

Summary Consideration:

The drafting team thanks all members of the Ballot Pool who took the time to cast a ballot on the following standards:

- FAC-010 — System Operating Limits Methodology for the Planning Horizon
- FAC-011 — System Operating Limits Methodology for the Operations Horizon
- FAC-014 — Establish and Communicate System Operating Limits

The initial ballot for this set of standards was conducted from September 19 through September 29, 2006. There are 272 members of the ballot pool for this standard, and 222 members of the ballot pool cast a ballot with an affirmative vote, a negative vote or an abstention. All of the comments that were received with either an affirmative or a negative ballot are duplicated in this document – where identical comments were submitted by multiple parties, the comments are shown once with the names of all balloters who submitted those comments.

The drafting team fixed a typographical error in FAC-011-1 R3.5 to change, 'Remedial Action Plans' to 'Remedial Action Schemes', but did not make any other changes to FAC-010, FAC-011 or FAC-014 as a result of the comments submitted with the first ballot.

- Most of the issues raised in this set of comments are issues that have already been raised by members of the NPCC region and have been addressed by the drafting team but the drafting team's responses and modifications have not satisfied the objectors. These comments suggest that the criteria used for establishing system operating limits used in the operating horizon subsequent to each and every real outage should be identical to those used in establishing system operating limits used in the planning horizon based on a starting point of "all facilities in service". This would require entities to operate to the requirements of all Category C contingencies on all bulk electric system facilities (defined as those generally rated at 100 kV and above) even after several prior outages and goes beyond existing operating standards.
- These comments ignore the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations, is a condition that has rarely, if ever, been simulated, and is more stringent than any condition required to be considered in the planning horizon under existing standards.
- During the last comment period for this set of standards, the drafting team asked stakeholders if they supported expanding existing operating standards to require consideration of all Category C contingencies in the setting of system operating limits used in the operating horizon. Most stakeholders, except those from the NPCC Region, indicated they do not support the proposed expansion to existing operating standards.

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Cauley at 609-452-8060 or at gerry.cauley@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedure:
<http://www.nerc.com/standards/newstandardsprocess.html>

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
<p>Alan Adamson – Negative</p> <p>Richard Bolbrock – Negative</p> <p>Henry G Masti - Negative</p>	<p>The New York State Reliability Council (NYSRC) is concerned that to avoid severe reliability impacts, these standards must require consideration of all credible multiple element contingencies in the determination of system operating limits (SOLs), both in the planning and operating horizons. The version now being balloted reflects revision of the standards in certain areas in order to improve consensus on this issue. We commend the drafting team for their efforts in reaching out to others for their recommendations. Despite these efforts, however, the revised FAC-011-1 version that is now being balloted still does not satisfy similar concerns that we have had in the past with earlier drafts. Therefore, the NYSRC has voted against this standard.</p> <p>1. In the version of the system operating limit methodology standards now being balloted, the drafting team has split the SOL development methodology into two separate standards - for the planning (FAC-010-1) and operating (FAC-011-1) horizons, respectively. While the new FAC-010-1 now requires consideration of credible multiple element Category C contingency events (see footnote 1) for determining SOLs for the planning horizon, the new FAC-011-1 that applies for the operating horizon is ambiguous, and is not consistent with FAC-010-1 with respect to application of Category C contingency requirements. The SOL methodology should be one and the same for both the planning and operating horizons - both must require consideration of credible multiple element contingencies. Not considering this class of contingencies for determining SOLs during the operating horizon compromises the reliability of the bulk power system and weakens system reliability.</p> <p>There are inconsistencies within Requirement 2 of both standards FAC-010-1 and FAC-011-1. Requirement 2.4 in FAC-010-1 states that “with all facilities in service and following multiple contingencies identified in TPL-003, the system shall demonstrate transient, dynamic and voltage stability: all facilities shall be operating with their facility ratings and within their thermal, voltage and stability limits...” However, in FAC-011-1, there is no reference to this requirement in Requirement 2.4. Instead, the drafting team inserted a multiple contingency reference in Requirement 3.3 that a Reliability Coordinator (RC) must have a “process for determining which of the stability limits associated with the list of multiple contingencies (provided by the Planning Authority in accordance with FAC-014 Requirement 6) are applicable for use in the operating horizon given the actual or expected system conditions”. This implies that the RC is not required to operate the real time system within SOLs determined from credible multiple contingency scenarios. One of the arguments recently offered by the drafting team as to why multiple element contingencies should not be considered in this standard is that the lower SOLs resulting from these more stringent requirements would restrict competition. Not only is this argument on its face flawed, the Northeast systems already operate to this criteria without any such impacts. We also disagree with a drafting team argument that using the more stringent multiple element contingency criteria could lead to several real-time operating impacts that would actually lower reliability. To our knowledge, the Northeast systems have never experienced such adverse reliability impacts while applying these more stringent reliability requirements.</p> <p>2. Finally, we would call attention to the PP&L survey of the PJM transmission outage data base. It was found that multiple element contingencies occur on the PJM bulk power system, on the average, 18 times per year. This is a dramatic demonstration of the need to include multiple element contingencies in determining SOLs. We recognize</p>

