



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

ENERGY NUCLEAR OPERATIONS, INC.,  
ENERGY NUCLEAR PALISADES, LLC,  
HOLTEC INTERNATIONAL, and HOLTEC  
DECOMMISSIONING INTERNATIONAL,  
LLC

(Palisades Nuclear Plant and Big Rock Point  
Site)

Docket No(s). 50-255-LT-2  
50-155-LT-2  
72-007-LT  
72-043-LT-2

ASLBP No. 22-974-01-LT-BD01

Hearing Exhibit

Exhibit Number:

Exhibit Title:



CURRICULUM VITAE  
**CHRISTOPHER F. TIERNEY**  
**PARTNER**

## QUALIFICATIONS

MBA, Master of Business Administration, Concentrations in Accounting and Finance, A.B., Freeman School of Business, Tulane University

Bachelor of Civil Engineering with Honors, Georgia Institute of Technology

## MEMBERSHIPS

Institute of Management Accountants  
National Society of Professional Engineers  
American Nuclear Society  
American Bar Association  
International Bar Association

## PROFILE

**Chris Tierney** is a Partner in the Washington, DC office of HKA. Previously, Chris was a Vice President and Chief Financial Officer, and a Member of the Board of Directors at The Kenrich Group LLC. (Kenrich was acquired by HKA in 2019.) Before entering the consulting field, Chris was a project engineer at Chevron, where he worked on the design and construction of oil and gas facilities.

Chris has been consulting with Fortune 500 Companies, law firms and government entities and other organizations for more than 30 years. Chris' consulting work has focused on financial, accounting, economic and damages matters in numerous and diverse areas, including the electric power industry, major infrastructure and other construction projects, military procurement involving aircraft, munitions and other defense programs, financial services and manufacturing. He has analyzed accounting and economic issues in various types of disputes, including breach of contract, intellectual property, fraud investigations and bankruptcy. Economic damages assessed include increased costs, schedule delay, lost profits and lost business value. In addition, Chris has advised clients on alternative capital investments and other business matters.

In commercial construction, government contract and procurement matters, Chris has extensive experience investigating and quantifying the economic impacts of design defects, performance deficiencies, changed conditions, schedule delay and other issues arising on large capital projects, several of which have exceeded one billion dollars in value. He has consulted with both private and public project owners, contractors, architect/engineering firms and sureties.

Chris has provided trial and deposition testimony, presented in mediation, and has assisted counsel and clients in settlement negotiations.

## EXPERIENCE

### CLIENT AND INDUSTRY EXPERIENCE

Clients include electric and water utilities, commercial and government contractors, project owners and developers, architect and engineering firms, federal and state agencies, municipalities, banks and insurance companies.

Project and industry experience includes construction, electric power, oil and gas, aircraft, shipbuilding, telecommunications, aerospace, information technology, healthcare, real estate, and textiles manufacturers, among others.

### REGULATED INDUSTRIES

Consulted on numerous electric utility matters involving nuclear, coal, natural gas, hydroelectric and cogeneration plants. Work has included cost and schedule analysis in the context of construction disputes, as well as general management consulting including resource planning, multiyear supplier contract negotiations, customer rate proceedings and other regulatory matters.

Consulting with more than a dozen nuclear utilities on the economic and other impacts of the United States Department of Energy's delayed removal of spent nuclear fuel from commercial nuclear plants. Related claims are estimated in the tens of billions of dollars. Working with utility personnel and outside technical experts to identify necessary activities undertaken to store increasing volumes of spent nuclear fuel onsite for an extended period of several decades.

Assisted several nuclear utilities to identify and quantify impacts associated with defective steam generators. Related claims against Nuclear Steam Supply System (NSSS) suppliers exceeded several billion dollars and included costs for steam generator remediation activities and eventual replacement. Lost sales and increased costs resulting from replacing lost generation during related refueling outage extensions and early plant retirement were also analyzed.

Consulted with the primary lender in connection with a bankrupt utility cooperative regarding its ownership of a nuclear power plant. Developed pro forma financial information and determined potential values of the nuclear plant. Reviewed prospectus information, as well as historical generation and financial data, including fuel, non-fuel operating and maintenance costs and revenue projections based on existing power contracts supply contracts.

