ABZ, Inc.

Statement of Qualifications
and
Project Experience

Veteran Owned Small Business (VOSB)

Professional Engineering Schedule (PES)
SIN 871-2 Concept Development and Requirements Analysis
SIN 871-3 System Design, Engineering, and Integration
Contract Number: GS-10F-0262U

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Veteran Owned Small Business VOSB cVE

ABZ Engineering & Management Consulting

STATEMENT OF QUALIFICATIONS

ABZ, Incorporated is an experienced and innovative engineering consulting firm providing responsive, high-quality, and cost-effective assistance to all sectors of the power industry. ABZ's services include risk analyses, litigation support, management audits, operational assessments, and cost estimating. ABZ employs several unique computer programs to meet specific client needs efficiently and effectively. ABZ's primary services are:

Consulting - ABZ consults with power industry managers to improve operations, improve regulatory compliance, and reduce risk. Specific areas of expertise include analysis of safety and operating practices, management audits, evaluation of specific engineering and technical issues, and organizational assessments.

Nuclear Power - ABZ knows how nuclear plants are designed, engineered, constructed, operated, and maintained. ABZ knows the regulatory process, how regulations are developed, and implemented. Clients have relied on ABZ's expertise for planning, management re-organizations, risk assessments, and improving plant performance.

Decommissioning - ABZ prepares decommissioning plans and cost estimates. Specific tasks include preparation of the decommissioning plan, estimating the cost of decommissioning, developing decommissioning scenarios and strategies, providing oversight during decommissioning, and independent assessments of cost estimates and schedules.

Risk Assessment and Analysis - ABZ assists nuclear utility risk managers with decisions related to the appropriate amount of nuclear insurance to purchase. ABZ provides risk managers with a rational basis for deciding the optimum coverage based on plant design, risk aversion, and probable accident. ABZ developed a proprietary risk methodology for the American Nuclear Insurers (ANI) in 1989. Since then, ABZ has refined the analysis methods, computerized the cost estimating process, and incorporated state-of-the-art risk assessment techniques.

Litigation Support - ABZ provides litigation support and expert testimony for federal, state, and private industry clients in law suits, administrative hearings, and arbitrations. ABZ's expertise allows the legal team to manage the technical issues seamlessly, and to focus on the areas most critical for resolution of the case. ABZ assists the legal team with rapid identification and analysis of key technical issues, preparation of deposition and trial examinations for technical witnesses, document review with a focus on identifying and developing technical issues and exhibits critical to the case, and obtaining critical evidence during the discovery process

PRINCIPALS

Edward C. Abbott is a nuclear engineering consultant with thirty years of experience in power plant operations and training, licensing support, decommissioning, safety analysis, and utility rate case and litigation support. Mr. Abbott was a licensed senior reactor operator and operation manager of a nuclear power plant, a Senior Fellow with the NRC safeguards committee, and technical assistant to an NRC Commissioner. Since founding ABZ, Mr. Abbott has lead numerous projects related to the performance and risks of electric power plants, including operational assessments, quality assurance audits, and management evaluations.

Warren K. Brewer is a nuclear engineering consultant with twenty-five years of experience in engineering management, regulatory compliance and analysis, decommissioning cost studies, and risk analysis. Mr. Brewer was responsible for all aspects of the mechanical design of a new class of nuclear submarine for Naval Reactors including reactor plant performance, safety, and quality. As a principal with ABZ, Mr. Brewer has evaluated power plant systems and controls, developed programs for design analysis, and analyzed technical aspects of a claim in support of litigation.

Nicholas J. Capik is a nuclear engineering consultant with over 20 years experience in litigation support, design and implementation of complex engineering codes, evaluation of federal codes and standards, and engineering management. Mr. Capik developed a commercial system for estimating the costs for decommissioning nuclear reactors, and has performed cost estimates for 12 commercial and government facilities. He developed commercial software to perform compressible and incompressible fluid flow analyses, and analyzed nuclear power plant fluid flow, electrical system designs, and commercial firefighting system designs.

