

Consideration of Comments on First Draft of the Real-time Operations SAR for Transmission Operations and Balancing of Load and Generation

The Real-time Operations SAR requesters thank all stakeholders who submitted comments on Draft 1 of the Real-time Operations SAR. This SAR was posted for a 30-day public comment period from May 15 through June 13, 2007. The requesters asked stakeholders to provide feedback on the SAR through a special SAR Comment Form. There were 23 sets of comments, including comments from 62 different people from 43 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received, the SAR drafting team is recommending that the SAR be re-posted to include specific issues that were pointed out by the commenters:

- Inclusion of IRO-004, -005 & -006 in the scope.
- Correction to the reference in TOP-001-1, R2.
- Correction to the reference in TOP-002-2, R3.
- Clarified the reason for recommending the deletion of TOP-002-2, R8.
- Corrected the reference in TOP-002-2, R10.
- Removed the recommendation for deleting TOP-002-2, R11.
- Rewording of the recommendation in TOP-002-2, R14 & R15.
- Clarified the deletion requested in TOP-004-1, R1.

Based on stakeholder comments, the SAR DT is proposing to retain requirements to (1) be aware of SOLs and (2) monitor system conditions related to SOLs.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Real-time_Operations_Project_2007-03.html

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 Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

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

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The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Thad Ness	AEP	✓											
2.	Anita Lee (G2)	AESO		✓										
3.	Jeffrey V. Hackman	Ameren												
4.	Jason Shaver	ATC LLC												
5.	David Rudolph (G1)	Basin Electric Power Coop.												✓
6.	Brent Kingsford (G2)	CAISO		✓										
7.	Anthony Alford	CenterPoint Energy												
8.	Alan Gale (G1)	City of Tallahassee					✓							
9.	Greg Tillitson (G4)	CMRC												✓
10.	Gregory D. Rowland	Duke Energy	✓		✓									
11.	Ed Davis	Entergy Services, Inc.												
12.	Will Franklin	Entergy Services, Inc.												
13.	Steve Myers (G2)	ERCOT		✓										
14.	Doug Hohlbaugh	FirstEnergy	✓		✓		✓	✓						
15.	John Reed	FirstEnergy	✓		✓		✓	✓						
16.	David Folk	FirstEnergy	✓		✓		✓	✓						
17.	Ed DeVarona	Florida Power & Light	✓											
18.	Eric Senkowicz	FRCC												✓
19.	Joe Knight (G1)	Great River Energy												✓
20.	Roger Champagne (I) (G3)	Hydro-Québec TransÉnergie (HQT)	✓											
21.	Ron Falsetti (I) (G2) (G3)	IESO		✓										
22.	Matt Goldbert (G2)	ISO-NE		✓										
23.	Kathleen Goodman (I) (G3)	ISO-NE		✓										
24.	Brian Thumm	ITC Transco	✓											
25.	Eric Ruskamp (G1)	Lincoln Electric System												✓
26.	Donald Nelson (G3)	MA DPUC											✓	

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	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
27.	Michelle Rheault	Manitoba Hydro	✓		✓		✓	✓						
28.	Robert Coish (G1)	Manitoba Hydro												✓
29.	Terry Bilke (G1)	Midwest ISO												✓
30.	Mike Brytowski (G1)	Midwest Reliability Organization												✓
31.	Carol Gerou (G1)	Minnesota Power												✓
32.	Bill Phillips (G2)	MISO		✓										
33.	Guy V. Zito (G3)	NPCC												✓
34.	Al Adamson(G3)	NY State Reliability Council												✓
35.	Jim Castle (I) (G2)	NYISO		✓										
36.	Greg Campoli (G3)	NYISO		✓										
37.	Ralph Rufrano (G3)	NYPA	✓											
38.	Todd Gosnell (G1)	OPPD												✓
39.	Alicia Daugherty (G2)	PJM		✓										
40.	Bob Johnson (G4)	PSC												✓
41.	Philip Riley	Public Service Commission of SC											✓	
42.	Mignon L.Clyburn	Public Service Commission of SC											✓	
43.	Elizabeth B. Fleming	Public Service Commission of SC											✓	
44.	G. O'Neal Hamilton	Public Service Commission of SC											✓	
45.	John E. Howard	Public Service Commission of SC											✓	
46.	Randy Mitchell	Public Service Commission of SC											✓	
47.	C. Robert Moseley	Public Service Commission of SC											✓	
48.	David A. Wright	Public Service Commission of SC											✓	
49.	Frank McElvain (G4)	RDRC												✓
50.	Tom Botello (G4)	SCE												✓
51.	Steve Wallace	Seminole Electric Coop.				✓								
52.	Roman Carter	Southern Company Transmission	✓											
53.	Jim Busbin	Southern Company Transmission	✓											
54.	J.T. Wood	Southern Company Transmission	✓											
55.	Marc Butts	Southern Company Transmission	✓											

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Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
56.	Raymond Vice	Southern Company Transmission	✓											
57.	Jim Griffith	Southern Company Transmission	✓											✓
58.	Charles Yeung (G2)	SPP		✓										
59.	Nancy Bellows (G4)	WACM												✓
60.	Jim Haigh (G1)	WAPA												✓
61.	Neal Balu (G1)	WPSR												✓
62.	Pamela Oreschnick (G1)	Xcel Energy												✓

I – Indicates that individual comments were submitted in addition to comments submitted as part of a group

G1 – MRO Members

G2 – IRC Standards Review Committee (IRC SRC)

G3 – NPCC CP9 Reliability Standards Working Group (NPCC CP9)

G4 – WECC Reliability Coordination Comments Work Group (RCCWG)

Index to Questions, Comments, and Responses

1. The TOP standards seem to refer in many places to procedures and good utility practice as opposed to true standards. (See TOP-001-1, R7 and TOP-002-2, R2.) Should these items remain as standard requirements or should procedures and good utility practices be removed from the standards and be placed into reference documents?6

2. The SAR DT believes that SOLs, while very important to local utility operations, are not a true Bulk Electric System reliability issue, and as such, believes that any requirements related to SOLs should be moved into guides or other reference documents, to be added to the literature on 'good utility practice'. Do you agree?11

3. The SAR DT identified many comments submitted (See Appendix B of the SAR) on the technical content of the standards and the SAR drafting team believes that the Standards Drafting Team should consider these comments, subsequent to the approval of the SAR, in the development of Standards Revisions. Do you agree with the SAR drafting team's assessment of those comments that are being recommended for referral to the Standards Drafting Team?18

4. Are there any standards included in the SAR that shouldn't be included?21

5. Are there standards that should be added to the SAR?25

6. Do you agree that there is a reliability-related need to revise the set of standards addressed in this SAR?26

7. Do you agree with the scope of this SAR?28

8. If you aware of any regional variances or business practices that should be developed in association with this SAR, please list them here.30

9. If you have any other comments on this SAR that you haven't identified above, please provide them here.31

1. The TOP standards seem to refer in many places to procedures and good utility practice as opposed to true standards. (See TOP-001-1, R7 and TOP-002-2, R2.) Should these items remain as standard requirements or should procedures and good utility practices be removed from the standards and be placed into reference documents?

Summary Consideration: The SAR drafting team appreciates that the industry is near consensus on the removal of 'good utility practices' from NERC standards. We recognize that care must be taken to continue to require compliance with a necessary and sufficient set of standards for the continued reliable operation of the Bulk Electric System while moving some of the existing language from standards into reference documents. We also note that reference documents must be made readily available for continued usage. Our detailed responses are listed with each comment.