Commenter	Comment
	<p>that a Region is permitted to establish criteria for determining SOLs requiring consideration of credible multiple element contingencies for the operating horizon. However, we believe that 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 adopts more stringent standards. To illustrate: The origin of the August 2003 Blackout was in a Region that did not require consideration of multiple element contingencies for determining SOLs. However, we all know that systems in the Northeast that require consideration of this class of contingencies were adversely impacted by the Blackout. We understand that recently there has been discussion at the NERC Planning Committee that more work is needed on these standards and that accordingly, a joint PC-OC Task Force may be formed to develop a SAR and a technical recommendation for the purpose of revising these standards. This SAR would bridge the gap between credible multiple element planning contingencies and what operations should do with them. The NYSRC supports this work and strongly encourages NERC to commit to this initiative, whether or not these standards receive the necessary votes for adoption during this present balloting period.</p> <hr/> <p>1 These are events resulting in loss of two or more (multiple) elements listed in Category C of Table 1, Transmission System Standards Normal and Contingency Conditions, referenced by the TPL Standards.</p>
<p>Response:</p>	<p>These comments ignore the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. NYSRC's comments would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p> <p>It is questionable whether the more stringent requirements favored by NYSRC can actually improve reliability for customers. To meet such requirements in real-time, utilities may need to resort to pre-contingency load shedding, reducing the SOLs so much that it may impact deliverability of needed resources, or lead to the proliferation of the use of Special Protection Schemes (SPSs). Pre-contingency load shedding would impact customer service reliability to protect against contingencies that may or may not occur. Excessive reduction of the SOLs could render resources needed to support customer loads and reserve margins to be undeliverable, which could result in rolling blackouts, and would restrict competition. The probability of mis-operation of SPSs could be higher than the probability of the occurrence of the multiple contingencies.</p>

Commenter	Comment
	<p>The drafting team asked stakeholders if they support operation to all Category C contingencies, and stakeholders indicated that they do not support this expansion to existing operating standards. This would have required operating to all Category C contingencies on facilities 100 kV and above. Several technical reasons were provided for not supporting the proposed expansion to existing operating standards. Please see the consideration of comments on Draft 8 of the standards, pages 33 through 36 to see the stakeholder reasons provided for not supporting the proposal to consider all Category C contingencies in the operating horizon. http://www.nerc.com/%7Efilez/standards/Determine-Facility-Ratings.html</p> <p>As indicated above, the starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment.</p> <p>The PP&L survey involved a very small sample over a short period of time and didn't have strict controls over the data collection and interpretation. Additional research needs to be conducted to put this survey into context. The author of the PP& L study supports the modifications made to FAC-014 and FAC-011 to require the Planning Authority to identify 'stability-related' multiple contingencies and to provide those contingencies and their associated limits to the Reliability Coordinator – with the Reliability Coordinator required to have a process to determine if the stability-related limits are applicable for use in the operating horizon.</p>
<p>Mike Penstone – Negative</p> <p>Ajay Garg - Negative</p>	<p>Hydro One Networks Inc. casts a negative vote on these Standards. We offer the following comments:</p> <p>Hydro One Networks agrees with the proposed Standards FAC-010-1 (SOLs Methodology for the Planning Horizon) and FAC-014-1 (Establish and Communicate SOLs). Hydro One Networks does not support the proposed Standard FAC-011-1 (SOLs Methodology for the Operations Horizon).</p> <ol style="list-style-type: none"> 1. During the development of the standard, the drafting team decided to separate the SOL calculation methodology into two separate standards, one for the planning horizon (FAC-010-1) and one for the operations horizon (FAC-011-1). While the planning horizon standard requires consideration of credible multiple elements (Category C) contingencies, the operations horizon standard is not consistent with respect to the consideration of Category C contingencies. When calculating SOLs the same criteria must be used in the operations and the planning horizons, irrespective of elements in or out of service. 2. Compliance with the requirement in FAC-010-1 is sometimes achieved at a significant incremental cost. Then, the operating standard permits to ignore certain contingencies and the extra costs are not fully taken advantage of. 3. Adoption of FAC—011-1 in its current form would be inconsistent with FAC-010-1 and would represent a weakening of the current standards. 4. While recognizing that Regions are permitted to establish more stringent criteria for determining SOLs, we believe that the NERC Standards should strive for consistency across North America. Events in one Region with weaker standards will have an adverse effect on neighbouring Regions. The august 14th, 2006 Blackout provides clear

