



QUALIFICATIONS BRIEF

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VERNON SHIELDS, P.E.
Senior Electrical Engineer

SUMMARY

Vernon has over 43 years in the Electrical Industry with an extensive background in engineering and management. Additionally, Vernon has the following qualifications and expertise:

- Experienced in the areas of analysis, design and testing of electrical power systems.
- Thoroughly familiar with arc-flash hazards and analysis.
- Experienced in the use of OSHA regulations under 29 CFR 1910, as well as the National Electrical Code (NEC), NFPA 70B and NFPA 70E defining safety practices in the installation and maintenance of electrical equipment.
- Experienced in the design of electrical distribution systems to include lighting and power systems for buildings.
- Experienced in the analysis of root-cause electrical accidents.
- Thoroughly familiar with industry standards and practices for installing and assuring the safe use of electrical equipment.
- Commissioning Agent for electrical power distribution and SCADA control systems at Dallas/Fort Worth International (DFW) airport.
- Manager/Aerospace Engineer at the NASA/Johnson Space Center, Houston, Texas, Working on major space flight programs.

EXPERIENCE

Present

AVO Electrical Engineering Division – Senior Electrical Engineer

Vernon works with the AVO Electrical Engineering Division with responsibilities in electrical power systems analysis and drawings review and approval. He also provides field specific expertise for the AVO engineering staff. Additionally, Vernon is responsible for curriculum development and presentations of the AVO Training Institute's training programs in Arc Flash Hazard Analysis, Short Circuit Analysis, Protective Devices Coordination, as well as the NFPA 70E and OSHA Electrical Safety programs.

2007 – 2005

IEG Consulting Engineers, LLC – Vice President and Co-founder

Served as engineer of record for all projects. Additionally performed low voltage electrical distribution systems designs for clients to include renovations at the DFW airport.

2007 – 2004

Mountain View College – Adjunct Professor in Government

Teach National and Texas state government courses.

QUALIFICATIONS BRIEF (CONT)

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EXPERIENCE (CONT)

2005 – 2001

Swayzer Engineering, Inc. – Consulting Engineer

Responsibilities included performing electrical system designs, testing and commissioning of electrical systems installations at DFW airport.

2001 – 1999

Muniz Engineering, Inc. – Director of Associates Program

Responsibilities included recruiting and managing engineering Associates performing work on NASA programs and projects as well as projects with other Aerospace companies.

1999 – 1998

GB Tech, Inc. – Program Manager

Responsibilities included program staffing and supervising approximately one-hundred (100) engineers and technical support persons; Negotiating engineering and technical tasks as well as the accompanying labor rates; Targeting earnings on assigned work.

1998 – 1997

Shields Engineering Company – Consulting Engineer

Worked as a subcontractor performing electrical energy saving audits for equipment installed in a number of Dallas Independent School District schools under an energy savings program sponsored by a DISD bond program. Additionally, designed the electrical distribution system for the Reid Community Center including short-circuit analysis, drawings and equipment specifications. This facility is currently being used as a half-way house for parolees being released from the state penal institutions.

1997 – 1994

Dual, Inc. – Director – Aerospace Systems Division

Responsibilities included managing a staff of ninety engineers (90) and technical support persons. Additionally responsible for business development.

1994 – 1991

Hernandez Engineering, Inc. – Senior Engineer and Deputy, Program Manager

Responsibilities included the engineering study of space transportation systems for NASA; performing supervisory duties; and cost reporting.

1991 – 1989

Grumman Corporation – Senior Engineer

Responsible for the analysis of critical resources for the NASA Space Station as reported by the subsystem design teams.

1989 – 1964

NASA/Johnson Space Center – Aerospace Engineer

Responsible for managing test and development of critical hardware components for major NASA flight programs (Apollo, Space Shuttle, and Space Station).

QUALIFICATIONS BRIEF (CONT)

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EDUCATION AND PROFESSIONAL

EDUCATION

BS in Electrical Engineering, Prairie View A&M University

Masters in Public Administration, Harvard University

AWARDS

Awarded Fellowship to Harvard University

Awarded Superior Performance from NASA/Johnson Space Center

ASSOCIATIONS

Licensed Professional Engineer, State of Texas

Past member of the Institute of Electrical and Electronic Engineers (IEEE)

Past member of the National Fire Prevention Association (NFPA)