SIEMENS

70-1257

November 15, 1995
JBE:95:142

U.S. Nuclear Regulatory Commission
Attn: Mr. Robert C. Pierson, Chief
Licensing Branch
Division of Industrial and Medical Nuclear Safety, NMSS
Washington, DC 20555

Dear Mr. Pierson:

Re: Letter, J.B. Edgar to R.C. Pierson, dated October 20, 1995.

Siemens Power Corporation (SPC) has recently undergone organizational changes which required revision to Chapter 2 in SPC's special nuclear materials license application. That revision was transmitted with the referenced letter. Chapter 11 also required revision due to the organization changes. Enclosed herewith are six copies of Chapter 11 for the existing license and the renewal application.

If you require further information or have questions, please call me at 509-375-8663.

Very truly yours,

James B. Edgar
Staff Engineer, Licensing

JBE:pm

210024



Siemens Power Corporation

Nuclear Division
Engineering & Manufacturing

2101 Horn Rapids Road
P.O. Box 130
Richland, WA 99352-0130

Tel: (509) 375-8100
Fax: (509) 375-8402

NF04 1/1

**PART II - SAFETY DEMONSTRATION**

REV.

# CHAPTER 11 ORGANIZATION AND PERSONNEL

## 11.1 Organizational Responsibilities

It is the policy of SPC to conduct its business in a manner so as to assure that its facilities are safe from radiation and other nuclear hazards, that its operations will not be detrimental to the environs, and to assure that personnel (both in-plant and off-site) radiation exposures are maintained as low as is reasonably achievable (ALARA). In providing this assurance, conditions of applicable NRC licenses are complied with and full regard is given to applicable NRC Regulatory Guides.

Responsibility for establishing and assuring adherence to this policy rests with the President of SPC and is exercised through the Senior Vice President and General Manager, Nuclear Division; the Vice President, Engineering and Manufacturing, Nuclear Division; and the Director, Quality. This policy is implemented through appropriate delegations to managers responsible for particular facilities processing or otherwise handling radioactive and nuclear materials. Each responsible manager is required to know, understand and carry out the provisions of this policy and the procedures for its implementation.

## 11.2 Functions of Key Personnel

The organization at the Corporate level is depicted in Figure II-9.1.

The function and responsibilities of the various safety-related positions are described in Chapter 2 with the flow of responsibility depicted in Figures I-2.1 and I-2.2. During the absence of key individuals, another individual is delegated, in writing, to assume his responsibilities. In the case of a plant emergency, the SPC Emergency Plan lists alternates to the Emergency Director.

## 11.3 Education and Experience of Key Personnel

Resumés of personnel who currently occupy key safety-related positions are listed in this section.

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.1 President and Chief Executive Officer** - R. B. Stephenson

**Education**

| | | | |
|---|---|---|---|
| BS | Mechanical Engineering | 1965 | Purdue University |
| MS | Nuclear Engineering | 1970 | University of Michigan |
| MBA | Business/Finance | 1972 | University of Michigan |

**Experience**

1965-1970

Various capacities as a commissioned officer in the U.S. Navy Nuclear Power Program, including service aboard a nuclear-powered, attack-class submarine.

1972-1985

Employed by Siemens Power Corporation.

- Manager, Test Facilities, responsible for operations and operations support for the Atomic Vapor Laser Isotope Separation Research and Development Program. (1972-1975)
- Manager, Methods Engineering, responsible for industrial engineering for the light water reactor fuels manufacturing division. (1975-1976)
- Manager, Plant Engineering, responsible for all equipment and facilities engineering related to operation, maintenance, and improvement for fuels manufacturing. (1976-1977)
- Manager, $UO_2$ Shop Operations, responsible for manufacturing operations for pressurized water and boiling water fuel assembly production. (1977-1980)
- Managing Director and Manager, Manufacturing, for Advanced Nuclear Fuels GmbH in Lingen, West Germany, responsible for all logistics, manufacturing, engineering, security, and health physics for European manufacturing operations. (1980-1983)
- Manager, Marketing Analysis, responsible for market environment and competitor analysis supporting sales. (1983-1984)
- Regional Sales Manager responsible for fuel sales to approximately one-fourth of the U.S. nuclear utilities. (1984-1985)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

1985-1987

- Employed by Exxon Enterprises as President, Chief Executive Officer, and Chairman of the Board of EPID, Inc., responsible for general management of an enterprise engaged in the development, manufacturing, and sales of computer components. (1985-1986)
- Vice President, Administration. (1986)
- Vice President, Commercial Division. (1986-1987)

1988 - 1991

- President and Chief Executive Officer, Director, Siemens Nuclear Power Corporation (SNP); Director, Advanced Nuclear Fuels International (ANFI); Director, Universal Testing Laboratory (UTL).

1991

- President and Chief Executive Officer, Director, SNP; Director, ANFI; Director, Siemens Nuclear Power Services (SNPS).

1991 - Present

- President and Chief Executive Officer, Director, Siemens Power Corporation, Director, ANF.

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.2 Senior Vice President and General Manager, Nuclear Division - D. G. McAlees**

**Education**

| | | | |
|---|---|---|---|
| BS | Aeronautical Engineering | 1965 | Rensselaer Polytechnic Institute |
| MS | Nuclear Engineering | 1971 | University of Wisconsin |
| PhD | Nuclear Engineering | 1974 | University of Wisconsin |

**Experience**

1972-1974

Instructor & Research Assistant, Nuclear Engineering - U of Wisconsin

1974-Present

Employed by Siemens Power Corporation

- Physicist/Engineer, Fusion Energy Division, ORNL, Oak Ridge, TN. (1974-1976)
- Manager, Experimental Development, Laser Enrichment. (1977-1978)
- Manager, Program Development, Laser Enrichment. (1978-1980)
- Sr. Planning Advisor, Finance/Planning. (1980)
- Sr. Staff Planner, Uranium Operations. (1980-1982)
- Manager, Plant Operations, Plant Operations. (1982-1985)
- Manager, Fuel Engineering & Technical Services, Engineering & Production. (1985)
- Manager, Regional Sales, U.S. Marketing. (1985)
- Vice President, U.S. Marketing. (1985-1986)
- Vice President, Commercial Division and Director - Advanced Nuclear Fuels; President and Director, Advanced Nuclear Fuels International. (1988-1991)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

- Vice President, Commercial Division and Director, Siemens Nuclear Fuels Corporation; Vice President and Director, Advanced Nuclear Fuels Corporation; President and Director ANFI; President and Director, Siemens Nuclear Power Services. (1991-1992)

- Senior Vice President and General Manager - Nuclear Division, Siemens Power Corporation; Vice President and Director, Advanced Nuclear Fuels Corporation; President and Director ANFI. (1992-Present)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.3 Director, Quality - C. M. Powers**

**Education**

| | | | |
|---|---|---|---|
| BA | Mathematics/Physics | 1971 | Willamette University |
| MS | Nuclear Engineering | 1973 | University of Washington |

**Experience**

1972-1980

Employed by General Electric Company, San Jose, CA.

- Held various positions (Nuclear Engineer, Lead Startup Engineer) involved with nuclear fuel cycle economic evaluation, nuclear fuel and core design, as well as a progression of leadership positions in the startup of five commercial nuclear power plants.

1980-1993

Employed by Washington Public Power Supply System, Richland, WA.

- Assistant Plant Manager, Reactor Engineering Supervisor, Senior Engineer - various individual contributor and supervisory positions with project/program management responsibilities (1980-1985).
- Plant Manager - WNP-2 Nuclear Plant, reporting to the Assistant Managing Director - Operations (1985-1990).
- Director of Engineering, reporting to the Managing Director (1990-1993).

