Table of Contents

References

[None]

Procedure Background

The purpose of TOG alarming is to alert the Operator that a line, circuit breaker, transformer or AVR status identified with a TOG generates an alarm in the System Activity Log when the device changes state. Reference to the TOG for which the device alarming is set is typically entered into the details field at the time of setting the alarm checkmark. This reference is intended to increase situational awareness to help the Operator quickly identify there is a TOG to verify. Devices referenced in numerous TOGs (e.g. Chester SVC), should not be overly descriptive, but should remain more general. The intent of the TOG alarming is not to replace the Operators responsibility to ensure all applicable TOGs are followed, but to provide situational awareness.
TOG alarming is triggered by a change in RTNET status, **NOT** SCADA status.
Examples below, both with AVR TOG alarming enabled:

1. An AVR status in SCADA changes from on to off and then back to on, you will **NOT** receive a TOG alarm.
2. An AVR status in SCADA changes from on to off and a sequence runs while off, you will receive a TOG alarm.

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 communications.

F. Primary responsibilities are stated for each step within the procedure, but any ISO System 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.

Procedure

Condition(s) to perform this section:

- **A breaker (device) in EMS needs to have TOG alarming enabled; Or**
- **An AVR in EMS needs to have TOG alarming enabled; Or**
- **A line in EMS needs to have TOG alarming enabled; Or**
- **A transformer (XFMR) in EMS needs to have TOG alarming enabled; Or**

Section 1 : Enable TOG alarming on a device

Notes

- Device is an all-inclusive term for breakers, AVRs, lines, and transformers (XFMR).
- The SCADA AVR status has to be mapped to RTNET to be able to enable TOG alarming on an AVR.

Step 1.1 Primary Responsibility: Security Operator

Access the applicable display for TOG enabling.

Instructions

To access the display that will be used to enable TOG alarming perform the following:

- ❑ Navigate to the ILC display;
- ❑ Right click on the "TOG Devices" button;
- ❑ Hover over "TOG Alarm Summaries", that will cause another set of options to be displayed;
- ❑ Click on the applicable device name (AVR, BREAKER, LINE, XFMR).

Notes

When the device name is clicked, the software navigates to the required RTNET display for enabling TOG alarming.

Step 1.2 Primary Responsibility: Security Operator

Locate the applicable device.

Step 1.2.1 Primary Responsibility: Security Operator

Condition(s) to perform this step:

- **The generator AVR could NOT be located.**

Notify the IT On Call Technician that the AVR is NOT mapped to RTNET.

Notes

- No further action can be taken until the AVR has been mapped to RTNET. A network model release is required to map an AVR to RTNET.
- Notification that the requested AVR has been mapped to RTNET would be the condition to perform Section 1.

Step 1.3 Primary Responsibility: Security Operator

Set the TOG flag for the device.

Instructions

Once the TOG flag is set a confirmation pop up will verify that you want to set the flag, click "Yes".

Notes

To avoid potential distraction, TOG alarming should not be set on terminal breakers when setting the TOG flag for a line or transformer, unless there is a TOG for the individual breaker. Line and Transformer alarming is NOT solely determined by the terminal breakers.

Step 1.4 Primary Responsibility: Security Operator

Enter a reason for the TOG flag being set.

Instructions

- ❑ Click the "i" to bring up the TOG Details display for the device;
- ❑ Enter a reason for the TOG flag being set, hit enter then click Ok.

Notes

If you do **NOT** hit enter prior to clicking Ok, EMS will **NOT** accept the entry.

Step 1.5 Primary Responsibility: Security Operator

Run a Network Sequence.

Notes

When a device is enabled it will be displayed immediately on the Active ILC TOG Device Summary display.
The number of Active TOG Devices will **NOT** update until an RTNET sequence is run.

Step 1.6 Primary Responsibility: Security Operator

Verify the device is listed on the applicable Active ILC TOG Device Summary display.

Instructions

Perform the following:

- ❑ Access ILC;
- ❑ Right clicking on "TOG Devices" button;
- ❑ Hovering over "Active TOG Devices", that will cause another set of options to be displayed;
- ❑ Clicking on the applicable device name (AVR, BREAKER, LINE, XFMR);
- ❑ Locating the device in the list;
- ❑ Verify the number of Active TOG devices updated as expected.

Step 1.7 Primary Responsibility: Security Operator

Notify the Senior System Operator and Operations Shift Supervisor that a device has TOG alarming enabled.

Step 1.8 Primary Responsibility: Security Operator

Log enabling TOG alarming for the device.

Instructions

Use log entry: > TRANSMISSION > ILC TOG Device [E]

- ❑ Select the device type from the drop down menu;
- ❑ Select "enable" from the drop down menu;
- ❑ Identify the specific device in the comment box.

Condition(s) to perform this section:

- **TOG alarming for a breaker needs to be disabled; Or**
- **TOG alarming for an AVR needs to be disabled; Or**
- **TOG alarming for a line needs to be disabled; Or**
- **TOG alarming for a transformer (XFMR) needs to be disabled.**

Section 2 : Disable TOG alarming on a device

Step 2.1 Primary Responsibility: Security Operator

Access the applicable Active TOG Device display.

