<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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E-mail this form between August 19 – September 18, 2002, to: <u>sarcomm@nerc.com</u> with "SAR Comments" in the subject line.

Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Art Giardino		
Organization	PSE&G		
Telephone	(973) 430-6374	Fax	Fax (973) 242-6074
E-mail	Arthur.giardino@pseg.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits				
Is there a reliability-related need for an Organization Standard to be developed on this topic?				
⊠ Yes □ No				
The scope of the SAR is fine as it is The scope of the SAR should be expanded to include: The scope of the SAR should be reduced to eliminate:				
Other comments: This may be a glitch in the process. The 'yes' to "Does the				
proposed Standard comply with all the Market Interface Principles" is				
premature. The actual wording of the standard may in fact violate Market				
Interface Principle #4. Until the Standard is final, we can't answer the				
question!!				

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	☐ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information				
Name Jim Cyrulewski Vice-President of Operations, International Transmission Company and Manager-MEPCC				
Organization	On behalf of the Michigan Electric Coordinated Systems (MECS) Control Area			
Telephone	734-665-3628 Fax 734-665-3480			
E-mail	cyrulewskij@dteenergy.com			

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
⊠ Yes □ No
 ☑ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	⊠ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	John Bonner PE		
Organization	Entergy Nuclear Northeast		
Telephone	508-830-8094	Fax	508-830-8699
E-mail	jbonner@entergy.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
⊠ Yes □ No
 ☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	☐ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Raj Rana		
Organization	AEP		
Telephone	614-223-2359	Fax	614-223-2352
E-mail	raj_rana@aep.com		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits Is there a reliability-related need for an Organization Standard to be developed on this topic?

x Yes No

x The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Other comments: The SARDT will coordinate the standard development effort with its NAESB counterpart because this proposed SAR has commercial implications.

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	x Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Alan Johnson		
Organization	Mirant Americas Energy Marketing		
Telephone	(678) 579-3108	Fax	(678) 579-7726
E-mail	alan.r.johnson@mirant.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
☐ Yes ☐ No
☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Ed Riley		
Organization	California ISO		
Telephone	(916) 351-4463	Fax	(916) 608-5906
E-mail	eriley@caiso.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
⊠ Yes □ No
 ☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments: See comments under #2.

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	☐ Yes
	No No
2	If you feel that the scane of this SAR needs additional refinement, please identify
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Albert M. DiCaprio		
Organization	MAAC		
Telephone	610-666-8854	Fax	
E-mail	dicapram@pjm.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits			
Is there a reliability-related need for an Organization Standard to be developed on this topic?			
☐ Yes ☐ No			
☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate: Other comments:			

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	⊠ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Tom Kraynak - ECAR		
Organization On Behalf of the following companies only: American Electric Power , Allegheny Power, Allegheny Energy Supply, AES/IPALCO, Big Rivers Electric Cooperative, CINergy, Consumers Energy, Dayton Power & Light, Detroit Edison Co., East			
Kentucky Power Cooperative, FirstEenergy Corp., LGE Energy, Michigan Electric Coordinated Systems, Northern Indiana Public Service Co., Ohio Valley Electric Corp, and Vectren Energy Delivery of Indiana.			
Telephone	330-580-8001	Fax	330-456-3648
E-mail	tomk@ecar.org		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits			
Is there a reliability-related need for an Organization Standard to be developed on this topic?			
⊠ Yes □ No			
 ☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: Each requirement in the detailed description should have an objective or desired outcome. ☐ The scope of the SAR should be reduced to eliminate: 			
Other comments:			

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?			
	☐ Yes			
	No No			
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:			
	Each requirement in the detailed description should have an objective or desired outcome. For example the existing SAR has the following listing under the Detailed Description: + Performing corrective actions to mitigate limit violations - Have a mitigation plan			
	A possible rewrite to include an objective or desired outcome would be + Performing corrective actions to mitigate limit violations			
	 Have a mitigation plan that can be activated and is expected to restore the system to within limits in a specified time frame. 			
	Having a mitigation plan of 'say a prayer' satisfies the original requirement. Each entry in the Detailed Description needs an objective or desired outcome.			

