	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016


SOP-RTMKTS.0120.0070

Activate and /or Test Computers and Processes at the Back-up Control Center

Contents

1. Objective	3
2. Background	3
3. Responsibilities.....	4
4. Controls	4
5. Instructions.....	5
5.1 System Operators Computer Login at the BCC (Required for NERC)	5
5.1.1 System Login	5
5.2 Forecaster Computer Login at the BCC (Not Required for NERC).....	6
5.2.1 System Login	6
5.3 TSO Administrators Computer Backup Systems Login at the BCC (Not Required for NERC).....	7
5.3.1 System Login	7
6. Performance Measures.....	8
7. References.....	8
8. Revision History.....	8
9. Attachments	11
Attachment A - Retired (05/13/14).....	12
Attachment B - Retired (05/13/14).....	13

*This document is controlled when viewed on the ISO New England Internet web site. When downloaded and printed, this document becomes **UNCONTROLLED**, and users should check the Internet web site to ensure that they have the latest version. In addition, a Controlled Copy is available in the Master Control Room procedure binder.*

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

Attachment C - System Operator BCC Workstation Check List
(Required for NERC*) 14

Attachment D - Forecaster BCC Workstation Check List
(Not Required for NERC) 16

Attachment E - Retired (05/13/14)..... 17


Attachment F - TSO Administrator BCC Workstation Check List
(Not Required for NERC) 18

Attachment G - BCC Issues List (Required for NERC) 19

Attachment H - System Overview Diagram 20

Attachment I - Retired (05/13/14) 21

Attachment J - Retired (05/13/14) 22

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

1. Objective

The objective of this procedure is to define the process for activating and testing the computers and processes at the Back-up Control Center (BCC). The BCC provides ISO New England (ISO) personnel with the ability to reliably operate the bulk power system and perform market functions from a facility other than the Holyoke Main Control Center (MCC).

This procedure documents the responsibilities of ISO System Operations Personnel.

This procedure is used during


- Annual BCC activation test to document test results
- Operating from the BCC

2. Background

ISO is required by North American Reliability Corporation (NERC) Reliability Standard EOP-008 - Loss of Control Center Functionality, to have a plan to continue reliability operations in the event its control center becomes inoperable. ISO maintains various computer programs and communication devices at both the MCC and the BCC to meet this requirement. An overview diagram on the primary and backup systems at the MCC and BCC is included in Attachment H.

To meet the requirements of NERC Reliability Standard EOP-008 - Loss of Control Center Functionality, System Operations personnel will operate from the BCC and will **not** depend upon the MCC.

BCC testing is also performed for other ISO personnel to verify that the BCC facilities, applications, and personnel are adequate to meet other ISO business requirements.

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

3. Responsibilities


NOTE

Any NERC Certified System Operator, certified at the RC level, has the authority to take action(s) required to comply with NERC Reliability Standards.

1. At the BCC, IT personnel are responsible for assisting the System Operations personnel accessing their computer systems and transferring the ARDs to the BCC.
2. The BCC System Operators are responsible for operating the Bulk Electric System (BES) when control has been transferred to the BCC.
3. System Operations personnel are responsible for determining if the various software and hardware applications at the BCC are functional during testing.
4. System Operators are responsible for using this procedure when operating from the BCC for:
 - Performing the annual BCC test to meet compliance requirements in NERC Reliability Standard EOP-008 - Loss of Control Center Functionality
 - Documenting the performance of the annual BCC activation test by using appropriate Attachments to access the systems at the BCC. (These test results are required to meet the NERC annual requirements for testing.)
5. Forecasters and TSO Administrators are responsible for using applicable Attachments of this SOP to operate the BCC during an emergency as well as documenting performance during annual BCC testing. These test results are **not** required to meet the NERC annual requirements for testing.

4. Controls

None.

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

5. Instructions

5.1 System Operators Computer Login at the BCC (Required for NERC)

5.1.1 System Login

NOTE

System Operators at the BCC have the ability to monitor and input changes just as if they were operating at the MCC.

