

# SCHAEFER ENGINEERING CORPORATION

## RESUME OF GERARD F. SCHAEFER, P.E.

### SUMMARY

Registered Mechanical Engineer specializing in motor vehicle accident reconstruction, failure analysis and the investigation of fires and explosions.

### PROFESSIONAL EXPERIENCE

#### **Schaefer Engineering Corporation. – Shelton, WA (2015 to Present)**

Principal – Fire and explosion cause and origin. Accident investigations and reconstructions including tractor semi-trailer, passenger car, motorcycle, bicycle and marine vessel accidents. Failure analysis of mechanical systems.

#### **MDE Inc. – Seattle, WA (1995 to 2015)**

President and Principal – Fire and explosion cause and origin. Accident investigations and reconstructions including tractor semi-trailer, passenger car, motorcycle, bicycle and industrial lift truck accidents. Perception-reaction time and visibility. Computer modeling and simulation of accidents, vehicle performance and fires in structures. Mechanical failures.

#### **Pacific Testing Laboratories – Seattle, WA (1993 – 1994)**

Mechanical Engineer – Assigned a variety of forensic cases. Some responsibilities included automobile accident reconstruction; industrial failures of machines, bearings and structures; automobile and marine failures; brake, engine and structural components; and fire and explosion investigations.

#### **Schaefer Engineering Corporation – Seattle, WA (1991 – 1993)**

Consulting Engineer – Fire and explosion cause and origin. Accident investigations and reconstructions including tractor semi-trailer and passenger car accidents. Perception-reaction time and visibility. Computer modeling and simulation of accidents, vehicle performance and fires in structures. Mechanical failures.

#### **Analytical Engineering Services, Inc. – Annapolis, MD (May 1991 – August 1991)**

Consulting Engineer – Accident investigations and reconstructions including tractor semi-trailer, passenger car, motorcycle, bicycle and industrial lift accidents. Perception-reaction time and visibility. Computer modeling and simulation of accidents and vehicle performance. Mechanical failures.

#### **Forensic Technologies International – Annapolis, MD (1989 – 1990; 1991 – 1993)**

Associate Engineer – Accident investigations and reconstruction, fire investigations, corrosion analysis, materials testing for standards compliance, mechanical failures.

#### **United States Navy Nuclear Power Training Unit – Idaho Falls, ID (1990 – 1991)**

Duty under instruction as the Engineering Officer of the Watch. Trained to control and coordinate 16-man watch team in the operation and maintenance of a naval nuclear power plant. Trained in shipboard damage control and fire fighting. Division Office. Supervised five personnel in the day-to-day operations of the administrative office. Conducted Navy Judge Advocate General investigations, including investigations of automobile accidents and suicide attempts. Developed statistics to ensure equal opportunity for a command with 1400 personnel.

#### **United States Navy Nuclear Power School – Orlando, FL (1989 – 1990)**

A complex, graduate-level, twenty-four week engineering course in the principles of science and engineering fundamental to the supervision, operation, and maintenance of naval propulsion plants, to prepare for the ultimate responsibility for safe and effective operation of propulsion plants of nuclear powered ships.

# SCHAEFER ENGINEERING CORPORATION

## PROFESSIONAL REGISTRATION & CERTIFICATION

Registered Professional Engineer, State of Alaska, #13056  
Registered Professional Engineer, State of Idaho, #14760  
Registered Professional Engineer, State of Montana, #20216  
Registered Professional Engineer, State of Oregon, #91848PE  
Registered Professional Engineer, State of Washington, #32746  
NAFI Certified Fire & Explosion Investigator and Instructor (CFEI & CFII)

## EDUCATION & TRAINING

B.S. Mechanical Engineering, United States Naval Academy (1989)  
Naval Nuclear Power School, United States Navy (1989-1990)

## PROFESSIONAL ASSOCIATIONS

Member – American Society of Mechanical Engineers (ASME)  
Member – Society of Automotive Engineers (SAE)  
Member – National Fire Protection Association (NFPA)  
Member – National Association of Fire Investigators (NAFI)  
Member – International Association of Arson Investigators (IAAI)  
Member – National Association of Professional Accident Reconstruction Specialists (NAPARS)  
Member – American Boat & Yacht Council (ABYC)

## PUBLICATIONS

Co-authored SAE Technical Paper #960657: "Tire-Road Friction in Winter Conditions for Accident Reconstruction," 1996.  
Co-authored SAE Technical Paper #1999-01-0442: "Vehicle & Occupant Response in Low Speed Car to Barrier Override Impacts," 1999.