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Kenneth Githens		
Organization	Allegheny Energy Supply		
Telephone	412-858-1635	Fax	412-856-2912
E-mail	kgithen@alleghenyenergy.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
☐ Yes ☐ No
☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?		
	☐ Yes		
	No No		
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:		
	Add descriptions to standards and requirements.		

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	John Blazekovich		
Organization	Exelon		
Telephone	630-691-4777	Fax	630-691-4697
E-mail	john.blazekovich@exeloncorp.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
 ☑ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

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1.	. Do you agree with the SAR DT that this SAR is ready to be developed into a standard?	
	□ No	
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:	

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Tom Petrich		
Organization	PG&E		
Telephone	(415) 973-6491	Fax	(415) 973-8616
E-mail	TCP3@pge.com		

Background

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
⊠ Yes □ No
 ☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

1.	. Do you agree with the SAR DT that this SAR is ready to be developed into a standard?	
	□ No	
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:	

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information		
Name	Edward Stoneburg	
Organization	Illinois Power Company	
Telephone	217 362 6363	Fax
E-mail Edward_stoneburg@illinoispower.com		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?

X Yes No

The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

X The scope of the SAR should be reduced to eliminate: The HOW of operating within limits

Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

The revised SAR has been re-posted from August 19 – September 18, 2002. Please review the revised SAR and complete this form to let the SAR DT know if you agree or disagree with the SAR DT's assessment that this SAR is ready to be developed into a standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	☐ Yes
	⊠ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
	Illinois Power is still concerned, as it was in its comments on the initial draft of the SAR, that the SAR still includes a number of references to HOW. To correct this, IP suggests the following changes.
	Suggested changes to the Brief Description:
	This standard requires adherence to established operating limits1 identified to prevent instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission_system.
	Requirements shall address:
	 Documentation of operating limits identified to prevent instability, uncontrolled separation or cascading outages readily available to the Reliability Authority and <u>Transmission Operator</u>
	 Real time mMonitoring of necessary system parameters against the identified operating limits
	 Performing short-term and real-time-transmission reliability analyses relative to the identified operating limits
	 Performing corrective actions, including identification and use of operating guidesto mitigate limit violations
	Keeping records and filing reports
	1 These are the limits established through the standard, "Determine Facility Ratings, Operating Limits and Transfer Capabilities" that are further identified to prevent instability, uncontrolled separation or cascading outages
	Suggested Changes to the Detailed Description:
	This standard requires that the Reliability Authority and Transmission Operator adhere to established operating limits identified to prevent instability, uncontrolled separation or cascading outages.
	Requirements shall address:
	1 Demonstration that the RA and TO have current information on the identified operating limits

- -- Process in place for updating the RA/TO when changes are made in the identified operating limit
- <u>2</u> Real time mMonitoring of necessary system parameters against the identified operating limits
 - Monitor parameters that indicate the current and expected state of the <u>identified</u> operating limitstransmission system
 - Monitor parameters that indicate the current and expected state of tie lines to other systems and of the overall interconnected transmission system
- <u>3</u> Performing short-term and real-time transmission reliability analyses relative to the identified operating limits
 - Collect data needed for performing real time-reliability analyses
 - -- Have the capability to perform necessary studies relative to the identified operating limits
 - Conduct an operating assessment to identify limiting facilities
- 4 P<u>Direct or performing corrective-actions to to mitigate return the system within the identified operating limits violations</u>
 - Have a mitigation documented plans and operating guides
 - Implement mitigation plans wheren necessary
- §5 KeepingMaintenance of records and filing reportings
 - Document applicable operating guides and their use
 - <u>Log violations and maintain records for some period of time Document instances of exceeding the identified operating limits</u>
 - Document actions taken to limit the risk of instability, uncontrolled separation and cascading outages
 - Make Rreports required by information to NERC based on specified criteria (magnitude, duration, type of violation risk)
- 6 The standard will not address
- loss of a single device
- cascading outages
 - security limits that if exceed will not have significant consequences
 - distribution and generation

With respect to the deletion of the bullet on monitoring the state of tielines, IP does not believe this should be a requirement of this standard. Within the scope of this standard, these lines might only need to be monitored if the were an identified operating limit.

