

September 8, 1981

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
PENNSYLVANIA POWER & LIGHT COMPANY)
)
and)
)
ALLEGHENY ELECTRIC COOPERATIVE, INC.)
)
(Susquehanna Steam Electric Station,)
Units 1 and 2))

Docket Nos. 50-387



APPLICANTS' SUBMITTAL ON
TESTIMONY OF EXPERT WITNESSES

The Licensing Board's August 14, 1981, Memorandum and Order on Prehearing Conference required the parties to file by September 8, 1981, the qualifications, identities, subject matter and substance of testimony of expert witnesses for Contentions 9, 11, 14, 2 (chlorine), 21, 6 and 20. Applicants respond as follows:

1. Contention 9: Applicants' presentation on this issue is divided in two parts: a description of the costs and impacts of decommissioning, and the financial qualifications associated with decommissioning. The testimony on the first part will be presented by Albert Weinstein, a copy of whose resume is attached thereto. The testimony on the second part will be presented by Mr. Geroge F. Vanderslice, who will describe the Pennsylvania Public Utility Commission precedents allowing recovery and accumulation of decommissioning expenses and place those expenses in perspective by comparing them with PP&L depreciation expenses. Mr. Vanderslice's resume is attached.

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2. Contention 11: The testimony on the remaining portion of this contention, dealing with on-site storage of low level radioactive wastes, will be divided in two parts. Mr. Harold W. Keiser will describe Applicants' arrangements for shipping low-level radioactive wastes off-site on a regular basis, without the need for long-term on-site storage. A copy of Mr. Keiser's resume is attached. Mr. Richard J. Tosetti, whose resume is attached, will testify about the safety of longer-term storage of low-level radioactive wastes in the Low-level Radioactive Waste Holding Facility at the Susquehanna site, should such storage be necessary.
3. Contention 14: Applicants' testimony on this contention will be presented by Mr. Robert Koppe, whose resume is attached. Mr. Koppe will present his analysis of the capacity factors projected for the Susquehanna facility, based on a composite year analysis of the capacity factors achieved by comparable boiling water reactors, as well as an analysis of the plant operation factors which have reduced capacity factor performance.
4. Contention 2 (Chlorine): Applicants' testimony on the remaining aspects of this issue will be presented by Mr. James Rios, a copy of whose resume was attached to his affidavit in support of Applicants' Motion for Summary Disposition of Contention 2 (Chlorine), dated November 6, 1980. Mr. Rios' testimony will describe the chlorinating, dechlorinating and mechanical condenser cleaning systems at Susquehanna, show the chlorine

residual levels remaining on the cooling tower blow-down, present data on existing trihalomethane and other halomethene levels in the Susquehanna River, and report on the levels of those compounds at the intake to the Danville water system which would be produced due to chlorination at the Susquehanna facility. Mr. Rios will also present information on an ethanol facility proposed by Synfuel Energy Corporation showing that discharges from that facility would not affect chlorination requirements at Susquehanna.

5. Contention 21: Applicants' testimony on this contention will be presented by Mr. Thomas M. Crimmins, a copy of whose resume is attached. This testimony will describe the Scram Discharge Volume (SDV) and the components associated with it, the concerns expressed about the SDV in NUREG-0785, why a break in SDV piping is unlikely, how such a break would be detected, corrective actions, protection of ECCS equipment against the consequences of such a break, and alternate methods to establish and maintain core cooling if ECCS equipment is disabled.
6. Contention 6(a): Testimony on this issue, dealing with evacuation, will be presented in two parts. Mr. Scott T. McCandless will testify on an evacuation time study for the Susquehanna plume exposure Emergency Planning Zone, using the NETVAC computer model, and considering the specific road network at Susquehanna as well as adverse weather conditions. Mr. Oran K. Henderson will

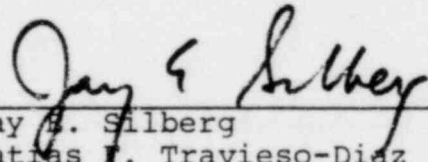
testify on the availability of transportation resources needed to carry out an evacuation. Copies of the resumes of Messrs. McCandless and Henderson are attached.

