BEFORE THE UNITED STATES
ATOMIC ENERGY COMMISSION

In the matter of	)	
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	)	
Consolidated Edison Company of New York, Inc. (Indian Point Unit No. 2)	)	Docket No. 50-247

QUALIFICATIONS OF WILLIAM J. CAHILL, JR., JOHN F. DEMBECK, JOHN J. GROB, JR., JOSEPH A. PRESTELE, JAMES S. MOORE, JOHN D. McADOO, JR., ROBERT A. WIESEMANN, ALEX C. HUSBAND, AND JOHN THOMAS STIEFEL

hearing

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QUALIFICATIONS
WILLIAM J. CAHILL, JR.
VICE PRESIDENT
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

My name is William J. Cahill, Jr. My business address is 4 Irving Place, New York, New York 10003.

I graduated from Polytechnic Institute of Brooklyn with a degree of Bachelor of Mechanical Engineering in 1949. I was employed by Consolidated Edison upon graduation and participated in the design of steam power plants until 1954. In that period I also taught evening classes in heat power engineering and thermo-dynamics at the Polytechnic Institute of Brooklyn. From 1954 to 1956, while on loan to the Knolls Atomic Power Laboratory, I participated in the design of the nuclear power plants for the submarines Seawolf and Triton. I also aided in the test operation of the prototype nuclear plant for the Seawolf and in the construction and operation of a demonstration nuclear electric power plant at West Milton, New York.

During the major part of 1957 I was employed by Nuclear Development Associates in the design of the BR-3 test reactor for installation at Mol, Belgium and in the development program for a sodium cooled-heavy water

moderated reactor proposed for Anchorage, Alaska.

From late 1957 to the present I have been engaged in assignments of successively increasing responsibility for Consolidated Edison in which I have participated in the design of Indian Point No. 1, the proposed Ravenswood Nuclear Plant, and Indian Point No. 2 and No. 3, as well as several conventional steam power plants.

At present I am Vice President in charge of mechanical, nuclear and design engineering.

I am a member of the Technical Committee of ESADA, an organization of New York State Electric Companies engaged in the support of research and development for nuclear power plants and the Power Generation Committee of the Association of Edison Illuminating Companies.

I am a licensed professional engineer in New York State and a member of the New York State Society of Professional Engineers, the American Society of Mechanical Engineers and the American Nuclear Society.

QUALIFICATIONS
JOHN F. DEMBECK
SENIOR ASSISTANT TREASURER
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

My name is John F. Dembeck. My business address is 4 Irving Place, New York City and I have been, since 1969, the Senior Assistant Treasurer of Consolidated Edison Company of New York, Inc. In that position I am responsible for treasury operations and analytical information. I administer the operation of the Cash Control Bureau and supervise the company's security transfer staff. I also supervise the staff which performs all of the analytical work for the Vice President and Treasurer with respect to financing.

I received the degree of Bachelor of Economics from St. John's College in 1952, and a Master's degree in Financed Taxation and Accounting from the New York University Graduate School of Business Administration in 1961. I have also completed approximately twenty credits toward a doctoral degree.

Upon graduation from college in 1952 I was employed by the Firestone Tire and Rubber Company and worked for that company through 1953 as a salesman and credit manager.

From 1953 to 1956 I served in the United States Army as Specialist 3rd Class-Army Security Agency.

From March, 1957 through October, 1965 I was employed by Shell Oil Company starting out as a clerk and through successive promotions becoming Chief Analyst. In the latter position I was responsible for a $350 million investment portfolio.

1 My duties included the placement of short-term investments
2 and the trading of short-term securities.
3 From 1965 to January, 1969 I was employed by the
4 Columbia Broadcasting System as Assistant Treasurer with re-
5 sponsibilities for cash management and for the management of
6 the company's short-term funds. My duties also included fin-
7 ancial analytical work.
8 I am a member of the New York Society of Security
9 Analysts and of the National Federation of Security Analysts.

QUALIFICATIONS
JOHN J. GROB, JR.
CHIEF MECHANICAL ENGINEER
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

My name is John J. Grob, Jr. My business address is 4 Irving Place, New York, New York 10003.

