



SHLOMO I. ROSENFELD, P.E.

Senior Associate
MPGroup

(323) 874-8973

CURRICULUM VITAE

The January 1991 sale of Syska & Hennessy's San Francisco office created an excellent opportunity for the firm's Vice President and Corporate Chief of Design, Shlomo Rosenfeld, to start his own consulting engineering firm. In its twenty first year, the mechanical engineering firm, **SHLOMO I. ROSENFELD & ASSOCIATES** "*is focusing on energy efficient indoor environment as part of HVAC systems design*" said Shlomo.

"Shlomo was Syska & Hennessy's chief mechanical engineer in the San Francisco office for ten years (1977-1987) and contributed greatly to the impressive engineering achievements of this office which include several national and local engineering excellence awards" said Art Zigas who as Senior Vice President directed the Syska & Hennessy's local office from 1977 to 1989.

*"In 1987 Shlomo was promoted to the position of **CORPORATE CHIEF OF DESIGN** for **Syska & Hennessy** (500 engineering staff) nation wide. His role was to participate in conceptual design of selected projects in all of Syska & Hennessy's offices, chair the Engineering Committee, establish guidelines and standards, and disseminate the best of Syska & Hennessy work among all the offices"* said Chris Richmond past President of Syska & Hennessy. Rosenfeld kept his residence in the Bay Area for over 40 years but as the **Corporate Chief of Design** he traveled a great deal.

Shlomo served (1987-1997) on the **State of California Hospital Building Safety Board** which oversees the **State of California Office of Statewide Health Planning and Development (OSHPD)**. **OSHPD** is in charge of developing and enforcing codes and plan checking of all healthcare facilities in California. Shlomo was the Chairman of the Mechanical/Electrical Committee of this board and continues to consult OSHPD in editing Code changes.

Shlomo continues to innovate and also found the time to give lectures and write articles on the subjects of energy conservation **HVAC** design, indoor air quality **HVAC** design, healthcare facilities design and mechanical systems design. Shlomo continues to participate in Mechanical Code and ASHRAE Standard reviews and updates.

*"I provide consulting, mechanical design **peer review**, and mechanical **design services** directly to building owners, architects and other engineering firms who can benefit from my worldwide experience. In addition, I provide **litigation consulting** related to HVAC construction and design disputes and HVAC post construction performance disputes."* said Shlomo.

SHLOMO I. ROSENFELD, P.E.

PROFESSIONAL EDUCATION

ORT Givatayim, Vocational Highschool, Major - Refrigeration and Air Conditioning, Givatime, Israel, 1960

The Technion - Israel Institute of Technology, Haifa, Israel, BS Mechanical Engineering, 1967

PROFESSIONAL ENGINEERING LICENSE

California, since 1973

PROFESSIONAL AWARDS

1985	National	U.S. Department of Energy, Award for Energy Innovation, Nevada National Bank, Reno, NV
1985	Nevada	Governor's Energy Award, Nevada National Bank, Reno, NV
1985	National	Specifying Engineer M/E Engineering Achievement Award, California State Prison - Vacaville, CA
1985	California	Consulting Engineers Association of California Honorable Recognition Award Monterey Bay Aquarium, Monterey, CA
1984	National	U.S. Department of Energy, Award for Energy Innovation, O'Connor Hospital, San Jose, CA
1984	California	California Energy Commission, Award for, Energy Conservation, O'Connor Hospital, San Jose, CA
1984	National	Specifying Engineer M/E Engineering Achievement Award, Monterey Bay Aquarium, Monterey, CA
1983	National	Specifying Engineer M/E Engineering Achievement Award, Nevada National Bank, Reno, NV
1982	National	ASHRAE Energy Award, First Place , California Farm Bureau Federation, Sacramento, CA
1981	National	Construction Specifications Institute, Honorable Mention, San Francisco International Airport, CA
1981	California	ASHRAE Energy Award, First Place, California Farm Bureau Federation, Sacramento, CA
1980	National	Specifying Engineer M/E Engineering Achievement Award, Cal. Farm Bureau Federation, Sacramento, CA
1980	California	Consulting Engineers Association of California Honorable Recognition Award California Farm Bureau Federation, Sacramento, CA
1979	National	Owens-Corning Energy Award, First Place, California Farm Bureau Federation, Sacramento, CA

PROFESSIONAL AFFILIATIONS

HBSB/OSHPD -	California Hospital Building Safety Board (HBSB) overseeing the Office of Statewide Health Planning and Development (OSHPD). Member of the board 1987-1997.
HBSB/OSHPD -	HBSB Mechanical/Electrical Committee (Past Chairman). Member 1987-1997.
ASHRAE -	Life Member , American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).

