

JACK K. LEMLEY

EXPERIENCE SUMMARY

Mr. Lemley has extensive practical and professional experience in Alternate Dispute Resolution (ADR) and Dispute Review Boards (DRB). He is a member of both the American Arbitration Association and the Chartered Institute of Arbitrators. While CEO of the Channel Tunnel project, the contractually established disputes review panel heard sixteen cases. Three of these were appealed to International Arbitrations under the International Chambers of Commerce (ICC) rules of arbitration. All but one were decided by the panel, and this one was ultimately settled by negotiation between the parties. Negotiation and reason were the final procedures used to settle the issues. After completing the Channel Tunnel project, he participated in numerous ADR and DRB proceedings. These have included serving as a member of the Hong Kong Airport DRB. In addition, he has served as an expert witness in the arbitration in a dispute involving the Hong Kong Strategic Sewerage Disposal Scheme as well as a dispute on Libya's Great Man-Made River project - which was conducted under ICC rules.

Mr. Lemley was previously Chairman and CEO of American Ecology Corporation, a nuclear and chemical environmental service company based in Boise, Idaho. Before heading American Ecology, his management experience was primarily in engineering, construction, and related fields. His over 35 years of experience include substantial involvement in mega-projects requiring broad knowledge of the international, transfrontier construction environment. This experience includes a wide cross section of both domestic and international work, including tunneling and subsurface space, infrastructure, and other heavy civil construction as well as experience in mining, power generation, industrial, and other major building areas and the related areas of consultation, arbitration, contract negotiations, marketing, and similar disciplines.

From early in 1989 until December 1993, he served as Chief Executive of Transmanche-Link, the consortium of five British and five French companies that designed and built the Channel Tunnel, the largest privately-funded construction project in history. In recognition of this effort, he was made a Commander of the British Empire in 1996 and was ENR's "Man of the Year" in 1992. As well as the Channel Tunnel, other mega-projects for which he had direct responsibility include the \$1.3-billion King Khalid Military City project in Saudi Arabia, the \$800-million OK Tedi gold and copper mine development in logistically-difficult Papua, New Guinea, the \$1.9-billion Cerrejon Coal Mine, railroad, and the Port facility in Colombia, SA, and, in the 1970's, the Water Tunnel No. 3 project in New York City.

Mr. Lemley's broad knowledge of people and situations allows him to speak and publish with authority about practical solutions to concerns in engineering, construction, and related areas. He is familiar with long-range planning, owner relations, finance, labor negotiations, and other operational areas from the point of view of both engineer and contractor as well as that of owner's representative. This experience and interest, coupled with his active participation in the major professional societies, keep him well acquainted

and current with the principal issues as well as the views of senior people in the engineering/construction/environmental and related professional areas of experience.

Professional Registrations & Education

Chartered Civil Engineer #443241 (UK)
UKFEANI Registered European Engineer #14679 (UK)
BA Architecture, University of Idaho (1960)

Current Board Positions & Consultancies

MOKA (s.a.l) Beirut, Lebanon, Executive Associate
IDACORP, Inc., Board of Directors
IDACORP Technology, Inc., Board of Directors
Albertson's College of Idaho, Trustee

Recent Awards

Opal award, ASCE Lifetime Achievement Award
in Construction (2005)
Distinguished Alumni Award, North Idaho College (2003)
Engineering New-Record, "125 Years... 125 Top People"
selection. (1999)
Honorary Doctor of Science Degree, University of Idaho (1998)
Idaho's Hall of Fame Association, Outstanding Achievement in
Industry (1997)
Honorary Commander of the Most Excellent Order of the
British Empire (1996)
British Construction Industry Awards, Special Award for Channel
Tunnel Tunnels (1994)

ASCE-John I. Parcel-Lief J. Sverdrup Engineering Management Award (1994)

Civil Engineering Management Award (1994)

Michigan State University Dean's Award for Distinguished Contributors to Engineering Science, Design and Practice (1993)

Golden Beaver Award for Supervision (1992)

ACEC Fellow - Distinguished Award of Merit (1992)

American Underground Space Association Award of Merit (1992)

Engineering New-Record "Man of the Year" (1991)

ASCE Construction Management Award (1991)

University of Idaho Alumni Hall of Fame (1991)

LEMLEY & ASSOCIATES, INC.