Commenter	Comment
	<p>evidence of this fact.</p> <p>5. In summary, the FAC-011-1 Standard, as proposed, will not be a contributing factor to enhancing the reliability of the BES. Its application will reduce the reliability of the BES to its least common denominator and directly negate the achievements obtained with the adoption of new standards in the industry for the last several years.</p>
<p>Response:</p> <ol style="list-style-type: none"> 1. These comments ignore the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards. 2. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. 3. It is questionable whether the more stringent requirements proposed can actually improve reliability for customers. To meet such requirements in real-time, utilities may need to resort to pre-contingency load shedding, reducing the SOLs so much that it may impact deliverability of needed resources, or lead to the proliferation of the use of Special Protection Schemes (SPSs). Pre-contingency load shedding would impact customer service reliability to protect against contingencies that may or may not occur. Excessive reduction of the SOLs could render resources needed to support customer loads and reserve margins to be undeliverable, which could result in rolling blackouts, and would restrict competition. The probability of mis-operation of SPSs could be higher than the probability of the occurrence of the multiple contingencies. 4. The causes of the August 14 blackout involved many issues, including insufficient vegetation control, non-performing operating tools, and a lack of operator situational awareness, among others. The drafting team does not believe that simply having a standard that requires operating to all Category C contingencies would have prevented the blackout. 5. See response to comment 3. 	

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
Alden Briggs - Negative	Although NBSO supports the direction that the re-drafted standards FAC-010, 011 and 014 are going, the standards fall short of enhancing reliability without the recognition of credible multiple contingencies in operations and more work needs to be done. The Blackout of 2003 provided evidence that disturbances outside of a Region can be a detriment to reliability, irrespective of how a Region calculates or respects limits within its own footprint. When determining SOLs, NBSO continues to believe it is important to use the same "Table 1, TPL-003, Category C" type contingencies used in the planning process for determining operating limits, irrespective of line out conditions (i.e. maintenance, etc.) and these contingencies should be respected in the operating environment.
<p>Response: These comments ignore the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p> <p>The causes of the August 14 blackout involved many issues, including insufficient vegetation control, non-performing operating tools, and a lack of operator situational awareness, among others. The drafting team does not believe that simply having a standard that requires operating to all Category C contingencies would have prevented the blackout.</p>	
David Mark Conroy - Negative	Central Maine Power (CMP) votes against FAC-010, 011, & 014 because the new FAC-011-1 that applies for the operating horizon is ambiguous, and is not consistent with FAC-010-1 with respect to application of Category C contingency requirements. The SOL methodology should be one and the same for both the planning and operating horizons - both must require consideration of credible multiple-element contingencies.
<p>Response: These comments ignore the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple</p>	

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Commenter	Comment
	<p>contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p>
Edwin Thompson - Negative	Con Edison supports comments made by the NYSRC
	Response: Please see the response to the comments made by the NYSRC.
Michel Armstrong - Negative	<p>For the Quebec system and interconnection in particular the Fac011 requirements would diminish the reliability .It is important to use the same Table 1, TPL-003, Category C type contingencies used in the planning process for determining operating limits, irrespective of line out conditions (i.e. maintenance etc.) and these contingencies should be used in the operating time frame. Credible multiple element contingencies (stuck breaker, DC tie bi-polar trip or dual circuit line) limits are calculated in planning and operation for the quebec system.</p>
	<p>Response: These comments ignore the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p> <p>If Hydro-Quebec currently considers all multiple contingencies on all its bulk electric system facilities (generally 100kV and above) in the development of SOLs for use in the operating horizon, then adherence to FAC-011 would not require Hydro-Quebec to modify this practice.</p>
Robert George Coish – Negative Mark Aikens – Negative	Mainly, Manitoba Hydro agrees with the NYSRC comments for voting negative.

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Commenter	Comment
Daniel C Prowse - Negative	
<p>Response: Please see the response to the comments made by the NYSRC.</p>	
Peter Henry Lebro - Negative	<p>While National Grid supports the direction taken in the proposed standards, they fail to include credible multiple contingencies that could adversely affect bulk power system reliability.</p>
<p>Response: Requiring entities to use the same criteria for developing SOLs for use in both the planning and operating horizons ignores the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p> <p>The drafting team asked stakeholders if they support operation to all Category C contingencies, and stakeholders indicated that they do not support this expansion to existing operating standards. This would have required operating to all Category C contingencies on facilities 100 kV and above. Several technical reasons were provided for not supporting the proposed expansion to existing operating standards. Please see the consideration of comments on Draft 8 of the standards, pages 33 through 36 to see the stakeholder reasons provided for not supporting the proposal to consider all Category C contingencies in the operating horizon. http://www.nerc.com/%7Efilez/standards/Determine-Facility-Ratings.html</p>	
Michael Schiavone - Negative	<p>Although Niagara Mohawk supports the direction that the re-drafted standards FAC-010, 011 and 014 are going, the standards fall short of enhancing reliability without the recognition of credible multiple contingencies in operations and more work needs to be done.</p>
<p>Response: Requiring entities to use the same criteria for developing SOLs for use in both the planning and operating horizons ignores the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely</p>	

