

System Operating Procedures

SOP-RTMKTS.0200.0030

Administer System Operator Continuing Training Program

Effective Date: February 18, 2009
Revision No. 3

	© ISO New England Inc. 2007	Procedure: Administer System Operator Continuing Training Program
	Process Name: Real-Time Markets	
	Procedure Number: RTMKTS.0200.0030	Revision Number: 3
	Procedure Owner: Cheryl Robinson	Effective Date: February 18, 2009
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1. Objective

The objective of this procedure is to define and document the process Operational Performance and Training uses for administering the System Operator Continuing Training (SOCT) program.

2. Background

Operational Performance and Training, is responsible for providing training for System Operations personnel. Training Coordinators and Subject Matter Experts (SME) provide continuing training for the Control Room System Operators.


An annual process is used to design the next years continuing training program to ensure it meets the training needs identified by evaluation feedback, North American Reliability Corporation (NERC), Northeast Power Coordinating Council Inc. (NPCC), ISO New England (ISO) requirements and industry criteria.

The Operational Performance and Training group track the progress and status of the training given and the trainees.

The training program is developed and executed in accordance with NERC Standards, NPCC documentation, and ISO policy and procedures.

3. Responsibilities


1. The Director of Operations is responsible for the oversight of the training program.
2. The Manager, Operational Performance and Training (or designee) is responsible for:
 - A. Providing leadership for the training personnel to effectively plan, develop, organize, coordinate, evaluate and deliver training for the SOCT program.
 - B. Providing day-to day supervision of the following during the SOCT program:
 - Training Coordinator(s)
 - SME(s)
 - Senior Testing and Training Simulator Environment (TTSE) Coordinator(s)

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- C. Reviewing SOCT program training development plans.
 - D. Coordinating and scheduling the day-to-day training session development and delivery.
 - E. Establishing the responsibilities for Training Coordinators.
3. The Training Coordinators are responsible for:
- A. Coordinating and scheduling the day-to-day training session development and delivery.
 - B. Developing training for Control System Operators.
 - C. Ensuring accurate attendance records for all training given, including formal classroom training, TTSE sessions and on-shift training.
 - D. Transcribing attendance information into the Enterprise Learning Management System (LMS) database, ISO Training and Education Network (ISO-TEN)
 - E. Maintaining resources (presentations) used for training.
4. The TTSE Coordinator(s) (or designee) is responsible for:
- A. Maintaining the TTSE availability for the SOCT program.
 - B. Running the TTSE during training sessions.
 - C. Developing and delivering training using the TTSE for the SOCT program.

4. Controls

- The TTSE shall only be operated by qualified personnel
- Operational Performance and Training personnel or Subject Matter Experts shall provide the designated mandatory training

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5. Instructions

5.1 System Operator Continuing Training Program Goals and Objectives


1. The SOCT program goal is to provide a coordinated continuing training program that will ensure reliable system operation. The following criteria shall be used to administer this training:
 - The SOCT program is designed for the On-shift Control Room System Operators (System Operator, Senior System Operator, Shift Supervisor) at ISO New England based on the System Operator Job Description.
 - The SOCT program shall provide at least five (5) days per year of training and drills using realistic simulation of system emergencies (in accordance with NERC Standard PER-004) in addition to the other training required to maintain qualified Control Room System Operators.
 - The SOCT program shall offer at least 120 hours per year of continuing operator training with a goal of 160 hours per individual to ensure their operating proficiency.
 - Operations Management shall determine the SOCT program training required to maintain qualified Control Room System Operators, based on shift coverage and individual personnel training needs.
2. A set of training objectives shall be developed for each course based on NERC, NPCC, ISO Operating Procedures, regulatory requirements or the tasks and functions described in the System Operator job descriptions as applicable.

5.2 Program Description

1. The annual SOCT program shall consist of mandatory and non-mandatory training cycles.
2. Each SOCT course shall be evaluated in accordance with SOP-RTMKTS.0200.0010 – Administer Operations Training.
3. The SOCT program shall provide classroom presentations and/or self-study topics appropriate to the safe, reliable and economic operations of the bulk power system.