PROJECT EXPERIENCE

Consulting Services

Project: Independent Expert Review of Various Nuclear Power Plant Overnight Construction Costs
Client: Energy Information Agency (EIA)
ABZ performed an independent review of vendor overnight construction costs for three advanced nuclear power plants. ABZ's review assisted the Office of Integrated Analysis and Forecasting (OIAF) in determining the appropriate overnight construction costs to be used in the Electricity Market Module (EMM) which is used to prepare the Annual Energy Outlook (AEO). The AEO analyzes and projects national energy use. ABZ reviewed the cost estimates and basis for new construction of the major nuclear supplies of advance reactors. ABZ met with the vendors, analyzed their cost estimates, and provided a comprehensive report to EIA. In addition, ABZ presented its findings at internal EIA workshops and to other stakeholders.

Project: Management Review of Nuclear Organization
Client: Arizona Public Service Company (APS)
ABZ participated in a comprehensive review and evaluation of the Arizona Nuclear Power Project (ANPP), a wholly-owned subsidiary of APS. In response to increasing costs and poor performance, the APS Board of Directors and President requested an in-depth analysis of the functions, effectiveness, and staffing of ANPP. ABZ reviewed and evaluated the maintenance, operations, quality assurance, and engineering as part of a team of consultants hired by APS. Several significant organizational changes were recommended and implemented, including consolidation of responsibilities in each operating unit, establishment of a standardization group to assure all units operated in the same manner, and an outage/maintenance support group to review the units. The final organization, patterned after the naval reactors program, remains in place today.

Project: San Onofre Nuclear Generating Station, Unit 1 Shutdown Analysis
Client: Southern California Edison Company (SCE)
ABZ developed a draft decommissioning plan for the SONGS Unit 1. This plan included input from other prematurely shutdown plants and an assessment of NRC guidance applicable to SONGS 1. The plan also included a preliminary assessment of decommissioning options, a description of the plant during long-term storage prior to decommissioning, information on organization and staffing, and an evaluation of NRC requirements relative to the plant's shutdown condition.

Project: Evaluation of Nuclear Power Plant Life Extension and Decommissioning
Client: Congressional Office of Technology Assessment
ABZ reviewed the decommissioning funding, spent fuel disposal plans and preparations for nine nuclear power plants, as part of an overall study of the nuclear power plants requested by the United States Congress. ABZ conducted interviews with management and technical personnel. Two panel meetings were held to review the findings of the report. The panel members included intervenors, public utility commissioners, industry representatives, and university professors. The results of the report were presented to the NRC Commissioners.

Project: Sacramento Municipal Utility District Testimony
Client: Pacific Gas & Electric Company
ABZ reviewed all aspects of the nuclear organization responsible for the Rancho Seco Station. This included a review of the organization's performance in response to difficult technical problems, such as pressurized thermal shock, modifying the turbine control system, incorporating vendor-recommended design changes, and nuclear regulatory inspections. Detailed performance criteria were developed for each functional area in the plant and comparisons were made to other facilities. These functional areas included radiation protection, quality assurance, design control, maintenance, operation, and regulatory compliance. ABZ reviewed the nearly eight years of plant data, Institute of Nuclear Power Operations (INPO) reports, NRC evaluations, design changes, utility correspondence, and licensee event reports. In addition, specific relationships were developed between the plant performance and the effectiveness of the Board of Directors.

Project: Effects of Nuclear Power Plant Decommissioning Costs on Plant Life Cycle Decisions
Client: Electric Power Research Institute (EPRI)
ABZ provided a decommissioning cost estimate report based on a plant-specific cost estimate. The report included discussion of the generic applicability of the estimate's elements and approach. ABZ reviewed the NRC's decommissioning cost estimating model. Finally, ABZ provided input to the final EPRI report on managing the decommissioning decisions in the context of plant life cycle management.