7. Contention 6(b): Mr. Henderson will present Applicants' testimony on this issue, showing that the Bureau of Radiation Protection has the resources needed to carry out its functions.
8. Contention 6(c): Applicants' testimony on this issue will be presented in two parts. Mr. Henderson will testify as to training carried out by off-site agencies. Mr. Steven H. Cantone will testify as to the training which Applicants are carrying out for off-site personnel. A copy of Mr. Cantone's resume is attached.
9. Contention 20: Applicants' testimony on this issue will be presented by Mr. Henderson, showing how the Luzerne County and state emergency plans comply with NUREG-0654 (rev. 1).

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE

By


Jay F. Silberg
Matias F. Travieso-Diaz

Counsel for Applicants

1800 M Street, N.W.
Washington, D.C. 20036
Telephone: (202) 822-1000

ALBERT A. WEINSTEIN

Mr. Weinstein is Manager of Engineering at SMSC responsible for the areas of reactor servicing and operations, mechanical systems design, and real-time systems applications.

As Manager of Engineering he provides consulting services to nuclear utilities on refueling systems analysis, plant operational and maintenance support, design review and quality assurance, and plant arrangement and system design. In this context, he is responsible for safety analysis and licensing support in special areas, such as cask drop, and fuel handling accidents, and leads SMSC efforts in support of facilities design review, including fuel storage pool arrangements and fuel inspection and reconstitution facilities.

Mr. Weinstein also leads activities at SMSC related to nuclear power plant decommissioning. He served on the AIF task force assigned to monitor and review the preparation of AIF/NESP-009SR, "An Engineering Evaluation of Nuclear Power Reactor Decommissioning Alternatives". He has reviewed LWR plant designs for ease of decommissioning, and has participated in the actual decommissioning of the BONUS nuclear plant in Puerto Rico, where he served as the resident engineer, responsible for program definition, planning and scheduling. Mr. Weinstein has directed the preparation of decommissioning cost estimates for both PWR and BWR nuclear power plants.

He is presently also Project Manager for the D.C. Cook NPP combined RE&M/Security System and as such, is responsible for system development and installation, client and subcontractor interface and other project related activities. Mr. Weinstein has been extensively involved in the design and application of the RE&M System since its' beginnings and continues in this capacity. He is also responsible for service administration after installations are complete.

Mr. Weinstein entered the nuclear business in 1957 at Combustion Engineering Company, where he participated in the mechanical design and analysis of the SIC reactor core with responsibility for startup and testing procedures relating to mechanical safety of the core. He assisted in subsequent reactor disassembly and inspection of radioactive core components. In 1960 he joined the United Nuclear Corporation, and, in 1967, Mr. Weinstein was named Manager of the Engineering Section of the Mechanical Design Department. Mr. Weinstein has directed the design of fuel inspection equipment and supervised the on-site inspection of commercial irradiated fuel, utilizing underwater video equipment and measuring devices. While at UNC Mr. Weinstein served on the Technical Support Team under contract to the AEC to provide technical assistance for the Elk River, BONUS, and LaCrosse nuclear reactor plants. He was assigned lead responsibility for the technical support for the BONUS nuclear reactor in Puerto Rico.

Mr. Weinstein received a B.S. in Civil Engineering from the University of Southern California in 1954, and an M.S. in Applied Mechanics from the University of Connecticut in 1959. He has performed additional graduate work in Engineering Mechanics and is a Licensed Professional Engineer in the State of Connecticut.

RESUME
of
GEORGE F. VANDERSLICE

Q. Please state your name and business address.

A. George F. Vanderslice, Two North Ninth Street, Allentown, Pennsylvania 18101.

Q. By whom are you employed and in what capacity?

A. I am employed by Pennsylvania Power & Light Company (PP&L) as Vice President and Comptroller.

Q. What are your responsibilities as Vice President and Comptroller?

A. I am responsible for keeping the corporate books and records of the Company and for the preparation of financial and other reports of the Company.

Q. What is your educational background?

A. I am a Certified Public Accountant of the Commonwealth of Pennsylvania. I attended the University of Pennsylvania and LaSalle College in Philadelphia. Over the course of my career, I have attended many specialized courses dealing with such subjects as corporate finance, taxes, personnel relations, data processing, accounting, utility management and corporate systems.

