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Power Quality Considerations for Energy Efficiency Retrofits???????

Course details: https://www.electricityforum.com/electrical-training/436

Power Quality Considerations for Energy Efficiency Retrofits - This 6-hour live online, instructor-led course will provide an understanding of potential equipment interactions often encountered when making energy efficiency improvements as well as methods to avoid common pitfalls.

Here are some highlights:

- Replacing motor starter with adjustable speed motor drive
- LED/high-efficiency lighting upgrade

This course is applicable to electrical industry professionals serving either industrial, commercial and institutional power systms. For maximum benefit of this course, students should have an understanding of basic electrical principles such as Ohms law, power, electrical metering, motors, and general electrical equipment and systems and a working knowledge of basic algebra.

Related Courses

Power Quality Analysis Training

Power Quality Troubleshooting and Problem Solving

Power Quality and Harmonics Training

Power Quality in Motor Control Applications

Power Factor Correction Training

WHO SHOULD ATTEND

- Industrial, Commercial, Institutional Electrical Engineers, And Electrical Maintenance Personnel
- Consulting Electrical Engineers
- Project Engineers
- Design Engineers
- Field Technicians
- Electrical Technicians
- Plant Operators
- Plant Engineers
- Electrical Supervisors
- Managers In Charge Of Plant Electrical Infrastructure

STUDENTS RECEIVE

- This Course Includes Our Latest Power Quality And Grounding Handbook!! (Value $20)
- **$100 Coupon** Toward Any Future Electricity Forum Event (Restrictions Apply)
- 0.6 Continuing Education Unit (CEU) Credits (6 Professional Development Hours)
- **FREE** Magazine Subscription (Value $25.00)
- Course Materials In PDF Format

COURSE OUTLINE

Power Quality Considerations for Energy Efficiency Retrofits - Course Outline

1. Efficient & Effective use of Electricity

- Efficient vs effective use of electricity
- Common energy efficiency improvements
- Preparing for energy efficiency improvements
- Evaluate power factor
- Beware: false energy savers

2. Convert (across-the-line) Motors to VFDs

- Potential benefits of VFDs
- Fan/pump affinity laws = energy savings
- Improved displacement power factor
- Power quality concerns for VFDs
- Harmonic distortion
- Effects on other equipment (ie: Power factor capacitors)
- Harmonic resonance
- Detuned PF capacitors
- Estimation of Power factor capacitor needs
- Estimation of current distortion

3. Example

- (Chiller) Motor starter to VFD retrofit
- Best practices when converting to VFDs

4. Lighting Retrofits

- Typical power quality for LED & CFL
- Harmonic current distortion
- Examples of Lamp waveforms
- Comparison of various 60W equivalent lamps
- LED driver measurements
- Potential Problems
- Harmonic distortion
- Neutral current (3P,4W systems)
- Remedies for improved power quality

Examples

- 267 sconces being converted to CFL
- Factory lighting conversion
- Office building VFD and LED retrofit
- Telephone Data-center (time permitting)

Troubleshooting & Best Practices

COURSE SCHEDULE:

Start: 10 a.m. Eastern Time
Finish: 4:30 p.m. Eastern Time

Contact us Today for a FREE quotation to deliver this course at your company’s location.

https://www.electricityforum.com/onsite-training-rfq