Project: Quality Assurance Program Audit
Client: Diablo Canyon Independent Safety Committee
ABZ performed a detailed, comprehensive review of the PG&E Quality Assurance (QA) Program. The review included a comparison of the program objectives against the regulations, interviews with QA personnel, implementation of QA procedures, and the qualifications of QA personnel. The review also included the observation of safety-related work during a refueling outage. Specific recommendations were presented to the Committee for review.

Project: Design Basis Reconstruction
Client: Southern California Edison (SCE)
ABZ provided engineering and management services as part of an integrated team to validate and update the plant's design basis documentation. ABZ reviewed and evaluated the plant's existing documentation against the regulations, the technical specifications, the Final Safety Analysis report, and other requirements. This effort was performed in accordance with a detailed procedure which ABZ evaluated and modified, with the input and concurrence of the team. The final product was a verified design package for each system, which formed the bases for future changes in the plant, its design, and technical specifications.

Decommissioning

Project: Decommissioning Cost Estimates for SONGS Units 2 and 3
Client: Southern California Edison (SCE)
ABZ developed a decommissioning cost estimate for the SONGS 2 and 3 units for SCE. ABZ utilized site-specific information such as labor rates, equipment inventories, staff salaries, and other data to prepare the estimates. ABZ entered the information and data into the Decommissioning Cost Analysis System (DECAS), an ABZ developed, PC-based computer program for estimating decommissioning costs. DECAS was then used to develop the costs for several different scenarios to assist in establishing the best decommissioning approach. Finally, ABZ provided SCE personnel with training in DECAS to allow updating the estimate in the future without outside assistance.

Project: Independent Cost Estimate for Decommissioning the Plumbrook Reactor Facility
Client: National Aeronautics and Space Administration (NASA)
ABZ performed several analyses of the decommissioning costs for the Plumbrook Station for NASA. The Plumbrook reactor was operated from 1967 to 1973 as a test platform for the NASA space reactor program. The reactor was placed in SAFSTOR. ABZ developed an independent cost estimate and assisted NASA with reviewing contractor proposals for the decommissioning. The reviews included evaluations of the proposed project schedules, equipment inventories, labor force, staffing, etc. ABZ provided NASA with several evaluations, attended project meetings, and made recommendations.

Project: Independent Review of the SONGS Unit 1 Decommissioning Cost Estimate
Client: Southern California Edison (SCE)
ABZ provided an independent review of the Unit 1 decommissioning cost estimate prepared by the plant staff. SCE required an independent review of the estimate prior to submitting it to the California rate commission. ABZ reviewed the estimate’s assumptions, methods, cost items, staffing, and labor, among other things. ABZ also checked the estimate for internal consistency overall and within similar work items.

Project: Review of Decommissioning Estimates for New England Nuclear Power Plants
Client: Massachusetts Attorney General
ABZ evaluated the decommissioning cost estimates and funding plans for all nine New England nuclear power plants. ABZ analyzed the estimates against specific criteria related to the disposal of low level radioactive waste and the storage of spent fuel. Each plant's estimate was adjusted accordingly and the decommissioning shortfall determined. The effect of premature decommissioning was also evaluated.

Project: Decommissioning Planning and Organizational Development
Client: Long Island Power Authority (LIPA)
ABZ provided technical assistance to tLIPA in planning for the decommissioning of the Shoreham Nuclear Power Station (SNPS) and developing a technical organization qualified for assuming responsibility of the plant. The analysis required a detailed review of SNPS's Final and Updated Safety Analysis Review, Technical Specifications, and NRC codes and standards. The requirements for maintaining a plant during decommissioning and performing functions, such as fuel removal, decontamination of systems and components, and monitoring potentially radioactive releases, were also reviewed. Based on the requirements, an organization and staffing plan was developed. This included an analysis of the decontamination and dismantlement (D/D), SAFSTOR, and entombment alternatives. The staffing, organization, and cost information were used as the basis for ABZ's development of the decommissioning plan.