Instructions

To access the display that will be used to disable TOG alarming perform the following:

- ❑ Navigate to the ILC display;
- ❑ Right click on the "TOG Devices" button;
- ❑ Hover over "TOG Alarm Summaries", that will cause another set of options to be displayed;
- ❑ Click on the applicable device name (AVR, BREAKER, LINE, XFMR).

Notes

When the device name is clicked, the software navigates to the required RTNET display for disabling TOG alarming.

Step 2.2 Primary Responsibility: Security Operator

Remove the TOG flag for the device.

Instructions

Once the TOG flag is removed a confirmation pop up will verify that you want to remove the flag, click Yes.

Step 2.3 Primary Responsibility: Security Operator

Run a Network Sequence.

Notes

When a device is disabled it will be removed immediately from the Active ILC TOG Device Summary display.
The number of Active TOG Devices will **NOT** update until an RTNET sequence is run.

Step 2.4 Primary Responsibility: Security Operator

Verify the device is NOT listed on the Active ILC TOG Device Summary display.

Instructions

Perform the following:

- ❑ Access ILC;
- ❑ Right clicking on "TOG Devices" button;
- ❑ Hovering over "Active TOG Devices", that will cause another set of options to be displayed;
- ❑ Clicking on the applicable device name (AVR, BREAKER, LINE, XFMR);
- ❑ Verifying the device is **NOT** listed;
- ❑ Verify the number of Active TOG devices updated as expected.

Step 2.5 Primary Responsibility: Security Operator

Notify the Senior System Operator and Operations Shift Supervisor that a device has TOG alarming disabled.

Step 2.6 Primary Responsibility: Security Operator

Log disabling TOG alarming for the device.

Instructions

Use log entry: > TRANSMISSION > ILC TOG Device [E]

- ❑ Select the device type from the drop down menu;
- ❑ Select "disable" from the drop down menu;
- ❑ Identify the specific device in the comment box.

Condition(s) to perform this section:

- **TOG flag for a unit needs to be enabled; Or**
- **TOG flag for a unit needs to be disabled.**

Section 3 : Modify OP12B TOG flag on a unit

Notes

- OP12B TOG field is meant to identify a unit that has a TOG associated with it, and should **NOT** be dispatched outside their voltage tolerance band if a calculated **STABILITY** limit is present (that is not +/- 99999) unless authorized by the Real Time Studies Group, for example:
  - A unit that is associated with a TOG that is an 'adder' for the TOG located within an all lines in area, or
  - A unit that is an 'adder' for a line out condition, or
  - A unit that is behind an interface that has an active stability configuration, or
  - The unit is currently restricted by an associated TOG.
- The unit name and ISORR identifier will be highlighted blue when the flag is set.
- ISONE is responsible for monitoring voltage levels 115 kV and above, the LCCs are responsible to monitor the 69 kV and below, as such in the OP12B tool any 69 kV units Ignore and Suppress Alarms check boxes have been checked.

Step 3.1 Primary Responsibility: Security Operator

Modify OP12B TOG flag on a unit.

Instructions

- ❑ Access the OP12B display;
- ❑ Select the "OP12B Dispatch Zone Units" tab;
- ❑ Right click on "Show All Dispatch Zone On Line Units";
- ❑ Select "Show All Dispatch Zone Units"
- ❑ Modify the TOG flag for the applicable unit.

Step 3.2 Primary Responsibility: Security Operator

Run a Network Sequence.

Step 3.3 Primary Responsibility: Security Operator

Notify the Senior System Operator and Operations Shift Supervisor of the OP12B TOG flag modification.

Condition(s) to perform this section:

- **Weekly TOG check is assigned for Breaker, Line, Transformer, AVR or OP12B.**

Section 4 : Perform Weekly TOG checks

Step 4.1 Primary Responsibility: Any Qualified System Operator

Open the TOG Check Spreadsheet.

Instructions

Access the "Active TOG Check Spreadsheet" contained within the EMS Verification Spreadsheet folder on the Control Room SharePoint. (link)

Step 4.2 Primary Responsibility: Any Qualified System Operator

Condition(s) to perform this step:

- **Performing Breaker, Line, Transformer or AVR TOG checks.**

Setup ODMS Search/SOLR for the Applicable TOG Check to be performed.

Instructions

- ❑ Open ODMS Search/SOLR;
- ❑ Select All Applicable TOG Boxes under "Procedure Type" sort function;
- ❑ In the "Search" well type in one of the following for the appropriate TOG check being performed;
  - ❑ Line
  - ❑ Breaker
  - ❑ AVR
  - ❑ Transformer
  - ❑ BUS
- ❑ Select "Full Document" for any of these except for Bus;
- ❑ If performing a "BUS" TOG check then perform a search for the key word using "Title Only".