1988 - Present: Principal

Lemley & Associates is a management-consulting firm established to serve public and private clients worldwide in the engineering/construction industry. It offers project management and technical support services for organization/planning, cost estimating, procurement, safety and quality assurance, equipment selection/maintenance, and scheduling, particularly for underground development and tunneling. In addition, services are provided for construction and program management, labor consultation, claims support and resolution, and review board participation. Projects on which Mr. Lemley either lead or consulted include: a technical review of Athens Metro tunneling operations, expert testimony for arbitration on the Great Man-Made River Project between the government of Libya and a Brazilian contractor, Management Review for Boston's Central Artery/Tunnel, consultation for the Los Angeles Metro Rail project, participation on the Disputes Review Board for the Hong Kong Airport, the Board of Review for New Zealand's Second Manipouri Power Station Tailrace Tunnel, a value engineering review for California's Inland Feeder project, Hong Kong Strategic Sewage Disposal Scheme, Athens, Greece, Metro Technical Advisor, and Fermi National Laboratory, Super Conducting Super Collider, as Technical Advisor, and consulting work on the MINOS experiment at FERMI labs..Mr. Lemley also served as a member of the Review Board for the Yucca Mountain Nuclear Waste Disposal Facility.

EXPERIENCE

AMERICAN ECOLOGY CORPORATION

1995-2001, Chairman and Chief Executive Officer

American Ecology, headquartered in Boise, Idaho, is an environmental service company. It is the parent for operating entities that provide low-level radioactive and chemical hazardous waste management. Through its US Ecology unit, the company operates a low-level nuclear waste disposal facility in Washington State for the Northwest Compact (which also accepts waste from the Rocky Mountain Compact), has received a license approval for a similar facility in California for the Southwest Compact at Ward Valley, has a license application pending for a nuclear disposal facility in Nebraska for the Central Interstate Compact, and operates a nuclear material processing facility in Tennessee. Through its American Ecology Chemical Services unit, the company operates a chemical waste disposal facilities in Nevada and Texas. Services provided by the company include waste packaging, transportation, consulting, pretreatment, disposals, fuels blending, recycling, and clean-up services.

TRANSMANCHE-LINK JOINT VENTURE — TML, THE CHANNEL TUNNEL CONTRACTORS

1989-1993, Chief Executive Officer

From the spring of 1989 until the project was successfully completed in December, 1993, Mr. Lemley was CEO of Transmanche-Link, a Joint Venture of ten major European Contractors, five British and five French. As Chief Executive Officer, Mr. Lemley was responsible for the overall performance of the work. In excess of 14,000 people were employed on the project, the world's largest privately financed (with no governmental assistance or guarantees) construction project with a value in excess of £8 billion.

THE TRANSMANCHE-LINK BOT

Contract was to design, build, and transfer to the owner, Eurotunnel, a rail transportation system from near Folkestone in England to near Calais in Northern France. It involved the construction of two terminals and three tunnels—one service tunnel and two running tunnels for shuttle and through train service—and all of the fixed equipment necessary to operate the transportation system. Unique and complex rolling stock for shuttle service was designed and manufactured under TML supervision as was the control and signaling system, the most complex and advanced of its kind in the world. The Tunnel construction, using 11 tunnel boring machines, involved developing two running tunnels, each over 50 kilometers long and 7.6 meters in diameter, and a service tunnel, over 50 kilometers long and 4.7 meters in diameter. Nearly 700 underground openings and passageways were constructed in addition to these three main tunnels.

BLOUNT CONSTRUCTION GROUP OF BLOUNT, INC.

1987-1988, *President and Chief Executive Officer*

As President and CEO, Mr. Lemley was wholly responsible for Blount's construction operations. Work included the construction of major power generation facilities, commercial buildings, industrial construction, and heavy civil projects. The client-base served included domestic and international governments and other public bodies as well as large private industrial, utility and developer clients.

MORRISON-KNUDSEN COMPANY, INC.

