

# Siemens-Allis TLH-20 & TLH-21 Training Class

PROVEN MAINTENANCE, CALIBRATION AND OPERATION TECHNIQUES

*Leading electricity providers know it takes more than field technicians and a dispatch center to properly maintain critical power system assets that make up their transmission and distribution systems. To be effective, your team needs to acquire knowledge and product specific skills to allow them to accurately troubleshoot and repair this equipment.*

*Recognizing the demand in the electric power industry for a structured program that teaches these critical skills, we developed a comprehensive series of LTC maintenance training courses. Two of the models on which we can help are the Siemens-Allis TLH-20 and TLH-21.*



## WHAT WE COVER

### The Basics

- Theory of Tap Changer Operation
- Unit and Model Identification
- Differences Between the TLH-20 and TLH-21
- Timing and Calibration
- Sequence of Operation
- Recommended Maintenance Intervals
- Neutral Position
- Unit Checks
- Maintenance Field Inspections
- Troubleshooting Overall Unit

### Critical Components

- Selector Switch
  - Installation
  - Alignment
  - Rebuild
- Reversing Switch
  - Operation
  - Purpose
  - Standard reversing switch
  - Isolated reversing switch
- Quick Break Mechanism
- Oil Compartment Mechanical Components



TLH-21 Moveable and Stationary Contacts



TLH-21 Moveable Contacts in Bridging Positions

## WHO SHOULD ATTEND

Field service technicians, relay technicians, substation technicians and engineers with maintenance and testing responsibilities for utilities can benefit from this class as well as supervisors and others who have responsibility for the testing and maintenance performed by contractors.

## COURSE STRUCTURE

Training courses can be held at one of our training centers, off-site at regional locations across the U.S./Canada or at a customer's site. For customer on-site training, our training team coordinates shipment of required training equipment and conducts courses at the customer's facility, eliminating the need for customer travel. All training models were once fully functioning in the field, totally refurbished for use in these classes.

Each student receives a course manual that is theirs to keep with easy-to-use field reference guides along with many pages of technical resources. Our staff has compiled the information from personal experience as well as from that of utility-recognized experts on specific makes and models. Our qualified instructors teach each course, providing many years of experience to properly train your maintenance team.

Class sizes are limited to 15 students to maximize participants' hands-on learning time and interaction with instructor(s). Contact us for customized class sizes and/or specialized training.



CALL 800-338-5526

VISIT [www.waukeshatraining.com](http://www.waukeshatraining.com)

SPX TRANSFORMER SOLUTIONS

9011 Governors Row | Dallas, Texas 75247