Step 4.3 Primary Responsibility: Any Qualified System Operator

Condition(s) to perform this step:

- **Performing Breaker, Line, Transformer or AVR TOG checks.**

Perform TOG Checks.

Instructions

- ❑ Check each guide in ODMS to ensure each guide is listed properly in the TOG Spreadsheet;
- ❑ From ILC use the "Active TOG Devices Summary" and applicable TOG device being checked, compare with the Active TOG Spreadsheet to ensure each applicable TOG is listed as necessary;
- ❑ Using each M/LCC1 attachment: identify all lines, breakers, transformers, buses, AVRs that require nuclear plant notification to comply with NPIRs;
- ❑ TOG/MLCC1 attachments that should have a TOG Active Alarm:
  - ❑ Any device (Breaker, Line, Transformer, AVR or Bus/device that is part of a Bus) that has a TOG (Not all guides within a search require a TOG device).
- ❑ Any device that affects a system limit in a TOG;
- ❑ Verify each TOG device has an appropriate EMS/SCADA ODMS One-Line link and works as expected.

Notes

- Due to the inability to apply the "EMS Key Word" to Buses in EMS, Bus TOGs should have an EMS One-Line link applied to each breaker of the applicable Bus.
- The ODMS link for AVRs will be linked to the resource the AVR is applicable to.

Step 4.3.1 Primary Responsibility: Security Operator

Condition(s) to perform this step:

- **EMS one-line link does not exist for a TOG; Or**
- **The EMS one-line link is not working.**

Notify the Lead Operations Shift Supervisor of the discrepancy.

Step 4.4 Primary Responsibility: Security Operator

Condition(s) to perform this step:

- **OP12B TOG check is being performed.**

Identify resources that require the TOG flag to be set in the OP12B tool in EMS.

Instructions

The TOG flag should be set if:

- ❑ A resource that is associated with a TOG that is an 'adder' for the TOG located within an all lines in area, Or
- ❑ A resource that is an 'adder' for a facility out condition, Or
- ❑ A resource that has a stability limit for a facility out condition; Or
- ❑ A resource that is behind an interface with an associated stability limit.

Notes

OP12B TOG field is meant to identify a unit that has a TOG associated with it, and should **NOT** be dispatched outside their voltage tolerance band if a calculated **STABILITY** limit is present (that is not +/- 99999) unless authorized by the Real Time Studies Group.

Step 4.5 Primary Responsibility: Any Qualified System Operator

Update the "Active TOG Spreadsheet" on the Control Room Sharepoint as necessary to make any applicable changes, additions, or removals.

Instructions

Provide a list of any updates, additions, and/or changes that need to be corrected in EMS whether or not they are in EMS to allow the Operations Shift Supervisor to decide if any of the changes need to be updated in EMS based on the results of the applicable weekly TOG check being performed.

Notes

Use **Exact** Titles of the guides, copied directly from ODMS and put into the TOG Spreadsheet and only use the most recent guide in effect. i.e. a line out guide has been superseded by a temporary guide, only identify the temporary guide.

Step 4.6 Primary Responsibility: Any Qualified System Operator

Inform the Operations Shift Supervisor and Security Operator of any changes that need to be made in EMS.

Step 4.7 Primary Responsibility: Operations Shift Supervisor

Review the finished TOG check data to determine what changes are required for Active TOGs in EMS.

Step 4.8 Primary Responsibility: Operations Shift Supervisor

Provide the Security Operator with the applicable changes needed in EMS.

Step 4.9 Primary Responsibility: Security Operator

Apply the recommended Active TOG alarm changes in EMS.

Instructions

- ❑ Enable TOG Device per Section 1 of this CROP;
- ❑ Disable TOG Device per Section 2 of this CROP;
- ❑ Modify OP12B per Section 3 of this CROP.

Revision History

Rev. No.	Date (MM/DD/YY)	Reason	Contact
0	12/16/13	Initial revision of this Procedure	Steven Gould
1	03/13/14	Complete rewrite of procedure for addition of TOG alarming on Lines and Transformers, and ILC changes for the new alarming devices.	Steven Gould
2	02/23/16	Biennial review	Steven Gould
3	10/11/17	Administrative Format change	Steven Gould
4	02/09/18	Addition of a new Section and biennial review	Steven Gould
5	01/17/20	Biennial review, evaluated notes and instructions Removed redundant condition to enter Section 1	Steven Gould
6	11/17/20	Added to the Background section, clarifying info to step 1.4 and a note to section 3.	Steven Gould
7	10/24/22	Updated Common Procedure Information; Incorporated Step 1.1 into 1.2, Incorporated Step 2.1 into 2.2; Consolidated Steps into Instructions in Section 3. Deleted the instruction in Step 1.3 as it was covered in Step 1.5; Combined Steps 1.5 & 1.6	Jonathan Gravelin
8	11/16/22	Added Section 4	Jonathan Gravelin
9	11/28/22	Rename section 3 from “alarming” to “flag”, Removed Section 4	Jonathan Gravelin
10	08/09/23	Updated Instruction in Step 2.1; Added Section 4	Jonathan Gravelin