

VERMONT YANKEE NUCLEAR POWER CORPORATION

SEVENTY SEVEN GROVE STREET
RUTLAND, VERMONT 05701

TELEPHONE 802-775-2964

August 10, 1979

United States Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Office of Nuclear Reactor Regulation

Reference: (a) Letter dated June 29, 1979, signed by Harold R. Denton
Subject: Management and Technical Resources Available to
Handle Unusual Events

(b) Docket No. 50-271, License No. DPR-28

Gentlemen:

The Vermont Yankee Nuclear Power Corporation (VYNPC) was formed to construct and operate the Vermont Yankee Nuclear Power Station in Vernon, Vermont. VYNPC is jointly owned by ten New England electric utility companies. The principal owner of VYNPC is the Central Vermont Public Service Corporation, whose President and Chief Executive Officer is also the President and Chief Executive Officer of VYNPC.

VYNPC maintains a corporate office in Rutland, Vermont, headed by the Executive Vice President, who has complete line management responsibility and authority for the company, reporting to the President and CEO.

VYNPC has a contractual arrangement with the Nuclear Services Division (NSD) of Yankee Atomic Electric Company (YAEC) for the provision of certain technical and managerial support services in the areas of engineering, construction and operation. The Senior Vice President and Vice President of YAEC are also Vice Presidents of VYNPC. Our contract with NSD assures us the availability of the extensive technical support capability of NSD on a day-to-day basis as well as during an emergency.

VYNPC is a member of a mutual assistance pact with the Maine Yankee Atomic Power Company and the Yankee Atomic Electric Company, which gives us the additional support capability of these operating companies and their personnel on an as needed basis.

We also continue to have a substantial business relationship with the General Electric Company, the NSSS supplier for VYNPC, on a broad spectrum of support activities. This includes the full-time presence on site of a General Electric

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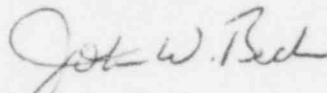
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operations support engineer, who has immediate contact capability with the entire General Electric nuclear design and support organization.

We trust this summary and the detailed attachments will be responsive to your needs as expressed in Mr. Denton's letter of June 29, 1979.

