

ISO new england	CROP.25011 Implement Operations During Abnormal Conditions	
© 2024	Approved By: Director, Operations	Effective Date: 01/02/2024
Rev # 6	Procedure Owner: Manager, Control Room Operations	Valid Through: 01/02/2026

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1. M/LCC 2 - Abnormal Conditions Alert
2. OP-19 Transmission Operations
3. M/LCC 15 - System Operating Limits Methodology
4. CROP.10002 Implement Capacity Remedial Action

Procedure Background

The objective of this procedure is to improve the reliability of the system during critical operating periods. This procedure documents the responsibilities of ISO New England (ISO) staff in making the decision to declare or cancel M/LCC 2 and specific communication logistics. This procedure does **NOT** in any way change the intent of the M/LCC 2 procedure but rather is intended to clarify responsibilities delegated to ISO staff by M/LCC 2. In particular, M/LCC 2 requires ISO to utilize judgment in determining when to declare M/LCC 2; this procedure provides direction to ISO staff on how that judgment shall be made.

Declaring M/LCC 2 Abnormal Conditions Alert may avert a contingency the system might **NOT** be able to withstand. The intent is to declare M/LCC 2 Abnormal Conditions Alert when the system conditions are anticipated to be close to or beyond the limits of reliability. The M/LCC 2 Abnormal Conditions Alert procedure is intended to reduce or eliminate the risk of losing equipment due to testing or other high risk activities whenever the system is stressed. Additionally, this procedure provides guidance to ISO staff on the detailed communications required by ISO in order to support its assigned responsibilities as set forth in M/LCC 2.

Any LCC may independently declare LCC M/LCC 2 Abnormal Conditions Alert for its local area and issue an “LCC M/LCC 2 Abnormal Conditions Alert” on its own. In this case, the LCC notifies ISO prior to the declaring the alert for concurrence and requests ISO to notify each DE and DDE within the applicable LCC local area.


Any LCC may independently cancel LCC M/LCC 2 Abnormal Conditions Alert for its local area and issue a “Cancellation” on its own. Prior to cancelling the alert, the LCC notifies ISO for concurrence and requests ISO to notify each DE and DDE within the LCC local area of M/LCC 2 Abnormal Conditions Alert cancellation.

Cold Weather Conditions exist when the following conditions are met simultaneously
The Effective Temperatures are forecast to be ≤ 0 F for any single on-peak hour (i.e. hour ending 8 through hour ending 23)
That day’s Total Effective Heating Degree Days are forecast to be ≥ 65

A Cold Weather Watch will exist when Cold Weather Conditions are forecast to exist and the 7-Day Capacity Margin Forecast indicates a Capacity Margin greater than or equal to 1,000 MW.

Declaring a Cold Weather Warning is required when Cold Weather Conditions are forecast to exist and the 7-Day Capacity Margin Forecast for Day 2 or Day 3 indicates a Capacity Margin less than 1,000 MW.

Declaring a Cold Weather Event is required when Cold Weather Conditions exist and the 7-Day Capacity Margin Forecast for Day 2 or Day 3 indicates a Capacity Margin less than or equal to 0 MW for an Operating Day.

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Common Procedure Information