1993-Present

Employed by Siemens Power Corporation, Nuclear Division, Richland, WA.

- Senior Staff Engineer, reporting to the Vice President, Engineering, Nuclear Division (1993).
- Director, Quality, reporting to the Senior Vice President and General Manager, Nuclear Division (1993-present).

**11.3.4 Manager, Inspection Services - J. A. Shurts**

Education

| | | | |
|---|---|---|---|
| BS | Chemistry | 1968 | University of Idaho |

**Experience**

1968-1971

Employed by Atlantic Richfield Hanford Co. Richland, WA.

- Analytical chemist, responsible for procedure development and non-routine analytical support for plutonium process control.

1971-1974

Employed by Hanford Environmental Health Foundation, Richland WA.

- Analytical chemist and supervisor of environmental chemistry/industrial hygiene laboratory. Responsible for routine environmental analytical chemistry support, procedure development and industrial hygiene chemistry support.
- Industrial Hygienist, responsible for surveys of industrial environments on Hanford project; for compliance with OSHA standards; and for recommendations for correction of noncompliances.

1974-Present

Employed by Siemens Power Corporation.

- Analytical chemist, Uranium Chemistry Lab, responsible for procedure development, process support, and analytical standards preparations (1974-1978).
- Supervisor, Analytical Chemistry Lab, responsible for process support and product analyses (1978-1980).
- Supervisor, Emission Spectrometry Lab, responsible for process support, product analyses and procedure development (1980-1981).
- Quality Control Engineer, responsible for Quality Engineering support for key areas of commercial fuel manufacturing and government projects (1981-1983).

**PART II - SAFETY DEMONSTRATION** REV.

- Manager, Design Coordination within Fuel Mechanical Design group. The group was responsible for design consistency and generation of manufacturing parts lists (1983-1988).

- Quality Assurance Engineer, responsible for customer audits and surveillances (1988-1990).

- Manager, Master Scheduling and Uranium Management, responsible for Operations Division master manufacturing schedules, production control, logistics and uranium management. Responsible to assure that plantwide uranium holdings do not exceed license possession limits (1990-1992).

- Manager, Materials and Scheduling, responsible for procurement of fuel hardware and operation supplies, responsible for production scheduling, logistics, warehousing and shipment of fuel assemblies and uranium products and for management of the uranium and hardware inventories. Responsible to assure license conditions are met on nuclear material shipments and that plantwide uranium holdings do not exceed license possession limits (1992-1993).

- Manager, Quality Control Engineering, responsible for quality engineering and inspection planning for fabrication of nuclear fuel components and assemblies (1993-1994).

- Manager, Inspection Services, responsible for process support and verification of quality of nuclear fuel components and assemblies, inspection services for shipping containers and waste components, manufacturing quality records, new fuel site inspections and vendor source inspections (1994-present).

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.5 Manager, Analytical Services - M. A. Law**

**Education**

| | | | |
|---|---|---|---|
| BS | Microbiology | 1973 | University of Arizona |
| MS | Chemistry | 1979 | Idaho State University |

**Experience**

1973-1977

Employed as Medical Technologist in hospital laboratories.

1978-1983

Employed by Exxon Nuclear Company as a Methods Development Chemist for nuclear fuel reprocessing process control.

1983-1987

Employed by American Microsystems as a semi conductor process engineer and by Martin Marietta as laser optics staff scientist.

1987-1990

Employed by Rockwell-INEL as Analytical Lab Supervisor for nuclear materials (depleted U) production project.

1990-Present

Employed by Siemens Power Corporation

- Supervisor, $UO_2$ Laboratory (1990-1991)
- Manager, Analytical Laboratories (1991-1995)
- Manager, Analytical Services, responsible for coordinating and supervising the activities of the analytical laboratories which provide safety-related support through analysis of environmental, process, waste discharge, and safeguards/accountability samples (1995-present).

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.6 Vice President, Engineering and Manufacturing - B. N. Femreite**

**Education**

| | | | |
|---|---|---|---|
| BS | Metallurgical Engineering | 1966 | University of Idaho |
| MS | Metallurgical Engineering | 1967 | University of Idaho |
| Post-Graduate MBA Studies | | 1974 | University of Washington |

**Experience**

1967-1970

Employed by United Nuclear in Richland, Washington as a Senior Process Development Engineer responsible for manufacturing process and materials development for defense reactor fuels.

1970 - Present

Employed by Siemens Power Corporation.

- Senior Engineer, Research and Engineering, responsible for process development, materials evaluation, and process support for $UO_2$ and MOX commercial fuels (1970-1974)
- Manager, Shop Operations, responsible for manufacturing operations for $UO_2$ and MOX fuels (1974-1978).
- Manager, European Projects, responsible for planning, staffing, training, and initial startup of the European Fuel Plant (1978-1979).
- Manager, Uranium Waste Project, responsible for process development, design, installation, and startup of liquid and solid waste recovery systems in Richland manufacturing plant (1979-1980).
- Manager, Richland Employee Relations, responsible for Human Resources function for Richland site (1980-1984).
- Manager, Plant Operations, responsible for design criteria, staffing, training, and startup of manufacturing operations for a DOE plant at the Idaho National Engineering Laboratory (1984-1987).
- Manager, Corporate Employee Relations, responsible for corporate Human Resources function in U.S. and Europe (1987-1989).

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|
| • Manager, Operations-Richland, responsible for manufacturing, quality control, and maintenance for Richland operations (1989-1990). | \| |
| • Manager, Manufacturing Engineering, responsible for Process and Plant Engineering for Richland Operations (1990-1993). | \| |
| • Richland Plant Manager, responsible for manufacturing operations at the Engineering and Manufacturing facility in Richland (1993-1995). | \| |
| • Vice President, Engineering and Manufacturing, responsible for manufacturing operations and fuel engineering activities in support of nuclear fuel manufacturing at the Engineering and Manufacturing facility in Richland (1995-Present). | \| |

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.7 Manager, Manufacturing Engineering - G. N. Ward**

**Education**

BSChE Chemical Engineering Oregon State University

**Experience**

1960-1969

Employed by General Electric Co. and Atlantic Richfield Hanford Company as Process Engineer and Team Leader at the PUREX Plant (chemical reprocessing of nuclear fuel). Activities included:

- Day-to-day process engineering for various areas in the PUREX Plant.
- Develop process flowsheets for plant capacity increases at the PUREX Plant.
- Manage Process Engineering organization.

1969-1971

Employed by Atlantic Richfield Hanford Company's Nuclear Diversification Department as a Senior Engineer in flowsheet design for a commercial nuclear fuel reprocessing plant. Activities included:

- Process flowsheet design for various portions of the reprocessing plant.
- Preparation of a Preliminary Safety Analysis Report and Economic Analyses for the reprocessing plant.

1971-1975

Rejoined General Electric Company as a Senior Engineer at their Morris Illinois Fuel Reprocessing Plant. Activities included:

- Responsible engineer for startup and testing of the $UF_6$, solvent extraction, and organic treatment sections of the plant.
- Responsible for coordination of the Process Engineers preforming startup testing of the remainder of the plant.

**PART II - SAFETY DEMONSTRATION** REV.

1975-Present

Employed by Siemens Power Corporation.

- Senior Design Engineer (1975-1978).
- Manager Projects - Fuel Storage Projects (1978-1980).
- Manager, Engineering Services (1980-1984).
- Manager, Reload Licensing (1984-1987).
- Sales Manager, Commercial Fuel and Services (1987-1992).
- Manager, Contract and Proposal Administration (1992-1995).
- Manager, Manufacturing Engineering, responsible for all plant maintenance activities and for engineering assistance for all process, utility and safety systems (1995-Present).