Very truly yours,



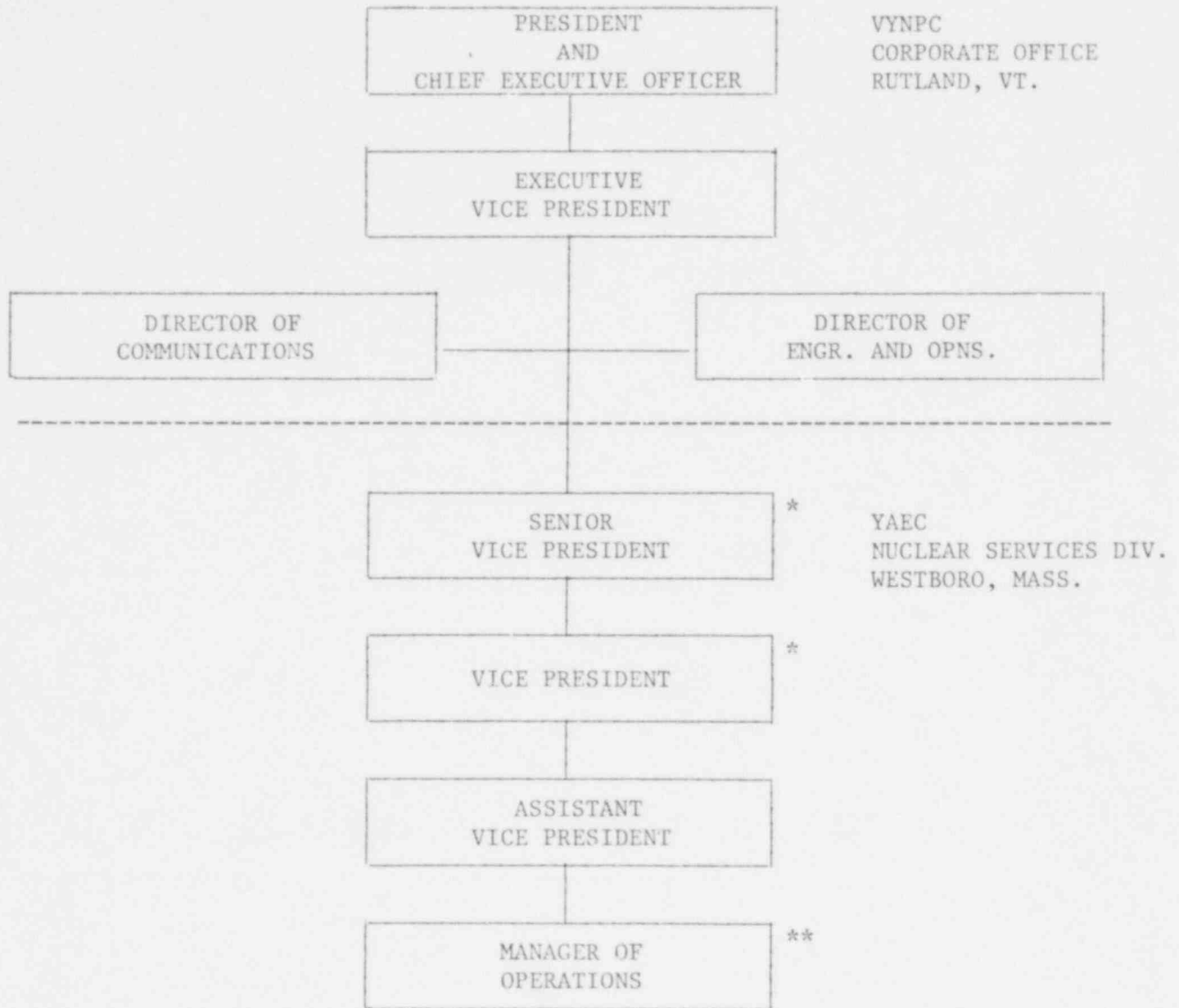
John W. Beck
Executive Vice President

JWB/cmm

Attachment

I.

MANAGEMENT RESOURCES (OFFSITE)



*Also Vice Presidents, VYNPC

**The Plant Superintendent, VYNPS, reports to the Manager of Operations on all matters relative to the operation of the plant and the Technical Specifications.

MANAGEMENT POSITIONS - RUTLAND

1. President

A. Educational Background

1. Bachelor of Science - Penn State University, 1953
2. Master of Science - Penn State University, 1955

B. Experience

1. Nuclear

Six years of experience as an executive manager of a nuclear generating company, VYNPC.

1973 - 1974 Executive Vice President, Director of VYNPC
1974 - Present President, CEO, Director of VYNPC

2. Other

1959 - 1964 Director Area Development, Central Vermont Public Service Corp.

1965 - 1970 Vice President Sales & Area Development, Central Vermont Public Service Corp.

1971 Executive Vice President, Central Vermont Public Service Corp.

Vice President, Vermont Electric Power Co., Inc.

1972 President, Director, Central Vermont Public Service Corp.

President, Director, Vermont Electric Power Co., Inc.

1973 President, CEO, Director, Central Vermont Public Service Corp.

President, CEO, Director, Vermont Electric Power Co. Inc.

1974 Chairman, CEO, Director, Vermont Electric Power Co., Inc.

2. Executive Vice President

A. Educational Background

1. Bachelor of Science in Engineering Physics - University of Tulsa, 1964
2. Bettis Reactor Engineering School (Six Months) - Bettis Atomic Power Laboratory, 1967
3. Station Nuclear Engineer's Course (12 Weeks) - General Electric, 1969
4. Master of Science in Mechanical Engineering (Power Option) - Northeastern University, 1970

B. Experience

1. Nuclear (Directly Related)

Fifteen years of nuclear experience in all aspects of nuclear power including research, design and development, safety and transient analysis, core physics analyses, general engineering management, and corporate management of nuclear generating company.

1964 - 1967 Bettis Atomic Power Laboratory, experimental and analytical core physics, experimental critical facility design and operations.

1967 - 1976 Yankee Atomic Electric Company, various engineering and management positions culminating as Director of Engineering for NSD. This position had overall responsibility for plant, Reactor and Environmental Engineering Departments as well as research and engineering development and computer applications for NSD.

1976 - Present Elected Vice President of VYNPC and assumed overall line-management responsibility for the company, reporting directly to the President and CEO. Elected Executive Vice President in 1977.

2. Other

Chairman, Engineering and Operations Task Force, EPRI

Member, Nuclear Divisional Committee, EPRI

Chairman, Oversight Committee, Radiological Environmental Laboratory, YAEC

3. Director of Engineering and Operations

A. Educational Background

1. Bachelor of Science in Engineering - U.S. Naval Academy, 1962
2. Master of Science in Materials Engineering - Worcester Polytechnic Institute, 1976

B. Experience

1. Nuclear (Directly Related)

Seventeen years of nuclear experience in all engineering and operational aspects of nuclear power.

1962 - 1969 U.S. Navy, Naval Nuclear Officer serving in various engineering posts, including two years as Chief Engineer of a Polaris nuclear submarine. Was responsible for the safe operation, maintenance and repair of the entire engineering plant, including the nuclear reactor, the propulsion and electrical generating equipment.

1969 - 1977 Yankee Atomic Electric Company, various engineering and management positions including his last position as Plant Engineering Department Manager responsible for systems, electrical, instrument and control, mechanical and operational engineering.

1977 - Present VYNPC, responsible to the Executive Vice President as Director of Engineering and Operations for providing the necessary information and staff management to assure the continued safe and efficient operation of the VYNPC nuclear plant.

2. Other

Registered Professional Engineer in the states of Massachusetts, New Hampshire and California.

Initial Chairman, BWR Mark I Owner's Group
Chairman, BWR Owner's Group to address TMI concerns.