Q. Please describe your professional experience.

A. I was employed by the Corn Exchange National Bank of Philadelphia in 1941 in various positions. In 1945 I was employed by Haskins & Sells, Certified Public Accountants, in Philadelphia, and remained there until 1958 in various positions: Junior Accountant, Senior Accountant, In-Charge

Accountant and finally as a Principal. During that period I was in charge of various audit, system and tax engagements and supervised other accountants in their work.

I commenced employment with PP&L in 1958 as Manager of Auditing and in 1963 I was advanced to Manager of Budgets. I was elected Comptroller in 1965 and Vice President and Comptroller in 1975. My present activities at PP&L involve responsibility for federal and state income tax matters, including the filing of returns and the settlement of liabilities with the governmental agencies involved; keeping the general books of the Company and preparing financial reports filed with the Pennsylvania Public Utility Commission (PUC), Federal Energy Regulatory Commission (FERC), Securities and Exchange Commission (SEC) and other governmental agencies, as well as preparation of all operating and financial reports for use within the Company. The Company's Plant Accounting Section, which keeps records of all property owned by the Company in accordance with the regulatory requirements, is under my direction.

SSES-FSAR

TABLE 13.1-3 (Continued)

SUPERINTENDENT OF PLANT

NAME: Harold William Keiser

EDUCATION AND TRAINING:

1972	University of Illinois, Urbana, Illinois Bachelor of Science Degree in Metallurgical Engineering
1973	University of Illinois, Urbana, Illinois Master of Science Degree in Nuclear Engineering

WORK EXPERIENCE:

1980-Present	Pennsylvania Power & Light Co. Superintendent of Plant - SSES
1979 - 1980	Consumers Power Company Operations/Maintenance Superintendent. Palisades Nuclear Plant.
Duties:	Responsible for operations and maintenance (Electrical, Mechanical, Instrument and Control) of the plant. Responsible for managing all outages activities including refueling outages. Responsible for nine months for managing the Chemistry and Health Physics Department.
1976 - 1979	Operations Superintendent, Palisades Nuclear Plant
Duties:	Responsible for safe, efficient operation of the plant, chemistry control and plant training. Managed the Operations Department, Chemistry Department, and Plant Training Department.
1976 - 1976	Senior Engineer, Nuclear Production Department
Duties:	Responsible as Staff Assistant to the Manager of Nuclear Power Plants for the coordination of nuclear power plant activities (Palisades, Big Rock, and

TABLE 13.1-3 (Continued)

Midland) with corporate activities. Responsibilities included obtaining from the various corporate departments the support needed to maintain the plants in operation and to shorten their outages. Responsible for coordinating the plant's comments on corporate activities including representing the plants at corporate meetings and providing the necessary feedback. Responsible for coordination between all the nuclear plants ensuring that the administration functions uniformly.

1973 - 1976

Senior Engineer, Palisades Nuclear Plant

Duties:

Responsible as Project Engineer for overall planning, performance and scheduling of steam generator eddy current testing, tube plugging and tube removal.

Responsible as Project Engineer for turnover acceptance of radioactive waste processing facility. This major modification included installation of systems necessary for eliminating radioactive waste releases including equipment for processing, recycling and solidification of all liquid and gaseous waste products. Responsibilities included design review, test witnessing, test acceptance and system acceptance after construction and start-up testing. Responsible also for coordination of construction and start-up activities with plant activities.

Responsible as Project Engineer for plant design review of 300 gpm makeup water system and full flow condensate polishers. Responsibilities included design review, vendor selection, interfacing architect engineer's document control system with the plant's procurement of spare parts, and coordination of construction activities with plant activities.

