

March 21, 2011

#### VIA ELECTRONIC FILING

Ms. Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, D.C. 20426

# Re: Supplemental Information to NERC Compliance Filing in Response to the Order on Violation Severity Levels Proposed by the Electric Reliability Organization FERC Docket Nos. RR08-4-000, RR08-4-001, RR08-4-002, and RR08-4-005

Dear Ms. Bose:

On March 5, 2010, the North American Electric Reliability Corporation ("NERC") submitted the first of two compliance filings<sup>1</sup> in Response to the Federal Energy Regulatory Commission's ("FERC" or "Commission") June 19, 2008 Order on Violation Severity Levels ("VSL") Proposed by the Electric Reliability Organization.<sup>2</sup> The March 5, 2010 VSL Filing ("VSL Filing 1") included the original set of 83 Reliability Standards approved by FERC and NUC-001-2, but did not include VSLs for certain requirements that NERC determined needed further input and justification. NERC submitted a second compliance filing providing VSLs for the remaining Reliability Standard requirements on December 1, 2010 ("VSL Filing 2").<sup>3</sup>

Upon further review, NERC staff identified additional VSL modifications for 14 Reliability Standard requirements that were submitted in VSL Filing 1.<sup>4</sup> Accordingly, NERC staff proposed changes for the 14 identified VSLs to ensure consistency with FERC VSL guidelines.<sup>5</sup> On January 20, 2011, NERC posted the proposed changes for a 30-day public comment period that closed on February 18, 2011. NERC also conducted a nonbinding poll during the last 10 days of the public comment period, from February 9, 2011 through February 18, 2011, which was

<sup>&</sup>lt;sup>1</sup> Compliance Filing of the North American Electric Reliability Corporation in Response to the Order On Violation Severity Levels Proposed By The Electric Reliability Organization And Request For An Extension Of Time, Docket Nos. RR08-4-000, RR08-4-001, RR08-4-002 (March 5, 2010) ("VSL Filing 1").

<sup>&</sup>lt;sup>2</sup> Order on Violation Severity Levels Proposed by the Electric Reliability Organization, 123 FERC ¶ 61,284 (2008).

<sup>&</sup>lt;sup>3</sup> Compliance Filing of the North American Electric Reliability Corporation in Response to the Order on Violation Severity Levels Proposed by the Electric Reliability Organization, Docket Nos. RR08-4-000, RR08-4-001, RR08-4-002, RR08-4-005 (December 1, 2010) ("VSL Filing 2").

<sup>&</sup>lt;sup>4</sup> BAL-003-0.1b, R1; COM-001-1.1, R2; COM-002-2, R1.1; FAC-003-1, R1.2.2.1; IRO-004-1, R1, R3, R4, R5; IRO-006-4.1, R3; PRC-001-1, R1, R3.1, R3.2; PRC-005-1, R1; and PRC-010-0, R1. <sup>5</sup> See VSL Filing 1 at pp. 4-5.

Ms. Kimberly Bose Docket Nos. RR08-4-000, RR08-4-001, RR08-4-002 March 21, 2011 Page 2

extended through February 22, 2011. Following the non-binding poll, NERC staff made additional changes to VSLs for five Reliability Standard requirements, in accordance with the FERC VSL Guidelines.

By this filing, NERC submits revised VSLs for 14 Reliability Standard requirements that were submitted as part of VSL Filing 1 discussed above. Included as **Exhibit A** to this filing is a redline version of the revised VSLs. **Exhibit B** is a clean version of the revised VSLs. **Exhibit C**<sup>6</sup> provides explanations for the revisions to the VSLs, in accordance with the FERC VSL guidelines 2b-4,<sup>7</sup> and **Exhibit D** includes a consolidated list of current and pending VSLs filed with the Commission by NERC.<sup>8</sup>

NERC respectfully requests that the Commission accept this supplemental filing and issue an order consistent with the comments and exhibits provided herein.

Respectfully submitted,

/s/ Willie L. Phillips

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Enclosure: Attachments

cc: Official service list in Docket Nos. RR08-4-000, RR08-4-001, RR08-4-002

<sup>&</sup>lt;sup>6</sup> In Exhibit C, the "Guideline 1 Comments" column states "See Guideline 1 Analysis." This Guideline 1 Analysis was included in VSL Filing 1 as Exhibit D "Guideline 1 Report."

<sup>&</sup>lt;sup>7</sup> Please note that PRC-001-1 R3.1 was included in the clean and redline portions of VSL Filing 1, but was inadvertently omitted from the "Guideline 2b-4 VSL Review and Findings" included as Exhibit C in VSL Filing 1. Exhibit C of this filing includes the Guideline 2b-4 explanation for PRC-001-1 R3.1.

<sup>&</sup>lt;sup>8</sup> VSL assignments for the Critical Infrastructure Protection ("CIP") standards are not included in Exhibit D; however, NERC anticipates filing a full set of VSLs for CIP Versions 2, 3, and the proposed Version 4 on March 21, 2011.

### Exhibit A

Revised VSLs (Redline)

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-003-0.1b	R1	RequirementEach BalancingAuthority shallreview itsFrequency BiasSettings by January1 of each year andrecalculate itssetting to reflectany change in theFrequencyResponse of theBalancingAuthority Area.	N/AThe Balancing Authority failed to report the method for determining its Frequency Bias Setting to the NERC Operating Committee. (R1.2)	N/AThe Balancing Authority failed to report its Frequency Bias Setting to the NERC Operating Committee. (R1.2)	The Balancing Authority reviewedfailed to report its Frequency Bias Settings prior January 1, but failed to recalculate its setting to reflect any change inand the method for determining that Frequency Response of Bias Setting to the Balancing Authority Area.NERC Operating Committee. (R1.2)	The Balancing Authority failed to review its Frequency Bias Settings prior toby January 1, of each year and failed to recalculate its setting to reflect any change in the Frequency Response of the Balancing Authority Area.
COM-001-1.1	R2	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.	N/A	The responsible entity has-failed to manage, alarm, and test or actively monitor itsgive special attention to emergency telecommunications facilities- and equipment not used for routine communications.	<u>N/A</u> The responsible entity has failed to manage, alarm, and test or actively monitor its primary telecommunications facilities.	The responsible entity has-failed to manage, alarm, and-test and/or actively monitor its primary and emergencyvital telecommunications facilities.
COM-002-2	R1.1	Each Balancing Authority and	N/A	N/A	The responsible entity failed to notify all	The responsible entity failed to notify its

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement				
		RequirementTransmissionOperator shallnotify its ReliabilityCoordinator, and allother potentiallyaffected BalancingAuthorities andTransmissionOperators throughpredeterminedcommunicationpaths of anycondition that couldthreaten thereliability of its areaor when firm load			other potentially affected Balancing Authorities and Transmission Operators through predetermined communication paths of any condition that could threaten the reliability of its area or when firm load shedding iswas anticipated.	Reliability Coordinator <del>, and all</del> other potentially affected Balancing Authorities and Transmission Operators through predetermined communication paths of any condition that could threaten the reliability of its area or when firm load shedding iswas anticipated.
		shedding is				
FAC-003-1	R1.2.2.1	anticipated. Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5, IEEE 516-2003, phase-to-ground distances, with appropriate altitude correction factors applied.	Not Applicable. <u>N/A</u>	Not Applicable. <u>N/A</u>	Not Applicable. <u>N/A</u>	Where transmission system transient overvoltage factors arewere not known, clearances-were not derived from Table 5, IEEE 516-2003, phase-to-phase voltagesground distances, with appropriate altitude correction factors applied.
IRO-004-1	R1	Each Reliability Coordinator shall conduct next-day reliability analyses for its Reliability	The Reliability Coordinator failed to conduct next day reliability analyses or contingency	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis	The Reliability Coordinator failed to conduct next-day reliability analyses or contingencyto ensure	The Reliability Coordinator failed to conduct next-day reliability analyses or contingencyto ensure

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement				
		Coordinator Area to	<del>analysis for its</del>	for its Reliability	that the Bulk Electric	that the Bulk Electric
		ensure that the Bulk	<b>Reliability</b>	Coordinator Area for	System can be	System can be
		Electric System can	Coordinator Area	two (2) to three (3)	operated reliably in	operated reliably in
		be operated reliably	for one (1) day	days during a calendar	anticipated normal and	anticipated normal
		in anticipated	during a calendar	month.N/A	Contingency event	and Contingency
		normal and	month.N/A		conditions.	event conditions.
		Contingency event				
		conditions. The			OR	AND
		Reliability				
		Coordinator shall			The Reliability	The Reliability
		conduct			Coordinator failed to	Coordinator failed to
		Contingency			conduct Contingency	conduct Contingency
		analysis studies to			analysis <u>studies to</u>	analysis studies to
		identify potential			identify potential	identify potential
		interface and other			interface and other	interface and other
		SOL and IROL			SOL and IROL	SOL and IROL
		violations,			violations, including	violations, including
		including			overloaded	overloaded
		overloaded			transmission lines and	transmission lines and
		transmission lines			transformers, voltage	transformers, voltage
		and transformers,			and stability limits,	and stability limits,
		voltage and stability			etc. for its Reliability	etc. for its Reliability
		limits, etc.			Coordinator Area-for	Coordinator Area-for
					four (4) to five (5)	more than five (5)
					days during a calendar	days during a calendar
					month.	<del>month</del> .
<b>IDO</b> 004 1		E. J. D. 1. 1 (1)	The Delief 111	TPL - D - 1' - 1, '1' (	TTL - D - 1' - 1 '1'	The Dell's L'11'
IRO-004-1	R3	Each Reliability	The Reliability Coordinator, in	The Reliability Coordinator, in	The Reliability Coordinator, in	The Reliability
		Coordinator shall,				Coordinator, in
		in conjunction with	<del>conjunction with its</del> <del>Transmission</del>	<del>conjunction with its</del> <del>Transmission</del>	<del>conjunction with its</del> <del>Transmission</del>	conjunction with its
		its Transmission				Transmission
		Operators and	Operators and	Operators and Delensing Authorities	Operators and Delensing Authorities	Operators and
		Balancing	Balancing	Balancing Authorities, failed to develop	Balancing Authorities, failed to develop	Balancing Authorities,
		Authorities, develop	Authorities, failed to	1		failed to develop
		action plans that	develop action plans	action plans that may	action plans that may	action plans that may

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement				
		may be required, including reconfiguration of the transmission system, re- dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs.	that may be required, including reconfiguration of the transmission system, re- dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for one (1) day during a calendar month.N/A	be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for two (2) to three (3) days during a calendar month: <u>N/A</u>	be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for four (4) to five (5) days during a calendar month. <u>N/A</u>	behave been required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for more than five (5) days during a calendar month.
IRO-004-1	R4	Each Transmission Operator, Balancing Authority, Transmission Owner, Generator Owner, Generator Operator, and Load- Serving Entity in the Reliability Coordinator Area shall provide information required for system studies, such as critical facility status, Load, generation, operating reserve	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided <u>up to (and including) one hour</u> after the required	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided <u>more than</u> <u>one hour up to (and</u> <u>including) two hours</u> after the required time	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided <u>more than</u> two hours up to (and <u>including) three hours</u> after the required time	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided more than three hours after the required time as stated in IRO 004 1 R4 for

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement projections, and known Interchange Transactions. This information shall be available by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific Standard Time for the Western Interconnection.	time-as stated in IRO-004-1 R4 for one (1) day during a calendar month.	as stated in IRO 004 1 R4 for two (2) to three (3) days during a calendar month.	as stated in IRO 004 1 R4 for four (4) to five (5) days during a calendar month.	more than five (5) days during a calendar month. OR The responsible entity in the Reliability Coordinator Area did not provide the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions.
IRO-004-1	R5	Each Reliability Coordinator shall share the results of its system studies, when conditions warrant or upon request, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its	The Reliability Coordinator failed to shareshared the results of its system studies, when conditions warranted or waswhen they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing	The Reliability Coordinator failed to shareshared the results of its system studies, when conditions warranted or waswhen they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area-for	The Reliability Coordinator failed to shareshared the results of its system studies, when conditions warranted or waswhen they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area-for	The Reliability Coordinator failed to shareshared the results of its system studies, when conditions warranted or waswhen they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area-for,

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
Standard Number	Requirement	Text of RequirementReliability Coordinator Area. The Reliability Coordinator shall make study results available no later than 1500 Central Standard Time for the Eastern Interconnection and 1500 Pacific Standard Time for the Western Interconnection, unless circumstances warrant otherwise.	Lower VSL Authorities, and Transmission Service Providers within its Reliability Coordinator Area for one (1) day during a calendar month., but said results were provided up to (and including) one hour after the required time.	Moderate VSL two (2) to three (3) days during a calendar month., but said results were provided more than one hour up to (and including) two hours after the required time.	High VSL four (4) to five (5) days during a calendar month, but said results were provided more than two hours up to (and including) three hours after the required time.	but said results were provided more than five (5) days during a calendar month <u>three</u> hours after the required time. OR The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or when they were requested, with other Reliability Coordinators, Transmission Operators, Balancing Authorities, or
						<u>Transmission Service</u> <u>Providers within its</u> <u>Reliability</u> <u>Coordinator Area.</u>
IRO-006-4.1	R3	Each Reliability Coordinator with a relief obligation from an Interconnection- wide procedure shall follow the curtailments as directed by the Interconnection-	N/A	N/A	N/A	A Reliability Coordinator implemented <u>a</u> local transmission loading relief or congestion management <u>proceduresprocedure</u> as a substitute for curtailment as directed by the

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement wide procedure. A Reliability Coordinator desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection- wide procedure shall obtain prior approval of the local procedure from the ERO.				Interconnection-wide procedure, but the local procedure had not received prior approval from the ERO. OR <u>A Reliability</u> <u>Coordinator with a</u> relief obligation from an Interconnection- wide procedure did not follow the curtailments as directed by the Interconnection-wide procedure and did not use a substitute procedure previously approved by the ERO.
PRC-001-1	R1	Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area.	N/A	N/A	The responsible entity was familiar with the purpose of protection system schemes applied in its area but failed to be familiar with the limitations of protection system schemes applied in its area.	The responsible entity failed to be familiar with the purpose and limitations of protection system schemes applied in its area.
PRC-001-1	R3.1	Each Generator	The Generator	The Generator	The Generator	The Generator

Standard Number	Requirement	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator shall coordinate all new protective systems and all protective system changes with its Transmission Operator and Host Balancing Authority.	Operator failed to coordinate one new protective system or one protective system change with either its Transmission Operator or its Host Balancing Authority or both.	Operator failed to coordinate two new protective systems or two protective system changes with either its Transmission Operator or its Host Balancing Authority, or both.	Operator failed to coordinate three new protective systems or three protective system changes with either its Transmission Operator or its Host Balancing Authority, or both.	Operator failed to coordinate more than three new protective systems or more than threeprotective system changes with its Transmission Operator andor its Host Balancing Authority <u>, or both</u> .
PRC-001-1	R3.2	Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities.	The Transmission Operator failed to coordinate one new protective system or one-protective system change with either its <u>neighboring</u> Transmission OperatorOperators or its Host Balancing AuthorityAuthorities or both.	The Transmission Operator failed to coordinate protectiontwo new protective systems on major transmission lines and interconnectionsor protective system changes with two of its-neighboring Generator Operators, Transmission Operators, or Balancing Authorities or both.	The Transmission Operator failed to coordinate protection <u>three new</u> protective systems on major transmission lines and interconnections <u>or</u> protective system changes with three of its-neighboring Generator Operators, Transmission Operators; or Balancing Authorities or both.	The Transmission Operator failed to coordinate protectionmore than three new protective systems on major transmission lines and interconnectionsor protective system changes with three or more of its neighboring Generator Operators, Transmission Operators, and or Balancing Authorities or both.
PRC-005-1	R1	Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation	N/A	N/A <u>The responsible</u> entity-had a Protection <u>System maintenance</u> and testing program for Protection Systems that affect the reliability of the BES, but the summary of	The responsible entity that owned a transmission Protection System or Generator Owner that owned a generation Protection System failed to have	The responsible entity that owned a transmission Protection System or Generator Owner that owned a generation Protection System failed to have <del>a</del>

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement Protection System shall have a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES. The program shall include:		<u>maintenance and</u> <u>testing procedures was</u> <u>missing or incomplete.</u> (R1.2)	eitherhad a Protection System maintenance program or a Protection Systemand testing program for Protection Systems that affect the reliability of the BES <del>.</del> , but the maintenance and testing intervals and their basis were missing or incomplete. (R1.1)	Protection System maintenance program and a Protection Systemand testing program for Protection Systems that affect the reliability of the BES.
PRC-010-0	R1	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission	The responsible entity conducted an assessment of the effectiveness of its UVLS system within 5 years or as required by changes in system conditions but did not include the associated Transmission Planner(s) and Planning Authority(ies).	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 5 years but did in less than or equal to 76 years. OR The assessment of the effectiveness of the responsible entity's UVLS system did not address one of the elements in R1 (R1.1.1 through R1.1.3).	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than $76$ years but did in less than or equal to $40$ years.7years. OR The assessment of the effectiveness of the responsible entity's UVLS system did not address two of the elements in R1 (R1.1.1 through R1.1.3).	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 107 years. OR The assessment of the effectiveness of the responsible entity's UVLS system did not address any of the elements in R1 (R1.1.1 through R1.1.3).