4. Director of Communications

A. Educational Background

1. A.B., Cum Laude in Chemistry, Mount Holyoke College, 1969
2. M.S. in Physical Chemistry, University of Pennsylvania, 1970

B. Experience

1. Nuclear (Directly Related)

Eight years of nuclear experience in research, design, development engineering and communications with the media and public.

1971 - 1973 Westinghouse Research and Development, Radcon procedures for LMFBR primary systems and leak detection methods for sodium containing systems.

1973 - 1975 Combustion Engineering, testing program for steam generator materials/chemistry compatibility, effects of various coolant additives and impurities, steam generator design and performance.

1975 - 1977 Reddy Communications, specialized and general energy research for training programs, aiding utility companies in developing responses for the public to emergency situations, planning and participation in information programs regarding nuclear power.

1977 - Present VYNPC, responsible for developing and implementing the corporate communications program both internally and externally, including the media and regulatory bodies.

2. Other

Chairperson, Nuclear Energy Women, New England Region
Member, American Nuclear Society, Safety Program Committee

Authority:

The President and Executive Vice President have the authority to direct all resources available to the company and to provide the overall executive management function in case of an emergency. These resources include the corporate management staff as well as those available from the Nuclear Services Division of Yankee Atomic Electric Company.

MANAGEMENT POSITIONS - WESTBORO

1. Senior Vice President (YAEC), Vice President, (VYNPC)

A. Educational Background

BSME

B. Experience

1. Nuclear (Directly Related)

Twenty years nuclear experience in all phases of nuclear plant design, construction, startup and operation. Has held positions of Project Engineer for the design and construction of a large PWR. Responsible for pre-op testing and startup of a large PWR. Plant Superintendent of a Westinghouse FWR, Vice President of Yankee Atomic Electric Company responsible for the Engineering and Operation of 2 PWR's and 1 BWR in New England. Professional Engineer in states of Massachusetts, New Hampshire, and California. Member American Nuclear Society. Serving as Vice Chairman of Operations Sub-Committee of AIF Policy Committee on Follow-Up to TMI-2 Accident.

2. Other

Twelve earlier years in fossil fired power production utility serving in engineering and supervisory capacities.

2. Vice President (YAEC), Vice President (VYNPC)

A. Educational Background

1. BSME
2. One year assignment at Argonne National Laboratory for work and training on the Experimental Boiling Water Reactor. While at Argonne took advanced math courses from the University of Illinois - Chicago Extension, and Reactor Theory and Reactor Control courses at the Argonne International School.
3. Held reactor operator license and senior reactor operator license on a Westinghouse PWR.

B. Experience

1. Nuclear (Directly Related)

Twenty-two years nuclear experience including positions as Plant Superintendent for a Westinghouse PWR, Manager of Operations for two Westinghouse PWR's, one C.E. PWR and one G.E. BWR. Vice President with overall responsibility for Engineering, Construction, Project Management and Quality Assurance.

2. Other

Eight earlier years as a utility engineer in Instrument and Control supervision for a fossil fired electric power production company.

Registered Professional Engineer in the State of Maine, New Hampshire and Commonwealth of Massachusetts. Member of the American Nuclear Society, Reactor Operation Division, The American Society of Mechanical Engineers, and Past Chairman of ASME Section XI, In-Service Inspection of Nuclear Reactor Coolant Systems; Chairman of the Safety Committee on the Duties and Qualifications of Authorized Inspection Agencies, Inspectors and Specialized Engineers, and the Committee on Operations and Maintenance Requirements for Nuclear Power Plants. Member of the ASME Nuclear Power Codes and Standards Committee, and a former member of the Boiler and Pressure Vessel Committee, and the Policy Board, Codes and Standards.

Authority:

Either of the vice presidents has the authority to allocate the entire resources of the Yankee Atomic Electric Company, as required, to combat an emergency.

3. Assistant Vice President

A. Educational Background

1. BS Chemical Engineering
2. OL and SOL license training, obtaining a SOL license for a Westinghouse PWR

B. Experience

1. Nuclear (Directly Related)

Twenty-four years nuclear experience, 12 of which are nuclear plant experience. Shift Supervisor responsible for reprocessing system operation at Dupont Savannah River Plant. Involved in design of APPR (SM-1 Prototype Nuclear Generating Facility) at Alco Products, Inc., Schenectady. Following assembly of SM-1 at Fort Belvoir, performed evaluation of chemistry and radio chemistry aspects of systems and laboratories during and after plant startup. Held positions as Manager of Plant Chemistry and Radiochemistry, Plant Superintendent for a Westinghouse PWR, Manager of Operations for a Westinghouse PWR, a C.E. PWR and a G.E. BWR, and Assistant Vice President of Operations and Engineering for two PWR's and a BWR.

2. Other

None

Authority:

The Assistant Vice President has the authority to allocate the entire resources of the Yankee Atomic Electric Company engineering and operational disciplines.

