	<b>Reliability Coordinator Procedure</b>	<b>Procedure No.</b>	RC0130A
		<b>Version No.</b>	1.1
		<b>Effective Date</b>	1/29/2021
<b>SOL Exceedance Reporting Guideline</b>		<b>Distribution Restriction: None</b>	

## Purpose

This Appendix provides guidance on notification requirements for Transmission Operators (TOPs) to notify Real-time System Operating Limits (SOL) exceedances within the Reliability Coordinator (RC) Area to RC Operator. The guidance allows time for the TOP to verify the exceedance and begin mitigation, as appropriate, and avoids unduly burdening TOP and RC operators with notification requirements.

## 1. Scope / Applicability

The time periods provided are only given as general guidelines for notifications. These time periods do not apply to mitigation actions. Mitigation should begin without delay for any SOL exceedance. This guidance does not prevent the TOP and/or RC from communicating at any time, for any reason.


### 1.1 Background

SOLs are established in the RC Area by Transmission Operators (TOP) consistent with RC0610 System Operating Limits Methodology for the Operations Horizon. Per this methodology, SOLs include Facility Ratings, System Voltage Limits, and Stability limits.<sup>1</sup>

RC0610 considers an SOL exceedance to be a condition characterized by any of the following:

1. Actual/pre-Contingency flow on a Facility is above the Normal Rating.
2. Calculated post-Contingency flow on a Facility is above the highest Emergency Rating.
3. Actual/pre-Contingency bus voltage is outside normal System Voltage Limits.
4. Calculated post-Contingency bus voltage is outside emergency System Voltage Limits.
5. Operating parameters indicate a Contingency could result in instability.

This guideline pertains to sustained SOL exceedances, meaning exceedances that are not momentary, based on Operator judgement and discretion.

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## 2. Notification Guidelines

**Category 1:** Notify as soon as possible, within 5 minutes of discovering the exceedance but no more than 15 minutes.<sup>2</sup>

- IROL exceedance
- Verified Insecure Operating State<sup>3</sup>
- Actual or calculated post-contingency exceedance of Stability Limits
- Calculated Post-Contingency exceedance of highest emergency Facility Rating  $\geq 120\%$
- Actual exceedance of emergency System Voltage Limits (High or Low)
- Calculated Post-Contingency exceedance of Emergency Low System Voltage Limit
- Actual exceedance for greater than the associated time parameter assigned to the emergency limit.

**Category 2:** Notify within 20 minutes


- Calculated Post-contingent exceedance of 100-120% of highest emergency Facility Rating
- **Actual exceedance of normal Facility Ratings**
- Actual exceedance of Normal System Voltage Limit (high or low)
- Calculated Post-contingency exceedance of emergency High System Voltage Limit<sup>4</sup>