Project: Three Mile Island Unit 2 Decontamination Study
Client: General Public Utilities (GPU)
ABZ analyzed the cost to decontaminate the GPU assets of TMI-2, in the event of contamination due to a severe reactor accident at TMI-1. The cleanup costs were based on two isotopic releases provided by GPU. For each of the releases, the costs were determined for three different amounts of the released contamination being present on the GPU responsible TMI-2 buildings and structures at the time of the cleanup effort. The costs were determined consistent with the ABZ methodology for evaluating the cost to cleanup a reactor facility following a severe reactor accident. This methodology has been used for evaluating severe accident costs and determining the appropriate level of nuclear property insurance for about half of the commercial nuclear facilities in the United States.

Project: Calvert Cliffs Decommissioning Cost Estimate
Client: Baltimore Gas & Electric Company (BG&E)
ABZ prepared detailed cost estimates for decommissioning the BG&E Calvert Cliffs site. The estimate included the analysis of eight different scenarios, including early shutdown and extension of the operating license beyond the current expiration date. The estimate was performed in accordance with the AIF/NESP-036 Study. ABZ provided a schedule and explanation of the activities necessary to transition from fully licensed operating status to the start of actual decommissioning. The analysis included the steps required for the process and the expected manpower to accomplish the work. ABZ analyzed five years of state regulatory history related to decommissioning funding to provide insight and lessons learned. The EPRI regulatory database was accessed, testimony analyzed, and recommendations made.

Project: Review of the Turkey Point and St. Lucie Decommissioning Cost Estimates
Client: Florida Public Service Commission
ABZ provided a review of the Turkey Point and St. Lucie decommissioning cost estimates for the Florida Public Service Commission. The review pointed out a number of inconsistencies in the estimated spent fuel storage costs, unit cost factors, use of contingency, etc. ABZ presented the review as part of a decommissioning course for about 20 employees of the Commission staff.

Project: Decommissioning Oversight of the Trojan Nuclear Power Plant
Client: Portland General Electric
ABZ provided an independent review and assessment of the cost and safety of the Trojan Nuclear Power Plant decommissioning. This included interviewing responsible plant personnel, evaluating the progress of decommissioning implementation, and plans for disposal of spent fuel. As part of a multi disciplinary team, ABZ attended quarterly committee meetings and conducted detailed tours of the plant.

Project: Review of Indian Point Decommissioning Cost Estimate
Client: New York Public Service Commission
ABZ evaluated the decommissioning cost estimate for Indian Point Unit 2. This was part of an effort to assist the New York Public Service Commission staff in understanding the estimate, evaluating the projected cost of waste disposal, and reviewing staff testimony for the rate hearing. In addition, ABZ provided the staff with a two-day training seminar on decommissioning, including the NRC rules, decommissioning technologies, estimating decommissioning costs, and disposal of spent fuel.

Project: Nine Mile Point Units 1 and 2 Decommissioning Cost Estimate
Client: Niagara Mohawk Power Corporation (NMPC)
ABZ developed a decommissioning cost estimate for the NMPC Nine Mile Point Units 1 and 2. ABZ utilized site-specific information such as labor rates, equipment inventories, staff salaries, and other data to prepare the estimates. ABZ entered the information and data into the Decommissioning Cost Analysis System (DECAS), an ABZ developed, PC-based computer program for estimating the decommissioning costs. DECAS was then used to develop the costs for several different scenarios to determine the least cost decommissioning option. Finally, ABZ provided NMPC with training in DECAS to allow updating of the estimate in the future without outside assistance.

