Industrial Electrical Power System

Safety Studies

KSA Engineers offers to help you bring your facilities into compliance with OSHA regulations, NFPA and IEEE standards by providing short circuit, protective device coordination and arc flash studies.

- Short circuit studies determine if your equipment is rated to withstand and interrupt the available short circuit current.
- Protective device coordination studies determine if overcurrent devices are operating in the correct sequence and identify opportunities to reduce arc flash durations.
- Arc flash studies determine the arc flash boundaries and incident energy. Arc flash studies provide content for arc flash equipment labels, risk analysis and energized work permits. Arc flash studies provide workers with information vital to determining what level of personal protective equipment may be appropriate for working on your electrical facilities.
- KSA's electrical power system safety studies are provided by a licensed professional electrical engineer who is trained to utilize specialized power system studies software.

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KSA

Why spend the time and money now for electrical power system safety studies?

- OSHA looks to the prescriptive based requirements of NFPA Standard 70E (Electrical Safety in the Workplace) to fulfill the performance based requirements of OSHA. NFPA 70E was updated in 2018 to make facility owners not only responsible for the safety of their own employees, but also for the safety of contract employees.
- IEEE Standard 1584 (Guide for Performing Arc Flash Hazard Calculations) was updated in 2018 to improve the accuracy of arc flash calculations. This update eliminated the exemption for facilities operating at less than 250-volts and powered from transformers less than 125-kva.
- The risk of an arc flash occurring increases as electrical power systems age.
- You can obtain the benefits of electrical power system safety studies now.
- An arc flash is the release of energy in the air due to a failure of equipment or accidental contact with energized conductors. Temperatures can reach 35,000 F. Metal can be vaporized. Molten metal can be sprayed on nearby personnel. An arc flash can produce a pressure wave (explosive blast). Second and third degree burns may result. Severe injury and death are possible. An arc flash is a life changing event.

How to obtain electrical power system safety studies for my facilities

- Contact Leslie Shaw, P.E. with KSA Engineers at 903-236-7700 extension 1158 or by e-mail at lshaw@ksaeng.com

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