I graduated from Stevens Institute of Technology, Hoboken, New Jersey with an ME degree in Mechanical Engineering in 1951. I was employed by Consolidated Edison upon graduation and went on a leave of absence for military service shortly thereafter. Commissioned an officer in the Civil Engineer Corps of the U. S. Navy, my assignments included Assistant Design Officer and Construction & Maintenance Officer at the Norfolk Naval Air Station. My assignment as Construction & Maintenance Officer included the administration of several hundred employees in the various construction trades, along with the administration of inspection and other controls on work done by contractors.

Upon return to Consolidated Edison in 1955, I participated in the design of steam power plants. I also participated in 1957-1958 as a student in a course on nuclear physics and reactor theory which was conducted by the Vitro Corporation for Consolidated Edison for a period of approximately 178 classroom hours. During 1967 I was a student at a two-week course in reactor safety given at MIT under the direction of Dr. T. J. Thompson.

For six months during 1960 I was on loan to the Phillips Petroleum Company and participated in the operation of the Materials Test Reactor and the Engineering Test Reactor which were

1 operated by Phillips Petroleum for the AEC at the National
2 Reactor Testing Station, Idaho. Subsequently I spent four
3 months in the Nuclear Operating Training Program at Shipping-
4 port Atomic Power Station, as a trainee.
5 Upon my return to Consolidated Edison in late 1960,
6 I was assigned to the Indian Point Nuclear Generating Station
7 and participated in the preparation of test procedures for
8 systems and components of this plant. I also participated in
9 the performance of these tests and was one of the original
10 Atomic Energy Commission licensed startup crew members for
11 operation of this plant and training of the regular operating
12 crew.
13 In March of 1963 I was reassigned to Consolidated
14 Edison's Mechanical Engineering Department. From that time to
15 April, 1968 I was in charge of the Nuclear Division of this De-
16 partment and participated in engineering projects for Indian
17 Point Unit No. 1, the proposed Ravenswood Nuclear Plant, Indian
18 Point Units 2 & 3, as well as for Nuclear Units Nos. 4 and 5
19 now designated Verplank Units 1 and 2. In April, 1968, I be-
20 came the Assistant Mechanical Plant Engineer, and in June 1969
21 the Mechanical Plant Engineer of the Mechanical Engineering De-
22 partment, directing the work of approximately 50 engineers, en-
23 gaged in engineering power plants for Consolidated Edison.
24 Presently, and since October 1969 I am the Chief Mechanical En-
25 gineer of the Mechanical Engineering Department and have report-
26 ing to me the Mechanical Plant Bureau and the Nuclear Bureau of

that department. The Mechanical Plant Bureau now has about 60 engineers and the Nuclear Bureau approximately 20 engineers. The function of the Mechanical Plant Bureau is as heretofore described whereas the Nuclear Bureau is engaged in analyses associated with Nuclear Plant safety and nuclear fuel performance.

I was responsible for Consolidated Edison's quality assurance activities with respect to the design, fabrication and construction of Indian Point Unit No. 2.

I was a member of the American Standards Association N2 Sectional Committee on General and Administrative Standards for Nuclear Energy, and am a member of its successor USASI N12 Committee. I was a member of a task force chosen by the USASI Standards Committee N45 - (Location, Design, Construction & Maintenance of Nuclear Reactors) - to develop requirements for quality assurance codes and standards for use during the construction phase of nuclear power plants. I was also a member of the Nuclear Task Force of the Edison Electric Institute which reports to the Atomic Power Subcommittee of the EEI Prime Movers Committee. I was a member of the EEI Task Force on licensing and regulation. For a number of years I was a consultant to Battelle Northwest Research on the Containment Systems experiment at Hanford National Laboratory. I belong to the American Society of Mechanical Engineers.

QUALIFICATIONS
JOSEPH A. PRESTELE
MANAGER NUCLEAR POWER GENERATION DEPARTMENT
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

My name is Joseph A. Prestele. My business address is 4 Irving Place, New York City.

I am presently Manager of the Nuclear Power Generation Department with responsibility for nuclear operation matters, present and future, as well as the Company's 59th Street, 74th Street and district heating steam production fossil fueled facilities. I am also responsible for the Company's Power Generation chemical, performance, and administrative services organization.