1985-1987, *Senior Vice President, Construction Division*

Mr. Lemley was responsible for directing all engineering and construction activities as well as exercising general supervision over all division estimating, accounting, purchasing, warehousing, and general office functions. He reviewed project development to determine the progress of work and efficiency of operations. These projects included marine, underground, heavy, civil, and mining developments, transportation systems, military works, and utility and industrial programs. Additional responsibilities included maintaining amicable relationships with company clients and promoting satisfactory relations with government agencies, other business concerns, and the general public.

1983-1985, *Group Vice President, Heavy and Marine Group*

As Heavy and Marine Group Vice President, Mr. Lemley was responsible for overall domestic and international operations as well as for group administration and personnel. He supervised seven division vice presidents and two subsidiary president involved in the day-to-day execution of the management, engineering, and construction activity of the group.

1981-1983, *Vice President, Heavy and Marine Group*

As Operations Vice President, Mr. Lemley directed all foreign and domestic operations of the group which involved the following divisions: civil, management services, oil and gas, pipelines, and underground and marine. He was responsible for overall management of several major projects including the \$800 million OK Tedi gold and copper mine development in Papua, New Guinea, the \$300 million Trans-Panama Pipeline, and the \$1.9 billion Cerrejon Coal Mine, Railroad, and Port Facility in Columbia.

1979-1981, *General Manager,*

King Khalid Military City Project, M-K Saudi Arabia Consortium

Mr. Lemley was in charge of the overall management of the \$1.3 billion King Khalid Military City project to build a city for 70,000 persons in the Eastern Province of the Kingdom of Saudi Arabia. As prime contractor, work involved the design and construction of city infrastructure and erection of construction plant facilities for pre-cast concrete aggregates and bituminous products, including the world's largest pre-cast element manufacturing facility; maintenance and operation of communications and utilities; life

support and logistics services; prototype construction for the Military City; and assistance to the Corps of Engineers in management of other construction contractors.

1977-1979, Vice President, Special Assignments (Marketing)

From 1978-1979, Mr. Lemley served as Vice President assigned to the Heavy and Marine Division responsible for marketing and planning. He directed marketing, sales, and business development of design and construction projects for the civil, mechanical, underground, transportation systems, and marine areas of domestic operations and provided market support for international operations. From 1977 to 1978, he served as Vice President, Special Assignments, assisting the Executive Vice President of Morrison-Knudsen's North American operations in administration and coordination of the activities of its seven North American performance centers, covering the United States and Canada.

GUY F. ATKINSON COMPANY

1975-1977, General Manager,
Walsh Construction Company (Subsidiary of Guy F. Atkinson Co.)

As General Manager of the Heavy Industrial Division, Mr. Lemley's management responsibilities including construction of steel mills, pulp and paper plants as well as nuclear, fossil fuel, hydro and power plants.

1972-1975, Contracts and Engineering Manager, Water Tunnel Contractors

Mr. Lemley served as Contracts and Engineering Manager for Water Tunnel Contractors, a six-company joint venture sponsored by Guy F. Atkinson Company. He supervised all engineering and administration of three contiguous prime contracts and various subcontracts for New York City Water Tunnel No. 3. The tunnel complex under the City of New York was 13.5 miles long, passing through and beneath extremely diverse and complex physical, political, and cultural strata.

1971-1972, Project Manager, Walsh-Canonie Joint Venture

As Project Manager for the Walsh Canonie Joint Venture, Mr. Lemley directed operations for the construction of a 7-mile-long dam for the Ludington, Michigan, hydroelectric pumped storage plant.

HEALTHCARE, INC.

1969-1970, President

As President of Healthcare, Inc., Mr. Lemley was responsible for supervising overall business activity including marketing, claims, and contract development.

GUY F. ATKINSON COMPANY - MICA DAM CONTRACTORS

1967-1969, Assistant Project Engineer — Shift Superintendent

Mr. Lemley served as Assistant Project Engineer for Mica Dam Contractors, first initiating operations of

the engineering department and then moving to the direction of all field construction on one of two daily shifts. The dam is a large earth and rock fill structure with related works.

1960-1967, Various Positions (Guy F. Atkinson Company)

During the period following his graduation from the University of Idaho, Mr. Lemley served in various engineering, supervisory, and management positions on various infrastructure projects in the Western United States.

