

## Expert Witness Resume

## **Areas of Expertise**

- Power generation and distribution
- Electrical power engineering design, review, implementation, analyses
- Commercial/industrial business to utility electrical interface
- Central power plant design for campuses
- Forensic and litigation support, and testimony, if needed, at deposition and trial
- Determine cause and resolve electrical shock hazards
- Find and resolve code and safety issues with better design
- Automation and control systems design, evaluation and implementation
- Instrumentation and control valves
- Custom circuits and electronic design
- Electrical equipment programming, commissioning, and operation
- Electrically hazardous areas classification, design or evaluation
- Wiring methods in hazardous areas
- Design team lead and support
- Code and safety evaluations both pre and post accidents and events
- Boiler conversions to dual fuel
- Heater installations to vaporize flammable gas
- Energy efficiency and management including energy audits
- Renewable energy projects
- Low and medium voltage
- Industrial, commercial and residential settings
- Safety inspections, code investigations, standard practices review and analyses
- Lightning loss evaluation, protection and damages evaluation
- Machine or plant software program loss evaluation and prevention
- Construction, commissioning, startup and training
- Prototype development for research projects

## **Industries**

- 1. Cogeneration and trigeneration power plants, simple and combined cycle
- 2. Flammable liquid and gas handling and storage plants, marine terminals, truck load stations, meter and regulator stations, liquid and vapor handling
- 3. Water handling, purification and storage
- 4. Wastewater
- 5. Pump Stations
- 6. Aquaculture, aquariums, hatcheries
- 7. Waste heat to energy plants
- 8. Combustion research and testing facilities
- 9. Commercial/Industrial Business On-Site Power Generation
- 10. Commercial/Industrial Business to Utility Electrical Interface
- 11. Commercial Buildings, Facilities and Campuses



C. Martin Nowland, PE, CEM Wolfeboro, NH 03894 | (603)793-8461