

CHRIS B. FLEMING, P.E., CFEI, LEED B+DC

Principal, 186 Engineering Consulting Electrical Engineer Phone: 301-379-7309 Fax: 202-568-6459 Email: cfleming@186Engineering.com www.186Engineering.com

EXPERIENCE AND CAPABILITIES

- Origin & Cause Reports
- Power and Lighting Design and related Studies
- Switchboard/Load Evaluations
- Review Electrical System related Injuries
- RFP/Specification Development
- Fire Investigations with Electrical Factors
- Site/Loss Inspections Various
- Project Management Turnkey
- Evaluation of Lightning Strike Damage
- Interior/Exterior Lighting Analysis
- Power for Physical Security Systems
- Generator Load Evaluation
- Emergency Response Consultant
- Power Quality Analysis
- Evaluation of Electrical System Failure
- Support Of Mechanical Systems
- Evaluation of Water Damaged
 Equipment

- Third Party Design Review
- Construction Administration and Scope Development
- Value Engineering Studies
- Electrical Expert / Review of Case Studies
- Damage Assessment Reports
- Review of Electrical Faults/Explosions
- Generator System Studies
- Evaluation of Dryer Fires
- HVAC Failure due to Electrical Fault
- Evaluation of Transformer Failures
- Electrical Long Range Planning
- Evaluation of Heating Pad Incidents
- LEED related Work
- Electrical System Cost Estimating
- Develop Power One Line Diagrams
- Contractor Invoice Review
- Site Assessment/Code Compliance Check



EMPLOYMENT RECORD

2012 - Present 186 Engineering, Principal, Consulting Engineer in private practice. Areas of primary interest include electrical systems, equipment damaged by electrical faults, water damaged electrical equipment, electrical fires, explosions, National Electrical Code compliance, lightning strikes, electrical fires, explosions, drawings, specifications, project management, investigations, design, construction administration, origin and cause, and similar evaluations.

2010 - 2011 EFI Global

Sr. Electrical Engineering Consultant: Primarily responsible for issues associated with electrical power and lighting systems in facilities as well electrical components of various products and appliances. Expertise includes a thorough knowledge of electrical building systems including power distribution, interior and exterior lighting, lightning protection, fire alarm, maintenance and associated construction, design, project management and codes. Duties include advising clients with regard to electrical systems, electrical equipment, cause and origin investigations, forensic engineering, equipment failure, incident investigation, damage assessment, cost recommendations, engineering design and the development of various engineering reports.

2009 – 2010 Packer Engineering

Sr. Electrical Engineering Consultant: Primarily responsible for issues associated with electrical power and lighting systems in facilities as well electrical components of various products and appliances. Expertise includes a thorough knowledge of electrical building systems including power distribution, interior and exterior lighting, lightning protection, fire alarm, maintenance and associated codes including the National Electrical Code (NFPA 70), International Building Code (IBC), Life Safety Code (NFPA 101), National Fire Alarm Code (NFPA 72), Lightning Protection Code (NFPA 780), NEMA standards and others. Duties include advising clients with regard to electrical systems, electrical equipment, cause and origin investigations, forensic engineering, equipment failure, incident investigation, damage assessment, cost recommendations, engineering design and the development of various engineering reports.

2004 - 2009 M-R/Innoveers

Project Manager/Senior Electrical Engineer: Responsible for management and production of electrical engineering design documents provided by the company and management of the electrical design team. Actively performs all duties relevant to the design of new and renovated facilities electrical systems, assessments of electrical and life safety systems including fire alarm and ADA requirements, value engineering, interior and exterior lighting design, lighting impact evaluation, support of mechanical system updates, generator system design, UPS system design, preparing cost estimates, preparing a variety of related reports, proposals and provide support in team environment.



2000 - 2004 Dewberry Design Group

Electrical Engineer & Design Review Coordinator: Performed assessments of building electrical, fire alarm and life safety systems, A/E design review, Quality Assurance of the Design Review process, Energy Conservation development, code conformance assessments, recommends corrective action, long range planning, building systems, preparing cost estimates, preparing a variety of related reports, and provide support in team environment.

1995 - 2000 Greenway Enterprises/WASHMAC/DYNCORP

Project Manager/Project Electrical Engineer: Performed and responsible for reviewing and developing engineering design documents, surveying overseas sites, specifying/ordering the required materials and tools, managing construction teams and preparing all associated construction and economic impact statements. Primarily managed projects related to building electrical power, power quality, lighting, architectural renovation, energy conservation measures, generators, capacitor banks, lightning protection, fire alarm and UPS systems, Maintains liaisons with individuals and units within and outside the organization, and represents the organization in conferences to resolve important questions. Typical duties involve managing a number of projects simultaneously as well as evaluating plans and criteria for a variety of projects and activities to be carried out by others.

1994 - 1995 Engineering Applications Consultants

Electrical Engineer: Actively performs all duties involved in the electrical design of following: Low voltage power distribution systems, Industrial, office and outdoor lighting, and fire alarm systems. Duties also include production of design drawings, extensive field survey, specifications, cost estimating, and client relations.

1990 - 1994 David Volkert & Associates

Electrical Engineer: Performed all duties involved in the design of industrial, office and outdoor lighting, power distribution systems, asbestos/lead abatement design and monitoring, fire alarm and lightning protection systems. Co-authored studies of existing communication duct systems and power distribution systems. Duties also included design, production of design drawings, field survey, specifications, cost estimating and client relations.

CONTINUING EDUCATION

Certified Fire and Explosion Investigation Seminar, National Association of Fire Investigators, 2012

National Electrical Code Seminar, National Fire Protection Association, 2005 National Electrical Code Seminar, National Fire Protection Association, 2002 Hazardous Locations Seminar, National Fire Protection Association, 2001 Electrical Safety in Workplace Seminar, National Fire Protection Association, 2001 UPS Maintenance Training, Exide Electronics, 1999 High Voltage Electrical Safety Training, National Technology Transfer, Inc., 1999

Telephony and Telecommunications Training, National Technology Transfer, Inc., 1999



PROFESSIONAL ORGANIZATIONS

National Association of Fire Investigators Institute of Electrical and Electronic Engineers National Society of Professional Engineers

REGISTRATION/CERTIFICATION

Certified Business Enterprise (CBE) in Washington, DC.

CBE Number: LSDR78206052014

Preference Points: 12 (2 for LBE; 3 for SBE; 2 for DBE; 5 for ROB)

Disadvantaged Business Enterprise (DBE) with the Metropolitan Washington Unified Certification Program (MWUCP). Certification No. 1794-W

Professional Engineer (PE) - Washington, DC, License #906048

Professional Engineer (PE) - Maryland, License #40968

Professional Engineer (PE) - Virginia, License #028741

Professional Engineer (PE) - Florida, License #73555

Certified Fire and Explosion Investigator (CFEI)

LEED AP (B+DC), Green Building Certification Institute (GBCI), ID #10399204

EDUCATION

Bachelor of Science - ELECTRICAL ENGINEERING Hampton University (1989)