

Comment Form for Definition of Contingency

Please use this form to submit comments on the Determine Facility Ratings Drafting Team's revised definition of Contingency. Comments must be submitted by **January 17, 2006**. You must submit the completed form by emailing it to sarcomm@nerc.com with the words "Contingency Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or 609.452.8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:**
- Do** enter text only, with no formatting or styles added.
 - Do** use punctuation and capitalization as needed (except quotations).
 - Do** use more than one form if responses do not fit in the spaces provided.
 - Do** submit any formatted text or markups in a separate WORD file.

- DO NOT:**
- Do not** insert tabs or paragraph returns in any data field.
 - Do not** use numbering or bullets in any data field.
 - Do not** use quotation marks in any data field.
 - Do not** submit a response in an unprotected copy of this form.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Ron Falsetti	
Organization:	Independent Electricity System Operator (IESO), Ontario	
Telephone:	905 855-6187	
E-mail:	ron.falsetti@ieso.ca	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> ECAR	<input checked="" type="checkbox"/>	2 — RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory, or other Government Entities
<input type="checkbox"/> WECC	<input type="checkbox"/>	
<input type="checkbox"/> NA — Not Applicable	<input type="checkbox"/>	

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Background:

During the first ballot and re-ballot of FAC-010 - System Operating Limits Methodology and FAC-011 - Establish and Communicate System Operating Limits, stakeholders indicated that the definition of contingency could have multiple interpretations, and asked the drafting team to modify the definition to clarify the intent. The drafting team modified the definition as follows:

Contingency: The unexpected loss of one or more Bulk Electric System Facilities caused by a single initiating ~~event~~ failure or outage.

Please Enter All Comments in Simple Text Format.

Insert a “check” mark in the appropriate box by double-clicking the gray areas.

1. Do you agree with the proposed change to the definition of ‘Contingency’?

Yes

No

Comments: (1) Change of the definition during the development of a Reliability Standard without reviewing other standards for consistency is potentially problematic. The IESO nevertheless proposes the following definition to eliminate concerns raised regarding single or multiple initiating events, if it is to change.

"Contingency: An unexpected event, which could result in the loss of one or more Bulk Electric System facilities."

It is also the IESO's view a revision to the definition 'contingency' only, fails to fully capture concerns previously raised with this standard; specifically:

2). While, we recognize that the Standards Drafting Team has included a provision in section R4.5 which permits a Region to establish criteria requiring consideration of credible multiple element contingencies. We continue to believe that reliability standards recognizing this class of contingencies should be maintained in all of North America, not only certain Regions. A weakening of reliability standards in any Region could adversely affect the reliability in another Region, even if the other Region has adopted more stringent standards.

We further believe it is inconsistent with a critical recommendation of the joint U.S.- Canada Power System Outage Task Force in its Final Report of the August 14, 2003 Blackout. Specifically, recommendation #25 which states that the NERC process to re-evaluate its standards should “not dilute the content of the existing standards. Standard FAC-010-1, in our view fails to meet this principle since it does not require consideration of credible multiple element contingencies. It is also in this context that we believe inconsistencies exist between FAC-010-1 and the existing Transmission Planning (TPL) series of standards, resulting in confusion in the industry.

R2 of proposed standard FAC-010-1 states that the standard’s required methodology “shall be applicable to development of SOLs during the planning horizon”. However, the recently adopted transmission system planning standard TPL-003-0, “System Performance Following Loss of Two or More BES Elements”, includes a requirement to assess Category C contingencies as listed in Table 1, i.e., events resulting in the loss of two or more (multiple) elements. Therefore, adoption of FAC-010-1 in its present form,

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without considering Category C contingencies, would be inconsistent with Standard TPL-003-0 and would thus result in a weakening of existing NERC standards.

3) Additionally, standard FAC-010-1, requirement R4.2.2 is not totally consistent with standard TPL-002-0. TPL-002-0 requires that category "B" contingencies as listed in Table 1 be observed. Table 1 of the standard includes requirements stated in FAC-010-1 R4.2.2 and 4.2.3, but also includes the "Loss of an Element without a Fault", as a requirement to be met. FAC-010-1 as currently written would appear to exclude the loss of any single bus or an inadvertent breaker opening. Either of these are single contingencies that can remove additional BES facilities or reconfigure the BES to the point where the BES could be in a cascading situation. It needs to be clarified whether the exclusion of a single bus or an inadvertent breaker operation is deliberate from Requirement R4.2.2. If not, Requirement R4.2.2 should include the missing categories specified in the "element" definition, or make reference to the TPL-002 standard, Table 1. We prefer to have reference to the TPL standard, which will eliminate the need to revise this standard should the other standard changes.

[R4.2 states: "Following the single Contingencies identified in Reliability Standard FAC-010-1_R4.2.1 through R4.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading Outages or uncontrolled separation shall not occur"]. It excludes provision for respecting all the applicable ratings as stipulated in Table 1 of TPL-002-0

IESO Recommendations:

1). It needs to be clarified whether the exclusion of a single bus or an inadvertent breaker is deliberate from Requirement R4.2.2 and if so why?

2). We believe that we understand and agree with the goals of requirement R4.2, but do not support the requirement as stated. It currently states that "Following contingencies... all facilities shall be operating within their facility ratings and within their thermal, voltage and stability limits." It is impractical to expect to be operating within all limits immediately following a contingency.

Assuming the goal is to clarify the standard we propose the following revised wording.

R4.2 "Following the single Contingencies identified in FAC-010 Requirement 4.2.1 through Requirement 4.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their applicable Normal and Emergency thermal ratings, voltage and stability limits within the applicable re-preparation time (Interconnection Reliability Operating Limit Tv (IROL Tv); and Cascading Outages or uncontrolled separation shall not occur."

3). We further suggest that, in order to be consistent with standard TPL-003, "Category C" contingencies be included in standard FAC-010-1 SOL methodology for use in developing SOL's,

While we recognize that the SDT has included a provision in section R4.5 which permits a Region to establish criteria requiring consideration of credible multiple element contingencies. However, we believe that reliability standards recognizing this class of

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contingencies should be maintained in all of North America, not only certain Regions. A weakening of reliability standards in any Region could adversely affect the reliability in another Region, even if the other Region has adopted more stringent standards.

We thank the standards drafting team for their efforts and commend the team for their work in developing this standard.

The IESO appreciates the opportunity to table these comments and looks forward to participating further in the standards development process.