1. System Operators perform the following applicable actions:
 - A. Notify the MCC (if manned) that the BCC is manned.


NOTE

The User Name and password for the EMS and non-EMS computers are the same as the one used at the MCC.

- B. Use their individual User Name and password to access the EMS computer and the non-EMS computer.
 - C. Complete Attachment C - System Operator BCC Workstation Checklist
 - D. Report any issues that are identified to the IT Technician and fill out Attachment G - BCC Issues List and return to the Manager, Control Room Operations.
2. If manual dispatch is required, the Operations Shift Supervisor requests the IT Technician to perform the following:
 - A. Task Out CLOGGER
 - B. Enable “No MDB Manual DDP Mode”
3. The Operations Shift Supervisor requests the IT Technician to transfer the ARDs to the BCC.

NOTE

WebFG should be fully functional with the exclusion of CLOGGER. Operators can enter manual DDPs to be sent to the DE electronically and DR Dispatch capability should be fully functional directly through WebFG.

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016


5.2 Forecaster Computer Login at the BCC (Not Required for NERC)

- 5.2.1 *System Login*
1. If the MCC is still in use (BCC manned for testing), the BCC Forecaster shall notify the MCC Forecaster and Operations Shift Supervisor that the BCC Forecaster is about to log in.

NOTE

The User Name and password for the EMS and non-EMS computers are the same as the one used at the MCC.

2. The Forecaster shall use their individual User Name and Password to access their EMS and non-EMS computer
3. The Forecaster shall complete Attachment D - Forecaster BCC Workstation Checklist.
4. The Forecaster shall report any issues that are identified to the IT Technician and shall fill out Attachment G - BCC Issues List and return to the Supervisor, Forecasters and Schedulers.

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016


5.3 TSO Administrators Computer Backup Systems Login at the BCC (Not Required for NERC)

5.3.1 System Login

NOTE

The User Name and password for the EMS and non-EMS computers are the same as the one used at the MCC.

1. The TSO Administrator use their individual User Name and password to access their computer
2. The TSO Administrator reports any issues that are identified to the IT Technician and shall fill out Attachment G - BCC Issues List and return to the Supervisor, Forecasters and Schedulers.

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

6. Performance Measures


BCC Activation test is performed to meet requirements of NERC Reliability Standard EOP-008 - Loss of Control Center Functionality

7. References


NERC Reliability Standard EOP-008 - Loss of Control Center Functionality

8. Revision History


Rev. No.	Date	Reason	Contact
Original	4/24/04	Original	Don Gates
1	2/1/05	Update SOP for RTO terminology	Steve Weaver
2	03/29/05	Update for NERC Version 0 Standards	Steve Weaver
3	9/30/05	Revised to distinguish between operations for a BCC test and an actual Activation.	Steve Weaver
4	12/20/06	Revised to remove Att G (checklist for OAG),	Steve Weaver
5	03/05/07	Revised procedure for clarity and added checklist items as requested for Forecaster	Steve Weaver
6	10/28/08	Annual Review by Procedure Owner; Added new item and modified second item in NOTE prior step 5.1.1.1; New Step 5.1.1.1 and Table 1; Modified step 5.1.1.4; first item in NOTE prior t step 5.1.2.1; step 5.1.2.1; second item and added new item 3 in NOTE following step 5.1.2.2; Added new step 5.1.2.3; Modified step 5.1.2.6; Step 5.1.2.7 and 5.1.2.8; Replaced information in steps 5.1.2.9 and 5.1.2.10; Corrected Step 5.3.1 Outage Specialists computer workstation names; Reworded item 1 and added new item 2 to NOTE prior to step 5.3.2; Added correct workstation names, deleted outage scheduler Logins and Passwords; Changed Password for TSO, added correct workstation Names, Logins and Passwords for Short Term Outage Coordination Independent Activation in Attachment B; Deleted item 5 and added new item 28 in Attachment C Added additional task items to check list Attachment E; Rearranged sequence (moved #12 to #1) in Attachment F	Steve Weaver
7	11/25/08	Revised document to reflect retirement of Areva Outage Scheduler and implement ISO Outage Scheduling software. Updated Attachment A passwords	Steve Weaver
8	04/02/09	Revised passwords, reference to outage scheduling software and added checklist item in Attachment D	Steve Weaver