I have been with Edison since graduating from college in 1949. I hold a Bachelor's degree in Mechanical Engineering and a Master's degree in Industrial Engineering, both from the Stevens Institute of Technology.

My participation in the Company's nuclear development started in 1956, at which time, and as an Edison employee, I joined the General Electric Company's Knolls Atomic Power Laboratory for two years as a utility consultant. During that period, I was involved in various aspects of power plant design and operation of the land based prototypes of the nuclear submarine Sea Wolf and the nuclear destroyer Bainbridge.

1 Upon leaving KAPL and before being assigned to
2 Indian Point, I received formal PWR training at the
3 Shippingport Atomic Power Station and BWR training at the
4 Vallecitos Boiling Water Reactor. I have also had non-
5 credit training in health physics at the University of
6 Michigan and spent two months in residence at the X-10
7 and Y-12 facilities of the Oak Ridge National Laboratory
8 undergoing health physics orientation under Dr. K. Z. Morgan.
9 In 1960, I was assigned to Indian Point as
10 Assistant General Superintendent, and in that capacity
11 participated in the regulatory efforts associated with the
12 startup of that project, as well as in the startup itself.
13 Indian Point went into service in September of 1962, and
14 in December of 1964, I was promoted to General Superintendent
15 of Indian Point. On October 1, 1969, I was promoted to
16 Assistant Manager of the Production Department. On March 1,
17 1970, I was made Manager of the Nuclear Power Generation
18 Department.
19 I have presented papers before the American
20 Society of Mechanical Engineers, the Institute of Electrical
21 and Electronic Engineers, the American Nuclear Society, and
22 the New York Academy of Sciences, and have contributed
23 articles to Reactor Safety and Power magazines.
24 I am a member of the American Society of
25 Mechanical Engineers and of the American Nuclear Society.

I am presently Chairman of the American Nuclear Society Subcommittee ANS-3 which is developing standards for the selection and training of nuclear plant personnel, and administrative and procedural standards for the operation of nuclear plants. I am a member of the American Nuclear Society Critical Reviews Committee and a member of the Edison Electric Institute, Nuclear Plant Design and Operations Task Force.

I hold a Senior Reactor Operator license for the Indian Point Unit No. 1 facility, and I am Special Nuclear Material Accountability Officer for the Consolidated Edison Company of New York, as well as being a member of the Company's Nuclear Facilities Safety Committee, and a member of the Ad Hoc Safety Committee for Indian Point Unit No. 2.

I am licensed to practice professional engineering in the State of New York.

QUALIFICATIONS
JAMES S. MOORE
MANAGER-CORE ENGINEERING
NUCLEAR ENERGY SYSTEMS
WESTINGHOUSE ELECTRIC CORPORATION

My name is James S. Moore. My residence address is 2021 Garrick Drive, Pittsburgh, Pennsylvania, 15235. I am Manager of Core Engineering responsible for the nuclear, thermal and hydraulic, and control and protection systems design and for all safeguards analysis for the PWR Division of Nuclear Energy Systems, a subdivision of Westinghouse Electric Corporation, and have served in this capacity since March, 1969. My responsibility for these activities extends to all Westinghouse supplied commerical nuclear power reactor projects. Currently, these include Zorita (Spain), Beznau (Switzerland), Ginna, Indian Point, Turkey Point, Robinson Unit 2, Mihama (Japan), Takahama (Japan), Point Beach, Zion, Cook, Surry, Diablo Canyon, Kewaunee, Prairie Island, North Anna, TVA, Salem, Beaver Valley, Sequoyah, Seala, Seabrook, Trojan, and Ringhals.

I was graduated from Carnegie-Mellon University in 1961 with a Bachelor of Science Degree in Mechanical Engineering and received a Master of Science Degree in Nuclear Engineering from Carnegie-Mellon University in 1963.

I joined Nuclear Energy Systems in 1956 and have been actively engaged in the analysis and design of nuclear reactor control systems for over eight years. During this

period I was lead engineer for the control and protection system on the Enrico Fermi Plant for SELNI at Torino, Italy with on-site participation in the initial power tests. I was also lead engineer for the San Onofre and SENA plants.

