

RESUME OF CHARLES PERRY

SKILLS

Architectural Engineering

- Design of concrete, steel, lightweight steel, and timber structures
- Heating, ventilation & air conditioning analysis & design
- Plumbing analysis & design
- Roof design
- Thermal, vapor & moisture control
- Lighting analysis & design
- Specification writing (including LEED requirements)
- Contract writing & administration
- Cost estimating, value engineering & project management
- Construction compliance inspections
- Construction claim & dispute investigation
- Arbitration & mediation

Civil Engineering

- Analysis & design of civil & mechanical systems
- Soil mechanics
- Surface & subsurface ground water flow, control & distribution analysis & design
- Slope stability analysis
- Materials testing & analysis

Fire Protection Engineering

- Fire ignition & growth modeling (including self-heating to ignition)
- Fire plume analysis, smoke development & flow analysis
- Combustion, heat transfer, & fluid flow analyses
- Probabilistic and statistical analyses
- Fire suppression system design & failure analysis
- Egress pathway & lighting analysis & design
- Chimney & vent analysis & design

Structural Engineering

- Nonlinear and linear stress analysis of civil and mechanical systems
- Dynamic and stability analysis of structures
- Seismic, wind, impact & blast loading of buildings
- Foundation & retaining wall analysis & design

Mechanical Engineering

- Failure analysis and accident reconstruction
- Fatigue, fracture, creep and corrosion analysis of structures
- Connector performance
- Newtonian mechanics

LICENSES

- Registered Professional Civil Engineer, California, #C038622
- Registered Professional Mechanical Engineer, California, #M025554
- Registered Professional Engineer, Texas, #B64875

EXPERIENCE

- 1989–present **Principal Engineer**
W. Charles Perry & Associates
- 1987-1989 **Senior (Managing) Engineer**
Aptech Engineering Services, Inc.
- 1982–1987 **Senior Engineer**
Failure Analysis Associates
- 1979–1982 **Scientist**
Lockheed Missiles and Space Co., PARL
- 1977–1979 **Research Assistant**
UT Austin, Ferguson Structural Research Lab

PUBLICATIONS & PRESENTATIONS

- "Commercial Kitchen Fire Adjusters Guide," Internal Instructional Manual for Fireman's Fund Insurance Group, December 20, 2000.
- "Building Cancer," Proceedings of the ASCE 2nd Forensic Engineering Congress, San Juan, Puerto Rico, May 2000.



W. Charles Perry & Associates

ARCHITECTURAL ENGINEERING & CONSTRUCTION MANAGEMENT

- "Water Leaks, Mold Infestations, Personal Injuries, & Litigation," Forum, Consumer Attorneys of California, Vol. 30, No. 2, March 2000.
- "Fire-Safety Performance of Untreated and Flame-Retardant Treated Wood Shingle and Shake Roof," Presentation at University of California at Berkeley, May 13, 1993.
- "Investigation of Mosher Slough Tunnel Flood, Stockton, California," W. Charles Perry & Associates Report, November 1990 (with K. Martini).
- "Post-Earthquake Building Review, Mission Bay, San Francisco," W. Charles Perry & Associates Report, November 1989.
- "Product Defect Analysis: A Practical Guide for the Risk Evaluator," Presentation at the CIGNA Loss Control Services Products Liability Group Annual Meeting, November 1988 (with J. DiPaolantonio).
- "Investigation of the Cause and Propagation of the May 4, 1988, Fire and Explosions at Pacific Engineering and Production Company of Nevada," Aptech Engineering Services, Inc., Report AES-8805929-4, August 1988 (with G. Egan and M. Fox).
- "Creep Life Analysis, Hot Reheat Piping, SCE Mohave Generating Station, Unit 2," Failure Analysis Report FaAA-LA-R-86-01-02, April 1986 (with R. Lund & R. Kadlec).
- "Investigation and Analysis of the Cause and Propagation of the August 15, 1984 Fire in the Syncrude Fort MacMurray Plant Coker 8-2," Failure Analysis Associates Report FaAA-LA-R-85-03-10, April 1986 (with R. Kadlec & N. Alvarez).
- "Investigation of Leaks in the Condenser Water Supply Piping at Five Fremont Center," Failure Analysis Report FaAA-PA-R-85-10-07.1, October 1985 (with C. Rau).
- "Analysis of Two Piece Engine Piston," Presentation at the ASME 1985 Pressure Vessels and Piping Conference (with R. Sire, et al).
- "An Engineering Analysis of Rotor Wedge Reliability for SONGS Units 2 and 3," Failure Analysis Associates Report FaAA-84-1-2, June 1984 (with P. Beseuner).
- "The Influence of Thermal Distortion on the Fatigue Performance of AF and AE Piston Skirts," Failure Analysis Associates Report FaAA-84-5-18, June 1984 (with D. Harris, et al).
- "Stress and Fatigue Analysis of the Intact Hydrophone Attachment Welds on the Alexander L. Kielland," Failure Analysis Associates Report FaAA-84-5-29, May 1984 (with C. Rau, et al).
- "Analysis of the Environmental Conditions and the Structural Failure Which Led to the Alexander L. Kielland Accident," Failure Analysis Associates Report FaAA-84-3-4, March 1984 (with C. Rau, et al).
- "Emergency Diesel Generator Crankshaft Failure Investigation - Shoreham Nuclear Power Station," Failure Analysis Associates Report FaAA-83-10-2, October 1983 (with J. Thomas et al).
- "Investigation of Torque Levels in Assembly Required to Prevent Gap Separation During Firing - U.S. Army, 4.2 Mortar M30," Failure Analysis Associates Report FaAA-83-1-9, February 1983 (with B. Ross and M. Subbaiah).
- "SUIT, Standard User Interface Template, Reference Manual," LMSC-D812055, December 1981.
- "The Bearing Strength of Bolted Connections," Master's thesis, University of Texas at Austin, August 1981.



EDUCATION

- 1989–1991 Post-Graduate Studies, UC Berkeley, Fire Protection Engineering
- 1981 M.S., UT Austin, Civil Engineering
- 1977 B.S. with Honors, UT Austin, Architectural Engineering

ACHIEVEMENTS & HONORS

- Russel Johnson Scholarship
- Tau Beta Pi, Engineering Honor Society
- Member, American Society of Civil Engineers
- Member, American Society of Mechanical Engineers
- Member, National Fire Protection Association
- Member, International Conference of Building Officials
- Member, Board of Governors, San Mateo Foster City School District, 2001-2005
- Graduate, San Mateo – Foster City – Burlingame – Hillsborough Leadership Program, 2001.