

Chilworth

Pacific FIRE

Testing, Litigation Support, Modeling, Research

Chilworth Pacific Fire Laboratories, Inc.
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CURRICULUM VITAE

KENNETH D. FUGLEE, P.E.
Senior Fire Research Engineer,
Chilworth Pacific Fire Laboratories, Inc.
Phone: (360)-423-1220
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PROFESSIONAL LICENSURE/ ACTIVE REGISTRATION:

OREGON: 1995, Professional Engineer No. 17623PE
(Fire Protection Engineering)

PROFESSIONAL EXPERIENCE

Specialized Experience

Fire Sprinkler and Fixed Spray Systems, Fire Detection and Alarm Systems, Industrial Gas Detection and Alarm Systems, CO₂ Systems, Smoke Control Systems, Fire Pumps, Water Supplies and Tanks, Flammable and Combustible Liquids, Aerosols and Chemicals, Hazardous Materials, Industrial Processes, Industrial Exhaust Systems, Industrial and Manufacturing Process and Power-generating Facility Evaluations, Electrical Classified Areas, High-Piled Storage, Fire Department Studies, Statistical Analysis, Fire Testing, NFPA Life Safety Code, Egress Evaluation and Modeling, Building and Fire Code Equivalencies, Alternate Materials and Methods, Fire Growth Calculations, Computer Fire Growth and Ignition Modeling, System Design and Specifications, Major Equipment Purchase Specifications, Project Management and Contract Administration, Studies and Analyses, Specialized and Standards Fire Testing, Fire Cause Investigation.

FIRE PROTECTION ENGINEERING

- Over 30 years experience in design, calculation, cost estimates and specifications for various fire protection suppression and alarm systems, including special hazards.
- Prepared detailed designs for over 150 fire protection systems.
- Design team leader, project manager and code consultant for industrial chemical and petroleum manufacturing, high hazard process and high-piled storage, commercial, factory, defense, educational, lodging and hospital projects.
- Provided coordination between owners, architect and engineer design teams, code officials, insurers and installation contractors.

Former Deputy Fire Marshal responsible for fire and life safety plan reviews and inspections, and fire systems reviews and inspections in nearly 150 new construction and remodel projects. He was also responsible for assisting the State Fire Marshal Deputy with fire inspections at Medicare accredited facilities within his geographic jurisdiction (hospital and several nursing homes) and served as a temporary deputy with the Oregon State Fire Marshal's Office, inspecting assisted living centers and propane installations, reviewing new construction plans for fire department access, and performing special projects code research.

His additional experience in the design of HVAC, chilled water, and plumbing systems and construction inspection, enables him to provide excellent coordination skills to a project.

FIRE PROTECTION CAPABILITIES

- Fire Sprinkler Systems, Fixed Water Spray Systems, Fire Pump Systems, Foam Systems
- Clean Agent Extinguishing, CO2 Systems
- Fire Heat, Smoke, UV-IR, and Very Early Detection and Alarm Systems
- Fire/Life Safety Alarm and Suppression System Design
- Gas Monitoring, Detection, and Alarm systems
- Structural Fire Protection Calculations
- Building and Fire Code Analyses, Design Coordination, and Equivalencies
- Fire Protection Design Analysis
- ICC Codes and NFPA Standards Compliance
- Life Safety Code Applications
- Special Occupancy Standards
- ADA and UFAS Fire and Life Safety Requirements
- Emergency Power Supplies, Illumination, and Signage.
- Fuel Storage and Controls.
- Fire Flow, Access, and Water Supply Evaluation and System Design.
- Hazardous Materials Evaluations and Special Requirements
- Electrical Hazardous (Classified) Area Determination
- Special Hazards Detection, Alarm, and Suppression Systems
- Smoke Control System Design

- Shop Drawing and Hydraulic Calculation Complete Designs
- Shop Drawing and Hydraulic Calculation Review
- Existing Building Fire and Life Safety and Systems Evaluation
- Fire Cause Investigation and Fire System Performance/Failure Analysis
- General Fire Protection Consulting

PROFESSIONAL EXPERIENCE

- Over 35 years experience in design of fire detection and alarm, suppression systems, fire protection water supply tanks and fire pump systems, calculations, specifications and cost estimates for all types of occupancies, including protection system detailed designs for over 150 projects.
- Design team leader, project manager, project engineer, and code consultant for fire protection of over 30 major construction and retrofit projects including chemical, petroleum, pulp and paper, nuclear power plants, hydroelectric dams, defense facilities, high-tech electronics manufacturing, hospital and commercial projects.
- Project engineer and design team coordinator performing fire protection design, specifications, calculations and design for projects and studies for NASA, GSA, Navy, Coast Guard, National Guard, Veterans' Administration and US Army hospitals, US Army Corps of Engineers, including offices, housing, hangars, ordnance and warehouse storage facilities, and entire base fire protection studies.

EMPLOYMENT

July 2007-Present	CHILWORTH PACIFIC FIRE LABORATORIES, INC. Senior Fire Research Engineer
June 1996-June 2007	KEN FUGLEE & ASSOCIATES, INC. President / Fire Protection Engineer
Feb.-June 1996	WESTERN STATES FIRE PROTECTION Fire Protection Engineer/ Project Manager
Aug. 1999 - Feb. 1996	KEN FUGLEE & ASSOCIATES, INC. President / Fire Protection Engineer
June – Aug. 1999	OREGON STATE FIRE MARSHAL Temporary Deputy State Fire Marshal, Fire & Life Safety Unit
Dec. 1995-June 1999	KEN FUGLEE & ASSOCIATES, INC. President / Fire Protection Engineer
Feb.-Dec. 1995	Self-Employed Fire Protection Engineer
May 1991-Jan. 1995	THE BENTLEY COMPANY (Mechanical/ Electrical Engrs.) Mechanical Designer and Fire Protection Specialist. Specifications, System Design, Facility Evaluations. Fire Detection, Alarm, and Suppression, Gas Detection and Alarm, Security Systems
Nov. 1990-May 1991	GRINNELL FIRE PROTECTION SYSTEMS Fire Sprinkler System Design Technician. Fire Sprinkler, fixed spray systems, fire pump systems.

