



Basic Electrical Motor Controls

&

VFDs Course

September 28, 2020

Halifax, NS

Objective:

To provide the water and wastewater personnel with a basic understanding of basic electrical theory, introduction to motor controls, VFDs and safety practices.

Basic Electrical Terms, Definitions & CEC

- What is electricity
- Voltage; Amperage/Current; Resistance; Power/Watts/Kilowatts; Horsepower; Torque
- CEC – Definitions; overview of Sections and Tables

Ohm's Law & Misc. Formulas

- Use Ohm's Law to determine Voltage, Amperage, Resistance, Power in a circuit
- Practice several formulas to determine power usage in a circuit/motor

Multi-meters & Meggers

- Multimeters... Voltage Testers; Ohmmeters; Current Meters
- Meggers
- Hands-on

Motors, Motor Starters, Soft Starters, VFDs

- Understanding basic construction of three phase motors
- Determining the proper operation of three phase motors
- Overview of Contactors / Overloads / Starters (Auxiliary Contacts, Coils, etc)
- Introduction & overview to Soft Starters
- Introduction & overview to VFDs
- Static displays of Motor Controls, Soft Starters & VFDs
- VFD demonstration with programming of parameters

Applications & Troubleshooting

- Review various Applications
- Common causes of faults
- Nuisance tripping of Motor Controls
- Preventative Maintenance
- Knowing when to bring in the experts

Electrical Safety

- Proper PPE
- LOTO – Lock Out Tag Out
- Knowing how to protect yourself and others
- Understanding the dangers of electricity
- Knowing your limits

PRESENTER:

Dave Galbraith- Samson Equipment

COURSE FORMAT:

Every attempt is made to keep the course informal and an enjoyable day-long training experience. Registration starts at 8:00 am, and the instructor will start shortly after 8:30. Wrap-up time is usually around 4:00 pm. Though all workshops are non-smoking, ample breaks are provided for coffee and discussion.

CONTACT INFORMATION:

Registration can be made by faxing or mailing the registration form on the reverse of this page, or on-line at www.acwwa.ca. For further information, please contact ACWWA Section office at 902-434-6002.

COURSE LOCATION:

Halifax Water
455 Cowie Hill

Basic Electrical Motor Controls & VFDs Course

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Halifax, NS

Name: _____

Organization: _____

Mailing Address: _____

City, Province: _____ Postal Code: _____

Phone: _____ Email: _____

ACWWA Membership No: _____ WEF Membership No: _____

If no membership number is listed, you will be invoiced as a non-member. See pricing below.

Fee for ACWWA or WEF Members & Employees of UTILITY Members

Course: \$250.00 + \$37.50 HST = \$287.50

Fee for Non – Members

Course: \$275.00 + \$41.25 HST = \$316.25

Fees include coffee breaks and lunch.

Invoices will be sent to the address listed above.

PO number to be included on the invoice _____

Payment can be made by Visa, Master Card or cheque.

Card Holder's

Name _____

Credit Card Number _____ Expiry _____

Signature _____

Email address for credit card receipt _____

Cheques should be made payable to:
ACWWA
PO Box 28141 · Dartmouth, NS · B2W 6E2
Phone 902-434-6002 Fax 902-435-7796