**Category 3:** **Within 30 minutes**

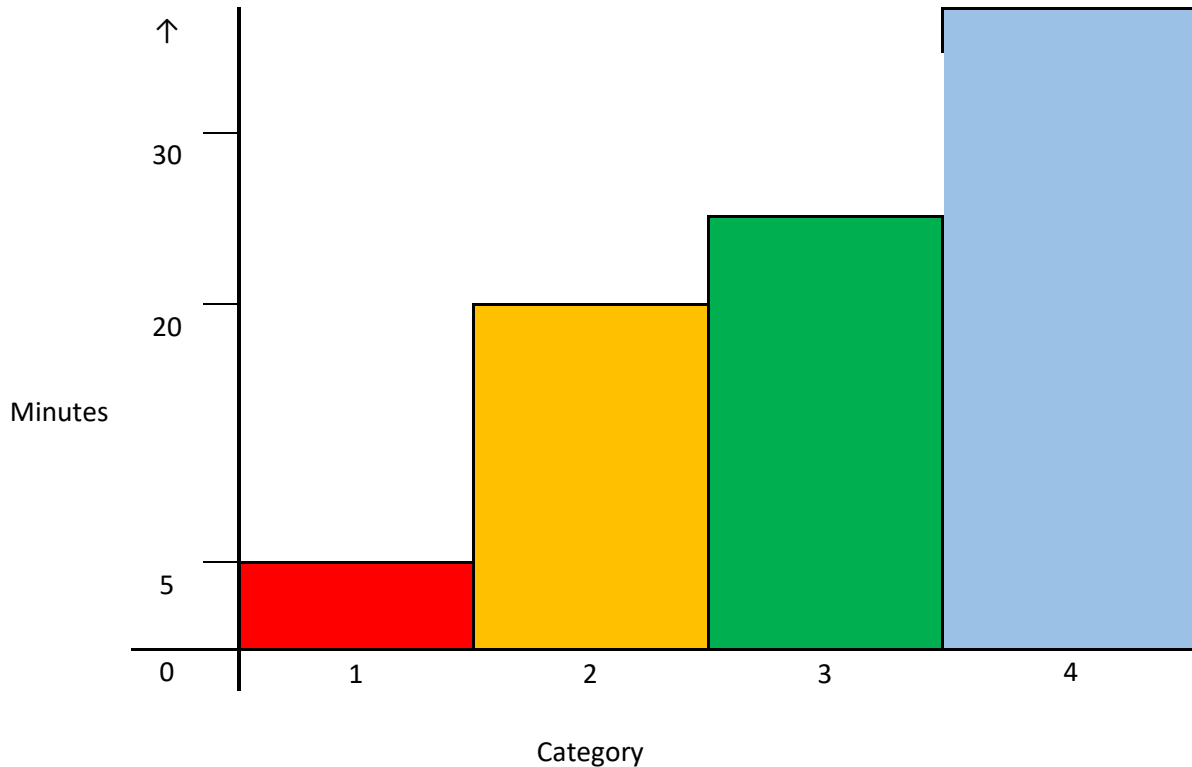
- **Provide within 30 minutes of** RC request **for** a post-contingent mitigation plan for a calculated post-contingency (**RTCA**) exceedance that a TOP is unable to mitigate in a timely manner by implementing the primary Operating Plan.
- SOL exceedances, which were mitigated according to an operating guide, procedure, or outage, card instruction (e.g., A TOP Operator mitigate an SOL exceedance by reconfiguring the system as described by instruction in an outage card. This mitigation should be reported to the RC within 30 minutes).

**Category 4:** Other information as deemed necessary, no specific timeline

- Other operating information regarding SOL mitigation that is deemed important to the RC.

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**Notification Guideline Chart**



1. Further SOL information and definitions available in [RC West Operating Procedure RC0610 System Operating Limits Methodology for the Operations Horizon](#).
2. SOL exceedances (excluding IROL and Insecure Operating State), which are mitigated via by outage card or operating guide instructions, are Cat 3.
3. Insecure Operating State defined in [RC West Operating Procedure RC0310 Mitigating SOL and IROL Exceedances](#), Section 3.9.
4. **Note regarding high system voltage limit monitoring for the calculated post-Contingency state (i.e., through RTCA):**

Operating within emergency high system voltage limits for the calculated post-Contingency state has historically proven to be a challenge in the Western Interconnection. Very often, TOP-provided emergency high system voltage limits are too low to be realistically operated within the calculated post-Contingency state (i.e., through RTCA), particularly during light load conditions. The overabundance of the post-Contingency exceedance of emergency high system voltage limits in RTCA can distract operators from having awareness of more critical and actionable operational risks. In such

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light load conditions, often there are no mitigation actions that the TOP can take to reduce the post-Contingency voltages. For this reason, TOPs are expected to use discretion and to contact RCs for only those post-Contingency exceedances of high system voltage limits that are particularly severe and actionable based on operational experience and judgment.

### 3. Supporting Information

#### Operationally Affected Parties

Shared with **the** Public.

#### Version History

Version	Change	Date
1.0	New Appendix created.	9/10/19
1.1	Actual exceedance of normal Facility Ratings changed from Category 1 to 2. Clarified language in category 3. Updated RC West procedure references. Minor format and grammar updates for consistency. Approved by Real-Time Working Group (RTWG).	1/29/21

### 4. Periodic Review Procedure

#### Review Criteria & Incorporation of Changes

There are no specific review criteria identified for this document.

#### Frequency

Review at least once every three years.

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