

Paul M. Blanch
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OVERVIEW

A 45+ year professional consulting to the top management of Northeast Utilities, Dominion Nuclear, Millstone Nuclear Power Station, Indian Point and Maine Yankee and with a distinguished career as an engineer, engineering manager and project coordinator for the construction and operation of nuclear power plants. Intimately familiar with all regulations governing the design and operation of commercial Nuclear Power Plants

An expert witness having provided research and testimony for numerous plaintiffs including the State of New York Attorney General, Three Mile Island, Vermont Yankee, Saint Lucie, Millstone and Davis Besse.

Provided testimony on behalf of federal and private nuclear workers before State and Federal Courts and the Merit Systems Protection Board (MSPB).

Evaluated the risks and regulatory compliance for gas transmission lines located in High Consequence Areas (HCA) with direct interface with State and Federal regulatory agencies. Obtained CEII clearance to review PHMSA and Spectra documents. Conducted numerous presentations before the public organizations and a prominent Engineering University. Worked closely with the General Accountability Office on the study of underground piping system, risks and regulatory compliance.

EXPERIENCE

EXPERT WITNESS AND CONSULTANT FOR PUBLIC INTEREST GROUPS OPPOSING THE CONSTRUCTION OF THE AIM PIPELINE ADJECENT TO INDIAN POINT NUCLEAR PLANTS (2010 to present)

Provided expert engineering and regulatory services to numerous public interest groups and elected officials opposing the installation of a new 42" natural gas pipeline and its potential impact on the safe operation of the nuclear power plants. Met with various State and Federal regulatory agencies including FERC, PHMSA and the NRC¹ about the lack of any risk assessment for the nuclear plants for the new and existing pipelines. Filed numerous FOIA requests and formal petitions with the NRC. Met with NY Governor's office resulting in the initiation and contract for \$250,000 to conduct a risk assessment, yet to be released in spite of numerous FOIL requests. Met with US Congressional Representatives and NRC Commissioners expressing our concerns about the failure of regulatory agencies in fulfilling their safety mandate and enforcing major safety regulations.

I have a detailed knowledge of Federal and State safety regulations governing the construction and operation of gas transmission lines and the risks presented by these lines and how regulators are ignoring mandated regulations.

Testified in Yorktown NY criminal court in defense of seven defendants arrested for opposing construction of gas pipeline. The defense was based on imminent risk due to failure to comply with mandated Federal safety regulations.

¹ Nuclear Regulatory Commission

Worked closely with the Associated Press, Congressman Markey and the GAO² related to the risks associated with buried piping systems.

EXPERT WITNESS FOR RIVERKEEPER RELATED TO THE SAFETY OF INDIAN POINT (2016)

Studied, evaluated and testified before the State of New York Department of Environmental Conservation issues related to the safety impact of a proposed closed cycle cooling systems for Indian Point. The final outcome of this effort was an agreement negotiated between Entergy, Riverkeeper and the State of New York to permanently close Indian Point.

EXPERT WITNESS FOR NEW STATE ATTORNEY GENERAL SUPPORTING NEW YORK'S POSITION RELATED TO THE RELICENSING OF INDIAN POINT UNITS 2 AND 3 (IP 2&3) –April 2007 to 2012

Provided expert witness research and testimony on behalf of the State of New York opposing the relicensing of the Indian Point units. Researched the design basis for IP 2&3 and provided the basis for age related contentions submitted on behalf of the State of New York to the NRC within the scope of the relicensing requirements of 10 CFR 54. The Atomic Safety Licensing Board accepted four out of five contentions related to buried piping systems, inaccessible cable qualification and the life management of vital transformers.

EXPERT WITNESS FOR VARIOUS PUBLIC INTEREST GROUPS SUPPORTING THEIR POSITION RELATED TO THE RELICENSING OF THE SEABROOK NUCLEAR PLANT -2010 to 2012

Provided expert witness research and testimony on behalf of various public interest groups opposing the relicensing of Seabrook.

