

Emergency Operations: Thinking Our Way Through!

ACTIVITY TITLE: Emergency Operations: Thinking Our Way Through!

TARGET AUDIENCE:

<input checked="" type="checkbox"/> Transmission Operator	<input checked="" type="checkbox"/> Market Operator
<input checked="" type="checkbox"/> Reliability Operator	<input checked="" type="checkbox"/> Operations and Planning Eng
<input checked="" type="checkbox"/> Balancing & Interchange	<input checked="" type="checkbox"/> Supervisor/Manager/Support
<input checked="" type="checkbox"/> Generator Operator	<input type="checkbox"/> Other _____

NERC CEHs:

Operating Topics CE Hours: 16.0

NERC Standards CE Hours: 0.0

Simulation CE Hours: 12.0

Professional Related CE Hours: 16.0

NERC EMERGENCY TRAINING HOURS: 16.0 hours

ACTIVITY SUBJECT MATTER:

<input checked="" type="checkbox"/> Basic Concepts	<input checked="" type="checkbox"/> Power System Restoration
<input checked="" type="checkbox"/> Power Transfer	<input type="checkbox"/> Market Operations
<input type="checkbox"/> System Protection	<input type="checkbox"/> Tools
<input checked="" type="checkbox"/> Interconnected Operation	<input checked="" type="checkbox"/> Operator Awareness
<input checked="" type="checkbox"/> Emergency Operations	<input checked="" type="checkbox"/> Policies and Procedures

DELIVERY SCHEDULE: Activity is expected to be delivered over a 2-day period. This 2-day period is expected to consist of two 9-hour days with 1 hour allotted for lunch each day. In accordance with NERC CEP criteria, a 10-minute break every hour can be accommodated. The activity assessment does not require any additional time allotment.

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A. ACTIVITY OVERVIEW

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 related to emergency operations. The activity reviews Critical Thinking Concepts, in addition to Crew Resource Management. The activity then explores Emergency Causes and Mitigating Actions associated with Transmission Loading Emergencies, Voltage Violation and Mitigation, Reactive Control Considerations, and Generation to Load Locations.

B. METHOD OF INSTRUCTION

The activity is expected to be delivered in an Instructor Led environment. The activity is expected to be delivered utilizing a PowerPoint presentation in conjunction with the various exercises that are integrated into the material. The activity also includes individual exercises on operational problems that must be solved using the processes identified in the lecture and the EPRI Generic Simulator.

C. ACTIVITY OBJECTIVES

Upon completion of this training activity, the trainee shall be able to:

1. Identify the key elements of critical thinking
2. Describe information quality checks
3. State the elements related to crew resource management .
4. Demonstrate the steps necessary to address operational situations .
5. Identify key information required for solving system problems
6. Describe causes and corrective actions related to thermal operating limit violations
7. Describe causes and corrective actions related to voltage operating limit violations

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D. ACTIVITY CONTENT

1. Critical Thinking Concept Review
2. Crew Resource Management
3. Emergency Causes and Mitigating Action
4. Transmission Loading Emergency
5. Voltage Violation and Mitigation
6. Reactive Control Considerations
7. Generation to Load Locations

E. ASSESSMENT VEHICLE

The activity assessments consist individual group exercises that occur during the classroom activities. The instructor maintains and documents the assessment by way of exercise check-off lists to assess each individual's participation and utilization of the lectured concepts in the exercises. These exercises are intended to allow for the demonstration that the stated objectives are satisfied.

F. MISCELLANEOUS ELEMENTS

Many of the exercises included in this activity require the utilization of the EPRI Generic Simulator.

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