Substation Battery System Testing and Maintenance

Batteries are complex electrochemical devices critical to the safe and immediate response of every substation to a fault condition. This 5 day Mobilelectrical hands on training program will train engineers, electricians and others how to maintain and test stationary batteries, utilising the latest standards of CSA, NFPA, IEEE and NETA, and troubleshoot battery chargers. This course is customized to the equipment of each client and the levels of each learner to ensure maximum skill transfer and participation. Participants will conduct load, impedance, conductance and other tests on various battery strings, analyze the data and judge the results. Participants will also learn the operation and failure modes of their battery chargers and how to troubleshoot them.

INTRODUCTION TO SUBSTATION STATIONARY BATTERIES
- Safe Battery Testing and Maintenance
- First Aid
- CSA Z462 Requirements
- Recycling
- IEEE 1657-2009

Recommended Practice for Personnel Qualifications for Installation and Maintenance of Stationary Batteries
- Basic Battery Review
- Battery Chargers
- Testing
- Documentation
- Cable management

1-800-205-8855 www.mobileelectrical.com
Failure Modes
Maintenance
Test Description and Schedule
Procedure for Battery Tests
Battery Replacement Criteria
NETA Maintenance Testing Specifications
   Visual and Mechanical Inspection
   Electrical Tests
   Test Values
   Records
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IEEE 1106-2005 RECOMMENDED PRACTICE FOR INSTALLATION, MAINTENANCE, TESTING, AND REPLACEMENT OF VENTED AND SEALED NICKEL-CADMIUM BATTERIES FOR STATIONARY APPLICATIONS

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BATTERY CHARGERS
DC Control Systems
Types of Charger
Charger Functions and Components
Failure Modes
Charger Troubleshooting
Ground Fault Locating

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