1973 - 1975

General Engineer, Palisades Nuclear Plant

SSE3-FSAR

TABLE 13.1-3 (Continued)

Duties:	Responsible for the overall planning, performance and scheduling of steam generator eddy current testing, tube plugging and tube removal. Responsibilities included design, procurement, checkout and installation of equipment, procedure development, quality assurance, training of repairmen, and providing interface and coordination between the company and subcontractors.
	Responsible as Project Engineer for various engineering modifications.
1968 - 1973	University of Illinois
Duties:	Responsible for operation and maintenance of Triga Reactor. Performed design installation and pre-operational testing of reactor.
1961 - 1969	U.S. Navy
	Electrical Operator in nuclear field. Responsible for maintenance and operation of power generation/distribution equipment and electrical auxiliaries. Served as qualified reactor operator and electrical operator on USS Tecumseh (SSBN 628) for two years. Served as Staff Instructor at SIC prototype. Qualified in all phases of plant operation. Instructed and qualified trainees in electrical operations, basic nuclear and electrical theory.

LICENSES AND CERTIFICATES:

Senior Reactor Operator license,
University of Illinois, Triga Reactor

Senior Reactor Operator license,
Palisades Nuclear Plant

RICHARD J. TOSETTI

EDUCATION:

B.S., Engineering Physics, University of California, 1971,
summa cum laude, Phi Beta Kappa

M.S., Mechanical Engineering, University of California, 1972

PROFESSIONAL
DATA:

Licensed Professional Mechanical and Nuclear Engineer,
California; Member, American Nuclear Society (ANS); and
American Society of Mechanical Engineers (ASME); lecturer
at ASME-sponsored Radwaste Management course and at the
International Atomic Energy Agency (IAEA) course on safety
analyses review; author of several papers related to radio-
logical assessment and radwaste design.

SUMMARY:

1 year: Project Engineer
3 years: Engineering Supervisor
1 year: Senior Engineer
4 years: Engineer

EXPERIENCE:

Mr. Tosetti is currently Chief Nuclear Engineer for Nuclear
Fuel Operations, Bechtel National, Inc. In this capacity
he is responsible for both personnel management for project
and staff nuclear engineers and technical review of project
nuclear work items such as studies, calculations, reports,
and licensing documents.

Mr. Tosetti was Project Engineering Manager for the Replace-
ment N-Reactor Study performed for UNC Nuclear Industries.
He was responsible for all engineering and scheduling of
work related to the development of conceptual designs for a
production reactor. The project scope included conceptual
designs for safety systems, turbine plant layout, turbine
cycle, containment building, electrical systems, radwaste
treatment systems, and fuel handling.

Mr. Tosetti was the supervisor of the Radiological Assessment
Group which includes the Radiological Dose Assessment Group
and the Radwaste System Design Group. In this capacity he
was responsible for the overall supervision and direction of
all radioactive waste treatment system design for the San
Francisco Power Division. His activities included studies
of alternate liquid radwaste treatment methods, alternate
solidification systems, available volume reduction processes
including calcination and incineration, system capital and
operating costs, waste generation rates from operation and
decommissioning, and design features to reduce operator
exposure. In addition, he was responsible for the review of
project radwaste designs, exchange of information between
projects and other Bechtel offices, and the application of
government criteria for the design of radwaste systems and
the transportation of radioactive waste.

The Dose Assessment Group, which was under Mr. Tosetti's supervision, is responsible for all dose analysis work for nuclear power plant projects and other nuclear fuel cycle facilities (including spent fuel storage facilities and the Waste Isolation Pilot Plant). The group's work includes dose analyses and application of meteorological models for normal and accident conditions, design review of safety systems designed to mitigate activity releases, and development of criteria for radiological monitoring systems. Mr. Tosetti has served as chairman of Bechtel's interoffice Dose Assessment Group, and was responsible for the development and maintenance of the computer codes used for dose assessment by all Bechtel offices.

Mr. Tosetti has presented lectures on radwaste system design at ASME-sponsored courses on Radwaste Management held at the Georgia Institute of Technology in 1978, the University of Virginia in 1979, and the University of Arizona in 1980. He has also lectured at the 1978 IAEA course on safety analysis review held at Argonne National Laboratories.

As an engineer in the radiological analysis group, Mr. Tosetti was engaged in engineering design and radiological assessment activities on various nuclear power plant projects. Radiological assessment work included preparation of safety analysis and environmental reports for sixteen nuclear facilities and development of models used to predict releases of activity, atmospheric dispersion, and resulting population exposures. Design assignments included system analysis engineering, development of specifications, and procurement of various radwaste and post-accident cleanup equipment. He has established design criteria for post-accident cleanup systems, and was responsible for the design of off-gas systems and the review of systems designed by subcontractors.