Question #1			
Commenter	Keep these items as requirements in standards	Move these items into references	Comment
ATC LLC	<input checked="" type="checkbox"/>		Standards define "good utility practices" therefore it's our opinion that these requirements should remain.
<p>Response: The general consensus of the commenters was to remove 'good utility practice' from the standards. The SAR drafting team appreciates your comment and agrees that any requirement that is strongly linked to assuring reliability, very specific, and consistently measurable should remain in the standards. General statements that are typically hard if not impossible to measure should be removed from the standards. 'Good utility practice' spans a wide range of acceptable practices, while standards set a specific bar that all must meet. Standards should not codify procedures that are simply one way of meeting a standard requirement.</p>			
Manitoba Hydro	<input checked="" type="checkbox"/>		If the "procedures and good utility practice" are enforceable, the above requirements should remain in the standards. If these requirements are removed from the standard, where will the reference documents be located? An attachment to the Standard or a separate manual not quickly and easily accessible to those who need it?
<p>Response: The general consensus of the commenters was to remove 'good utility practice' from the standards. The SAR drafting team has not considered the ultimate location of any reference material. The SAR DT will pass this comment on to the NERC staff in order to come to a reasoned conclusion. One good location that could be considered would be a 'references' section on the NERC web site. The intent should be to have the reference documents readily available for consultation as well as for use in developing training.</p>			
FirstEnergy	<input checked="" type="checkbox"/>		FirstEnergy agrees in general that Good Utility Practices in and of themselves do not belong in the standards. However, for the two examples cited we believe these are important processes for ensuring a reliable electric system and therefore should remain within the reliability standards. Exclusion of requirements based on Good Utility Practices will

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Question #1			
Commenter	Keep these items as requirements in standards	Move these items into references	Comment
			need to be evaluated and addressed on a case by case basis and commented on via the standard drafting process.
<p>Response: The general consensus of the commenters was to remove 'good utility practice' from the standards. The SAR drafting team agrees with the concept of addressing these issues on a case by case basis. The examples cited may ultimately be considered to be requirements; the team was attempting to amplify the concept of removing redundant and superfluous requirements to help deal with the unavoidable angst that was expected to occur due to the idea of removing some standards when this SAR was posted for comments. We will pass your comments along to the eventual Standards Drafting Team.</p>			
City of Tallahassee	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>I am all for removing items that are "not standards" from the standards. However, references can be hard to keep track of. And they will "creep" into standard via the Readiness Assessment process.</p> <p>Each "requirement" up for deletion should be reviewed individually. Even the SAR drafting team disagrees on them. The example cited above (TOP-001-1, R7) is slated for revision in the Detailed Description portion of the SAR itself. The TOP-002-2, R2 should be removed.</p>
<p>Response: The general consensus of the commenters was to remove 'good utility practice' from the standards. The SAR drafting team agrees with your comments. Each requirement will be reviewed individually to assure that it is necessary and not redundant. We had debated whether to revise or delete TOP-001-1, R7 and wrote it up to revise it for now. These comments will be passed on to the Standards Drafting Team.</p>			
Duke Energy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Where the identification of procedures and good utility practice bring clarity to TOP requirements, they should be retained, although not as separate requirements.
<p>Response: The general consensus of the commenters was to remove 'good utility practice' from the standards. The SAR drafting team agrees with your comments. The structure of NERC standards are such that the usual background and explanatory material that once were contained in the NERC Operating Policies have no formal spot for archiving these types of issues. The Standards Drafting Team should work with NERC staff to assure that the clarity remains while not inadvertently retaining additional, unnecessary requirements.</p>			
NYISO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Each case should be reviewed on an individual basis. It was not clear in the examples you provided. It is possible that some procedures may need to be reworded into standard language and for others it may be appropriate to move to a reference document.
<p>Response: The general consensus of the commenters was to remove 'good utility practice' from the standards. The SAR drafting team agrees with your comments. Industry comments indicate that each and every requirement that is necessary to</p>			

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Question #1			
Commenter	Keep these items as requirements in standards	Move these items into references	Comment
<p>assure continued reliable operation of the Bulk Electric System should be retained. The SAR DT will pass this comment on to the NERC staff in order to come to a reasoned conclusion on the topic of a reference document. One good location that could be considered would be a 'references' section on the NERC web site. The intent should be to have the reference documents readily available for consultation as well as for use in developing training. It is also clear that each individual change will need an explanation in order to gain industry consensus. The SAR drafting team found that our deliberations tended to link the various requirements across several standards, and that only by considering several at once did redundancies appear. It will behoove the Standards Drafting Team and NERC to fully explain the need for each change in order to help the balloting group gain confidence that the course being plotted will result in continued reliable operation of the Bulk Electric System.</p>			
IESO			<p>We concur that good utility practices and administrative procedures should not be included in standards. Nonetheless, we suggest the SDT to assess which of the existing requirements, including the procedural ones, are indeed actions needed to preserve reliability and hence keep them in the standards.</p> <p>While we agree that TOP-002-2, R2 may be removed, we do not agree that TOP-001-1 R7 should be removed since the notification and coordination of generation and transmission outages are necessary to ensure that reliability impact of the planned removal of the BES facility is assessed. It is not an administrative procedure or good utility practice; it is a reliability requirement.</p>
<p>Response: The SAR drafting team thanks you for your comments and has taken them under advisement. The reason that the SAR includes the elimination of the examples cited is to remove redundancy. In the specific case of TOP-001-1, R7, the requirement is basically "don't burden your neighbors" and "tell the RC what is going on". The additional language in R7 and its sub-requirements is unnecessary. TOP-003-0, R1.2 already requires data sharing to enable outage coordination to avoid burdening neighbors. TOP-001-1, R3 requires all BA/TOP/GOs to comply with RC reliability directives. Finally, IRO-004-1, R6 requires the RC to issue reliability directives to BA/TOP/GOs if the results of their studies indicate potential SOL or IROL violations. Therefore, this issue is already covered in other areas and is redundant in this location and should be removed. However, the Standards Drafting Team will make the final decision on the form that the standard will take when it goes to ballot.</p>			
HQT			<p>We agree that good utility practice and procedures should not be included in standards. However, care should be taken not to remove coordination requirements which are in fact necessary to reliability planning and operation.</p>

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Question #1			
Commenter	Keep these items as requirements in standards	Move these items into references	Comment
ISO-NE			We agree that good utility practice and procedures should not be included in standards. However, care should be taken not to remove coordination requirements which are in fact necessary to reliability planning and operation.
NPCC CP9 RSWG			We agree that good utility practice and procedures should not be included in standards. However, care should be taken not to remove coordination requirements which are in fact necessary to reliability planning and operation.
Response: The team thanks you for your comments and is in agreement that reliable interconnected operation requires coordination which would continue to be enforced by specific standards.			
IRC SRC			Good utility practices and procedures should not be included in standards. They are vague statements and do not belong in the standards even as a reference. If good utility practice statements were acceptable there would only be a need for one requirement and that is that all entities shall institute good utility practice. True standards need to be developed and superfluous information should not remain in the standards.
Response: The SAR drafting team thanks you for your support on this issue. The sentiment expressed in your comment is exactly what we were thinking in asking this question. NERC standards must have a strong link to assuring reliability, be very specific, and consistently measurable.			
WECC RCCWG			The WECC RCCWG believes that some provisions of TOP-001-1 R1 are standard requirements, and that whether TOP-002-2 R2 is a standard requirement is less clear. The group agrees that in order to be a standard requirement there needs to be a link to an impact on the Bulk Electric System. The requirements need to be reworded to be measurable and substantiable.
Response: The SAR drafting team thanks you for your comments and is in agreement. Your comment identified yet another requirement which needs scrutiny if it is to remain in NERC standards.			
Entergy (Franklin)		<input checked="" type="checkbox"/>	Move to reference documents or eliminate 'good practices' from standards, and also eliminate redundant requirements.
ERCOT		<input checked="" type="checkbox"/>	Such information is of value and should not be lost, but does not belong in a Standard. A Standard must apply continent-wide and not be of the nature of dictating any particular practice or procedure.

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Question #1			
Commenter	Keep these items as requirements in standards	Move these items into references	Comment
MRO		<input checked="" type="checkbox"/>	While we agree that the procedures and good utility practices do not necessarily need to be in the standard itself, the reference documents must be issued concurrent with the implementation of the revised standard. There is a great deal of information that is very useful for the utilities implementing the standards.
FRCC		<input checked="" type="checkbox"/>	Subjective commentary that is not measurable or enforceable should be removed from the standards and placed in the Reliability Readiness Evaluation and Improvement Program Reference Manual or something similar.
<p>Response: The SAR drafting team agrees with your comments. The decision of when or whether to issue reference documents will be passed to the Standards Drafting Team and NERC staff. We agree that the concepts included in this SAR which may be moved to reference material are of such importance that the reference material publishing schedule will need to be prompt in order to minimize concern over the potential loss thereof.</p>			
AEP		<input checked="" type="checkbox"/>	
Ameren		<input checked="" type="checkbox"/>	
Entergy (Davis)		<input checked="" type="checkbox"/>	
ITC Transco		<input checked="" type="checkbox"/>	
PSC SC		<input checked="" type="checkbox"/>	
SOCO Transmission		<input checked="" type="checkbox"/>	
<p>Response: The SAR drafting team thanks you for your support on this issue.</p>			
CenterPoint			No comment.

