



The Iowa-Illinois Section Presents

**A Workshop on Arc Flash Hazard Analysis**

Tuesday, October 7, 2008

8:00 a.m. to 5 p.m.

Radisson Quad City Plaza Hotel and Conference Center

111 East Second St

Davenport, Iowa



Presented by  
Thomas P. Smith, P.E.  
Power Systems Analysis

## SYNOPSIS

This workshop, provided by Power Systems Analysis:

- Is intended for electric power engineers responsible for the design and analysis of electrical distribution systems.
- Will familiarize engineers with the arc flash hazard industry standards, calculation procedures and design mitigation techniques.
- Will familiarize engineers with field labeling options typically used in industry, labeling pitfalls and simplified labeling guidelines.
- Includes practical problem solving exercises for the participants.

## WHO SHOULD ATTEND?

Design, Plant and Project engineers responsible for defining the potential arc flash hazards throughout an electrical distribution system, and/or responsible for labeling the equipment which comprise these systems.

## INFORMATION ABOUT THE INSTRUCTOR

### **THOMAS P. SMITH, P.E.**

Mr. Smith, of Power Systems Analysis, received his B.S. in Electrical Engineering in 1982, and his B.S. in Education in 1981 from the University of Nebraska. Mr. Smith has over 20 years of electric power systems design and analysis experience. Mr. Smith began his career at the Omaha District offices of the U.S. Army Corps of Engineers in 1983 as a design engineer. In 1988 Mr. Smith joined Gilbert/Commonwealth where he performed a wide variety of power system studies for industrial and utility clients. He has served as a private consultant since 1995. He annually prepares and teaches several seminars in power systems design and analysis. Mr. Smith is a Registered Professional Engineer and a member of the I.E.E.E.

## COURSE MATERIAL

Each participant will receive a course binder, copy of NFPA-70E and certificate. Participants will receive 8 PDHs for successful completion of this workshop.

# WORKSHOP OUTLINE

## Review:

- Arc Flash Hazard History
- Industry Standards

## Explore:

- Arc flash hazard calculation methods
  - NFPA 70E Table Method
  - NFPA 70E Calculation Method
  - IEEE 1584 Calculation Method
- Calculation boundary conditions
- Single and multiple fault source calculation examples
- Line-Side energy levels
- When are line-side energy levels appropriate

## Learn:

- Good design practices
- Design practices to avoid
- Good protective device sizing and setting practices
- Protective device sizing and setting practices to avoid
- Good arc flash study techniques
- Spotting bad arc flash study techniques
- Good field labeling practices
- Field labeling practices to avoid

## REGISTRATION AND LOCATION INFORMATION

### Workshop Location

October 7, 2008  
Radisson Quad City Plaza Hotel and Conference Center  
111 East Second St  
Davenport, Iowa

For hotel reservations, call 1-800-333-3333 or 563-322-2200. Mention the workshop to receive the group rate. Please make your room reservation well in advance.

Cost of the workshop is **\$150.00**, for **non-members**, and **\$100.00**, for **IEEE members**, payable by check to IEEE IA-IL Section. Continental breakfast, lunch and break refreshments provided.

Space is limited, and available on a first-come basis. It is recommended to sign up early. Please indicate whether you are an IEEE member when you sign up.

**Participants will earn 8 Professional Development Hours (PDHs) for attending.**

For more information, contact:  
Muhammed Rahim  
MidAmerican Energy Company  
563-333-8677  
Fax: 563-333-8112  
E-mail: iowa-illinoissecretary@ieee.org

### REGISTRATION FORM

Name \_\_\_\_\_ Title \_\_\_\_\_

E-mail address \_\_\_\_\_ Fax \_\_\_\_\_

Company \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Registration deadline is **August 1**.

Please return this form, along with your check made payable to IEEE IA-IL Section, to:  
IEEE Workshop, ATTN: Muhammed Rahim, MidAmerican Energy Company,  
P. O. Box 4350  
Davenport, IA 52808