With respect to the addition of Item 6, IP felt that the decisions by the SAR drafting team, documented in the responses to the comments received on the prior draft of this SAR, to specifically exclude these items from the standard needs to be made a part of the SAR so it is communicated to the standard drafting team.

IP also believes that Reliability Principle 4 applies since the standard would address plans for emergency operation

– Monitor and m

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Gerald Rheault		
Organization	Manitoba Hydro		
Telephone	204-487-5423	Fax	204-487-5360
E-mail	gnrheault@hydro.mb.ca		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits Is there a reliability-related need for an Organization Standard to be developed on this topic?

X Yes No

The scope of the SAR is fine as it is

x The scope of the SAR should be expanded to include: Generators and loads

The scope of the SAR should be reduced to eliminate:

Other comments: Generators and Loads are to be addressed in the Coordination of Operations SAR. These entities can also affect reliability of operation as they are tightly connected and a failure to do the right thing by either of these entities can result in operation outside of transmission system limits. Therefore these entities need to be included in this SAR to ensure that they comply to instructions provided by the operator and follow commitments made at the scheduling stage.

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

The revised SAR has been re-posted from August 19 – September 18, 2002. Please review the revised SAR and complete this form to let the SAR DT know if you agree or disagree with the SAR DT's assessment that this SAR is ready to be developed into a standard.

1. Do you agree with the SAR DT that this SAR is ready to be developed into a standard?			
☐ Yes			
x No			
2. If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:			
Standards arising from this SAR must apply to all entities operating in the system. In reality, this means the following:			
- the Balancing Authority has obligations to ensure correct schedules and ensure resource allocations which avoid limits			
- the Interchange Authority is required to ensure transmission line limits are respected			
- the Generator is required to adhere to limits and expectations (i.e. providing 0)			
- the Load Serving Entities will be required to drop load if required.			
Reliability principle 3 also applies - frequency is another element of operation that needs to stay within limits.			
The standard should also address the supply of critical information.			

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

The latest version of this SAR (OPER_WITHN_LMTS_01_02) is posted on the Standards web site at: http://www.nerc.com/~filez/sar-approved.html

E-mail this form between August 19 – September 18, 2002, to: <u>sarcomm@nerc.com</u> with "SAR Comments" in the subject line.

Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Tony Jankowski		
Organization	We Energies		
Telephone	262-544-7117	Fax	262-544-7099
E-mail	tony.jankowski@we-energies.com		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	☐ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	e Toni Timberman		
Organization	Bonneville Power Administration - Transmission		
Telephone	(360)418-2327	Fax	(360)418-2963
E-mail	tltimberman@bpa.gov		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
☐ Yes ☐ No
☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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The revised SAR has been re-posted from August 19 – September 18, 2002. Please review the revised SAR and complete this form to let the SAR DT know if you agree or disagree with the SAR DT's assessment that this SAR is ready to be developed into a standard.

1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	☐ Yes
	No No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
	Regarding the Detailed Description:
	1. Some of the requirements are the responsibility of the Reliability Coordinator and some are the responsibility of the Transmission Provider. The requirements need to clearly delineate the responsibilities of Transmission Provider vs. Reliability Coordinator.
	2. A requirement for conformance to NERC Reliability Criteria should be included.
	3. In the wording for the first bullet regarding Real-Time Monitoring, the words "and expected" should be deleted. Expected conditions are part of the data gathered for the reliability analysis covered under the second bullet, rather than for Real-Time Monitoring.

<u>Note</u> – This form is to comment on version 2 of the Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information				
Name	David H. McMillan			
Organization Calpine				
Telephone	713-830-8710	Fa	ax	713-830-2001
E-mail	dmcmillan@calpine.com			

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits Is there a reliability-related need for an Organization Standard to be developed on this topic?