**PART II - SAFETY DEMONSTRATION** | REV.

**11.3.8 Manager, Process Engineering - D. C. Kilian**

**Education**

| | | | |
|---|---|---|---|
| BS | Chemical Engineering | 1966 | University of Minnesota |
| MS | Chemical Engineering | 1977 | University of Idaho |

**Experience**

1966 - 1974

Employed by Allied Chemical Corporation, Idaho Falls, Idaho.

- Chemical Engineer, responsible for developing various fluidized bed processes for nuclear fuel reprocessing and waste treatment (1966 - 1971).
- Group Supervisor, responsible for process developrnent and technical liaison with Idaho Chemical Processing Plant operations (1971 - 1974).

1974 to Present

Employed by Siemens Power Corporation, Richland, Washington, Bellevue, Washington and Idaho Falls, Idaho.

- Senior Engineer, provided technical bases for uranium conversion process design of a commercial nuclear fuel reprocessing plant (1974 - 1977).
- Manager, Reprocessing Process Engineering, responsible for reprocessing plant design, safety analyses and environmental assessment (1977 - 1978).
- Manager, Process Technology, directed development of technology for chemical and metallurgical processes of the Laser Isotope Separation Program (1978 - 1981).
- Manager, Chemical Engineering, developed and demonstrated pilot plant operation of the Sphere-Pac Fuel Production Facility (1981 - 1984).

**PART II - SAFETY DEMONSTRATION**

REV.

- Manager, Technology, responsible for process engineering, process development, computer engineering and environmental compliance related to design, startup and operation of a classified production facility in Idaho (1984 - 1987).

- Customer Services Engineering, provided technical support and customer liaison for SPC U.S. sales and marketing activities (1987 - 1989).

- Manager, Process & Equipment Engineering, directed process support, process development and equipment engineering for SPC fuel manufacturing plant (1989 - 1990).

- Manager, Fuel Services, provided irradiated fuel inspection and repair services for nuclear fuel customers worldwide (1990 - 1994).

- Manager, Business Development, responsible for identifying and delivering Siemens - KWU reactor services technology to U.S. customers (1994 - 1995).

- Manager, Process Engineering, responsible for providing process engineering support for production operations at the SPC Richland Engineering and Manufacturing Facility (1995 - Present).

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.9 Manager, Plant Engineering - J. W. Helton**

**Education**

| | | | |
|---|---|---|---|
| BS | Mechanical Engineering | 1955 | Colorado State University |
| MS | Nuclear Engineering | 1963 | University of Washington |
| Professional Engineer License | | | State of Washington |

**Experience**

1955 - 1970

Employed by General Electric Company in a variety of positions.

- Various engineering assignments in Richland, WA including reactor operator training, inspection, piping design engineer, and engineering supervisor. (1955-1965)
- Manager, Construction Engineering, responsible for administration of a construction subcontractor involved in the construction completion, repairs, and alterations of the Saturn V Test Facility. (1965-1967)
- Resident Manager, Monticello Nuclear Power Plant, site manager for construction of the turnkey power plant (1967-1970).

1970 - Present

Employed by Siemens Power Corporation.

- Manager, Manufacturing Engineering, responsible for the determination, engineering, installation and maintenance of production equipment for the fuels plant. (1970-1972)
- Project Engineer, responsible for project modifications and additions to facilities and process equipment for fuels plant. (1972-1975)
- Project Manager, responsible for project design, licensing, construction, and startup of nuclear fuels plant in Lingen, West Germany. (1975-1978)
- Manager, Construction, responsible for all construction activities by construction contractors during major plant additions and modifications. (1978-1982)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

- Project Engineer, responsible for project activities associated with facility and process equipment additions and/or modifications for fuels plant. (1982-1985)
- Project Manager, responsible for addition of pelletizing equipment and facilities in the Lingen, West Germany fuels plant. (1985-1987)
- Staff Engineer, responsible for all construction activities for fuels plant. (1987-1990)
- Manager, Plant Engineering, responsible for the engineering and maintenance of all process equipment, facilities, and facility equipment for the Richland fuels plant. (1990-Present)

| PART II - SAFETY DEMONSTRATION | REV |
|---|---|

**11.3.10 Manager, Manufacturing Technology - I. J. Urza**

**Education**

| | | | |
|---|---|---|---|
| BS | Chemical Engineering | 1971 | University of Idaho |
| MS | Chemical Engineering | 1972 | University of Idaho |

**Experience**

1972-1974

Employed by Allied Chemical Corporation, Idaho Falls, Idaho.

- Engineer responsible for conceptual and feasibility studies, economic and consequence analysis, and project design support. Served as a technical representative at Oak Ridge National Laboratory on the HTGR development program.

1974-Present

Employed by Siemens Power Corporation in Richland, Washington, Oak Ridge, Tennessee and Lingen, West Germany.

- Engineer, Reprocessing Process Engineering, responsible for the ENC uranium conversion development program at ORNL. Pilot plant and laboratory process equipment was designed, constructed, and tested for conversion of uranyl nitrate to $UO_3$, $UO_3$ fluorination to uranium oxide, and purification of $UF_6$. (1974-1977)

- Engineer, Reprocessing Process Engineering, responsible for lead process engineering for the uranium conversion portion of the ENC fuel reprocessing plant. Served as Task Leader in a DOE-sponsored advanced fuel cycle study. (1977-1978)

- Engineer, Design and Mechanical Development, responsible for design of uranium chemical operations and dye solution processing systems for the JNAI Experimental Test Facility, and conceptual studies of a commercial scale laser isotope separation plant. Directed design activities of an A/E firm. Prepared conceptual plant designs to define capital and operating costs. Prepared process flow sheets, selected and sized equipment, material of construction, layouts, etc. (1978-1981)

**PART II - SAFETY DEMONSTRATION** | REV.

- Staff Engineer, Dry Conversion Process Development, responsible for the Dry Conversion Development Program including design, construction and experimental operation of a pilot plant, and a prototypical test facility. Developed and demonstrated a unique dry process for conversion of $UF_6$ to ceramic grade $UO_2$ (patent pending). The dry conversion process is being installed in the ANFGmbH fuel fabrication plant. Directed and coordinated process and equipment design, equipment procurement, installation, and process development. (1981-1985)

- Senior Staff Engineer, Process and Equipment Engineering, responsible for supervision, planning, and technical direction for the Lingen $UF_6$ Dry Conversion project ($8.5 million) through design, licensing, procurement, construction, and startup. Responsibilities included providing technical direction of related process and equipment development work. (1986-1989)

- Manager, Chemical and Ceramic Development, responsible for providing ongoing and long range engineering and development support to fuel production and waste management operations in the chemical and ceramic development areas. Responsibilities include development of processes which improve product quality, and reduce manufacturing costs. (1989-1990)

- Manager, Manufacturing Technology responsible for development of chemical, ceramic, welding and mechanical processes and techniques to implement step change advancements in existing manufacturing technology and support the manufacture of advanced fuel. (1990-Present)

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.12 Manager, Plant Operations - B. F. Bentley**

**Education**

| | | | |
|---|---|---|---|
| BS | Ceramic Engineering | 1965 | Alfred University |

**Experience**

1965 - 1993

Employed by General Electric.