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Commenter	Comment
	<p>operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p>
<p>Gregory Campoli - Negative</p>	<p>The NYISO commends the drafting team for taking steps to strengthen the requirements in FAC-010, 011 and 014, however they still fall short of requirements we continue to operate to in the Northeast. The NYISO continues to believe it is important to use the same "Table 1, TPL-003, Category C" type contingencies used in the planning process for determining operating limits, irrespective of line out conditions (i.e. maintenance, etc.) and these contingencies should be respected in the operating environment.</p>
	<p>Response: Requiring entities to use the same criteria for developing SOLs for use in both the planning and operating horizons ignores the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p>
<p>Ralph Rufrano - Negative</p>	<p>The negative vote is in support of NYSRC's concerns revolving around FAC-011.</p>
	<p>Response: Please see the response to the comments made by the NYSRC.</p>
<p>Norman Mah – Negative</p>	<p>Con Edison supports comments made by the NYSRC</p>

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
Rebecca Adrienne Craft - Negative	
Response: Please see the response to the comments made by the NYSRC.	
Donald Nelson - Negative	The Massachusetts Department of Telecommunications and Energy supports the comments made by NPCC.
Response: Please see the response to the comments made by the NYSRC.	
David D Little - Negative	Although the standards have moved in the positive direction, we believe that they must include the type C Category contingencies.
<p>Response: Requiring entities to use the same criteria for developing SOLs for use in both the planning and operating horizons ignores the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p>	
Terry Blackwell - Negative	I do not agree with FAC-010 and FAC-011.
Response: Please be more specific in identifying what you feel should be modified.	
Kathleen Goodman - Negative	ISO New England agrees with the NYSRC that "the adoption of these standards as now drafted would result in weakening of reliability as a result of use of a "lowest common denominator" approach used for developing these standards." and, as such, has continued to maintain their no vote.
Response: Please see the response to the comments made by the NYSRC.	

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
Edward Schwerdt - Negative	<p>Although NPCC supports the direction that the re-drafted standards FAC-010, 011 and 014 are going, the standards fall short of enhancing reliability without the recognition of credible multiple contingencies in operations and more work needs to be done. The Blackout of 2003 provided evidence that disturbances outside of a Region can be a detriment to reliability, irrespective of how a Region calculates or respects limits within its own footprint. When determining SOLs, NPCC continues to believe it is important to use the same "Table 1, TPL-003, Category C" type contingencies used in the planning process for determining operating limits, irrespective of line out conditions (i.e. maintenance, etc.) and these contingencies should be respected in the operating environment. NPCC is in agreement with recent discussions at the NERC Planning and Operating Committees that more work is needed on these standards and has the expectation that a joint PC-OC-OLD Task Force will be formed to develop technical recommendations that will address the application of credible multiple element contingencies in operations irrespective of the outcome of this vote.</p>
	<p>Response: Requiring entities to use the same criteria for developing SOLs for use in both the planning and operating horizons ignores the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p> <p>The causes of the August 14 blackout involved many issues, including insufficient vegetation control, non-performing operating tools, and a lack of operator situational awareness, among others. The drafting team does not believe that simply having a standard that requires operating to all Category C contingencies would have prevented the blackout.</p>
James T Gallagher - Negative	<p>Our vote rejecting these standards is based on a lack of consideration of credible multiple contingencies in determining operating SOLs in FAC-011. It is clear by the WECC regional difference and comments submitted by NPCC that it is possible to consider multiple contingencies in the operating environment with appropriate performance measures. Failure to consider credible multiple contingencies in operating SOLs would likely lead to a reduction in reliability in some portions of the system. Rather than reducing reliability levels to the lowest common denominator, the inclusion of credible multiple contingencies in determining operating SOLs should be a national requirement. Until the efforts by the Operating and Planning Committees resolve the issue, no changes should be made that have the potential to reduce reliability in portions of the system.</p>

Commenter	Comment
	<p>Response:</p> <p>Requiring entities to use the same criteria for developing SOLs for use in both the planning and operating horizons ignores the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an 'extreme contingency' (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p> <p>WECC requires consideration of specific, credible multiple contingencies in the operating horizon on its 500 kV system and lower voltage facilities that could impact the operations of the other WECC members. In the operating horizon, WECC does not require consideration of all Category C contingencies within a member system above 100 kV, especially if they are not expected to impact operation of the Western Interconnected System. Individual members do protect against selected credible Category C Contingencies that have been shown to have wide spread impact within their respective systems.</p> <p>The standard does require consideration of stability-related multiple contingencies.</p> <p>The drafting team asked stakeholders if they support operation to all Category C contingencies, and stakeholders indicated that they do not support this expansion to existing operating standards. This would have required operating to all Category C contingencies on facilities 100 kV and above. Several technical reasons were provided for not supporting the proposed expansion to existing operating standards. Please see the consideration of comments on Draft 8 of the standards, pages 33 through 36 to see the stakeholder reasons provided for not supporting the proposal to consider all Category C contingencies in the operating horizon. http://www.nerc.com/%7Efilez/standards/Determine-Facility-Ratings.html</p>
Sam Waters – Negative	It is inappropriate to apply SOLs in the planning process as required in FAC-010. SOLs are by definition "operating" limits and are not used or applicable in planning.
Lee G Schuster – Negative	<p>Other provisions of FAC-010 are redundant to or should be incorporated in the TPL standards.</p> <p>The FAC-011 R2 requires that stability analysis be performed, and stability limits confirmed, in the operations</p>