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4. Self-directed and Computer Based Testing (CBT) may be used in portions of the SOCT program.
5. The SOCT program shall maximize, to the extent possible, skill-based training in the TTSE:
 - A. The training shall emphasize operation of applications to securely and economically monitor and operate the bulk power system and practice in responding to abnormal and emergency operating conditions in accordance with appropriate procedures.
 - B. The training shall focus on both individual functions and crew responses to emergency conditions in order to reinforce team skills of the Control Room System Operators in emergency conditions.
6. The TTSE shall be used to provide an environment to practice operational aspects of the Control Room System Operator positions:
 - The TTSE shall be used to direct appropriate actions to evaluate and stabilize the transmissions system by using the following: Energy Monitoring System (EMS) alarms and indications
 - SCADA readings, including alarm conditions
 - Real-Time Network (RTNET) and Real-Time Contingency Analysis (RTCA)
 - PowerFlow and Study Time Contingency Analysis (STCA) Study Tools
 - Unit Dispatch System (UDS)
 - Dispatch Management System (DMT)
 - Enhanced Energy Scheduler Market Operator Interface (EES-MOI)
7. When applicable the SOCT program shall provide and participate in off-site training consistent with above stated goals.

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5.3 Determining Program Material

- SOCT Course development, training delivery and record maintenance for the SOCT program shall be performed in accordance with SOP-RTMKTS.0200.0010 – Administer Operations Training.


NOTE

The annual training schedule is subject to changes due to training needs that arise throughout the year.

- The Annual SOCT program should be based on the following topics:
 - Joint ISO/LCC Operator training
 - NPCC Seminars (Spring and Fall)
 - Restoration Seminar (Fall)
 - New equipment and its operation
 - Communications
 - Record keeping/Log keeping
 - Commercial software application usage (WORD, PowerPoint, Excel, Outlook, etc)
 - Operational issues dealing with current events
 - Market Rule and Manual changes as well as related software changes
 - TTSE scenarios
 - Restoration scenarios
 - Basic Power System Operational theory
 - OP review
 - SOP review
 - M/LCC review
 - System Protection (Transmission Operating Guides, Special Protection Systems)
 - Regulations/Standards/Directories/Policies/Guidelines:
 - Federal Energy Regulatory Commission (FERC)
 - North American Energy Reliability Corporation (NERC)
 - Northeast Power Coordinating Council Inc.(NPCC)
 - Regulatory Agencies

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- Updates to Control Room Computer Applications:
 - EMS
 - DTS
 - UDS
 - OIS
 - Intranet
 - External Website
 - EES-MOI
 - PCEC
 - IBCS-OS (eLutions)
 - ENS software
 - ICU AUTOCALL
 - RCIS
 - Morning Report
 - Site Visitations:
 - Generation Facilities
 - Local Control Center Control Rooms
 - Neighboring Control Area / Balancing Authority Control Rooms
 - Distribution Control Rooms
 - Backup Control Center (BCC) training:
 - Windowing in
 - Full Activation (Actual or simulation)
 - Code of Conduct / Sexual Harassment (Legal/HR).
 - ISO Corporate Mission:
 - Corporate Goals
 - Operational Philosophy
 - Governance Structure
 - Market Design
 - Corporate Structure
3. The Manager, Operational Performance and Training (or designee) shall develop a draft SOCT schedule and forward to the Director of Operations for review.
 4. Approval and distribution of the SOCT schedule shall be performed in accordance with SOP-RTMKTS.0200.0010 – Administer Operations Training.

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6. Performance Measures

- At least 120 hours per year of continuing operator training will be offered to each Control Room System Operator

7. References

SOP-RTMKTS.0200.0010 – Administer Operations Training

NERC Reliability Standard PER-004- Reliability Coordination — Staffing

8. Revision History

Rev. No.	Date	Reason	Contact
Original	03/30/05	Original	Jerry Elliott
1	03/09/06	Revised for annual review and aligned to current organization	Jerry Elliott
2	02/08/07	Revised for clarity as a result of annual review	Jerry Elliott
3	02/18/09	Periodic review by procedure owner; Global changes to reflect organizational changes; Step 3.3D modified to reflect the creation an LMS and ISO-TEN; Deleted Step 5.3.2 referring to obsolete Cert program; Modified new step 5.3.2 to correct nomenclature changes;	Cheryl Robinson

9. Attachments

None.