Yes No

The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
	"Scope" is appropriately defined

<u>Note</u> – This form is to comment on version 2 of the Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information				
Name Robert Pierce				
Organization Duke Power				
Telephone	(704) 373-6480	Fax	(704) 382-7887	
E-mail	rwpierce@duke-energy.com	•		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?

Yes No

The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	⊠ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	George Bartlett		
Organization Entergy Services			
Telephone	504-310-5801		Fax
E-mail	gbartle@entergy.com		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits Is there a reliability-related need for an Organization Standard to be developed on this topic?

Yes No

The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	⊠ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information		
Name	Jim Case	
Organization	Entergy	
Telephone	870-541-3908	Fax
E-mail	jcase@entergy.com	

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?

Yes No

The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	⊠ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
	N/A

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If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Mr. Charles Moser (Northborough, MA) and Mr. Ro	nald Halsey (Syracuse, NY)
Organization National Grid USA			
Telephone	508 421 7600 315 428 3181	Fax 5615	508 421 7520 315 428
E-mail charles.moser@us.ngrid.com ronald.halsey@us.ngrid.com			
None			

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term T	Fransmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization S	Standard to be developed on this topic?

The scope of the SAR is fine as it is

No

Yes

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	⊠ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

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If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Jim Byrd		
Organization	Oncor		
Telephone	(214) 743-6870	Fax	
E-mail	jbyrd@oncorgroup.com		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
⊠ Yes □ No
☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include: There are two important dimensions missed in the Purpose/Brief Description. 1) Protect transmission equipment from damage due to overloading and 2) protect public health, safety, welfare or national security. (this is spelled out in the OSPM) The Requirement - corrective action to mitigate limit violations addresses these and other dimensions of this proposed standard. ☐ The scope of the SAR should be reduced to eliminate:
Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1.	. Do you agree with the SAR DT that this SAR is ready to be developed into a standard?					
	∑ Yes ☐ No					
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:					
	Relationships among RA, T Operator, T Owner, TSP - need to be identified and addressed as well as data requirements from market participants necessary for monitoring and analysis. While these may be provided through Certification or other Standards, this standard can not be done without those relationships/linkages identified and in place. It IS unclear to me if this is part of the SAR, Standard DT, or some other responsibility.					

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If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information					
Name Charles Yeung					
Organization Reliant Resources					
Telephone	713-207-2935		Fax		
E-mail	cyeung@reliant.com				

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits Is there a reliability-related need for an Organization Standard to be developed on this topic?

Yes No

The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1. Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
☐ Yes
x□ No
2. If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
Detailed Description
It still appears that this SAR is merely a set of procedures to implement limits that will be established in another SAR, the FACILITY RATINGS SAR.
Although there is certainly a need to have procedures to ensure that Facility Ratings, Operating Limits, and Transfer Capabilities are not violated, Reliant still questions whether it is appropriate to embark on a distinct STANDARD to enforce those limits? What then would be the enforcement mechanism for the FACILITY RATINGS Standard? Could it possibly be:
Real time monitoring of system parameters against operating limits Monitor parameters that indicate the current and expected state of the transmission system Monitor parameters that indicate the current and expected state of tie lines to other systems and of the overall interconnected transmission system
Performing short-term and real-time transmission reliability analyses Collect data needed for performing real time reliability analyses Conduct an operating assessment to identify limiting facilities
3) Performing corrective actions to mitigate limit violations - Have a mitigation plan - Implement mitigation plan where necessary
4) Keeping records and filing reports - Log violations and maintain records for some period of time - Report information to NERC based on specified criteria (magnitude, duration, type of violation)
These of course are conveniently the items in the Detailed Description of the operate Within Transmission Limits SAR
???????

<u>Note</u> – This form is to comment on version 2 of the Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information						
Name	Mike Miller					
Organization	Southern Company Services, Inc.					
Telephone	205 257 7755	Fax	205 257 6663			
E-mail	mbmiller@southernco.com					

Background

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Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?

The scope of the SAR is fine as it is

No

Yes

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
void limi ope	sumption that operating limit definition and all associated definitions are captured may leave a d. Under "Brief Description" Performing corrective actions to mitigate limit violations. (assumes it violations has a definition). Might use performing corrective actions to mitigate exceeding erating limits. Wouldn't the standard apply to Balancing Authority? In integrating plan it should be uired to adhere to operating plan taking into consideration system limits?

