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		Revision Number: 7 Revision Date: April 19, 2012
Contact: ISO Manager, Control Room Operations		Approved by: M/LCC Heads
		Review Due Date: November 17, 2013


Master/Local Control Center Procedure No. 13

(M/LCC 13)

Communications Between the ISO and Local Control Centers

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1. References

NERC Reliability Standard COM-001 - Telecommunications

NERC Reliability Standard COM-002 - Communications and Coordination

SOP-RTMKTS.0120.0010 - Implement Operations During Abnormal Conditions

SOP-RTMKTS.0120.0020 Implement Capacity Remedial Action

SOP-RTMKTS.0125.0020 - Communicate With Internal and External Parties

Master/Local Control Center Procedure No.1 - Nuclear Plant Transmission Operations (M/LCC 1)

Master Local Control Center Procedure No. 2 - Abnormal Conditions Alert (M/LCC 2)

Master/Local Control Center Procedure No. 4 - Emergency Load Reduction Plans for Mitigating IROL Violations (M/LCC 4)

Master/Local Control Center Procedure No. 12 - Coordination of Responsibilities to Comply With NERC Standards for Transmission Operations (M/LCC 12)

ISO New England Operating Procedure No. 4 - Action During a Capacity Deficiency (OP-4)

ISO New England Operating Procedure No. 7 - Action in an Emergency (OP-7)


ISO New England Operating Procedure No. 10 - Emergency Incident and Disturbance Notifications (OP-10)

ISO New England Operating Procedure No. 20 - Analysis and Reporting of Power System Emergencies (OP-20)

2. Background

The intent of Master/Local Control Center No. 13 - Communications Between ISO and the Local Control Centers (M/LCC 13) is to establish common protocols for communication between ISO New England (ISO) and each Local Control Center (LCC) to ensure effective communications by operating personnel. NERC Reliability Standard COM-001 - Telecommunications and NERC Reliability Standard COM-002 - Communications and Coordination set requirements for effective communications.

ISO and each LCC have internal communication procedures already established (e.g., for ISO, SOP-RTMKTS.0125.0020 - Communicate With Internal and External Parties), however M/LCC 13 is intended to supplement those procedures and provide specific guidance for communications between the ISO and each LCC System Operators.

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3. Responsibilities

1. ISO and each LCC are responsible for precise, accurate, and professional communications involving the collaborative efforts to meet Transmission Operator requirements as set forth in Master/Local Control Center Procedure No. 12 - Coordination of Responsibilities to Comply With NERC Standards for Transmission Operations (M/LCC 12).
2. ISO and each LCC are responsible for gathering and providing complete and accurate information during operational communications.

NOTE

Although **not** required, it is considered a best practice to use three part communication when issuing an instruction or when its use will enhance communication.

3. ISO and each LCC are responsible for performing three part communications to further the goal of maintaining operating directives that are performed accurately and efficiently.

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4. Procedure


4.1 Basic Protocol for All Operational Communications

NOTE

NERC Reliability Standard COM-001 - Telecommunications requires that English be spoken for all communications unless agreed to otherwise.

The Basic Protocols referred to in this section apply to communications between ISO, each LCC and each external recipient of a directive for system operations.

1. Verbal communication is extremely important and the primary method by which the ISO and LCC System Operators provide and receive information. ISO and LCC System Operators verbal communications shall make use of the following standard practices:
 - A. When communicating, identify yourself, including your name and location.
 - B. Separate the conversational portion of a discussion from the portion when a decision, directive or instruction is being delivered.
 - C. Communications should always be precise, accurate, and professional.
 - D. Be proactive rather than reactive in communications. Doing so will ensure up to date information for both the LCC and ISO.
 - E. Whenever possible, limit all unnecessary distractions that could hamper good communications.
 - F. Communication must be free of ambiguity. Avoid the use of slang terms and words that have a similar sound. Use correct nomenclature for any devices mentioned.
 - G. Be direct. Use simple, straightforward language. Avoid technical terms and acronyms. Be aware that technical terms, jargon, and acronyms may be confusing and meaningless to people with backgrounds and experience different from your own.
 - H. Make every effort to ensure communications and intentions are understood completely. Listen to cues from the other party to gauge their interest in your comments. If they sound confused or distracted, stop speaking and make sure the conversation is on track. If there is a concern of misunderstanding or confusion, stop the evolution and resolve the concerns.
 - I. Communications with team members should be concise and prioritized such that the meaning of urgent or high consequence data is conveyed with minimum distraction and delay.