- A. Any ISO-NE qualified Control Room Operator has the authority to take actions required to comply with NERC Reliability Standards. A qualified ISO-NE Control Room Operator has met the following requirements:
 - 1. Have and maintain a NERC certification at the RC level (per R.1 of PER-003-2)
 - 2. Applicable Requirements of PER-005-2
 - 3. Approved to cover a Control Room Operator shift position by the Manager, Control Room Operations
 - 4. Is proficient at the current qualified level.
- B. Real time operation is defined as the current hour and the current hour plus one.
- C. Future hours are those beyond real time operation.
- D. All verbal communications with Local Control Centers (LCC), neighboring Reliability Coordinators/Balancing Authorities (RC/BA), Designated Entities (DE), Demand Designated Entities (DDE) and/or SCADA centers shall be made on recorded phone lines unless otherwise noted.
- E. For all communications:
 - 1. Use the Basic Protocol for All Operational Communications as prescribed in M/LCC 13,
 - 2. Use 'ISO New England' or 'New England'. Refrain from using 'ISO',
 - 3. Use Asset ID's when communicating with DE/DDEs,
 - 4. Use three-part communication in all situations where its use will enhance communication.
- F. Primary responsibilities are stated for each step within the procedure, but any ISO Control Room Operator qualified at that position or higher can perform the step. The Primary Responsibility may be delegated to an Operator in a lower qualified position, but the responsibility for its completion remains with the identified individual.
- G. The use of “ensure” within this document means that a verification has been performed and if the item is not correct, corrective actions will be performed.

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Procedure

Condition(s) to perform this section:

- An abnormal condition affecting the reliability of the power system exists or is anticipated

Section 1 : Decisions to Declare an M/LCC 2 Abnormal Conditions Alert

Notes

Decision making process:

- If Operating Reserve amounts drops to the Replacement Reserve requirement and all applicable pre-OP4 actions have been taken, the Operations Shift Supervisor shall consider declaring M/LCC 2 Abnormal Conditions Alert.
- If any of the following conditions exist or are anticipated, the Operations Shift Supervisor shall declare M/LCC 2 Abnormal Conditions Alert:
 - Transmission voltages or reactive reserves are low, such that established reliability limits cannot be maintained (see OP-12, OP-19, M/LCC 15).
 - It is **NOT** possible to provide contingency protection in accordance with ISO New England OP-19
 - Cold Weather Event is declared
 - Other system conditions exist in which the Bulk Electric System (BES) is being credibly threatened to the extent that operation within accepted reliability standards might be difficult to maintain

Examples: Severe ice storm, hurricane, severe Geomagnetic Disturbance (GMD), act of terrorism, a U.S. Government agency (Department of Health and Human Services) has implemented the National Response Plan (NRP) to mitigate a possible Pandemic Influenza incident, or any other credible threat to power system security.

Step 1.1 Primary Responsibility: Manager, Control Room Operations

During business hours.

Step 1.1.1 Primary Responsibility: Manager, Control Room Operations

Condition(s) to perform this step:

- If required based on system conditions.

Convene a conference call with the appropriate M/LCC Head(s) to make a decision to declare M/LCC 2 Abnormal Conditions Alert.

Step 1.1.2 Primary Responsibility: Manager, Control Room Operations

Condition(s) to perform this step:

- Determined that M/LCC 2 Abnormal Conditions Alert should be declared.

Notify the Operations Shift Supervisor of the decision for declaring M/LCC 2 Abnormal Conditions Alert with anticipated beginning and ending times/dates.

Step 1.2 Primary Responsibility: Operations Shift Supervisor


During non-business hours.

Step 1.2.1 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- If time permits based on system conditions.

Contact the Manager, Control Room Operations for input into the decision process before declaring M/LCC 2 Abnormal Conditions Alert.


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Step 1.3 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- **Determined that M/LCC 2 Abnormal Conditions Alert should be declared.**

Declare M/LCC 2 Abnormal Conditions Alert.

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Condition(s) to perform this section:

- Determined that an M/LCC 2 Abnormal Conditions Alert needs to be declared.

Section 2 : Notifications for Declaring M/LCC 2 Abnormal Conditions Alert

Notes

- If any LCC declares an “LCC M/LCC Abnormal Conditions Alert”, ISO uses the ENS software to notify each DE and DDE within that LCC.
- When M/LCC 2 Abnormal Conditions Alert Declaration notification is initiated using the ENS software:
 - ISO Management and Staff receive an email notification
 - Each DE and DDE receive a telephone notification
- After receipt of the e-mail, Corporate Communications confirms actions being taken by the Control Room by calling (in the following order): Director, Operations; Manager, Control Room Operations; or the Operations Shift Supervisor prior to making external notifications involving Control Room emergency actions.