SHLOMO I. ROSENFELD, P.E.

PROFESSIONAL PRESENTATIONS

- 2012 Sierra at Jack London Square - Review of HVAC Systems, Codes, Ventilation and Condensation Issues
- 2011 Engineering Conference to Finalize KP HVAC Technical Standards - Choice of HVAC Systems for California's Hospitals
- 2009 Kindred Hospital Sacramento - Review of HVAC Systems, OSHPD and Inter-Trade Coordination Issues
- 2006 San Francisco Jail #3 - Review of D/B HVAC Systems, Codes, Ventilation and Noise Issues
- 2005 Highland Hospital - Review of HVAC Systems, Equipment, OSHPD, Ventilation and Balancing Issues
- 2005 ASHRAE Golden Gate / Redwood Empire Chapter - Evaporative Cooling Below the Ambient Wet-Bulb Temperature: How Low Can You Go?
- 2004 Yank Sing San Francisco - Review of HVAC Systems, Codes, Ventilation and Condensation Issues
- 2000 UCDMC - Review of HVAC Systems and Inter-Trade Coordination Issues
- 1995 ASHRAE Golden Gate Chapter - THERMAL ENERGY STORAGE DESIGN, San Francisco, CA
- 1991 ASHRAE, Los Angeles Chapter - Innovative HVAC design
- 1990 INDOOR AIR 90 Toronto, Canada - 16 years after the Energy Crisis
- 1990 University of Michigan, Ann Arbor, MI - Energy Cost Avoidance in Education Buildings Conference - Indoor Air Quality vs. Energy Conservation
- 1990 ASHRAE, Los Angeles Chapter - 16 Years after the Energy Crisis
- 1989 Tradeline - Planning and Construction Special-Purpose Facilities, San Francisco, The Keck Laboratory
- 1989 AIA/SF Licensing Seminar - Mechanical Systems, San Francisco, CA
- 1989 Association of Energy Engineers, San Francisco Bay Area Chapter, Berkeley, CA
- 1988 California Polytechnic State University, Innovative Heating and Cooling Design
- 1988 SFSU, San Francisco, CA. Innovative HVAC Design - The Monterey Bay Aquarium
- 1987 Energy Efficient Cooling Conference, San Jose, CA
- 1985 San Francisco Bay Area Chapter of Association of Energy Engineers, Berkeley, CA
- 1984 The Great PG&E Energy Expo, Oakland, CA
- 1982 American Council for an Energy Efficient Economy, co-sponsored by Batelle & U.S. Dept. of Energy: "Designing and Managing Energy Conscious Commercial Buildings", Denver, CO
- 1982 Engineers Club of San Francisco, CA: "Tomorrow's Health Care Facility"
- 1982 ACEEE Summer Study on Energy-Efficient Buildings, Santa Cruz, CA
- 1981 Eighth Energy Technology Conference, Washington, DC
- 1981 ASHRAE Golden Gate Chapter Technical Development Seminar, San Francisco, CA
- 1981 International Energy Management & Facilities Improvement Show, Chicago, IL

