

**Summary of Comments, Organized By Question Number**

**Monitor and Assess Short-term Transmission Reliability – Operate Within Transmission System Limits SAR  
Second Posting Summary of Comments**

**Background**

The Monitor and Assess Short-term Transmission Reliability – Operate Within Transmission System Limits SAR was posted for a second public comment period from August 20 through September 23, 2002. The SAR DT asked industry participants to provide feedback on the revisions made to the SAR through a special SAR Comment Form. There were 26 sets of comments submitted via this special SAR Comment Form. The comments can be viewed in their original format at:

<http://www.nerc.com/~filez/sar-approved.html>

In this document, the comments have been cut and pasted under the two questions:

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?

The SAR DT's consideration of comments is provided in blue text immediately under each question.

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 Tom Vandervort in the NERC office at 609-452-8060 or at [tom.vandervort@nerc.com](mailto:tom.vandervort@nerc.com). You can also contact either the Director of Standards, Tim Gallagher at 609-452-8060 or at [tim.Gallagher@nerc.com](mailto:tim.Gallagher@nerc.com), or Maureen Long at 305-891-5497 or at [spm@nerc.com](mailto:spm@nerc.com).

**Summary of Comments on Second Posting of Monitor and Assess Short-term Transmission Reliability - Operate Within Transmission System Limits SAR**

Company	Ready to be developed into a standard?		Comments
	YES	NO	
AEP	X		There is a need and the scope is fine as it is
BPA		X	<p>Regarding the Detailed Description:</p> <ol style="list-style-type: none"> <li>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. <i>Consideration:</i> We appreciate your comments. We recognize that confusing terminology has been used to describe the reliability functions in the last year. The functions in the new standards will be applied to the functions in the Functional Model. The Reliability Coordinator is not one of these functions. In the standard, each requirement will be clearly assigned to one of the functions. The Transmission Service Provider may have some supporting duties, but will not be responsible for complying with the measures in this standard, and is therefore, not listed as one of the functions for which this standard will apply.</li> <li>A requirement for conformance to NERC Reliability Criteria should be included. <i>Consideration:</i> This is a very good point. This requirement is expected to be addressed within reliability legislation or in a formal agreement between NERC and the involved entities and is outside the SAR process.</li> <li>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. <i>Consideration:</i> The SAR will be revised to eliminate the phrase, "as expected."</li> </ol>

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Company	Ready to be developed into a standard?		Comments
	YES	NO	
California ISO		X	<p>Add, under the detailed description, Third bullet "Performing Corrective Actions to Mitigate Limit Violations", "Have a mitigation plan that does not require a neighboring utility or Reliability Authority to take any unplanned actions."</p> <p><i>Consideration:</i></p> <p>This is an important aspect of good utility practice. We expect this to be addressed in the Coordinating Operations SAR and will give this comment to that SAR DT.</p>
Calpine	X		
Duke Power Gen	X		
Duke Power	X		
ECAR (for 16 companies)		X	<p>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:</p> <ul style="list-style-type: none"> <li>+ Performing corrective actions to mitigate limit violations               <ul style="list-style-type: none"> <li>- Have a mitigation plan</li> </ul> </li> </ul> <p>A possible rewrite to include an objective or desired outcome would be</p> <ul style="list-style-type: none"> <li>+ Performing corrective actions to mitigate limit violations               <ul style="list-style-type: none"> <li>- Have a mitigation plan that can be activated and is expected to restore the system to within limits in a specified time frame.</li> </ul> </li> </ul> <p>Having a mitigation plan of 'say a prayer' satisfies the original requirement. Each entry in the Detailed Description needs an objective or desired outcome.</p> <p><i>Consideration:</i></p> <p>This level of detail will be developed as part of the drafting of the standard. A team of industry technical subject matter experts will work on this and we will pass this comment on to them for their consideration.</p>
Entergy	X		

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Company	Ready to be developed into a standard?		Comments
	YES	NO	
Entergy Services	X		
Entergy Nuclear Northeast			There is a need and the scope is fine as it is
Exelon	X		
Illinois Power		X	See Comment A <i>Consideration: See Comment A</i>
MAAC Region	X		