EXPERT WITNESS FOR NEW ENGLAND COALITION (NEC) vs. ENTERGY NUCLEAR REVIEWING THE EXTENDED POWER UPRATE FOR VERMONT YANKEE—2004 to 2012

Provided pro bono expert witness research and testimony on behalf of NEC opposing the 20% Extended Power Uprate (EPU) for Vermont Yankee (VY). Researched the design basis for VY and provided testimony before the Vermont Public Service Board, Public Service Commission, Atomic Safety and Licensing Board (ASLB) and the Advisory Committee for Reactor Safety (ACRS). Participated in meetings with Governor Douglas, Senators Leahy and Jeffords. Petitioned the NRC under 10 CFR 2.206 to request VY and the NRC identify any and all non-compliances with present NRC regulations and evaluate risks associated with identified non-compliances to the General Design Criteria of 10 CFR 50 Appendix A and other applicable NRC regulations.

EXPERT WITNESS FOR NEW ENGLAND COALITION (NEC) vs. ENTERGY NUCLEAR REVIEWING THE APPLICATION FOR PART 54—REQUIREMENTS FOR RENEWAL OF OPERATING LICENSES FOR NUCLEAR POWER PLANTS (2004 to 2012)

Provided pro bono expert witness research and testimony on behalf of NEC opposing the 20% Extended Power Uprate (EPU) for Vermont Yankee (VY). Researched the design basis for VY and provided testimony before the Vermont Public Service Board, Public

² Oversight of Underground Piping Systems Commensurate with Risk, but Proactive Measures Could Help Address Future Leaks
GAO-11-563 June 2011

Service Commission, Atomic Safety and Licensing Board (ASLB) and the Advisory Committee for Reactor Safety (ACRS). Participated in meetings with Governor Douglas, Senators Leahy and Jeffords. Petitioned the NRC under 10 CFR 2.206 to request VY and the NRC identify any and all non-compliances with present NRC regulations and evaluate risks associated with identified non-compliances to the General Design Criteria of 10 CFR 50 Appendix A and other applicable NRC regulations.

EXPERT WITNESS FOR PLAINTIFFS IN FINESTONE vs. FLORIDA POWER AND LIGHT (2003 to 2006)

Provided expert witness and conducted extensive historical research to determine the quality and quantity of unmonitored releases from the St. Lucie nuclear plant. Discovered that the plant had significant unmonitored discharges to the environment in excess of those allowed by 10 CFR 20. Case dismissed via summary judgment in 2006.

EMPLOYEE CONCERNS AND SAFETY CONSCIOUS WORK ENVIRONMENT CONSULTANT -- February 2001 to February 2002

Consultant reporting to the Chief Nuclear Officer at Indian Point Unit 2 assisting in the evaluation of the plant's Employee Concerns Program and an assessment of the Safety Conscious Work Environment. (SCWE) Work also includes assisting investigations of allegations related to employee discrimination and other technical and safety issues. Developed and implemented training programs for ECP and other site personnel.

EMPLOYEE CONCERNS AND SAFETY CONSCIOUS WORK ENVIRONMENT CONSULTANT -- September 2000 to 2001

Consultant, reporting to the President of Maine Yankee Atomic Power Company. Primary responsibilities include the re-establishment of a Safety Conscious Work Environment (SCWE) and to act as an independent facilitator to resolve differences between employees and management. Evaluated the Employee Concerns Program making recommendations for improvement to the President. Conducted independent investigations of allegations received internally and referral allegations from the NRC.

EMPLOYEE CONCERNS AND SAFETY CONSCIOUS WORK ENVIRONMENT CONSULTANT -- February 1997 to 2001

Consultant reporting to the President of Northeast Nuclear Energy Company assisting in the recovery of the three Millstone Units shut down due to safety problems. Primary responsibilities include the establishment of a Safety Conscious Work Environment (SCWE) and to act as an independent facilitator to resolve differences between employees and management. Coordinate many different groups at Millstone including

executive management, legal, human resources and the Employee Concerns organization.