Step 2.1 Primary Responsibility: Senior System Operator

Initiate an ENS notification for the declaration of M/LCC 2 Abnormal Conditions Alert.

Step 2.1.1 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- If ENS fails.

Verbally notify each DE and DDE of the declaration of M/LCC 2 Abnormal Conditions Alert.

Notes

- The M/LCC 2 Abnormal Conditions Alert notification is to include the specific procedure title, expected beginning and end times/dates, and the reason for implementing the procedure actions.
- Example: “At 1600, ISO New England is declaring M/LCC 2 Abnormal Conditions Alert, due to capacity deficiency with an expected end time of 2200.”

Step 2.2 Primary Responsibility: Operations Shift Supervisor


Log the declaration of M/LCC 2.

Instructions

Use log entry: > EMERGENCY PROCEDURE EVENTS > M/LCC 2 > Declared [WEB]

The following is required to be entered:

- ☐ Region;
- ☐ Time event started;
- ☐ Expected duration;
- ☐ Reason
- ☐ Verify the notification has been posted to the “Calendar” section on the external website, Website link: [Website Calendar](#);
- ☐ If the Website Calendar failed to update, notify Customer Support to post M/LCC2 Implemented, including region and time;
- ☐ Click “Web Posting Verified” when verified.

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Step 2.3 Primary Responsibility: Any Control Room Operator

Make a verbal notification to the LCCs using the "All LCCs" function.

Notes

The M/LCC 2 Abnormal Conditions Alert notification is to include the specific procedure title, expected beginning and end times/dates, and the reason for implementing the procedure actions.

Example: "At 1600, ISO New England is declaring M/LCC 2 Abnormal Conditions Alert, due to capacity deficiency with an expected end time of 2200."

Step 2.3.1 Primary Responsibility: Any Control Room Operator

Access the M/LCC 2 declaration log entry and indicate the LCCs that were notified of the declaration.

Step 2.4 Primary Responsibility: Any Control Room Operator

Make a verbal notification to all NPCC RCs/BAs.

Notes

The M/LCC 2 Abnormal Conditions Alert notification is to include the specific procedure title, and the reason for implementing the procedure actions.

Example: "ISO New England is entering our Abnormal Conditions Alert procedure, due to capacity deficiency."

Step 2.4.1 Primary Responsibility: Any Control Room Operator

Access the M/LCC 2 declaration log entry and indicate the NPCC RCs/BAs that were notified of the declaration.

Step 2.5 Primary Responsibility: Operations Shift Supervisor

Instruct the Forecaster to verbally notify the required natural gas pipelines.


Instructions

The following companies are notified:

- ☐ Algonquin
- ☐ Maritimes & NE
- ☐ Iroquois
- ☐ Portland PNGTS
- ☐ Tennessee

Step 2.5.1 Primary Responsibility: Operations Shift Supervisor

Access the M/LCC 2 declaration log entry and indicate the natural gas pipelines that were notified of the declaration.

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Condition(s) to perform this section:

- Determined that an M/LCC 2 Abnormal Conditions Alert needs to be cancelled.

Section 3 : Notifications for Cancelling M/LCC 2 Abnormal Conditions Alert

Notes

- If any LCC cancels an “LCC M/LCC Abnormal Conditions Alert”, ISO uses the ENS software to notify each DE and DDE within that LCC.
- When M/LCC 2 Abnormal Conditions Alert Cancellation notification is initiated using the ENS software:
 - ISO Management and staff receive email notification
 - Each DE and DDE receive a telephone notification
- After receipt of the e-mail, Customer Support and Corporate Communications confirms actions being taken by the Control Room by calling (in the following order): Director, Operations; Manager, Control Room Operations; or Operations Shift Supervisor, prior to making external notifications involving Control Room emergency actions.