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Company	Ready to be developed into a standard?		Comments
	YES	NO	
Manitoba Hydro		X	<p>Standards arising from this SAR must apply to all entities operating in the system. In reality, this means the following:</p> <ul style="list-style-type: none"> <li>- the Balancing Authority has obligations to ensure correct schedules and ensure resource allocations which avoid limits</li> <li>- the Interchange Authority is required to ensure transmission line limits are respected</li> <li>- the Generator is required to adhere to limits and expectations (i.e. providing Q)</li> <li>- the Load Serving Entities will be required to drop load if required.</li> </ul> <p><b>Consideration:</b></p> <p>Taken as a whole, the 11 SARs currently under development address these issues partially. The BA is addressed in the Balance Resources and Demand SAR. Generators and LSEs are expected to have contractual arrangements with the Reliability Authority (as part of the certification of the RA). The requirement to establish transfer capability is in the Determine Facility Ratings SAR, as stated in the Brief Description footnote. This SAR states the requirements to monitor and assess the transmission system within these limits.</p> <p>Reliability principle 3 also applies – frequency is another element of operation that needs to stay within limits.</p> <p><b>Consideration:</b></p> <p>Frequency control is addressed within the Balance Resources and Demand SAR.</p> <p>The standard should also address the supply of critical information</p> <p><b>Consideration:</b></p> <p>We agree that this is important and necessary to include in the appropriate SAR. This SAR DT expects “the supply of critical information” to be addressed in the Coordinating Operations SAR and will give this comment to that SAR DT.</p>

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Company	Ready to be developed into a standard?		Comments
	YES	NO	
			<p>Other Comments:</p> <p>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.</p> <p><b>Consideration:</b></p> <p>The SAR DT notes the commenter’s concern. Generators and Loads are not aspects of this SAR. The requirements that Generators and Loads comply with operating orders issued by higher level functions (per the Functional Model) are expected to be addressed in Agreements with those higher level functions. The Certification Requirements for the Reliability Authority, Balancing Authority, Interchange Authority and Transmission Operator are all expected to include a list of agreements that must be in place as a condition for being awarded certification.</p>
Michigan Electric Coordinated Systems (MECS) Control Area	X		
Mirant Americas Energy Marketing	X		
National Grid USA	X		
New England ISO	X		

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Company	Ready to be developed into a standard?		Comments
	YES	NO	
ONCOR	X		<p>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.</p> <p><b>Consideration:</b></p> <p>This must be addressed, however, this falls within the scope of another SAR. The parameters that establish the transmission operating system limits are addressed in the Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR.</p> <p>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.</p> <p><b>Consideration:</b></p> <p>In the new standard's making process, terminology can be confusing and "where everything is being addressed" is not obvious at times. At this point, we expect that the Certification standards will include requirements that the RA, BA, IA and TOP have agreements in place with lower level functions. These agreements are expected to outline the operating responsibilities and authorities as they relate to controlling operations to maintain reliability.</p>
PGE	X		

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Company	Ready to be developed into a standard?		Comments
	YES	NO	
PSEG			<p>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!!</p> <p><b>Consideration:</b></p> <p>There is a mechanism in the standards-making process which addresses this possibility. The standards development process requires that the Market Interface Principles be reviewed and considered before the Standards Authorization Committee (SAC) approves the initial posting of a SAR. This is intended to prohibit the development of standards that will have an unnecessary adverse impact on markets. If, during the standards development process, a SAR or draft standard looks as though it were going to have an unnecessary adverse impact on markets, you should submit a specific comment highlighting why you feel this way. During each of its meetings, the SAC asks if there have been any challenges to the integrity of the standards development process, and such a comment would be brought forward to the SAC for their consideration. If the SAC reviewed the comment and felt that it were justified, the SAC has the authority to take corrective action by directing that the SAR be revised, withdrawn or by rejecting the SAR. If the actions of the SAC don't resolve the conflict, there is an appeals process that can be used to highlight the conflict and bring the conflict to resolution. The appeals process is described in the Standards Process Manual, page 23.</p>
Reliant		X	<p>See Comment B</p> <p><b>Consideration:</b> See Comment B</p>

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Company	Ready to be developed into a standard?		Comments
	YES	NO	
Southern Company Services	X		<p>Assumption that operating limit definition and all associated definitions are captured may leave a void. Under "Brief Description" Performing corrective actions to mitigate limit violations. (assumes limit violations has a definition). Might use performing corrective actions to mitigate exceeding operating limits. Wouldn't the standard apply to Balancing Authority? In integrating plan it should be required to adhere to operating plan taking into consideration system limits?</p> <p><b>Consideration:</b></p> <p>First Sentence: This is addressed in the Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR.</p> <p>Second Sentence: The SAR will be modified to include the suggested language “performing corrective actions to mitigate exceeding operating limits.”</p> <p>Third and Fourth Sentence: The functional model does not assign the responsibility for overseeing reliability to the Balancing Authority. Frequency control is being addressed within the Balance Resources and Demand SAR. Frequency is not one of the limits included in this SAR. Therefore the BA does not have compliance duties associated with this SAR.</p>
SRP		X	<p>See Comment C</p> <p><b>Consideration:</b> See Comment C</p>
We Energies			<p>Expand the scope to include the basic assumptions that establish the authority of the RA and TP to act, the operational requirements to accomplish the standard and so forth. These items are assumed to be covered in the Certification requirements. Also the 3 related SAR's are not developed yet and it is difficult to have confidence that they will mesh with this one.</p> <p><b>Consideration:</b></p> <p>The responsibilities of the RA and TP to take actions are anticipated to be included in the Certification Requirements SARs for those functions. Those SARs should be posted in early October and we encourage you to submit specific comments on this aspect.</p>
WECC	X		<p>See Comment D</p> <p><b>Consideration:</b> See Comment D</p>