4. Manager of Operations

A. Educational Background

1. BSME

2. OL and SOL training, obtaining a OL and SOL license for both a Westinghouse PWR and a Combustion Engineering PWR.

B. Experience

1. Nuclear (Directly Related)

Twelve years of nuclear experience, ten of which were nuclear plants, holding various positions including Plant Superintendent for a C.E. PWR and Manager of Operations for a Westinghouse PWR, a C.E. PWR and a G.E. BWR.

2. Other

Seven earlier years in various engineering assignments in electric utility and fossil fired power plants.

Authority;

The Manager of Operations has the authority to:

1. Initiate the Yankee Mutual Assistance Plan.
2. Dispatch support personnel and equipment to the location of the emergency.
3. Allocate the resources of the Yankee Atomic Electric Company in the disciplines of Operations, Maintenance, Radiological Protection and Communications. Also has the authority to allocate the entire Company resources in the disciplines of Security and Fire Protection.

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MANAGEMENT STAFF - RUTLAND

<u>Title</u>	<u>Degree</u>	<u>License</u>	<u>Total Experience</u>	<u>Nuclear Experience</u>
Mgr., Environmental	B.S., M.S.		35	5
Chief Biologist	B.A., M.A., PhD		16	8
Program Manager	B.S.M.E.	SRO (Cert.)	8	8
Program Manager	B.S.		16	8

MANAGEMENT STAFF - WESTBORO

<u>Title</u>	<u>Degree</u>	<u>License</u>	<u>Total Experience</u>	<u>Nuclear Experience</u>
Principal Engr.	B.S.E.E.		28	20
ATO Vice President	B.S. Chem. Engr.	OL'60, SOL'63	29	25
ATO Vice President	B.A. Phys. M.S.	SOL'71	16	16
	Mng. Sci. & Engr.			
Licensing Engr.	B.S. Sci. & Math		10	10
Jr. Engineer	B.S. Mech. Engr. Tech.		5	5

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II. TECHNICAL RESOURCES

A. Plant Staff

(1) The following tabulation lists those members of the Plant Staff that fall under ANSI N18.1 category of Managers in that they are assigned broad responsibilities for the direction of those departments determined to be part of the emergency response organization.

<u>TITLE</u>	<u>EDUCATIONAL BACKGROUND</u>	<u>INITIAL LICENSE</u>	<u>TOTAL EXP.</u>	<u>NUC. EXP.</u>
<u>Plant Superintendent</u>		ANSI 18.1 (equiv.)	32	17
	Assistant Tester, Narragansett Electric Co. 1953-1962 Captain, U.S. Air Force, Aircraft Controller 1961-1962 Instrumentation & Control Specialist, N.E. Power Co. 1962-1968 Instrumentation & Control Supervisor, V.Y.N.P.C. 1968-1973 Technical Assistant to Plant Superintendent, V.Y.N.P.C. 1973-1974 Special Asst. to Plant Superintendent, V.Y.N.P.C. 1974-1975 Technical Services Supervisor, V.Y.N.P.C. 1975-1977 Plant Superintendent, V.Y.N.P.C. 1977-present			
<u>Asst. Superintendent</u>		OL-MI-67 SOL-MI-67 BS-Physics OL-VY-72	17	17
	Reactor Operator & Technician, Argonne National Lab 1962-1967 Lead Reactor Operator, University of Michigan 1967-1971 Reactor Engineer, Refueling Outage Coordinator, V.Y.N.P.C. 1971-1974 Engineering Support Supervisor, V.Y.N.P.C. 1974-1975 Senior Engineer in Operations, Yankee Atomic Electric Co. 1975-1977 Asst. Plant Superintendent, V.Y.N.P.C. 1977-present			
<u>Operations Supervisor</u>			16	16
	BS-Marine Engineering			
	Chief Nuclear Test Engineer, General Dynamics Corp. 1963-1969 Shift Supervisor, V.Y.N.P.C. 1969-1970 Operations Supervisor, V.Y.N.P.C. 1970-present			

<u>TITLE</u>	<u>EDUCATIONAL BACKGROUND</u>	<u>INITIAL LICENSE</u>	<u>TOTAL EXP.</u>	<u>NUC. EXP.</u>
<u>Maintenance Supervisor</u>			7	6
	BS-Mechanical Engineering			
	Engineer, Combustion Engineering 1972-1973			
	Technical Assistant, V.Y.N.P.C. 1973-1978			
	Maintenance Supervisor, V.Y.N.P.C. 1978-present			
<u>Reactor Engineering & Computer Supervisor</u>			9	9
	BS-Physics			
	Technical Assistant, V.Y.N.P.C. 1970-1973			
	Reactor Engineering Assistant, Tech. Asst. to Rx Engineer			
	Reactor & Computer Supervisor, V.Y.N.P.C. 1973-present			
<u>I&C Supervisor</u>			13	13
	Reactor Operator, U.S. Navy 1966-1970			
	I&C Specialist, V.Y.N.P.C. 1970-1976			
	I&C Technical Assistant, V.Y.N.P.C. 1976-1979			
	I&C Supervisor, V.Y.N.P.C. 4/1979-present			
<u>Chem. & H.P. Supervisor</u>			17	11
	BS-Chemistry			
	Chemical Analyst, Duquesne Light Co. 1962-1967			
	Associate Engineer, Duquesne Light Co. 1967-1968			
	Chemist, Tech. Asst. in Chemistry, Yankee Atomic Electric Co. 1968-1969			
	Chem. & H.P. Supervisor, V.Y.N.P.C. 1969-present			
<u>Engineering Support Supervisor</u>		ANSI 18.1 (equiv.)	16	16
	Senior Electrical Division First Class Petty Officer, U.S. Navy 1963-1969			
	Control Room Operator, V.Y.N.P.C. 1969-1970			
	Supervisory Control Room Operator, V.Y.N.P.C. 1970-1973			
	Tech. Asst. in Engineering Support Department 1973-1976			
	Engineering Support Supervisor, V.Y.N.P.C. 1976-present			