Resolve differences at the lowest possible management level. Coordinate with ECP to investigate safety, technical and alleged harassment issues and review outcomes, to assure the investigation was conducted in an unbiased, fair and equitable manner. Coordinate corrective action with the appropriate management, legal and technical organizations.

Worked closely with top management and corporate communications to coordinate efforts to regain public confidence with the operation and management of the Millstone site. Provide assistance with regulatory compliance issues and interface with various public interest groups in the Millstone area including State oversight and groups critical of the Millstone operations. Provide both formal and informal feedback to the NRC about the recovery of Millstone and the establishment of a Safety Conscious Work Environment.

Conducted training and made presentations to top nuclear executives about the need to maintain a Safety Conscious Work Environment when requested by the Nuclear Energy Institute and the Nuclear Regulatory Commission.

Made regular presentations to public interest groups, State of Connecticut oversight organizations and the Nuclear Regulatory Commission as to my personal assessment of the work environment at Millstone and the status of corrective actions.

Worked as a team member with other Millstone management providing overall strategic direction to the President to assist in the recovery of Millstone with specific emphasis on public confidence and the establishment of a SCWE.

Provide routine advice to outside legal organizations and other nuclear utility management with respect to dealing with employees raising safety concerns.

Conducted presentations (September 1999 and September 2000) to the Employee Concerns Program Forum providing a perspective on “whistleblower” issues and what management needs to do to properly address these issues.

Conducted presentation in September 2000, along with NRC Chairman Meserve, to the NRC and the NRC’s Inspector General’s staff on a proposal to resolve “High profile whistleblower” situations.

Worked closely with the US General Accounting Office conducting its study related to the NRC's handling of whistleblower issues in the nuclear industry and buried piping degradation.

EXPERT WITNESS FOR PLAINTIFFS RELATED TO THE THREE MILE ISLAND 1979 ACCIDENT-1995 to 1998

Provided expert witness and conducted extensive historical research to determine the quality and quantity of unmonitored releases from the Three Mile Island plant. Discovered that the actual releases were more than 5 times the amount published by the NRC and the operator of TMI.

ENERGY CONSULTANT -- 1993 to 1997

Provided expert witness testimony and worked with the NRC to change Federal Regulations for the protection of individuals identifying safety issues at nuclear licensed facilities.

Worked with the Office of the Inspector General of the NRC to provide major input to a revision of the recently passed federal "Energy Bill" providing additional protection to Nuclear Whistleblowers. This has been referred to as "the Blanch Amendment" by some personnel within the NRC.

Provided advice to both attorneys and their clients to gain an understanding of the NRC and Department of Labor regulations governing the protection of whistleblowers under the Energy Reorganization Act

NORTHEAST UTILITIES -- 1972 to 1993

Supervisor of Electrical Engineering (Instrument and Control Engineering Branch)
Responsible for programs to assure plant reliability and compliance with NRC regulations. Conducted periodic training of employees and contractors to maintain continued cognizance of all corporate and station procedures and regulations. Worked as both a supervisor of an engineering organization and directed the efforts of Stone and Webster and Bechtel to assure safety and compliance during the design and construction of Millstone Units 2 & 3. Primary interface between NU, Westinghouse and Stone and Webster for the conceptual design of electrical and process instrumentation systems during construction of Millstone Unit 3. Assured compliance with all NRC electrical standards and design criteria. Member of the Millstone Nuclear Review Board responsible to the president to assure compliance with all applicable regulations.

ACCOMPLISHMENTS

Directed the development of the first real time instrumentation monitoring system for practical use in commercial nuclear plants to assess the overall safety status of the plant and to provide information to remote facilities during emergency events. This effort resulted in the identification of many instrumentation problems not previously recognized or considered "undetectable failures." As a result of my efforts, and in face of strong opposition from the vendors and the industry, the NRC issued a Bulletin (90-01) requiring all utilities to monitor Rosemount transmitters used in safety applications. A supplement to the Bulletin was issued at the end of 1992.

