

# KYLE D. KOINER - P.E.

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## OUTLINE OF PROFESSIONAL EXPERIENCE

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- Multi-skilled **Project / Electrical Engineer**, 31 years Power Generation, Distribution, and Protection; Facilities; Well Instrumentation/Wireline/Logging; Cathodic Protection Corrosion; Electronics. Think-on-feet solver, quality under pressure and within deadlines.
- Qualifications:
  - Conceptual, New Design, Modifications, Circuit Analysis, Independent Reviews
  - Electrical, I&C, Cathodic Protection, Diesel Generator, Motor, Transformer, PCB, Harness, all Loads, Security, Fire Protection, Procurement, High/Low Voltage, AC/DC
  - Design Documents, Specifications, FMEA, Cause Analysis, Setpoints
  - National Codes, Regulations, Standards, Guidelines (NEC, ASME, OSHA, MIL-STD)
  - Project, CAD, MicroStation, ETAP, SKM, Visio, CANoe, CAPTOR, DAPPER, LabView

## PROFESSIONAL EXPERIENCE

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### **Department of Defense, Sterling Heights, MI** Senior Consultant Engineer

Nov 2021 – Mar 2022

- All work details confidential.
- Develop power generation, distribution, and protection systems for United States Army land vehicles, testing / troubleshooting. CAN, PCBs, harnesses, firmware/software.
- Calculations: EMI, Dielectric, Insulation, Shock, Vibration and Noise.

### **Department of Defense, Milwaukee, WI** Senior Consultant Engineer

Dec 2017 – Oct 2021

- All work details confidential.
- Develop power generation, distribution, and protection systems for United States Naval vessels and other, testing / troubleshooting. switchgear, harnesses, firmware/software.
- Calculations: Arc Flash, Cathodic, EMI, Dielectric, Insulation, Shock, Vibration and Noise.
- Supervise engineers / technicians in fabrication of equipment and testing client product.

### **Department of Energy (Savannah River, Aiken, SC)** Senior Consultant Engineer

July 2017 – Nov 2017

- Design 13.8 kV power distribution for several acres. Greenfield including all layouts, one-lines, specifications, material lists, 13.8kV to 480V and to 120/208V transformer details, pole details (horiz/vert), disconnects, arrestors, etc. (MicroStation, Revit). Install/Test.
- Design outdoor lighting system for area to be occupied including roadways / parking lots. Large LED lights, new poles, disconnects, cable, conduit and overhead. Commission.
- Cathodic Protection of pipe and tank.
- Arc Flash calcs: boundary, working distance, hazard categories (SKM, ETAP, hand).

**Columbia Station, Richland, WA Senior Consultant Engineer**

March 2017 – May 2017

Some projects include:

- Condensate Booster Pump Motor Replacement (4000HP). Calculations and Test Plans.
- High Pressure Core Spray Generator and accessories replacement.
- Power Transformer Acquisition (4200 kVA). Installation and Test Procedures.
- Diesel Generator Day Tank Exhaust System. Acquisition, Modification, Procedures.

**Vogtle and Farley Stations (Bechtel, VA) Senior Consultant Engineer** Oct 2016 – Jan 2017

- Fire Protection and Suppression NFPA 805 Upgrade (replacement design):
- Numerous calculations including:
  - Emergency Diesel Generator Loading, Security Diesel Generator Loading
  - Battery Sizing / Capability during Beyond Design Basis Event, Cable Sizing

**NuScale Power, Corvallis, OR Senior Consultant Engineer**

Jun 2015 – Sep 2016

- **New Nuclear Power Plant Design.** All work confidential and proprietary protected. To current and future License, Certification, and Approval consideration (10CFR52), anticipated future site characteristics. Inspections, tests, analyses (AutoCad)
- AC (345kV to 120V), DC (250V to 125V), Switchyard, Backup Power, Ground, Lightning Protection. Large generators, transformers, motors, pumps, batteries, all loads
- Develop entire plant model and study cases with multiple configurations using ETAP
- Circuit Analysis, Load Sizing/Flow, Transient Stability, Motor Acceleration, Coordination, Arc Flash, Cable Criteria/Ampacity using SKM then ETAP, route load tray, fire detection.
- Functional Specifications, FMEA, Topical Report for Nuclear Regulatory Commission.