In February, 1964 I became Manager of Systems Transient Analysis with overall responsibility for the functional design of reactor control and protection systems, and for the analyses of accident conditions for presentation to licensing authorities.

In January 1968 I became Assistant Engineering Manager for licensing for the PWR Division. In that position I had overall responsibility for the licensing activities for all Westinghouse supplied commercial nuclear power reactors.

I am a member of the American Nuclear Society, in which I serve as a member of the Standards Executive Committee, as Chairman of Section 4, Power Reactors, and as Chairman of the ANS Standards Systems Engineering Committee. The work of these committees involves development of standards for overall design of nuclear power reactors.

QUALIFICATIONS
JOHN D. MC ADOO, JR.
MANAGER
LICENSING AND RELIABILITY
WESTINGHOUSE ELECTRIC CORPORATION

My name is John D. McAdoo, Jr. My residence address is 3500 MacArthur Drive, Murrysville, Pennsylvania 15668. I am employed by the Westinghouse Nuclear Energy Systems in the PWR Systems Division as Manager of Licensing and Reliability.

I graduated from Carnegie-Mellon University in 1951 with a Bachelor of Science degree in Chemical Engineering.

From 1951 until 1956, I was employed by the Kellex Corporation (later renamed the Vitro Corporation of America) in their Jersey City and West Orange, New Jersey, laboratories where I participated in a variety of research and development projects related to the study of the chemical and physical behavior of uranium and fission products. During that period, I held lead responsibility for development work on homogeneous reactor fuel reprocessing under a subcontract for the Oak Ridge National Laboratory.

Since coming to Westinghouse in 1956, I have held engineering and management assignments related to systems design for a large homogeneous power reactor, technical coordination of reactor plant engineering, and safety and reliability evaluation. From 1961 to 1966, I was engaged in the evaluation of engineered safeguards for the following projects then under contract by the Westinghouse Atomic Power Department:

1 Yankee Atomic Electric Company Reactor, Carolinas Virginia
2 Tube Reactor, Saxton Reactor, San Onofre Nuclear Steam
3 Generating Station, Connecticut-Yankee Nuclear Plant,
4 Malibu Nuclear Plant, Brookwood Nuclear Station, Indian
5 Point Unit No. 2 and Turkey Point Units Nos. 3 and 4.
6 From 1966 until 1969, as Manager of Engineered
7 Safeguards Systems, I was responsible for design of shielding
8 and engineered safeguards systems, and for the analysis of
9 loss-of-coolant accidents for all of the then current PWR
10 projects commencing with the R. E. Ginna Nuclear Plant.
11 In my present position, I am responsible for the
12 PWR Division reliability and quality assurance programs and
13 for the licensing of reactor systems supplied by the Westinghouse
14 PWR Systems Division.
15 During my employment at Vitro and Westinghouse, I
16 have completed postgraduate courses in nuclear engineering
17 at New York University and in advanced heat and mass transfer
18 and fluid dynamics at Carnegie-Mellon University.

QUALIFICATIONS
ROBERT A. WIESEMANN
MANAGER, LICENSING ENGINEERING
WEDCO CORPORATION

My name is Robert A. Wiesemann. My address is 1216 Harvest Drive, Monroeville, Pennsylvania, 15146. I am Manager of WEDCO Licensing Engineering and have served in this capacity since November, 1970. I am responsible for establishing safety criteria and standards; for directing the safety assessment of design, construction and operation; and for preparation of Facility Description and Safety Analysis Reports for the two nuclear power plants being built for Consolidated Edison at Indian Point.

I was graduated from Case Institute of Technology in 1949 with a Bachelor of Science degree in Mechanical Engineering majoring in Heat-Power. From 1951 to 1954, I attended Towne Scientific School of the University of Pennsylvania where I studied Advanced Engineering Mathematics, Advanced Gas Dynamics, and Advanced Heat Transfer at the graduate level. From 1957 to 1959, I attended the University of Missouri Graduate Extension School of Business Administration in Kansas City, Mo. In 1964, I attended a course on reactor safety sponsored by the Health and Safety Branch of the United Kingdom Atomic Energy Authority at the Harwell Reactor School in England.