Kenneth D. Fuglee, PE
Curriculum Vitae

- Nov. 1988 - Nov. 1990 **RUST INTERNATIONAL (A/E Industrial Design/Construct)**
Fire Protection and Piping System Design Technician and Fire Sprinkler and Fire Alarm Construction Subcontract Administrator. Fire Detection, Alarm and Suppression Specifications and Design, Major Fire Protection Equipment Purchase Specifications, Building and Fire Code Equivalencies, Piping and Plumbing System Designer, Piping System Drawing Checker
- Jan. 1987 - Nov. 1990 **Self Employed**
Fire Sprinkler Design Technician. Fire System Design, calculations and Specifications for Engineers
- Sep. 1986 - Jan. 1987 **FIREGUARD SPRINKLER SYSTEMS, INC.**
Fire Sprinkler System Design Technician.
Computer Programming
- Feb. - Sep. 1986 **Self Employed**
Fire Sprinkler System Design Technician. Fire System Design and Specifications for Engineers.
- Feb.1985 – Feb. 1986 **ROLF JENSEN & ASSOCIATES, INC. (now RJA ASSOCIATES)**
Senior Fire Technologist. Fire Suppression, Detection and Alarm Systems, Smoke Control Systems. Prepared Proposals, Specifications, Cost Estimates, Code Evaluations and Equivalencies. Project Management, Bid Meetings and Evaluations, Studies, Submittal Reviews.
- Dec. 1982 - Jan. 1985 **DRIGGS & WOOD, INC.**
Chief Fire Sprinkler System Design Technician. Fire Sprinkler and Clean Agent Extinguishing System Design and Calculations. Supervision of System Design Technicians
- June 1982 - Dec. 1982 **COSCO FIRE PROTECTION DIV./ZURN INDUSTRIES**
Fire Sprinkler System Design Technician
- Dec. 1981 - June 1982 **COSCO FIRE PROTECTION DIV./ZURN INDUSTRIES**
Assistant Design Team Leader. Fire Sprinkler and Clean Agent Extinguishing System Design at Nuclear Power Plant
- Dec. 1979 - Feb. 1981 **PETERSON ASSOCIATED ENGINEERS**
Mechanical Designer. Fire Protection Design and Specifications, HVAC Piping, HVAC, Chilled Water and Plumbing Design
- Sep. – Dec. 1979 **VIKING AUTOMATIC SPRINKLER COMPANY**
Fire Sprinkler Design Technician
- June-September 1979 **AAA FIRE SPRINKLER**
Fire Sprinkler Design Technician
- July 1977-May 1979 **TUALATIN RFPD (TUALATIN VALLEY FIRE & RESCUE)**
Deputy Fire Marshal. Fire Prevention Inspections, Plans Reviews, Fire Investigations, Fire Scene Evidence Photographer, Hydrant Water Flow Testing, Water Supply Coordination with City Water Bureaus and Public Water Districts, City Subdivision Fire Access Requirement Coordination with multiple City Councils.

Kenneth D. Fuglee, PE
Curriculum Vitae

Feb. 1976-June 1977 **PETERSON ASSOCIATED ENGINEERS**
Mechanical Designer. Fire Protection and Specifications and Cost
Estimates, HVAC, Piping and Plumbing Design.

Aug. 1974-Sep. 1976 **FIREGUARD SPRINKLER SYSTEMS**
Fire Sprinkler System Design Technician

Oct. 1970-Feb. 1974 **CORVALLIS FIRE DEPARTMENT**
Alarm Operator-Dispatcher/Firefighter. EMT Instructor

EDUCATION

Bachelor of Science, Oregon Institute of Technology (OIT)
Major in Mechanical Engineering Technology
Minor in Applied Mathematics
Additional Studies in Software Engineering Technology
Additional Studies in Chemistry, University of Oregon Honors College

PROFESSIONAL MEMBERSHIPS

NFPA (National Fire Protection Association)
SFPE (Society of Fire Protections Engineers)
ICC (International Code Council)
Order of the Engineer, inducted May 1995

PROFESSIONAL SEMINARS AND TRAINING

International Association for Fire Safety Science (IAFSS)
Performance-Based Design for Fire Protection (PSU/SFPE Seminar, Dr. Joe Urbas)
Fire Protection Engineering Seminar, (Oregon Center for Advanced Technology
Education (OCATE), Dr. Jim Milke (Univ. of Maryland, Fire Protection
Engineering)
SFPE Fire Protection Symposium (Dr. Jim Milke, Dr. Marc Janssen)
NFPA Life Safety Code Seminar
NFPA Fire Sprinkler Systems Seminar
NFPA Fire Detection and Alarm Systems Seminar
Oregon Basic Arson Investigation Seminar
Uniform Fire Code Seminar

AWARDS AND RECOGNITION

Dean's List (OIT) Winter 1999
Honors in Mathematics (Calculus), University of Oregon Honors College

COMPUTER EXPERIENCE AND TRAINING

CFAST, Hazard I, and FPE Tool (Fire Protection Computer Modeling)