Step 3.1 Primary Responsibility: Senior System Operator

Initiate an ENS notification for the cancellation of the M/LCC 2 Abnormal Conditions Alert.

Step 3.1.1 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- If ENS fails.

Verbally notify each DE and DDE of the cancellation of the M/LCC 2 Abnormal Conditions Alert.

Step 3.2 Primary Responsibility: Operations Shift Supervisor

Log the cancellation of M/LCC 2.

Instructions

Use log entry: > EMERGENCY PROCEDURE EVENTS > M/LCC 2 > Cancelled [WEB]

The following is required to be entered:

- ☐ Region;
- ☐ Time event ended;
- ☐ Verify the notification has been posted to the “Calendar” section on the external website, Website link: [Website Calendar](#);
- ☐ If the Website Calendar failed to update, notify Customer Support to post M/LCC2 Cancelled.

Step 3.3 Primary Responsibility: Any Control Room Operator


Make a verbal notification to the LCCs using the "All LCCs" function.

Step 3.3.1 Primary Responsibility: Any Control Room Operator

Access the M/LCC 2 cancellation log entry and indicate the LCCs that were notified of the cancellation.

Step 3.4 Primary Responsibility: Any Control Room Operator

Make a verbal notification to all NPCC RCs/BAs.

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Step 3.4.1 Primary Responsibility: Any Control Room Operator

Access the M/LCC 2 cancellation log entry and indicate the NPCC RCs/BAs that were notified of the cancellation.

Step 3.5 Primary Responsibility: Operations Shift Supervisor

Instruct the Forecaster to verbally notify the required natural gas pipelines.

Instructions

The following companies are notified:

- ☐ Algonquin
- ☐ Maritimes & NE
- ☐ Iroquois
- ☐ Portland PNGTS
- ☐ Tennessee

Step 3.5.1 Primary Responsibility: Operations Shift Supervisor

Access the M/LCC 2 cancellation log entry and indicate the natural gas pipelines that were notified of the cancellation.

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Condition(s) to perform this section:

- When notified by the Forecaster of a Cold Weather Condition.

Section 4 : Notifications for Declaring a Cold Weather Condition

Step 4.1 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- Notified by the Forecaster of a Cold Weather Event.

Contact the Manager, Control Room Operations for input into the decision process before declaring M/LCC 2 Abnormal Conditions Alert.

Step 4.2 Primary Responsibility: Operations Shift Supervisor

Notify each LCC of the Cold Weather Watch, Warning or Event.

Instructions

Update the Cold Weather Watch, Warning or Event log entry created by the Forecaster with the required notifications.

Step 4.3 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- Notified by the Forecaster of a Cold Weather Event.

Notify each NPCC RC/BA that a Cold Weather Event has been declared and potential capacity shortages may exist.

Instructions

Update the Cold Weather Event log entry created by the Forecaster with the required notifications.

Notes

A Cold Weather Event is when Cold Weather Conditions exist and the 7-Day Capacity Margin Forecast for Day 2 or Day 3 indicates a Capacity Margin less than or equal to 0 MW for an Operating Day.

Revision History

Rev. No.	Date (MM/DD/YY)	Reason	Contact
0	12/01/15	Initial Draft of this Procedure This CROP replaces SOP-RTMKTS.0120.0010 Implement Operations During Abnormal Conditions	Steven Gould
1	06/23/17	Review and modification to procedure format	Steven Gould
2	06/05/19	Biennial Review	Steven Gould
3	05/18/21	Biennial Review, update to formatting	Steven Gould
4	07/01/21	Removed note for step 2.5 and 3.5 – attachment retired; reformat of TOC	Steven Gould
5	06/27/23	Updated References, Updated Notes in Section 1 and 2, Updated Instruction in Step 1.1.2, 2.2, 2.4, 2.5, 3.5	Jonathan Gravelin
6	01/02/24	Added Instructions to Step 2.2; Updated Steps 2.4 and 3.4, Added Section 4	Jonathan Gravelin