



Arc Vault™ Protection System offers the fastest containment technology available

Mineral processor has protection ready in a flash

THE SITUATION

Phosphate mining is an energy-intensive business, with the resulting compounds in high demand for worldwide agricultural use. A North American producer decided to install new low-voltage switchgear lineups (with GE AKD20 breakers) in their facility and requested GE assist them in addressing several important project-related risk challenges. In addition to wanting to protect their power delivery investment, the customer was also seeking another level of arc flash protection that would allow their technicians to more safely access the utility switchgear with the least amount of interruption. Facility managers were unimpressed with traditional arc-flash mitigation methods as they are designed not to eliminate the flash, but to muffle it, and consequently provide little if any equipment protection. Moreover, construction of the associated chimney or plenum used for exhausting the arc-flash energy can take up to four months. And perhaps worst of all, it still requires personnel to guard against an incident with cumbersome personal protection equipment.

THE SOLUTION

The innovative GE Arc Vault Protection System changes everything. It doesn't exhaust the arc flash; it extinguishes it in less than 8 ms by creating a secondary arc fault in the containment dome. The Arc Vault Protection System protects connected equipment and reduces incident energy levels to levels less than 1.2cal/cm² per IEEE1584.

This solution quickly proved its value: the installation and testing were completed in a single day. Since the Arc Vault is a parallel connected device that doesn't have to be in service to re-energize the switchgear, if an arc flash incident should occur, the switchgear can be placed back in service immediately after the problem is diagnosed. Moreover with replacement parts on hand, the Arc Vault can be operational again in one working day.

COMPLETE RANGE OF ARC FLASH SERVICES

Along with this best-in-class personnel protection, GE offers a truly comprehensive range of solutions to address every element of the arc-flash protection project from the initial arc-flash hazard analysis to system commissioning, maintenance, and training – provided by a global network of GE field and power system engineers.

For more information about GE Industrial Solutions, visit www.geindustrial.com/services, or call 1-888-GE4-SERV.



LESS IS MORE

- Arc Vault reduces the hazard to less than 1.2 cal/cm², reducing the need for PPE, which can interfere with manual dexterity and cause accidents.



VERIFIED BENEFITS

- Pre-and post-installation arc-flash hazard analysis demonstrate lowered PPE requirements.