- (2) The following tabulation lists those members of the Plant Staff that fall under ANSI N18.1 category of Professional-Technical in that they are responsible for supervising and performing technical services in the emergency response organization.

<u>TITLE</u>	<u>EDUCATIONAL BACKGROUND</u>	<u>INITIAL LICENSE</u>	<u>TOTAL EXP.</u>	<u>NUC. EXP.</u>
<u>OPERATIONS DEPARTMENT</u>				
<u>Asst. Operations Supervisor</u>		SOL-VY	33	16
	U.S. Navy 1946-1954 Engineer, U.S. Navy 1954-1975 Operating Engineer, U.S. Navy 1957-1959 Senior Chief Engineman, U.S. Navy 1960-1966 Technical Aide, General Dynamics 1966-1968 Shift Supervisor, V.Y.N.P.C. 1969-1976 Asst. Operations Supervisor, V.Y.N.P.C. 1976-present			
<u>MAINTENANCE DEPARTMENT</u>				
<u>Technical Assistant</u>			6	6
	BS-Mechanical Engineering Field Engineer, General Electric Co. 1973-1976 Engineering Special Projects, Stone & Webster Eng. 1976-1977 Maintenance Tech. Asst., V.Y.N.P.C. 1977-present			
<u>Engineering Assistant</u>			10	2
	Electrical Helper, Norfolk Electrical Co. 1969 Wire man, N.E. Power Service Co. 1969-1978 Assistant Plant Mechanic, V.Y.N.P.C. 1978-1979 Engineering Assistant, V.Y.N.P.C. 5/1979-present			
<u>Engineering Assistant</u>			5	5
	ABS-Plant & Soil Science BS-Resource Economics Engineering Assistant, V.Y.N.P.C. 1974-present			

<u>TITLE</u>	<u>EDUCATIONAL BACKGROUND</u>	<u>INITIAL LICENSE</u>	<u>TOTAL EXP.</u>	<u>NUC. EXP.</u>
<u>I&C DEPARTMENT</u>				
<u>Technical Assistant</u>			21	8
	Outside Electrician, Electric Boat 1958-1964 Maintenance Electrician, Dow Chemical Co. 1964-1965 Senior Instr. Man (Journeyman), Dow Chemical Co. 1965-1971 Instrument & Control Specialist, V.Y.N.P.C. 1971-1979 Technical Asst., I&C Department, V.Y.N.P.C. 1979-present			
<u>REACTOR ENGINEERING & COMPUTER</u>				
<u>Reactor Engineer</u>			6	5
	BS-Chemical Engineering Reactor Engineering Assistant, V.Y.N.P.C. 1974-1977 Reactor Engineer, V.Y.N.P.C. 1977-present			
<u>Computer Engineer</u>			14	11
	BS-Electrical Engineering Cadet Engineer, Public Service Electric & Gas Co. 1965-1966 Asst. Engineer, Public Service Electric & Gas Co. 1967 Tech. Foreman for I & C, Public Service Electric Gas & Co. 1967-1968 Computer Engineer, V.Y.N.P.C. 1968-present			
<u>CHEM & HP DEPARTMENT</u>				
<u>Technical Assistant</u>			31	27
	BS-Physiology Assistant Rad. Engineer, Knolls Atomic Power 1948-1954 Company Health Physicist, Alco Products, Inc. 1954-1958 Radiological Safety Engineer, USAEC 1958-1962 Plant Health Physicist, V.Y.N.P.C. 1966-1974 Tech. Asst. Rad & Environmental & Non-Radiological, V.Y.N.P.C. 1974-present			