From February 1, 1949 to July 25, 1949 I was employed by the Westinghouse Electric Corporation in Pittsburgh, Pennsylvania, as a Graduate Student. During this time I was given assignments

in quality control including testing and inspection in the Precision Castings Laboratory at East Pittsburgh, the Railway Laboratory at East Pittsburgh, the Quality Control Department of the Aviation Gas Turbine Division in Lester, Pennsylvania, and performance evaluation in the Aerodynamic Design Section in the Engineering Department of the Aviation Gas Turbine Division.

From July 1949 through 1951 I was assigned to the Aerodynamic Design Section of the Westinghouse Aviation Gas Turbine Division. In my work I made design and performance calculations on the aerodynamic characteristics of turbojet engines and major components and took part in the design and development of test cells, test cell instrumentation and testing techniques for turbojet engine and components evaluation. From December, 1951 to March, 1953, I was a Group Leader in the Westinghouse Aviation Gas Turbine Division's Aerodynamic Design Section.

From March, 1953 to January, 1954 I was assigned to the High Power Laboratory Planning Section, with responsibility for specifying facility and instrumentation requirements for a new engine and components development test laboratory.

From February, 1954 to July, 1959 I was assigned to the Westinghouse Aviation Gas Turbine Division's Flight Test Facility, first at Grand Prairie, Texas, and later at Olathe, Kansas. In succession, I was responsible for the analysis and reporting of flight test results by directing an additional six-man drafting

1 group, and then for additional administrative and budgetary
2 functions as Supervisory Engineer of the Data Analysis and
3 Reporting Section, in charge of all test data acquisition.
4 Finally, I was assigned as Chief Engineer for the Flight Test
5 Division.

6 From July, 1959 to December, 1959 I was Supervisory
7 Engineer in charge of Instrumentation in the Development Test
8 Section of the Westinghouse Aviation Gas Turbine Division
9 Engineering Department in Kansas City, Missouri.

10 From January, 1960 to March, 1961 I was assigned to the
11 Westinghouse Atomic Power Division in Forest Hills, Pennsylvania,
12 as Fellow Engineer in the Instrumentation Group. In this posi-
13 tion, I was responsible for the development of instrumentation
14 systems for the Carolinas Virginia Tube Reactor at Parr, South
15 Carolina, and for preparation of systems descriptions and equip-
16 ment specifications for reactor control and experimental
17 instrumentation.

18 From March, 1961 to August, 1961 I was assigned to the
19 System Transient Analysis Group to define and study the control
20 requirements, operational limits, hazards and safety actions
21 associated with the Saxton Reactor and the Carolinas Virginia
22 Tube Reactor.

1 From September, 1961 to December, 1964 I was assigned
2 as Group Leader for the Safeguards Group of the Westinghouse
3 Atomic Power Division. I was responsible for establishing and
4 evaluating safety requirements and for planning the content,
5 coordinating studies and scheduling the preparation of material
6 required for Safety Analysis Reports required to obtain con-
7 struction permits and operating licenses from the Atomic Energy
8 Commission for power reactors. I also advised project managers
9 concerning key technical issues important to safety.
10 From December, 1964 to November, 1970 I was Manager of
11 Licensing Engineering at the Westinghouse PWR Systems Division,
12 I was responsible for establishing safety criteria and standards;
13 for directing the safety assessment of design, construction, and
14 operation; and for preparation of Facility Description and Safety
15 Analysis Reports for all pressurized water reactor plants and
16 in-reactor tests.
17 I am a registered Professional Engineer in the Common-
18 wealth of Pennsylvania. Also, I am a member of the American
19 Nuclear Society, the Atomic Industrial Forum Safety Committee,
20 and the Society for Sigma Xi. I am actively participating in
21 the ANS and ANSI Subcommittees on nuclear safety standards.

QUALIFICATIONS
ALEX C. HUSBAND
VICE PRESIDENT CONSTRUCTION
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

My name is Alex C. Husband. My business address is 4 Irving Place, New York, N. Y. 10003. I am Vice President Construction of Consolidated Edison Company of New York, Inc. and have held that position since 1969. I am responsible for the company's construction program for generating stations and transmission systems, and report to the Executive Vice President for Central Operations.