<u>Note</u> – This form is to comment on version 2 of the Monitor and Assess Short-term Reliability SAR.

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Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information			
Name	Harlow Peterson		
Organization	SRP		
Telephone	602-236-0973	Fax	
E-mail	hrpeters@srpnet.com		

Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limit
Is there a reliability-related need for an Organization Standard to be developed on this topic?

Yes No

The scope of the SAR is fine as it is

The scope of the SAR should be expanded to include:

The scope of the SAR should be reduced to eliminate:

Other comments:

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

There were relatively few changes suggested to the SAR, and the SAR DT has addressed through the revisions made to the SAR. The SAR DT feels that this SAR is ready to go to the Standards Authorization Committee for their approval to develop this standard.

The revised SAR has been re-posted from August 20 – September 18, 2002. Please review the revised SAR and complete this form to let the SAR DT know if you agree or disagree with the SAR DT's assessment that this SAR is ready to be developed into a standard.

1. Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
☐ Yes
⊠ No
SARs, per the Standards manual, are supposed to define the scope of the standard. Standards are the requirements that necessary to ensure the NERC reliability principles are met. Thus the SAR should provide us enough information, that is at least the requirements, so the industry and the SAC can judge whether standard as described in the SAR is acceptable.
The brief and detailed description says what the "requirements shall address" not what they are. The only statement that comes close to a requirement is the SAR says the standard requires adherence to established limits. What does that mean? The title say more about the standard than the description.
This SAR falls short and needs to be redrafted.
2. If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
I really can not address the second question because as indicated above, I do not know what the requirements of the standard are. The WECC RMS standard can be used as an example of requirements should be.
Other comments:
1. Once again not being able to know the specifics of what's proposed it is hard to know what is proposed.
2. Page SAR-4, For record keeping the correct language is to say the records will be maintained for the "retention period".
3. Page SAR-4, Under record keeping the reporting of security violations should be reported to reliability authorities and the region(s) as well as NERC.
4. On page SAR-6 sections of the operating policies that will be retired are listed.
a. What are these policies? Is everything in these sections to be retired? Do we have to go and research the policies to know what is being proposed? More information should be given about what is to be deleted and we should not have to go look for it.
b. If all of the listed sections are retired, is there any other material in these sections that should be retained somewhere in some form?
c. The major heading of Implementation Plan indicates plans are to be provided for implementation of the proposed standard including training requirements. No such information was provided.

<u>Note</u> – This form is to comment on version 2 of the Operate Within Transmission System Limits – Monitor and Assess Short-term Reliability SAR.

The latest version of this SAR (OPER_WITHN_LMTS_01_02) is posted on the Standards web site at: http://www.nerc.com/~filez/sar-approved.html

E-mail this form between August 19 – September 23, 2002, to: <u>sarcomm@nerc.com</u> with "SAR Comments" in the subject line.

Please review the changes made to the SAR and answer the questions in the yellow boxes.

If you have questions, please call the Standards Process Manager, Maureen Long at 305-891-5497 or send a question to spm@nerc.com.

SAR Commenter Information				
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Background

The "Monitor and Assess Short-term Transmission Reliability - Operate Within Limits" SAR was posted for a 30-day public comment period from April 2 through May 3, 2002. On July 2, 2002 the Standards Authorization Committee (SAC) appointed a team to address the industry's comments submitted in response to the following questions asked about this SAR:

Look at SAR called: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits
Is there a reliability-related need for an Organization Standard to be developed on this topic?
☐ The scope of the SAR is fine as it is ☐ The scope of the SAR should be expanded to include:
The members of the Compliance Process Task Force (CPTF) of the Western Electricity Coordinating Council believe the purpose of the Operate Within Limit should include:
Actual power flow and net scheduled power flow over an interconnection or transfer path shall be maintained within Operating Transfer Capability (Security) Limits ("OTC"). The purpose of the proposed standard is to prevent actual path flow from exceeding its limit. Operating above a path's limit can result in loss of load, uncontrolled separation, and damage to transmission facilities when a system element (e.g. transmission line) outage occurs. When net schedules exceed the path limit, it can result in inadvertant flow and overloads on other system facilities.
The industry need for major transmission paths is as follows.
Transmission Path Operators, Transmission Owners, and Control Area Operators shall operate major transmisssion paths (the transmission system) within security limits so that instability, uncontrolled separation or cascading outages will not occur as a result of the most severe outage or single contingency. Several widespread system outages have occurred when major path limits were exceeded.
A brief description of the proposed standard is as follows.
Actual power flow or schedules on transmission paths identified by the Regional Reliability Organization shall at no time exceed the OTC for more than 20 minutes for paths that are stability limited, or for more than 30 minutes for paths that are thermally limited.
☐ The scope of the SAR should be reduced to eliminate:
Other comments:
A detailed discription of the proposed standard develop by CPTF is as follows.
Operating Transfer Capability Limit Standard
Actual power flow and net scheduled power flow over interconnections or transfer paths defined by the Regional Reliability Organization shall be maintained within Operating Transfer Capability Limits ("OTC"). The OTC is the maximum amount of actual power that can be transferred over direct or parallel transmission elements comprising:
1. An interconnection from one Control Area to another Control Area; or
2. A transfer path within a Control Area.
The net schedule over an interconnection or transfer path within a Control Area shall not exceed the OTC, regardless of the prevailing actual power flow on the interconnection or transfer path.
a. Operating limits. No elements within the interconnection shall be scheduled above

continuous operating limits. An element is defined as any generating unit, transmission line, transformer, bus, or piece of electrical equipment involved in the transfer of power within an interconnection.

- b. Stability. The interconnected power system shall remain stable upon loss of any one single element without system cascading that could result in the successive loss of additional elements. The system voltages shall be within acceptable limits defined in the Regional and NERC Planning Standards. If a single event could cause loss of multiple elements, these shall be considered in lieu of a single element outage. This could occur in exceptional cases such as two lines on the same right-of-way next to an airport. In either case, loss of either single or multiple elements should not cause uncontrolled, widespread collapse of the interconnected power system. For purposes of this section, stability shall include transient stability, post transient stability or dynamic stability whichever is most limiting to OTC.
- c. System contingency response. Following the outage and before adjustments can be made:
 - (i) No remaining element shall exceed its short-time emergency rating.
 - (ii) The steady-state system voltages shall be within emergency limits.

The limiting event shall be determined by conducting power flow and stability studies while simulating various operating conditions. These studies shall be updated as system configurations introduce significant changes in the interconnection.

3. Data Reporting Requirement

By no later than 5:00 p.m. on the first Business Day following the day on which an instance of noncompliance occurs or other such date defined by the region, a transmission path operator or owner shall submit to the regional office operating transfer capability data (see attachment 1) for each such instance of noncompliance. On or before the tenth day of each calendar quarter (or such other date specified by the region, the path operator or owner (including entities with no reported instances of noncompliance) shall submit to the regional office a completed OTC summary compliance form (see attachment 2) for the immediately preceding calendar quarter.

4. Compliance Standard

Actual power flow on all transmission paths shall at no time exceed the OTC for more than 20 minutes for paths that are stability limited, or for more than 30 minutes for paths that are thermally limited.

5. Noncompliance Levels

For each separate incident violating the OTC compliance standard, the level of the violation shall be as set forth in the Noncompliance Levels for Operating Transfer Capability table (Attachment 3):

6. Sanctions

For purposes of applying the sanctions for violations of this criterion, the "Sanction Measure" is Normal Path Rating and the "Specified Period" is the most recent calendar month.

Comments were received from many different sources, including individuals, small and large utilities, groups of utilities, Regional Councils, and NERC Subcommittees. The SAR DT considered the comments submitted by industry participants and revised the SAR to conform with the changes that were technically sound and appeared to be requested by or to represent a consensus of the participants.