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<u>TITLE</u>	<u>EDUCATIONAL BACKGROUND</u>	<u>INITIAL LICENSE</u>	<u>TOTAL EXP.</u>	<u>NUC. EXP.</u>
<u>Health Physicist</u>			10	10
	Health Physicist, V.Y.N.P.C. 1969-present			
<u>Research Assistant</u>			7	7
	BS-Health Physics			
	Research Assistant, Brookhaven National Laboratory 1972-1972			
	Chemistry & Health Physics Asst., V.Y.N.P.C. 1973-1979			
	Plant Chemist, V.Y.N.P.C. 1979-present			
<u>ENGINEERING SUPPORT DEPARTMENT</u>				
<u>Lead Technical Assistant</u>			8	8
	BS-Mechanical Engineering			
	Mechanical/Nuclear Engineer, Gilbert Associates, Inc. 1971-1974			
	Tech. Asst. in Engineering Support Dept., V.Y.N.P.C. 1974-1976			
	Lead Tech. Asst. in Eng. Sup. Dept., V.Y.N.P.C. 1976-present			
<u>Technical Assistant</u>			9	5
	BS-Mechanical Engineering			
	Associate Engineer, Bechtel Power Corp. 1974-1977			
	Tech. Asst., V.Y.N.P.C. 1977-present			
<u>Technical Assistant</u>			19	6
	AS-Applied Science			
	BS-Electrical Engineering			
	Technical Clerk, Rose, Chulkoff, & Rose 1964-1965			
	Technical Writer, Volt Technical Corp. 1965-1967			
	Engineering Aide, Sperry Rand Corp. 1967-1972			
	Engineer, Sperry Rand Corp. 1972-1973			
	Technical Assistant, V.Y.N.P.C. 1973-present			

<u>TITLE</u>	<u>EDUCATIONAL BACKGROUND</u>	<u>INITIAL LICENSE</u>	<u>TOTAL EXP.</u>	<u>NUC. EXP.</u>
<u>Technical Assistant</u>			20	1

Field Engineer, Federal Pacific Electric Co. 1960-1964
Electrical Control Engineer, United Housing Foundation 1964-1974
Electrical Contractor, Jam Electric 1974-1975
Electrical Control Engineer, Mutual Redevelopment Houses 1975-1976
Self-employed 1977-1978
Electrical Design Engineer, Combustion Engineering Assoc. 1978
Technical Assistant, V.Y.N.P.C. 1978-present

<u>Technical Assistant</u>			9	9
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BS-Mechanical Engineering

Rodman, EBASCO 1970
Engineer, Yankee Atomic Electric Co. 1974-1977
Engineering Assistant, V.Y.N.P.C. 1977-1979
Technical Assistant-Engineering 1979-present

B. OFFSITE (NON-PLANT STAFF), NSD WESTBORO

The staff of the Nuclear Services Division of the Yankee Atomic Electric Company is available to VYNPC in the case of an emergency. The day to day utilization of the various NSD departments and groups depends on the current needs of VYNPC. At any given time at least 20% of NSD's time is being utilized in direct support of VYNPS.

Operations Department

The Operations Department provides the primary interface between the Plant and Yankee NSD and the USNRC on all matters related to the operation of and/or changes to the Plant as described in the FSAR and the Technical Specifications.

<u>Title</u>	<u>Degree</u>	<u>License</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-ME	SOL'68-CY, 72-MY	19	19
Plant Startup Mgr.	BS-ME	SOL'71	13	13
Senior Engineer	-		36	21
Senior Engineer	-	OL'69, SOL'75	13	13
Senior Engineer	-	OL'60, SOL'64	37	20
Senior Engineer	-	OL'60	26	20
Senior Engineer	BS-Chem.		39	22
Senior Engineer	Assoc.-ME	OL'69, SOL'69	14	13
Senior Engineer	-	OL'69	32	22
Engineer	BS-ME, MS-ME		6	3
Engineer	BS-ME		10	7
Engineer	BS-ME		5	5
Engineer	BS-EE	SOL Equiv.	5	5
Engineer	-		42	4
Jr. Engineer	BS-EE, MS-EE	SOL Equiv.	1	1
Jr. Engineer	BS-ME		0	0
Jr. Engineer	BS-ME		6	3
Jr. Engineer	-		5	3
Security Advisor	BS-Naut.		34	7
Fire Prot. Coord.	BS-EE		14	11
Technician	Assoc.-Mach. Tool Design		2	2
Technician	-		7	2

Environmental Engineering Department

The Environmental Engineering Department is made up of four groups, each dedicated to a specific function of radiation and non-radiation environmental protection as it applies to nuclear plant personnel and to the general public. The four groups are Radiation Protection, Radiological Engineering, Environmental Science, Environmental Laboratory and a sub-group to operate the Radiation Dosimetry System for the Yankee Plants. The responsibilities of the groups are described below.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-Indus. Ed. (1)	22	21
Senior Engineer	BS-Physics, MS-NE, PhD-NE	9	9

(1) Operating License for USNS Savannah 1962

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Radiation Protection Group

The Radiation Protection Group provides expertise to continuously review the plant radiation protection program (radiation protection procedures and manuals, training, equipment, and dosimetry). The Group continuously reviews and maintains development of the emergency plan and its implementation. The Group coordinates the response of the local hospital in support of plant radiological medical requirements. The Group maintains the Yankee and NEPSCO Plant Availability List program including maintenance of radiation exposure, medical and training records to meet Plant access requirements.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-NE, MS-Rad. Pro.,*	10	10
Senior Engineer	-	30	12
Engineer	BS-NE, MS Rad. Pro.,*	5	5
Jr. Engineer	BS-Health Physics	4	4