# Supplemental Violation Severity Level Modifications

	Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Requirement				
			Planner(s) and				
			Planning				
			Authority(ies).				



## Exhibit B

Revised VSLs (Clean)



Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
	-	Requirement				
BAL-003-0.1b	R1	Each Balancing Authority shall review its Frequency Bias Settings by January 1 of each year and recalculate its setting to reflect any change in the Frequency Response of the Balancing Authority Area.	The Balancing Authority failed to report the method for determining its Frequency Bias Setting to the NERC Operating Committee. (R1.2)	The Balancing Authority failed to report its Frequency Bias Setting to the NERC Operating Committee. (R1.2)	The Balancing Authority failed to report its Frequency Bias Settings and the method for determining that Frequency Bias Setting to the NERC Operating Committee. (R1.2)	The Balancing Authority failed to review its Frequency Bias Settings by January 1 of each year and recalculate its setting to reflect any change in the Frequency Response of the Balancing Authority Area.
COM-001-1.1	R2	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.	N/A	The responsible entity failed to give special attention to emergency telecommunications facilities and equipment not used for routine communications.	N/A	The responsible entity failed to manage, alarm, test and/or actively monitor its vital telecommunications facilities.
COM-002-2	R1.1	Each Balancing Authority and Transmission Operator shall notify its Reliability	N/A	N/A	The responsible entity failed to notify all other potentially affected Balancing Authorities and	The responsible entity failed to notify its Reliability Coordinator through predetermined

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement				
		Coordinator, and all			Transmission	communication paths
		other potentially			Operators through	of any condition that
		affected Balancing			predetermined	could threaten the
		Authorities and			communication paths	reliability of its area
		Transmission			of any condition that	or when firm load
		Operators through			could threaten the	shedding was
		predetermined			reliability of its area or	anticipated.
		communication			when firm load	
		paths of any			shedding was	
		condition that could			anticipated.	
		threaten the				
		reliability of its area				
		or when firm load				
		shedding is				
		anticipated.				
FAC-003-1	R1.2.2.1	Where transmission	N/A	N/A	N/A	Where transmission
		system transient				system transient
		overvoltage factors				overvoltage factors
		are not known,				were not known,
		clearances shall be				clearances were not
		derived from Table				derived from Table 5,
		5, IEEE 516-2003,				IEEE 516-2003,
		phase-to-ground				phase-to-ground
		distances, with				distances, with
		appropriate altitude				appropriate altitude
		correction factors				correction factors
<b>IDO</b> 004 1	D1	applied.	<b>NT / A</b>			applied.
IRO-004-1	R1	Each Reliability	N/A	N/A	The Reliability	The Reliability
		Coordinator shall			Coordinator failed to	Coordinator failed to
		conduct next-day			conduct next-day	conduct next-day
		reliability analyses			reliability analyses to	reliability analyses to ensure that the Bulk
		for its Reliability Coordinator Area to			ensure that the Bulk	
		ensure that the Bulk			Electric System can be	Electric System can
					operated reliably in	be operated reliably in anticipated normal
		Electric System can			anticipated normal and	
		be operated reliably		1	Contingency event	and Contingency

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement				
		in anticipated			conditions.	event conditions.
		normal and				
		Contingency event			OR	AND
		conditions. The				
		Reliability			The Reliability	The Reliability
		Coordinator shall			Coordinator failed to	Coordinator failed to
		conduct			conduct Contingency	conduct Contingency
		Contingency			analysis studies to	analysis studies to
		analysis studies to			identify potential	identify potential
		identify potential			interface and other	interface and other
		interface and other			SOL and IROL	SOL and IROL
		SOL and IROL			violations, including	violations, including
		violations,			overloaded	overloaded
		including			transmission lines and	transmission lines and
		overloaded			transformers, voltage	transformers, voltage
		transmission lines			and stability limits,	and stability limits,
		and transformers,			etc. for its Reliability	etc. for its Reliability
		voltage and stability			Coordinator Area.	Coordinator Area.
		limits, etc.				
IRO-004-1	R3	Each Reliability	N/A	N/A	N/A	The Reliability
		Coordinator shall,				Coordinator, in
		in conjunction with				conjunction with its
		its Transmission				Transmission
		Operators and				Operators and
		Balancing				Balancing Authorities,
		Authorities, develop				failed to develop
		action plans that				action plans that may
		may be required,				have been required,
		including				including
		reconfiguration of				reconfiguration of the
		the transmission				transmission system,
		system, re-				re-dispatching of
		dispatching of				generation, reduction
		generation,				or curtailment of
		reduction or				Interchange

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-004-1	R4	Requirement curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs. Each Transmission	The responsible	The responsible entity	The responsible entity	Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs. The responsible entity
		Operator, Balancing Authority, Transmission Owner, Generator Operator, and Load- Serving Entity in the Reliability Coordinator Area shall provide information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions. This information shall be available by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific	entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided up to (and including) one hour after the required time.	in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided more than one hour up to (and including) two hours after the required time.	in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided more than two hours up to (and including) three hours after the required time.	<ul> <li>in the Reliability</li> <li>Coordinator Area</li> <li>provided the</li> <li>information required</li> <li>for system studies,</li> <li>such as critical facility</li> <li>status, Load,</li> <li>generation, operating</li> <li>reserve projections,</li> <li>and known</li> <li>Interchange</li> <li>Transactions, but said</li> <li>information was</li> <li>provided more than</li> <li>three hours after the</li> <li>required time.</li> <li>OR</li> <li>The responsible entity</li> <li>in the Reliability</li> <li>Coordinator Area did</li> <li>not provide the</li> <li>information required</li> <li>for system studies,</li> <li>such as critical facility</li> </ul>

Standard Number	Requirement	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Standard Time for the Western Interconnection.				status, Load, generation, operating reserve projections, and known Interchange Transactions.
IRO-004-1	R5	Each Reliability Coordinator shall share the results of its system studies, when conditions warrant or upon request, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area. The Reliability Coordinator shall make study results available no later than 1500 Central Standard Time for the Eastern Interconnection and 1500 Pacific Standard Time for the Western Interconnection,	The Reliability Coordinator shared the results of its system studies, when conditions warranted or when they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area, but said results were provided up to (and including) one hour after the required time.	The Reliability Coordinator shared the results of its system studies, when conditions warranted or when they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area, but said results were provided more than one hour up to (and including) two hours after the required time.	The Reliability Coordinator shared the results of its system studies, when conditions warranted or when they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area, but said results were provided more than two hours up to (and including) three hours after the required time.	The Reliability Coordinator shared the results of its system studies, when conditions warranted or when they were requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area, but said results were provided more than three hours after the required time. OR The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or when they were

# Supplemental Violation Severity Level Modifications

Standard Number	Requirement	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		unless circumstances warrant otherwise.				requested, with other Reliability Coordinators, Transmission Operators, Balancing Authorities, or Transmission Service Providers within its Reliability Coordinator Area.
IRO-006-4.1	R3	Each Reliability Coordinator with a relief obligation from an Interconnection- wide procedure shall follow the curtailments as directed by the Interconnection- wide procedure. A Reliability Coordinator desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection- wide procedure shall obtain prior approval of the local procedure from the ERO.	N/A	N/A	N/A	A Reliability Coordinator implemented a local transmission loading relief or congestion management procedure as a substitute for curtailment as directed by the Interconnection-wide procedure, but the local procedure had not received prior approval from the ERO. OR A Reliability Coordinator with a relief obligation from an Interconnection- wide procedure did not follow the

Standard Number	Requirement	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement				curtailments as directed by the Interconnection-wide procedure and did not use a substitute procedure previously approved by the ERO.
PRC-001-1	R1	Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area.	N/A	N/A	The responsible entity failed to be familiar with the limitations of protection system schemes applied in its area.	The responsible entity failed to be familiar with the purpose of protection system schemes applied in its area.
PRC-001-1	R3.1	Each Generator Operator shall coordinate all new protective systems and all protective system changes with its Transmission Operator and Host Balancing Authority.	The Generator Operator failed to coordinate one new protective system or protective system change with either its Transmission Operator or its Host Balancing Authority or both.	The Generator Operator failed to coordinate two new protective systems or protective system changes with either its Transmission Operator or its Host Balancing Authority, or both.	The Generator Operator failed to coordinate three new protective systems or protective system changes with either its Transmission Operator or its Host Balancing Authority, or both.	The Generator Operator failed to coordinate more than three new protective systems or protective system changes with its Transmission Operator or its Host Balancing Authority, or both.
PRC-001-1	R3.2	Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring	The Transmission Operator failed to coordinate one new protective system or protective system	The Transmission Operator failed to coordinate two new protective systems or protective system changes with	The Transmission Operator failed to coordinate three new protective systems or protective system changes with	The Transmission Operator failed to coordinate more than three new protective systems or protective system changes with

Standard Number	Requirement	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Operators and Balancing Authorities.	change with neighboring Transmission Operators or Balancing Authorities or both.	neighboring Transmission Operators or Balancing Authorities or both.	neighboring Transmission Operators or Balancing Authorities or both.	neighboring Transmission Operators or Balancing Authorities or both.
PRC-005-1	R1	Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall have a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES. The program shall include:	N/A	The responsible entity had a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES, but the summary of maintenance and testing procedures was missing or incomplete. (R1.2)	The responsible entity had a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES, but the maintenance and testing intervals and their basis were missing or incomplete. (R1.1)	The responsible entity failed to have Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES.
PRC-010-0	R1	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall	The responsible entity conducted an assessment of the effectiveness of its UVLS system within 5 years or as required by changes in system conditions but did	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 5 years but did in less than or equal to 6 years.	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 6 years but did in less than or equal to 7 years.	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 7 years. OR

Standard Number	Requirement	Text of	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Requirement				
		periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission Planner(s) and Planning Authority(ies).	not include the associated Transmission Planner(s) and Planning Authority(ies).	OR The assessment of the effectiveness of the responsible entity's UVLS system did not address one of the elements in R1 (R1.1.1 through R1.1.3).	OR The assessment of the effectiveness of the responsible entity's UVLS system did not address two of the elements in R1 (R1.1.1 through R1.1.3).	The assessment of the effectiveness of the responsible entity's UVLS system did not address any of the elements in R1 (R1.1.1 through R1.1.3).



# Exhibit C

Guideline 2b-4 VSL Explanations

Standard	Require ment	Requirement Language	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		Language		Comments	Comments	Comments	Comments
BAL-003- 0.1b	Number R1	Each Balancing Authority shall review its Frequency Bias Settings by January 1 of each year and recalculate its setting to reflect any change in the Frequency Response of the Balancing Authority Area.	In accordance with Guideline 2, the VSLs were modified for clarity and consistency with other standards and VSLs. They were also further gradated to comply with the Commission's desire for gradated VSLs where possible, as noted in the June 19, 2008 Order. To comply with Guideline 3, some VSL language was modified to better reflect the language in the requirement and sub- requirements. Consistent with Guideline 2 and NERC's	See Guideline 1 Analysis.	As revised, the VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. NERC has reviewed the VSL text and has determined that, as modified, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. The text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective	As revised, the VSLs comply with Guideline 3. They do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
			Guidelines filed		application of the		
			with FERC on		VSLs in the		
			August 11,		determination of		
			2009, NERC		penalties.		
			incorporated the				
			sub-				
			requirements				
			into the main				
			requirement				
			VSL, so that				
			compliance is				
			based on				
			meeting criteria				
			specified in				
			former				
			components.				
COM-001-	R2	Each Reliability	The Severe VSL	See Guideline 1	As revised, the	In accordance	The VSL
1.1		Coordinator,	was slightly	Analysis.	VSLs comply	with Guideline 3,	assignments
		Transmission	modified for		with Guideline 2.	the VSLs were	comply with
		Operator, and	clarity and		The requirement	modified to	Guideline 4,
		Balancing Authority	consistency with		has gradated	better reflect the	because they are
		shall manage, alarm,	other standards		VSLs; therefore,	language and	based on a single
		test and/or actively	and VSLs, in		Guideline 2a is	goal of the	violation of a
		monitor vital	accordance with		not applicable.	requirement. As	Reliability
		telecommunications	Guideline 2 and		Additionally,	revised, the	Standard and are
		facilities. Special	the NERC		NERC has	VSLs do not	not based on a
		attention shall be	Guidelines filed		reviewed the	redefine or	cumulative
		given to emergency	with FERC on		VSL text and has	undermine the	number of
		telecommunications	August 11,		determined that,	requirement's	violations of the
		facilities and	2009.		the VSL text is	reliability goal.	same
		equipment not used	Specifically, the		clear, specific	In accordance	requirement over
		for routine	word "primary"		and objective and	with Guideline 3,	a period of time.
		communications.	was changed to		does not contain	the VSL	

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment Numbor	Language		Comments	Comments	Comments	Comments
	Number		"vital." In accordance with Guideline 3, the VSLs were also modified to better reflect the language and goal of the requirement.		general, relative or subjective language, satisfying Guideline 2b. As revised, therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties.	assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	
COM-002- 2	R1.1	Each Balancing Authority and Transmission Operator shall notify its Reliability Coordinator, and all other potentially affected Balancing Authorities and Transmission Operators through predetermined	The VSLs were modified for clarity, in accordance with Guideline 2. In accordance with Guideline 3, the VSLs were also modified to better reflect the	See Guideline 1 Analysis.	As revised, the VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. Additionally, NERC has reviewed the VSL text and has	In accordance with Guideline 3, the VSLs were modified to better reflect the language and goal of the requirement. As revised, the VSLs do not redefine or undermine the	The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of

Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	Language		Comments	Comments	Comments	Comments
	communication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.	language and goal of the requirement.		determined that, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. As revised, therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties.	requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	violations of the same requirement over a period of time.
R1.2.2.1	Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5,	The VSLs were modified for clarity and consistency with other standards and VSLs, in	See Guideline 1 Analysis.	As revised, the VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore,	In accordance with Guideline 3, the VSLs were modified to better reflect the language and	The VSL assignments comply with Guideline 4, because they are based on a single violation of a
	ment Number	ment NumberLanguageNumbercommunication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.R1.2.2.1Where transmission system transient overvoltage factors are not known, clearances shall be	ment NumberLanguageNumbercommunication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.language and goal of the requirement.R1.2.2.1Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5,The VSLs were modified for consistency with other standards and VSLs, in	ment NumberLanguageCommentsNumbercommunication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.language and goal of the requirement.R1.2.2.1Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5,The VSLs were modified for clarity and consistency with other standards and VSLs, inSee Guideline 1 Analysis.	ment NumberLanguageCommentsCommentscommunication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.language and goal of the requirement.determined that, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. As revised, therefore, the text is not subject to the VSLs and provides the clarity needed to permit the consistent and objectiveR1.2.2.1Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5,The VSLs were modified for clarity and consistency with other standards and VSLs, inSee Guideline 1 As revised, the VSLs; therefore, the independence.	ment NumberLanguageCommentsCommentsCommentsNumbercommunication paths of any condition that colld threaten the reliability of its area or when firm load shedding is anticipated.language and goal of the requirement.determined that, the VSL text is clear, specific and does not contain general, relative or subjective language, the requirement and the VSL assignments are consistent with and the degree of compliance can be determinedrequirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with and the degree of compliance can be determined objectively and with certainty.R1.2.2.1Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5, aderived from Table 5,The VSLs were modified for clarity and consistency with other standards and VSLs, inSee Guideline 1 Analysis.As revised, the VSLs of application of the VSLs therefore, the SUSL so the deter reflect the language andIn accordance with Guideline 2. The requirement and objective application of the VSLs in the deter reflect the language and

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number	phase-to-ground distances, with appropriate altitude correction factors applied.	Guideline 2. In accordance with Guideline 3, the VSLs were also modified to better reflect the language and goal of the requirement.		not applicable. Additionally, NERC has reviewed the VSL text and has determined that, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. As revised, therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties.	requirement. As revised, the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.
IRO-004-1	R1	Each Reliability	In accordance	See Guideline 1	The VSLs	NERC compared	As revised, the
		Coordinator shall	with Guideline	Analysis.	comply with	the existing	VSL assignments

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
		conduct next-day	4, the VSLs		Guideline 2. The	VSLs to the	comply with
		reliability analyses	were modified		requirement has	stated	Guideline 4.
		for its Reliability	to ensure that		gradated VSLs;	requirement	They are now
		Coordinator Area to	they are based		therefore,	language to	based on a single
		ensure that the Bulk	on a single		Guideline 2a is	ensure the VSLs	violation of the
		Electric System can	violation of the		not applicable.	do not redefine	requirement, not
		be operated reliably	requirement, not		Additionally,	or undermine the	a cumulative
		in anticipated normal	a cumulative number of		NERC has reviewed the	requirement's	number of
		and Contingency event conditions. The	violations over a		VSL text and has	reliability goal. In accordance	violations over a
		Reliability	period of time.		determined that,	with Guideline 3,	period of time.
		Coordinator shall	period of time.		the VSL text is	the VSL	
		conduct Contingency			clear, specific	assignments are	
		analysis studies to			and objective and	consistent with	
		identify potential			does not contain	the requirement	
		interface and other			general, relative	and the degree of	
		SOL and IROL			or subjective	compliance can	
		violations, including			language,	be determined	
		overloaded			satisfying	objectively and	
		transmission lines			Guideline 2b. As	with certainty.	
		and transformers,			revised,		
		voltage and stability			therefore, the text		
		limits, etc.			is not subject to		
					the possibility of		
					multiple		
					interpretations of		
					the VSLs and		
					provides the		
					clarity needed to		
					permit the		
					consistent and		
					objective		
					application of the		

Standard	Require ment Number	Requirement Language	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					VSLs in the determination of penalties.		
IRO-004-1	R3	Each Reliability Coordinator shall, in conjunction with its Transmission Operators and Balancing Authorities, develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs.	In accordance with Guideline 3, the VSLs were modified to better reflect the language of the requirement. In accordance with Guideline 4, the VSLs were modified to ensure that they are based on a single violation of the requirement, not a cumulative number of violations over a period of time.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has a single VSL and it is assigned to the Severe category; thus, the VSL complies with Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. As revised, therefore, the text is not subject to the possibility of multiple	In accordance with Guideline 3, the VSLs were modified to better reflect the language of the requirement. As revised, the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	As revised, the VSL assignments comply with Guideline 4. They are now based on a single violation of the requirement, not a cumulative number of violations over a period of time.

