



Batteries and Battery Chargers

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This five-day course begins by reviewing the principles of large battery operation. Battery terms are then explained, followed by battery safety topics, battery maintenance, and uninterruptible power supply operation.

I. Principles of Large Battery Operation

- Construction
- Electrolytes
- Chemical Reactions
- Battery Operations

- Loss of Normal AC Source (Role of the Battery)
- Power Conditioning

II. Battery Related Terminology

- Battery Voltages
- Specific Gravity
- Battery Capacity

III. Battery Safety

- Specific Battery Hazards
- Electrolyte Precautions
- Electric Shock Precautions
- Hydrogen Gas Precautions
- Battery Storage and Transportation

IV. Battery Maintenance

- Preventive Maintenance Requirements
- Battery Replacement/Removal
- Cell Jumpering

V. Uninterruptible Power Supply (UPS) Operation

- Purpose and Applications
- Role of the Battery
- Normal Operation