

h.c. Zang agency inc.

Manufacturers' Representative of Electrical and Data-Comm Equipment for Industry, Commerce and Utility

Engineering Services

Protective Device Coordination Study

Determine settings for your protective devices (circuit breakers and relays) and determine ampacities for any fuses in the power system. These settings and ampacities are determined by plotting the Time Current Curves of the devices and applying NEC, IEEE, ANSI and UL standards.

Short Circuit Study

Calculate the short circuit fault current levels at different locations in the power system and compare the calculated fault currents to equipment short circuit interrupt/withstand ratings in order to determine the reliability of your power system.

Arc-Flash Study

Calculate the short circuit fault current levels and protective device settings feeding switchboards, panelboards, industrial control panels and motor control centers.

- Flash hazard boundary
- Amount of incident energy
- Shock hazard
- Limited approach
- Restricted approach
- Prohibited approach
- Type of Personnel Protective Equipment (PPE) required
- Provide colored custom stick-on labels for each location

One-Line Diagram Generation

Construct a comprehensive and up-to-date power system one-line diagram using CAD software. Perform the equipment survey to acquire the data needed to do the study.

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Distribution Protective Relay Setting Calculations

Relay setting packages for a wide variety of protection applications.

- Feeder over-current protection
- Automatic re-closing
- Over-current, interlocked, and differential bus protection
- Transformer protection and monitoring
- Auto-transfer and load-shedding systems
- Protection and control for critical loads

Equipment Commissioning Services

Create commissioning specifications which will ensure that the equipment is tested properly and that the tests are repeatable. Provide witness testing which will ensure that the tests are performed accurately. Review of the test results which verify that the results are readable and well documented.

Design-Build and Project Budgeting Services

Provide design layout and turnkey budget prices for capital improvement projects. Budget proposals are complete with drawings and if required, power system one-lines.