2. The SAR DT believes that SOLs, while very important to local utility operations, are not a true Bulk Electric System reliability issue, and as such, believes that any requirements related to SOLs should be moved into guides or other reference documents, to be added to the literature on 'good utility practice'. Do you agree?

Summary Consideration: Based on stakeholder comments, the SAR DT is proposing to retain requirements to (1) be aware of SOLs and (2) monitor system conditions related to SOLs.

The SAR DT believes that the sole purpose of NERC standards is to ensure BES reliability. The majority of the team believes that NERC standards are not intended to cover local events which have no impact on neighboring system reliability. The requirements currently embedded in NERC standards exist due to many reasons. During the V0 drafting effort massive duplication of requirements was noticed by the drafting team but left within the standards due to the mandate to "not change anything, just re-format it for standards".

SOLs, by NERC's own definition, are not cascading events. This does not mean that they are not important (and RCs are still required to monitor them) but there is no reliability reason to require some entity to not violate an SOL. Interconnected Transmission Systems must continue to operate so as not to burden their neighbors or risk BES reliability. These are fundamental requirements for continued reliable operation of the BES. If you follow all of the other standards for planning and operational planning, such as FAC-011 and the IRO standards, you should never find yourself within one Contingency of violating an IROL.

Question #2			
Commenter	Yes	No	Comment
AEP		<input checked="" type="checkbox"/>	<p>We disagree with this statement. Just what does the SAR DT consider to be a true BES reliability issue? The team's opinion seems contradictory to NERC's efforts to have the Regions agree that all non-radial transmission facilities 100 kV and above are Bulk Electric System facilities. On one end of the spectrum there is a NERC effort to expand the definition and size of BES. Then you efforts like this SAR to reduce the size and scope.</p> <p>While the most severe and significant BES reliability issue may be IROL violations (IROL violations can lead to instability, uncontrolled separation, or cascading outages), that surely is not the only reliability issue. Multiple SOL events can lead to a situation where you have a new, non-studied IROL. Should we not operate the system such to prevent us from entering or approaching IROL limits? If the only limits that have applicable Reliability Standards is IROLs, then are we not setting up the system to approach the "edge of the cliff" before we take appropriate defensive action? While we agree not all</p>

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Question #2			
Commenter	Yes	No	Comment
			<p>SOLs have a significant impact on the overall reliability of the BES, we do not agree that means all requirements related to SOLs should be removed from the NERC Standards. That would be a move towards less reliability in the future, not a step towards improving reliability.</p> <p>And just what is meant by local utility operations not being a true BES reliability issue. If the system is not operated to respect SOLs, then that could jeopardize a firm power purchase from a distance resource via firm transmission service that a "local utility" is relying upon. Loss of that firm power purchase, could lead to having to shed customer load? Why is that not a BES reliability issue? Isn't that one of the reasons the BES exists is to support such commerce? Violating SOLs could also result in the tripping of generation outlets, resulting in loss of generation. That too is not a BES reliability issue? Before we could support removing requirements related to SOLs, the SAR DT team would need to provide a definition of what exactly is considered a BES reliability issue.</p> <p>Most of the TLRs that are implemented today are for relieving SOLs not IROLs. Therefore, removing requirements related to SOLs would be in direct conflict with current practices and does not improve the reliability practices from what we have today. At a minimum, RCs and TOPs need to monitor and know the EHV system SOLs and ensure operation within those SOLs and to monitor and operate to other SOLs as specified in the agreements between the RC and TOPs and BAs (see ORG-021-1 R3).</p> <p>While it is not practical or necessary to ticket every car speeding on the freeway, on the contrary it is also not practical or necessary to remove the speedometer from the cars. We feel that the requirements for the SOL are like the speedometers; therefore, removing requirements related to SOLs is inappropriate and could lead to less reliable operations.</p>
<p>Response: The SAR drafting team is utilizing the definition of SOL developed in FAC-011-1 which states that:</p> <p>R1.2 ...SOLs shall not exceed associated Facility Ratings.</p> <p>R2.1 ...In the pre-contingency state, 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.</p> <p>R2.2 Following the single Contingencies identified in Requirements 2.2.1 through 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.</p> <p>FAC-011-1 also requires that the RC;</p> <p>R1.3. Include a description of how to identify the subset of SOLs that qualify as IROLs.</p>			

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Question #2			
Commenter	Yes	No	Comment
<p>The SAR drafting team concludes from this that SOLs, "... while very important to local utility operations, are not a true Bulk Electric System reliability issue, and as such, believes that any requirements related to SOLs should be moved into guides or other reference documents, to be added to the literature on 'good utility practice'." Nor do we find anything in your comments that leads us to believe otherwise. According to FAC-011-1, unless and until SOLs qualify as IROLs they are not a threat to BES reliability and do not require RCs to do more than monitor their status.</p>			
ATC LLC		<input checked="" type="checkbox"/>	ATC does not agree with SAR DT that SOLs are only important to local operations and that they should be removed from these standards. If SOLs are removed from NERC standards then any real-time identifications of an SOL that becomes an IROL will be difficult if not impossible to determine.
<p>Response: As noted above, the SAR drafting team is utilizing the definition of SOL developed in FAC-011-1 which requires that the RC ; R1.3. Include a description of how to identify the subset of SOLs that qualify as IROLs.</p> <p>The SAR drafting team concludes from this that SOLs can either be effectively identified prior to the time they become IROLs, or they will be flagged for RC attention since they fail the requirement of R1.3 and demand special processing from the TOP and RC. According to FAC-011-1, unless and until SOLs qualify as IROLs or are identified as impossible to classify, they are not a threat to BES</p>			
Duke Energy		<input checked="" type="checkbox"/>	Where SOLs impact the Bulk Electric System, they are a reliability issue and should not be moved into guides or other reference documents.
<p>Response: As noted above, the SAR drafting team is utilizing the definition of SOL developed in FAC-011-1 which requires that the RC: R1.3. Include a description of how to identify the subset of SOLs that qualify as IROLs.</p> <p>The SAR drafting team concludes from this that SOLs which will impact the reliability of the BES will be identified as IROLs and treated appropriately as per the requirements of IRO-005-2, IRO-006-3 and others.</p>			
IESO		<input checked="" type="checkbox"/>	We strongly disagree with this notion. Respecting SOLs and mitigating their violations are fundamental to the reliable operation of the transmission operator's area which may ultimately affect the interconnected system. And since IROLs are a subset of SOLs, and that some SOLs may become IROLs as system condition changes, it is imperative that all SOLs be monitored and observed at all time.
City of Tallahassee		<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> - Without a standard requiring action on SOL's, many entities will live with them in the hope that nothing else will happen. - If you make the RC aware of small problems (SOL), they can be corrected before they are big problems (IROL).