Professional Associations & Memberships, past and present

Member, American Arbitration Association

Member, The Chartered Institute of Arbitrators

Fellow, Institution of Civil Engineers, United Kingdom

Fellow, American Society of Civil Engineers; Served on various committees & subcommittees including Vice Chairman & Past Secretary of the Underground Technology Research section & Member of its Executive Committee

Member, American Society of Military Engineers

Member, American Underground-Space Association

Member, British Tunnelling Association

Life Member, International Tunnelling Association Executive

Council; Secretary and Past Chairman of the Working Group on Contractual Sharing of Risks

President, International Tunnelling Association (1983-1986)

Ex-Officio Member, US National Committee on Tunnelling

Technology and Past Chairman and Member of the Subcommittee on Contracting Practices

Member, United States Committee on Large Dams

Member, International Committee on Large Dams

Member, Underground Technology Advisory Panel

Member, The Moles

Member, The Beavers

**University & government
Lecture Locations
(selected)**

UNIVERSITIES

Lafayette College

Massachusetts Institute of Technology

Michigan State University

Nanyang Technological University (Singapore)

Stanford University

Twente School of Management (The Netherlands)

University of Idaho

University of Maryland

GOVERNMENT

National Institute of Standards

National Museum of American History

National Academy of Engineering

Technology Symposium

Smithsonian Institution Symposium on Tunneling

**Selected Recent
Addresses & Publications**

ISU Presentation to INEEL/Engineering Students:

February 27, 2004: 12:00—12:50

“Dispute Review Boards,” The Advocate, November 1998,
pp. 14 – 16 (with Stephen Wight)

“Alternative Dispute Resolution.” Paper for ADR Panel
Discussion at Construction Industry Institutes (CII) Annual
Conference, Monterey, CA, August 1991.

“The Chunnel Challenge,” Keynote presentation for the Civil
Engineer Research Foundation’s symposium on innovation in
construction, Washington, DC, August 2000.

**Selected Recent
Addresses & Publications
(cont.)**

Technical Education Foundation, Boise, ID, January 18, 2000.

“Survival in the Twenty-First Century,” Keynote for
“Legislative Luncheon 2000” of the Idaho Professional-

“Role of the CEO,” Executive Speaker Series, University of Idaho
Chair in Business Enterprise, Moscow, ID, October 25, 1999.

“The Art of the Possible,” ASCE Geo-Institute Conference,
University of Illinois, Urbana-Champaign, June 16, 1999.

**“Tunnelling: Past, Present, and Future: Further Advancing
the ‘Art of the Possible,’”** ITA 25th Anniversary Open Session,
Oslo, Norway, June 1, 1999.

“Keynote Address,” 1999 Idaho Engineering Design Expo
Awards Banquet, University of Idaho, Moscow, ID, April 30, 1999.

**“Managing Human Factors On the Channel Tunnel
Project,”** Address to Western Idaho Chapter of the Project
Management Institute, Boise, January 28, 1999.

“John Hester,” Address to The Moles on John Hester’s non-
member award for “Outstanding Achievement in Construction.”
January 27, 1999.

**“Jack K. Lemley Statement Before the Senate Armed
Services Strategic Forces Subcommittee,”** Thursday,
September 3, 1998, Room 228, Senate Russell Office Building,
Washington, DC.

**“Managing Human Factors on the Channel Tunnel
Project,”** Address to the 2nd International Conference on
Construction Project Management, Singapore, 19-20
February, 1998.

“The Channel Tunnel: From Dream to Reality,” Chapter
in Smithsonian Institution publication, Down Under: Tunnels Past,
Present, and Future.

“The European Union and International Competition,”
Speech at Arid Club, Boise, August 6, 1997.

“When All Else Fails, Cry Wolf,” CalRad Forum 1997 Spring
Conference, May 16, 1997, Mesa, AZ.

“Channel Tunnel Dinner Address,” Boston Soc. of Civil

**Selected Recent
Addresses & Publications
(cont.)**

April 1995. [Pub. in New Civil Engineer]

Engineers, Boston, February 1, 1996.

“Image Versus Reality.” Institution of Civil Engineers, London,

“Proactive Engineering, a Perspective.” Boston Society of Civil Engineers, ASCE, Boston, February 1995.

