	© ISO New England, Inc. 2010	Master/ LCC Procedure # 2 Abnormal Conditions Alert
		Revision Number: 14 Revision Date: June 1, 2010
Contact: ISO Director, Operations		Approved by: M/LCC Heads
		Review Due Date: June 1, 2012

Master/Local Control Center Procedure No. 2

(M/LCC 2)


Abnormal Conditions Alert

1.	References.....	2
2.	Purpose.....	2
3.	Introduction	3
4.	Definition of Abnormal Conditions	4
5.	Types of M/LCC 2 Abnormal Conditions Alert Notifications	4
6.	Criteria for Maintenance, Construction and Test Activity Curtailment.....	4
7.	Procedure	5
	7.1 ISO New England M/LCC 2 Abnormal Conditions Alert	5
	7.2 Local Control Center M/LCC 2 Abnormal Conditions Alert	6
8.	Logging Requirements	6
9.	Revision History	7
10.	Attachments	7

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1. References

ISO New England Operating Procedure No. 2 - Maintenance of Communications, Computers, Metering, and Computer Support Equipment (OP-2)

ISO New England Operating Procedure No. 3 - Transmission Outage Scheduling (OP-3)

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

ISO New England Operating Procedure No. 5 – Generator and Dispatchable Asset Related Demand Maintenance and Outage Scheduling (OP-5)

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

ISO New England Operating Procedure No. 9 – Scheduling and Dispatch of External Transactions (OP-9)


ISO New England Operating Procedure No. 13 – Standards for Voltage Reduction and Load Shedding Capability (OP-13)

Master/Local Control Center Procedure No. 8 - Coordination of Generator Voltage Regulator and Power System Stabilizer Outages (M/LCC 8)

ISO New England Manual for Market Operations Manual M-11

2. Purpose

This procedure, Master Local Control Center Procedure No. 2 (M/LCC 2) - Abnormal Conditions Alert, is used to alert power system operations, maintenance, construction and test personnel as well as Market Participants (MPs) when abnormal conditions affecting the reliability of the power system exist or are anticipated. Once notified of an M/LCC 2 Abnormal Conditions Alert, these entities are expected to take precautions so that routine maintenance, construction and test activities associated with generating stations, Dispatchable Asset Related Demands (DARDs), Real-Time Demand Response, Real-Time Emergency Generation, transmission lines, substations, dispatch computers, and communications equipment do not further jeopardize the reliability of the power system. If maintenance, construction and test activities could jeopardize the reliability of the power system, such activities shall be curtailed during the M/LCC 2 Abnormal Conditions Alert.

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3. Introduction

Established operating procedures provide an approval process for outages of Resources (OP-5), transmission maintenance (OP-3), and maintenance of dispatch computer and communications equipment (OP-2). Applications for work involving these areas shall be approved before maintenance and test activities are conducted which take equipment out-of-service or obviously impact the reliability of the power system. It is recognized that some maintenance, construction and test activities are routinely undertaken that do not require approval, when in the judgment of operations, construction and maintenance personnel, such activities have a negligible reliability impact. These activities include preventive maintenance, construction, preparatory work for outages, routine maintenance that can be accomplished with equipment on-line, equipment tests, etc.

However, if abnormal conditions exist or are anticipated and maintenance, construction and test activities, such as nuclear surveillance tests and/or preparatory work for future equipment outages which may trip a Resource and/or transmission facility, and degrade the reliability of the power system then these activities should not be conducted. If these activities cannot be curtailed, operations, maintenance, construction and test personnel shall take precautions to prevent the on-going work from posing further risk to the reliability of the power system. This procedure provides guidelines for M/LCC 2 Abnormal Conditions Alert notification and for actions to be taken to limit risk.

This procedure does not in any way affect the application of OP-2, OP-3, or OP-5. When an M/LCC 2 Alert notification occurs, the curtailment of work approved under those procedures is to be considered on an individual application basis, according to the provisions of those procedures.

Some abnormal conditions affect the reliability of the entire New England Control Area/Balancing Authority Area (CA/BA) or local reliability area. Some abnormal conditions may be limited to a single Local Control Center (LCC). Accordingly, provision is made in this procedure for separate ISO M/LCC 2 Abnormal Conditions Alert and LCC M/LCC 2 Alert notifications.