Project: Overview of US Decommissioning Requirements
Client: Taiwan Power Company
ABZ assisted Taiwan Power in developing the infrastructure for decommissioning a nuclear power plant. ABZ provided an analysis of the US requirements for decommissioning. ABZ developed an inventory of skills, organizational structure, and position descriptions that would be needed for a successful decommissioning organization. ABZ also provided a detailed listing of requirements for decommissioning nuclear power plants in the US. The list included the technical and regulatory documents necessary to decommission a US nuclear power plant, such as NRC regulations, regulatory guides, and industry documents.

Risk Assessment and Analysis

Project: Site-Specific Severe Accident Cost Models
Client: American Nuclear Insurers (ANI)
ABZ provided ANI with an updated version of the "1989 ABZ Study" for a 400 MWe pressurized water reactor (PWR). Given the substantial interest in the original study, ABZ refined the cost analysis using more detailed equations for calculation of radiation dose, breakouts of the cleanup staffing, cost of waste burial, etc. These factors were used as the basis for an integrated cost analysis computer program which permits virtually any severe accident end-state to be analyzed for cost. This new approach was implemented at a small reactor in the Northeast. The analysis determined the cleanup and stabilization costs associated with four Industry Degraded Core Rulemaking (IDCOR) end-states using plant-specific data, such as core size, regional labor rates, containment configuration, etc. ANI provided the study to the owners of small reactors as a guide for purchasing property damage insurance. Finally, the utility provided the study to the Public Service Commission as justification for the insurance purchased.

Project: Functional Total Loss Study
Client: Nuclear Mutual Limited
ABZ determined the events that would lead to a total loss of the nuclear power plant. ABZ reviewed data from previous losses and studies performed by government agencies. ABZ considered accidents that have occurred in the past, both nuclear and non-nuclear related. ABZ determined the activities needed to restart the plant based on current regulations and recent restarts for plants shut down for equipment and management problems. An evaluation of the likelihood of a restart from a range of accidents was determined. ABZ's evaluation included comparing the level of effort and cost needed to restart against the type of accident. ABZ then made a determination of those events which were likely to make a restart impossible and therefore result in a total functional loss.

Project: Risk Assessment Applications
Client: US NRC Advisory Committee on Reactor Safeguards
Mr. Abbott served as a member of an Advisory Committee on Reactor Safeguards subcommittee evaluating the methods to be implemented for risk-based regulation. The Committee reviewed the risk informed regulatory guidance, held meetings with the NRC staff and industry representatives, and formulated recommendations for the NRC Commissioners.

Project: Severe Reactor Accident Cost Analysis
Client: Korean Electric Power Company/ AON Korea
ABZ performed a severe reactor analysis cost study on the nuclear power plants owned and operated by the Korean Electric Power Company. ABZ analyzed each plant based on common characteristics such as size, containment type and reactor type. The insurance claims cost for stabilization and cleanup, and damaged and undamaged property were calculated using the ABZ Severe Accident Cost Analysis System (SACAS) for accidents with varying amounts of core damage for a single accident similar to the accident at Three Mile Island Unit 2. ABZ provided a final report summarizing the SACAS results, as well as providing the detailed backup information to support the analysis.

Project: Cashflow Following a Severe Accident
Client: Nuclear Electric Insurance Limited (NEIL)
ABZ provided an analysis that estimated the cashflow requirements for insurance in the event of a severe nuclear accident. ABZ evaluated five nuclear power plants that represented a cross section of the industry. The evaluation consisted of determining the losses from representative accidents using the existing coverages for each plant. Stabilization and cleanup cost were determined using industry data from the Three Mile Island accident and data from the NRC. In addition, the structure (i.e., primary and excess layers) of the insurance was considered. NEIL used the analysis for reinsurance purposes and to support their underwriting.

Project: Severe Reactor Accident Cost Analysis
Client: AON Risk Services, Hong Kong
ABZ performed a severe reactor analysis cost study of the Daya Bay nuclear power plant. ABZ analyzed the plant based on site specific data such as size, containment type, reactor type, labor rates, etc. The insurance claims cost for stabilization and cleanup, and damaged and undamaged property were calculated using the ABZ developed SACAS for accidents with varying amounts of core damage for six accidents, including an accident similar to the accident at Three Mile Island Unit 2. ABZ provided a final report summarizing the SACAS results, as well as providing the detailed backup information to support the analysis.