Standard	Require ment Number	Requirement Language	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties.		
IRO-004-1	R4	Each Transmission Operator, Balancing Authority, Transmission Owner, Generator Owner, Generator Operator, and Load- Serving Entity in the Reliability Coordinator Area shall provide information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions. This information shall be available by 1200	In accordance with Guideline 2, the portions of the VSLs referencing timing were modified for clarity and consistency with other standards. In accordance with Guideline 3, the VSLs were modified to better reflect the language and goal of the requirement by incorporating language referring to	See Guideline 1 Analysis.	In accordance with Guideline 2, the portions of the VSLs referencing timing were modified for clarity and consistency with other standards. As revised, the VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. Additionally, NERC has reviewed the VSL text and has	In accordance with Guideline 3, the VSLs were modified to better reflect the language and goal of the requirement. As revised, the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can	As revised, the VSL assignments comply with Guideline 4. They are now based on a single violation of the requirement, not a cumulative number of violations over a period of time.

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
		Central Standard	entities that did		determined that,	be determined	
		Time for the Eastern	not provide the		the VSL text is	objectively and	
		Interconnection and	information		clear, specific	with certainty.	
		1200 Pacific Standard	required.		and objective and		
		Time for the Western			does not contain		
		Interconnection.	In accordance		general, relative		
			with Guideline		or subjective		
			4, the VSLs		language,		
			were modified		satisfying		
			to ensure that		Guideline 2b. As		
			they are based		revised,		
			on a single		therefore, the text		
			violation of the		is not subject to		
			requirement, not		the possibility of		
			a cumulative		multiple		
			number of		interpretations of		
			violations over a		the VSLs and		
			period of time.		provides the		
					clarity needed to		
					permit the		
					consistent and		
					objective		
					application of the		
					VSLs in the		
					determination of		
					penalties.		
IRO-004-1	R5	Each Reliability	In accordance	See Guideline 1	In accordance	In accordance	As revised, the
		Coordinator shall	with Guideline	Analysis.	with Guideline 2,	with Guideline 3,	VSL assignments
		share the results of its	2, the portions		the portions of	the VSLs were	comply with
		system studies, when	of the VSLs		the VSLs	modified to	Guideline 4.
		conditions warrant or	referencing		referencing	better reflect the	They are now
		upon request, with	timing were		timing were	language and	based on a single
		other Reliability	modified for		modified for	goal of the	violation of the

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
		Coordinators and	clarity and		clarity and	requirement. As	requirement, not
		with Transmission	consistency with		consistency with	revised, the	a cumulative
		Operators, Balancing	other standards.		other standards.	VSLs do not	number of
		Authorities, and			As revised, the	redefine or	violations over a
		Transmission Service	In accordance		VSLs comply	undermine the	period of time.
		Providers within its	with Guideline		with Guideline 2.	requirement's	
		Reliability	3, the VSLs		The requirement	reliability goal.	
		Coordinator Area.	were modified		has gradated	In accordance	
		The Reliability	to better reflect		VSLs; therefore,	with Guideline 3,	
		Coordinator shall	the language and		Guideline 2a is	the VSL	
		make study results	goal of the		not applicable.	assignments are	
		available no later	requirement.		Additionally,	consistent with	
		than 1500 Central			NERC has	the requirement	
		Standard Time for the	In accordance		reviewed the	and the degree of	
		Eastern	with Guideline		VSL text and has	compliance can	
		Interconnection and	4, the VSLs		determined that,	be determined	
		1500 Pacific Standard	were modified		the VSL text is	objectively and	
		Time for the Western	to ensure that		clear, specific	with certainty.	
		Interconnection,	they are based		and objective and		
		unless circumstances	on a single		does not contain		
		warrant otherwise.	violation of the		general, relative		
			requirement, not		or subjective		
			a cumulative		language,		
			number of		satisfying		
			violations over a		Guideline 2b. As		
			period of time.		revised,		
					therefore, the text		
					is not subject to		
					the possibility of		
					multiple		
					interpretations of		
					the VSLs and		
					provides the		

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number				clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties.		
IRO-006- 4.1	R3	Each Reliability Coordinator with a relief obligation from an Interconnection- wide procedure shall follow the curtailments as directed by the Interconnection-wide procedure. A Reliability Coordinator desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection-wide procedure shall obtain prior approval of the local procedure from the ERO.	In accordance with Guideline 3, the VSLs were modified to better reflect the language and goals of the requirement.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has a single VSL and it is assigned to the Severe category; thus, the VSL complies with Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. As	In accordance with Guideline 3, the VSLs were modified to better reflect the language and goals of the requirement. As revised, the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
					revised, therefore, the text		
					is not subject to		
					the possibility of		
					multiple		
					interpretations of		
					the VSLs and		
					provides the		
					clarity needed to		
					permit the		
					consistent and		
					objective		
					application of the		
					VSLs in the		
					determination of		
					penalties.		
PRC-001-1	R1	Each Transmission	In accordance	See Guideline 1	In accordance	In accordance	The VSL
		Operator, Balancing	with Guideline	Analysis.	with Guideline 2,	with Guideline 3,	assignments
		Authority, and	2, the VSLs		the VSLs were	NERC has	comply with
		Generator Operator	were modified		modified for	revised the VSL	Guideline 4,
		shall be familiar with	for clarity and		clarity and	assignments	because they are
		the purpose and	consistency with		consistency with	because the VSL	based on a single
		limitations of	other		other	assignments either redefined	violation of a
		protection system	requirements and VSLs.		requirements and VSLs. As	or undermined	Reliability Standard and are
		schemes applied in its area.	and vols.		revised, the	the requirement.	not based on a
		alta.	In accordance		VSLs comply	The original	cumulative
			with Guideline		with Guideline 2.	High VSL made	number of
			3, the VSLs		The requirement	a distinction	violations of the
			were also		has gradated	between being	same
			modified to		VSLs; therefore,	familiar with the	requirement over
			better reflect the		Guideline 2a is	purpose of	a period of time.
			language and		not applicable.	protection	

Standard	Require ment Number	Requirement Language	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
	Number		goal of the requirement.		Additionally, NERC has reviewed the VSL text and has determined that, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. As revised, therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the	systems and being familiar with the limitations of protection systems in a manner that was not consistent with the language of the requirement. As revised, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	
PRC-001-1	R3.1	Each Generator Operator shall coordinate all new	In accordance with Guideline 2, the use of	See Guideline 1 Analysis.	determination of penalties. The use of integers in the VSLs was	In accordance with Guideline 3, the VSLs were	The VSL assignments comply with

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
		protective systems	integers in the		modified for	modified to	Guideline 4,
		and all protective	VSLs was		clarity and	better reflect the	because they are
		system changes with	modified for		consistency with	language of the	based on a single
		its Transmission	clarity and		other	requirement. As	violation of a
		Operator and Host	consistency with		requirements and	revised, the	Reliability
		Balancing Authority.	other		VSLs. As	VSLs do not	Standard and are
			requirements		revised, the	redefine or	not based on a
			and VSLs.		VSLs comply	undermine the	cumulative
					with Guideline 2.	requirement's	number of
			In accordance		The requirement	reliability goal.	violations of the
			with Guideline		has gradated	In accordance	same
			3, the VSLs		VSLs; therefore,	with Guideline 3,	requirement over
			were also		Guideline 2a is	the VSL	a period of time.
			modified to		not applicable.	assignments are	
			better reflect the		Additionally,	consistent with	
			language of the		NERC has	the requirement	
			requirement.		reviewed the	and the degree of	
					VSL text and has	compliance can	
					determined that,	be determined	
					the VSL text is	objectively and	
					clear, specific	with certainty.	
					and objective and		
					does not contain		
					general, relative		
					or subjective		
					language,		
					satisfying		
					Guideline 2b. As		
					revised,		
					therefore, the text		
					is not subject to		
					the possibility of		
					multiple		

neighboring Transmission Operators and Balancingclarity and consistency with otherothervSLs do notviolation of a ReliabilityAuthorities.requirements and VSLs.requirements and VSLs.requirement's with Guideline 2.not based on a not based on a violation of aIn accordance with Guideline 3, the VSLsIn accordance with Guideline 3, the VSLsThe requirement with Guideline 2a is not applicable.with consistent with requirement	Standard	Require ment	Requirement Language	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
better reflect the     Additionally,     and the degree of       language of the     NERC has     compliance can       requirement.     reviewed the     be determined	PRC-001-1	Number	Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing	<ul> <li>with Guideline</li> <li>2, the use of</li> <li>integers in the</li> <li>VSLs was</li> <li>modified for</li> <li>clarity and</li> <li>consistency with</li> <li>other</li> <li>requirements</li> <li>and VSLs.</li> <li>In accordance</li> <li>with Guideline</li> <li>3, the VSLs</li> <li>were also</li> <li>modified to</li> <li>better reflect the</li> <li>language of the</li> </ul>	See Guideline 1	interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties. The use of integers in the VSLs was modified for clarity and consistency with other requirements and VSLs. As revised, the VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. Additionally, NERC has	The VSLs were modified to better reflect the language of the requirement. As revised, the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can	The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
					the VSL text is		
					clear, specific		
					and objective and does not contain		
					general, relative		
					or subjective		
					language,		
					satisfying		
					Guideline 2b. As		
					revised,		
					therefore, the text		
					is not subject to		
					the possibility of		
					multiple		
					interpretations of		
					the VSLs and		
					provides the		
					clarity needed to		
					permit the		
					consistent and		
					objective		
					application of the		
					VSLs in the		
					determination of		
					penalties.		
PRC-005-1	R1	Each Transmission	In accordance	See Guideline 1	As revised, the	The VSLs were	The VSL
		Owner and any	with Guideline	Analysis.	VSLs comply	modified to	assignments
		Distribution Provider	2, the VSLs		with Guideline 2.	better reflect the	comply with
		that owns a	were modified		The requirement	language of the	Guideline 4,
		transmission	for clarity and		has gradated	requirement and	because they are
		Protection System	consistency with		VSLs; therefore,	its sub-	based on a single
		and each Generator	other standards		Guideline 2a is	requirements. As	violation of a
		Owner that owns a	and VSLs.		not applicable.	revised, the	Reliability

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment Number	Language		Comments	Comments	Comments	Comments
	Number	generation Protection System shall have a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES. The program shall include:	Consistent with Guidelines filed with FERC on August 11, 2009, NERC incorporated the sub- requirements into the Main Requirement VSL so that compliance is based on meeting criteria specified in components. After the sub- requirements were incorporated, and in accordance with Guideline 3, the VSLs were modified to better reflect the language in the requirements and sub- requirements.		Additionally, NERC has reviewed the VSL text and has determined that, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. As revised, therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties.	VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	Standard and are not based on a cumulative number of violations of the same requirement over a period of time.

Standard	Require	Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	ment	Language		Comments	Comments	Comments	Comments
	Number						
PRC-010-0	R1	The Load-Serving	In accordance	See Guideline 1	As revised, the	The VSLs were	The VSL
		Entity, Transmission	with Guideline	Analysis.	VSLs comply	modified to	assignments
		Owner, Transmission	2, the VSLs		with Guideline 2.	better reflect the	comply with
		Operator, and	were modified		The requirement	language of the	Guideline 4,
		Distribution Provider	for clarity and		has gradated	requirement and	because they are
		that owns or operates	consistency with		VSLs; therefore,	its sub-	based on a single
		a UVLS program	other standards		Guideline 2a is	requirements.	violation of a
		shall periodically (at	and VSLs.		not applicable.	The time	Reliability
		least every five years			Additionally,	increments were	Standard and are
		or as required by	Consistent with		NERC has	also modified	not based on a
		changes in system	Guidelines filed		reviewed the	because they	cumulative
		conditions) conduct	with FERC on		VSL text and has	undermined the	number of
		and document an	August 11,		determined that,	goal of the	violations of the
		assessment of the	2009, NERC		the VSL text is	requirement. As	same
		effectiveness of the	incorporated the		clear, specific	revised, the	requirement over
		UVLS program. This	sub-		and objective and	VSLs do not	a period of time.
		assessment shall be	requirements		does not contain	redefine or	
		conducted with the	into the Main		general, relative	undermine the	
		associated	Requirement		or subjective	requirement's	
		Transmission	VSL so that		language,	reliability goal.	
		Planner(s) and	compliance is		satisfying	In accordance	
		Planning	based on		Guideline 2b. As	with Guideline 3,	
		Authority(ies).	meeting criteria		revised,	the VSL	
			specified in		therefore, the text	assignments are	
			components.		is not subject to	consistent with	
					the possibility of	the requirement	
			After the sub-		multiple	and the degree of	
			requirements		interpretations of	compliance can	
			were		the VSLs and	be determined	
			incorporated,		provides the	objectively and	
			and in		clarity needed to	with certainty.	
			accordance with		permit the		
			Guideline 3, the		consistent and		

Standard	Require ment	Requirement Language	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
	Number		VSLs were modified to better reflect the language in the requirements and sub- requirements. Further, the previous time increments undermined the goal of the requirement and were modified accordingly.		objective application of the VSLs in the determination of penalties.		



#### Exhibit D

Complete and Consolidated list of current and pending VSLs

Complete Violation Severity Levels Matrix Supplemental Violation Severity Levels March 21, 2011

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-001-0.1a	R1.	Each Balancing Authority shall operate such that, on a rolling 12-month basis, the average of the clock- minute averages of the Balancing Authority's Area Control Error (ACE) divided by 10B (B is the clock-minute average of the Balancing Authority Area's Frequency Bias) times the corresponding clock- minute averages of the Interconnection's Frequency Error is less than a specific limit. This limit is a constant derived from a targeted frequency bound (separately calculated for each Interconnection) that is reviewed and set as necessary by the NERC Operating Committee. <i>See Standard for</i> <i>Formula.</i>	The Balancing Authority Area's value of CPS1 is less than 100% but greater than or equal to 95%.	The Balancing Authority Area's value of CPS1 is less than 95% but greater than or equal to 90%.	The Balancing Authority Area's value of CPS1 is less than 90% but greater than or equal to 85%.	The Balancing Authority Area's value of CPS1 is less than 85%.
BAL-001-0.1a	R2.	Each Balancing Authority shall operate such that its average ACE for at least 90% of clock-ten-minute	The Balancing Authority Area's value of CPS2 is less than 90% but greater	The Balancing Authority Area's value of CPS2 is less than 85% but greater	The Balancing Authority Area's value of CPS2 is less than 80% but greater	The Balancing Authority Area's value of CPS2 is less than 75%.