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4. Definition of Abnormal Conditions

The determination that abnormal conditions affecting the reliability of the power system exist or are anticipated is a decision to be made by the ISO Operations Shift Supervisor or the LCC System Operator. Abnormal conditions exist when the reliability of the New England CA/BA is degraded. Typical indicators of abnormal conditions are:

- Forecasted or actual deficiency of operating reserves requiring implementation of OP-4 or OP-7
- Low transmission voltages and/or low reactive reserves
- Inability to provide first contingency protection when undesirable post-contingency conditions might result; e.g., load shedding
- Solar Magnetic Disturbances
- Credible threats to power system reliability such as sabotage or approaching storms
- Operational staffing shortages impacting normal power system operations within New England
- Other conditions that may occur as determined by the ISO Operations Shift Supervisor or the LCC System Operator

5. Types of M/LCC 2 Abnormal Conditions Alert Notifications

For the purposes of this procedure, two types of notifications shall be issued:

ISO M/LCC 2 Abnormal Conditions Alert - This notice is issued when:

- Abnormal conditions exist or are anticipated which affect the reliability of the ISO CA/BA
- Abnormal conditions which affect the reliability of the power system exist or are anticipated within one LCC and these conditions could further degrade as a result of maintenance, construction and/or test activities and affect another LCC

LCC M/LCC 2 Abnormal Conditions Alert - This notice is issued when:

A LCC M/LCC 2 Abnormal Conditions Alert shall be issued when abnormal conditions which affect the reliability of the power system exist or are anticipated solely within one LCC and these conditions could not become further degraded by the consequences of maintenance, construction and/or test activities in another LCC


6. Criteria for Maintenance, Construction and Test Activity Curtailment

When an M/LCC 2 Alert notification is issued, maintenance, construction and test activities shall be curtailed, if the following could occur:

- Reduction in reliability or output of a Resource
- Increased reliability exposure (decreased reliability) to the loss of a critical transmission facility
- Reduced staffing that restricts operability of generation and or transmission facilities
- Interruption of voice or data communications used for dispatching purposes
- Operation of the ISO, LCC, or MP SCADA computers become degraded or fail

If maintenance, construction and test activities cannot be curtailed, precautions shall be taken to prevent the activities from posing further risk to the power system.

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7. Procedure

The following steps outline the responsibilities of ISO; the LCCs; Generator, DARD and Demand Designated Entities; and Transmission Owner maintenance, construction and test personnel.

7.1 ISO New England M/LCC 2 Abnormal Conditions Alert

ISO Responsibilities:

Perform the following in accordance with SOP-RTMKTS.0120.0010 - Implement Operations During Abnormal Conditions:

- Determine if an ISO M/LCC 2 Abnormal Conditions Alert shall be declared or cancelled
- Prepare a short statement, which identifies the abnormal condition, the area(s) affected, and the start or end time of the M/LCC 2 Alert
- Use the prepared statement to notify the LCCs, NYISO, TransEnergie, NBSO, and internal ISO personnel that an ISO New England M/LCC 2 Abnormal Conditions Alert has been declared or canceled
- Use the Emergency Notification System (ENS) software to notify Generator, DARD and Demand Designated Entities that an M/LCC 2 Abnormal Conditions Alert has been declared or canceled
- Review and, as appropriate, curtail, cancel, postpone or reactivate maintenance, testing and construction activities curtailed during the M/LCC 2 Abnormal Conditions Alert

LCC Responsibilities:

- Receive notification from ISO that an ISO M/LCC 2 Abnormal Conditions Alert has been declared or canceled
- Notify dispatch centers, and other appropriate personnel which impact the New England Transmission system that an ISO M/LCC 2 Alert has been declared or canceled
- REMVEC shall make notifications as required by their internal operating procedures that an ISO M/LCC 2 Abnormal Conditions Alert has been declared or canceled
- CONVEX shall make notifications as required by their internal operating procedures that an ISO M/LCC 2 Abnormal Conditions Alert has been declared or canceled
- Review and, as appropriate, curtail or cancel maintenance, testing and construction work


Generator DARD, and Demand Designated Entities; Maintenance; Construction; and Test Personnel Responsibilities:

- Receive notification that an ISO M/LCC 2 Alert has been declared or canceled
- Take appropriate actions to curtail testing, construction and maintenance activities
- Ensure that automatic voltage regulators are in service (unless grandfathered per M/LCC 8)
- Ensure that Power System Stabilizer (PSS) devices are in service if required
- Resume normal maintenance, construction and test activities once ISO M/LCC 2 Alert has been canceled

MP Responsibilities (Applies only to those MPs listed in CONVEX and REMVEC internal procedures.