PROFESSIONAL PUBLICATIONS

- 2005 Heating Piping Air Conditioning - Seismic Design for Mechanical Systems
- 2004 Heating Piping Air Conditioning - Evaporative Cooling Below the Ambient Wet-Bulb Temperature
- 1995 Heating Piping Air Conditioning - SMOKE DAMPERS: Do They Provide the Life Safety We Count On?
- 1994 Heating Piping Air Conditioning - THERMAL ENERGY STORAGE DESIGN - Back to Square One
- 1991 Heating Piping Air Conditioning - WORKER PRODUCTIVITY: Hidden HVAC Cost, Part III
- 1991 Building Operating Management - The Impact of Energy Efficiency on Indoor Air Quality
- 1990 Daily Pacific Builder - Engineering for High Tech
- 1990 Heating Piping Air Conditioning - WORKER PRODUCTIVITY: Hidden HVAC Cost, Part II
- 1989 Heating Piping Air Conditioning - WORKER PRODUCTIVITY: Hidden HVAC Cost, Part I
- 1988 Corrections Today - Heating, Cooling, And Smoke Evacuation Critical Considerations In Facility Design
- 1985 Specifying Engineer - Locking In Energy Cost For California Prisons *
- 1984 Daily Pacific Builder - Award Winning Hospital To Vie For National Prize
- 1983 Buildings - California Farm Bureau Federation Headquarters, Award Winning Energy Savings
- 1983 Specifying Engineer - Nevada Bank Gets The Best Of Both Worlds *
- 1983 Daily Pacific Builder - Environmental Concerns And Worker Productivity

- 1982 Daily Pacific Builder - Medical Facilities Also Seeking Ways To Reduce Their Energy Cost
- 1982 U.S. Department Of Energy - Innovative Energy Conscious Design - The Use Of The Available
- 1982 Daily Pacific Builder - Take Your Best Bet With 'What You Got'
- 1982 ASHRAE Journal - California Farm Bureau Federation Building Energy Conservation System*
- 1980 Specifying Engineer - Computerized Weather Simulation Aids California Office Building Energy Design*

* published without byline

WORK EXPERIENCE

- 1991 to Present Shlomo I. Rosenfeld & Associates, Consulting Mechanical Engineering, Oakland, CA
- 1977 to 1991 Syska & Hennessy, Chief Engineer and Corporate Chief of Design, San Francisco, CA
- 1971 to 1977 Buonaccorsi and Associates, Consulting Mechanical Engineering, San Francisco, CA
- 1967 to 1970 B. Schor and Associates, Consulting Mechanical Engineering, Tel-Aviv, Israel.
- 1963 to 1967 Isravir LTD, Refrigeration and Air Conditioning Contractor, Tel-Aviv, Israel.