Page 2 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		periods (6 non- overlapping periods per hour) during a calendar month is within a specific limit, referred to as L <sub>10</sub> . <i>See Standard for</i> <i>Formula.</i>	than or equal to 85%.	than or equal to 80%.	than or equal to 75%.	
BAL-001-0.1a	R3.	Each Balancing Authority providing Overlap Regulation Service shall evaluate Requirement R1 (i.e., Control Performance Standard 1 or CPS1) and Requirement R2 (i.e., Control Performance Standard 2 or CPS2) using the characteristics of the combined ACE and combined Frequency Bias Settings.	N/A	N/A	N/A	The Balancing Authority providing Overlap Regulation Service failed to use a combined ACE and frequency bias.
BAL-001-0.1a	R4.	Any Balancing Authority receiving Overlap Regulation Service shall not have its control performance evaluated (i.e. from a control performance perspective, the Balancing Authority has shifted all control requirements to the Balancing Authority providing Overlap	N/A	N/A	N/A	N/A

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Regulation Service).				
BAL-002-0	R1.	Each Balancing Authority shall have access to and/or operate Contingency Reserve to respond to Disturbances. Contingency Reserve may be supplied from generation, controllable load resources, or coordinated adjustments to Interchange Schedules.	N/A	N/A	The Balancing Authority did not operate Contingency Reserve to respond to a Disturbance.	The Balancing Authority did not have access to Contingency Reserve to respond to a Disturbance.
BAL-002-0	R1.1.	A Balancing Authority may elect to fulfill its Contingency Reserve obligations by participating as a member of a Reserve Sharing Group. In such cases, the Reserve Sharing Group shall have the same responsibilities and obligations as each Balancing Authority with respect to monitoring and meeting the requirements of Standard BAL-002.	N/A	N/A	N/A	The Balancing Authority has elected to fulfill its Contingency Reserve obligations by participating as a member of a Reserve Sharing Group and the Reserve Sharing Group has not provided the same responsibilities and obligations as required of the responsible entity with respect to monitoring and meeting the requirements of Standard BAL-002.
BAL-002-0	R2.	Each Regional Reliability	The responsible	The responsible	The responsible	The responsible entity

Page 4 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Organization, sub- Regional Reliability Organization or Reserve Sharing Group shall specify its Contingency Reserve policies, including:	entity has failed to specify one sub- requirement in its Contingency Reserve policies	entity has failed to specify two sub- requirements in its Contingency Reserve policies.	entity has failed to specify three sub- requirements in its Contingency Reserve policies.	has failed to specify four or more sub- requirements in its Contingency Reserve policies.
BAL-002-0	R2.1.	The minimum reserve requirement for the group.	N/A	N/A	N/A	N/A
BAL-002-0	R2.2.	Its allocation among members.	N/A	N/A	N/A	N/A
BAL-002-0	R2.3.	The permissible mix of Operating Reserve – Spinning and Operating Reserve – Supplemental that may be included in Contingency Reserve.	N/A	N/A	N/A	N/A
BAL-002-0	R2.4.	The procedure for applying Contingency Reserve in practice.	N/A	N/A	N/A	N/A
BAL-002-0	R2.5.	The limitations, if any, upon the amount of interruptible load that may be included.	N/A	N/A	N/A	N/A
BAL-002-0	R2.6.	The same portion of resource capacity (e.g., reserves from jointly owned generation) shall not be counted more than	N/A	N/A	N/A	N/A

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		once as Contingency Reserve by multiple Balancing Authorities.				
BAL-002-0	R3.	Each Balancing Authority or Reserve Sharing Group shall activate sufficient Contingency Reserve to comply with the DCS.				
BAL-002-0	R3.1.	As a minimum, the Balancing Authority or Reserve Sharing Group shall carry at least enough Contingency Reserve to cover the most severe single contingency. All Balancing Authorities and Reserve Sharing Groups shall review, no less frequently than annually, their probable contingencies to determine their prospective most severe single contingencies.	N/A	N/A	N/A	N/A
BAL-002-0	R4.	A Balancing Authority or Reserve Sharing Group shall meet the Disturbance Recovery Criterion within the Disturbance Recovery Period for 100% of Reportable Disturbances.	The Balancing Authority or Reserve Sharing Group failed to meet the DCS requirement for 5% or less of Reportable Disturbances.	The Balancing Authority or Reserve Sharing Group failed to meet the DCS requirements for more than 5% up to (and including) 10% of Reportable	The Balancing Authority or Reserve Sharing Group failed to meet the DCS requirements for more than 10% up to (and including) 15% of Reportable	The Balancing Authority or Reserve Sharing Group failed to meet the DCS requirements for more than 15% of Reportable Disturbances.

Page 6 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		The Disturbance Recovery Criterion is:		Disturbances.	Disturbances.	
BAL-002-0	R4.1.	A Balancing Authority shall return its ACE to zero if its ACE just prior to the Reportable Disturbance was positive or equal to zero. For negative initial ACE values just prior to the Disturbance, the Balancing Authority shall return ACE to its pre- Disturbance value.	N/A	N/A	N/A	N/A
BAL-002-0	R4.2.	The default Disturbance Recovery Period is 15 minutes after the start of a Reportable Disturbance. This period may be adjusted to better suit the needs of an Interconnection based on analysis approved by the NERC Operating Committee.	N/A	N/A	N/A	N/A
BAL-002-0	R5.	Each Reserve Sharing Group shall comply with the DCS. A Reserve Sharing Group shall be considered in a Reportable Disturbance condition whenever a	The Reserve Sharing Group failed to meet the DCS requirement for 5% or less of Reportable Disturbances.	The Reserve Sharing Group failed to meet the DCS requirements for more than 5% up to (and including) 10% of Reportable	The Reserve Sharing Group failed to meet the DCS requirements for more than 10% up to (and including) 15% of Reportable	The Reserve Sharing Group failed to meet the DCS requirements for more than 15% of Reportable Disturbances.

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		group member has experienced a Reportable Disturbance and calls for the activation of Contingency Reserves from one or more other group members. (If a group member has experienced a Reportable Disturbance but does not call for reserve activation from other members of the Reserve Sharing Group, then that member shall report as a single Balancing Authority.) Compliance may be demonstrated by either of the following two methods:		Disturbances.	Disturbances.	
BAL-002-0	R5.1.	The Reserve Sharing Group reviews group ACE (or equivalent) and demonstrates compliance to the DCS. To be in compliance, the group ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully	N/A	N/A	N/A	N/A

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		implemented, and within the Disturbance Recovery Period.				
BAL-002-0	R5.2.	The Reserve Sharing Group reviews each member's ACE in response to the activation of reserves. To be in compliance, a member's ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully implemented, and within the Disturbance Recovery Period.	N/A	N/A	N/A	N/A
BAL-002-0	R6.	A Balancing Authority or Reserve Sharing Group shall fully restore its Contingency Reserves within the Contingency Reserve Restoration Period for its Interconnection.	The Balancing Authority or Reserve Sharing Group failed to restore 5% or less of its contingency reserves during the Contingency Reserve Restoration Period.	The Balancing Authority or Reserve Sharing Group failed to restore more than 5% up to (and including) 10% of its contingency reserves during the Contingency Reserve Restoration Period.	The Balancing Authority or Reserve Sharing Group failed to restore more than 10% up to (and including) 15% of its Contingency Reserve during the Contingency Reserve Restoration Period.	The Balancing Authority or Reserve Sharing Group failed to restore more than 15% of its Contingency Reserves during the Contingency Reserve Restoration Period.
BAL-002-0	R6.1.	The Contingency Reserve Restoration Period begins at the end of the	N/A	N/A	N/A	N/A

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Disturbance Recovery Period.				
BAL-002-0	R6.2.	The default Contingency Reserve Restoration Period is 90 minutes. This period may be adjusted to better suit the reliability targets of the Interconnection based on analysis approved by the NERC Operating Committee.	N/A	N/A	N/A	N/A
BAL-003-0.1b	R1.	Each Balancing Authority shall review its Frequency Bias Settings by January 1 of each year and recalculate its setting to reflect any change in the Frequency Response of the Balancing Authority Area.	The Balancing Authority failed to report the method for determining its Frequency Bias Setting to the NERC Operating Committee. (R1.2)	The Balancing Authority failed to report its Frequency Bias Setting to the NERC Operating Committee. (R1.2)	The Balancing Authority failed to report its Frequency Bias Settings and the method for determining that Frequency Bias Setting to the NERC Operating Committee. (R1.2)	The Balancing Authority failed to review its Frequency Bias Settings by January 1 of each year and recalculate its setting to reflect any change in the Frequency Response of the Balancing Authority Area.
BAL-003-0.1b	R1.1.	The Balancing Authority may change its Frequency Bias Setting, and the method used to determine the setting, whenever any of the factors used to	N/A	N/A	N/A	N/A

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		determine the current bias value change.				
BAL-003-0.1b	R1.2.	Each Balancing Authority shall report its Frequency Bias Setting, and method for determining that setting, to the NERC Operating Committee.	N/A	N/A	N/A	N/A
BAL-003-0.1b R	R2.	Each Balancing Authority shall establish and maintain a Frequency Bias Setting that is as close as practical to, or greater than, the Balancing Authority's Frequency Response. Frequency Bias may be calculated several ways:	The Balancing Authority's determination of the fixed Frequency Bias value was not based on observations and averaging the Frequency Response from Disturbances during on-peak hours.	N/A	N/A	The Balancing Authority did not establish and maintain a Frequency Bias Setting that was as close as practical to, or greater than, the Balancing Authority's Frequency Response.
			OR The Balancing Authority's variable frequency bias maintained was not based on an analysis of Frequency Response as it varied with factors such as load, generation, governor			

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			characteristics, and frequency.			
BAL-003-0.1b	R2.1.	The Balancing Authority may use a fixed Frequency Bias value which is based on a fixed, straight-line function of Tie Line deviation versus Frequency Deviation. The Balancing Authority shall determine the fixed value by observing and averaging the Frequency Response for several Disturbances during on- peak hours.	N/A	N/A	N/A	N/A
BAL-003-0.1b	R2.2.	The Balancing Authority may use a variable (linear or non-linear) bias value, which is based on a variable function of Tie Line deviation to Frequency Deviation. The Balancing Authority shall determine the variable frequency bias value by analyzing Frequency Response as it varies with factors such as load, generation, governor characteristics, and frequency.	N/A	N/A	N/A	N/A

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-003-0.1b	R3.	Each Balancing Authority shall operate its Automatic Generation Control (AGC) on Tie Line Frequency Bias, unless such operation is adverse to system or Interconnection reliability.	N/A	N/A	N/A	The Balancing Authority did not operate its Automatic Generation Control (AGC) on Tie Line Frequency Bias, during periods when such operation would not have been adverse to system or Interconnection reliability.
BAL-003-0.1b	R4.	Balancing Authorities that use Dynamic Scheduling or Pseudo-ties for jointly owned units shall reflect their respective share of the unit governor droop response in their respective Frequency Bias Setting.	N/A	N/A	N/A	The Balancing Authority that used Dynamic Scheduling or Pseudo-ties for jointly owned units did not reflect its respective share of the unit governor droop response in its respective Frequency Bias Setting.
BAL-003-0.1b	R4.1.	Fixed schedules for Jointly Owned Units mandate that Balancing Authority (A) that contains the Jointly Owned Unit must incorporate the respective share of the unit governor droop response for any	N/A	N/A	N/A	The Balancing Authority (A) that contained the Jointly Owned Unit with fixed schedules did not incorporate the respective share of the unit governor droop response for any

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Balancing Authorities that have fixed schedules (B and C). See the diagram below.				Balancing Authorities that have fixed schedules (B and C).
BAL-003-0.1b	R4.2.	The Balancing Authorities that have a fixed schedule (B and C) but do not contain the Jointly Owned Unit shall not include their share of the governor droop response in their Frequency Bias Setting. <i>See Standard for</i> <i>Graphic</i>	N/A	N/A	N/A	A Balancing Authority that has a fixed schedule (B and C) but does not contain the Jointly Owned Unit included its share of the governor droop response in its Frequency Bias Setting.
BAL-003-0.1b	R5.	Balancing Authorities that serve native load shall have a monthly average Frequency Bias Setting that is at least 1% of the Balancing Authority's estimated yearly peak demand per 0.1 Hz change.	N/A	N/A	N/A	The Balancing Authority that served native load failed to have a monthly average Frequency Bias Setting that was at least 1% of the entities estimated yearly peak demand per 0.1 Hz change.
BAL-003-0.1b	R5.1.	Balancing Authorities that do not serve native load shall have a monthly average Frequency Bias Setting that is at least 1% of its estimated maximum	N/A	N/A	N/A	The Balancing Authority that does not serve native load did not have a monthly average Frequency Bias Setting that was

Page 14 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		generation level in the coming year per 0.1 Hz change.				at least 1% of its estimated maximum generation level in the coming year per 0.1 Hz change.
BAL-003-0.1b	R6.	A Balancing Authority that is performing Overlap Regulation Service shall increase its Frequency Bias Setting to match the frequency response of the entire area being controlled. A Balancing Authority shall not change its Frequency Bias Setting when performing Supplemental Regulation Service.	N/A	N/A	The Balancing Authority providing Overlap Regulation Service increased its Frequency Bias Setting but not enough to match the response of the entire area being controlled.	The Balancing Authority providing Overlap Regulation Service failed to increase its Frequency Bias Setting at all, when required to match the frequency response of the entire area being controlled. OR The Balancing Authority providing Supplemental Regulation Service changed its Frequency Bias Setting, when performing Supplemental Regulation Service.
BAL-004-0	R1.	Only a Reliability Coordinator shall be eligible to act as Interconnection Time Monitor. A single Reliability Coordinator in each Interconnection shall be designated by the	N/A	N/A	N/A	An entity other than the one designated by the ERO acted as Interconnection Time Monitor. OR The entity acting as

Page 15 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		NERC Operating Committee to serve as Interconnection Time Monitor.				Interconnection Time Monitor was not a Reliability Coordinator.
BAL-004-0	R2.	The Interconnection Time Monitor shall monitor Time Error and shall initiate or terminate corrective action orders in accordance with the NAESB Time Error Correction Procedure.	N/A	N/A	N/A	The responsible entity serving as the Interconnection Time Monitor failed to initiate or terminate corrective action orders in accordance with the NAESB Time Error Correction Procedure.
BAL-004-0	R3.	Each Balancing Authority, when requested, shall participate in a Time Error Correction by one of the following methods:	N/A	N/A	N/A	The Balancing Authority failed to participate in the Time Error Correction when requested. OR
						The Balancing Authority participated in the Time Error Correction when requested, but did not use one of the methods defined in R3.1 or R3.2.
BAL-004-0	R3.1.	The Balancing Authority shall offset its frequency	N/A	N/A	N/A	N/A

Page 16 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		schedule by 0.02 Hertz, leaving the Frequency Bias Setting normal; or				
BAL-004-0	R3.2.	The Balancing Authority shall offset its Net Interchange Schedule (MW) by an amount equal to the computed bias contribution during a 0.02 Hertz Frequency Deviation (i.e. 20% of the Frequency Bias Setting).	N/A	N/A	N/A	N/A
BAL-004-0	R4.	Any Reliability Coordinator in an Interconnection shall have the authority to request the Interconnection Time Monitor to terminate a Time Error Correction in progress, or a scheduled Time Error Correction that has not begun, for reliability considerations.	N/A	N/A	N/A	The RC serving as the Interconnection Time Monitor failed to initiate or terminate corrective action orders in accordance with the NAESB Time Error Correction Procedure.
BAL-004-0	R4.1.	Balancing Authorities that have reliability concerns with the execution of a Time Error Correction shall notify their Reliability Coordinator and request the termination of a Time	N/A	N/A	N/A	The Balancing Authority with reliability concerns failed to notify the Reliability Coordinator and request the termination of a Time Error

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Error Correction in progress.				Correction in progress.
BAL-005-0.1b	R1	All generation, transmission, and load operating within an Interconnection must be included within the metered boundaries of a Balancing Authority Area.	The Generator Operator with generation facilities operating in an Interconnection failed to ensure that 5% or less of those generation facilities were included within metered boundaries of a Balancing Authority Area.	The Generator Operator with generation facilities operating in an Interconnection failed to ensure that more than 5% up to (and including) 10% of those generation facilities were included within metered boundaries of a Balancing Authority Area.	The Generator Operator with generation facilities operating in an Interconnection failed to ensure that more than 10% up to (and including) 15% of those generation facilities were included within metered boundaries of a Balancing Authority Area.	The Generator Operator with generation facilities operating in an Interconnection failed to ensure that more than 15% of those generation facilities were included within metered boundaries of a Balancing Authority Area.
			The Transmission Operator with transmission facilities operating in an Interconnection failed to ensure that 5% or less of those transmission facilities were included within metered boundaries of a Balancing Authority Area.	OR The Transmission Operator with transmission facilities operating in an Interconnection failed to ensure that more than 5% up to (and including) 10% of those transmission facilities were included within metered boundaries of a Balancing	OR The Transmission Operator with transmission facilities operating in an Interconnection failed to ensure that more than 10% up to (and including) 15% of those transmission facilities were included within metered boundaries of a Balancing	The Transmission Operator with transmission facilities operating in an Interconnection failed to ensure that more than 15% of those transmission facilities were included within metered boundaries of a Balancing Authority Area.

Page 18 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			OR The Load-Serving Entity with load operating in an Interconnection failed to ensure that 5% or less of those loads were included within metered boundaries of a Balancing Authority Area.	Authority Area. OR The Load-Serving Entity with load operating in an Interconnection failed to ensure that more than 5% up to (and including) 10% of those loads were included within metered boundaries of a Balancing Authority Area.	Authority Area. OR The Load-Serving Entity with load operating in an Interconnection failed to ensure that more than 10% up to (and including) 15% of those loads were included within metered boundaries of a Balancing Authority Area.	The Load-Serving Entity with load operating in an Interconnection failed to ensure that more than 15% of those loads were included within metered boundaries of a Balancing Authority Area.
BAL-005-0.1b	R1.1.	Each Generator Operator with generation facilities operating in an Interconnection shall ensure that those generation facilities are included within the metered boundaries of a Balancing Authority Area.	N/A	N/A	N/A	N/A
BAL-005-0.1b	R1.2.	Each Transmission Operator with transmission facilities operating in an Interconnection shall ensure that those	N/A	N/A	N/A	N/A

Page 19 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission facilities are included within the metered boundaries of a Balancing Authority Area.				
BAL-005-0.1b	R1.3.	Each Load-Serving Entity with load operating in an Interconnection shall ensure that those loads are included within the metered boundaries of a Balancing Authority Area.	N/A	N/A	N/A	N/A
BAL-005-0.1b	R2.	Each Balancing Authority shall maintain Regulating Reserve that can be controlled by AGC to meet the Control Performance Standard.	N/A	N/A	N/A	The Balancing Authority failed to maintain Regulating Reserve that can be controlled by AGC to meet Control Performance Standard.
BAL-005-0.1b	R3.	A Balancing Authority providing Regulation Service shall ensure that adequate metering, communications and control equipment are employed to prevent such service from becoming a Burden on the Interconnection or other Balancing Authority Areas.	N/A	The Balancing Authority providing Regulation Service failed to ensure that one of the following was provided: metering, communication, or control.	The Balancing Authority providing Regulation Service failed to ensure that two of the following were provided: adequate metering, communications, or control equipment.	The Balancing Authority providing Regulation Service failed to ensure adequate metering, communications, and control equipment was provided.

