**Curriculum Vitae**

## Marcia Eblen

More than 30 years of experience encompassing nuclear power plant design and maintenance, high voltage and high power laboratory testing, grounding analysis and design, arc flash hazard modeling and assessments, arc flash program development and training, arc flash testing, website and database development, as well as general

management responsibilities.

**EXPERIENCE**

**1982 TO 2013: PACIFIC GAS & ELECTRIC SAN RAMON. CALIFORNIA**

* **2005‐2013: Electrical Contact Incident Investigations‐Technical Leader**

Served as technical lead for all electrical contact incident investigations to determine the event timeline, employee action replication, and FR clothing performance.

* **2005‐2013: FR Clothing Program‐Technical Leader**

Developed procedural methodologies for all PG&E departments FR clothing program to be compliant with draft OSHA 1910.269 guidelines. Conducted fabric arc testing to verify protective qualities. Created technical specifications for the purchasing program for arc flash clothing. Extensive expertise in FR fabrics and active participant in ASTM F18.65 fabric testing specifications.

* **2005‐2013 Arc Flash Program‐Technical Leader**

Developed methodology and specifications for performing arc flash hazard calculations for all departments (T&D line, Substation, Power Generation, Gas Transmission, and Metering). Personally conducted walk‐downs at 40 hydro powerhouses (proficient user of Easy Power modeling software) and performed arc flash hazard modeling and assessments. Created spreadsheets and calculation standards for all transmission, distribution, substation, and metering arc flash hazards that included 1000 substations, 3400 distribution lines, and two extensive underground network systems (Extremely proficient user of IEEE1584 spreadsheet calculator and ARCPRO software).

* **2005‐2013 Arc Flash Testing Program‐Test Leader**

Developed testing protocol for determining low voltage arc sustainability, obtained funding, and analyzed results. Presented results to IEEE1584 Working Group, NFPA70E technical committee, and other utilities. Developed testing protocol for determining maximum incident energy from 480V meter enclosures, obtained funding, and analyzed results. Presented results to IEEE1584, NESC SC8, ASTM F18 and IEEE PES Substation Safety Committee.

* **1998‐2013: Principal Grounding Engineer‐Team Leader**

Developed analysis guidelines and standards to create an in‐house process to do grounding analysis and design (Extremely proficient user of CDEGS software). Oversee staff of 9 engineers and analysts that perform grounding analysis of over 250 substation and 125 cellular telephone sites per year.

* **1993‐1998: Electrical Systems Technology Unit Supervisor**

Assembled and led Helms 230KV Main Transformer Failure Analysis Team, DCPP Aux Bank Failure Analysis, and Helms 480V Arc Flash Incident. Conducted numerous investigations and tests to support operational needs of the company.

* **1989‐1993: Electrical Foreman‐DCPP**

Supervised Crew of Journeyman Electricians through 6 refueling outages and 4 years of normal maintenance. Participated in emergency drills and numerous maintenance emergencies to avoid plant shutdowns.

**Curriculum Vitae / Marcia Eblen (continued)**

* **1984‐1989‐Electrical Maintenance Engineer‐DCPP**

Developed maintenance and PM programs for motor operated valves, low voltage electrical systems, and infrared thermography.

**1982 TO 1984 BECHTEL POWER CORPORATION, SAN FRANCISCO**

* **Engineer‐DCPP Project and Staff Support**

Prepared calculations and design for Appendix R, emergency lighting, and penetration overcurrent protection. Supported Bechtel Senior Staff Engineers with preparation of power plant design, relay coordination studies, and voltage drop calculations.

**EDUCATION: BSEE, University of Colorado at Boulder, 1982**

**1985 Professional Engineer License California #12296**

**1986 Certified Thermographer**

**PROFESSIONAL AFFILIATIONS**

* **IEEE Substation Safety Committee**

Active on D7, D9, and D6

* **ASTM F18**

Active on ASTM 1506, ASTM F855, and ASTM 1959

Voting membership on NFPA70E

**PUBLICATIONS**

**Marcia L. Eblen and Tom A. Short**

**"**Arc‐Flash Testing of Typical 480‐V Utility Equipment", IEEE Transactions on Industry Applications, Vol. 48, No. 2, March/April 2012, pp. 581‐593**.**

**Marcia L. Eblen and Tom A. Short**

**"**Medium‐Voltage Arc Flash in Open Air and Padmounted Equipment", IEEE Transactions on Industry Applications, Vol. 48, No.1, Jan‐Feb 2012, pp. 245‐253**.**

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