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Question #2			
Commenter	Yes	No	Comment
			<p>- The determination of whether an SOL is an IROL is made by the RC. If there is no notification, how can he make that determination?</p> <p>- Some coordination of SOL remediation may need to occur between entities. The corrective action I want to take may put my neighbor in extremise. The coordination is best done while keeping the RC informed.</p>
<p>Response: As noted above, the SAR drafting team agrees with you, but notes that this requirement is already covered by IRO-005-2 which states that :</p> <p>R1. Each Reliability Coordinator shall monitor its Reliability Coordinator Area parameters, including but not limited to the following:</p> <p>R1.2. Current pre-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan's viability and scope.</p> <p>R1.3. Current post-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan's viability and scope.</p> <p>Your comment appears to be covered by IRO-005-2.</p> <p>The SAR DT reviewed the proposed deletion of R10 and R11 from TOP-002-2 and made the following modifications to this posting:</p> <ul style="list-style-type: none"> ▪ R10: delete due to duplication with TOP-004-0, R1; ▪ R11: shall remain. 			
FRCC		<input checked="" type="checkbox"/>	SOLs are a critical part operational situational awareness and of a "defense-in-depth" approach to operating reliably. It is critical for the Transmission Operator and Reliability Coordinator to be aware of areas that are stressed within his/her TOP and RC area (local and wide area view). Advance knowledge of what may initially be local or even minor issues to the BES, will allow the development of the most effective and appropriate solutions for resolving the SOLs and ensuring that they DO NOT evolve into IROLs.
NPCC CP9 RSWG HQT ISO-NE		<input checked="" type="checkbox"/>	We strongly disagree with this idea. Respecting SOLs is a fundamental operational requirement. Transmission Operators must be required to closely monitor their area; failing to do so may ultimately lead to cascading failures, as was witnessed on August 14, 2003. An SOLs, left unchecked, will become an IROL, which is why it is imperative that all SOLs be monitored and respected at the TOP level.
ITC Transco		<input checked="" type="checkbox"/>	While SOLs may be local in nature, the mitigation of SOL violations has the potential to impact several entities of the functional model - oftentimes from different companies. Without a standard, it will be difficult to properly justify actions taken to mitigate SOL violations.

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Question #2			
Commenter	Yes	No	Comment
NYISO		<input checked="" type="checkbox"/>	SOLs should be retained as part of the NERC Standards. The NYISO does not believe that SOLs are only important to local operations. SOLs also occur on BPS facilities and can cause reliability issues outside of the local utility operations, without being an IROL.
<p>Response: The SAR DT reviewed the proposed deletion of R10 and R11 from TOP-002-2 and made the following modifications to this posting:</p> <ul style="list-style-type: none"> ▪ R10: delete due to duplication with TOP-004-0, R1; ▪ R11: shall remain. <p>TOP-002-2, R11 requires "The Transmission Operator shall determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject confidentiality requirements), and to its Reliability Coordinator." This requirement means that the TOP must be aware of SOLs. TOP-006-0, R2 requires "Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources." This requirement addresses the comment that 'Transmission Operators must be required to closely monitor their area'.</p>			
SOCO Transmission	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>There are many Standard requirements outside the scope of this SAR which require the RC to "monitor" potential SOLs.</p> <p>As an example, IRO-003, R1 says each Reliability Coordinator shall monitor all Bulk Electric System facilities to ensure the RC is able to determine any potential System Operating Limit. If this SAR removes the standards in scope that mention SOLs but leaves IRO-003, R1, to be enforced, then ambiguity will result.</p> <p>IRO-003, R2 says each Reliability Coordinator shall know the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL. Again, it appears in other standards (outside the scope of this SAR) that the RC is responsible (enforceable requirement) for being aware of preliminary events that could lead to an SOL.</p> <p>Additionally, IRO-002, R6 also contains such references to SOLs as well as other IRO Standards. Therefore, it appears the scope of the SAR should be broadened to include other standard requirements not contained in this SAR.</p>
ERCOT	<input checked="" type="checkbox"/>		There may be some confusion across the industry about "what are SOLs". I think there is good agreement that IROLs are applicable at the NERC Standard level, but there is

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Question #2			
Commenter	Yes	No	Comment
			some identifiable reluctance within the industry to say that there is no place at all for SOLs in the NERC Standards. At the very least, there needs to be a good definition of SOL (which I believe there is), but some are concerned with the idea that IROs are a "subset" of SOLs. Some believe that once a differentiation is made, the two should be considered separately and have separate requirements. I personally believe that IROs are a subset of SOLs. I further believe that routine planning, operations planning, and real-time operations should be addressing all SOLs. Only during real-time operations or, more accurately, fresh post-analysis, can it be fully determined that an SOL may have sufficient consequences associated with it to qualify it as an IRO. If an IRO can be identified in advance, since by definition it relates to a single contingency, I believe a case could be made that planning and operations planning requirements have not been satisfied. In the great majority of cases, a system may be driven into an IRO through a series of unplanned events such that the system indeed may be subject to undesirable results from a "next" single contingency. However, prudent operations should dictate that no system plan to be in such a state.
MRO	<input checked="" type="checkbox"/>		<p>A System Operating Limit (SOL) does not necessarily need to be included in the standard itself, but the literature on Good Utility Practice must be issued concurrent with the implementation of the revised standard. There is a great deal of information that is very useful for the utilities implementing the standards.</p> <p>To aid understanding of a System Operating Limit (SOL), it would be very helpful to add some examples of a SOL in the Glossary of Terms.</p>
Response: The SAR drafting team thanks the commenters for their input.			
FirstEnergy	<input checked="" type="checkbox"/>		The reliability standards governing real-time operations should be focused on the subset of SOLs that qualify as IROs.(reference FAC-010-1 R1.3). Blanket removal of all SOL references should be avoided and will need to be done on a case by case basis.
Response: The SAR drafting team agrees that care must be taken to consider each standard on a case to case basis, but with overall considerations as to how the standards work together to form a coherent whole.			
WECC RCCWG			While it is true that some SOLs do not have Bulk Electric System impact, such as a wave trap or customer transformer overload (local issues), others may lead to an impact on the Bulk Electric System. The group feels that if it can be shown through studies that a SOL does not have an impact on the Bulk Electric System, that particular SOL could be exempted from standards requirements. The group also questions whether a SOL without Bulk Electric System impact, but with potential local impact that would require a NERC disturbance report should be a standard requirement.
Response: Every SOL that qualifies as an IRO is covered by applicable standards such as IRO-004, -005 & -006.			

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Question #2			
Commenter	Yes	No	Comment
Ameren	<input checked="" type="checkbox"/>		
Entergy (Davis)	<input checked="" type="checkbox"/>		
CenterPoint			No comment.
Entergy (Franklin)			No comment.
IRC SRC			No comment.
PSC SC			No comment.

3. The SAR DT identified many comments submitted (See Appendix B of the SAR) on the technical content of the standards and the SAR drafting team believes that the Standards Drafting Team should consider these comments, subsequent to the approval of the SAR, in the development of Standards Revisions. Do you agree with the SAR drafting team’s assessment of those comments that are being recommended for referral to the Standards Drafting Team?

Summary Consideration: Industry consensus is to pass along all accumulated comments to the Standards Drafting Team for their consideration. (Note that the SAR DT revised the SAR to include comments recommending specific modifications to specific requirements that were provided by stakeholders during this comment period.)

Question #3			
Commenter	Yes	No	Comment
ATC LLC		<input checked="" type="checkbox"/>	Comments submitted during the comment period should be given a greater weight in the creation of new standards. Comments submitted to other groups and different efforts are specific to those initiatives and the inclusion in this effort should be limited.
Response: The SAR DT agrees and the weight of consensus of the industry will govern the final response.			
CenterPoint		<input checked="" type="checkbox"/>	CenterPoint Energy disagrees with the suggestion to remove the real and reactive capability verification testing from TOP-002-2, R13. The capability of a generator must be periodically tested to ensure that the machine will perform to its limits. Additional language should be added such that these tests are conducted on a periodic basis and not just at the requests of a BA or TOP. CenterPoint Energy believes that the requirements of TOP-002-2, R14 and R15 do belong in the Transmission Operations Standards as those variables will have a direct impact on daily operations. Any additional details or clarification can be added to other standards if necessary.
Response: The reason that this was included in the SAR is that it was considered duplicative with MOD-024 & MOD-025 by the CESDT. This point needs to be considered by the Standards Drafting Team.			
Duke Energy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Comments submitted should certainly be considered by the standard drafting team, but the standard drafting team should not be bound to incorporate all comments into the revised standards.
Response: The SAR DT agrees and the weight of consensus of the industry will govern the final response.			
SOCO Transmission	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	This SAR does not provide the referenced assessments the SAR drafting team has made on comments contained in Appendix B. Therefore, we can not agree or disagree with the team's assessment.