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1.	Do you agree with the SAR DT that this SAR is ready to be developed into a standard?
	☐ Yes
	□ No
2.	If you feel that the scope of this SAR needs additional refinement, please identify specifically what needs to be changed:
2.	71

Attachment 1 Operating Transfer Capability Reporting Form

1.	Transfer Path Operator					
2.	Transfer Path Name					
3.	Path Number		No.			
4.	Flow Direction	Term 1		Term 2		
5.	Date and time of incident	Date:		Time:		
6.	OTC Limit at time of			Time zone	e:	
	incident - MW					
7.	Actual Path Flow - MW					
8.	Scheduled Path Flow - MW	7				
9.	MW over limit			Percent ov	ver limit	
10.	Duration of incidents - min	utes				
11.	Type of Limit					

Reporting Instructions:

- 1. Transfer Path Operator Enter regional acronym for the Transfer Path Operator. (Acronyms and transfer paths for the WECC region are defined in Table 2 (attachment 4).
- 2. Transfer Path Name Enter name from Table 2 (attachment 4).
- 3. Path Number Enter path number from Table 2 (attachment 4).
- 4. Flow Direction Table 2 defines the path to be monitored for reporting purposes, each path must have a Terminal 1 (sending bus or area) name and a Terminal 2 (receiving bus or area) name. Positive flow direction is from Term 1 to Term 2. Use this convention to report scheduled and actual flow. For example, if TOT2 Term 1 was named South, Term 2 was named North, and there was 700 MW reported on line 7; the flow across TOT2 would be 700 MW North to South.
- 5. Date and time of incident Date: Enter 2 digits each for Month, Day, and Year. Time: Enter 2 digits each for hour, minute, and second. Time zone enter MST, PST, MAST, PAST, etc.
- 6. Operating Transfer Capability Limit at time of incident Enter the MW transfer capability at the time of the incident.
- 7. Actual Path Flow at time of incident Enter the actual value of the MW flow at the 20-minute duration point for flows exceeding a stability limit and at the 30 minute duration point for flows exceeding a thermal limit.
- 8. Scheduled Path Flow at time of incident Enter the MW scheduled flow from Term 1 to Term 2.
- 9. MW over limit Line 7 minus Line 6.
- 10. Duration of incident Time in hours, minutes, and seconds that actual flow exceeded OTC.
- 11. Type of Limit Enter <u>Stability</u> or <u>Thermal</u> to identify the type of limit for the Path.

Attachment 2 **Operating Transfer Capability Compliance Notification**

1.	Reporting Path Operator or	
	Path Owner:	
2.	Contact Person's Name:	
3.	Contact Person's Phone No.:	
4.	Reporting Period:	
5.	The Path Operator or Path Owner was fully compliant with the Operating Trans Capability compliance criteria of RMS for the reporting period.	fer
6.	The Reporting Path Operator or Path Owner is not an operator of one of the transpaths identified for compliance reporting	ısmission
7.	The Reporting Path Operator or Path Owner experienced reportable Operating Topability incidents for the reporting period. The Operating Transfer Capability have been submitted as specified in the detailed compliance reporting instructions.	
8.	The Reporting Path Operator or Path Owner experienced reportable Operating To Capability incidents for the reporting period. The Operating Transfer Capability have not been submitted as specified in the detailed reporting instructions.	

Reporting Instructions:

- 1. Reporting Path Operator or Path Owner Enter the acronym for the Path Operator or Path Owner.
- 2. Contact Person's Name Enter the name of the reporting Path Operator or Path Owner employee.
- 3. Contact Person's Phone No. Enter the employee's telephone number.
- 4. Reporting Period Enter the quarter being reported (i.e. July 1 through September 30, 2002).
- 5. Check the box if no reportable OTC incidents were experienced during the reporting period.
- 6. Check the box if the Path Operator or Path Owner does not operate one of the major transmission paths identified in the compliance reporting instructions.
- 7. Enter the number of reportable OTC incidents that were reported by the Path operator or Path Owner for the reporting period.
- 8. Enter the number of reportable OTC incidents that were not reported by the Path Operator or Path Owner for the reporting period.