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-005-0.1b	R4.	A Balancing Authority providing Regulation Service shall notify the Host Balancing Authority for whom it is controlling if it is unable to provide the service, as well as any Intermediate Balancing Authorities.	N/A	N/A	The Balancing Authority providing Regulation Service failed to notify one or more of the Intermediate Balancing Authorities that it was unable to provide the service.	The Balancing Authority providing Regulation Service failed to notify the Host Balancing Authority for whom it was controlling that it was unable to provide the service.
BAL-005-0.1b	R5.	A Balancing Authority receiving Regulation Service shall ensure that backup plans are in place to provide replacement Regulation Service should the supplying Balancing Authority no longer be able to provide this service.	N/A	N/A	N/A	The Balancing Authority receiving Regulation Service failed to ensure that back-up plans were in place to provide replacement Regulation Service.
BAL-005-0.1b	R6.	The Balancing Authority's AGC shall compare total Net Actual Interchange to total Net Scheduled Interchange plus Frequency Bias obligation to determine the Balancing Authority's ACE. Single Balancing Authorities operating	The Balancing Authority failed to notify the Reliability Coordinator that it was unable to calculate ACE for more than 30 minutes.	The Balancing Authority failed to calculate ACE in the manner specified in the requirement when performing its calculations.	N/A	The Balancing Authority failed to calculate ACE in the manner specified in the requirement when performing its calculations. AND
		asynchronously may employ alternative ACE				The Balancing

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		calculations such as (but not limited to) flat frequency control. If a Balancing Authority is unable to calculate ACE for more than 30 minutes it shall notify its Reliability Coordinator.				Authority failed to notify the Reliability Coordinator that it was unable to calculate ACE for more than 30 minutes.
BAL-005-0.1b	R7.	The Balancing Authority shall operate AGC continuously unless such operation adversely impacts the reliability of the Interconnection. If AGC has become inoperative, the Balancing Authority shall use manual control to adjust generation to maintain the Net Scheduled Interchange.	N/A	N/A	N/A	The Balancing Authority failed to operate AGC continuously when there were no adverse impacts. OR If its AGC was inoperative the Balancing Authority failed to use manual control to adjust generation to maintain the Net Scheduled Interchange.
BAL-005-0.1b	R8.	The Balancing Authority shall ensure that data acquisition for and calculation of ACE occur at least every six seconds.	The Balancing Authority did not acquire data for and calculate ACE at least every 6 seconds, but did acquire data for and calculate ACE at least every 8	The Balancing Authority did not acquire data for and calculate ACE at least every 6 seconds, but did acquire data for and calculate ACE at least every 10	The Balancing Authority did not acquire data for and calculate ACE at least every 6 seconds, but did acquire data for and calculate ACE at least every 12	The Balancing Authority did not acquire data for and calculate ACE at least every 12 seconds.

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			seconds. OR The Balancing Authority failed to provide redundant and independent frequency metering equipment that automatically activated upon detection of failure, such that the minimum availability was less than 99.95%, as specified in R8.1.	seconds.	seconds	
BAL-005-0.1b	R8.1.	Each Balancing Authority shall provide redundant and independent frequency metering equipment that shall automatically activate upon detection of failure of the primary source. This overall installation shall provide a minimum availability of 99.95%.	N/A	N/A	N/A	N/A
BAL-005-0.1b	R9.	The Balancing Authority shall include all Interchange Schedules with Adjacent Balancing Authorities in the calculation of Net	N/A	N/A	N/A	The Balancing Authority failed to include all Interchange Schedules with Adjacent Balancing Authorities in the

Page 23 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Scheduled Interchange for the ACE equation.				calculation of Net Scheduled Interchange for the ACE equation.
BAL-005-0.1b	R9.1.	Balancing Authorities with a high voltage direct current (HVDC) link to another Balancing Authority connected asynchronously to their Interconnection may choose to omit the Interchange Schedule related to the HVDC link from the ACE equation if it is modeled as internal generation or load.	N/A	N/A	N/A	The Balancing Authority with a high voltage direct current (HVDC) link to another Balancing Authority connected asynchronously to its Interconnection chose to omit the Interchange Schedule related to the HVDC link from the ACE equation, but failed to model it as internal generation or load.
BAL-005-0.1b	R10.	The Balancing Authority shall include all Dynamic Schedules in the calculation of Net Scheduled Interchange for the ACE equation.	N/A	N/A	N/A	The Balancing Authority failed to include all Dynamic Schedules in the calculation of Net Scheduled Interchange for the ACE equation.
BAL-005-0.1b	R11.	Balancing Authorities shall include the effect of Ramp rates, which shall be identical and agreed to between affected Balancing Authorities, in the Scheduled	N/A	N/A	The Balancing Authority included the effects of Ramp rates in the Scheduled Interchange values but they were not	The Balancing Authority failed to include the effect of Ramp rates in the Scheduled Interchange values to calculate ACE.

Page 24 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Interchange values to calculate ACE.			identical and agreed to between affected Balancing Authorities	
BAL-005-0.1b	R12.	Each Balancing Authority shall include all Tie Line flows with Adjacent Balancing Authority Areas in the ACE calculation.	The Balancing Authority failed to include 5% or less of all its Tie Line flows in its ACE calculations.	The Balancing Authority failed to include more than 5% up to (and including) 10% of all its Tie Line flows in its ACE calculations.	The Balancing Authority failed to include more than 10% up to (and including) 15% of all its Tie Line flows in its ACE calculations.	The Balancing Authority failed to include more than 15% of all its Tie Line flows in its ACE calculations.
BAL-005-0.1b	R12.1.	Balancing Authorities that share a tie shall ensure Tie Line MW metering is telemetered to both control centers, and emanates from a common, agreed-upon source using common primary metering equipment. Balancing Authorities shall ensure that megawatt-hour data is telemetered or reported at the end of each hour.	The Balancing Authority failed to ensure 5% or less of all its Tie Line MW metering was telemetered to both control centers and emanates from a common, agreed- upon source OR The Balancing Authority failed to ensure that megawatt-hour data was telemetered or reported for 5% or less of the hours.	The Balancing Authority failed to ensure more than 5% up to (and including) 10% of all its Tie Line MW metering was telemetered to both control centers and emanates from a common, agreed- upon source. OR The Balancing Authority failed to ensure that megawatt-hour data was telemetered or reported for more than 5% up to (and including) 10% of the hours.	The Balancing Authority failed to ensure more than 10% up to (and including) 15% of all its Tie Line MW metering was telemetered to both control centers and emanates from a common, agreed- upon source. OR The Balancing Authority failed to ensure that megawatt-hour data was telemetered or reported for more than 10% up to (and including) 15% of	The Balancing Authority failed to ensure more than 15% of all its Tie Line MW metering was telemetered to both control centers and emanates from a common, agreed-upon source. OR The Balancing Authority failed to ensure that megawatt- hour data was telemetered or reported for more than 15% of the hours.

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					the hours.	
BAL-005-0.1b	R12.2.	Balancing Authorities shall ensure the power flow and ACE signals that are utilized for calculating Balancing Authority performance or that are transmitted for Regulation Service are not filtered prior to transmission, except for the Anti-aliasing Filters of Tie Lines.	The responsible entity did not ensure that 5% or less of the power flow and ACE signals are not filtered except for Anti-aliasing filtering.	The responsible entity did not ensure that more than 5% up to (and including) 10% of the power flow and ACE signals are not filtered except for Anti-aliasing filtering.	The responsible entity did not ensure that more than 10% up to (and including) 15% of the power flow and ACE signals are not filtered except for Anti-aliasing filtering.	The responsible entity did not ensure that more than 15% of the power flow and ACE signals are not filtered except for Anti- aliasing filtering.
BAL-005-0.1b	R12.3.	Balancing Authorities shall install common metering equipment where Dynamic Schedules or Pseudo-Ties are implemented between two or more Balancing Authorities to deliver the output of Jointly Owned Units or to serve remote load.	N/A	N/A	N/A	The applicable entity did not install common metering equipment where Dynamic Schedules or Pseudo-Ties are implemented.
BAL-005-0.1b	R13.	Each Balancing Authority shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment.	N/A	N/A	The Balancing Authority performed the hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the	The Balancing Authority failed to perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		The Balancing Authority shall adjust the component (e.g., Tie Line meter) of ACE that is in error (if known) or use the interchange meter error (IME) term of the ACE equation to compensate for any equipment error until repairs can be made.			accuracy of its control equipment but the Balancing Authority failed to adjust the component (e.g., Tie Line meter) of ACE that is in error (if known) or use the interchange meter error (IME) term of the ACE equation to compensate for any equipment error until repairs can be made.	accuracy of its control equipment and the Balancing Authority failed to adjust the component (e.g., Tie Line meter) of ACE that is in error (if known) or use the interchange meter error (IME) term of the ACE equation to compensate for any equipment error until repairs can be made.
BAL-005-0.1b	R14.	The Balancing Authority shall provide its operating personnel with sufficient instrumentation and data recording equipment to facilitate monitoring of control performance, generation response, and after-the-fact analysis of area performance. As a minimum, the Balancing Authority shall provide its operating personnel with real-time values for ACE, Interconnection frequency and Net Actual Interchange with each Adjacent Balancing	N/A	The responsible entity did not provide its operating personnel with real- time values for one of the following: ACE, Interconnection frequency or Net Actual Interchange.	The responsible entity did not provide its operating personnel with real- time values for two of the following: ACE, Interconnection frequency or Net Actual Interchange.	The responsible entity did not provide its operating personnel with real-time values for ACE, Interconnection frequency and Net Actual Interchange.

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Authority Area.				
BAL-005-0.1b	R15.	The Balancing Authority shall provide adequate and reliable backup power supplies and shall periodically test these supplies at the Balancing Authority's control center and other critical locations to ensure continuous operation of AGC and vital data recording equipment during loss of the normal power supply.	N/A	N/A	The Balancing Authority failed to periodically test backup power supplies at the Balancing Authority's control center and other critical locations to ensure continuous operation of AGC and vital data recording equipment during loss of the normal power supply.	The Balancing Authority failed to provide adequate and reliable backup power supplies to ensure continuous operation of AGC and vital data recording equipment during loss of the normal power supply.
BAL-005-0.1b	R16.	The Balancing Authority shall sample data at least at the same periodicity with which ACE is calculated. The Balancing Authority shall flag missing or bad data for operator display and archival purposes. The Balancing Authority shall collect coincident data to the greatest practical extent, i.e., ACE, Interconnection frequency, Net Actual Interchange, and other	The Balancing Authority failed to collect coincident data to the greatest practical extent.	N/A	The Balancing Authority failed to flag missing or bad data for operator display and archival purposes.	The Balancing Authority failed to sample data at least at the same periodicity with which ACE is calculated.

Page 28 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		data shall all be sampled at the same time.				
BAL-005-0.1b	R17.	Each Balancing Authority shall at least annually check and calibrate its time error and frequency devices against a common reference. The Balancing Authority shall adhere to the minimum values for measuring devices as listed below: <i>See Standard for Values</i>	N/A	N/A	N/A	The Balancing Authority failed to at least annually check and calibrate its time error and frequency devices against a common reference.
BAL-006-1.1	R1.	Each Balancing Authority shall calculate and record hourly Inadvertent Interchange.	The Balancing Authority failed to calculate and record hourly Inadvertent Interchange for 5% or less of the hours.	The Balancing Authority failed to calculate and record hourly Inadvertent Interchange for more than 5% up to (and including) 10% of the hours.	The Balancing Authority failed to calculate and record hourly Inadvertent Interchange for more than 10% up to (and including) 15% of the hours.	The Balancing Authority failed to calculate and record hourly Inadvertent Interchange for greater than 15% of the hours.
BAL-006-1.1	R2.	Each Balancing Authority shall include all AC tie lines that connect to its Adjacent Balancing Authority Areas in its Inadvertent Interchange account. The Balancing Authority shall take into account interchange served by jointly owned generators.	The Balancing Authority failed to include 5% or less than all AC tie lines, including the interchange served by jointly owned generators, in its Inadvertent Interchange account.	The Balancing Authority failed to include more than 5% up to (and including) 10% of all AC tie lines, including the interchange served by jointly owned generators, in its Inadvertent	The Balancing Authority failed to include more than 10% up to (and including) 15% of all AC tie lines, including the interchange served by jointly owned generators, in its Inadvertent	The Balancing Authority failed to include more than 15% of all AC tie lines, including the interchange served by jointly owned generators, in its Inadvertent Interchange account

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				Interchange account	Interchange account.	
BAL-006-1.1	R3.	Each Balancing Authority shall ensure all of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities.	The Balancing Authority failed to ensure that 5% or less of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities.	The Balancing Authority failed to ensure that more than 5% up to (and including) 10% of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities.	The Balancing Authority failed to ensure that more than 10% up to (and including) 15% of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities.	The Balancing Authority failed to ensure that more than 15% of its Balancing Authority Area interconnection points are equipped with common megawatt- hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities.
BAL-006-1.1	R4.	Adjacent Balancing Authority Areas shall operate to a common Net Interchange Schedule and Actual Net Interchange value and shall record these hourly quantities, with like values but opposite sign. Each Balancing Authority shall compute its Inadvertent Interchange based on the following:	The Balancing Authority operated to a common Net Interchange Schedule and Actual Net Interchange value and recorded these hourly quantities, with like values but opposite sign but by the end of the next business day, failed to agree with its Adjacent Balancing Authorities on the values stipulated in either R4.1.1 or	The Balancing Authority operated to a common Net Interchange Schedule and Actual Net Interchange value and recorded these hourly quantities, with like values but opposite sign but by the end of the next business day, failed to agree with its Adjacent Balancing Authorities on values stipulated in both	The Balancing Authority operated to a common Net Interchange Schedule and Actual Net Interchange value but failed to compute Inadvertent Interchange.	The Balancing Authority failed to operate to a common Net Interchange Schedule that is equal but opposite to its Adjacent Balancing Authorities.

Page 30 of 447

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			R4.1.2.	R4.1.1 and R4.1.2.		
BAL-006-1.1	R4.1.	Each Balancing Authority, by the end of the next business day, shall agree with its Adjacent Balancing Authorities to:	N/A	N/A	N/A	N/A
BAL-006-1.1	R4.1.1.	The hourly values of Net Interchange Schedule.	N/A	N/A	N/A	N/A
BAL-006-1.1	R4.1.2.	The hourly integrated megawatt-hour values of Net Actual Interchange.	N/A	N/A	N/A	N/A
BAL-006-1.1	R4.2.	Each Balancing Authority shall use the agreed-to daily and monthly accounting data to compile its monthly accumulated Inadvertent Interchange for the On- Peak and Off-Peak hours of the month.	N/A	N/A	N/A	N/A
BAL-006-1.1	R4.3.	A Balancing Authority shall make after-the-fact corrections to the agreed- to daily and monthly accounting data only as needed to reflect actual operating conditions (e.g. a meter being used for control was sending bad data). Changes or	N/A	N/A	N/A	N/A

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		corrections based on non- reliability considerations shall not be reflected in the Balancing Authority's Inadvertent Interchange. After-the-fact corrections to scheduled or actual values will not be accepted without agreement of the Adjacent Balancing Authority(ies).				
BAL-006-1.1	R5.	Adjacent Balancing Authorities that cannot mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following month shall, for the purposes of dispute resolution, submit a report to their respective Regional Reliability Organization Survey Contact. The report shall describe the nature and the cause of the dispute as well as a process for correcting the discrepancy.	N/A	Adjacent Balancing Authorities that could not mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities, by the 15th calendar day of the following month, submitted a report to their respective Regional Reliability Organizations Survey Contact describing the nature and the cause of the dispute but failed to provide a process for correcting the	N/A	Adjacent Balancing Authorities that could not mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following month, failed to submit a report to their respective Regional Reliability Organizations Survey Contact describing the nature and the cause of the dispute as well as a process for correcting the discrepancy.

Standard Number	Requir ement Numbe r	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				discrepancy.		