- Manufacturing Management Program (1965-1968) Three year training program that included graduate level business/management courses with job rotation every 6 months, location rotation every 3 months.
- Manufacturing Engineer, Neutron Devices, St. Petersburg, FL (1968-1972).
- Manufacturing Engineer, Nuclear Fuel Department, Wilmington, NC (1972-1973).
- Process Control Engineer, Nuclear Fuel Department, Wilmington, NC (1973-1976).
- Manager Production Operations (1976-1993).

1993 - Present

Employed by Siemens Power Corporation as Manager, Plant Operations, responsible for management of fuel manufacturing and material recovery operations, including preparation of operating procedures, development and maintenance of essential material controls and inventories, and the review, initiation, and implementation of plant safety procedures.

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.11 Manager, Waste Management Engineering - S. S. Koegler**

**Education**

| | | | |
|---|---|---|---|
| BS | Chemical Engineering | 1971 | University of Idaho |
| MS | Chemical Engineering | 1972 | University of Idaho |

**Experience**

1972-1974

Employed by Monsanto Textiles Co., Decatur, AL as a process engineer and development engineer engaged in development of textile polymers, pilot plant operation, and plant start up.

1974-1979

Employed by Atlantic Richfield Hanford Company/Rockwell Hanford Operations in Richland, WA as an R&D Engineer and Senior Engineer. Conducted research and development in support of the Hanford PUREX plant.

1979-1985

Employed by Exxon Nuclear Company as a Senior Engineer. Responsible for design and installation of the "Sphere-Pac" nuclear fuel pilot plant. Provided engineering support for Dry Conversion pilot plant.

1985-1991

Employed by Battelle Pacific Northwest Laboratory, Richland, WA as a Staff Engineer and as the Group Leader for the Biochemical Treatment and In Situ Vitrification Group. Directed programs for waste treatment technology development. Project Manager and Principle Investigator for several biotechnology and in situ vitrification projects.

1991-Present

Employed by Siemens Power Corporation.

- Staff Engineer, Manufacturing Technology supporting Dry Conversion and other chemical technology development projects. (1991-1993)
- Manager, Waste Management Engineering. (1993-Present)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.13 General Supervisor, Traffic and Warehousing - L. D. Weaver**

**Education**

| | | |
|---|---|---|
| Diploma | 1971 | Hoquiam High School |

**Experience**

1973-1977

Carpenter, General Foreman CHG International

1977 - Present

Employed by Siemens Power Corporation in Plant Operations.

- Shift Supervisor, Chemical Operations (1986-1989).
- Dayshift Supervisor, Chemical Operations (1989-1992).
- General Supervisor, Plant Support Operations (1992).
- Supervisor, Traffic & Warehousing (1992-1995).
- General Supervisor, Traffic & Warehousing, responsible for shipping, receiving and warehousing nuclear materials and maintaining nuclear material transfer records (1995-Present).

**11.3.14 Manager, Materials and Scheduling - R. L. Feuerbacher**

**Education**

| | | | |
|---|---|---|---|
| BS | Nuclear Engineering | 1974 | Oregon State University |
| MS | Nuclear Engineering | 1984 | University of Washington |
| MBA | Business Administration | 1989 | University of Washington |

**Experience**

1974 - 1975

Employed by General Atomic Company in two engineering positions in LaJolla, CA.

- Nuclear Engineer, Core Physics Section, performing fuel design and reactor core development for the high temperature gas-cooled reactor. (1974)

- Engineer, Fusion Engineering, performing structural and thermal hydraulic flow analyses for a Tokamak fusion test facility. (1975)

1975 - Present

Employed by Siemens Power Corporation.

- Nuclear Engineer, BWR Neutronics, performing fuel design and in-core fuel management for boiling water reactor (BWR) nuclear power plants. (1975-1977)

- Nuclear Engineer, PWR Neutronics, performing fuel design and in-core fuel management for pressurized water reactor (PWR) nuclear power plants, including on-site support for power plant startups. (1977-1979)

- Lead Engineer, PWR Neutronics, providing technical support for marketing efforts and proposals, including custom designs and economic analyses, and supporting research and development efforts for PWR fuel designs from a neutronics standpoint. (1979-1981)

- Unit Manager, PWR Neutronics, responsible for supervising a group of engineers performing nuclear fuel design and fuel management for PWR nuclear power plants, including technical support for proposals. (1982-1983)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

- Manager, In-core Monitoring Software Applications, responsible for managing a technical group performing design and installation of a software system to monitor in-core operation at BWR nuclear power plants. Technical support included development, testing, documentation, customer interfacing, and marketing support. (1983-1985)

- Senior Staff Planner, Planning and Uranium Operations, responsible for coordination of corporate-wide planning efforts, including preparation of executive presentation material for Board review meetings and conducting various business analysis studies. Supervised a planning analyst who maintained a commercial data base. (1985-1990)

- Commercial Coordinator, Universal Testing Laboratories, Inc., responsible for supporting integration of newly acquired subsidiary into parent company. Responsibilities included preparation of a business plan for subsidiary. (1990)

- Manager, Plant Operations, responsible for management of fuel manufacturing and material recovery operations, including preparation of operating procedures, development and maintenance of essential material controls and inventories, and the review, initiation, and implementation of plant safety procedures. (1990-1993)

- Manager, Materials and Scheduling, responsible for production scheduling, uranium management, hardware planning and procurement, procurement of operating supplies and services, production control activities, and logistics. (1993-present)

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.15 Manager, Production and Transportation Planning - S. F. Kuick**

**Education**

| | | | |
|---|---|---|---|
| BS | Chemistry | 1978 | University of Michigan |
| MBA | Finance | 1980 | University of Michigan |

**Experience**

1980-1983

Employed by Exxon Corporation, N.Y., N.Y.

- Financial analyst responsible for earnings reporting and analysis.

1983-Present

Employed by Siemens Power Corporation, Richland WA.

- Senior Accountant, responsible for manufacturing accounting, tax accounting, and German affiliate matters (1983-1987).
- Cost model and estimating analyst, responsible for cost estimates for bids and proposals and special cost studies and other types of economic analyses (1987-1990).
- Project Manager, technical coordinator and project manager for several foreign customers in Germany, Sweden, and Japan (1990-1992).
- Manager, Master Scheduling and Uranium Management, responsible for manufacturing planning and scheduling and management of uranium supplies and inventory (1992-1995).
- Manager, Production and Transportation Planning, responsible for manufacturing planning, management of uranium supplies and inventory, and logistics for shipments and receipts (1995 to Present).

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.16 Manager, Safety, Security, and Licensing - R. E. Vaughan**

**Education**

| | | | |
|---|---|---|---|
| BS | Marine Engineering | 1963 | U.S. Naval Academy |
| MS | Systems Management | 1975 | University of Southern California |

**Experience**

1963-1983

U.S. Navy

Regular Commissioned Submarine Warfare Officer (nuclear power) assigned to progressively more responsible positions in operational, technical, production and executive level management positions including command at sea.

1983-1992

Employed by ABB-Combustion Engineering Nuclear Power Businesses in the designing, manufacturing, testing and servicing of nuclear steam supply systems and commercial power plant nuclear fuels.