*American Board of Health Physics Certificate

Radiological Engineering Group

The Radiological Engineering Group provides expertise in evaluating and assuring the safe design and operation of nuclear plant equipment as it applies to radiological effects. Analyses are performed of radiological effects under design basis accident and routine operational conditions. The Group provides collection, review, storage and analysis of meteorological data for reporting purposes, equipment design and application, and radiological release incidents.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-CE, MS-Rad. Bio.,*	15	13
Senior Engineer	BS-NE	8	8
Engineer	BS-NE, MS-Rd. Sci.	5	5
Engineer	AB-Psych., MSC-Rad, Health	6	4
Engineer	BS-ME, MS-Env. Sci.	6	5
Engineer	BS-Phys, MS-Rad Health, MS-Phys	1	1
Engineer	BS-Phys, MS-Atmos. Sci.	2	2
Jr. Engineer	BS-Meteo.	6	2
Jr. Engineer	BS-Meteo., MS-Comp. Sci.	5	1
Jr. Engineer	BS-HP, MS-HP	10	1

*American Board of Health Physics Certificate

Environmental Sciences Group

The Environmental Sciences Group provides technical services in the establishment and maintenance of environmental surveillance and study programs to assess the impact of plant operation on the environment.

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<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-Math, MS-Ocean	8	7
Senior Engineer	BS-Biol., MS-Biol.	9	4
Senior Engineer	BS-EE, MS-Oc. Engr.	12	4
Senior Engineer	BS-Biol., MS-Biol.	7	7
Engineer	BS-Biol.	10	6
Engineer	BS-Mar. Engr.	12	12
Engineer	BS-Met., MS-Ocean	12	5
Jr. Engineer	BS-Wildlife	2	2
Jr. Engineer	BS-Env. Health, MS-Bio. Stat.	12	1

Environmental Laboratory Group

The Environmental Laboratory Group has general responsibility to provide analytical and technical support services related to offsite environmental and ecological programs for the plant. The services encompass radiological and non-radiological aspects of established monitoring and surveillance activities.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-Phys, MS-Rad Hlth, PhD-Rad	13	13
Senior Engineer	BS-Chem., MS-Chem.	10	5
Jr. Engineer	BA-Chem. Math	2	2
Jr. Engineer	BS-Chem.	2	2
Jr. Engineer	BS-Chem., Rad. Sci.	2	2
Jr. Engineer	BS-Biol., MS-Rad. Sci.	1	1
Jr. Engineer	BS-Env., MA-Env.	4	4
Technician	BA-Biol.	1	1

Radiation Dosimetry System

Radiation Dosimetry System is responsible for Plant Support and development in the areas of radiation dosimetry, electronic data processing of radiation exposure records and radiation bioassay.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Senior Engineer	-	12	7
Engineer	-	14	14
Jr. Engineer	-	7	7
Technician	-	4	3
Technician	-	2	2
Technician	-	5	5

Fuel Cycle Department

The Fuel Cycle Department is responsible for evaluating and assuring the safe design, procurement of nuclear fuel cycle materials, fabrication of and the efficient economic operation of nuclear fuel and other reactor core components and involvement in the design, licensing and fuel management.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-Chem. Engr.	20	20
<u>Core Components:</u>			
Senior Engineer	BS-Engr.	14	14
Engineer	BS-EE	9	9
Engineer	BS-Phys., MS-NE	15	11
<u>Nuclear Materials:</u>			
Manager	BBA	22	9
Senior Engineer	BS-Bio. Chem.	16	13
Senior Engineer	BS-NE, MBA	11	6
Senior Engineer	AB, AM PhD-Geol.	6	6
Senior Engineer	BS, MS-Met., MBA	6	7
Engineer	BS-EE, MS-NE	7	7

Nuclear Engineering and Development

The Nuclear Engineering and Development Department is responsible for providing the engineering and licensing work associated with transient and accident analysis, engineered safeguard system design, reactor fuel and core design and behavior, thermal-hydraulic analysis and reactor physics to assure that the nuclear power plant designs are safe and economical.