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
Wayne Lewis – Negative Verne Ingersoll II - Negative	environment. However, stability analysis is not possible with existing techniques in the operations environment. The standards already require that the Bulk Electric System be planned and built to remain stable under specified contingencies. However, it is not feasible to perform such analysis in the operations environment.
<p data-bbox="199 412 1885 469">Response: The SOLs developed by the Planning Authority are used in planning studies to simulate future operating conditions. Not all planning entities have traditionally called these ‘SOLs’. For example, in WECC SOLs are equivalent to ‘path ratings’.</p> <p data-bbox="199 501 1215 529">Please be more specific in identifying what you feel is redundant to the TPL standards.</p> <p data-bbox="199 561 1871 618">FAC-011 R2 does not require that a stability analysis be performed in ‘real-time’ – as envisioned, these studies are conducted in the ‘operating horizon’ which can be several hours or days ahead of ‘real-time’. This assessment of stability can be based on prior studies.</p>	
Doug Hills - Negative	<p data-bbox="497 656 1285 683">Duke Energy as the TO votes no for the following primary reasons:</p> <p data-bbox="497 688 1808 716">1) The requirements (particularly in FAC-010) are duplicative of requirements in other, primarily TPL, standards.</p> <p data-bbox="497 748 1877 805">2) The SOL development methodology is not consistent across the standards (specifically Requirement 2 of FAC-010 and FAC-011) and across the planning and operating horizons.</p> <p data-bbox="497 837 1839 894">3) Differing methodologies for RCs and PAs may cause irresolvable inconsistencies for the TOPs in FAC-014 and leaves TOPs open to violations.</p>
<p data-bbox="199 904 327 932">Response:</p> <ol data-bbox="247 943 1898 1398" style="list-style-type: none"> <li data-bbox="247 943 1310 971">1. Please be more specific in identifying what you feel is redundant to the TPL standards. <li data-bbox="247 980 1898 1398">2. Requiring entities to use the same criteria for developing SOLs for use in both the planning and operating horizons ignores the differences in purposes and assumptions between planning and operating environments. Planning studies are used to determine transmission investments to deliver the best value to customers; and assume a starting condition of all facilities in service (Category A or TPL-001). Transmission investments are made in anticipation of single (Category B or TPL-002) and multiple (Category C or TPL-003) contingencies. Operating studies provide information to protect against the next worst single contingency since, in real-time, the transmission system is rarely operating with all facilities in service. The starting condition in the operating environment is, at best, post single contingency (equivalent to Category B conditions in the planning environment) conditions. Therefore, the next single contingency would cause the system to operate under a multiple contingency (equivalent to Category C in the planning environment) condition; and the next multiple contingency would cause the system to operate under the equivalent of an ‘extreme contingency’ (Category D or TPL-004) in the planning environment. To set the System Operating Limit (SOL) based on anticipation of the next Category D contingency would require a system to operate beyond the reliability for which it were planned, and, therefore would be establishing SOLs that would actually be inconsistent with the transmission system as planned and required in TPL-003. Adoption of this recommendation would require that the system be operated under extreme contingency conditions (Category D), but with the same performance requirements as Category C. Operating the system to meet the next single contingency, subsequent to several other contingencies that may already exist 	