- Manager, Nuclear Startup, responsible for the organization and direction of a 70-member multi-disciplinary engineering staff providing a wide range of engineering services at nuclear power plant projects. Directed the establishment and administration of the C-E Site Startup offices at projects in which the Nuclear Steam Supply System (NSSS) was supplied by C-E. (1983-1986 and 1988)

- Project Manager, Technology Transfer, Korea, assigned to the NSSS Projects Department throughout the contract negotiation phase for Korea Nuclear Units 11 and 12. Responsible for preparing, resolving and coordinating all technical, commercial and legal terms leading to award of two Technology Transfer Agreements. Concurrently assigned full responsibility, including profit-loss, for award and execution of a contract for NSSS System Designers Training. (1986-1987)

- C-E Nuclear Fuels Independent Task Force, assigned to an Independent Task Force established by the President, Nuclear Power Businesses with the authority and responsibility for conducting an audit of C-E's nuclear fuel manufacturing facilities. Audit results determined the status of Nuclear Fuel Department's compliance with all applicable licensing conditions and regulatory requirements of NRC, EPA, OSHA, DOT and state agencies. (1988-1989)

**PART II - SAFETY DEMONSTRATION** REV.

- Operations Manager, Nuclear Fuel Manufacturing, responsible for daily direction and overall coordination of the activities of the manufacturing process of C-E nuclear products. Assigned as Emergency Director for the Nuclear Fuel Manufacturing facilities and Product Development laboratories. (1989)

- Plant Manager, ABB-Combustion Engineering Nuclear Fuel Manufacturing, responsible for all aspects of the safe operation of the NRC licensed manufacturing facilities producing finished nuclear fuel assemblies and related components to the commercial nuclear power industry. (1990-1992)

- Project Director, ABB Combustion Engineering Windsor Site Remediation, responsible for the safe and cost effective characterization and environmental remediation of the ABB Windsor site areas contaminated under AEC contact. Provided liaison with DOE, NRC, EPA, and Connecticut DEP. (1992)

1992-Present

Employed by Siemens Power Corporation as Manager, Safety, Security, and Licensing, reporting directly to the Vice President, Engineering and Manufacturing and is responsible for developing, administering, and auditing the licensing, industrial safety and health, health physics, criticality safety, environmental surveillance, ALARA, security and safeguards programs for SPC's facility at Richland, Washington.

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.17 Supervisor, Safety - T. C. Probasco**

**Education**

| | | | |
|---|---|---|---|
| BS | Microbiology | 1970 | Oregon State University |
| BS | Military Science | 1970 | Oregon State University |
| Certified Safety Professional | | 1982 | Board of Certified Safety Professionals |

**Experience**

1970-1972

Highway Engineering Technician for the Oregon State Highway Department.

1972-1975

Employed by a food processing company.

- Supervised chemical and bacteriological laboratories in the Quality Assurance Department. (1972-1973)
- Safety Engineer. (1973-1975)

1975-Present

Employed by Siemens Power Corporation.

- Plant Safety Engineer. (1975-1984)
- Plant Criticality Safety Engineer. (1975-1984)
- Supervisor, Radiological and Industrial Safety, responsible for supervising Health Physics Technicians, Radiological Safety Specialist, and Industrial Hygiene Specialist. (1985-1989)
- Supervisor, Safety, responsible for supervising Criticality Safety Specialists, Health and Safety Specialist, Radiological Safety Supervisor, Health and Safety Technicians, and the Health Records Clerk. (1990-Present)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.18 Criticality Safety Specialist - C. D. Manning**

**Education**

| | | | |
|---|---|---|---|
| BS | Nuclear Option of General Engineering | 1982 | Idaho State University |

**Experience**

1976-1984

Employed by Union Pacific Railroad.

1984-1985

Employed by Newport News Reactor Services as a Radiological Control Engineer.

- Training HPT technicians and operators
- Shielding and dosimetry requirements
- Auditing radiological control program compliance

1985-1987

Employed by Rockwell Hanford Company as a Criticality Safety Engineer.

- Criticality safety analyses
- Auditing criticality safety program compliance

1987-1990

Employed by Westinghouse Hanford Company as a Nuclear Safety Engineer.

- Cognizant Safety Engineer for the Plutonium Metal Production Line.
- Event Investigation Team Leader
- Plant criticality safety approval authority

1990-Present

Employed by Siemens Power Corporation as a Criticality Safety Specialist. Engineer responsible for all aspects of the criticality safety program.

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.19 Criticality Safety Specialist - R. E. Coen**

**Education**

| | | | |
|---|---|---|---|
| BS | Engineering (Energy and Power) | 1982 | University of Mexico |
| MS | Nuclear Engineering | 1985 | University of Mexico |

1990 - DOE Safety Analysis Report for Packaging (SARP) Review Seminar
1994 - Nuclear Criticality Safety Short Course
1995 - Criticality Calculations with MCNP

**Experience**

1982-1983

Employed by SEA, Inc. as a Nuclear Safety Engineer.

- Design services for the SPR III, SPR IV pulse reactor systems and the ACRR reactor system.
- Analysis of impact loading on reactor components.
- Design of the Gamma Irradiation Facility (GIF) steam supply system.

1983-1987

Employed by Jack Tills and Associates as a Nuclear Safety Engineer.

- Design and installation of a control system for the Fuel Ring External Cavity II (FREC II) experiment for the Annular Core Research Reactor (ACRR) at the SNL.
- Damaged Fuel Relocation Experiment (DFR).

1988-1989

Employed by Applied Physics, Inc. as Business Manager.

- Responsible for developing contracts for technical support to Sandia National Laboratory. Marketing, contracts, and personnel recruiting.

1989-1990

Employed by Los Alamos Technical Associates in Albuquerque, New Mexico as a Nuclear Safety Engineer.

- Development and review of SARP's for nuclear material shipping containers.

**PART II - SAFETY DEMONSTRATION** REV.

- Safety calculations and documentation of the thermal, containment, shielding, and nuclear criticality sections.
- Reviewed the SARP's prepared by the Oak Ridge Y-12 Plant, Los Alamos National Laboratory, and Rocky Flats Facility.

1991-1992

Consulting to Science Applications International Corporation in Oak Ridge, Tennessee, as a Criticality Safety Analyst.

- Criticality safety analysis of shipping containers.

1992

Employed by Science Applications International Corporation as a Criticality Safety Analyst.

- Criticality safety analysis for establishing Criticality Safety Operating Limits (CSOL) at EG&G's Rocky Flats Plant (RFP).
- Nuclear criticality design evaluation in the Systematic Evaluation Program at RFP.

1993-Present

Employed by Siemens Power Corporation as a Criticality Safety Specialist.

- Criticality safety analysis.
- Auditing criticality safety program compliance.

**PART II - SAFETY DEMONSTRATION** | REV.

**11.3.20 Criticality Safety Specialist - G. A. McGehee**

**Education**

| | | | |
|---|---|---|---|
| BS | Nuclear Engineering | 1989 | Mississippi State University |

**Experience**

1986-1987

Employed by Entergy Operations (formerly System Energy Resources, Inc.) at the Grand Gulf Nuclear Station as a co-op student.

1989-1993

Employed by Westinghouse Savannah River Company as a Criticality Safety Engineer.

- Criticality safety analyses
- Procedure review

1993-Present

Employed by Siemens Power Corporation as a Criticality Safety Specialist.

- Criticality safety analyses
- Criticality safety limit cards
- Criticality safety audits

**PART II - SAFETY DEMONSTRATION** | REV.

**11.3.21 Health Physicist - R. K. Burklin**

**Education**

| | | | |
|---|---|---|---|
| BS | Physics | 1969 | State University College |
| MS | Physics | 1972 | University of Tennessee |
| | Public Health | 1985-89 | University of South Carolina |

**Experience**

1973-1975

Employed by Virginia Electric Power Company at the Surry plant as a Reactor Health Physicist for Surry Units 1 and 2. In charge of external dosimetry and effluent release programs. Also hosted NRC inspections and supervised radioactive shipments.

1975-1990

Employed by Westinghouse Commercial Nuclear Fuel Division in Columbia, SC as a Senior Engineer. In charge of bioassay and internal dosimetry program, respiratory protection program, air sampling, training, external dosimetry, and the ALARA program.