“Human Factors in the Management of the Channel Tunnel Project.” Address to the International Conference on Construction Project Management, Singapore, January 1995.

“Diplomatic Aspects of Building the Channel Tunnel.” Address to the Boise Committee on Foreign Affairs, Boise, December 1994.

“The Channel Tunnel Quality Management System.” Address to Idaho DOT, Boise, November 1994.

“Major Project Management.” Address to APEN Annual Meeting, the Association of Professional Engineers of the Province of Manitoba, Winnipeg, Canada, October 1994.

“John I. Parcel–Leif J. Sverdrup Civil Engineering Management Award.” Address to American Society of Civil Engineers, Atlanta, October 1994.

“The Channel Tunnel Transportation System.” Address to the American Public Transportation Association, Boston, September 1994.

“Managing the Channel Tunnel.” Address to American Public Works Association, Chicago, Sept. 1994.

“Teamwork Builds the Channel Tunnel.” Address to LA Metro Rail, Los Angeles, September 1994.

“Leadership Management.” Keynote address, Fifth Annual International High-Level Radioactive Waste Management Conference, Las Vegas, May 1994.

“Managing the Gibraltar Straits Tunnel.” Address to the International Tunnelling Association conference, Cairo, Egypt, April 1994.

“The Channel Tunnel, From Dream to Reality.” Address delivered at the Smithsonian Institution Symposium, National

**Selected Recent
Addresses & Publications
(cont.)**

The Netherlands, June 1992.

Museum of American History, Washington DC, October 1993.

“Major Project Management and European Development.” Lecture, Twente School of Management, Twente,

“Towards New Worlds in Tunnelling.” Address to the Open Session, International Tunnelling Association, Acapulco, Mexico, May 1992.

“Transport Infrastructure Joint Ventures: A Commitment to the Future.” Conference on Developing and Financing European Transport Infrastructure, Brussels, October 1991.

“The Channel Tunnel Transportation System: A Portal for Public/Private Enterprise.” National Academy of Engineering, Washington, DC, October 1991.

**Current & Recent
Consulting Assignments
(selected)**

Hong Kong Tunnel: Consultant for tunneling dispute, Campenon Benard SGE/Maeda Corp. Joint Venture (1997--2001).

Fermi Laboratory Consultant, Department of Energy (1997--2004)

Manapouri (NZ) Hydroelectric Tailrace Tunnel Value Engineering and Disputes Review Panel (1994--2001).

Boston Central Artery and Tunnel Project (CA/TS): Organizational review of the project's general engineering consultant and construction management teams (1994-present).

Petrobras/Libyan Government: Consultant for Brasoil in dispute resolution for water wells relating to the Great Man-Made River Project (1996--1999).

Milwaukee Metropolitan Sanitary District Deep Tunnels: Consulted on cost estimates (1995--2004).

Boston Ocean Outfall Tunnel: Consultant for claims review, assessment, and recommendations for means and methods for equipment utilization and construction and cost-to-complete

**Current & Recent
Consulting Assignments
(selected) cont.**

miles of tunnel. (2004).

estimates (1994 - 2003).

Bacara Resort Hotel Disputes, Santa Barbara, CA.
(2003 to present).

Morenci Mine. (2004).

Sugar Creek II Cement Plant Dispute. Kansas City, MO.
(2003 – present).

Conda Mine, Process Claims Dispute, Boise, Idaho. (2002 –
present).

North Coast Super Aqueduct. Project Management. San Juan,
Puerto Rico. (2003 – present).

Arrowhead Tunnel Termination Dispute, Metropolitan Water
District of Southern California. Consulting Board.
(2000 – present).

Valley Transit Authority Bart Extension in San Jose, CA. Value
Engineering and Peer Review. (2003 – present).

Bright Water Project in Seattle, WA. Value Engineering on 22

Idaho Water Center Building, Boise, ID. Program Management.
(2002 to present).

**Long Island Railroad Eastside Access to Grant Central
Station.** New York, NY. Constructability and Cost Estimating.
(2000 to present).

San Francisco International Airport Expansion, San Francisco,
CA. Estimates, Constructability Reviews and Management
approaches. (2002).