Commenter	Comment
	<p>in real-time operations is a condition that has rarely, if ever, been simulated and is more stringent than any condition required to be considered in the planning horizon under existing standards.</p> <p>3. As envisioned, the methodologies used for the planning and operating horizons are expected to be compatible. In addition, the Reliability Coordinators and Planning Authorities each have their own time horizon (operations or planning) of responsibility and are required to share their methodologies and respond to comments concerning any incompatibles in those methodologies.</p>
<p>Don Tench - Affirmative</p>	<p>The IESO commends the standard drafting team members for their efforts and time in developing these standards. Based on modifications incorporated into the present version of the standards, the IESO believes that though the modifications do not completely address all its concerns, they do however strengthen these standards and hence submits an "AFFIRMATIVE" vote, but with the following comments ("Yes with comments"): Comments and Discussions:</p> <p>1. Standard FAC-010, R2.1, states that "In the pre-contingency state and with all Facilities in service, the BES shall demonstrate transient, dynamic and voltage stability; all Facilities shall be within their Facility Ratings and within their thermal, voltage and stability limits. In the determination of SOLs, the BES condition used shall reflect expected system conditions and shall reflect changes to system topology such as Facility outages." The IESO interprets this as; After incorporating planned outages into a base system which has all its facilities in service, the PA must establish SOL's that demonstrates the system remains stable and is within facility ratings/limits for subsequent category B and C events.</p> <p>The IESO believes that the addition of "all facilities in service" combined with adding planned outages, "expected system conditions", would be interpreted by some that at this point, the system is already in a category B state and considering additional category B contingencies would be reflective of incorporating "multiple contingency" scenarios. This interpretation could result in such entities ignoring category C contingencies in their SOL calculations and thereby adopting a "less stringent approach". The IESO feels that the addition causes ambiguity and provides a loophole for entities to ignore category C contingencies. It is our view, a stricter definition of the requirement is necessary as it does not help in terms of reliability, to be part of a region which applies the stricter requirement, only to have a neighbouring region which adopts a less stringent approach to this requirement based on its interpretation.</p> <p>2. Standards FAC-010 and FAC-011, R 2.2, states that "Following the single Contingencies identified in Requirement 2.2.1 through Requirement 2.2.3, 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. R2.2.1. Single line to ground or three-phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device. R2.2.2. Loss of any generator, line, transformer, or shunt device without a Fault. R2.2.3. Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system."</p> <p>It is IESO's belief that Bus and Inadvertent Breaker Operations (IBO) faults should be considered as category B contingencies and incorporated into R 2.2 in FAC-010 and FAC-011. These contingency definitions should primarily be</p>

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
	<p>incorporated into the TPL (TPL-002) standards as this would guide its incorporation into related or dependent standards like the FAC standards. Suggestions: In terms of incorporating multiple contingencies, FAC-010 does not provide the same clarity as FAC-011 (R 3.3 and R 3.3.1) when it comes to establishing a methodology for SOL settings. This potential loophole must be closed and both standards must be consistent when it comes to incorporating multiple contingencies for determining SOL limits. Bus faults and Inadvertent Breaker Operations (IBO) impact the reliability of systems and given the severity of these impacts, should be incorporated into the TPL category definitions and be treated as category B. Conclusion: The IESO feels that while the standards do not go the distance of incorporating all of NPCC's basic design and operating criteria, and there is need for consistency and clarity, it is nevertheless a step in the right direction.</p>
<p>Response:</p> <ol style="list-style-type: none"> 1. The intent was to incorporate known, long-term outages in the base case (Category A) used to model the conditions in the planning horizon. 2. Stakeholders indicated that FAC-010 should be consistent with the TPL standards. Making the requested modification would require a different interpretation of Table 1 (Category B) that is used in the TPL standards. Note that there is another drafting team (Assess Transmission Future Needs and Develop Transmission Plans Drafting Team) working on modifications to the TPL standards. 	
<p>Denise Roeder – Negative</p> <p>Andrew Fusco - Negative</p>	<p>Despite the efforts made to clarify these standards, they still seem to be lacking in clearly communicating their requirements, particularly as they relate to the TPL standards. This is compounded by the fact that those standards are also in the midst of possible revisions. While there has been acknowledgement in past comments and responses to those comments that there are different purposes for planning and operating studies, the language here still does not seem to address the confusion, made apparent previously through the comment process, between long-term planning horizon versus operations planning horizon versus operating horizon versus real-time operations.</p>
<p>Response: The planning horizon is generally accepted to be a year ahead and longer. The operating horizon is generally accepted to be from real-time through a year ahead. There is a clear separation of requirements for the planning entities and the operating entities so the need for further clarification to the time horizons is unclear.</p>	
<p>Kevin John Conway - Negative</p>	<p>Grant PUD feels that these standards, though well intended, are not ready to be implemented. Too many questions have been raised as to how these will work once approved. Many of those questions came up at the NERC OC meeting. Secondly, Grant PUD feels that it is not appropriate to vote on multiple standards, but each one individually. This appears to be an attempt to prevent standards from standing on their own merits.</p>
<p>Response: While these standards were discussed at the NERC OC meeting, the OC did recommend that they be approved. The implementation plan for this set of standards clearly identified that the drafting team recommended that this set of standards be balloted as a single ballot. Most stakeholders agreed with the implementation plan when it was posted for comment.</p>	
<p>Gary Conrad - Negative</p>	<p>THESE NEED TO BE SEPARATED AND VOTED SEPARATELY.</p>
<p>Response: The implementation plan for this set of standards clearly identified that the drafting team recommended that this set of standards be balloted as a single ballot. Most stakeholders agreed with the implementation plan when it was posted for comment.</p>	