SHLOMO I. ROSENFELD, P.E.
PROFESSIONAL EXPERIENCE -

KEY PROJECTS RELATED TO SPECIAL STUDIES / BUILDING
EVALUATION / PEER REVIEW / FORENSIC REVIEW

- Cleveland Clinic Abu Dhabi Hospital, conceptual design and peer review, Abu Dhabi, UAE
- Danat Al Emarat Women & Children Hospital, conceptual design and peer review, Abu Dhabi, UAE
- Kaiser San Leandro Hospital, peer review, Oakland, CA (Consultant for Marelich Mechanical)
- Kaiser National Facilities Services, Multiple Projects (50) Mechanical Design Peer Review, Nationwide
- Mills Peninsula Hospital, conceptual design and peer review, Burlingame, CA
- St Agnes Medical Center, post construction mechanical systems review, Fresno, CA
- Kindred Hospital, post construction mechanical systems review, Sacramento, CA
- California Pacific Medical Center, conceptual design and peer review, San Francisco, CA
- Al Amal Psychiatric Hospital, conceptual design and peer review, Abu Dhabi, UAE
- Lean Robert Medical Center at the SF SPCA, mechanical design and studies, San Francisco, CA
- UCB Stanley Hall, laboratory project post construction mechanical systems review, Berkeley, CA
- One Embarcadero South, post construction mechanical systems review, San Francisco, CA
- Sierra at Jack London Square, post construction HVAC systems review, Oakland, CA (D)
- Second Street Tower, post construction mechanical systems review, San Francisco, CA (D)
- Westwood Replacement Hospital, mechanical/controls systems review, Los Angeles, CA
- San Francisco County Jail, post construction mechanical systems review/repair, San Bruno, CA
- San Francisco International Airport Art Commission, rental energy use review, Burlingame, CA
- UCB Li Ka Shing Center, laboratory project mechanical systems peer review, Berkeley, CA
- Alameda County Medical Center, post construction mechanical systems review, Oakland, CA
- SFSU Residence Hall, post construction mechanical systems review, San Francisco, CA
- Sutter Health Medical Center, post construction mechanical systems review Roseville CA
- Williams Communication, Energy Efficiency Studies, and Design Oakland, CA
- UCDCM Tower II, post construction mechanical systems review, Sacramento, CA
- Episcopal Home Foundation, post construction mechanical systems review, San Francisco, CA
- V.A. Medical Center Palo Alto, post construction mechanical systems review, Palo Alto, CA
- War Memorial Opera House, Dress Circle HVAC system evaluation, San Francisco, CA
- UCB Chemistry III Laboratory Building, post construction mechanical systems review, UC Berkeley, CA
- UCB Hass School of Business, post construction mechanical systems review, UC Berkeley, CA
- Continental Development Co. Energy Consumption Evaluation, 155 Fifth St., San Francisco, CA
- Community Hospital of the Monterey Peninsula, mechanical systems review, Monterey CA
- St. John's Medical Center, post construction mechanical systems review, Oxnard CA
- San Diego Convention Center, Local & District Primary Cooling Systems Study, San Diego, CA
- San Diego Library, Local & District Primary Cooling Systems Study, San Diego, CA
- Scripps Memorial Medical Building, post construction HVAC systems review San Diego, CA
- Emerald Shapery Plaza, post construction Thermal Energy Storage review San Diego, CA
- China Basin Office Building, Thermal Energy Storage system investigation, San Francisco, CA
- Oakland Administration Buildings, Conceptual Systems and Central Plant Studies, Oakland, CA
- California Energy Commission, Compliance Option Technical Review, Sacramento, CA
- Paris International Convention Center, Energy Efficiency Studies & Peer Review, Paris, France
- Brooke Army Medical Center, post construction mechanical systems review, San Antonio, TX
- NPS, Letterman Army Institute of Research, Feasibility Studies Presidio of San Francisco, CA
- Palm Springs Convention Center, Thermal Energy Storage System Review, Palm Springs, CA
- Harborview Medical Center, Mechanical Design Peer Review, Seattle, WA
- San Bernardino County Medical Center, Central Plant Studies, Colton, CA
- University Hospital Phase 1, Mechanical Design Peer Review, Denver, Colorado
- Pacific Bell, Post Earthquake Repair Design Review, Oakland, CA
- San Mateo County General Hospital, Peer Review San Mateo, CA
- UCDCM Central Plant Mechanical Design Peer Review, Sacramento, CA
- UCDCM Tower II, Conceptual Systems Study, Sacramento, CA
- Oakland Museum, post construction HVAC systems review and upgrade design, Oakland, CA
- O'connor Hospital, Energy Award-Winning Studies and Design, San Jose, CA
- Bank of America, Headquarter, Energy Efficiency Study & Upgrade Design, San Francisco, CA

- Monterey Bay Aquarium, Energy Efficiency Studies and Design, Monterey, CA
- Fireman's Fund, Study and Implementation of Energy Conservation, Novato, CA

QUOTES ABOUT SHLOMO'S PAST WORK

".....Here is a very careful pairing of a simple energy-conserving design with sophisticated controls of conventional mechanical equipment....."

Architectural Record, (statement by Mr. Hartman a judge in the Owens/Corning Energy Competition)
Project: California Farm Bureau,
Sacramento, California.

".....The engineers, through a combination of mechanical systems' designs, came up with a building which is air conditioned without use of a chiller, even when outside temperatures exceed 100F....."

ASHRAE Journal
Project: California Farm Bureau
Sacramento, California.

".....A building owner who wishes to save energy during the life of a structure frequently pays a high first cost-both for equipment and construction. Syska & Hennessy Engineers specified two-stage evaporative cooling for the new Nevada National Bank Building in Reno. This unusual design, combined with daylighting, cut both equipment and construction costs while it dramatically reduced the structure's overall energy budget. The owner got the best of both worlds....."

Specifying Engineer
Project: Nevada National Bank
Reno, Nevada

".....The Monterey Bay Aquarium has extended the frontier of aquarium design and provided an example for others to follow. The design contains numerous innovative solutions to difficult problems....."