RESUME
of
ROBERT H. KOPPE

Mr. Koppe joined SMSC in 1974 as Manager of Reliability and Safety Projects. While at SMSC, Mr. Koppe has directed the Company's ongoing projects related to analyzing the performance and improving productivity of nuclear and fossil power generating units. This work has included:

- ° Various studies for EPRI directed toward development of a National Data System for unit and component reliability data for power plants. This work has led to detailed specifications of data to be collected and analyses to be performed by the National Data System.
- ° Development of SMSC's computer program and data base on causes of outages and deratings at U.S. nuclear units.
- ° Analyses of nuclear and fossil plant operating experience to determine problem areas, effects of problems on unit performance and variations of problems as a function of design, age, etc.
- ° Applications of operating experience data to selection of equipment vendors and to design improvement programs.

Mr. Koppe also directs a project which SMSC is undertaking for the Nuclear Safety Analysis Center. This involves analysis of operating experience at all U.S. nuclear units to identify and examine events with potential significant economic or safety implications. Mr. Koppe has also assisted other clients in the development of Safety Analysis Reports (SARs) and in reviewing the design of nuclear facilities relative to operability and radiological safety.

Prior to joining SMSC, Mr. Koppe was Manager of the Nuclear Engineering Division and was responsible for licensing and safety analysis for Consolidated Edison's nuclear projects. The design and engineering related to the safety of these projects was under his direction. This work included design review and licensing for the Indian Point 2 and 3 turnkey units, and design review of changes and retrofit modifications and additions to the three Indian Point units. He also directed the efforts of engineers within his division to supply modifications, analysis, and engineering support for the nuclear portion of the Indian Point 1 and 2 units during operation.

Mr. Koppe received his B.S. degree from the State University of New York at Syracuse in 1965 and his M.S. in Nuclear Engineering from Ohio State University in 1966. He completed course work toward a Ph.D. in Nuclear Engineering at the Massachusetts Institute of Technology.

THOMAS M. CRIMMINS, JR.

EDUCATION

B.S. - Physics, College of the Holy Cross (1965)
M.S. - Engineering Management, Newark College of Engineering (1974)
U.S. Navy Officer Nuclear Power School

EXPERIENCE

1981-Present Pennsylvania Power & Light Company
Manager-Nuclear Plant Engineering
Directs engineering and design work as well as systems and safety analysis for the Susquehanna Steam Electric Station's Unit 1 and 2. Responsibility includes the control of external engineering contractor and consultants in support of Susquehanna design and engineering. Technical staff of about 100 engineers covering all disciplines and systems engineering and analysis.

1980-1981 GPU Nuclear Company
Manager-Engineering Projects
Responsible for directing and controlling the engineering effort for all modifications and major repairs to GPU nuclear stations. Responsibility for the control of external engineering, contractors, the corporate capital budget, and the technical interface between GPU Nuclear Company and the major Three Mile Island Unit 2 cleanup and restoration contractors. Authorized staff of approximately 85 with annual budget of more than \$35 million. Long-range technical planning for nuclear units and coordination of offsite technical resources onsite are also responsibilities of this position.

1977-1980 Jersey Central Power & Light Company
Manager-Generation Engineering
Responsible for all engineering support and modification projects for all JCP&L nuclear, fossil, and hydro stations. Primary activity involved electrical, mechanical, and structural modifications for the Oyster Creek Nuclear Station. Responsibility includes both engineering and project management for \$20 million worth of projects each year. Capital budget development responsibility, long-range project planning, and engineering support for day-to-day operations also included.

1972-1977 GPU Service Company
Nuclear Safety and Licensing Manager
Responsible for licensing of all GPUSC power generation projects: nuclear, fossil, and hydro. Operating License for Three Mile Island Unit 2, Construction Permit for Forked River Nuclear Station, as well as several fossil plant construction permits and licenses and numerous other regulatory approvals obtained while holding this position. Directed or conducted the nuclear safety analyses or evaluations of a large number of nuclear plant changes, core reloads, and license changes.