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
Joseph Krupar - Negative	The reason for the no vote is because TOP-004 is included in the package to be approved and only FAC standards were noticed as posted for comments or vote. Since the announcements did not include TOP-004 it is my opinion that the posting requirements have not been fulfilled for a ballot of TOP-004. The announcement of June, 15, 2006 and September 19, 2006 does not include any TOP standards to be posted for comment or to be balloted.
<p>Response: The implementation plan for this set of standards clearly identified that the drafting team recommended modifying TOP-004 in conjunction with the implementation of FAC-010, FAC-011, and FAC-014. The announcements used for the pre-ballot window and for the balloting both included links that took readers directly to the web page for the Determine Facility Ratings Standards. The row dedicated to pre-ballot review of these standards included the announcement, FAC-010, FAC-011, FAC-014 and TOP-004 and the associated implementation plan. The row dedicated to the initial ballot of these standards included the announcement, FAC-010, FAC-011, FAC-014 and TOP-004 and the associated implementation plan. Note that the format of both announcements is identical to that used for the last several ballots.</p>	
Carter B. Edge - Negative	SOL and IROL in the Planning Horizon and in the Operating Horizon are not understood well enough in the Industry to be consistently applied. Planning criteria historically have not used the these concepts as presented.
<p>Response: The SOLs developed by the Planning Authority are used in planning studies to simulate future operating conditions. Not all planning entities have traditionally called these 'SOLs'. For example, in WECC SOLs are equivalent to 'path ratings'.</p>	
William J. Head – Affirmative Bruce E Merrill - Affirmative	<p>1. The Standards Drafting Team should define the planning horizon and the operating horizon. The MRO NSRS assumes that the planning horizon would be from 1 year to 10 years and the operating horizon would be from the present to 1 hour less than 1 year in the future. However, the SDT has not defined it and we note that these terms are not defined in the NERC Glossary.</p> <p>2. The SDT should correct the reference in FAC-011-1 R3.5 from Remedial Action Plans to Remedial Action Schemes.</p>
<p>Response:</p> <p>1. The drafting team deferred from giving the operating horizon and planning horizon specific definitions that would limit existing practices. For example, some planning entities do studies that analyze the system five years ahead –other entities do studies that analyze the system ten years ahead and beyond ten years.</p> <p>The planning horizon is generally accepted to be a year ahead and longer. The operating horizon is generally accepted to be from real-time through a year ahead. There is a clear separation of requirements for the planning entities and the operating entities so the need for further clarification to the time horizons is unclear.</p> <p>2. The phrase, 'Remedial Action Plans' should have been 'Remedial Action Schemes' and this will be corrected as errata.</p>	
Wayne Guttormson - Affirmative	<p>SaskPower suggests that the Standards Drafting Team define the terms planning horizon and the operating horizon. SaskPower assumes that the planning horizon would be from 1 year to 10 years out and the operating horizon would be from the present to 1 year less a day. However, the SDT has not defined it and we note that these terms are not defined in the NERC Glossary.</p> <p>The SDT should also correct the reference in FAC-011-1 R3.5 from Remedial Action Plans to Remedial Action Schemes.</p>

Commenter	Comment
	<p>Response:</p> <p>1. The drafting team deferred from giving the operating horizon and planning horizon specific definitions that would limit existing practices. For example, some planning entities do studies that analyze the system five years ahead –other entities do studies that analyze the system ten years ahead and beyond ten years.</p> <p>The planning horizon is generally accepted to be a year ahead and longer. The operating horizon is generally accepted to be from real-time through a year ahead. There is a clear separation of requirements for the planning entities and the operating entities so the need for further clarification to the time horizons is unclear.</p> <p>2. The phrase, ‘Remedial Action Plans’ should have been ‘Remedial Action Schemes’ and this will be corrected as errata.</p>
<p>Donna Stephenson – Affirmative</p>	<p>SRE supports the comments of the MRO:</p> <p>1. The Standards Drafting Team should define the planning horizon and the operating horizon. The MRO NSRS assumes that the planning horizon would be from 1 year to 10 years and the operating horizon would be from the present to 1 hour less than 1 year in the future. However, the SDT has not defined it and we note that these terms are not defined in the NERC Glossary.</p> <p>2. The SDT should correct the reference in FAC-011-1 R3.5 from Remedial Action Plans to Remedial Action Schemes.</p>
	<p>Response:</p> <p>1. The drafting team deferred from giving the operating horizon and planning horizon specific definitions that would limit existing practices. For example, some planning entities do studies that analyze the system five years ahead –other entities do studies that analyze the system ten years ahead and beyond ten years.</p> <p>The planning horizon is generally accepted to be a year ahead and longer. The operating horizon is generally accepted to be from real-time through a year ahead. There is a clear separation of requirements for the planning entities and the operating entities so the need for further clarification to the time horizons is unclear.</p> <p>2. The phrase, ‘Remedial Action Plans’ should have been ‘Remedial Action Schemes’ and this will be corrected as errata.</p>
<p>Kenneth A. Goldsmith - Affirmative</p>	<p>1) The Standards Drafting Team should define the time periods for the Planning and Operating Horizons. We believe the Operating Horizon should be from real-time to 1 hour less than 1 year, and the Planning Horizon should be from 1 year to 10 years.</p> <p>2) The SDT should correct the reference in FAC-011-1 R3.5 from Remedial Action Plans to Remedial Action Schemes.</p>
	<p>Response:</p> <p>1. The drafting team deferred from giving the operating horizon and planning horizon specific definitions that would limit existing practices. For example, some planning entities do studies that analyze the system five years ahead –other entities do studies that analyze the system ten years ahead and beyond ten years.</p> <p>The planning horizon is generally accepted to be a year ahead and longer. The operating horizon is generally accepted to be from real-time</p>