Project: Severe Reactor Accident Cost Analysis
Client: American Nuclear Insurers and Japanese Atomic Electric Insurance Pool
ABZ performed a severe reactor analysis cost study of the two nuclear power plants (OHI-3 and Kashiwazaki-Kariwa-3) owned and operated respectively by the Kansai and Tokyo Electric Power Companies. ABZ analyzed each plant based on common characteristics such as size, containment type and reactor type. The insurance claims cost for stabilization and clean-up, and damaged and undamaged property were calculated using the ABZ SACAS for accidents with varying amounts of core damage for a single accident similar to the accident at Three Mile Island Unit 2. ABZ provided a final report summarizing the SACAS results, as well as providing the detailed backup information to support the analysis.

Project: Safety Assessment Model for Nuclear Power Plant Management
Client: US Nuclear Regulatory Commission (NRC)
ABZ assisted the NRC and the University of California, Los Angeles (UCLA) in developing a quantitative model for evaluating nuclear power plant organizations and the effect of the organization on plant risk. For several years, the NRC had attempted to define more clearly the relationship between the management of the plant and the plant's probabilistic risk assessment (PRA). In addition, the NRC had attempted to understand the depth of technical knowledge beyond the requirements in the regulations needed to safely operate and maintain a nuclear power plant. ABZ provided a framework entitled the Work Process Analysis Model (WPAM) for making the connection between work performed in a power plant and the effect of that work on risk. In addition, ABZ provided a “straw man” for defining the "deep technical" knowledge required by nuclear power plant staffs. A deep technical knowledge matrix, consisting of each power plant position and the depth of knowledge required, underwent peer review.

Project: Risk Analysis of Tertiary Steam System
Client: Omaha Public Power District
ABZ performed a comprehensive risk analysis of a proposed modification to the Fort Calhoun nuclear power plant. The modification would provide process steam to the Cargill Corn Milling facility. ABZ analyzed the risk resulting from a failure in the operation of the process steam facility on the operation of Fort Calhoun. Using preliminary design information for the proposed facility and risk assessment data for Fort Calhoun, ABZ determined that the overall effect of providing process steam to Cargill would pose minimal risk to electric production at Fort Calhoun.

Project: Insurance Survey of Young Kwang Units 2 and 3
Client: Korean Electric Power Company/ AON Korea
ABZ performed a survey of Young Kwang Units 2 and 3. The purpose of the survey was to assess the nuclear operational safety management of the units. ABZ interviewed plant operators, met with management, toured the facility, and reviewed procedures and other documents. Several safety systems were selected for review including the operating procedures, maintenance records, and system prints.

Project: Insurance Survey of Daya Bay Nuclear Power Plants
Client: AON Risk Services, Hong Kong
ABZ performed a survey of the Daya Bay and Ling Ao units. The purpose of the survey was to assess the nuclear operational safety management of the units. ABZ interviewed plant operators, met with management, toured the facility, and reviewed procedures and other documents. Several safety systems were selected for review including the operating procedures, maintenance records, and system prints.

Litigation Support

Project: Analysis of Spent Nuclear Fuel Claims
Client: US Department of Justice
ABZ provided technical support and engineering evaluation of the damage claims made by the owners of numerous utilities against the Department of Energy (DOE). The utilities claimed damages due to DOE's failure to begin removal of spent nuclear fuel from their facilities in 1998. ABZ provided evaluations and analyses of a number of issues related to spent fuel storage and transportation. These analyses included the cost of spent fuel storage both in the spent fuel pool and in dry casks, the regulatory requirements imposed on the storage and transportation of spent fuel, and the cost to remove the fuel from the site. ABZ provided support for discovery, prepared interrogatories, evaluated responses, and prepared for depositions. ABZ reviewed the claim, the expert witness reports, and discovery documents. ABZ compiled spent nuclear fuel data for the industry and developed an approach for analyzing the DOE spent fuel program.