**CB&I, The Woodlands, TX (Comanche Peak) Senior Project Engineer** Oct 2011 – May 2015

- Numerous multi-discipline design change packages for power plants including circuit additions and changes. Projects include emergency diesel generators, motors, pumps, fans, valves, cathodic protection, lighting, grounding (Visio, Project)
- Investigate/Troubleshoot circuits, determine cause of failure and provide solutions
- Installation, Inspection, Testing, and Commission, plus provide Procedures
- Numerous occasions prevented equipment damage and incorrect purchases
- Projects validated by Nuclear Regulatory Commission.

**DP Engineering Ltd., Fort Worth, TX Project Engineer**

Apr 2008 – Sep 2011

- Power plants, Department of Defense (DoD), commercial projects.
- Numerous electrical and multi-discipline design change packages: Power distribution, main power transformers, emergency diesel generators, all size motors, pumps, fans, security upgrades, cathodic protection, lightning protection, lighting, grounding, lab/office.
- Several studies using SKM and walkdowns for calculations, tracings and routings.

**Weatherford International, Fort Worth, TX Senior Electrical Engineer** 2005 – Mar 2008

- Design, develop and manufacture well-logging electronics and power supplies, PCBs.
- Installation and Test of equipment in field, drilling and pipeline. Commission for service.
- New product planning, scheduling, budget, startup. Develop assembly/test procedures.
- Resolve manufacturing problems, develop product and manufacturing upgrades.

**AVO/Megger/Biddle/Multi-Amp, Dallas, TX Senior Test Engineer** Feb 2001 – 2005

- Design, develop, and test industrial grade test equipment used in the power, cathodic protection, railroad and numerous other industries.
- Develop an automated test system (LabView). Developed / installed software code.
- Troubleshoot and develop solutions for PCB product deficiencies.

**Nortel Networks, Richardson, TX Test Engineer** Jul 2000 – Jan 2001

Responsible for intercepting product software errors.

- Develop Test Plans, determine hardware, software, data requirements.
- Sanitize new or enhanced software loads to verify functionality, weekly

**Boeing Electronics, Corinth, TX Manufacturing Engineer** 1997 – 2000

- Resolve problems in manufacturing stations of electronic components, PCBs and cables.
- Develop special stations to improve processes, manufacturing and test procedures.

**Zenith Electronics, Fort Worth, TX Quality Assurance Engineer** 1994 – 1997

- New product test plans. All PCBs in power and signal.
- Develop and implement aging test plans. Analyze failures.
- Develop Access database to collect failure data, discover top failures, uncover trends.

**Deep Sea Fisheries, Seattle, WA / Alaska Engineer** 1993 – 1994

- Maintain, modify and repair systems on 180' fishing vessel in the Bering Sea.
- Responsible for all systems: propulsion (two 12-Cyl diesel), diesel-generator, electrical, hydraulic, pneumatic, refrigeration, plumbing, appliances. Rebuild compressors.
- Welding, metal working, carpentry skills in extreme environment.

**ABB Impell Corporation, Fort Worth, TX Consultant Engineer** 1990 – 1993

- Numerous electrical design change packages.
- Several Studies and walkdowns.
- Analysis including short circuit, voltage drop, coordination calculations, coordination,
- Fire Protection upgrades and studies.

## **EDUCATION**

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- Bachelor Science Electrical Engineering degree (1988) + Computer Science Engineering courses, University of Texas Arlington – Chairman IEEE student chapter
- Mountain View College, Electronics Technology + Avionics courses, 1984 – Dean's List
- AMPP/NACE – Cathodic Protection, completed CP- level 2 Practical and Theory exams
- Technical Training Group – Design of Power Systems, Protective Coordination courses
- ETAP Training: Load Flow, Short Circuit, Transient, Sizing, Coordination, Arc Flash

## **REGISTRATIONS**

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- Texas Board of **Professional Engineers License** (by examination, power emphasis)
- Institute of Electrical and Electronics Engineers (IEEE)
- First Aid / CPR certificates, Safety Coordinator, current passcard, private pilot