Recognized the inability of condensate pots to function under de-pressurization events as a direct result of NU's computerized instrument monitoring system. This is one of the most significant safety issues identified in the nuclear industry. Developed a water injection system into the reference legs that precluded the absorption of these gases. This solution was adopted by the entire nuclear industry.

Developed a program to reduce or eliminate the need for periodic calibration of analog instrumentation and the elimination of the need for pressure transmitter response time testing. The formation of an ISA Standard activity (ISA 67.06) for the development of a standard for Performance Monitoring of Safety Related Instruments in Nuclear Power Plants was a direct result of these efforts.

Received a "First Use" award from Electric Power Research Institute (EPRI) for the application of Signal Validation for the identification of failed sensors during accident, as a direct result of developing and implementing signal validation for emergency computer systems.

Nuclear Operations Engineer (1979 – 1981)

Senior I & C Engineer (1974 – 1979)

UNITED STATES NAVY -- 1963 to 1971

Electrical plant and Reactor operator and Leading Petty Officer aboard the Nuclear Powered Submarine USS Patrick Henry (SSBN-599). Qualified electrical plant and reactor operator and instructor at Navy prototype reactor (S1C).

SPECIAL QUALIFICATIONS

Actively participated and contributed to two recent studies conducted by the NRC and NU addressing the cultural problems at Northeast Utilities. Collaborated with the Fundamental Cause Assessment Team and the NRC's Millstone Independent Review Group and provided insights as to the root causes of the problems effecting the NU nuclear organization.

Named Utility Engineer of the Year (1993) by Westinghouse Electric and Control Magazine for advancing the safety of nuclear power.

Publicly recognized in October 1992 by the Chairman of the NRC (Ivan Selin) for significant contributions to nuclear safety, related to the identification of the condensate pot problems on Boiling and Pressurized Water Reactors.

Testified before the US Senate Subcommittee about the failure of the NRC's regulatory practices and the NRC's mistreatment of Nuclear Whistleblowers. Instrumental in developing Connecticut's Nuclear Whistleblower Law (10 CFR 50.7) effective October 1, 1992 which is the strongest Whistleblower Protection Law in the country. Discussed in Time Magazine (March 4, 1996) as a contributor to nuclear safety.

Featured on Page 1 of the Wall Street Journal (03/12/1998) as a Nuclear Safety Advocate assisting the successful recovery of Millstone Units 2 and 3.

EDUCATION

BS Electrical Engineering, Magna Cum Laude, 1972, University of Hartford
Graduate courses in Mechanical and Thermodynamic Engineering
US Navy Submarine School, 1968
US Navy Nuclear Power School, 1965
US Navy Electronics Technician School, 1964

PROFESSIONAL ASSOCIATIONS

Vice Chairman, Institute of Nuclear Power Operations (INPO) Two Standards Activities in response to Three Mile Island including Post Accident Monitoring requirements.

Member of the ANS Standards Committee responsible for developing the requirements for seismic monitoring systems for nuclear power plants. (ANS 6.8.1 and ANS 6.8.2)

Worked with NEI (NUMARC) on the resolution of the common mode failures of Rosemont pressure transmitters.

Worked with the NRC and discovered (1992) a significant design error impacting all BWR's. This was a deficiency in the design of level transmitters that would have produced non-conservative reactor level errors. These errors may have exceeded 35 feet. As a result, every BWR was required to make extensive modifications to resolve this major issue.

Chairman of Two Committees for the Institute for Nuclear Power Operations (INPO) related to Three Mile Island post accident monitoring requirements and emergency response facilities.

Member of ISA 67.04 for the development of Instrument Setpoints for Nuclear Power Plants

Registered Professional Engineer - California