1990-1992

Employed by Precision Castparts in Portland, OR as Manager of Health Physics. In charge of all aspects of health physics including external dosimetry, internal dosimetry, bioassay, air sampling, respiratory protection, environmental monitoring, contamination control, and waste disposal. Also in charge of ALARA and training programs.

1992-Present

Employed Siemens Power Corporation in Richland, WA as a Health Physics Specialist responsible for assuring compliance with the health physics requirements of the license and current regulations for a uranium fuel fabrication facility.

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.22 Supervisor, Radiological Safety - E. L. Foster**

**Education**

| | | |
|---|---|---|
| High School Diploma | 1960 | Richland, Washington |
| General Studies | 1962 | Columbia Basin College<br>Pasco, WA |
| Nuclear Weapons Technician School | 1964 | U.S. Air Force |

**Experience**

1967-1971

Employed by Battelle Northwest in Richland, WA as a Radiation Monitor in the development and application of health physics programs for radioactive chemical separations plants, multi-curie laboratory operations, and nuclear fuel manufacturing.

- Performed monitoring duties during major cleanup and modification of plutonium hot cells and gloveboxes.
- Direct participation in surveillance of effluent from plutonium facilities while assigned to an environmental monitoring group.
- Direct participation in setting up routine health physics program for PRTR.
- Completed special assignment involving modification of plant air monitoring program.

1971-Present

Employed by Siemens Power Corporation.

- Health Physics Technician involved primarily in all phases of the radiological safety program throughout the entire plant site. (1971-1976)
- Technician Specialist, Radiological Safety. (1977)
- Radiological Safety Assistant. (1980)
- Radiation Safety Officer for Washington State License. (1984)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

- Radiological Safety Specialist, responsible for implementation of radiological safety training program, dosimetry program, bioassay program, writing of Radiation Work Procedures, reporting of radiological conditions to plant supervision. (1985)

- Direct participation in decommissioning of four faciiities for unconditional release.

  Mixed Oxide Fuel Fabrication in 1986
  Centrifuge Test Facility in 1987
  "Old" Reactor Services Building in 1989
  Plutonium Storage Vault in 1990

- Supervisor, Radiological Safety Component, responsible for providing information, advice, and assistance to Company operating and engineering components such that personnel safety and environmental protection are maximized, and assures that records adequately document conditions (1993-Present).

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.23 Manager, Regulatory Compliance - L. J. Maas**

**Education**

| | | | |
|---|---|---|---|
| BS | Environmental Health | 1973 | University of Washington |

**Experience**

1974-1992

Employed by Hanford Environmental Health Foundation, Richland, WA

- Supervisor, Air and Water Surveillance Programs, Environmental Health Sciences. Division. Provided environmental surveillance consultation and technical services to support environmental programs of operating contractors on the U.S. Department of Energy Hanford Site. Typical service areas included ambient air surveillance, air pollutant source testing and water quality monitoring. (1974-1980)

- Manager, Site Support Services, Environmental Health Sciences Division. Provided direct technical and administrative supervision of a staff of industrial hygienists, environmental scientists, and technicians providing industrial hygiene and environmental consultation and technical services. Primary clients were individuals responsible for the health, safety, and environmental programs of the U.S. Department of Energy and its Hanford contractors, although services were also provided outside the DOE sector to private industry, academic institutions, and other governmental agencies. (1981-1986)

- Director, Environmental Health Sciences Division. Managed overall operation of a multi-disciplinary division providing comprehensive environmental health services to contractors on a major U.S. Department of Energy (DOE) nuclear material production, waste management, and R&D Site. Through a DOE Use Permit, provided similar services to non-DOE clients including private industry, academic institutions, and other governmental agencies. Key technical service areas included industrial hygiene, environmental surveillance, hazardous waste, analytical chemistry, training/chemical information, and emergency preparedness. Responsible for all aspects of divisional planning, budgeting, personnel actions, and technical services. Division employed approximately sixty personnel including industrial hygienists, environmental scientists, chemists, technicians, and supporting clerical staff. (1986-1992)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

1992-present

Employed by Siemens Power Corporation.

- Manager, Regulatory Compliance. Provide overall management of Regulatory Compliance programs in the areas of Licensing, Nuclear Materials Safeguards, Environmental Protection and Industrial Hygiene. Includes responsibility for assuring that the SPC Engineering Manufacturing Facility attains, maintains, and complies with all required licenses and operating permits, including the NRC site license; properly accounts for all special nuclear materials; and consistently complies with regulations aimed at protecting the health of its workers and minimizing the environmental impacts of its operations.

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.24 Staff Engineering - Licensing - J. B. Edgar**

**Education**

| | | | |
|---|---|---|---|
| BS | Physics | 1965 | Whitworth College |
| MBA | Business Administration - Finance | 1970 | University of Washington |

**Experience**

1965-1967

Employed by Douglas United Nuclear, Richland, WA.

- Process Physicist, performed physics calculations and advised, from a reactor physics standpoint, on the operation of a Hanford production reactor.

1967-1970

Employed by Battelle Northwest Laboratories, Richland, WA.

- Reactor Engineer, supervised two technicians in the operation, maintenance, and data collection for experiments in Plutonium Recycle Critical Facility. Also assisted in analysis of data. (1967-1969)

- Nuclear Safety Specialist, provided guidance for Battelle Northwest operating components and performed audits, reviews, and wrote manuals and safety analyses in the area of nuclear safety. Interfaced with AEC on nuclear safety questions. (1969-1970)

1970-1973

Employed by Westinghouse Hanford, Richland, WA.

- Supervisor, Materials Management, supervised three engineers, one technician, and two clerks in a nuclear materials accountability function for Westinghouse Hanford. Provided expertise in packaging and shipping of radioactive materials. Criticality safety specialist for three laboratories, including preparation of safety analysis reports and criticality safety specifications and auditing for compliance with applicable limits.

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

1973-Present

Employed by Siemens Power Corporation.

- Senior Materials Engineer, managed Exxon Nuclear's uranium and plutonium inventories throughout the world from the point at which title transferred to Exxon Nuclear. Administered criticality safety program for fuel fabrication facilities at Richland. Provided special nuclear material traffic expertise on state and federal regulations. (1973-1977)

- Manager, Traffic Operations, managed the traffic and warehousing function for Exxon Nuclear Company at its Richland site. Managed the shipment of hardware, $UO_2$ pellets, and miscellaneous items from ENC-Richland to ENGmbH-Lingen in support of FNGmbH fuel fabrication. (1977-1979)

- Contract Administrator (Bellevue, WA), administered contracts for six reload fuel customers (four domestic and two foreign) for the sale of reload fuel, uranium, and technical services. Responsibilities included evaluation of compliance with contract commitments; contract execution including commencement of work, progress reports, invoicing management, and closeout at completion of work; and marketing interaction including proposal writing and assisting in contract negotiations. (1979-1988)

- Staff Specialist-Safeguards, provided technical expertise on safeguards; acted as Accountability Coordinator and Measurement Control Program Coordinator; acted as working level contact with NRC on safeguards matters; conducted annual measurement review; prepared and maintained ANF's Safeguards Plan (ANF-12); provided safeguards training for plant personnel; hosted NRC safeguards audits and biennial Ad Hoc Committee review of safeguards activities; maintained knowledge of current radioactive material transport regulations; prepared and maintained Radioactive Material Shipping Standard (Chapter 5) of ANF's Safety Manual (ANF-30); reviewed radioactive material shipment for compliance with regulations; prepared and maintained ANF's SNM Physical Protection Plan (ANF-538). (1988-1991)

- Staff Engineer-Licensing, provide licensing expertise on NRC licensing issues including plant operating license and transportation-related licenses and permits; act as company contact with NRC on licensing matters; prepare and maintain Radioactive Material Shipping Standard (Chapter 5) of SPC's Safety Manual (EMF-30); review radioactive material shipment for compliance with regulations; prepare and maintain SPC's SNM Physical Protection Plan (EMF-538). (1991-Present)

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.3.25 Environmental Engineer - S. R. Lockhaven**

**Education**

| | |
|---|---|
| BA Biology | 1974 Central Washington University |
| BA Environmental Studies | 1976 Central Washington University |
| Industrial Hygiene Training Courses | 1979-Present |

**Experience**

1976-Present

Employed by Siemens Power Corporation.