**Comment A (Illinois Power)**

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 limits<sup>1</sup> 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 Transmission Operator

***Consideration:***

The Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR is expected to address and include these requirements.

- Real time monitoring 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 guides to mitigate limit violations
- Keeping records and filing reports

<sup>1</sup> 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

***Consideration:***

The Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR is expected to include these requirements. We will forward these suggestions to that SAR DT.

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- 2 Real time monitoring of necessary system parameters against the identified operating limits
  - Monitor parameters that indicate the current and expected state of the identified operating limits transmission system
  - Monitor parameters that indicate the current and expected state of tie lines to other systems and of the overall interconnected transmission system
- 3 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

### *Consideration:*

The second bullet should be addressed in the Certification Requirements for the RA. We will forward this suggestion to the OCTF.

The suggestion to add “relative to the identified operating limits” is welcomed and will be added to the SAR.

- 4 Direct or performing corrective actions to mitigate return the system within the identified operating limits violations
  - Have a mitigation documented plans and operating guides
  - Implement mitigation plans where necessary
- 5 Keeping Maintenance of records and filing reports
  - Document applicable operating guides and their use
  - Log violations and maintain records for some period of time
  - Document instances of exceeding the identified operating limits
  - Document actions taken to limit the risk of instability, uncontrolled separation and cascading outages
  - Make reports required by information to NERC based on specified criteria (magnitude, duration, type of violation risk)

### *Consideration:*

The SAR DT used the word “perform” assuming that the named function would either perform the respective action(s) themselves or have an agreement in place that another entity satisfactorily performs the action(s) for them.

Have a documented mitigation plan is an excellent suggestion. The SAR will be modified to reflect this comment. Documentation of Operating Guides is addressed sufficiently within this requirement.

The comment to include a requirement to document instances of exceeding identified operating limits is also very helpful and will be incorporated into the SAR.

- 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

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### *Consideration:*

The Standard DT will address the transmission operating limit parameters that are specified in the Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR. Without knowing these parameters it is premature to incorporate generic exclusionary language as suggested.

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 they were an identified operating limit.

### *Consideration:*

The Transmission Operator has the responsibility to monitor the tielines within its boundaries. Even though there may be transmission lines within the TOP boundary that may not have operating limits, the tie lines are anticipated to have operating limits at all times since these meter points connect to the respective Interconnection.

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.

### *Consideration:*

The SAR DT appreciates the comment. The Standard DT will address the transmission operating limit parameters that are specified in the Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR. Without knowing these parameters it is premature to incorporate generic exclusionary language as suggested.

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

### *Consideration:*

The Prepare for and Respond to Abnormal or Emergency Conditions SAR addresses emergency operation. This SAR is bounded for normal operations.

**Comment B (Reliant)**

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:

- 1) 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
- 2) 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

***Consideration:***

The structure of the eleven initial SARs is outside of the responsibilities of this SAR DT. Your comment is appreciated. However, at this time, the Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR addresses more than just operating limits. If the Determine Facility Ratings, Operating Limits and Transfer Capabilities SAR is eventually broken into three separate SARs, then the comment takes on more importance.

### **Comment C (SRP)**

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.

No. 2 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.

#### ***Consideration:***

The SAR DT purpose is to assist the requester in developing and enhancing a specific standard scope in accordance with the OSPM. It is the SAR DT understanding that the Standard DT will fill in the details and you will have an opportunity to comment on the details of the standard through public postings.

2. Page SAR-4, For record keeping the correct language is to say the records will be maintained for the "retention period".

#### ***Consideration:***

The SAR will be modified to reflect 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.

#### ***Consideration:***

The SAR DT believes that at this time, NERC is the only designated recipient of the SAR specific data. Currently this is a NERC standard for NERC reliability issues. Through future data sharing agreements, the SAR DT is confident the data will be shared and appropriate modifications will be made to the standard.

