
EDUCATION

1980-1983 **Post Baccalaureate Studies, Mechanical Engineering Graduate Program**
North Carolina State University

1980 **Bachelor of Science, Materials Science and Engineering**
North Carolina State University, Raleigh, North Carolina

EXPERIENCE

April 1997 **Engineering Design & Testing Corp.**
to Present **Birmingham, Alabama**

Consulting Engineer

Failure analysis of materials, including polymers, metals and ceramics. Medical equipment assessment and failure analysis. Machinery problems and fractures. HVAC evaluations. Metallurgical analysis and processing. Industrial incident investigation and reconstruction. Cause and origin of fuel gas explosions and fires. Corrosion modes analysis and evaluative testing. Marine surveying. Crane stability assessments. Crane and lifting equipment evaluations. Wire rope failure analysis. Mechanical systems failure analysis. Product testing for litigation.

May 1988 **Accident Reconstruction Analysis**
to April 2018 **Raleigh, North Carolina**

May 1980 *Senior Staff Engineer*
to March 1983

Failure analysis of materials and structures, including physical, chemical and mechanical testing. Aircraft accident reconstruction and aircraft component failure analysis. Accident reconstruction in all modes of transportation. Technical analysis of machinery accidents in industrial settings. Cause and origin investigation of explosions and chemical/incendiary fires. Marine surveying. Inspection, failure analysis and reconstruction of elevator accidents. Crane and aerial lift accident reconstruction.

March 1983 **United States Navy**
to May 1988

Officer on Fleet Ballistic Missile Submarines

Description Maintenance and repair supervision of shipboard power generation and transmission equipment, atmospheric control equipment including oxygen generators, carbon dioxide scrubbers, carbon monoxide burners and combustible gas indicators. Coordination and supervision of damage control preparation, training and execution during onboard emergencies such as firefighting, flooding, and ship repairs.

Retired from reserves service in June 2004.

May 1979 **Carolina Power and Light Company**
to September 1979 **Raleigh, North Carolina**

Welding Engineering Assistant

REGISTRATIONS and CERTIFICATIONS

Registered Professional Engineer in Alabama (#21951)

Registered Professional Engineer in Florida (#64862)

Registered Professional Engineer in Kentucky (#29767)

Registered Professional Engineer in Louisiana (#35412)

Registered Professional Engineer in Michigan (#6201311309)

Registered Professional Engineer in Mississippi (#19648)

Registered Professional Engineer in New York (#108298)

Registered Professional Engineer in North Carolina (#015502)

Registered Professional Engineer in South Carolina (#31084)

Registered Professional Engineer in Tennessee (#118537)

Registered Professional Engineer in Texas (#115023)

Examined and Registered in dual disciplines: Metallurgical and Civil Engineering

National Council of Examiners for Engineering and Surveying (#40437)

PROFESSIONAL ORGANIZATIONS

American Society for Metals

National Association of Corrosion Engineers

CONTINUING EDUCATION

| | |
|-------------|--|
| 2015 | Glass Fractography Lessons Learned in Large Loss Work |
| 2011 | Infrared Spectra® Interpretation; Eastern Analytical Symposium, Inc. |
| 2010 | Non-Linear Finite Element Analysis |
| 2006 | Cathodic Protection – PDH |
| 2004 – 2009 | Confined Space Entry Certifications |
| 2002 | Cathodic Protection of Pipelines; Diesel Failure Analysis Investigations |
| 1989 | Instructor, Seminar on Marine Vessel Fire Investigation |
| 1983 | Naval Nuclear Power School, Officer Program |
| 1980-1983 | Graduate Work, Mechanical Engineering, North Carolina State University |