1970-1972

GPU Service Company

Project Engineer-Safety and Licensing

Responsible for the nuclear safety and licensing activities for the Oyster Creek Nuclear Station. Project engineer for two upratings in licensed power level, the application for a full-term operating license, and several core refueling analyses and licensing actions. Served as Secretary of the Offsite Nuclear Safety Review Board.

1968-1970

Assigned to USS Daniel Webster (SSBN 626) and USS Daniel Boone (SSBN 629) at Newport News Shipbuilding and Drydock Company while the ships underwent overhaul and refueling. Service as Main Propulsion Assistant and Assistant Engineer. Assigned to the Joint Decontamination Group, Joint Test Group, and Joint Refueling Group--each responsible for the safe functioning of the indicated operations.

1966-1968

Assigned to Engineering Department of USS Daniel Webster (SSBN 626) as Electrical Officer and Main Propulsion Assistant. Qualified as Engineering Officer of the Watch on the shipboard nuclear propulsion plant. Also served as the Ship's Diving Officer and Communicator.

1965-1966

U. S. Navy Nuclear Power Program Training. Qualified as Engineering Officer of the Watch on DIG Prototype Nuclear Plant, West Milton, New York. U. S. Navy Submarine School.

PROFESSIONAL CREDITS

American Nuclear Society (former member)

Atomic Industrial Forum - Licensing & Safety Committee (former member)

Electric Power Research Institute - Nuclear Safety and Analysis Advisory Task Force (1973-1977)

Oyster Creek Nuclear Generating Station General Office Review Board (Offsite Nuclear Safety Committee) 1971-1980.

Three Mile Island Nuclear Generating Station Unit 1 General Office Review Board (Offsite Nuclear Safety Committee) 1980-Present.

Lecturer at Massachusetts Institute of Technology Summer Session on Nuclear Reactor Safety, 1979, 1980 and 1981.

Qualified as Senior Watchstander (equivalent to NRC Senior Reactor Operator License) in two Navy reactor plants.

Susquehanna Review Committee (Offsite Nuclear Safety Committee) 1981-present.

SCOTT T. McCANDLESS

Education

B.S. Civil Engineering, Worcester Polytechnic Institute,
1971
M.U.A. Urban Affairs, Boston University, 1973
Highway Capacity Workshop Certificate, The Traffic
Institute Northwestern University 1974
Adjunct Assistant Professor,
Environmental Planning, W.P.I., 1975

Summary of Experience

Mr. McCandless has extensive experience in environmental and emergency planning and management. He has served as project manager or principal investigator for a wide variety of environmental studies and training programs. He has been directly involved in technical studies for urban mixed use developments, transportation projects, and energy development projects. He has worked on emergency planning studies for eight nuclear power plants.

Professional Experience

1978 - HMM Associates; principal and project manager.
Present Performing environmental impact studies, emergency planning studies, and permitting analyses. Projects have included management of state EIRs and federal EISs for several urban developments in Boston, including the first to be performed under comprehensive new regulations, Massachusetts Environmental Policy Act and the largest urban commercial development ever proposed for New England. Mr. McCandless has also directed projects with emphasis on noise, air quality and transportation considerations.

Other projects have included emergency planning for several nuclear power stations. For five major nuclear power stations, Mr. McCandless has been project manager for evacuation study reports compiled for submission to NRC.

1972-1978 Environmental Research & Technology, Inc. (ERT). In his most recent position he served as manager of the Environmental Planning Division. In this position, he served as both a senior project manager and as administrative head of a multidisciplinary division of environmental professionals including specialists in acoustics, air quality, archaeology, economics, geology, landscape architecture, planning, socio-economics and transportation planning. During his tenure at ERT, Mr. McCandless was project manager for more than twenty different environmental studies.

SCOTT T. McCANDLESS

Among them were the EIS for the SHERCO coal-fired power plant in Minnesota the EIA for POD 3 of the New Town at Battery Park City in Manhattan, an Environmental Assessment for the Columbia Green Springs SNG plant feedstock allocation, Air Quality Studies for several Washington METRO System EIS efforts, and an Environmental Reconnaissance for an ethylene plant site for the Mobil Chemical Company.

