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Lawrence C. Gross, Jr., PE

President

Larry Gross is an electrical engineer with experience in power system protection, operations, protection integration, technical training, and technical writing.

Experience

Relay Application Innovation, Inc. Pullman, Washington 2000 - present

Gross started RAI to provide electric power system protection applications, analysis, and training. RAI is a registered Engineering Corporation in the state of Washington.

He has performed services for relay manufacturers, utilities, industrial plants, and design consultants.

The services include protection coordination studies, microprocessor based relay settings, protection scheme design, generation interconnection protection, substation automatic restoration scheme design, commissioning support, relay performance analysis, and relay communication and application design for point-on-wave closing control.

Some example projects include:

- **230 kV Combustion and Steam Turbine Switchyard Protection Design**
- **Wind Farm Substation Protection Design and Coordination**
- **60 kV Substation Automatic Restoration Design**
- **Nuclear Power Plant Generator Protection Upgrade and Installation Feasibility Study**
- **Pulp Mill Interconnection, 13 kV Plant, and Generator Protection Review and Coordination**
- **Independent Power Producer (IPP) Interconnection Protection Design (several)**
- **230/138 kV Switchyard Protection Upgrade Design to accommodate new IPP (900 MW)**
- **230 kV System Upgrade Coordination Study to accommodate new IPP (560 MW)**
- **230 kV System Coordination Review**
- **Substation Protection Integration Interface Design and Settings**
- **12 kV Distribution Standards Development**

Schweitzer Engineering Laboratories, Inc. Pullman, Washington 1995 - 1999

Gross joined SEL as an Application Engineer to provide technical support to customers worldwide. He answered technical questions, provided relay and communications processor technical training and prepared technical bid responses for customer projects.

Reassigned to the development team he wrote application guides, portions of many instruction manuals, the SEL-352 Relay Instruction Manual, the SEL-351 Relay directional element development tests, and the SEL-387 Relay differential acceptance tests.

He was promoted to establish the new Protection Services department as the Manager and continued as an Engineer on the SEL team for providing protection services.

Pacific Gas & Electric Company Sacramento, California 1992 - 1995

Gross initially provided electrical engineering for various departments including power system planning, operations, and protection at voltage levels ranging from 12.47 kV to 230 kV.

He then focused his work in the transmission protection group where he was responsible for the protection of 95 transmission lines, 100 substations, 4 generating facilities, and 40 transmission-connected customers covering voltage levels from 34 kV to 230 kV.

A job rotation also included providing protection engineering for the 230 kV and 500 kV systems.

Registration: Professional Engineer: California 1995, Washington 2000, Oregon 2001, Louisiana 2002.

Patents: Circuit for Protection Against Slow Circuit Breaker Closure During Synchronization of a Generator and an Associated Electrical System (Author).

Publications: Author of several application guides, technical presentations and technical papers on power system protection, monitoring, and control.

Education: B.S. Electrical Engineering, Washington State University, 1992.

Affiliations: Institute of Electrical and Electronic Engineers