<u>Title</u>	<u>Degree</u>	<u>License</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-NE, MS-NE, PhD-NE		11	11
Senior Engineer	BS-EE*	OL-'71, SOL-'71	16	11
Senior Engineer	BS-ME*	SOL-'69	12	12
Senior Engineer	BS-ME, MS-ME		10	8
Senior Engineer	BS-Phys., MS-NE		16	16
Senior Engineer	BS-ME, MS-NE-ME, PhD-NE		11	11
Senior Engineer	BS-Phys., MS-NE		11	11
Senior Engineer	BS-Engr. Phy, MS-NE-PhD-NE		19	19
Senior Engineer	BS-Fuel Technol.		15	11
Engineer	BS-ME, MS-ME		5	2
Engineer	BS-Phys., MS-Phys., MS-NE		10	6
Engineer	BS-NE, MS-NE		5	5
Engineer	BS-NE, MS-NE		6	6
Engineer	MS-NE		6	6
Engineer	BS-NE		5	5
Engineer	BS-ME, MS-NE		5	5
Engineer	BS-NE, MS-NE		3	3
Engineer	BS-NE, MBA		10	10
Engineer	BS-Math		2	'
Engineer	BS & MS-Pwr. Engr., MS-NE		6	
Engineer	BS-E, MS-NE, DSc-NE		10	10
Engineer	BS, Engr. Phys. & NE, MS-NE		4	3
Engineer	BS-NE, MS-NE		2	2
Engineer	BS-NE, MS-NE		5	5
Engineer	BS-ME, MS-NE		12	10

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(Nuclear Engineering and Development Continued)

<u>Title</u>	<u>Degree</u>	<u>License</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Engineer	BS-Phys., MS-Nuc.		7	7
Jr. Engineer	BS-Phys.		1	1
Jr. Engineer	BS-NE		0	0
Jr. Engineer	BS-NE		0	0
Jr. Engineer	BS-ME		1	1
Jr. Engineer	BS-NE, MS-NE		1	1
Jr. Engineer	BS-ME, ME-ME		0	0

*More than six years nuclear power plant experience.

Mechanical Engineering Group

The Mechanical Engineering Group is responsible for providing the Plant with expertise in the related disciplines of mechanical, materials, structural, civil and NDE engineering. This responsibility includes determination and/or verification of design conditions for piping, components and related hardware, preparation and/or review of engineering design calculations and selection and/or evaluation of materials for use in piping, components and related hardware.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-ME, MS-Nuc. Engr.*	12	11
Senior Engineer	BS-AE	29	5
Senior Engineer	BS-CE, MS-CE*	12	9
Senior Engineer	BS-Mettal.	11	7
Senior Engineer	BS IE	10	9
Senior Engineer	BS-ME	12	10
Senior Engineer	BS-IE	22	3
Engineer	BS-CE, MS-CE	4	2
Engineer	BS-CE	5	5
Engineer	BS-ME	12	5
Engineer	BS-ME, MS-ME	6	6
Jr. Engineer	BS-ME	6	6
Jr. Engineer	BS-ME Tech.	3	3
Jr. Engineer	-	7	1
Jr. Engineer	BS-ME	2	2

*Professional Engineers License in one or more states.

Electrical Engineering Group

The Electrical Engineering Group is responsible for providing the Plant with expertise in the area of Electrical Engineering-Power as it applies to nuclear power stations. The responsibility includes preparation, review and approval of calculations, specifications, systems descriptions, logic diagrams, bidder list, proposals and descriptive materials, economic and technical studies. Also included is a practical working knowledge of all national standards, regulatory criteria, regulatory guides and other requirements applicable to nuclear power plant electrical engineering.

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<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	B. Tech.-EE	17	14
Senior Engineer	BS-EE	16	11
Senior Engineer	BS-EE	10	3
Engineer	BS-EE, MS-EE	14	8
Engineer	BS-EE, MS-EE	10	1
Engineer	BS-EE, MS-EE	7	5
Engineer	BS-EE, ME-EPE	6	5

Systems Engineering Group

The Systems Engineering Group is responsible for providing the Plant with the engineering and licensing expertise required for the proper design, operational performance and maintenance of nuclear power plant fluid systems and their components. This responsibility includes the determination of certain design bases of components and structures as they apply to regulatory requirements.

<u>Title</u>	<u>Degree</u>	<u>License</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-Marine	S5W-63, SEG-64	27	17
Senior Engineer	BS-ME		13	10
Senior Engineer	Assoc. ME	OL'60, SOL'63	40	20
Senior Engineer	BS-NE	S1C-63	10	9
Engineer	BS-ME		5	5
Engineer	BS-NE		6	5
Engineer	Assoc.-ME		5	0
Engineer	BS-ME		7	7
Jr. Engineer	BS-ME		3	2

Instrumentation and Control Engineering Group

The Instrumentation and Control Engineering Group is responsible for providing the Plant with expertise associated with the design and specifications of I&C systems to be factored into overall plant design. Also, to recommend or review modifications to plant systems as required to meet the design basis, and to evaluate plant protective and safety system design bases periodically to assure adherence to the latest licensing criteria and requirements.

<u>Title</u>	<u>Degree</u>	<u>Total Exp.</u>	<u>Nuclear Exp.</u>
Manager	BS-EE, MBA	21	17
Senior Engineer	BS-EE	30	11
Senior Engineer	BS-EE, MSEM	29	24
Engineer	BS-EE	10	5
Engineer	BS-ME, MSEM	8	6
Engineer	BS-EE, MBA	7	6
Engineer	BS-EE	5	5
Jr. Engineer	BS-EE	2	1