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Question #3			
Commenter	Yes	No	Comment
Response: Thank you for your comment. Basically, the SAR DT made the decision to simply pass on the aggregated comments to the Standards Drafting Team.			
WECC RCCWG			The references, such as FERC Order 693, are so detailed that the WECC RCCWG does not believe the group can comment on the standard drafting team assessment of those comments.
Response: Thank you for your comment. Basically, the SAR DT made the decision to simply pass on the aggregated comments to the Standards Drafting Team.			
AEP	<input checked="" type="checkbox"/>		Yes, we agree that the Standard Drafting Team should review and consider the merits of those comments and incorporate those comments that make sense and our complimentary to maintaining and improving reliable operations into the revised Standards.
ERCOT	<input checked="" type="checkbox"/>		Each submitted comment containing technical content deserves to be given equal review by the Standard Drafting Team (SDT) once a SAR has been approved and a SDT has been selected.
IESO	<input checked="" type="checkbox"/>		This seems to be a reasonable approach. However, the SDT should take these into consideration only when reviewing and revising the standards, and use its judgment on their individual merit rather than taking them as given mandates or directives.
FRCC	<input checked="" type="checkbox"/>		Not sure what the question is but, Yes capturing previous analysis regarding standard content and including in this SAR and subsequent standard revisions is appropriate and effective use of previous NERC groups efforts.
NPCC CP9 RSWG HQT IRC SRC ISO-NE	<input checked="" type="checkbox"/>		This may be a reasonable approach. However, the SAR DT may want to consider if they then need to pass all comments dealing specifically with the standards on to the Standards Drafting team from this process.
NYISO	<input checked="" type="checkbox"/>		This may be a reasonable approach. The NYISO would recommend that all subsequent comments be provided to the Standards Drafting Team for consiration in revising the standards.
Response: Thank you for your comment.			
Ameren	<input checked="" type="checkbox"/>		
Entergy (Davis)	<input checked="" type="checkbox"/>		
Entergy (Franklin)	<input checked="" type="checkbox"/>		
ITC Transco	<input checked="" type="checkbox"/>		
Manitoba Hydro	<input checked="" type="checkbox"/>		

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Question #3			
Commenter	Yes	No	Comment
MRO	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
City of Tallahassee	<input checked="" type="checkbox"/>		
FirstEnergy	<input checked="" type="checkbox"/>		
Response: Thank you for your support.			

4. Are there any standards included in the SAR that shouldn't be included?

Summary Consideration: The SAR DT believes that there was not a consensus to delete any standards and the best way to address these comments is to pass them on to the eventual SDT and allow them and the industry (through balloting) to make the final decision.

Question #4		
Commenter	The following standards were included in the SAR and should be removed:	Comment
Duke Energy		COM-001-1, COM-002-2 and PER-001-0. See response to question 7.
Response: The weight of the industry consensus is that real-time is not restricted to just TOP standards and should include COM and PER.		
IESO		<p>(i) We do not understand the basis to include COM-001-1, COM-002-1 and EOP-001-0 in this SAR. While there are requirements in these standards that reference TOPs, there are other standards that also reference TOPs but they are not included in this set.</p> <p>(ii) Some of the standards included in this SAR for revision appear to create a coordination need or potential conflicts with other SARs and draft standards:</p> <p>(a) The Operating Personnel Communications Protocol (OPCP) SAR is proposing to modify COM-001-1, COM-002-1, TOP-001-1, TOP-002-2, TOP-007-0 and TOP-008-1. How does this SAR Drafting Team propose to coordinate with the OPCS SAR drafting team to avoid either duplicated work effort or making changes to these standards while the draft set proposed by the other SDT are being commented or balloted? It seems like this would be difficult to accomplish and that one SAR should be delayed.</p> <p>(b) The Operate within Interconnected Operating Limits SDT is in the process of modifying the TOP-003, TOP-005, and TOP-006 standards as a result of changes to IRO-007-1 to IRO-011-1 standards. The coordination issues as indicated above would also need to be considered. We suggest that drafting of the standards included in</p>

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Question #4		
Commenter	The following standards were included in the SAR and should be removed:	Comment
		<p>this SAR be put on hold until after the IRO standards are balloted and approved.</p> <p>(c) The Reliability-based Control SAR, which will develop the BAL-007 to BAL-011, standards is posted for comments. The coordination issues as indicated above would also need to be considered. We suggest that drafting of the standards included in this SAR be put on hold until after the BAL standards are balloted and approved.</p> <p>(d) Finally, the System Personnel Training drafting team is proposing to eliminate PER-001 through PER-004. This SAR would have to be updated to reflect those changes. Again this SAR should be put on hold until the PER standards are balloted.</p>
<p>Response: 1. The basis for inclusion of certain standards in this SAR is the comments received from various groups that clearly indicated the need to coordinate issues in different standards such as COM with real-time operations. This is being done to promote consistency and eliminate redundancy in the standards.</p> <p>2. All this SAR is trying to do is to point out possible redundancies in the standards. Your comments will be passed on to the eventual Standards Drafting Team. It will be up to them and the NERC staff to resolve any potential conflicts.</p>		
MRO		There are several TOP standards currently under revision in other SAR's. There must be clear coordination between the Drafting Teams of the various SAR's as they are revising the Reliability Standards.
HQT		Some of the standards included in this SAR for revision appear to create a conflict with other ongoing SAR and Standard drafting activities. We are becoming more and more concerned about the parallel changes taking place.
IRC SRC		<p>We do agree that this SAR appears to cover the right set of standards. However, it potentially conflicts with other SARs and draft standards.</p> <p>The Operating Personnel Communications Protocol (OPCP) SAR is proposing to modify COM-1-1, COM-002-2, TOP-001-1, TOP-002-2, TOP-007-0, TOP-008-0 standards. All of these standards are proposed to be modified in this SAR. How does this SAR Drafting</p>

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Question #4		
Commenter	The following standards were included in the SAR and should be removed:	Comment
		<p>Team propose to coordinate with the OPCP SAR drafting team. It seems like this would be difficult to accomplish and that one SAR should be delayed.</p> <p>The Operate within Interconnected Operating Limits Standard Drafting team is in the process of modifying the TOP-003, TOP-005, and TOP-006 standards. Assuming these standards are eventually approved, this SAR will have to be modified to reflect the new versions of the standards. Again, this SAR should be delayed until the Operate within Interconnected Operating Limits Standards have completed the ballot process.</p> <p>Finally, System Personnel Training drafting team is proposing to eliminate PER-001 through PER-004. This SAR would have to be updated to reflect those changes. Again this SAR should be delayed until these standards are balloted.</p>
ISO-NE		<p>Some of the standards included in this SAR for revision appear to create a conflict with other ongoing SAR and Standard drafting activities. We are becoming more and more concerned about the parallel changes taking place.</p>
NYISO		<p>We do agree that this SAR appears to cover the right set of standards. However, it potentially conflicts with other SARs and draft standards.</p> <p>The Operating Personnel Communications Protocol (OPCP) SAR is proposing to modify COM-1-1, COM-002-2, TOP-001-1, TOP-002-2, TOP-007-0, TOP-008-0 standards. All of these standards are proposed to be modified in this SAR. How does this SAR Drafting Team propose to coordinate with the OPCP SAR drafting team. It seems like this would be difficult to accomplish and that one SAR should be delayed.</p> <p>The Operate within Interconnected Operating Limits Standard Drafting team is in the process of modifying the TOP-003, TOP-005,</p>

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Question #4		
Commenter	The following standards were included in the SAR and should be removed:	Comment
		and TOP-006 standards. Assuming these standards are eventually approved, this SAR will have to be modified to reflect the new versions of the standards. Again, this SAR should be delayed until the Operate within Interconnected Operating Limits Standards have completed the ballot process. Finally, System Personnel Training drafting team is proposing to eliminate PER-001 through PER-004. This SAR would have to be updated to reflect those changes. Again this SAR should be delayed until these standards are balloted.
NPCC CP9 RSWG		Some of the standards included in this SAR for revision appear to create a conflict with other ongoing SAR and Standard drafting activities. We are becoming more and more concerned about the parallel changes taking place.
Response: All this SAR is trying to do is to point out possible redundancies in the standards. Your comments will be passed on to the eventual Standards Drafting Team. It will be up to them and the NERC staff to resolve any potential conflicts.		
Entergy (Davis)	No.	
WECC RCCWG		None are currently identified, but some may become apparent later.
SOCO Transmission		No comment.
AEP		No comment.
Ameren		No comment.
ATC LLC		No comment.
CenterPoint		No comment.
Entergy (Franklin)		No comment.
ERCOT		No comment.
Manitoba Hydro		No comment.
PSC SC		No comment.
City of Tallahassee		No comment.
FirstEnergy		No comment.
FRCC		No comment.
ITC Transco		No comment.