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
Approved By: Director, Operations		Valid Through: May 13, 2016

Rev. No.	Date	Reason	Contact
9	07/27/09	Minor editorial changes; Changes for EMU project	Steve Weaver
10	10/25/10	Changed Header copyright date to 2010; Section 3 Responsibilities NOTE replaced test to conform to new standard statement with NERC RC certification requirement; Changed references to MCC and BCC to Holyoke CC and Newington CC. Made changes to reflect the differences in the procedure due to the 4-way EMS project and having one of the primary pair of servers active at the Newington CC.	Steve Weaver
11	12/22/10	Biennial review by procedure owner; Global defined acronyms BCC and MCC and used them consistently throughout text; Globally minor grammar, punctuation, spelling, format, etc., changes; Modified Step 3.4 end bullet, step 5.1.1.1, step 5.1.1.3; Added new steps 5.1.1.6 & 5.1.2.3; Modified step 5.1.2.7, step 5.1.1.7 and globally all uses of Att A; added new step 5.1.2.12; Modified Section 5.2 title; step 5.2.1.3 and globally all uses of Att B; Step 5.2.2.1. step 5.2.2.2; Added new step 5.2.2.5; Modified Section 5.3 title, step 5.3.1, step 5.3.2; Added new step 5.3.5; Modified Section 5.4 title, step 5.4.1; Added new steps 5.4.2 and 5.4.5 Added new Attachments I & J	Steve Weaver
12	01/05/11	Deleted 1 st sentence in Section 5.1.1 NOTE Updated Header copyright date	Steve Weaver
13	09/07/11	Updated Head Procedure Owner; Globally replaced Outage Specialists with Outage Coordinator; Globally re-renamed the Holyoke control center as the Main Control Center (MCC) and the alternate control center as the Back-up Control Center (BCC); Step 5.1.1.2 deleted and re-numbered remaining steps; Attachment A replaced “certificates” with “logins” in last table; Modified Attachment H to reflect renaming of Main control Center (MCC) and Back-up Control Center (BCC)	Steve Gould
14	10/16/12	Perform Biennial review; remove 2 nd paragraph of hard copy disclaimer from 1 st page, footer, globally added “Confidential, Do Not Distribute” to all footers; Documented changes to log-in process for EMS computers; Removed step and note referencing the Loader or Senior to Activate the BCC System; Revised Senior computer reference for ENS; Added steps to have the Shift Supervisor instruct the IT Tech to task out CLOGGER and enable NO MDB MANUAL DDP MODE Revised Step 20 of Attachment C to remove reference to operating reserve and changed IFS to Interchange Scheduling Display	Steve Gould

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

Rev. No.	Date	Reason	Contact
15	05/13/14	Biennial review by procedure owner; Globally updated due to activation of the Windsor BCC including the following: Deleted Attachments A, B, E, I and J; Deleted all sections referring to primary and backup activation; Deleted applicable section and attachment for Short Term Outage Coordinator; Corrected the title for NERC Reliability Standard EOP-008;	Steve Gould

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

9. Attachments

Attachment A - Retired (05/13/14)

Attachment B - Retired (05/13/14)

Attachment C - System Operator BCC Workstation Check List (Required for NERC)

Attachment D - Forecaster BCC Workstation Check List (Not Required for NERC)

Attachment E - Retired (05/13/14)


Attachment F - TSO Administrator BCC Workstation Check List (Not Required for NERC)

Attachment G - BCC Issues List (Required for NERC)


Attachment H - System Overview Diagram

Attachment I - Retired (05/13/14)


Attachment J - Retired (05/13/14)

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

Attachment A - Retired (05/13/14)


	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

Attachment B - Retired (05/13/14)