In 1935 I graduated from the United States Naval Academy with a Bachelor of Science degree and in 1939 I received the degree of Master of Civil Engineering from Rensselaer Polytechnic Institute. I was awarded the honorary degree of Doctor of Engineering by RPI in 1967.

I am registered to practice professional engineering in New York and in Rhode Island.

I served in the United States Navy for 35 years and retired in 1969 with the rank of Rear Admiral, Civil Engineer Corps. My Navy assignments involving construction activities included commanding officer, Construction Battalion Section, Davisville, Rhode Island, 1955; District Public Works Officer of the First Naval District, 1958; and Director of the European-Mid East Division of the Bureau of Yards and Docks, 1962. In 1964 I became Deputy Chief of Civil Engineers and have served as Chief of Civil Engineers and Commander of the Naval Facilities Engineering Command from 1965 to 1969. In

1 the latter position I was responsible for the design, construc-
2 tion, operation and maintenance of all Navy public works and
3 public utilities. These responsibilities were worldwide in
4 scope and the construction program under my direction was con-
5 ducted both by contract and by the Navy's construction arm, the
6 Seabees. During this period, military construction aggregating
7 in excess of one billion dollars was performed under my super-
8 vision.

QUALIFICATIONS
JOHN THOMAS STIEFEL
PRESIDENT
WEDCO CORPORATION
WESTINGHOUSE ELECTRIC CORPORATION

My name is John Thomas Stiefel. My residence is 1 White Fawn Lane, Pittsburgh, Pennsylvania 15238. I am the President of WEDCO Corporation. WEDCO, a Westinghouse Electric Corporation wholly-owned subsidiary, is responsible for the completion of both Indian Point Unit No. 2 and Unit No. 3 plants for Consolidated Edison.

I attended the University of Illinois and received a Bachelor of Science degree in Chemical Engineering in 1942. From 1942 to 1945 I served in the U. S. Army, and was honorably discharged as Major, Headquarters 87th Chemical Mortar Batallion. From 1945 to 1949 I was employed by the General Electric Company in various engineering positions involving materials and processes.

I joined Westinghouse Bettis Atomic Power Laboratory in 1949 as an engineer, and subsequently served as project engineer and project manager of a variety of nuclear ship and power projects. During this period I was directly responsible for the development, design, procurement, construction, quality, and operation of the prototype for the U.S.S. Enterprise. I was also responsible for the up-powering and modification of the Shippingport Nuclear Power Station involving radioactive maintenance and construction, including quality assurance. In July 1965 I was appointed General Manager of the Heat Transfer

1 Division in Lester, Pennsylvania. I was appointed Assistant
2 General Manager of the Atomic Power Divisions in October 1967,
3 and in addition was General Manager and was responsible for
4 building the Tampa Plant in Tampa, Florida. I was responsible
5 from 1965 to 1969 for the development, design, manufacturing
6 and quality control of the steam generators and pressurizers
7 for the many Westinghouse nuclear power plants currently under
8 construction. As General Manager, Turnkey Projects, from Jan-
9 uary 1969 to May 1970, I had overall responsibility, including
10 design, quality assurance and construction, for the six turn-
11 key nuclear power plants being built by Westinghouse for four
12 different utilities. These included the plants for Rochester
13 Gas & Electric, Carolina Power & Light and Wisconsin Electric
14 Power. All of these plants are now producing power for these
15 utilities. In May 1970 I was appointed General Manager, Nuclear
16 Concepts Divisions. The Nuclear Concepts Divisions, in addition
17 to retaining responsibility for the turnkey projects, includes
18 the Advanced Reactors Division at Waltz Mill, Pennsylvania and
19 WADCO, a wholly-owned Westinghouse subsidiary which manages the
20 Hanford Engineering Development Laboratory at Richland, Wash-
21 ington. Both are involved in the liquid metal fast breeder
22 program. It also includes Westinghouse Electric Nuclear Energy
23 Systems Europe, also a wholly-owned subsidiary; and WEDCO. In
24 October 1970 the completed turnkey projects other than Indian
25 Point Units No. 2 and No. 3 were assigned to others for opera-
26 tional control and service.