Attachment 3 **Noncompliance Levels for Operating Transfer Capability**

Thermal Limited	Limit exceeded for	Limit exceeded for	Limit exceeded for	Limit exceeded for
Paths:	more than 30	more than 35	more than 40	more than 45
i unio.	minutes, up to 35	minutes, up to 40	minutes, up to 45	minutes
	minutes	minutes	minutes	111111111111111111111111111111111111111
Stability Limited	Limit exceeded for	Limit exceeded for	Limit exceeded for	Limit exceeded for
Paths:	more than 20	more than 25	more than 30	more than 35
	minutes, up to 25	minutes, up to 30	minutes, up to 35	minutes
	minutes	minutes	minutes	
Percentage by which				
net scheduled or				
actual flows exceed				
OTC*				
greater than 0%, up	Level 1	Level 2	Level 2	Level 3
to and including 5%				
greater than 5%, up	Level 2	Level 2	Level 3	Level 3
to and including				
10%				
greater than 10%, up	Level 2	Level 3	Level 3	Level 4
to and including				
15%	I1 2	I1 2	I1 4	T1 4
greater than 15%, up	Level 3	Level 3	Level 4	Level 4
to and including 20%				
	Level 3	Level 4	Level 4	Level 4
greater than 20%, up	Level 3	Level 4	Level 4	Level 4
to and including 25%				
greater than 25%	Level 4	Level 4	Level 4	Level 4
greater thall 25%	LCVCI 4	LCVCI 4	LCVCI 4	LCVCI 4

^{*} measured after 20 continuous minutes of net scheduled or actual flows in excess of OTC.

Attachment 4 Table 2 Existing WECC Bulk Power Transmission Paths (BPTP)

(Revised October 20, 2000)

	PATH NAME*	Path Number	Operating Agent
1.	Alberta - British Columbia	1	BC Hydro
2.	Northwest – Canada	3	BC Hydro
3.	West of Cascades – North	4	BPA
4.	West of Cascades – South	5	BPA
5.	West of Hatwai	6	AVA/BPA
6.	Montana to Northwest	8	NWMT
7.	Idaho to Northwest	14	IPC
8.	South of Los Banos or Midway- Los Banos	15	CISO
9.	Idaho – Sierra	16	SPP
10.	Borah West	17	IPC
11.	Idaho – Montana	18	NWMT
12.	Bridger West	19	PAC
13.	Path C	20	PAC
14.	Southwest of Four Corners	22	APS
15.	PG&E – SPP	24	CISO
16.	Northern – Southern California	26	CISO
17.	Intmntn. Power Project DC Line	27	LADWP
18.	TOT 1A	30	WAPA
19.	TOT 2A	31	WAPA
20.	Pavant – Gonder 230 Kv	32	SPP/LADWP
	Intermountain – Gonder 230 kV		
21.	TOT 2B	34	PAC
22.	TOT 2C	35	NEVP
23.	TOT 3	36	WAPA
24.	TOT 5	39	WAPA
25.	SDGE – CFE	45	CISO/CFE
26.	West of Colorado River (WOR)	46	CISO
27.	Southern New Mexico (NM1)	47	EPE
28.	Northern New Mexico (NM2)	48	PNM
29.	East of the Colorado River (EOR)	49	APS
30.	Cholla – Pinnacle Peak	50	APS
31.	Southern Navajo	51	APS
32.	Billings – Yellowtail – Crossover Phase Shifter	53 & Crossover/ Yellowtail	NWMT
33.	Brownlee East	55	IPC
34.	Lugo – Victorville 500 kV	61	CISO/LDWP
35.	Pacific DC Intertie	65	BPA/LADWP
36.	COI	66	BPA/CISO
37.	North of John Day cutplane	73	BPA
38.	Alturas	76	SPP
39.	SCIT**		CISO
40.	COI/PDCI – North of John Day cutplane**		BPA

^{*} For an explanation of terms, path numbers, and definition for the paths refer to WECC's Path Rating Catalog.

^{**} The SCIT and COI/PDCI-North of John Day Cutplane are paths that are operated in accordance with nomograms identified in WECC's Path Rating Catalog.