Project: Evaluation of Decommissioning Cost Studies For Bruce A and Bruce B Nuclear Generating Stations
Client: Torys, LLP
ABZ was retained by Torys LLP on behalf of Ontario Power Generation, Inc (OPG) to evaluate claims made by Bruce Power (BP) related to leasing the Bruce Nuclear Generating Stations. Lease payments are, in part, based on the plants' decommissioning costs estimates. Bruce Power challenged several aspects of recently updated estimates, including the use of a financial risk factor, the contingency amounts, the staffing levels during storage periods, and the calculation of radioactive waste volumes. ABZ evaluated the Bruce claims and the expert reports submitted on its behalf. ABZ prepared an evaluation on each aspect of the Bruce claim with backup data and summary conclusions. The case settled with no change in the lease payments to OPG.

Project: Evaluation of Computer Codes for Heat Recovery Steam Generator
Client: Paul, Weiss, et al. and Mitsubishi Heavy Industry
ABZ provided engineering and technical support to the law firm of Paul, Weiss which represented Mitsubishi Heavy Industry (MHI) in a contract dispute with an Italian firm. ABZ provided a detailed review of a computer code used to provide design details for a heat recovery steam generator. ABZ evaluated the code, met with the MHI designers, and provided testimony before an international panel of judges.

Project: Evaluation of Pilgrim Nuclear Power Plant
Client: Commonwealth Electric Company (CECO)
ABZ provided CECO, a co-owner of the Pilgrim Nuclear Power Plant (PNPP), with a comprehensive and detailed review of the plant's personnel, organization, regulatory effectiveness, and improvement programs. As part of the review, ABZ performed several "vertical audits" in technical areas, including design modifications, technical procedure adequacy, and implementation of the plant's test program. These audits revealed several inadequacies, which predicted the continued poor performance of the facility. The information gathered allowed CECO to renegotiate its agreement and obtain a large settlement from the plant's owner. In addition, ABZ assisted CECO in establishing a periodic review program to protect its remaining interests in the facility. Finally, ABZ provided CECO with an analysis of the plant's past performance using indicators which clearly showed fundamental changes in the organization were needed. Much of ABZ's analysis used commercial nuclear power standards and regulations as measures of performance.

Project: Evaluation of the Decommissioning Cost Estimate for the Seabrook Nuclear Power Plant
Client: New Hampshire Nuclear Decommissioning Financing Committee
ABZ performed a detailed review of the cost estimate prepared for the Seabrook Nuclear Power Plant. This review included an independent estimate, detailed evaluation of the costs included, comparison to other estimates, independent verification of input data and assumptions, comparison to actual decommissioning experience, performance of sensitivity analyses for factors such as waste burial charges, determination of the "most likely" decommissioning option, and analysis of the required decommissioning trust funding schedule.

Project: Technical Evaluation of Claims Filed by the Owner of the Salem Nuclear Power Plant for Damages Caused by the Arthos Oil Spill
Client: PCCI
ABZ evaluated the technical aspects of a utility's claim that an oil spill caused the shutdown and delayed the startup of two nuclear power plants. ABZ evaluated the claim and its supporting documentation to understand the technical aspects of the claim. ABZ developed inquiries to obtain additional data and information needed to understand the causal relationship between the technical events described in the claim and the oil spill. Finally, ABZ evaluated and verified the causal relationship between the technical issues in the claim and the effects of the oil spill. ABZ's evaluation concluded that utility's decision to shutdown both units was unavoidable given the risk posed by the oil spill to public health and safety, and potential damage to the plants. ABZ also concluded that the portion of the utility's claim related to equipment failures during restart of one of the units was not supported.