5. Are there standards that should be added to the SAR?

Summary Consideration: The SAR will be re-posted to consider the inclusion of IRO-004, -005 & -006 in the scope.

Question #5		
Commenter	The following standards should be added to the SAR:	Comment
SOCO Transmission	IRO-002, IRO-003, IRO-005, IRO-006. However, there could be others.	
<p>Response: The SAR DT agrees that IRO-006 should be included in the scope of this SAR for the sole topic of eliminating redundancies relating to the applicability of TOP's and BA's in the respective documents. We are uncertain about what the comments on IRO-002 & -003 mean. In reviewing this issue, it appears that IRO-004 & -005 have the same problems as IRO-006 and therefore should be included in the scope of this SAR. This will require a re-posting of the SAR for consideration by the industry.</p>		
Entergy (Davis)	No.	
City of Tallahassee	None.	
Duke Energy	None.	
IESO	No.	
PSC SC	None.	
HQT	No.	
IRC SRC	No.	
ISO-NE	No.	
NYISO	No.	
NPCC CP9 RSWG	No.	
WECC RCCWG		None are currently identified, but some may become apparent later.

6. Do you agree that there is a reliability-related need to revise the set of standards addressed in this SAR?

Summary Consideration: The consensus is that there is a reliability-related need for this SAR.

Question #6			
Commenter	Yes	No	Comment
ATC LLC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ATC agrees that there is a reliability-related need to review and revise this set of standards, but we do not agree with the overly prescriptive changes appearing in the SAR.
<p>Response: The SAR is a scoping document and the changes represent topics that are open to debate. The SAR DT intended to be prescriptive only in defining the scope of the work area. The SAR DT did not intend to be prescriptive in the requirements being proposed. A SAR DT does not define solutions, and this DT did not intend to define solutions. How prescriptive the standard will be is decided by the comments to the Standard DT.</p>			
ERCOT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	I believe that revising the set of standards for clarity and for reducing redundancy will benefit reliability by reducing confusion. There is also a common sense reason to revise them to avoid "multiple jeopardy" by exposure to the same requirement in multiple standards.
<p>Response: Thank you, the concept that reliability requires clear unambiguous standards has support from other commenters as well as from the SAR DT.</p>			
WECC RCCWG			The WECC RCCWG believes that some of the standard requirements need to be clarified.
Ameren	<input checked="" type="checkbox"/>		It is important that the standards address those things, and only those things, that affect the reliability of the BES so that time and attention are not diverted from the most worthwhile initiatives.
Duke Energy	<input checked="" type="checkbox"/>		The reliability-related need is to provide clarity and remove redundancy.
Manitoba Hydro	<input checked="" type="checkbox"/>		The standards must be revised to clearly define the responsible entity for each requirement. There can't be any room for a requirement to fall through the cracks because the assignment of responsibility is not clear. Redundancy between Standards does not mitigate the risk of inadequate assignment of responsibility, but rather it may increase the likelihood that responsible entities assume that the requirements are met by others.
MRO	<input checked="" type="checkbox"/>		The current versions of the standards are very voluminous and confusing. These revisions should remove the ambiguity and lead to a small set of quality reliability related requirements to be complied with.
AEP	<input checked="" type="checkbox"/>		
City of Tallahassee	<input checked="" type="checkbox"/>		

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Question #6			
Commenter	Yes	No	Comment
Entergy (Davis)	<input checked="" type="checkbox"/>		
Entergy (Franklin)	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
FirstEnergy	<input checked="" type="checkbox"/>		
FRCC	<input checked="" type="checkbox"/>		
HQT	<input checked="" type="checkbox"/>		
IRC SRC	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
ITC Transco	<input checked="" type="checkbox"/>		
NYISO	<input checked="" type="checkbox"/>		
NPCC CP9 RSWG	<input checked="" type="checkbox"/>		
SOCO Transmission	<input checked="" type="checkbox"/>		
CenterPoint			No comment.

7. Do you agree with the scope of this SAR?

Summary Consideration: The consensus is that the industry agrees with the stated purpose of the SAR. However, as indicated in the response for question #5, there will be a re-posting of the SAR to consider the inclusion of certain IRO standards.

Question #7			
Commenter	Yes	No	Comment
ATC LLC		<input checked="" type="checkbox"/>	The scope of this SAR is overly prescriptive in that it has already determined a solution to the perceived deficiency. A scope needs to be detailed enough to provide a solid base for discussion and review, but not so detailed that the solution has been identified. The solution will be developed by the SDT along with industry feedback. ATC believes that this SAR is overly prescriptive and should be re-written.
Response: The SAR is a scoping document and the changes represent topics that are open to consideration. The SAR DT intended to be prescriptive only in defining the scope of the work area. A SAR DT does not define solutions, and this DT did not intend to define solutions. How prescriptive the standard will be is decided by the comments to the Standard DT.			
Duke Energy		<input checked="" type="checkbox"/>	This SAR should focus only on TOP standards.
Response: The intent of the SAR was to cover unresolved real time operations issues that had been raised by FERC and other commenters. The general industry favors the wider scope.			
IESO		<input checked="" type="checkbox"/>	Please see our comments under Q2 and Q4 regarding the notion of the SAR DT, and the potential conflicts with other efforts currently underway or to start soon.
HQT		<input checked="" type="checkbox"/>	Please see response to Q#4.
ISO-NE		<input checked="" type="checkbox"/>	Please see response to Q#4.
NPCC CP9 RSWG		<input checked="" type="checkbox"/>	Please see response to Q#4.
Response: The concern about coordination with other Standard Drafting Teams is addressed by the Standards Committee and the NERC Standards Process Manager. There is also a difference between standards and requirements. There are standards that appropriately fall under more than one NERC Project; however, the requirements within that given standard should be unique to a given DT. If there are any duplicative requirements, then that is best addressed in the Standards process. To limit the scope of this SAR because another SAR may also address the same standard may in the end preclude a needed change in a specific requirement.			
SOCO Transmission		<input checked="" type="checkbox"/>	The SAR needs to be broadened in scope to cover all standard requirements that contain references of the RC being responsible for SOLs and not just a subset of standards.
Response: The intent of the SAR was to cover unresolved real time operations issues that had been raised by FERC and other commenters. There is a newly constituted SAR DT to address RC issues and standards that should address your concerns. If there are additional RC standards that need to be addressed, then a new SAR can be submitted.			

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Question #7			
Commenter	Yes	No	Comment
IRC SRC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	This SAR should be written to apply only to TOPs. This is an opportunity to create a good quality set of standards and eliminate the existing ambiguous requirements. You should start with a clean slate.
Response: The intent of the SAR was to cover unresolved Real Time Operations issues that had been raised by FERC and other commenters.			
ITC Transco	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Except for not addressing the SOL issue described above.
Response: This was addressed in the responses to question #2.			
AEP	<input checked="" type="checkbox"/>		We agree with the purpose stated for this SAR. We do not agree with all of the specific changes suggested in the SAR. However, the SAR is written that the Standard Drafting Team is to consider the changes, which we do support. We believe that through a thorough debate and analysis by the Standard Drafting Team, that they too will conclude that not all the recommendations should be implemented.
Response: Thank you for your support.			
MRO	<input checked="" type="checkbox"/>		The current versions of the standards are very voluminous and confusing. These revisions should remove the ambiguity and lead to a small set of quality reliability related requirements to be complied with.
Response: Thank you for your support.			
Ameren	<input checked="" type="checkbox"/>		
City of Tallahassee	<input checked="" type="checkbox"/>		
Entergy (Davis)	<input checked="" type="checkbox"/>		
Entergy (Franklin)	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
Manitoba Hydro	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
FirstEnergy	<input checked="" type="checkbox"/>		
FRCC	<input checked="" type="checkbox"/>		
NYISO	<input checked="" type="checkbox"/>		

8. If you are aware of any regional variances or business practices that should be developed in association with this SAR, please list them here.

Summary Consideration: No specific comments upon the content of the SAR were submitted relative to this question.