1971-1972 Needles, Tammen & Bergendoff, Staff Planner.
Prepared the Route 2 EIS and the Land Use Plan for the Manchester, NH Airport Master Plan.

1969-1971 Robinson & Fox, Staff Planner. Prepared tenant selection and Management Plans for proposed MHFA funded housing development in Worcester, MA.

Professional Affiliations

Member, American Society of Planning Officials

ORAN K. HENDERSON

Business Address: Emergency Management Services, Inc.
111 State Street
Harrisburg, Pennsylvania

Education: B.S., Military Sciences, University of
Maryland, 1962.
Graduate, Armed Forces Staff College,
1959.
Graduate, Naval War College, 1963.

Experience: Executive Vice President for Operations,
Emergency Management Services, Inc.,
January 1981 to present.

Consultant, Kline, Knopf & Wojdak
Fall 1980.

Director, Pennsylvania Emergency Management
Agency, 1976 - September 1980.

35 years of active Army service, including
combat commands in World War II,
Korea and Vietnam.

Professional
Honors and
Affiliations:

President-elect, National Association of
State Emergency Management Directors,
1979-80.

Member, Interorganizational Advisory
Committee on Radiological Emergency Planning
and Preparedness (which assisted the FEMA/NRC
Steering Committee in the development and
review of NUREG-0654), 1979-80.

Selected to represent the United States at
an international meeting on radiological
emergency planning in Stockholm, Sweden,
October 1980.

Lectured on TMI-2 accident at conference
of International Atomic Energy Agency in
Vienna, Austria, February 1980.

Other Awards:

Combat Infantry Badge
Five Silver Stars
Five Bronze Stars (two for valor)

Four Purple Hearts
Legion of Merit with Oak Leaf Cluster
Joint Services Commendation Medal
Army Commendation Medal with Cluster
Pennsylvania Distinguished Service Medal
Vietnamese Cross of Gallantry
Vietnamese Medal of Merit

Steven H. Cantone

Education

Bachelor of Engineering -- Stevens Institute of Technology (1963)

Experience

1979-present -- Pennsylvania Power & Light Company, Manager-Nuclear Support. Responsible for radiological and environmental services, operational and maintenance support services, and project management of Susquehanna retrofit program. Radiological and environmental services responsibilities include off-site dose projections, environmental monitoring and emergency planning activities.

1976-1979 -- Power Authority of the State of New York, Superintendent of Power. Responsible for the functional operation of the Indian Point III Nuclear Power Plant, a 3,025 MWt pressurized water reactor plant, through direction of all operations, maintenance, instrumentation and controls, health physics, chemistry, site engineering and regulatory reporting activities. Emergency planning, outage management and development and implementation of material procurement and budgetary controls were also responsibilities of this position.

1963-1976 -- Consolidated Edison Company of New York. Positions of increasing responsibility starting from cadet engineer and ending with chief operations engineer of the Indian Point Nuclear Power Station. Responsibilities traversed the following functional areas: operator training, refueling supervision, power plant performance, procedure preparation, emergency planning, system chemistry and power plant operations.

Professional Credits

American Nuclear Society
Atomic Industrial Forum - Operations and Maintenance
Committee
Electric Power Research Institute - Engineering and
Operations Task Force (1979-1980)
Electric Power Research Institute - Nuclear Division
Committee (1981-)
Licensed as an NRC Senior Reactor Operator on three
different commercial nuclear power plants.
Chairman of the Susquehanna Review Committee (Off-site
Nuclear Safety Committee)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
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PENNSYLVANIA POWER & LIGHT COMPANY)	
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and)	Docket Nos. 50-387
)	50-388
ALLEGHENY ELECTRIC COOPERATIVE, INC.)	
)	
(Susquehanna Steam Electric Station,)	
Units 1 and 2))	

CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing "Applicants' Submittal On Testimony Of Expert Witnesses" were served by deposit in the U. S. Mail First Class, postage prepaid, this 8th day of September, 1981 to all those on the attached Service List.



Jay E. Silberg

Dated: September 8, 1981

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NUCLEAR REGULATORY COMMISSION
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ALLEGHENY ELECTRIC COOPERATIVE, INC.)	
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SERVICE LIST

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