

HEDRICK ASSOCIATES OF GRAND RAPIDS

West Michigan & Northern Indiana's Factory Representative



PRESENTS

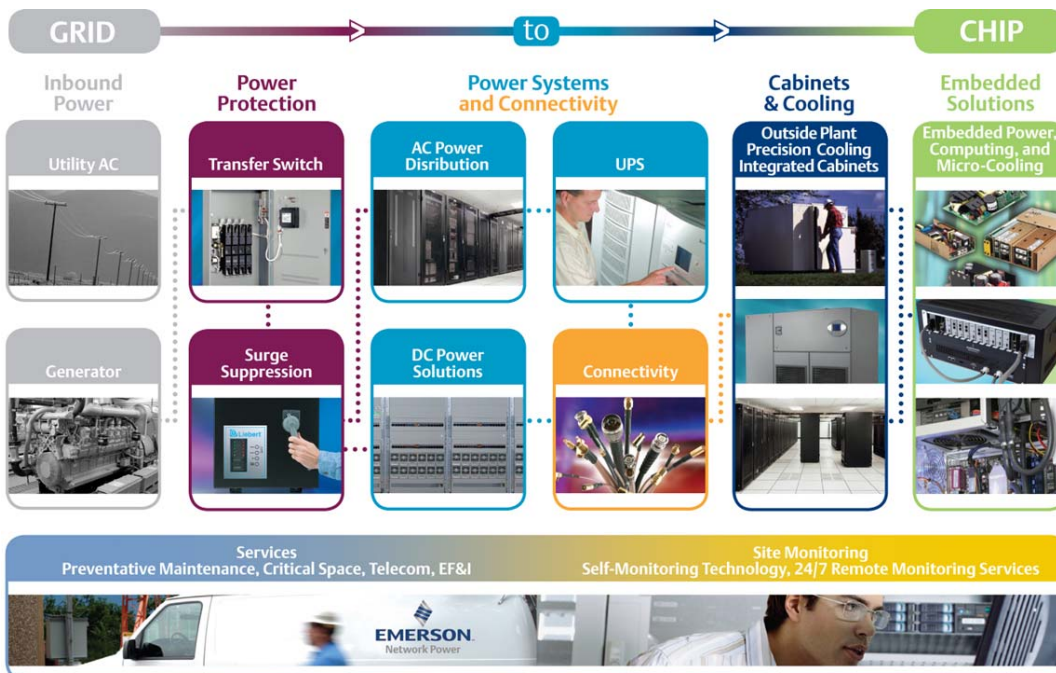


2016 Critical Facility Services Seminar

Hedrick Associates is happy to welcome Emerson / Liebert to Michigan for five seminars focusing on critical facility service solutions. These service discussions will focus on a variety of topics, including:

- **Emerson Network Power Equipment Service Organization capabilities** for maintaining optimal performance of uninterruptible power supply system (UPSs) and computer room air-conditioning equipment (CRAC Units). Discussion will also include additional service offerings to enhance operation and deliver higher degrees of equipment availability, such as Emerson LIFE services, proactive capacitor replacement for UPS systems, and computer room cleaning.
- **Partial discharge electrical testing, circuit breaker testing, transformer maintenance, and infrared scanning capabilities** for identifying potential problems in electrical distribution, without requiring downtime. These testing services provide a means to locate problems throughout an electrical distribution system that would otherwise not easily be detectable. With regular testing of this nature, many electrical failures that would cause downtime or a catastrophic failure can be avoided.
- **Efficiency and performance upgrade capabilities for existing UPS and CRAC units**, enabling legacy systems to take advantage of newer component technologies being deployed on today's new products. These upgrades not only facilitate better performance, but also provide added predictive monitoring and control capabilities.

Emerson — What We Do...



~ Seminar Dates ~

- Monday February 29, 2016**
Traverse City, MI
Hagerty Center
715 East Front Street
- Tuesday March 1, 2016**
Grand Rapids, MI
Buffalo Wild Wings
8 Ionia Avenue NW
- Wednesday March 2, 2016**
Lansing, MI
Crowne Plaza
925 South Creyts Road
- Thursday March 3, 2016**
Kalamazoo, MI
Radisson Plaza Downtown
100 West Michigan Ave
- Friday March 4, 2016**
Fort Wayne, IN
Courtyard Fort Wayne
1150 Harrison Street

~ Seminar Schedule ~

- Seminar Registration: 3:00pm
- Seminar Session #1: 3:30-4:15pm
- Seminar Session #2: 4:15-5:00pm
- Seminar Session #3: 5:00-5:30pm
- Seminar Session #4: 5:30-5:45pm
- Cocktails / Discussion: 5:45 -

Seminar is Free

CEUs Available!!



