



NERC Transmission Operator Certification

Background

This class will be delivered over a 4.0-day period and is intended to assist system personnel in preparing to take the NERC Transmission Operator Certification Exam. The class will begin with an overview and review of interconnected operations from a Balancing, Transmission, and Reliability perspective. Participants will then be taken through the NERC Standards and provided with an explanation of how they relate to real-time operations. The course material is intended to not only cover the specifics of the standards, but also to identify their application to real-time operations. Daily quizzes are distributed and reviewed.

Course Level

Not Applicable

Target Audience

This class is intended for System Operators and any personnel who are preparing to obtain a NERC Transmission Operator Certification Credential. This preparation will assist those individuals who are seeking their initial credential as well as those seeking re-certification. The class will be based on the NERC Standards, the NERC Restoration Reference document, and elements contained in the Transmission Operator Certification Exam Content Outline.

NERC Continuing Education Hours

32.0 CEHs – Total
24.0 CEHs – Standards
32.0 CEHs – Ops Topics
0.0 CEHs – Sim

NERC Emergency Training Requirement

32.0 hours of Emergency Operations

NOTE: NERC CEHs will only be awarded to those participants who already possess a NERC Credential. Participants taking the class for the purpose preparing for taking their certification exam, will not be awarded CEHs, but may use the hours for their EOP requirements.

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Class Content

Operations Review

The module is intended to ensure that the participant has the working knowledge of system operations with regards to system balancing and transmission operations. The module explores the basic operating principles of maintaining a safe and reliable electric grid. The module explains the concepts of operating a balancing area in accordance with good utility practices and NERC guides. This includes: generation operation, tie-line control, inadvertent power flow, area control, time error, and so on. In addition, the module covers the aspects of operating the transmission system and maintaining transmission facilities within established operating parameters. This includes: transmission equipment, operating limitations, voltage control, thermal control, and operations coordination. Operations review also includes aspects related to system restoration and elements identified in the NERC Restoration Reference document.

Operational Functions

The intent of the module is to provide the participant with an overview to the migration in the industry from the control area to the organizations defined in the NERC Functional Model and addressed in the NERC Standards. The module will address all of the functions addressed by the standards and provide an explanation of their roles and responsibilities. The module is intended to prepare the participant with the functional role of the organizations in order to better understand the applicability of the standards.

Standards Review

The module begins with an explanation of the standards development and then proceeds to identify the applicability, requirements, and measures associated with the NERC Standards as they relate to the system operator and real-time system operations. The Standards addressed will be covered from a Transmission Operator perspective and include:

- TOP - Transmission Operations
- VAR - Voltage and Reactive
- EOP - Emergency Preparedness and Operations
- PRC - Protection and Control
- IRO - Interconnection Reliability Operations and Coordination
- BAL - Resource and Demand Balancing
- CIP - Critical Infrastructure Protection
- COM - Communications
- PER - Personnel Performance, Training, and Qualifications

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Course Follow Up

Upon completion of this course, attendees now receive a free subscription to the appropriate NERC TEST TRAK™ program. For this reason, OES-NA strongly recommends that course attendees do not schedule to take their certification exam for at least one week after completing this course. Completion of NERC TEST TRAK™ will reinforce material covered in the course and better prepare individuals for the testing experience!

Classroom Schedule

Day 1 - 8:00 AM to 5:00 PM (Lunch provided)
Day 2 - 8:00 AM to 5:00 PM (Lunch provided)
Day 3 - 8:00 AM to 5:00 PM (Lunch provided)
Day 4 - 8:00 AM to 5:00 PM (Lunch provided)

Attendee Requirements

Attendees must sign-in for the training activity in accordance with the attendance verification process stated:

- Attendees are required to sign-in on the course sign-in sheet
- Attendees are required to provide their NERC SO Certification # on the sign-in sheet, if applicable
- Attendees are required to provide a photo ID as proof of identity
- Attendees must participate in all course activities
- Attendees must complete the activity assessment.
- Attendees must submit a course evaluation form

NERC Related Reliability Content Outline Tasks

All elements of the content outline as they relate to the NERC Standards

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