

## Application/Problem:

Our customer's existing switchgear consisted of custom switches and enclosures made by a company no longer in business. Repair parts were difficult to find and the aluminum enclosures surrounding the 480 VAC switches provided no protection in the event of an arcing fault.

## Project Solution/Customer Benefit:

Flanders Electric provided new Siemens WL 480 VAC Switchgear. Because the system had dual feeds, two 4000 amp main breakers were provided along with a tie breaker to connect the two sides in the event of a failure in one of the supply feeders. Thirteen various sized feeder breakers were included within the two feeds. All the circuit breakers were supplied with ETU 776 trip units that contained a dual parameter set.

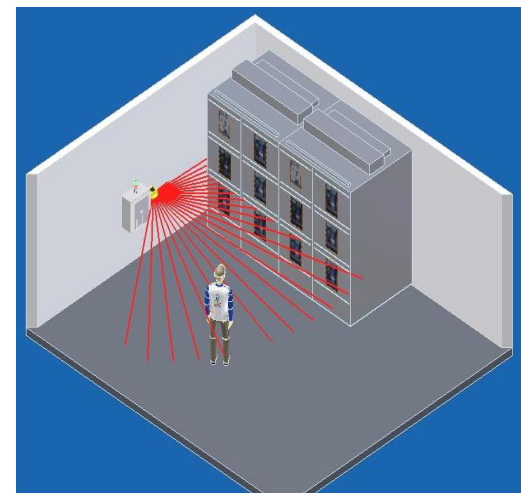
Taking advantage of the dual parameter set on the main breakers, a laser scanner Arc Prox™ System was installed that detected when someone was within the arc flash boundary. When someone was detected within the arc flash boundary, the laser scanner would send a communication signal to the ETU 776 trip unit, which in turn would switch from the "normal" trip settings to the parameter set that was programmed to a lower instantaneous value. This lower trip value would enable the main circuit breaker to initiate a faster trip thus reducing the available arc flash energy in the event of an arc flash event. Coordination of the breakers in the system would be interrupted during the period someone was within the arc flash boundary. The laser system would automatically revert the ETU 776 trip unit back to "normal" status once the person moved beyond the arc flash boundary.

## Products Used:

- Siemens WL Circuit Breakers with ETU776 Trip Units
- Arc Prox System with Siemens Laser Scanner and Safety Relays



*Siemens WL Switchgear*



*The Arc-Prox™ System Simatic Sensor detects the presence of personnel as illustrated above*

Solution Partner

Automation

SIEMENS

THE POWER TO PERFORM

REPAIR ENGINEERING FIELD SERVICE PREDICTIVE MAINTENANCE CUSTOM MOTOR MANUFACTURING MOTOR SALES SYSTEM INTEGRATION