Hedrick Associates
2360 Oak Industrial Dr. N.E.
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Justification for Investing in Testing

WHY TEST CIRCUIT BREAKERS?

They fail. A survey by Hartford Insurance Company found that air circuit breakers represent 19.5% of electrical power system failures. Test results on circuit breakers by NETA (InterNational Electrical Testing Association) firms show over a 15% failure rate.

Defective circuit breakers can allow extensive damage, personal injury, or make an outage more widespread when a fault occurs. They can also trip when they shouldn't, causing expensive downtime.

There is no way to know if a circuit breaker will operate properly under fault or overload conditions unless it is tested, preferably by a primary injection test. (Refer to NEMA Standard AB 4 "Guidelines of Inspection and Preventive Maintenance of Molded Case Circuit Breakers Used in Commercial and Industrial Applications.")

WHY CONDUCT ARC FLASH STUDIES?

Failure to comply can result in OSHA fines, and your company can be exposed to liability risks if an employee or contractor is harmed in an arc flash incident.

Risks can include:

- Personal injury/death (including third parties).
- Equipment damage, revenue or job loss.
- Increased insurance premiums.
- Personal and/or corporate liability.
- Regulatory agency fines.

WHY CONDUCT INFRARED THERMAL IMAGING?

- Protects against catastrophic losses due to equipment failures from electrical fires or other serious conditions by finding problems, indicated by excessive heat, not typically found using traditional maintenance methods.
- Reduces equipment failures, protecting the customer's capital investment in equipment.
- Promotes safety in the workplace, eliminating exposure of personnel to faulty equipment circuit failure.
- Non-invasive, non-disruptive service is performed on energized equipment, therefore no need to interrupt data center operations.

WHY TEST GROUND FAULT PROTECTION?

Because performance testing is required by National Electric Code (NEC) sections 230-95 (C) and 517-17 (D).

About 15% of ground fault protection systems tested by InterNational Electrical Testing Association (NETA) firms are improperly installed, contain defective components, or do not operate correctly.

WHY TEST GROUND ATS EQUIPMENT?

To ensure the integrity of an emergency or standby power system, it must be tested on a regular basis. An emergency power system is made up of several different electrical components. Generators, batteries, automatic transfer switches, manual transfer switches, uninterruptable power supply units and paralleling controls are all equipment that can be used to assemble an emergency power system.

One of the most misunderstood devices in an emergency power system is the Automatic Transfer Switch (ATS). ATS's automatically switch a load from a preferred source (normal) to a backup source (emergency) upon a normal source failure. Unfortunately, because of their complexity, ATS's are often not tested for fear that if there is a problem, it will disrupt the critical loads. Several ATS testing methods have been devised that don't actually test the ATS, but give the operator a false sense of equipment integrity. These methods create two problems. First, the testing does not teach the operator how to ensure that the ATS is operating properly. Second, an ATS problem will not show up until there is a critical need for the backup power system. Both of these conditions are unacceptable for a facility that has invested in a backup power system. It is better to discover an ATS problem during a controlled test rather than during an unexpected outage.

Proper Service Enables Business-Critical Continuity™.



A comprehensive service program, essential to continuous system availability:

- The most experienced and extensive customer engineer (CE) network
- Industry leader in next-generation data-center service solutions
- Total mission-critical service capabilities
- Proactive system updates



Delivering the fastest system recovery in the industry:

- Industry-best first-time fix rate
- Extensive inventory for parts availability
- Industry's most experienced technical support group
- Average on-site response time less than two hours



Most effective way to:

- Maximize product life
- Avoid the cost of business downtime
- Extend the useful life of critical infrastructure
- Maximize energy efficiency



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THIS SEMINAR IS FREE FOR ATTENDEES

NAME _____

COMPANY _____

ADDRESS _____

PHONE NO. _____

EMAIL ADDRESS _____

CHOOSE A SESSION

FEBRUARY 29TH IN TRAVERSE CITY

Hagerty Center

MARCH 1ST IN GRAND RAPIDS

Buffalo Wild Wings Downtown

MARCH 2ND IN LANSING

Crowne Plaza

MARCH 3RD IN KALAMAZOO

Radisson Plaza Downtown

MARCH 4TH IN FORT WAYNE

Courtyard Fort Wayne

Registration Begins
at **3:00PM** for ALL
Seminars



*Sonos Wireless Speaker Ruffled
at Each Event!!
Other Prizes Will Be Ruffled
As Well!!*

PLEASE REGISTER BY FEBRUARY 23RD

FAX OR E-MAIL THIS CONFIRMATION SHEET TO
ANN KNAUS AT HEDRICK ASSOCIATES

FAX: 616.259.0702
EMAIL: KNAUSA@HEDRICKASSOC.COM