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
COM-001- 1.1	R1.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide adequate and reliable telecommunications facilities for the exchange of Interconnection and operating information:	N/A	The responsible entity failed to provide adequate and reliable telecommunications facilities for the exchange of Interconnection and operating information to one of the groups specified in R1.1, or R1.2, or R1.3	The responsible entity failed to provide adequate and reliable telecommunications facilities for the exchange of Interconnection or operating information to two of the groups specified in R1.1, or R1.2, or R1.3.	The responsible entity failed to provide adequate and reliable telecommunications facilities for the exchange of Interconnection and operating information to all 3 of the groups specified in R1.1, or R1.2, or R1.3. OR The responsible entity's telecommunications is not redundant or diversely routed as applicable as specified in R1.4
COM-001- 1.1	R1.1.	Internally.	N/A	N/A	N/A	N/A
COM-001- 1.1	R1.2.	Between the Reliability Coordinator and its Transmission Operators and Balancing Authorities.	N/A	N/A	N/A	N/A
COM-001- 1.1	R1.3.	With other Reliability Coordinators, Transmission Operators, and Balancing Authorities as necessary to maintain reliability.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
COM-001- 1.1	R1.4.	Where applicable, these facilities shall be redundant and diversely routed.	N/A	N/A	N/A	N/A
COM-001- 1.1	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.	N/A	The responsible entity failed to give special attention to emergency telecommunications facilities and equipment not used for routine communications.	N/A	The responsible entity failed to manage, alarm, test and/or actively monitor its vital telecommunications facilities.
COM-001- 1.1	R3.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide a means to coordinate telecommunications among their respective areas. This coordination shall include the ability to investigate and recommend solutions to telecommunications problems within the area and with other areas.	N/A	N/A	N/A	The responsible entity failed to provide a means to coordinate telecommunications among its respective areas including the ability to investigate and recommend solutions to telecommunications problems within the area and with other areas.
COM-001- 1.1	R4.	Unless agreed to otherwise, each Reliability Coordinator, Transmission Operator, and Balancing	N/A	N/A	N/A	The responsible entity used a language other than English and failed to have an agreement to

Page 35 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Authority shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and operation of the interconnected Bulk Electric System. Transmission Operators and Balancing Authorities may use an alternate language for internal operations.				do so.
COM-001- 1.1	R5.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have written operating instructions and procedures to enable continued operation of the system during the loss of telecommunications facilities.	N/A	N/A	N/A	The responsible entity did not have written operating instructions and procedures to enable continued operation of the system during the loss of telecommunications facilities.
COM-001- 1.1	R6.	Each NERCNet User Organization shall adhere to the requirements in Attachment 1-COM-001, "NERCNet Security Policy."	The NERCNet User Organization failed to adhere to 5% or less of the requirements listed in Attachment 1- COM-001, , "NERCNet	The NERCNet User Organization failed to adhere to more than 5% up to (and including) 10% of the requirements listed in Attachment 1 - COM- 001, "NERCNet Security Policy".	The NERCNet User Organization failed to adhere to more than 10% up to (and including) 15% of the requirements listed in Attachment 1-COM- 001 "NERCNet Security Policy".	The NERCNet User Organization failed to more than 15% of the requirements listed in Attachment 1-COM- 001, "NERCNet Security Policy".

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
	<b>D</b> 1		Security Policy".			
COM-002-2	R1.	Each Transmission Operator, Balancing Authority, and Generator Operator shall have communications (voice and data links) with appropriate Reliability Coordinators, Balancing Authorities, and Transmission Operators. Such communications shall be staffed and available for addressing a real-time emergency condition.	N/A	The responsible entity did not have data links with appropriate Reliability Coordinators, Balancing Authorities, and Transmission Operators. OR The responsible entity did not have voice links with appropriate Reliability Coordinators, Balancing Authorities, and Transmission Operators.	N/A	The responsible entity failed to have communications (voice and data links) with appropriate Reliability Coordinators, Balancing Authorities, and Transmission Operators. OR The responsible entity's communications were not staffed and available for addressing real time emergency conditions.
COM-002-2	R1.1.	Each Balancing Authority and Transmission Operator shall notify its Reliability Coordinator, and all other potentially affected Balancing Authorities and Transmission Operators through predetermined communication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.	N/A	N/A	The responsible entity failed to notify all other potentially affected Balancing Authorities and Transmission Operators through predetermined communication paths of any condition that could threaten the reliability of its area or when firm load shedding was	The responsible entity failed to notify its Reliability Coordinator through predetermined communication paths of any condition that could threaten the reliability of its area or when firm load shedding was anticipated.

#### Standard Requirement Lower VSL **Text of Requirement** Moderate VSL High VSL Severe VSL Number Number anticipated. COM-002-2 R2. Each Reliability N/A The responsible entity The responsible entity The responsible entity Coordinator, Transmission provided a clear provided a clear failed to provide a clear directive in a clear, Operator, and Balancing directive in a clear. directive in a clear, Authority shall issue concise and definitive concise and definitive concise and definitive directives in a clear, manner and required manner, but did not manner when required. concise, and definitive the recipient to repeat require the recipient to manner; shall ensure the the directive, but did repeat the directive. recipient of the directive not acknowledge the recipient was correct in repeats the information back correctly; and shall the repeated directive. acknowledge the response as correct or repeat the original statement to resolve any misunderstandings.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-001-0	R1.	Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote Balancing Authorities.	N/A	The Balancing Authority demonstrated the existence of an operating agreement with at least one adjacent Balancing Authority for emergency assistance, but the agreement did not include provision for obtaining emergency assistance from any remote Balancing Authority.	N/A	The Balancing Authority did not demonstrate the existence of any operating agreements with adjacent Balancing Authorities that include provision for emergency assistance with adjacent Balancing Authorities.
EOP-001-0	R2.	The Transmission Operator shall have an emergency load reduction plan for all identified IROLs. The plan shall include the details on how the Transmission Operator will implement load reduction in sufficient amount and time to mitigate the IROL violation before system separation or collapse would occur. The load reduction plan must be capable of being implemented within 30 minutes.	N/A	N/A	The Transmission Operator demonstrated the existence of an emergency load reduction plan for each identified IROL but at least one of the plans will take longer than 30 minutes to implement.	The Transmission Operator failed to demonstrate the existence of an emergency load reduction plan for all identified IROLs.
EOP-001-0	R3.	Each Transmission	N/A	N/A	N/A	N/A

Page **39** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator and Balancing Authority shall:				
EOP-001-0	R3.1.	Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.	N/A	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans to mitigate operating emergencies for insufficient generating capacity and the plans are implemented but the plans are not maintained.	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans to mitigate operating emergencies for insufficient generating capacity but the plans are neither maintained nor implemented.	The Transmission Operator or Balancing Authority failed to demonstrate the existence of a set of plans to mitigate operating emergencies for insufficient generating capacity.
EOP-001-0	R3.2.	Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.	N/A	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans to mitigate operating emergencies on the transmission system and the plans are implemented but the plans are not maintained.	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans to mitigate operating emergencies on the transmission system but the plans are neither maintained nor implemented.	The Transmission Operator or Balancing Authority failed to demonstrate the existence of a set of plans to mitigate operating emergencies on the transmission system.
EOP-001-0	R3.3.	Develop, maintain, and implement a set of plans for load shedding.	N/A	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans for load shedding and the plans are	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans for load shedding but the plans are neither maintained	The Transmission Operator or Balancing Authority failed to demonstrate the existence of a set of plans for load shedding.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				implemented but the plans are not maintained.	nor implemented.	
EOP-001-0	R3.4.	Develop, maintain, and implement a set of plans for system restoration.	N/A	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans for system restoration and the plans are implemented but the plans are not maintained.	The Transmission Operator or Balancing Authority demonstrated the existence of a set of plans for system restoration but the plans are neither maintained nor implemented.	The Transmission Operator or Balancing Authority failed to demonstrate the existence of a set of plans for system restoration.
EOP-001-0	R4.	Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:	The Transmission Operator or Balancing Authority demonstrated the existence of emergency plans that will enable it to mitigate operating emergencies but the plans do not include sub-requirement R4.4.	The Transmission Operator or Balancing Authority demonstrated the existence of emergency plans that will enable it to mitigate operating emergencies but the plans do not include sub-requirement R4.3.	The Transmission Operator or Balancing Authority demonstrated the existence of emergency plans that will enable it to mitigate operating emergencies but the plans do not include either sub- requirement R4.1 or R4.2.	The Transmission Operator or Balancing Authority demonstrated the existence of emergency plans that will enable it to mitigate operating emergencies but the plans are missing two (2) or more of the sub-requirements identified for R4.
EOP-001-0	R4.1.	Communications protocols to be used during emergencies.	N/A	N/A	N/A	N/A
EOP-001-0	R4.2.	A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		emergency within NERC-established timelines, shall be one of the controlling actions.				
EOP-001-0	R4.3.	The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.	N/A	N/A	N/A	N/A
EOP-001-0	R4.4.	Staffing levels for the emergency.	N/A	N/A	N/A	N/A
EOP-001-0	R5.	Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an emergency plan.	The Transmission Operator or Balancing Authority did not include one of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include two of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include three of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include four or more of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.
EOP-001-0	R6.	The Transmission Operator and Balancing Authority shall annually review and update each emergency plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated emergency plans to its Reliability Coordinator and to neighboring Transmission Operators and Balancing	N/A	N/A	N/A	The Transmission Operator or Balancing Authority failed to provide evidence that it completed an annual review, and updated each of its emergency plans appropriately. OR The Transmission Operator or Balancing Authority failed to

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Authorities.				provide a copy of one of its updated emergency plans to its Reliability Coordinator, all its neighboring Transmission Operators, and all its neighboring Balancing Authorities.
EOP-001-0	R7.	The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:	The Transmission Operator or Balancing Authority demonstrated that it coordinated its emergency plans with other Transmission Operators and Balancing Authorities as appropriate but the coordination specified in R7.4 was applicable and was not included.	The Transmission Operator or Balancing Authority demonstrated that it coordinated its emergency plans with other Transmission Operators and Balancing Authorities as appropriate but the coordination specified in R7.3 was applicable and was not included.	The Transmission Operator or Balancing Authority demonstrated that it coordinated its emergency plans with other Transmission Operators and Balancing Authorities as appropriate but the coordination specified in either R7.1 or R7.2 was applicable and was not included.	The Transmission Operator or Balancing Authority demonstrated that it coordinated its emergency plans with other Transmission Operators and Balancing Authorities as appropriate but the coordination specified in two (2) or more of the sub-requirements was applicable and was not included.
EOP-001-0	R7.1.	The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.	N/A	N/A	N/A	N/A
EOP-001-0	R7.2.	The Transmission Operator and Balancing Authority shall arrange	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.				
EOP-001-0	R7.3.	The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.)	N/A	N/A	N/A	N/A
EOP-001-0	R7.4.	The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.	N/A	N/A	N/A	N/A
EOP-001-1	R1	Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote	N/A	N/A	The Balancing Authority had operating agreements with adjacent Balancing Authorities, but the agreements did not contain provisions for emergency assistance from remote	The Balancing Authority did not have any operating agreements with adjacent Balancing Authorities. OR

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Balancing Authorities.			Balancing Authorities.	The Balancing Authority had operating agreements with adjacent Balancing Authorities, but the agreements did not include any provisions for emergency assistance.
EOP-001-1	R2	Each Transmission Operator and Balancing Authority shall:	The Transmission Operator or Balancing Authority failed to comply with one (1) of the sub- requirements.	The Transmission Operator or Balancing Authority failed to comply with two (2) of the sub- requirements.	The Transmission Operator or Balancing Authority has failed to comply with three (3) of the sub- requirements.	The Transmission Operator or Balancing Authority has failed to comply with four (4) of the sub- requirements.
EOP-001-1	R2.1	Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.	N/A	N/A	N/A	N/A
EOP-001-1	R2.2	Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.	N/A	N/A	N/A	N/A
EOP-001-1	R2.3	Develop, maintain, and implement a set of plans for load shedding.	N/A	N/A	N/A	N/A
EOP-001-1	R2.4	Develop, maintain, and implement a set of plans for system restoration.	N/A	N/A	N/A	N/A

Vic	olation	Severity	Level	Matrix	(EOP)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-001-1	R3	Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:	The Transmission Operator or Balancing Authority failed to comply with sub- requirement R3.4.	The Transmission Operator or Balancing Authority failed to comply with sub- requirement R3.3.	The Transmission Operator or Balancing Authority failed to comply with either sub-requirement R3.1 or sub-requirement R3.2.	The Transmission Operator or Balancing Authority failed to comply with two or more of the sub- requirement identified for R3. OR The Transmission Operator or Balancing Authority did not have emergency plans that were intended to enable it to mitigate operating emergencies.
EOP-001-1	R3.1	Communications protocols to be used during emergencies.	N/A	N/A	N/A	N/A
EOP-001-1	R3.2	A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC-established timelines, shall be one of the controlling actions.	N/A	N/A	N/A	N/A
EOP-001-1	R3.3	The tasks to be coordinated with and among adjacent	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Operators and Balancing Authorities.				
EOP-001-1	R3.4	Staffing levels for the emergency.	N/A	N/A	N/A	N/A
EOP-001-1	R4	Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an emergency plan.	The Transmission Operator or Balancing Authority did not include one of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include two of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include three of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include four or more of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.
EOP-001-1	R5	The Transmission Operator and Balancing Authority shall annually review and update each emergency plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated emergency plans to its Reliability Coordinator and to neighboring Transmission Operators and Balancing Authorities.	N/A	N/A	The Transmission Operator or Balancing Authority failed to provide a copy of one of its updated emergency plans to its Reliability Coordinator, all its neighboring Transmission Operators, and all its neighboring Balancing Authorities.	The Transmission Operator or Balancing Authority failed to complete an annual review, and update each of its emergency plans appropriately.
EOP-001-1	R6	The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators	The Transmission Operator or Balancing Authority failed to comply with sub- requirement R6.4.	The Transmission Operator or Balancing Authority failed to comply with sub- requirement R6.3.	The Transmission Operator or Balancing Authority failed to comply with either sub-requirement 6.1 or sub-requirement	The Transmission Operator or Balancing Authority failed to comply with two or more of the sub- requirements Page <b>47</b> of <b>447</b>

Page 47 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:			6.2.	identified for R6.
EOP-001-1	R6.1	The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.	N/A	N/A	N/A	N/A
EOP-001-1	R6.2	The Transmission Operator and Balancing Authority shall arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.	N/A	N/A	N/A	N/A
EOP-001-1	R6.3	The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.)	N/A	N/A	N/A	N/A
EOP-001-1	R6.4	The Transmission Operator and Balancing Authority shall arrange	N/A	N/A	N/A	N/A

Page 48 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		deliveries of electrical energy or fuel from remote systems through normal operating channels.				
EOP-001-2	R1	Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote Balancing Authorities.	The Balancing Authority had operating agreements with more than 95%, but less than 100%, of its adjacent BAs. OR More than 95%, but less than 100%, of the Balancing Authority's agreements contain provisions for emergency assistance.	The Balancing Authority had operating agreements with more than 90%, but not more than 95%, of its adjacent BAs. OR More than 90%, but not more than 75%, of the Balancing Authority's agreements contain provisions for emergency assistance.	The Balancing Authority had operating agreements with more than 85%, but not more than 80%, of its adjacent BAs. OR More than 85%, but not more than 80%, of the Balancing Authority's agreements contain provisions for emergency assistance.	The Balancing Authority had operating agreements with 85% or less of its adjacent BAs. OR 85% or less of the Balancing Authority's agreements contain provisions for emergency assistance.
EOP-001-2	R2	Each Transmission Operator and Balancing Authority shall:	The Transmission Operator or Balancing Authority failed to comply with one (1) of the sub- requirements.	The Transmission Operator or Balancing Authority failed to comply with two (2) of the sub- requirements.	N/A	The Transmission Operator or Balancing Authority has failed to comply with three (3) of the sub- requirements.
EOP-001-2	R2.1	Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-001-2	R2.2	Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.	N/A	N/A	N/A	N/A
EOP-001-2	R2.3	Develop, maintain, and implement a set of plans for load shedding.	N/A	N/A	N/A	N/A
EOP-001-2	R3	Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:	The Transmission Operator or Balancing Authority failed to comply with sub- requirement R3.4.	The Transmission Operator or Balancing Authority failed to comply with sub- requirement R3.3	The Transmission Operator or Balancing Authority has failed to comply with either sub-requirement R3.1 or sub- requirementR3.2.	The Transmission Operator or Balancing Authority failed to comply with two or more of the sub- requirement identified for R3. OR The Transmission Operator or Balancing Authority did not have emergency plans that were intended to enable it to mitigate operating emergencies.
EOP-001-2	R3.1	Communications protocols to be used during emergencies.	N/A	N/A	N/A	N/A
EOP-001-2	R3.2	A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		emergency within NERC-established timelines, shall be one of the controlling actions.				
EOP-001-2	R3.3	The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.	N/A	N/A	N/A	N/A
EOP-001-2	R3.4	Staffing levels for the emergency.	N/A	N/A	N/A	N/A
EOP-001-2	R4	Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an emergency plan.	The Transmission Operator or Balancing Authority did not include one of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include two of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include three of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.	The Transmission Operator or Balancing Authority did not include four or more of the applicable elements in Attachment 1-EOP- 001-0 in its emergency plan.
EOP-001-2	R5	The Transmission Operator and Balancing Authority shall annually review and update each emergency plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated emergency plans to its Reliability Coordinator and to neighboring Transmission Operators and Balancing	N/A	N/A	The Transmission Operator or Balancing Authority failed to provide a copy of one of its updated emergency plans to its Reliability Coordinator, all its neighboring Transmission Operators, and all its neighboring Balancing	The Transmission Operator or Balancing Authority failed to complete an annual review, and updated each of its emergency plans appropriately.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Authorities.			Authorities.	
EOP-001-2	R6	The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:	The Transmission Operator or Balancing Authority failed to comply with sub- component R6.4.	The Transmission Operator or Balancing Authority failed to comply with sub- component R6.3.	The Transmission Operator or Balancing Authority failed to comply with either sub-component R6.1 or sub-component R6.2.	The Transmission Operator or Balancing Authority failed to comply with two or more of the sub- components identified for R6.
EOP-001-2	R6.1	The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.	N/A	N/A	N/A	N/A
EOP-001-2	R6.2	The Transmission Operator and Balancing Authority shall arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.	N/A	N/A	N/A	N/A
EOP-001-2	R6.3	The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or	N/A	N/A	N/A	N/A