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
	<p>through a year ahead. There is a clear separation of requirements for the planning entities and the operating entities so the need for further clarification to the time horizons is unclear.</p> <p>2. The phrase, 'Remedial Action Plans' should have been 'Remedial Action Schemes' and this will be corrected as errata.</p>
William Mitchell Chamberlain - Affirmative	<p>Although WECC has more stringent criteria in this area which arguably should be applied continent-wide, I am voting yes on this version so that a foundation will be established. Hopefully, the more stringent approach in the West will be considered for application throughout the continent at a later date.</p>
	<p>Response: WECC requires consideration of specific, credible multiple contingencies in the operating horizon on its 500 kV system and lower voltage facilities that could impact the operations of the other WECC members. In the operating horizon WECC does not require consideration of <u>all</u> Category C contingencies within a member system above 100 kV, especially if they are not expected to impact operation of the Western Interconnected System. Individual members do protect against selected credible Category C Contingencies that have been shown to have wide spread impact within their respective systems.</p>
Bradley Young - Affirmative	<p>Needs more definition on exactly who is the planning authority.</p>
	<p>Response: The Planning Authority is a defined term – please see the NERC Glossary of Terms Used in Reliability Standards.</p>
Daryn Barker - Affirmative	<p>We are supportive of the concepts in these standards, but continue to be concerned around the lack of understanding on who the <u>planning authority</u> is that FAC-010 applies to.</p>
	<p>Response: The Planning Authority is a defined term – please see the NERC Glossary of Terms Used in Reliability Standards.</p>
Terry Bilke - Affirmative	<p>We are voting for these standards with the expectation that NERC will address and fix confusion around the Planning Authority function.</p>
	<p>Response: The Planning Authority is a defined term - please see the NERC Glossary of Terms Used in Reliability Standards. When Version 3 of the Functional Model was posted for comment, stakeholders indicated that the Planning Authority (or Planning Coordinator) needed additional clarification. The drafting team does not have any authority over the modifications to the Functional Model.</p>
Charles Yeung - Affirmative	<p>Terms for PA should be updated to Functional Model Ver 3 terms.</p>
	<p>Response: The Planning Authority is a defined term - please see the NERC Glossary of Terms Used in Reliability Standards. Version 3 of the Functional Model is still a 'draft' – it has not been submitted to the NERC Board of Trustees for approval. When Version 3 of the Functional Model was posted for comment, stakeholders indicated that the Planning Authority (or Planning Coordinator) needed additional clarification. The drafting team does not have any authority over the modifications to the Functional Model.</p>
Anita Lee - Affirmative	<p>We note that the functional entity of "Planning Authority" is still causing much confusion in the industry. Clarification must be provided by NERC, likely through the Functional Model and certification standards.</p>
	<p>Response: The Planning Authority is a defined term - please see the NERC Glossary of Terms Used in Reliability Standards. When Version 3 of the Functional Model was posted for comment, stakeholders indicated that the Planning Authority (or Planning Coordinator) needed additional clarification. The drafting team does not have any authority over the modifications to the Functional Model. The certification standards only address certification of the Reliability Coordinator, Transmission Operator and Balancing Authority – they do not address certification of the</p>

Consideration of Comments on 1st Ballot of FAC-010, FAC-011, and FAC-014

Commenter	Comment
Planning Authority.	
E. Nick Henery - Affirmative	What is not clear is how is it to be determined if a particular procedure for the development of the SOL by a RCs or PAs will not conflict with other procedures in the interconnection.
Response: The drafting team could not determine what other procedures you are referencing. The drafting team believes that setting SOLs is critical to reliability – and therefore should be amongst the procedures given highest priority based on their potential reliability-related impact.	
Mark Fidrych - Affirmative	Western concurs with the discussion held at the NERC OC meeting on September 13-14 which detailed the necessity for the OC and the PC to further develop definitions and concepts, but that the premise provided by the standards are essentially solid.
Response: The drafting team appreciates your support.	
Charles Waits - Affirmative	Great job by the drafting team!
Response: The drafting team appreciates your support.	