- Receive notification that an ISO M/LCC 2 Alert has been declared or canceled

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7.2 Local Control Center M/LCC 2 Abnormal Conditions Alert

LCC Responsibilities:

- Determine if a LCC M/LCC 2 Alert must be declared or cancelled
- Prepare a short statement, which identifies the abnormal condition, the area(s) affected, and the start or end time of the LCC M/LCC 2 Alert
- Use the prepared statement to notify ISO, dispatch centers, and other appropriate personnel having the potential to impact critical elements of the New England Transmission System that a LCC M/LCC 2 Alert has been declared
- Request ISO use the ENS software in accordance with SOP-RTMKTS.0120.0010 - Implement Operations During Abnormal Conditions to notify applicable Generator, DARD and Demand Designated Entities that an LCC M/LCC 2 Alert has been declared or canceled
- REMVEC (If REMVEC or NSTAR declares the LCC M/LCC 2 Alert) shall make notifications as required by their internal operating procedures that an LCC M/LCC 2 Abnormal Conditions Alert has been declared or canceled
- CONVEX (If CONVEX declares the LCC M/LCC 2 Alert) shall make notifications as required by their internal operating procedures that an LCC M/LCC 2 Abnormal Conditions Alert has been declared or canceled
- Review and as appropriate, cancel maintenance, testing and construction work

ISO Responsibilities:

- Receive notification that a LCC M/LCC 2 Alert has been declared or canceled.
- Use the prepared statement to notify the other LCCs, NYISO, TransEnergie, NBSO, and internal ISO personnel in accordance with SOP-RTMKTS.0120.0010 - Implement Operations During Abnormal Conditions
- Use the ENS software in accordance with SOP-RTMKTS.0120.0010 - Implement Operations During Abnormal Conditions to notify applicable Generator, DARD **and Demand** Designated Entities that a LCC M/LCC 2 Alert has been declared or canceled

Generator, DARD & Demand Designated Entities; Maintenance; Construction; and Test Personnel Responsibilities:


- Receive notification that an LCC M/LCC 2 Alert has been declared or canceled
- Take appropriate actions to curtail testing, construction and maintenance activities

MP Responsibilities (Applies only to those MPs listed in CONVEX and REMVEC internal procedures.

- Receive notification that a LCC M/LCC 2 Alert has been declared or canceled

8. Logging Requirements

ISO and each LCC shall record all M/LCC 2 Abnormal Conditions Alert notifications.

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9. Revision History

Rev. No.	Date	Reason
0	04/06/88	
1	02/24/89	
2	02/21/90	
3	05/16/91	
4	08/25/97	
5	11/19/01	
6	09/01/04	Standardize procedure format and incorporate RTO language changes
7	04/20/06	Updated for annual review and clarified communications
8	05/30/06	Added additional activities that could impact the reliability of the system
9	10/01/06	Revised for Ancillary Services Market (ASM) Phase 2
10	10/18/07	Revised as part of annual review
11	12/14/07	Revised to reflect NSTAR as a LCC
12	06/03/08	Annual Review by Procedure Owner. Revised to add M/LCC2 Abnormal Conditions Alert used when certain External Transactions are reduced to preclude Operating Reserve deficiency. Deleted any reference to NSTAR notification of MP to staff stations listed in Att. A Global changes to use current terminology and define acronyms for frequently used terms. Removed references to MPs manning substations during M/LCC 2. Referenced LCCs making notifications IAW their local operating procedures. Removed references to Attachment A.
13	03/12/09	Biennial Review by Procedure Owner; Change Contact in header from Manager to Director; Changed header Review Due Date: from a fixed calendar date to be 24 months from the Revision Date:
14	06/01/10	Biennial review by procedure owner; Various locations made changes to reflect the implementation of Demand Designated Entities under the Demand Response Integration Project and also to remove the requirement to implement M/LCC #2 prior to curtailing external transactions that did not clear in the Day Ahead Markets (note that the implementation of M/LCC #2 will be replaced with a notice to the ISO New England website for external transactions).

10. Attachments

None