Page 52 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		conserve the fuel in short supply. (This includes water for hydro generators.)				
EOP-001-2	R6.4	The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.	N/A	N/A	N/A	N/A
EOP-002- 2.1	R1.	Each Balancing Authority and Reliability Coordinator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its respective area and shall exercise specific authority to alleviate capacity and energy emergencies.	N/A	N/A	The Balancing Authority or Reliability Coordinator failed to provide evidence that it has responsibility and clear decision- making authority to take whatever actions are needed to ensure the reliability of its respective area.	The responsible entity failed to exercise its authority to alleviate a capacity or energy emergency.
EOP-002- 2.1	R2.	Each Balancing Authority shall implement its capacity and energy emergency plan, when required and as appropriate, to reduce risks to the interconnected system.	N/A	N/A	N/A	The Balancing Authority failed to implement its capacity and energy emergency plan, when required and as appropriate, to reduce risks to the interconnected

Page 53 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						system.
EOP-002- 2.1	R3.	A Balancing Authority that is experiencing an operating capacity or energy emergency shall communicate its current and future system conditions to its Reliability Coordinator and neighboring Balancing Authorities.	N/A	N/A	N/A	The Balancing Authority experienced an operating capacity or energy emergency and failed to communicate its current and future system conditions to its Reliability Coordinator and its neighboring Balancing Authorities.
EOP-002- 2.1	R4.	A Balancing Authority anticipating an operating capacity or energy emergency shall perform all actions necessary including bringing on all available generation, postponing equipment maintenance, scheduling interchange purchases in advance, and being prepared to reduce firm load.	N/A	N/A	N/A	The Balancing Authority anticipating an operating capacity or energy emergency failed to perform all actions necessary including bringing on all available generation, postponing equipment maintenance, scheduling interchange purchases in advance, or preparing to reduce firm load.
EOP-002- 2.1	R5.	A deficient Balancing Authority shall only use the assistance provided by the Interconnection's frequency bias for the	N/A	N/A	The Balancing Authority used the assistance provided by the Interconnection's	The Balancing Authority used the assistance provided by the Interconnection's

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		time needed to implement corrective actions. The Balancing Authority shall not unilaterally adjust generation in an attempt to return Interconnection frequency to normal beyond that supplied through frequency bias action and Interchange Schedule changes. Such unilateral adjustment may overload transmission facilities.			frequency bias for more time than needed to implement corrective actions. OR The Balancing Authority unilaterally adjusted generation in an attempt to return Interconnection frequency to normal beyond that supplied through frequency bias action and Interchange Schedule changes.	frequency bias for more time than needed to implement corrective actions AND The Balancing Authority unilaterally adjusted generation in an attempt to return Interconnection frequency to normal beyond that supplied through frequency bias action and Interchange Schedule changes.
EOP-002- 2.1	R6.	If the Balancing Authority cannot comply with the Control Performance and Disturbance Control Standards, then it shall immediately implement remedies to do so. These remedies include, but are not limited to:	N/A	N/A	The Balancing Authority was not able to comply with the Control Performance and Disturbance Control Standards and failed to immediately implement one (1) of the sub-requirements R6.1, R6.2, R6.3, R6.4, R6.5 or R6.6.	The Balancing Authority was not able to comply with the Control Performance and Disturbance Control Standards and failed to immediately implement more than one (1) of the sub- requirements R6.1, R6.2, R6.3, R6.4, R6.5 or R6.6. OR The Balancing Authority was not able to comply with the Control Performance and

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Disturbance Control Standards and did not immediately implement any remedies.
EOP-002- 2.1	R6.1.	Loading all available generating capacity.	N/A	N/A	N/A	N/A
EOP-002- 2.1	R6.2.	Deploying all available operating reserve	N/A	N/A	N/A	N/A
EOP-002- 2.1	R6.3.	Interrupting interruptible load and exports.	N/A	N/A	N/A	N/A
EOP-002- 2.1	R6.4.	Requesting emergency assistance from other Balancing Authorities.	N/A	N/A	N/A	N/A
EOP-002- 2.1	R6.5.	Declaring an Energy Emergency through its Reliability Coordinator; and	N/A	N/A	N/A	N/A
EOP-002- 2.1	R6.6.	Reducing load, through procedures such as public appeals, voltage reductions, curtailing interruptible loads and firm loads.	N/A	N/A	N/A	N/A
EOP-002- 2.1	R7.	Once the Balancing Authority has exhausted the steps listed in Requirement 6, or if these steps cannot be completed in sufficient time to resolve the emergency condition, the Balancing Authority	N/A	N/A	The Balancing Authority exhausted the steps listed in R6 or the steps listed in R6 could not be completed in sufficient time to resolve the emergency condition, and the	The Balancing Authority exhausted the steps listed in R6 or the steps listed in R6 could not be completed in sufficient time to resolve the emergency condition, and the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		shall:			Balancing Authority failed to meet sub- requirement R7.1. OR The Balancing Authority exhausted the steps listed in R6 or the steps listed in R6 could not be completed in sufficient time to resolve the emergency condition, and the Balancing Authority failed to meet sub- requirement R7.2.	Balancing Authority failed to meet sub- requirement R7.1. AND The Balancing Authority exhausted the steps listed in R6 or the steps listed in R6 could not be completed in sufficient time to resolve the emergency condition, and the Balancing Authority failed to meet sub- requirement R7.2.
EOP-002- 2.1	R7.1.	Manually shed firm load without delay to return its ACE to zero; and	N/A	N/A	N/A	N/A
EOP-002- 2.1	R7.2.	Request the Reliability Coordinator to declare an Energy Emergency Alert in accordance with Attachment 1-EOP-002-0 "Energy Emergency Alert Levels."	N/A	N/A	N/A	N/A
EOP-002- 2.1	R8.	A Reliability Coordinator that has any Balancing Authority within its Reliability Coordinator area experiencing a potential or actual Energy Emergency shall initiate an Energy Emergency Alert as detailed in	N/A	A Reliability Coordinator had a Balancing Authority within its Reliability Coordinator area experiencing a potential or actual Energy Emergency and the Reliability	A Reliability Coordinator had a Balancing Authority within its Reliability Coordinator area experiencing a potential or actual Energy Emergency and the Reliability	A Reliability Coordinator had a Balancing Authority within its Reliability Coordinator area experiencing an actual Energy Emergency and the Reliability Coordinator did not

Page 57 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Attachment 1-EOP-002-0 "Energy Emergency Alert Levels." The Reliability Coordinator shall act to mitigate the emergency condition, including a request for emergency assistance if required.		Coordinator did not initiate an Energy Emergency Alert <b>Level 1</b> as detailed in Attachment 1-EOP- 002-0 "Energy Emergency Alert Levels."	Coordinator did not initiate an Energy Emergency Alert <b>Level 2</b> or 3 as detailed in Attachment 1-EOP- 002-0 "Energy Emergency Alert Levels."	act to mitigate the emergency condition by requesting emergency assistance when this was required.
EOP-002- 2.1	R9.	When a Transmission Service Provider expects to elevate the transmission service priority of an Interchange Transaction from Priority 6 (Network Integration Transmission Service from Non-designated Resources) to Priority 7 (Network Integration Transmission Service from designated Network Resources) as permitted in its transmission tariff (See Attachment 1-IRO- 006-0 "Transmission Loading Relief Procedure" for explanation of Transmission Service Priorities):	N/A	N/A	N/A	N/A
EOP-002- 2.1	R9.1.	The deficient Load- Serving Entity shall request its Reliability Coordinator to initiate an	N/A	N/A	N/A	For an expected elevation in transmission service priority from Priority

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Energy Emergency Alert in accordance with Attachment 1-EOP-002- 0.				6 to Priority 7, the deficient Load- Serving Entity failed to request its Reliability Coordinator initiate an Energy Emergency Alert in accordance with Attachment 1- EOP-002-0.
EOP-002- 2.1	R9.2.	The Reliability Coordinator shall submit the report to NERC for posting on the NERC Website, noting the expected total MW that may have its transmission service priority changed.	N/A	N/A	N/A	The Reliability Coordinator failed to submit the report to NERC for posting on the NERC Website, noting the expected total MW that may have its transmission service priority changed.
EOP-002- 2.1	R9.3.	The Reliability Coordinator shall use EEA 1 to forecast the change of the priority of transmission service of an Interchange Transaction on the system from Priority 6 to Priority 7.	N/A	N/A	N/A	The Reliability Coordinator failed to use EEA 1 to forecast the change of the priority of transmission service of an Interchange Transaction on the system from Priority 6 to Priority 7.
EOP-002- 2.1	R9.4.	The Reliability Coordinator shall use EEA 2 to announce the change of the priority of transmission service of an	N/A	N/A	N/A	The Reliability Coordinator failed to use EEA 2 to announce the change of the priority of

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Interchange Transaction on the system from Priority 6 to Priority 7.				transmission service of an Interchange Transaction on the system from Priority 6 to Priority 7.
EOP-003-1	R1.	After taking all other remedial steps, a Transmission Operator or Balancing Authority operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of the Interconnection.	N/A	N/A	N/A	The Transmission Operator or Balancing Authority failed to shed customer load.
EOP-003-1	R2.	Each Transmission Operator and Balancing Authority shall establish plans for automatic load shedding for underfrequency or undervoltage conditions.	N/A	N/A	N/A	The responsible entity did not establish plans for automatic load shedding as directed by the requirement.
EOP-003-1	R3.	Each Transmission Operator and Balancing Authority shall coordinate load shedding plans among other interconnected Transmission Operators and Balancing Authorities.	The responsible entity did not coordinate load shedding plans, as directed by the requirement, affecting 5% or less of its required entities.	The responsible entity did not coordinate load shedding plans, as directed by the requirement, affecting more than 5% up to (and including) 10% of its required entities.	The responsible entity did not coordinate load shedding plans, as directed by the requirement, affecting more than 10%, up to (and including) 15% or less, of its required entities.	The responsible entity did not coordinate load shedding plans, as directed by the requirement, affecting more than 15% of its required entities.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-003-1	R4.	A Transmission Operator or Balancing Authority shall consider one or more of these factors in designing an automatic load shedding scheme: frequency, rate of frequency decay, voltage level, rate of voltage decay, or power flow levels.	N/A	N/A	N/A	The applicable entity did not consider one of the five required elements, as directed by the requirement.
EOP-003-1	R5.	A Transmission Operator or Balancing Authority shall implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.	N/A	N/A	N/A	The Transmission Operator or Balancing Authority failed to implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.
EOP-003-1	R6.	After a Transmission Operator or Balancing Authority Area separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the Transmission Operator or Balancing Authority shall shed additional load.	N/A	N/A	N/A	The Transmission Operator or Balancing Authority failed to shed additional load after it had separated from the Interconnection when there was insufficient generating capacity to restore system frequency following automatic underfrequency load

Page 61 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						shedding.
EOP-003-1	R7.	The Transmission Operator and Balancing Authority shall coordinate automatic load shedding throughout their areas with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that will occur under abnormal frequency, voltage, or power flow conditions.	The responsible entity did not coordinate automatic load shedding with 5% or less of the types of automatic actions described in the Requirement.	The responsible entity did not coordinate automatic load shedding with more than 5% up to (and including) 10% of the types of automatic actions described in the Requirement.	The responsible entity did not coordinate automatic load shedding with more than 10% up to (and including) 15% of the types of automatic actions described in the Requirement.	The responsible entity did not coordinate automatic load shedding with more than 15% of the types of automatic actions described in the Requirement.
EOP-003-1	R8.	Each Transmission Operator or Balancing Authority shall have plans for operator- controlled manual load shedding to respond to real-time emergencies. The Transmission Operator or Balancing Authority shall be capable of implementing the load shedding in a timeframe adequate for responding to the emergency.	N/A	The responsible entity did not have plans for operator controlled manual load shedding, as directed by the requirement.	The responsible entity has plans for manual load shedding but did not have the capability to implement the load shedding, as directed by the requirement.	The responsible entity did not have plans for operator controlled manual load shedding, as directed by the requirement nor had the capability to implement the load shedding, as directed by the requirement.
EOP-004-1	R1.	Each Regional Reliability Organization shall establish and maintain a Regional reporting	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		procedure to facilitate preparation of preliminary and final disturbance reports.				
EOP-004-1	R2.	A Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator or Load-Serving Entity shall promptly analyze Bulk Electric System disturbances on its system or facilities.	The responsible entity failed to promptly analyze 5% or less of its disturbances on the BES.	The responsible entity failed to promptly analyze more than 5% up to (and including) 10% of its disturbances on the BES.	The responsible entity failed to promptly analyze more than 10% up to (and including) 15% of its disturbances on the BES.	The responsible entity failed to promptly analyze more than 15% of its disturbances on the BES.
EOP-004-1	R3.	A Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator or Load-Serving Entity experiencing a reportable incident shall provide a preliminary written report to its Regional Reliability Organization and NERC.	N/A	N/A	The responsible entity experienced a reportable incident and provided a preliminary written report to either the RRO or to NERC, but not both.	The responsible entity experienced a reportable incident and provided a preliminary written report to neither the RRO nor NERC.
EOP-004-1	R3.1.	The affected Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator or Load-Serving Entity shall submit within 24 hours of the disturbance or unusual occurrence either a copy of the report submitted to DOE, or, if no DOE	The responsible entity submitted the report as required in R3.1 more than 24 but less than or equal to 36 hours after the disturbance or unusual occurrence, or discovery of the disturbance or unusual occurrence.	The responsible entity submitted the report as required in R3.1 more than 36 hours but less than or equal to 48 hours after the disturbance or unusual occurrence, or discovery of the disturbance or unusual occurrence.	The responsible entities submitted the report as required in R3.1 more than 48 hours but less than or equal to 72 hours after the disturbance or unusual occurrence, or discovery of the disturbance or unusual occurrence.	The responsible entities submitted the report as required in R3.1 more than 72- hours after the disturbance or unusual occurrence or discovery of the disturbance or unusual occurrence.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		report is required, a copy of the NERC Interconnection Reliability Operating Limit and Preliminary Disturbance Report form. Events that are not identified until some time after they occur shall be reported within 24 hours of being recognized.				
EOP-004-1	R3.2.	Applicable reporting forms are provided in Attachments 1-EOP-004 and 2-EOP-004.	N/A	N/A	N/A	N/A
EOP-004-1	R3.3.	Under certain adverse conditions, e.g., severe weather, it may not be possible to assess the damage caused by a disturbance and issue a written Interconnection Reliability Operating Limit and Preliminary Disturbance Report within 24 hours. In such cases, the affected Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, or Load-Serving Entity shall promptly notify its Regional Reliability Organization(s) and NERC, and verbally	N/A	N/A	N/A	The responsible entity did not provide its Regional Reliability Organization(s) and NERC with verbal notification or updates about a disturbance as specified in R3.3.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		provide as much information as is available at that time. The affected Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, or Load- Serving Entity shall then provide timely, periodic verbal updates until adequate information is available to issue a written Preliminary Disturbance Report.				
EOP-004-1	R3.4.	If, in the judgment of the Regional Reliability Organization, after consultation with the Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, or Load-Serving Entity in which a disturbance occurred, a final report is required, the affected Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, or Load-Serving Entity shall prepare this report within 60 days. As a minimum, the final report shall have a discussion of the events	The responsible entity submitted the final report no more than 30 days past the 60 day due date; or the final report was missing one of the three elements specified in R3.4.	The responsible entity submitted the final report between 31 days and 60 days inclusive past the 60 day due date. OR The final report was missing two of the three elements specified in R3.4.	The responsible entity submitted the final report between 61 days and 90 days inclusive past the 60 day due date	The responsible entity failed to submit the final report. OR The responsible entity submitted the final report 91 days or more past the 60 day due date OR The responsible entity submitted a final report that was missing all three of the elements specified in R3.4.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		and its cause, the conclusions reached, and recommendations to prevent recurrence of this type of event. The report shall be subject to Regional Reliability Organization approval.				
EOP-004-1	R4.	When a Bulk Electric System disturbance occurs, the Regional Reliability Organization shall make its representatives on the NERC Operating Committee and Disturbance Analysis Working Group available to the affected Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, or Load- Serving Entity immediately affected by the disturbance for the purpose of providing any needed assistance in the investigation and to assist in the preparation of a final report.	N/A	N/A	N/A	N/A
EOP-004-1	R5.	The Regional Reliability Organization shall track and review the status of all final report recommendations at least	N/A	N/A	N/A	N/A