Question #8			
Commenter	Regional Variances	Business Practices	Comment
MRO			We are not aware of any at this time, since we do not know the detailed changes and wording that will be in the Reliability Standards. It is imperative to include red-line versions of the revised standards to allow determination of what needs to be included in the reference documents.
Response: The SAR DT thanks MRO for its comment. The comment suggests a process that relates to the activities of the yet-to-be-established Standard Drafting Team. We agree that it is important to be able to see what specific changes are being recommended in the content of the specific standard(s) being revised, as well as any related standard(s).			
City of Tallahassee			None.
Duke Energy			None.
AEP			No comment.
Ameren			No comment.
ATC LLC			No comment.
CenterPoint			No comment.
Entergy (Davis)			No comment.
Entergy (Franklin)			No comment.
ERCOT			No comment.
IESO			No comment.
Manitoba Hydro			No comment.
PSC SC			No comment.
FirstEnergy			No comment.
FRCC			No comment.
HQT			No comment.
IRC SRC			No comment.
ISO-NE			No comment.
ITC Transco			No comment.
NYISO			No comment.
NPCC CP9 RSWG			No comment.
SOCO Transmission			No comment.
WECC RCCWG			No comment.

9. If you have any other comments on this SAR that you haven't identified above, please provide them here.

Summary Consideration: Accommodating changes to the SAR will be made as noted below.

Question #9	
Commenter	Comment
AEP	AEP encourages additional aids (i.e. whitepapers and/or teleconferences) during the drafting process to better understand the drive for removing SOLs from some of the standards.
Response: The SAR drafting team agrees that more in depth discussion of the topic can serve only to improve understanding and improvement of standard requirements and we will pass this comment on to the SDT.	
ATC LLC	<p>Comment in the SAR:</p> <p>"R14 and R15 apply to the Generator Operator and as such do not belong in the TOP standards. The drafting team should look to find another place for these requirements if possible."</p> <p>ATC disagree with this statement. The "Purpose" statement sets the need for the standard. All entities that are needed to support the "Purpose" should be identified in the Applicability section. The label of TOP should not be the justification to exclude any entity that is not a Transmission Operator.</p>
Response: You make a very good point. We may have overstated the problem. The SAR will be changed to read: "R14 and R15 apply to the Generator Operator and as such may be better addressed in other standards. The Standards Drafting Team should look to find another place for these requirements if possible."	
Entergy (Franklin)	We agree that the proposed changes need to be evaluated. However, it is important that the revised standards are balloted separately so that the entire set is not rejected because of an issue with one of the standards nor approved as a set with flaws or concerns in one or more of the standards.
Response: The SAR drafting team will forward your comment to the Standard Drafting Team (SDT) when it is established. One of the important decisions the SDT must make is whether to vote all changes as one package or whether some of the changes may stand alone and may be balloted individually.	
Duke Energy	<p>If the ultimate goal is to eliminate PER-001-0 as stated on page SAR-4, it should be noted that responsibility and authority are to be provided to "operating personnel" in either a TO or a BA. However, in standard TOP-001 Requirement 1, it deals specifically with Transmission Operators, and Balancing Authority personnel are not covered under this standard. Consideration should be given to either add BAs to TOP-001 R1 or they should be given "responsibility and authority" in some other standard if PER-001 is eliminated.</p> <p>Also, NERC should create a companion database for the standards that links each requirement, its compliance elements and applicable entities. Such a cross-reference would facilitate standards actions dealing with groups of standards.</p>

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	<p>Response: (1) Your point is well made. The SDT can decide whether to submit the elimination of PER-001 and to modify TOP-001 to include the BA. (2) Such a database is not within the scope of the SAR DT, however we will pass this comment on to the NERC staff.</p>
IESO	<p>Specific to the proposed changes to the standards, we offer the following comments:</p> <p>TOP-001</p> <p>R2: the SDT suggests to remove this requirement. However, R2 holds TOP responsible for taking immediate actions to alleviate operating emergencies which may be within the TOP area and not monitored by an RC, whereas R3 requires several operating entities to comply with the RC directives. The two requirements serve different purposes.</p> <p>R8: the SDT suggests to delete this requirement. We suggest the SDT to exercise caution and compare this requirement (restoring the system during an emergency) with other related standards to ensure that this is indeed covered elsewhere.</p> <p>TOP-002</p> <p>R1: the SDT suggests to remove this as it is redundant with TOP-008-1 R1. Please note that TOP-002 R1 requires plans whereas TOP-008 R1 requires TOP to take action in real time. These requirements are different. If the SDT wants to revise TOP-002 R1 to eliminate vague requirements, we suggest that the second sentence "In addition, each Balancing Authority and Transmission Operator shall be responsible for using available personnel and system equipment to implement these plans to ensure that interconnected system reliability will be maintained." be deleted.</p> <p>R3: the SDT suggests deleting R3 as it is redundant with TOP-004-1 R1. We disagree with this proposal. R3 requires the various operating entities to coordinate and develop operational plans; whereas TOP-004-1 requires the TOP to operate within the Interconnection Reliability Operating Limits (IROLs) and System Operating Limits (SOLs). They are required for different time frames and purposes.</p> <p>R4: the SDT suggests deleting R4 as it is redundant with IRO-005-2, R9. We Disagree with this proposal. Deleting R4 would remove the obligation for BA and Top to coordinate their activities with the RC. Additionally, the two requirements serve different purposes: R4 in TOP-002 serves to ensure that normal Interconnection operation will proceed in an orderly and consistent manner; whereas R9 in IRO-005-2 serves to require the RC to develop and implement action plans to mitigate potential or</p>

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	<p>actual SOL, IROL, CPS, or DCS violations.</p> <p>R6: the SDT suggests deleting R6 as it is redundant with BAL-002-0 R4 and IRO-005-2 R9. We agree that there is redundancy with BAL-002-0 R4, but we not agree that it is redundant with IRO-005-2 R9. Deleting R6 would remove the obligation for BA and Top to coordinate their activities with the RC. Additionally, the two requirements serve different purposes: R6 in TOP-002 require TOP and BA to plan for contingencies; whereas R9 in IRO-005-2 serves to require the RC to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations.</p> <p>R7 and R9: the SDT suggests deleting these requirements as they are redundant with BAL-007 through -011. We do not agree with the deletion of both requirements, due to the fact the standards BAL-007 to BAL-011 have failed the ballot process, and are now part of the Reliability-based Control SAR which is posted for comments. Please see our comments on Q4 (ii), above.</p> <p>R8, R10 and R11: the SDT suggests deleting these requirements as they are redundant with IRO-005-2 R9. We agree with this deletion provided that R4 is retained. Othewise, R10 and R11 should be retained.</p> <p>R18: the SDT suggests to move this to FAC-009-1. We do not agree since the purpose of FAC-009-1 is "To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or Methodologies". We veiw that R18 crosses a number of Standards so there may be a better home than FAC-009-1.</p> <p>TOP-003-0</p> <p>R3: the SDT suggests deleting R1.3 as it is redundant with IRO-010, R3 as part of the over-all data specification effort. We believe the referenced requirement should be R4.</p> <p>TOP-004-0</p> <p>R1: the SDT suggests deleting R1 as it is redundant with IRO-009-1, R4. We disagree with this. SAR IRO-009-1 holds the RC responsible for operated within IROL. We feel strongly that the TOP must also operate its system to respect IROL. Further, we need to defer any changes to remove or modify SOL until after the definition of Adequate Level of reliability is defined. We also provided other reasons for retaining it. Please see our comments on Q2, above.</p>