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.

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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?

***Consideration:***

The SAR DT has followed the methodology to identify existing policies that will be superseded by this standard. This is the mechanism that is instituted within the new process to retire the existing procedures. Where a section of the policy is listed, the entire section is being proposed for retirement.

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.

***Consideration:***

What we have provided is just the beginning of the implementation plan. At this point, we are giving the industry a 'heads up' so that everyone can see what we think will be retired when this new standard is implemented. Regions that develop their standards to synchronize with NERC's standards are expected to be particularly interested in this early information.

As the standard is drafted and more is known about the efforts associated with achieving and measuring compliance, the implementation plan will be enhanced. The full implementation plan will become part of the standard that is posted for comment and then for approval.

## **Comment D (WECC)**

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 transmission 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.

### ***Consideration:***

The SAR DT appreciates the comments. The details provided in these comments are beyond SAR DT scope. We think the WECC standard is an excellent example of a standard and the Standard DT needs to review it. These comments and your standard will be forwarded onto the Standard DT for their consideration.

A transmission path and the respective limits are no different than any other line and line limit. We will forward the comment to the Standard DT.

## **Other Comments: (WECC)**

*A detailed description 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*

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*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.**

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**Attachment 1**

**Operating Transfer Capability Reporting Form**

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

Reporting Instructions:

- 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).
- Transfer Path Name - Enter name from Table 2 (attachment 4).
- Path Number - Enter path number from Table 2 (attachment 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.
- 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.
- Operating Transfer Capability Limit at time of incident - Enter the MW transfer capability at the time of the incident.
- 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.
- Scheduled Path Flow at time of incident - Enter the MW scheduled flow from Term 1 to Term 2.
- MW over limit - Line 7 minus Line 6.
- Duration of incident - Time in hours, minutes, and seconds that actual flow exceeded OTC.
- Type of Limit - Enter Stability or Thermal 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 Transfer***  
Capability compliance criteria of RMS for the reporting period.
6.  The Reporting Path Operator or Path Owner is not an operator of one of the transmission paths identified for compliance reporting
7.  The Reporting Path Operator or Path Owner experienced reportable Operating Transfer Capability incidents for the reporting period. The Operating Transfer Capability incidents have been submitted as specified in the detailed compliance reporting instructions.
8.  The Reporting Path Operator or Path Owner experienced reportable Operating Transfer Capability incidents for the reporting period. The Operating Transfer Capability incidents 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.

**Summary of Comments on Second Posting of Monitor and Assess Short-term Transmission Reliability - Operate Within Transmission System Limits SAR**

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8. Enter the number of reportable OTC incidents that were not reported by the Path Operator or Path Owner for the reporting period.

**Summary of Comments on Second Posting of Monitor and Assess Short-term Transmission Reliability - Operate Within Transmission System Limits SAR**

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Attachment 3

**Noncompliance Levels for Operating Transfer Capability**

Thermal Limited Paths:	Limit exceeded for more than 30 minutes, up to 35 minutes	Limit exceeded for more than 35 minutes, up to 40 minutes	Limit exceeded for more than 40 minutes, up to 45 minutes	Limit exceeded for more than 45 minutes
Stability Limited Paths:	Limit exceeded for more than 20 minutes, up to 25 minutes	Limit exceeded for more than 25 minutes, up to 30 minutes	Limit exceeded for more than 30 minutes, up to 35 minutes	Limit exceeded for more than 35 minutes
Percentage by which net scheduled or actual flows <u>exceed</u> OTC*				
greater than 0%, up to and including 5%	Level 1	Level 2	Level 2	Level 3
greater than 5%, up to and including 10%	Level 2	Level 2	Level 3	Level 3
greater than 10%, up to and including 15%	Level 2	Level 3	Level 3	Level 4
greater than 15%, up to and including 20%	Level 3	Level 3	Level 4	Level 4
greater than 20%, up to and including 25%	Level 3	Level 4	Level 4	Level 4
greater than 25%	Level 4	Level 4	Level 4	Level 4

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

**Summary of Comments on Second Posting of Monitor and Assess Short-term Transmission Reliability - Operate Within Transmission System Limits SAR**

Attachment 4  
**Table 2 Existing WECC Bulk Power Transmission Paths (BPTP)**  
**(Revised October 20, 2000)**

	<b>PATH NAME*</b>	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 Intermountain – Gonder 230 kV	32	SPP/LADWP
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

**Summary of Comments on Second Posting of Monitor and Assess Short-term Transmission Reliability - Operate Within Transmission System Limits SAR**

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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.