUCATION: 1968 B.S. CHEMISTRY, UNIVERSITY OF ALABAMA
 1972 M.S. REACTOR PHYSICS, UNIVERSITY OF MICHIGAN

NON-DEGREE
 COURSEWORK: 00/00 - 00/00 U.S. NUCLEAR REGULATORY COMMISSION
 COURSES
 OAK RIDGE ASSOCIATED UNIVERSITY

LICENSE/
 CERTIFICATES: 1975 CERT OF APPRECIATION
 1983 ALARA AWARENESS

TVA
 EXPERIENCE: 04/85 - 00/00 MGR
 CHAT NUC SVCS

07/81 - 04/85 CH, BRANCH
 CHAT NUC SVCS

11/79 - 07/81 ASTO DIR, DIVISION
 CHAT NUC SVCS DIRS OFC

OTHER
 EXPERIENCE: 01/77 - 00/00 U.S. NUCLEAR REGULATORY COMMISSION
 CHIEF, ENVIRONMENTAL AND SPECIAL PROJECTS SECTION
 IMPLEMENTATION OF NON-RADIOLOGICAL ENVIRONMENTAL,
 EMERG-PLNG AND CONFIRMATORY MEASUREMENTS PROGRAMS
 (SUPERVISION)

09/74 - 01/77 U.S. NUCLEAR REGULATORY COMMISSION
 RADIATION SPECIALIST
 DEVELOPING THE ENVIRONMENTAL SURVEILLANCE PROGRAMS
 FOR FIXED NUCLEAR FACILITIES WITHIN THE STATE

09/68 - 09/74 STATE OF ALABAMA
 RADIATION PHYSICIST
 DEVELOPING THE ENVIRONMENTAL SURVEILLANCE PROGRAMS
 FOR FIXED NUCLEAR FACILITIES WITHIN THE STATE

2.2 NAME: JAMES A. DOMER

TITLE: BRANCH CHIEF, LICENSING

EDUCATION: 1972 B.S. MECHANICAL ENGINEERING, UNIVERSITY OF TENNESSEE

TVA
EXPERIENCE: 04/85 - 00/00 CH, BRANCH
CHAT NUC SVCS LICENSING

04/82 - 04/85 SUP, SECTION
CHAT NUC SVCS LICENSING

12/79 - 04/82 SUP, SECTION
CHAT POWER NUCL STS

03/78 - 12/79 NCLR ENGR
CHAT FUELS REGULATY

08/76 - 03/78 NCLR ENGR
CHAT FUELS REGULATY

01/75 - 08/76 NCLR ENGR
CHAT FUELS NCLR ENG

12/73 - 01/75 NCLR ENGR
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06/66 - 08/66 ENGR AIDE
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