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	<p>R2: the SDT suggests deleting R2 as it is simply the definition of an IROL and is redundant with FAC-010-1 and FAC-011-1. We disagree with this proposal since R2 requires TOP to operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency. FAC-010-1 and FAC-011-1 deal with the methodology to determine SOL and IROL. They hold different entities for doing very different things altogether.</p> <p>R3: We disagree with removing this requirement for the above same reason.</p> <p>TOP-005-1</p> <p>R2: the SDT suggests deleting this requirement. We agree that R2 is not a reliability requirement, but the SDT needs to recommend a home for entities that receive data from the ISN that it must sign the NERC Confidentiality Agreement for "Electric System Reliability Data".</p> <p>TOP-006-1</p> <p>R1: the SDT suggests deleting R1 as it is redundant with FAC-009-1, R2. We disagree with this proposal since R1 deals with real-time data such as facility status, resource availability; whereas FAC-009-1 deals with establishing ratings.</p> <p>R4: the SDT suggests deleting R4 as it is redundant with BAL-001 and -002 and is also addressed in IRO-010-1, R1 and R3. We disagree as R4 requires the operating entities to do things that are very different from any of BAL-001, BAL-002 and IRO-010-1.</p> <p>R7: the SDT considers deleting Balancing Authority as it is covered in BAL-005-0, R8 and deleting Reliability Coordinator as it is covered in BAL-008-1, R1. We do not agree with both. In the first case, the requirements for the BA in R7 is to monitor system frequency which is different than those in BAL-005-0, R8 which specify the data and metering requirements. In the second case, BAL-008 doesn't yet exist (failed ballot).</p> <p>TOP-008</p> <p>R3: the SDT suggests deleting R3 as it is a local utility risk consideration and not a reliability issue as currently worded. We do not agree with the deletion since the requirement implies that the action taken by the TOP has interconnected system implication.</p>
<p>Response: TOP-001-1, R2 comment: You are correct that R2 and R3 address different concepts. However, the drafting</p>	

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	<p>team should have stated that the redundancy was between R1 and R2, rather than R2 and R3. R1 clearly states that the Transmission Operator shall exercise specific authority to alleviate operating emergencies. R2 is largely procedural in nature rather than stating what is to be done. This will be corrected in the re-posted SAR.</p> <p>TOP-001-1, R8 comment: The drafting team agrees. The SDT must include due diligence in comparing various requirements in its consideration of whether to delete R8.</p> <p>TOP-002-2 R1 comment: Your point is understood. The drafting team feels that the TOP has plans in place in order to take the actions required by TOP-008-1 R1. However, the requirement to have plans and the requirement to implement those plans are two different concepts. Your point about deleting the second sentence of TOP-002-2 R1 is a good recommendation. The drafting team will forward your comment to the SDT for its consideration as it makes specific revisions.</p> <p>TOP-002-2, R3 comment: Your statement is correct. The redundancy should reference IRO-004-1, R4, rather than TOP-004-1, R1.</p> <p>TOP-002-2, R7 and R9 comment: At the time the SAR was drafted, the outcome of the BAL-007—011 was not known. The SDT must take this into account as they consider whether to delete R7 and R9.</p> <p>TOP-002-2 R8, R10, and R11 comment: The drafting team agrees that there are complex interrelationships and redundancies throughout the standards. As the SDT considers deleting requirements, they must also watch for these relationships.</p> <p>TOP-002-2, R18 comment: The SAR requires that the SDT consider moving this requirement to FAC-009-1, it does not require that it do so. Part of the methodology required by FAC-009-1 is to include identifiers.</p>
Manitoba Hydro	<p>Specific to COM-001-1 Telecommunications:</p> <p>In general, we support the proposed revisions to this standard with the following exceptions.</p> <p>Periodicity and type of testing should not be defined explicitly in the standard. The onus must be placed on each organization to determine the periodicity and testing requirements as necessary to meet expected performance criteria. Such requirements would require regular review and adjustment to address changing conditions.</p> <p>Appendix B - FERC Order 693: We are concerned that the proposed expansion of the Standard to</p>

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	<p>included Generator Operators and Distribution Providers is unachievable within a reasonable period of time relative to ongoing efforts to comply with current standards, i.e., too much too fast.</p> <p>Specific to TOP-005 Operational Reliability Information</p> <p>If the proposed changes are adopted, only one requirement R3 remains in this standard. This requirement involves Balancing Authorities (BAs)and Transmission Operators (TOs) supplying on-line information to associated BAs and TOs for reliability assessments and coordinated operations. This same information is also transmitted to the Reliability Coordinators (RCs)via requirement R1. (which is now to be transferred to and covered by IRO-010-1).</p> <p>If the RCs are receiving all the required reliability data anyway, why can't all concerned BAs and TOs get this same data from the RCs instead of directly from the concerned utility? Won't all BAs and TOs be required to send reliability data the closest RCs, even if they are not already a direct or associate member of any established RC?</p> <p>Keeping TOP-005 only for R3 opens the door to potential reliability analysis and data being developed and transmitted between interconnected BAs and TOs that is NOT also transmitted to RCs. It may be better to make TOP-005 R3. part of another standard (such as IRO-010) to ensure RCs are properly informed, and then eliminate TOP-005 altogether.</p>
	<p>Response: COM-001-1 comment: Your comment may apply if there is valid reason for different performance criteria in different organizations. The SAR drafting team will forward your comment to the Standard Drafting Team (SDT) once the SAR is approved, since it deals with a specific treatment of a requirement that the SAR directs the SDT to consider for revision.</p> <p>Appendix B – FERC Order 693 comment: Your concern is noted. However, the drafting teams must address directives of FERC in the revision of standards. You are encouraged to continue your review and to make appropriate comments of each draft of the standard that is posted.</p> <p>TOP-005-1 comments: The purview of the RC may differ from that of the BA and TOP. The RC must have a wider view of the system for which it is responsible and may not analyze down to the "local" level of each BA and TOP system. However, your concepts are interesting and should be part of the activity of the Standards Drafting Team (SDT) when the team is considering the revisions as directed by the SAR.</p>
MRO	<p>As the standards are revised, it is necessary to insure there is, at a minumim, one measurement for each requirement. If a measure can not be determined for a requirement, the requirement should be rewritten or deleted.</p>
	<p>Response: Some measurements may realistically relate to more than one requirement. However, each requirement should</p>

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	have a measurement which does apply to it. One of the aspects of a good standard requirement is for it to be clear as to what is to be done, by whom, and to what expected result.
FRCC	The revisions being made under this SAR should be well coordinated with the revisions being made under the Reliability Coordination SAR (Project 2006-06). Both SARs are seeking to revise COM-001 and COM-002. It is also critical that language proposed in the revisions of both projects be well coordinated because of the interrelated nature of the applicable standards.
	Response: Each SDT should review related actions of other projects to the extent that the timing allows them to do so. In most cases, each project is revised from a different perspective and conflicting revisions should not occur. This need to coordinate between drafting teams is recognized and the drafting team guidelines caution the drafting teams to keep this in perspective throughout their work.
IRC SRC	The SAR proposes to add the language "without delay" to a number of requirements. We are concerned that this wording could be interpreted in a standard to require the need for immediate control action. We propose that the standard drafting team should clarify that the "without delay" language does not require immediate control action but requires the applicable entity to begin evaluations necessary to take control actions. These evaluations may include but are not limited to verifying the limit, measurement, or performing a on-line power flow study.
NYISO	The SAR proposes to add the language "without delay" to a number of requirements. We are concerned that this wording could be interpreted in a standard to require the need for immediate control action. We propose that the standard drafting team should clarify that the "without delay" language does not require immediate control action but requires the applicable entity to begin evaluations necessary to take control actions. These evaluations may include but are not limited to verifying the limit, measurement, or performing a on-line power flow study.
	Response: The SAR drafting team agrees with your comment. Actions include recognition, investigation, and verification prior to actual control actions. We will pass this comment along to the eventual SDT.
SOCO Transmission	It is recommended that the drafting team members review all alleged duplications closely to be sure that the true meaning of the duplicated statement is the same as the original statement before being deleted. There could be instances where the words are the same but the meaning behind the duplication could be different.
	Response: Thank you for your suggestion. The guidelines for the SDT require that they pay close attention to background and content of each requirement considered for revision or retirement.
WECC RCCWG	The WECC RCCWG suggests differentiating TOP directives from Reliability Coordinator directives. This may be done with specific language. It should be clear to the entity receiving a directive who issued that directive. It may be beneficial to have a NERC definition for a "Reliability Coordinator Directive" and a "Transmission Operator Directive".
	Response: The SAR drafting team encourages you to continue to review drafts of standard revisions that the SDT will post

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	for comment. You may suggest specific changes to specific standard requirements at that time. If there is not an existing standard for which this comment appropriately relates, you may submit a SAR to request the establishment of such requirements.
City of Tallahassee	None.
Ameren	No comment.
CenterPoint	No comment.
Entergy (Davis)	No comment.
ERCOT	No comment.
PSC SC	No comment.
FirstEnergy	No comment.
HQT	No comment.