Studied management performance and operating practices at a nuclear utility over a multi-year period leading to an extended plant shutdown enforced by the Nuclear Regulatory Commission (NRC). Interviewed senior utility executives, reviewed board meeting minutes and formal reports by internal task forces and outside consultants to assess potential impact of "cost reductions" and other events on employee morale and corporate culture. Assisted the utility in segregating plant operating performance issues between NRC findings and the otherwise typical challenges faced by utility management.

Reviewed and analyzed nuclear plant decommissioning costs and studied alternative approaches to decommissioning to assess the economic, financial, schedule, political and other implications associated with each alternative approach. Authored two "Decommissioning Cost Estimates" for a multi-billion-dollar project to support utility testimony at the California Public Utility Commission.

Developed financial models to assist electric utilities with analyses of economic viability of large capital investments, including cost/benefit analysis of escalating equipment repair and maintenance costs versus early replacement, as well as resource planning options involving plant power uprates, early plant retirement and other strategic issues (e.g., review and selection of alternative vendors supplying equipment and services under contracts exceeding hundreds of millions of dollars).

Assisted a nuclear utility with responding to an industry-wide United States Nuclear Regulatory (“NRC”) Commission 50.54(f) letter requiring demonstration that operating nuclear plants were safe, and that the as-built plant and operating practices conformed to plant design documentation, operating procedures and other NRC license requirements.

Consulted on “prudence” investigations and reviews related to nuclear and other power plant construction and operations, including the underlying causes of and amounts for cost growth and schedule delay, replacement power costs and proper methods for assessing and supporting the cost of individual impacting events and activities.

Worked with a nuclear utility to evaluate the cost-benefit of safety-related plant equipment upgrades. Analysis required detailed review of the Nuclear Regulatory Commission’s methodology for evaluating averted on-site economic costs associated with Severe Accident Mitigation Alternatives and performing related calculations.

Performed critical path schedule analyses of refueling and unplanned plant outages to identify root cause of delays and the associated cost impacts, including worker productivity losses, extended time-related indirect costs, and lost sales and/or replacement power purchases.

Reviewed and consulted on business plans, operating and capital budgeting, and asset valuation studies. Assisted utilities in demonstration of compliance with state utility commission regulatory accounting and other requirements.

## **GOVERNMENT CONTRACTS**

Assisted defense and other government contractors in the preparation of Requests for Equitable Adjustment, proposed change orders and claims on matters of all sizes, including some valued at more than \$1 billion.

These government contract matters have involved domestic and international construction projects, national defense and other government agency equipment and software procurement programs, as well as services contracts. These matters entailed assessments of cost and schedule impacts associated with formal and constructive changes involving work scope, changed conditions, and delay and disruption of planned work.

Analyzed cost growth and schedule impacts on complex projects and programs to identify and demonstrate causal link between discrete events and circumstances and the resultant impacts. Evaluated and measured productivity impacts relating to quantity and nature of directed changes, allegations of mismanagement or management interference, and defective design or workmanship issues.

Analyzed schedule delay using Critical Path Method techniques. Identified and quantified schedule delay-related impacts on direct costs (labor productivity) as well as increased activity-related (certain field support activities) and time-related indirect costs (extended project/program management and support, unabsorbed or extended G&A costs in both construction and manufacturing environments).

Consulting on matters involving allegations of fraud, defective pricing, false claims, mischarges, improper labor charging and other improper billings to the government. Reviewed, analyzed and validated direct and indirect costs to determine and ensure compliance with applicable federal acquisition regulations and cost accounting standards with respect to costs being allowable and allocable, and properly stated.

Assisted clients in the preparation of contract termination claims and helped to defend against potential default terminations. Prepared claims for review by government auditors, including the Defense Contract Audit Agency (DCAA). Acquired familiarity with DCAA’s Contract Audit Manual and the DCAA’s audit programs used for the evaluation of various types of claims.

Claims experience on government contract matters involving aircraft modification, firearms, satellite and telecommunications equipment, computer systems, medical equipment and services.

### **CONSTRUCTION MATTERS**

Performed analyses of financial statements and projections, contracts, auditing standards, policies and procedures and project cost accounting and schedule information for a variety of construction-related entities and projects. Consulted with contractors, architect/engineers, project owners, lenders and sureties.

Extensive experience in analyzing costs on various types of US and international projects, including power plants, airports, oil and gas facilities, manufacturing plants, telecommunications infrastructure, wastewater treatment facilities, dams, roads, bridges, commercial buildings and residential housing, among others.