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- J. If a request for information is received, obtain the information and promptly communicate it back to the party or provide them with a knowledgeable contact.
- 2. After an exchange of general operational information, the discussion should be summarized and acknowledged by the recipient by repeating back enough information in summary to ensure that the sender knows his message was received correctly.
- 3. When issuing instructions which require a discrete action of the receiving party, ISO and LCC System Operators should practice the use of three-part communications, described as:
 - A. Issue instructions in a clear, concise, and definitive manner.
 - B. Ensure the recipient of the instruction repeats the information back correctly.
 - C. Acknowledge the response as correct or repeat the original instruction to resolve any misunderstandings.

NOTE

During contingency situations, communications between the ISO Control Room and the LCCs should be performed under the guidance set forth in Attachment A - Contingency Actions and Communications Protocol.

- 4. Three part communication is required for all directives issued. Directives are defined to include (and only include) the following types of instructions issued or communications:
 - A. Request made for implementation or termination of Simultaneous Activation of Ten-Minute Reserve (SAR) assistance.
 - B. Transmission equipment change of state or status to mitigate a transmission limit exceedance.
 - C. Generator dispatch order to mitigate a transmission limit exceedance.
 - D. Implementation or cancellation of any Action of OP-4.
 - E. Interruption or restoration of actual firm load as an action of either ISO New England Operating Procedure No. 7 Action in an Emergency (OP-7) or Master/Control Center Procedure No. 4 - Emergency Load Reduction Plans for Mitigating IROL Violations (M/LCC 4).
- 5. The recipient of a directive shall report back to the entity issuing the directive when the directed actions have been implemented.

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4.2 ISO and LCC Communications Involving Normal Operations

NOTE


Each routine Generator/DARD dispatch by ISO is **not** communicated to the applicable LCC verbally and does **not** require any special communications protocols.

1. For each of the following conditions, the ISO Generation Operator or ISO Loader Operator shall immediately make specified notification(s) :
 - If a Generator greater than 400 MW trips, notify each LCC
 - If a Generator greater than 100 MW trips and is in close proximity to a neighboring LCC, notify each applicable LCC
 - If significant tie line changes occur, notify each affected LCC
 - If a significant Generator/DARD Redecoration occurs, notify each affected LCC
 - If a Generator Automatic Voltage Regulator (AVR) or Power System Stabilizer (PSS) device is inoperable, notify the applicable LCC
2. The ISO Senior System Operator shall communicate Time Error Correction (TEC) to each LCC.
3. The ISO Security System Operator shall communicate system security issues that suddenly emerge to each affected LCC.
4. The ISO Security System Operator shall maintain close communication with each LCC during any tight operating reserve situation.
5. If ISO is operating close to any security operating limit or if there is any security doubt or concern, the Security Operator shall notify each applicable LCC of any status changes in a Generator/DARD that may affect the security operating limit in question.

NOTE

Attachment B - Accepted SPS Terminology, is a listing of terms that are expected to be used when communicating the state of an SPS.

6. The ISO System Operator shall provide agreement to the applicable LCC prior to changing the state of a Type I or Type II SPS.
7. Each LCC shall notify and obtain agreement from the ISO System Operator prior to changing the state of a Type I or Type II SPS.
8. When an LCC becomes aware of a system security issue, transmission outage, and voltage/reactive control problem, the LCC shall communicate that condition to the ISO System Operators,.

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4.3 ISO and LCC Emergency Communications

NOTE

ISO New England Operating Procedure No. 4 - Action During a Capacity Deficiency (OP-4) provides the specific messages that are to be used when communicating OP-4 Steps.


ISO New England Operating Procedure No. 7 - Action in an Emergency (OP-7) provides the specific messages to be used when communicating OP-7 Steps.

Master/Local Control Center Procedure #1 - Nuclear Plant Transmission Operations (M/LCC 1) and the applicable following M/LCC 1 attachment(s) provides specific guidance for communications between ISO, each LCC and nuclear power station that are required to keep each nuclear power station operating within their design limits:


- Attachment A - Pilgrim Nuclear Power Station
- Attachment B - Vermont Yankee Nuclear Power Station
- Attachment C - Millstone Nuclear Power Station
- Attachment D - Seabrook Nuclear Power Station

Master/Local Control Center Procedure No. 4 - Emergency Load Reduction Plans For Mitigating IROL Violations (M/LCC 4) provides specific messages to be used when communicating verbal instructions for load shed to alleviate an IROL contingency to the LCC.

1. If ISO or any LCC evacuates to their Backup Control Center (BCC), ISO shall ensure that each LCC and each adjoining Reliability Coordinator / Balancing Authority (RC/BA) are made aware of the situation.
2. When ISO declares M/LCC 2, ISO shall immediately perform M/LCC 2 notifications to each LCC as directed in SOP-RTMKTS.0120.0010 - Implement Operations During Abnormal Conditions.
3. When ISO declares OP-4, ISO shall immediately perform OP-4 notifications to each LCC as directed in SOP-RTMKTS.0120.0020 - Implement Capacity Remedial Action.
4. When ISO implements OP-7 action(s), ISO shall immediately notify each LCC.
5. If load shedding is required due to an IROL exceedance referenced in M/LCC 4, ISO shall immediately notify each LCC.
6. If ISO and any LCC are unable to monitor system reliability (i.e., ISO EMS and the LCC EMS systems are **not** operable at the same time), the ISO Senior System Operator shall notify each affected nuclear power Generator Operator to take all appropriate needed action.


