

BACKGROUND AND EXPERIENCE PROFILE
KENNETH C. STROBL, PE
VICE PRESIDENT/SENIOR ENGINEER
TECHNICAL ASSOCIATES, INC.

EDUCATION

1972-1973	Graduate Studies, Division of Environmental and Urban Systems, Virginia Polytechnic Institute and State University (Blacksburg, Virginia)
1972	P.E. - Exam Completion (Virginia)
1970-1972	M.S., Engineering Mechanics, Virginia Polytechnic Institute and State University (Blacksburg, Virginia)
1963-1966	B.S., Mechanical Engineering, Tri-State College (Angola, Ind.)
1960-1963	Undergraduate Studies, Mechanical Engineering, Case Institute of Technology (Cleveland, Ohio)

POSITIONS

1995-Present	Vice President/Senior Engineer, Technical Associates, Inc.
1993-1995	Senior Engineer, C. W. Amos of Virginia
1976-1993	Senior Engineer, Technical Associates, Inc.
1973-1976	Staff Engineer, Technical Associates, Inc.
1972-1973	Graduate Research Assistant, Division of Environmental and Urban Systems, Virginia Polytechnic Institute and State University
1970-1973	Graduate Teaching and Research Assistant, Department of Engineering Mechanics, Virginia Polytechnic Institute and State University
1966-1970	Development Engineer (Mechanical), Special Products Division, Eastman Kodak Company

EXPERIENCE

Engineering/Economic Studies -- Conducted studies and presented testimony concerning the need, routing and cost of gas, steam, and electric transmission and distribution facilities. Testified before regulatory agencies in Maryland, Virginia and Toronto, Ontario Canada regarding this work.

Developed computer based model for optimizing transmission line locations such that engineering, economic and environmental costs of transmission facilities are simultaneously minimized.

Conducted analyses of the need for electric power utilizing engineering and statistical approaches. One of the analyses, conducted on behalf of a municipal government and presented as expert testimony before the Maryland Public Service Commission, involved the application of the multi-variate econometric model developed by Mount, Chapman and Tyrell to forecast electricity demand. This model distributes the response to changing electricity prices over time taking into account such factors as income, population and stock of appliances.

Formulated investment (plant) valuations, revenue requirements, and rate designs on behalf of the Federal Bankruptcy Trustee that were presented to the bankruptcy court in the matter of reorganizing and restructuring a Virginia water utility.

Conducted analyses of a water and wastewater capacity purchase agreement on behalf of the City of Colonial Heights to assist in its negotiations with the City of Petersburg for an equity interest in its facilities rather than continuing to be a wholesale customer.

Presented expert testimony before the Nuclear Regulatory Commission concerning life-cycle cost comparisons of nuclear and coal plants. Analyses included alternative specifications of construction and operating cost characteristics in order to determine the sensitivity of findings regarding cost-effectiveness.

Conducted a study for the State of Missouri's Telecommunications Planning Department analyzing the applicability of interLATA access charges to the State's evolving private telecommunications electronic tandem network. The analysis addressed the costs of special access (private line) and switched access services under alternative network configurations and interconnections with the facilities of the local telephone companies.

Cost Determination/Allocation Analyses -- Involved in numerous cost of service and cost allocation studies of electric, gas, telephone, water and steam utilities as well as railroads and oil pipelines. Developed computer models for determining inter-class and intra-class revenue requirements using alternative cost allocation methodologies with respect to both embedded and marginal costs.

Assisted a properties development and management firm in Virginia in the organization of an account system/chart of accounts, cost of service procedure and rate design structures to meet requirements of the Virginia State Corporation Commission.

Participated in the development of depreciation rates on behalf of the Delaware Public Utilities Commission as part of a rate increase request case of United Water (Delaware); assisted in the development of proposed depreciation rates for a gas utility, as well as for telecommunications companies (Bell companies) on behalf of consumer advocate offices in several states.

Participated in the analyses of the ratemaking issues relating to revenue requirements, cost of service, rate design and tariff restructuring aspects of integrating service areas for numerous water utilities including affiliates of American Water Company and Elizabethtown Water Company; and cost of service and rate design restructuring analyses of GPU on behalf of OSBA in Pennsylvania.

Conducted analyses on such topics as economic dispatch programs, loss-of-load probabilities, load management rates, power factor correction and other terms of service issues. Presented testimony regarding these topics before the Nuclear Regulatory Commission, Ontario Energy Board, Public Utilities Commission of Minnesota and the Public Utilities Commission of Ohio.

Conducted analyses of the costs of replacement electric power resulting from the failure of a coal pulverizer used to fuel the boiler of an electric utility generating unit. Analyses included the determination of the additional demand and energy costs, as well as the impact on interchange power, confronted by the electric utility during the period the equipment was being repaired and supplemental generation was required. Presented testimony in Federal District Court on behalf of the manufacturer of the damaged equipment.

Economic, Energy & Environmental Impact Studies -- Participated in the development of a benefit/cost framework for evaluating the local community impact of railroad abandonment. Provided assistance to the ICC's Rail Services Planning Office in its analysis of reorganizing rail service activities in the Northeast and Midwest United States. Analyzed environmental affects of power plant sitings.

Prepared the last six annual energy savings studies for the North Carolina Energy Division to fulfill statutory filing requirements of the US Department of Energy.

Participated in the development of a study of the economic impact of a coal slurry pipeline on a community containing major coastal harbor and railroad terminal facilities. The analysis included the short-term construction

impact as well as the long-term operating impact of the pipeline on the employment, property taxes and export business in the area. Study presented in testimony before a subcommittee of the Virginia Legislature.

Conducted analyses of the return on equity of two major railroads operating in Virginia over a five-year period. The analyses evaluated the investment base of each railroad by eliminating the impact of the railroad's historical use of the ICC's retirement-replacement-betterment method of accounting to determine the depreciable plant and equipment. Rates of return on equity based on the re-valued equity investment base for each railroad were compared to depreciated original

cost returns on equity in other industry sectors. Study presented in testimony before a subcommittee of the Virginia Legislature.

SELECTED REPORTS AND PUBLICATIONS

"A simple Method to Evaluate the Economic Feasibility of Streetlighting Purchase and Operation by Municipalities", prepared for Montgomery County Consortium of Communities, 1985 (with Michael J. Ileo and William S. Lowe)

"An Analysis of the InterLATA Access Charges Applicable to the State of Missouri's Electronic Tandem Network", prepared for Spectra Associates, Inc. and the State of Missouri's Telecommunications Planning Department, 1985 (with Michael J. Ileo)

"Guide For Evaluating the Community Impact of Rail Service Discontinuance", prepared for the Rail Services Planning Office, Interstate Commerce Commission, 1975 (with Michael J. Ileo)

"Measuring the Economic Value of a Coal Slurry Pipeline to Hampton Rhodes, Virginia", prepared for the Virginians for Competitive Coal Transportation, 1983 (with Michael J. Ileo and Joe S. McKnight)

"Connecticut State Rail Plan", prepared for the Connecticut Department of Transportation, 1975 (with Joe S. McKnight and Michael J. Ileo)

A Photoelastic Stress Analysis of Laminated Beams, Master's Thesis, Virginia Polytechnic Institute & State University, 1973

In addition to the above list of selected reports and publications, numerous special studies have been undertaken as well as the preparation of prefiled expert testimonies.

MEMBERSHIPS

National Society of Professional Engineers
Virginia Society of Professional Engineers
American Society of Mechanical Engineers