

Forensic Engineering & Consulting

ENGINEER: ELECTRICAL

Engineering Design & Testing Corp. Post Office Box 1233 | Cherry Hill, New Jersey

> phone: (856) 701-5879 email: bhager@edtengineers.com

EDUCATION

Bachelor of Science, Electrical Engineering 2015 Virginia Tech, Blacksburg, Virginia

EXPERIENCE

November 2023 Engineering Design & Testing Corp. Cherry Hill, New Jersey to Present

Consulting Engineer

Consulting in the area of electrical engineering for residential, commercial, and industrial systems, including cause and origin analysis of electrical system failures, electrical code compliance review, technical investigation of incidents involving industrial electrical power distribution systems and industrial control systems, project management, scope of damage, and analysis of costs to repair or replace electrical equipment and systems. Provide consultation services in loss prevention and risk assessment. Perform scope of damage assessments of solar arrays including nondestructive testing such as electroluminescence and infrared scans.

September 2022 Highground Services. Inc. to November 2023 Newport News, Virginia

Engineering Manager

Managed engineering department of engineers, field technicians, technical writers and construction managers in industrial, commercial and renewable energy areas. Projects included dry dock readiness documentation and drawing reviews at a Shipyard, SEL relay upgrade on 15kV switchgear at a Paper Mill, and a 4 MW Solar Farm construction.

July 2018 Air Products and Chemicals, Inc. to September 2022 Allentown. Pennsvlvania

Principal Electrical Engineer

Responsible engineer for maintenance and capital upgrades of all electrical systems for approximately forty air separation plants in the southern region of the United States. Specified, installed, commissioned, and maintained low and medium voltage switchgear (480V to 15kV), substation gas circuit breakers and transformers up to 138kV, synchronous and induction motors up to 12,000 HP. Protective relaying and control upgrades using SEL and GE Multilin relays. Performed arc flash and power system studies in SKM PTW software.

June 2015 International Paper Company Franklin, Virginia to July 2018

Electrical Reliability Engineer

Responsible engineer for the paper mill's electrical infrastructure, including 115kV substation, eight 15kV busses, and approximately 100 2.4kV and 480V unit substations. Developed lockout tagout procedures, switching procedures, maintenance, and capital plans, and trained mill personnel on electrical safe work practices, including NFPA 70E and arc flash awareness.

Engineering Design and Testing, Corp.

Engineering services in New York provided through the associated firm, Engineering Consultants, D.P.C.

Engineering services in North Carolina provided through the associated firm, EDT Engineers, P.C.

REGISTRATIONS and CERTIFICATIONS

| Registered Professional Engineer in Arkansas (#22303) |
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| Registered Professional Engineer in Connecticut (#PEN.0037307) |
| Registered Professional Engineer in Delaware (#23652) |
| Registered Professional Engineer in District of Columbia (#PE40002243) |
| Registered Professional Engineer in Maine (#PE18421) |
| Registered Professional Engineer in Maryland (#61973) |
| Registered Professional Engineer in Massachusetts (#58763) |
| Registered Professional Engineer in New Hampshire (#18039) |
| Registered Professional Engineer in New Jersey (#24GE06003300) |
| Registered Professional Engineer in New York (#109025) |
| Registered Professional Engineer in Ohio (#PE.90733) |
| Registered Professional Engineer in Pennsylvania (#PE095360) |
| Registered Professional Engineer in Rhode Island (#15151) |
| Registered Professional Engineer in South Carolina (#44244) |
| Registered Professional Engineer in Vermont (#135797) |
| Registered Professional Engineer in Virginia (#65828) |
| National Council of Examiners for Engineers and Surveying Record (#18-670-18) |

PROFESSIONAL ORGANIZATIONS

Institute of Electrical and Electronics Engineers (IEEE) Inter-National Electrical Testing Association (NETA) National Fire Protection Association (NFPA) International Association of Arson Investigators (IAAI) National Association of Fire Investigators (NAFI)

CONTINUING EDUCATION

- 2025 Use of EL to Evaluate Solar Panels (Presenter) San Antonio, Texas
- 2025 Evaluation of Large Solar Farm Damage (Co-Presenter) San Antonio, Texas
- 2025 Selected Topics of Vehicle Fire Investigations San Antonio, Texas
- 2023 High-Density Distribution Coordination Using High-Speed Communications Richmond, VA