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

**Attachment C - System Operator BCC Workstation Check List
(Required for NERC*)**

Items to Verify for BCC Activation	Initials
1. Notify Holyoke MCC that you are there.	
2. Can access OIS Logs, Control Room Events Logs and Logs 1-9.	
3. Verify that Electronic Dispatch signals are being sent to Generators/DARDs.	
4. Alarm pages function normally with associated displays. *	
5. Can execute a Run Sequence with associated displays. *	
6. Can view the results of RTNET solution and they are occurring with associated displays. *	
7. Can view one line diagrams and data is populating the one lines with both SCADA and state estimated values.*	
8. RTCA executes and results from RTCA are available with associated displays. *	
9. ILC executes when a Run Sequence is initiated and results are displayed.*	
10. ICM data is available on the associated displays. *	
11. Can view voltage guide with associated displays. *	
12. Can execute Powerflow with associated displays. *	
13. Can execute STCA with associated displays.	
14. Can execute CLOGGER applications with associated displays.	
15. Can view ICCP nodes with associated displays and all nodes up and running. *	
16. Check that AGC system is running and in Tie Line Bias mode. *	
17. Can view System Summary and associated displays. *	
18. Can view and enter data in the Reserve Monitor and associated displays. *	
19. Can view and enter data in the Interchange Scheduling Display and associated displays. *	
20. Can view and enter data in the RTGEN user interface and associated displays. *	
21. Can view and operate Transmart.	
22. Can view Tie summary and associated displays. *	
23. Can view and enter data in Cap analysis.	

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016


Items to Verify for BCC Activation	Initials
24. Can view and operate UDS and associated displays.	
25. Can view and operate ENS software. *	
26. Can view and operate the ISO Outage Scheduling software and associated displays.	
27. Verify that phones work including ARDs to LCCs, RCs and Generators/DARDs.	

* Required for NERC in accordance with M/LCC 6, Attachment H

Check list completed:

Name: _____

Date: _____

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016


**Attachment D - Forecaster BCC Workstation Check List
(Not Required for NERC)**

Items to Verify for BCC Activation	Initials
1. Can view and operate Web FG	
2. Can view and operate RTGEN and associated displays	
3. Can view and operate APF and associated displays.	
4. Can view and operate RAA Import/Export and associated displays	
5. Can view and operate ISO Capacity Analysis and associated displays	
6. Can view and operate ISO Outage Scheduling software and associated displays	
7. Can view and operate Load Forecast.	
8. Can view and operate 7-Day Forecast	
9. Can view and operate Event Logserver and Operator Logs 1-9	
10. Can access and manipulate RMR Spreadsheets	
11. Can access and manipulate GRT Spreadsheets	
12. Can access and manipulate Look-Ahead Notes	
13. Can access and manipulate Historical Load Logs	
14. Can access and manipulate Forecast Daily Report	
15. Can access and manipulate Pumped Storage Spreadsheet	
16. Can access and manipulate D1, D2 and D3 Report	
17. Can access and manipulate the Forecaster Turnover	
18. Can access and manipulate the Gas Capacity Tools	
19. Can access and manipulate the Load Adjuster	


Check list completed:

Name: _____

Date: _____

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

Attachment E - Retired (05/13/14)

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

**Attachment F - TSO Administrator BCC Workstation Check List
(Not Required for NERC)**

Items to Verify for BCC Activation	Initials
1. Install Certificates	
2. Can view and operate EES MOI and associated displays	
3. Can view and operate OASIS screens.	
4. Can view and operate OATi WebTrans	
5. Can view and operate OATi WebTag	
6. Can view and operate ISO Intranet	
7. Can view and operate Online Procedure manual	
8. Can view and operate IDC	
9. Can view and operate Event Logserver	
10. Can view and operate GDMA and associated displays	
11. Can view and operate EES MUI	

Check list completed:

Name: _____

Date: _____

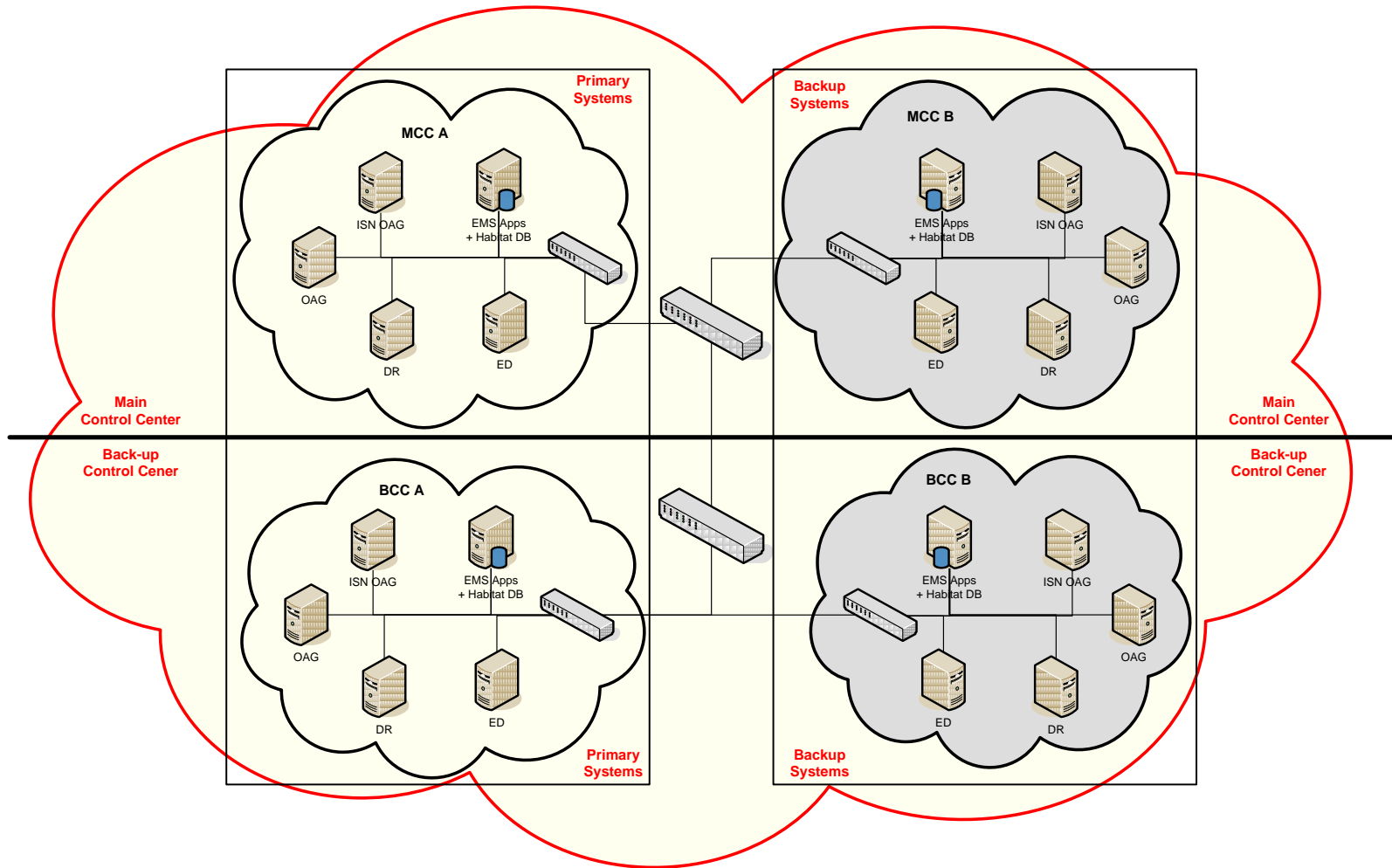
	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016


Attachment G - BCC Issues List (Required for NERC)

Date: _____


<u>Issue</u>	<u>Personnel Reporting</u>	<u>IT Contact</u>	<u>Resolution</u>

Attachment H - System Overview Diagram



	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

Attachment I - Retired (05/13/14)

	© ISO New England Inc. 2014	Procedure: Activate and/or Test Computers and Processes at the Back-up Control Center
	Process Name: Implement Emergency Operations	
	Procedure Number: RTMKTS.0120.0070	Revision Number: 15
	Procedure Owner: Steve Gould	Effective Date: May 13, 2014
	Approved By: Director, Operations	Valid Through: May 13, 2016

Attachment J - Retired (05/13/14)