DIRECT CONNECT

REMOTE LEARNING

Course Offerings

Course Offerings

Congestion Management

This 1-day course is designed for real-time system operating personnel. The course is comprised of four training modules covering the areas of:

- Real Power Transfer
- Transfer Limitations
- Mitigation Techniques and Equipment
- System Operator Actions

This course is intended for real-time system operators and support personnel operating on the Bulk Electric System who wishes to expand their knowledge and enhance their related skills associated with congestion management. It is intended to provide attendees with the necessary training to understand the concepts and utilize the skills in performing their day-to-day tasks.

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 0.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 3.0 CEHs

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Emergency Reporting

This 1-day course is designed for real-time system operating personnel. This course is comprised of three training modules covering the following areas:

- NERC Standards related to Emergency Operations
- Emergency/Disturbance Response
- Emergency/Disturbance Reporting Requirements

This course is intended for real-time system operators and support personnel operating on the Bulk Electric System who wish to expand their knowledge and to enhance their skills associated with emergencies/disturbances. Our goal is to provide attendees with the necessary training to understand the concepts and to utilize the skills taught in performing their day-to-day tasks.

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 2.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 4.0 CEHs

Course Offerings

Generation Ops & Frequency

This 1-day course is intended to provide system operators with necessary training to understand the concepts of controlling generation on the Bulk Electric System. The course activities will include lecture, related exercises, group discussions, simulation demonstrations, and other content related activities.
This course is comprised of three training modules covering the following areas:

- NERC Standards related to balancing
- Generation equipment
- Generation Control &Balancing Concepts

This course is intended for:

- New operators to the system that will have the responsibility of generation control
- Transmission operators who want to expand their knowledge of generation control
- Individuals who desire the overall philosophy of controlling generation and its impacts to the Bulk Electric System

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 2.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 2.0 CEHs

Meeting Daily Challenges I

This 1-day course is intended to provide system operators with knowledge and operating principles to survive the daily challenges of operating in the control center. The course is related to Generation Operations and includes the following content: Operator Responsibilities, Generation Control Concepts, Resource Scheduling, System Reserves, Disturbance Control Conditions. This course delivery includes extensive interaction with both exercises and simulator scenarios.

This course is intended for:

- System personnel that have the responsibility for generation operations
- Individuals who desire insight into the daily challenges of Control Room personnel related to generation

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 1.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 2.0 CEHs

Meeting Daily Challenges II

This 1-day course is intended to provide system operators with knowledge and operating principles to survive the daily challenges of operating in the control center. The course is related to Transmission Operations and Switching and includes the following content: Operator Responsibilities, Transmission Control Concepts, Voltage Control, Thermal Control, Generation Shift Factors, Switching Considerations, Switching Order Prep, and Contingency Analysis. This course delivery includes extensive interaction with both exercises and simulator scenarios.

This course is intended for:

- System personnel that have the responsibility for transmission and switching
- Individuals who desire insight into the daily challenges of Control Room personnel related to transmission and switching

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 0.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 3.0 CEHs

Operations Through Simulation I

This 1-day course is designed to provide students with an opportunity to implement mitigating actions in a simulated environment on a generic system simulator. The course includes a wide scope of system conditions that must be mitigated. Each area of simulation is proceeded with a brief overview to the causes, actions, and responses required to return the system to a reliable state. The simulation conditions include the following: Voltage Control and Mitigation, Transfer Limitations and Congestion. This course is ideal for those NERC Certified Personnel to obtain their Simulation CEHs for maintaining their certification credential.

This course is intended for real-time System Operators, Support Personnel, and Generating Plant Personnel operating on the Bulk Electric System who wish to expand their knowledge and to enhance their skills associated with mitigating system conditions that pose reliability risks to the system. The goal is to provide attendees with the training and hands-on activity through simulation technology the opportunity to better understand operating concepts and to mitigate various operational conditions.

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 0.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 5.0 CEHs

Operations Through Simulation II

This 1-day course is designed to provide students with an opportunity to implement mitigating actions in a simulated environment on a generic system simulator. The course includes a wide scope of system conditions that must be mitigated. Each area of simulation is proceeded with a brief overview to the causes, actions, and responses required to return the system to a reliable state. The simulation conditions include the following: Relay Operation and Response related to UVLS, UFLS, and RAS, and System Restoration. This course is ideal for those NERC Certified Personnel to obtain their Simulation CEHs for maintaining their certification credential.

This course is intended for real-time System Operators, Support Personnel, and Generating Plant Personnel operating on the Bulk Electric System who wish to expand their knowledge and to enhance their skills associated with mitigating system conditions that pose reliability risks to the system. The goal is to provide attendees with the training and hands-on activity through simulation technology the opportunity to better understand operating concepts and to mitigate various operational conditions.

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 0.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 5.0 CEHs

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Voltage Control

This 1-day class is designed for real-time system operating personnel. The class is comprised of four training modules covering the areas of:

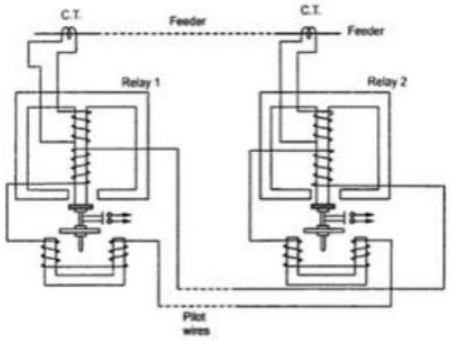
- Reactive Power
- Voltage Control
- Voltage Stability
- System Operator Actions

This class is intended for real-time system operators and support personnel operating on the Bulk Electric System who wishes to expand their knowledge and enhance their related skills associated with voltage control. It is intended to provide attendees with the necessary training to understand the concepts and utilize the skills in performing their day-to-day tasks.

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 0.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 2.0 CEHs

Course Offerings

System Protection



This 1-day course is intended to provide an overview to system protection utilized on the Bulk Electric System. It is intended to provide students with the basics understanding of relay protection. Topics covered in this course include fundamentals of system protection, construction and operation of system protection, various types of relays and their application, associated NERC Standards, and synchronizing equipment.

This course is intended for all Operating Personnel who are expected to have a working knowledge of protections schemes and their applications on the Bulk Electric System. The goal is to provide attendees with the training and hands-on activities through simulation technology the opportunity to better understand operating concepts and to mitigate various operational conditions.

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 2.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 2.0 CEHs

Restoration

This 1-day course is intended to provide an overview to the restoration process related to the Bulk Electric System. The Restoration course addresses the history of blackouts and their effect on society, types and characteristics of blackouts, causes of blackouts, associated NERC Standards, assessing system status, key elements for restoration of load and transmission, frequency control, and interconnection of islands. This course also addresses consideration for developing a System Restoration Plan and includes demonstration and exercises utilizing a system simulator.

This course is intended for all Operating Personnel who are expected to have a working knowledge of the system restoration process. The goal is to provide attendees with the basic knowledge of restoration principles and a hands-on opportunity through simulation technology to demonstrate the implementation process.

NERC Continuing Education Hours:
TOTAL: 6.0 CEHs - **Standards:** 1.0 CEHs - **Ops Topics:** 6.0 CEHs - **Simulation:** 3.0 CEHs