- Senior Analytical Laboratory Technician. (1976-1979)
- Industrial Hygienist duties included scheduling environmental sampling, environmental data review, and assisting the Plant Criticality Safety Engineer. (1979-1986)
- Plant Criticality Safety Engineer. (1986-1989)
- Industrial Regulations Specialist. (1989-1990)
- Environmental Engineering Specialist. (1990-1991)
- Environmental Engineer, responsible as SPC Industrial Hygienist for development, implementation, and oversight of worker health and safety programs (1991-Present)

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.26 Environmental Engineer - K. H. Tanaka**

**Education**

BS Chemical Engineering 1969 University of Utah

**Experience**

1969-1978

Rockwell Hanford Operations

- Waste Management Process Engineer, process control and process development in cesium ion exchange and strontium solvent extraction processing.
- Design Engineer, design and construction of underground waste storage tanks and auxiliary systems.
- Chemical Engineer, pilot plant development with vacuum evaporator-crystallizer and screw calciner.

1978-Present

Siemens Power Corporation

- Process and Maintenance Engineer, day-to-day and long term operation and maintenance of chemical processes and related separating, drying and calcining equipment for the conversion of uranium hexafluoride to uranium dioxide in the production of nuclear fuel (1978-1983).
- Chemist, Analytical Laboratory in Quality Control Department, responsible for Spectroscopy instruments and analyses including Emission Spectrometer, Inductively Coupled Plasma (ICP) Spectrometer, X-ray Spectrometer and other analyzers (1983-1992).
- Environmental Engineer, Regulatory Compliance, responsible for the environmental monitoring and reporting of plant gaseous and liquid effluents in compliance with the NRC, federal, state and local environmental regulations and permit conditions (1992-Present).

**PART II - SAFETY DEMONSTRATION** | REV.

**11.3.27 Environmental Engineer - J. B. Perryman**

**Education**

BS Environmental Science 1992 Washington State University

Currently working towards a MS in Environmental Science, Washington State University.

**Experience**

1993-Present

Employed by Siemens Power Corporation.

- Environmental Engineer, responsibilities include waste designation, groundwater monitoring program, sampling and analysis plans, hazardous substance spill reporting and cleanup, waste minimization practices, offsite waste shipments, regulatory agency interface, and general regulatory compliance activities.

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.28 Safeguards Specialist - D. L. Noss**

**Education**

BA Business Administration 1974 Washington State University

**Experience**

1974-1976

Employed by Rainier National Bank

- Operations Assistant, supervised 25 tellers and new accounts. Dealt with customer problems and complaints.

1976-1978

Employed by Old National Bank

- Operations Supervisor, supervision and training of tellers and new accounts. Maintain branch audit program. Deal with customer problems.

1978-Present

Employed by Siemens Power Corporation.

- Nuclear Materials Accounting, maintained the plant nuclear materials records by running the Nuclear Materials Control System (NICS). Provided special assistance during the physical inventory of nuclear materials in the taking and reconciliation efforts. (1978-1980)

- Accountant for Engineering and Technology, prepared monthly analysis letters detailing operating costs; assisted managers in the preparation of their operating budgets; prepared cost estimates from engineering and manufacturing inputs for marketing use; and provided assistance as needed in the preparation of invoices. (1980-1983)

- Nuclear Materials Accountant, maintained the on-site perpetual inventory records of nuclear materials as required by regulations and in accordance with company standards required to provide asset control and verification. Planned and designed improvements to the Nuclear Materials Accounting System and worked with the Company's computer systems group to implement necessary changes.

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

Planned, conducted and reconciled the physical inventory of nuclear materials. Organized the efforts of the plant wide inventory and focused the reconciliation efforts of problem areas. Tracked and monitored the build up of uranium wastes and reported to management the progress of the Company's recovery systems. Determined and communicated the financial liability to the Company as the result of waste inventory buildups. (1983-1992)

- Safeguards Specialist, provide technical expertise on safeguards; act as Accountability Coordinator and Measurement Control Program Coordinator; act as working level contact with NRC on safeguards matters; conduct annual measurement review; prepare and maintain SPC's Safeguards Plan (EMF-12); provide safeguards training for plant personnel; host NRC safeguards audits and biennial AD Hoc Committee review of safeguards activities. (1992-Present)

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.29 Manager, Product Mechanical Engineering - A. Reparaz**

**Education**

| | | | |
|---|---|---|---|
| BS | Aeronautical Engineering | 1971 | Madrid Polytechnic Institute |
| MS | Structural Engineering | 1973 | Madrid Polytechnic Institute |

**Experience**

1973-1976

Employed by Gibbs & Hill Espanola, Madrid, Spain.

- Engineer in Civil Engineering Department involved in structural/seismic analysis and design of nuclear power plant facilities.

1976-1978

Employed by Nuclear Services Corp., Campbell, CA.

- Project Engineer involved in spent fuel storage capacity optimization and other engineering projects.
- Senior Engineer in Mechanical Engineering Dept. involved in design/analysis of spent fuel rack.

1978-1979

Employed by General Electric Company, Nuclear Energy Group, San Jose, CA.

- Engineer involved in nuclear fuel assembly design, fuel rod performance limits evaluation, and fuel fabrication interface.

1979-Present

Employed by Siemens Power Corporation, Nuclear Division, Richland WA.

- Various positions including Engineer; Manager BWR/PWR Design; Manager, Fuel Design.
- Currently Manager, Product Mechanical Engineering responsible for mechanical design, stress analysis, and parts lists for SPC product hardware.

**PART II - SAFETY DEMONSTRATION** REV.

**11.3.30 Manager, Methods and Code Development - R. S. Reynolds**

**Education**

| | | | |
|---|---|---|---|
| BS | Engineering Science | 1965 | University of Nevada, Reno |
| MS | Nuclear Engineering | 1969 | Kansas State University |
| PhD | Nuclear Engineering | 1971 | Kansas State University |

**Experience**

1967-1987

- Experiment Supervisory, Fallout Shelter Research Program, Nuclear Engineering, Kansas State University (1967-1969).
- Project Supervisor, Fallout Shielding Research Program, Nuclear Engineering, Kansas State University (1969-1971).
- Assistant Professor, Nuclear Engineering, Mississippi State University (1971-1975).
- Resident Associate and Visiting Scientist, Zero Power Plutonium Reactor, Argonne National Laboratory/West, Idaho National Engineering Laboratory (Summers 1973, 1974, 1975, 1976).
- Associate Professor, Nuclear Engineering, Mississippi State University (1975-1979).
- University Radiological Safety Officer, Mississippi State University (1971-1982).
- Reactor Engineer, Grand Gulf Nuclear Station, Port Gibson, Mississippi (1982-1984).
- Nuclear Fuels Engineer, Nuclear Support Department, Grand Gulf Nuclear station, Jackson, Mississippi (Summers 1985, 1986, 1987).
- Professor, Nuclear Engineering, Mississippi State university (1979-1987).

