

Blending 21st Century Technology with Equipment Maintenance

Sunday, September 15, 2019
1:00 – 1:50 pm

TECHNICAL WORKSHOP



Rodney West
Schneider Electric

This session is eligible for 1 Contact Hour.

For these hours to appear on your certificate, you must:

- Have your badge scanned at the door
- Attend 90% of this presentation
- Fill out the online evaluation for this session:



TECHNICAL WORKSHOP



Speaker Introduction

- **Rod West, PE**
 - Senior Staff Engineer
 - SE External Affairs & Government Relations, Oxford, Ohio USA
 - Married with **5 DAUGHTERS!**
 - 28 years of experience in the Electrical Industry
 - Inventor on 11 US Patents for Electrical Equipment & Components
 - Licensed Professional Engineer (PE) in Indiana & Alabama
 - NAFI Certified Fire and Explosion Investigator – CFEI
 - Chairman - Board of Directors, Whitewater Valley REMC
 - Active Member of:
 - Electrical Section of NFPA
 - NEMA LVDE 04
 - IEC 60439-2 Maintenance Team
 - NEC – NEMAs Principal on Code Making Panel #8
 - **70E – Principal on Technical Committee**



TECHNICAL WORKSHOP 

Presentation Goals

- Identify trends in products, codes and standards that impact maintenance.
- Understand how readily accessible information gives insight into the operating condition of electrical equipment
- Discuss how initial troubleshooting and real-time diagnostics can be performed without ever removing a cover
- Describe how advanced alarming and notifications can be used to schedule maintenance and reduce downtime.

TECHNICAL WORKSHOP 

What is a Hazard?

- A **Hazard** is a source of possible injury or damage to health
- Two primary hazards associated with electricity
 - **Shock** occurs when electric current passes through the body.
 - **Arc Flash** occurs when electric current passes through plasma/ionized air.
 - Arc Blast is also a hazard, but is an outcome of the arc flash event
- NFPA 70E requires workers to assess and address **both** types of hazards: **Shock and Arc Flash**

TECHNICAL WORKSHOP 

What is Risk?

- **Risk** is a combination of **likelihood** and **severity**.

– **Results from a hazard**



- One of the biggest changes we have seen in NFPA 70E is the inclusion of a **risk based** approach.
- Risk is controlled using a hierarchy of risk control methods.

TECHNICAL WORKSHOP 

Risk is a combination of **likelihood** and **severity**



What's the risk? Does the guarding reduce likelihood or severity?

TECHNICAL WORKSHOP