Analyzed and prepared claims relating to formal and constructive changes and the impact of alleged schedule delay events and acceleration orders, defective design and specifications, workmanship quality issues, differing site conditions, and management interference.

Reviewed and prepared numerous delay and disruption claims involving labor productivity, schedule delay and acceleration and other issues. Performed Critical Path Method schedule analyses to determine causes and duration of schedule impacts and delays to completion. Investigated root causes of events and circumstances leading to schedule impacts to assist in the allocation and assignment of responsibility.

Reviewed and analyzed contract administration matters, including avoidance of disputes, appropriateness of contractual terms and conditions, and enhanced management procedures and controls. Consulted with design and construction firms in the development and implementation of procedures to contemporaneously identify and quantify cost and schedule impacts.

Responsible for project management on construction projects (as a design and construction engineer with Chevron), including oil and gas drilling and production facilities, and pipelines. Responsible for project oversight, negotiation of change orders, preparation of cost estimates and schedule projections, development of bid specifications, bid review and negotiations, and inspection of construction progress and workmanship.

### **SELECTED OTHER ECONOMIC DAMAGES, INTELLECTUAL PROPERTY, AND ACCOUNTING ANALYSES**

Analyzed and prepared lost profits and business valuation damage claims. Analyses have included study of actual and projected revenues, cost of goods, indirect costs, general and administrative expenses, taxes, cost of capital, discount rates and various assets, liabilities and equity.

Performed market research and analysis for a variety of new and established products to assess probabilities and reasonableness of projected revenue streams. Markets studied include machinery parts, lighting equipment, power plant maintenance services, commercial retail space and residential property.

Investigated allegations of fraud at a large multinational corporation including misappropriation and theft of corporate assets by company executives, misstatement of financial reports filed with the Securities Exchange Commission, dissemination of other misleading investor information, mislabeling of product and other alleged improprieties.

Assisted a major electrical equipment manufacturer in defense of a breach of contract and trade secret claim related to motion picture lighting. Performed detailed analyses of the motion picture lighting market to project sales and rentals, direct and indirect costs, capital accessibility and requirements necessary for plaintiff to expand his business.

Performed analyses of go-forward economic viability impacted by delayed construction and increasing construction costs associated with a large multi-use building development (i.e., offices, hotel, shopping

mall). Studied real estate development plans and assessed estimated costs-to-complete, and projected operating/rental income and causes of deviations from original projections.

Assessed lost profit and property value damages suffered by real estate developer (luxury homes and commercial property) who discovered remnants of WWI-era chemical weapons on the property during excavation.

Developed cost allocation models including such factors as volume and toxicity for cleanup costs involving hundreds of potentially responsible parties.

Assisted and supervised an investigation to identify potentially responsible parties associated with a Massachusetts Superfund site. Conducted interviews with knowledgeable personnel and performed a detailed analyses of contemporaneous documentation to identify information related to content, toxicity, volume and source of waste product.

Performed project management services relating to timely and accurate cost and schedule estimating and reporting.

## **TESTIMONY AND ALTERNATIVE DISPUTE RESOLUTION EXPERIENCE**

Authored an expert report and provided deposition testimony on damages in connection with alleged defective design and installation of the electrical distribution system at a new U.S. nuclear power plant (United States District Court)

Co-authored an expert report and provided trial testimony regarding lost profits and business value caused by the breach of an operating agreement for a smoke and fire equipment company. (United States District Court)

Authored an expert report on damages incurred by an international contractor involving road design and construction. (UNCITRAL Arbitration)

Co-authored an expert report and gave deposition testimony related to damages resulting from the federal government's partial breach of a contract to dispose of commercial spent nuclear fuel. (United States Court of Federal Claims)

Authored an expert report and participated in mediation regarding electric power system upgrade at a Department of Veterans Affairs hospital. (United States Civilian Board of Contract Appeals)

Co-authored an expert report and gave deposition testimony in case involving the termination of a software license agreement. (Maryland State Court)

Co-authored an expert report regarding Canadian military aircraft modification program in an arbitration. (Private Arbitration)

Participated in an Alternative Dispute Resolution conference at United States Court of Federal Claims relating to business valuation issues involving alleged trade secret misappropriation.

## **LANGUAGES**

English (native)