1987-Present

Employed by Siemens Power Corporation.

- Senior Nuclear Engineer, BWR Safety Analysis Team Leader (1987-1990).
- Staff Nuclear Engineer, BWR Fuel Engineering, BWR Safety Analysis Team Leader (1990-1991).

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

- Staff Nuclear Engineer, Product Development Team Leader, Research and Product Development Department (1991-1992).
- Manager, Advanced Product Development (1992-1995).
- Manager, Research & Technology Methods & Codes, Siemens Power Corp., responsible for methodology and code development for the worldwide Siemens Nuclear Fuel Business (1995-Present).

| PART II - SAFETY DEMONSTRATION | REV |
|---|---|

## 11.4 Operating Procedures

Plant operations are conducted according to written procedures. The procedures are written by the Manager, Plant Operations or his designee. They are approved by the manager, Plant Operations and concurred in by the Managers of Inspection Services; Safety, Security, and Licensing; Manufacturing Engineering; and, if appropriate, Product Mechanical Engineering. These procedures are prepared in accordance with appropriate criticality safety specifications, radiation work procedures and other industrial and fire safety-related or pertinent documents or procedures. The procedures are documented and issued by Document Control to appropriate personnel and locations. There are mini-libraries located within the various operating facilities which contain copies of the approved operating procedures for ease of access by operating personnel.

## 11.5 Training

### 11.5.1 Initial Training

Each employee is provided initial instruction adequate to allow him to safely start on-the-job training by his manager or supervisor. This initial instruction includes emergency procedures. If the employee routinely works with special nuclear material, radiation protection and criticality safety, requirements and procedures are included in the training.

Within two weeks after starting work, full instruction in Standard Operating Procedures (including instrumentation and control, methods of dealing with process malfunctions, control of hazardous chemicals, control of contamination and decontamination procedures), industrial safety, fire protection, emergency response procedures, radiation protection (including ALARA practices, nature and source of radiation, interactions of radiation and matter, biological effects of radiation and the use of radiation monitoring equipment and step-off pad procedures) and criticality safety, requirements and procedures is provided. The degree of training is commensurate with each employee's position in the Company (related to general and special responsibilities) and with the extent of the employee's contact with radioactive and fissionable materials. Employee instruction is provided by personnel knowledgeable in the various training topics.

Prior to assignment to independent operation, each employee is required, by signature, to indicate that he has been instructed in radiation protection, criticality safety, and emergency response requirements and procedures.

**PART II - SAFETY DEMONSTRATION** | REV.

### 11.5.2 Followup Training

When changes are made to processes involving special nuclear materials, radiation protection procedures, criticality safety controls (procedures, specifications, limits, etc.), fire protection or emergency response procedures, each employee affected is promptly informed and properly instructed by his manager or supervisor.

Additionally, each employee who routinely works with special nuclear material receives annual refresher instruction as part of SPC's continuing program in radiation protection and criticality safety awareness. This training is provided by radiological and nuclear safety personnel knowledgeable in the various training topics. The effectiveness of this annual refresher training is determined by giving the employees a written examination and reviewing the correct answers to the questions at the end of the test.

Employees routinely discuss safety topics in safety meetings.

### 11.5.3 Emergency Response Training

Training in operating plant fire extinguishers is offered to all employees on an annual basis.

Plant Emergency Response Team members are offered training in incipient fire fighting techniques, advanced first aid, self-contained breathing apparatus in a smoke-filled environment, and chemical and radiological incident stabilization techniques on an annual basis.

Semi-annual training is provided to all employees in the proper response to a criticality accident when a preannounced criticality evacuation drill is conducted. Periodic training is provided to employees in the proper response to a fire alarm when unannounced fire drills are conducted.

## 11.6 Changes in Facilities and Equipment

### 11.6.1 Engineering Change Notice

Changes in facilities and equipment involving licensed materials are accomplished through application of the Engineering Change Notice (ECN) procedure, which is issued and maintained by Manufacturing Engineering. This procedure provides instruction for authorizing and documenting the installation of new equipment, facilities, and services and modifications to existing equipment, facilities, and services. The procedure defines what kinds of work or changes require use of an ECN and what kinds of work may be accomplished via a work order.

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

**11.6.1.2 Initiation and Review**

The initiation and review process includes the preparation of an ECN package and its review by industrial and criticality safety specialists, as well as Plant Engineering and the user organization. During this review period it is determined if a criticality safety evaluation is required. If so, it is formally requested from and completed by the Criticality Safety Component.

**11.6.1.3 Documentation**

Each ECN is given a number and a title which are entered in a logbook. The ECN form and applicable documents are stored in an ECN file and retained per regulations and Company policy.

**11.6.1.4 Review Prior to Execution**

Depending upon the nature of the modification, a varying number of people must approve or concur prior to execution of the work described in the ECN. Some modifications require more extensive review by engineering groups than do others. All, however, require concurrence by Safety and the user organization.

**11.6.1.5 Execution**

Work specified by the ECN may be accomplished by either SPC Maintenance craftsmen or by local construction contractors depending on the current backlog of SPC maintenance work or the type of work involved. ECN packages are issued to different personnel in SPC depending upon which organization does the work.

**11.6.6 Acceptance of Completed Work**

For work not involving fissile material, formal acceptance is accomplished by at least the user's group, Safety, and the group responsible for the work.

For projects involving fissile material, a physical review of the installation by a Criticality Safety Review team must be made prior to the introduction of fissile material. This review team consists of the Criticality Safety Specialist, a user's group supervisor, and the engineer responsible for the work; the review is documented by the signature of the Criticality Safety Specialist on the ECN form.

If the ECN involves work by outside contractors, the Manager, Facilities/Landlord signs the ECN indicating that all required contractor work was performed as required.

| PART II - SAFETY DEMONSTRATION | REV. |
|---|---|

Final acceptance of work and agreement that the new or modified facilities and/or equipment can be turned over to the operating organization may require the convening of a Startup Council and/or the performance of an acceptance test.

### 11.6.2 Startup Council

If a Startup Council is required to be convened, the council will be responsible for reviewing and concurring with projects for conformance to plant production and schedule requirements and safety requirements. Startup Council concurrence is usually required for system operation; however, final authority for approving actual startup rests with the responsible manager.

While the Council is staffed to be appropriate with the project content, the basic Council for most projects consists of:

- Manager, Manufacturing Engineering (Chairman)
- Manager, Plant Engineering (Secretary)
- Director, Quality
- Manager, Safety, Security, and Licensing
- Manager, Process Engineering
- Responsible operations manager
- Startup coordinator

### 11.6.3 Acceptance Test

If an acceptance test is required, it is carried out under an Acceptance Test Procedure (ATP). The purposes of the ATP are (1) to outline the requirements for documenting the testing of work for proper installation, for conformance to the criteria and specifications to which the work was done, and for confirmation that the modified facilities and/or equipment are ready for safe operation; and (2) to assure that the Master Equipment File is supplied with appropriate documents as required by the ATP. The ATP is reviewed prior to performance by Engineering, Safety, and the responsible operations manager. Final acceptance after performance of the ATP is documented by signatures of Engineering, the responsible operations manager, and the Criticality Safety Review Team, if the work involved fissile material.

### 11.6.4 Records

The ECN record file is maintained by Plant Engineering and includes the original ECNs, a set of detailed drawings, specifications, applicable excavation and penetration permits, a copy of any Criticality Safety Evaluation requests, and the completed ATP. Copies of safety and hazards analyses are maintained by the project engineer and/or the persons performing the analyses.