

Electrical Protection for Power Distribution Systems

October 6-7, 2003 • Toronto, ON
Days Hotel and Conference Centre - Toronto Airport

This course has been specifically designed for electric utility engineers, consultants and others involved in the selection and coordination of overcurrent protective devices used in medium-voltage electric power distribution systems. Facilities engineers engaged in the selection of devices for protecting small power transformers, as well as the coordination of those devices with both source-side and load-side protective devices, will also benefit from the seminar.



Protection of distribution power systems requires an understanding of system faults and their detection, as well as their safe disconnection. This course presents a comprehensive and systematic description of the concepts and principles of operation and application of protection schemes for various power system elements. The course begins with an overview of power system faults, short circuit calculations, components of power system protection schemes, as well as a full session on microprocessor-based relays and their application.

Course Instructor:

Alan Wing, P.Eng., Siemens Canada

• course focus

Power System Faults
Short Circuit Theory
Fault Studies
Components of Power System Protection Schemes
Current Transformers (CTs) & Voltage Transformers (VTs)
Co-ordination of Electrical Protection Systems
Feeder Overcurrent Protection
Transformer Protection

before September 29th only \$599.00 + 41.93 GST

Electrical Power Distribution Equipment and System Commissioning and Acceptance Testing

October 14-15, 2003 • Calgary, AB
Holiday Inn Calgary Downtown

October 16-17, 2003 • Edmonton, AB
Coast Terrace Inn

October 23-24, 2003 • Vancouver, BC
Holiday Inn Vancouver Centre

November 4-5, 2003 • Toronto, ON
Holiday Inn Toronto Airport East

November 25-26, 2003 • Saskatoon, SK
Saskatoon Inn and Convention Centre

November 27-28, 2003 • Winnipeg, MB
Radisson Winnipeg Downtown

BONUS

Delegates to this course will receive the 2003 edition of the International Electrical Testing Association's (NETA) "Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems" Guidebook, FREE as part of the course materials package!



The start up of any electrical system for the first time, regardless of its size, type or industry, is a very special occurrence and poses some unique challenges to electrical personnel. Inexperience and poor planning will inevitably result in prolonged delays in the start up which can lead to costly productivity losses. This course provides invaluable information to anyone who wishes to know and understand the role of Acceptance Testing,

Commissioning and Start-up of Electrical Power Distribution Systems. The importance of planning and preparation for the project, from engineering to commissioning and start-up, will be emphasized. This course deals with safety considerations and testing and start-up procedures for all the components of any electrical system. The course leader will also offer useful guidelines on what to do when things go wrong during this phase of a project.

Course Instructor:

Kerry Heid, Magna Electric

• course focus

Understanding Electrical Drawings
Test Equipment Overview
Power Cable Acceptance Testing
Relaying Protection Commissioning
Substation Equipment Acceptance Testing
Transformer Acceptance Procedures
Distribution Switchgear Commissioning
Plant Start Up, Documentation, & Safety Considerations
The Electrical Power Distribution Equipment and System Commissioning and Acceptance Testing course

early bird registration fee \$599.00 + 41.93 GST
(8days prior the course date)

Substation Testing and Maintenance

November 17-18, 2003 • Vancouver, BC
Holiday Inn Vancouver Centre

November 19-20, 2003 • Edmonton, AB
Best Western Cedar Park Inn

October 23-24, 2003 • Vancouver, BC
Holiday Inn Vancouver Centre

December 1-2, 2003 • Toronto, ON
Best Western Carlton Place Hotel



Participants will cover the maintenance and testing requirements for common substation devices, including power transformers, oil, air and vacuum circuit breakers, switchgear, ground grid systems, batteries, chargers and insulating liquids. This course focuses on what to do, when to do it and how to interpret the results from testing and maintenance. This course will be of benefit to supervisors, field engineers, plant engineers, technicians and others with the responsibility for the specification of the maintenance, testing and evaluation of the most common types of substation devices rated from 2.3kV to 230kV.

Course Instructor:

Fred Tanguay, Black & McDonald

• course focus

The Substation As A System
Circuit Breaker Maintenance
Insulating Liquids
Transformers
Lightning Arrestors
Protective Relays
Ground Grid Systems
Batteries and Chargers

early bird registration fee \$599.00 + 41.93 GST
(8days prior the course date)

• **hotel reservations**

A special bedroom rate (non-commissionable) has been arranged with each hotel. To receive this rate, inform the hotel that you are a forum delegate when making reservations.

Days Hotel and Conference Centre
(Toronto Airport)

6257 Airport Rd., Mississauga, ON
905-678-1400

Holiday Inn Downtown
119-12th Ave. SW, Calgary, AB
Tel: 403-266-4611

Coast Terrace Inn
4440 Calgary Trail North, Edmonton, AB
Tel: 780-437-6010

Holiday Inn Vancouver Centre
711 West Broadway, Vancouver, BC
604-879-0511

Holiday Inn Toronto Airport East
600 Dixon Road, Toronto, ON
Tel: 416-240-7511

Saskatoon Inn and Convention Centre
2002 Airport Dr., Saskatoon, SK
Tel: 306-242-1440

Radisson Hotel Winnipeg Downtown
288 Portage Ave., Winnipeg, MB
Tel: 204-956-0410

Holiday Inn Vancouver Centre
711 West Broadway, Vancouver, BC
604-879-0511

Best Western Cedar Park Inn
5116 Gateway Blvd, Edmonton, AB
Tel: 780-434-7411

Best Western Carlton Place Hotel
33 Carlson Court, Toronto, ON
Tel: 416-675-1234

• **air flight information**

We have appointed Air Canada as the official airline of our 2003 forums. Simply contact Air Canada's North America toll free number at 1-800-361-7585 or local number 514-393-9494 or your travel agent and take advantage of Special Discounted Airfares. Our convention number is CV030381.

• **cancellation and refund policy**

Registration fees are refundable only upon receipt of written notification 10 days prior to the conference date, less a 10 per cent service charge. Substitution of participants is permissible.

The Canadian Electricity Forum reserves the right to cancel any conference it deems necessary and will, in such event, make a full refund of the registration fees.

**Continuing Education Units (CEUs)
Offered for the courses**



Successful completion of this course qualifies delegates to receive a certificate of course completion with indicated CEUs. CEUs are granted by the Engineering Institute of Canada. One CEU is equivalent to 10 professional development hours of instruction.

• **registration fees**

The registration fee to attend the course is \$649.00 + 51.92 GST. Register and prepay 8 days prior to the course date and receive an early bird registration fee of \$599.00 + 41.93 GST per delegate. Companies registering 3 delegates at the regular price (\$649.00) will receive a 4th registration **FREE**.

The fee includes forum participation, a forum materials package, refreshments and luncheons on both days. (GST #R105219976)

5 easy ways to register:

- phone **1-905-686-1040**
- fax **1-905-686-1078**
- e-mail hq@electricityforum.com
- online www.electricityforum.com/forums.htm
- mail **The Electricity Forum**
15 Harwood Ave. S., Suite 204
Ajax, ON L1S 2B9

YES, Register me now for the course:
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- Substation Testing and Maintenance
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- November 25-26, 2003
- November 27-28, 2003

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Signature _____

Card Holder name (if not registrant)