Specifying Engineer
Project: Monterey Bay Aquarium
Monterey, California

".....The building mechanical system is unusual in that the intricate seawater system is integrated with the building's HVAC system. In solving the condensation problem and to meet the energy conservation goals, Syska & Hennessy came up with an air conditioning system which was less costly initially than a ventilating system, and costs less to operate....."

Outlook Magazine
Project: Monterey Bay Aquarium
Monterey, California

".....The aquarium's mechanical systems continue to function extremely well. Everyone involved at your firm should feel proud of a job well done....."

Julie Packard, Executive Director
Monterey Bay Aquarium
Project: Monterey Bay Aquarium
Monterey, California

".....Engineer Shlomo Rosenfeld, of Shlomo I. Rosenfeld & Associates of San Francisco, has a theory of the 'use of the available.' His theory aims to provide a comfortable environment and highly energy-efficient buildings with reasonable expenditures for energy conservation systems....."

The Construction Specifier Magazine

".....Shlomo, A terrific piece of engineering and a fine article..."

Arnold Windman, past president of Syska & Hennessy
Re. Evaporative Cooling Below the Wet-Bulb Temperature
Article, HPAC magazine

".....On behalf of the City of Oakland, I am writing to thank you for your assistance as a consultant/expert witness in the above case. Based in large measure on your original analysis of the deficiencies in the

Museum's climate control system, the defense agreed to pay \$750,000 to settle the case....."

Robert J. Graham,
Assistant to the City Attorney
Project: Oakland Museum, Oakland, California

".....W. went from demanding \$2,300,000 plus their retention to accepting \$505,000 plus their retention. ...W.'s swing came largely as a result of the presentation made by Shlomo Rosenfeld on the seismic bracing issue.

Michael L. Marx
Attorney at Law, San Francisco

"...Thanks so much for your assistance on this case! Your report was very detailed and easy to read."

Julie A. Baker, Enforcement Analyst
California Board for Professional Engineers and Land Surveyors

".....The point you've made in your articles over the past three Septembers are most important, and I'm sure our readers appreciate your insights. Thank you for sharing them....."

Robert T. Korte, Editor
Heating Piping Air Conditioning Magazine

".....Economy and use of the available resulted in a building system design that conserves 63 percent for domestic hot water energy and 74 percent for HVAC energy as compared to conventional design....."

Buildings - The Facilities Construction and Management Magazine
Project: California Farm Bureau, Sacramento, California.

".....Though not particularly glamorous, the Mare Island Shipyard Pipe and Boiler Shop is an important project which required the best efforts of the architects and engineers who designed it. The structure serves the people who protect our national security. Its designers had to exercise considerable ingenuity to meet several tough specs. They did this while protecting human health, providing an efficient work environment, and minimizing energy use. You can't ask much more than that....."

Specifying Engineer
Project: Pipe and Boiler Shop,
Mare Island, California

".....Proto-typical design concepts developed by the Vacaville team can be of use in other prisons because they are workable, economical and incorporate state-of-the-art design and construction solutions....."

Specifying Engineer
Project: California State Prison
Solano County, Vacaville, California

".....Congratulations on turning in one of the top-rated sessions of the 'Special Purpose Facilities' conference last month in San Francisco. You obviously did a first rate job, and the audiences appreciated it!....."

Steve L. Westfall, President, Tradeline, Inc.
Forum on Business & Technology
Project: Keck Laboratory, Stanford University, California

"Thanks, Shlomo. And thanks for your help in general -- without your help we would not have gotten much of any recovery from... ..or from the developer on the issue."

Dan Rottinghaus, Berding – Weil
Attorney at Law, Walnut Creek, CA

"I have recommended you because of your excellent work in previous matters."

Christopher H. Alonzi
Senior Counsel
Kaiser Foundation Health Plan, Inc

"I appreciate all the great work you've done on my cases over the years. I can honestly say that when a Mechanical / HVAC issue arises, I always recommend you and unequivocally advise my clients that they will not find a better expert witness in the U.S."

Eric Phillips
Attorney at Law, Oakland, CA