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7. When any LCC declares M/LCC 2 or OP-4, ISO shall immediately notify each remaining LCC.
8. When ISO and/or any LCC are required to perform emergency reporting / communications, ISO and/or the LCC shall refer to OP-10 and OP-20.
9. When ISO and/or LCC emergency reporting / communications are required:
 - A. ISO shall perform the applicable actions of SOP-RTMKTS.0125.0020 - Communicate with Internal and External Parties.
 - B. Each LCC shall perform actions prescribed in the LCC internal procedure(s) for emergency reporting / communications.

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4.4 Determine NERC Event Analysis Reporting Requirements

1. When a transmission system event requires ISO and/or LCC NERC Event Analysis Reporting, the following actions shall be performed:
 - A. The ISO Shift Supervisor shall:
 - (1) Refer to SOP-RTMKTS.0125.0020 - Communicate with Internal and External Parties to determine if the event meets the NERC Event Analysis Categories and to determine the required event analysis reporting actions.
 - (2) Contact the applicable LCC, discuss the event and based on the severity of the event:
 - a. Determine which organization shall perform the event analysis reporting
 - b. Verify one of the following applicable actions is performed:
 - ISO shall perform the applicable actions of SOP-RMKTS.0125.0020 - Communicate With Internal and External Parties.
 - The LCC shall perform the actions prescribed in the LCC internal procedure(s) for reporting.

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5. Revision History

Rev. No.	Date	Reason
0	09/14/07	Original Procedure
1	01/15/09	Added NOTE prior to Step 4.2; Added new Attachment A
2	03/12/09	Biennial review completed; Header Review Due Date: changed from calendar date to 24 months from the Effective Date;; Added NERC Reliability Standard COM-001 – Telecommunication to References Section, Background Section and Section 4.1 NOTE; minor grammar changes were made in Step 4.1.D Global used Generator/DARD in place of Resource, LCC in place of Local Control Center, ISO in place of the ISO. Moved NOTE from the end to the beginning of Step 4.3; Editorial and grammatical changes to steps 4.3.2, 4.3.3, 4.3.4, 4.3.6, 4.3.7, 4.3.8, & 4.3.9;
3	12/04/09	Global: minor editorial and grammatical changes Section 4.1.1 1 st Added M/LCC 1 to References section; NOTE, Step 4.1.1.F & I, Step 4.1.3, Section final NOTE, Step 4.2.1 & bullet, Section 2 & 3 provided full title for referenced procedures, defined ISO as acronym; After step 4.2.5 added 2 new steps (4.2.6 & 4.2.7) Grammar changes to: former Step 4.2.6, Step 4.3.1, Step 4.3.2, 3, 4, 5, 6 Replaced “as soon as possible” with “immediately” in Steps 4.3.2, 3, 4, 5 & 6; Step 4.3 modified former NOTES items and added new NOTES items for M/LCC 1 and M/LCC 4; Reversed the order of 4.3.6 & 4.3.7 Grammar & format changes (sub-steps) to Step 4.3.7. 4.3.8, & 4.3.9
4	04/15/10	Minor editorial changes, changed text fonts to Arial, re-formatted NOTE boxes; Added NOTE prior Section 4.2.6; Section 4.3.1 replaced “ Control...” with “...Reliability Coordinator...”; Added Attachment B to Attachments Section
5	07/28/11	Changed Procedure Contact to Manager, Control Room Operations, updated copyright date, changed pagination to “X of Y” format; Added Note to Section 3; Added new Section 4.1.4 to define criteria requiring 3 part communication
6	11/17/11	Biennial review by procedure owner; New Section 4.4 step 4.4.1 and sub-steps to establish communications protocol and provide the applicable actions for recognizing the classification of NERC events and determining ISO & LCC responsibilities for NERC event analysis reporting.
7	04/19/12	Header, Updated copyright date; Global, changed subject/object/tense to singular where applicable; 4.1.1.A, Moved the old step 4.1.1.I. to be the new 4.1.1.A.; 4.1.1. B, Added new step and re-numbered remaining steps.; 4.1.1.H, Minor wording change; 4.1.3, Modified wording; 4.1.5, Added wording for confirmation of directive implementation; 4.4.1.A(1),

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6. Attachments

Attachment A - Contingency Actions and Communications Protocol

Attachment B - Accepted SPS Terminology