Page 66 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		twice each year to ensure they are being acted upon in a timely manner. If any recommendation has not been acted on within two years, or if Regional Reliability Organization tracking and review indicates at any time that any recommendation is not being acted on with sufficient diligence, the Regional Reliability Organization shall notify the NERC Planning Committee and Operating Committee of the status of the recommendation(s) and the steps the Regional Reliability Organization has taken to accelerate implementation.				
EOP-005-1	R1.	Each Transmission Operator shall have a restoration plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shutdown of its system, including necessary operating instructions and procedures to cover emergency conditions, and the loss of vital	The Transmission Operator did not include one of the applicable elements listed in Attachment 1-EOP-005 in developing a restoration plan.	The Transmission Operator did not include two of the applicable elements listed in Attachment 1-EOP-005 in developing a restoration plan.	The Transmission Operator did not include three the applicable elements listed in Attachment 1-EOP-005 in developing a restoration plan.	The Transmission Operator did not include four or more of the applicable elements listed in Attachment 1-EOP- 005 in developing a restoration plan. OR The Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		telecommunications channels. Each Transmission Operator shall include the applicable elements listed in Attachment 1-EOP- 005 in developing a restoration plan.				Operator does not have a restoration plan.
EOP-005-1	R2.	Each Transmission Operator shall review and update its restoration plan at least annually and whenever it makes changes in the power system network, and shall correct deficiencies found during the simulated restoration exercises.	The Transmission Operator failed to review or update its restoration plan when it made changes in the power system network.	The Transmission Operator failed to review and update its restoration plan at least annually.	The Transmission Operator failed to review and update its restoration plan at least annually or whenever it made changes in the power system network, and failed to correct deficiencies found during the simulated restoration exercises.	The Transmission Operator failed to review and update its restoration plan at least annually and whenever it made changes in the power system network, and failed to correct deficiencies found during the simulated restoration exercises.
EOP-005-1	R3.	Each Transmission Operator shall develop restoration plans with a priority of restoring the integrity of the Interconnection.	N/A	N/A	N/A	The Transmission Operator's restoration plans failed to make restoration of the integrity of the Interconnection a priority.
EOP-005-1	R4.	Each Transmission Operator shall coordinate its restoration plans with the Generator Owners and Balancing Authorities within its area, its Reliability Coordinator, and	The Transmission Operator failed to coordinate its restoration plans with 5% or less of the entities identified in the requirement.	The Transmission Operator failed to coordinate its restoration plans with more than 5% up to (and including) 10% of the entities identified in the	The Transmission Operator failed to coordinate its restoration plans with more than 10% up to (and including) 15% of the entities identified in the	The Transmission Operator failed to coordinate its restoration plans with more than 15% of the entities identified in the requirement.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		neighboring Transmission Operators and Balancing Authorities.		requirement.	requirement.	
EOP-005-1	R5.	Each Transmission Operator and Balancing Authority shall periodically test its telecommunication facilities needed to implement the restoration plan.	N/A	N/A	N/A	The responsible entity failed to periodically test its telecommunication facilities needed to implement the restoration plan.
EOP-005-1	R6.	Each Transmission Operator and Balancing Authority shall train its operating personnel in the implementation of the restoration plan. Such training shall include simulated exercises, if practicable.	The Transmission Operator or Balancing Authority failed to train 5% or less of its operating personnel in the implementation of the restoration plan.	The Transmission Operator or Balancing Authority failed to train more than 5% up to (and including) 10 % of its operating personnel in the implementation of the restoration plan.	The Transmission Operator or Balancing Authority failed to train more than 10 % up to (and including) 15% of its operating personnel in the implementation of the restoration plan.	The Transmission Operator or Balancing Authority failed to train more than 15% of its operating personnel in the implementation of the restoration plan.
EOP-005-1	R7.	Each Transmission Operator and Balancing Authority shall verify the restoration procedure by actual testing or by simulation.	N/A	N/A	N/A	The Transmission Operator or Balancing Authority did not verify the restoration procedure by actual testing or by simulation.
EOP-005-1	R8.	Each Transmission Operator shall verify that the number, size, availability, and location of system blackstart generating units are sufficient to meet	N/A	N/A	N/A	The Transmission Operator failed to verify that the number, size, availability, and location of system blackstart generating

Page 69 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Regional Reliability Organization restoration plan requirements for the Transmission Operator's area.				units are sufficient to meet Regional Reliability Organization restoration plan requirements for the Transmission Operator's area.
EOP-005-1	R9.	The Transmission Operator shall document the Cranking Paths, including initial switching requirements, between each blackstart generating unit and the unit(s) to be started and shall provide this documentation for review by the Regional Reliability Organization upon request. Such documentation may include Cranking Path diagrams.	N/A	N/A	The Transmission Operator documented the Cranking Paths, including initial switching requirements, between each blackstart generating unit and the unit(s) to be started, but did not provide the documentation as requested by the Regional Reliability Organization.	The Transmission Operator failed to document the Cranking Paths, including initial switching requirements, between each blackstart generating unit and the unit(s) to be started.
EOP-005-1	R10.	The Transmission Operator shall demonstrate, through simulation or testing, that the blackstart generating units in its restoration plan can perform their intended functions as required in the regional restoration plan.	For less than 25% of the blackstart generating units in its restoration plan, the Transmission Operator failed to demonstrate, through simulation or testing, that these blackstart generating units can perform their intended functions as required	For 25% or more, but less than 50% of the blackstart generating units in its restoration plan, the Transmission Operator failed to demonstrate, through simulation or testing, that these blackstart generating units can perform their intended	For 50% or more, but less than 75% of the blackstart generating units in its restoration plan, the Transmission Operator failed to demonstrate, through simulation or testing, that these blackstart generating units can perform their intended	For 75% or more of the blackstart generating units in its restoration plan, the Transmission Operator failed to demonstrate, through simulation or testing, that these blackstart generating units can perform their intended functions as required

Page 70 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			in the regional restoration plan.	functions as required in the regional restoration plan.	functions as required in the regional restoration plan.	in the regional restoration plan.
EOP-005-1	R10.1.	The Transmission Operator shall perform this simulation or testing at least once every five years.	N/A	N/A	N/A	The Transmission Operator failed to perform the required simulation or testing at least once every five years.
EOP-005-1	R11.	Following a disturbance in which one or more areas of the Bulk Electric System become isolated or blacked out, the affected Transmission Operators and Balancing Authorities shall begin immediately to return the Bulk Electric System to normal.	The responsible entity immediately began to restore the Bulk Electric System to normal but failed to comply with one of the sub-requirements R11.1, R11.2, R11.3, and R11.4.	The responsible entity immediately began to restore the Bulk Electric System to normal but failed to comply with two of the sub-requirements R11.1, R11.2, R11.3, and R11.4.	The responsible entity immediately began to restore the Bulk Electric System to normal but failed to comply with three of the sub-requirements R11.1, R11.2, R11.3, and R11.4.	The responsible entity immediately began to restore the Bulk Electric System to normal but failed to comply with all of the sub-requirements R11.1, R11.2, R11.3, and R11.4. OR The responsible entity did not immediately begin to restore the Bulk Electric System to normal.
EOP-005-1	R11.1.	The affected Transmission Operators and Balancing Authorities shall work in conjunction with their Reliability Coordinator(s) to determine the extent and condition of the isolated area(s).	N/A	N/A	N/A	N/A
EOP-005-1	R11.2.	The affected Transmission Operators	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		and Balancing Authorities shall take the necessary actions to restore Bulk Electric System frequency to normal, including adjusting generation, placing additional generators on line, or load shedding.				
EOP-005-1	R11.3.	The affected Balancing Authorities, working with their Reliability Coordinator(s), shall immediately review the Interchange Schedules between those Balancing Authority Areas or fragments of those Balancing Authority Areas within the separated area and make adjustments as needed to facilitate the restoration. The affected Balancing Authorities shall make all attempts to maintain the adjusted Interchange Schedules, whether generation control is manual or automatic.	N/A	N/A	N/A	N/A
EOP-005-1	R11.4.	The affected Transmission Operators shall give high priority to restoration of off-site	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		power to nuclear stations.				
EOP-005-1	R11.5.	The affected Transmission Operators may resynchronize the isolated area(s) with the surrounding area(s) when the following conditions are met:	N/A	N/A	N/A	The Transmission Operator attempted to resynchronize an isolated area(s) with a surrounding area(s) when one (1) or more of the sub- requirements of R11.5 were not met.
EOP-005-1	R11.5.1.	Voltage, frequency, and phase angle permit.	N/A	N/A	N/A	N/A
EOP-005-1	R11.5.2.	The size of the area being reconnected and the capacity of the transmission lines effecting the reconnection and the number of synchronizing points across the system are considered.	N/A	N/A	N/A	N/A
EOP-005-1	R11.5.3.	Reliability Coordinator(s) and adjacent areas are notified and Reliability Coordinator approval is given.	N/A	N/A	N/A	N/A
EOP-005-1	R11.5.4.	Load is shed in neighboring areas, if required, to permit successful interconnected system restoration.	N/A	N/A	N/A	N/A
EOP-005-2	R1.	Each Transmission Operator shall have a restoration plan approved by its Reliability Coordinator. The	The Transmission Operator has an approved plan but failed to comply with	The Transmission Operator has an approved plan but failed to comply with	The Transmission Operator has an approved plan but failed to comply with	The Transmission Operator has an approved plan but failed to comply with

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		restoration plan shall allow for restoring the Transmission Operator's System following a Disturbance in which one or more areas of the Bulk Electric System (BES) shuts down and the use of Blackstart Resources is required to restore the shut down area to service, to a state whereby the choice of the next Load to be restored is not driven by the need to control frequency or voltage regardless of whether the Blackstart Resource is located within the Transmission Operator's System. The restoration plan shall include:	one of the sub- requirements within the requirement.	two of the sub- requirements within the requirement.	three of the sub- requirements within the requirement.	four or more of the sub-requirements within the requirement. OR The Transmission Operator does not have an approved restoration plan.
EOP-005-2	R1.1	Strategies for system restoration that are coordinated with the Reliability Coordinator's high level strategy for restoring the Interconnection.	N/A	N/A	N/A	N/A
EOP-005-2	R1.2	A description of how all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants,	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		including priority of restoration, will be fulfilled during System restoration.				
EOP-005-2	R1.3	Procedures for restoring interconnections with other Transmission Operators under the direction of the Reliability Coordinator.	N/A	N/A	N/A	N/A
EOP-005-2	R1.4	Identification of each Blackstart Resource and its characteristics including but not limited to the following: the name of the Blackstart Resource, location, megawatt and megavar capacity, and type of unit.	N/A	N/A	N/A	N/A
EOP-005-2	R1.5	Identification of Cranking Paths and initial switching requirements between each Blackstart Resource and the unit(s) to be started.	N/A	N/A	N/A	N/A
EOP-005-2	R1.6	Identification of acceptable operating voltage and frequency limits during restoration.	N/A	N/A	N/A	N/A
EOP-005-2	R1.7	Operating Processes to reestablish connections within the Transmission Operator's System for areas that have been restored and are prepared for reconnection.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-005-2	R1.8	Operating Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control.	N/A	N/A	N/A	N/A
EOP-005-2	R1.9	Operating Processes for transferring authority back to the Balancing Authority in accordance with the Reliability Coordinator's criteria.	N/A	N/A	N/A	N/A
EOP-005-2	R2.	Each Transmission Operator shall provide the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide one of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide two of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide three of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide four or more of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.
			OR	OR	OR	OR
			The Transmission Operator provided the information to all entities but was up to	The Transmission Operator provided the information to all entities but was more	The Transmission Operator provided the information to all entities but was more	The Transmission Operator provided the information to all

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			30 calendar days late in doing so.	than 30 and less than or equal to 60 calendar days late in doing so.	than 60 and less than or equal to 90 calendar days late in doing so.	entities but was more than 90 calendar days late in doing so.
EOP-005-2	R3.	Each Transmission Operator shall review its restoration plan and submit it to its Reliability Coordinator annually on a mutually agreed predetermined schedule.	The Transmission Operator submitted the reviewed restoration plan or confirmation of no change within 30 calendar days after the pre-determined schedule.	The Transmission Operator submitted the reviewed restoration plan or confirmation of no change more than 30 and less than or equal to 60 calendar days after the pre- determined schedule.	The Transmission Operator submitted the reviewed restoration plan or confirmation of no change more than 60 and less than or equal to 90 calendar days after the pre- determined schedule.	The Transmission Operator submitted the reviewed restoration plan or confirmation of no change more than 90 calendar days after the pre-determined schedule.
EOP-005-2	R3.1	If there are no changes to the previously submitted restoration plan, the Transmission Operator shall confirm annually on a predetermined schedule to its Reliability Coordinator that it has reviewed its restoration plan and no changes were necessary.	N/A	N/A	N/A	N/A
EOP-005-2	R4.	Each Transmission Operator shall update its restoration plan within 90 calendar days after identifying any unplanned permanent System modifications, or prior to implementing a planned BES modification, that would	The Transmission Operator failed to update and submit its restoration plan to the Reliability Coordinator within 90 calendar days of an unplanned change.	The Transmission Operator failed to update and submit its restoration plan to the Reliability Coordinator within more than 90 calendar days but less than 120 calendar days of an	The Transmission Operator has failed to update and submit its restoration plan to the Reliability Coordinator within more than 120 calendar days but less than 150 calendar days of unplanned	The Transmission Operator has failed to update and submit its restoration plan to the Reliability Coordinator within more than 150 calendar days of an unplanned change.

Page 77 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		change the implementation of its restoration plan.		unplanned change.	change.	OR
						The Transmission Operator failed to update and submit its restoration plan to the Reliability Coordinator prior to a planned BES modification.
EOP-005-2	R4.1	Each Transmission Operator shall submit its revised restoration plan to its Reliability Coordinator for approval within the same 90 calendar day period.	N/A	N/A	N/A	N/A
EOP-005-2	R5.	Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within its primary and backup control rooms so that it is available to all of its System Operators prior to its implementation date.	N/A	N/A	N/A	The Transmission Operator did not make the latest Reliability Coordinator approved restoration plan available in its primary and backup control rooms prior to its implementation date.
EOP-005-2	R6.	Each Transmission Operator shall verify through analysis of actual events, steady state and dynamic simulations, or testing that its restoration	The Transmission Operator performed the verification within the required timeframe but did not comply with one of	The Transmission Operator performed the verification within the required timeframe but did not comply with two of	The Transmission Operator performed the verification but did not complete it within the five calendar year period.	The Transmission Operator did not perform the verification or it took more than six calendar years to

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		plan accomplishes its intended function. This shall be completed every	the sub-requirements.	the sub-requirements.		complete the verification.
		five years at a minimum. Such analysis,				OR
		simulations or testing shall verify:				The Transmission Operator performed the verification within the required timeframe but did not comply with three of the sub-requirements.
EOP-005-2	R6.1	The capability of Blackstart Resources to meet the Real and Reactive Power requirements of the Cranking Paths and the dynamic capability to supply initial Loads.	N/A	N/A	N/A	N/A
EOP-005-2	R6.2	The location and magnitude of Loads required to control voltages and frequency within acceptable operating limits.	N/A	N/A	N/A	N/A
EOP-005-2	R6.3	The capability of generating resources required to control voltages and frequency within acceptable operating limits.	N/A	N/A	N/A	N/A
EOP-005-2	R7.	Following a Disturbance in which one or more areas of the BES shuts	N/A	N/A	N/A	The Transmission Operator did not implement its

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected the Transmission Operator shall utilize its restoration strategies to facilitate restoration.				restoration plan following a Disturbance in which Blackstart Resources were required for restoring the shut down area of the BES. OR If the restoration plan could not be executed as expected, the Transmission Operator did not utilize its restoration plan strategies to facilitate restoration.
EOP-005-2	R8.	Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, the Transmission Operator shall resynchronize area(s) with neighboring Transmission Operator area(s) only with the authorization of the Reliability Coordinator or in accordance with the established procedures of the Reliability	N/A	N/A	N/A	The Transmission Operator resynchronized without approval of the Reliability Coordinator or not in accordance with the established procedures of the Reliability Coordinator following a Disturbance in which Blackstart Resources were required for restoring the shut down area of the BES to service.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator.				
EOP-005-2	R9.	Each Transmission Operator shall have Blackstart Resource testing requirements to verify that each Blackstart Resource is capable of meeting the requirements of its restoration plan. These Blackstart Resource testing requirements shall include:	N/A	N/A	N/A	The Transmission Operator's Blackstart Resource testing requirements do not address one or more of the sub- requirements of Requirement R9.
EOP-005-2	R9.1	The frequency of testing such that each Blackstart Resource is tested at least once every three calendar years.	N/A	N/A	N/A	N/A
EOP-005-2	R9.2	A list of required tests including:	N/A	N/A	N/A	N/A
EOP-005-2	R9.2.1	The ability to start the unit when isolated with no support from the BES or when designed to remain energized without connection to the remainder of the System.	N/A	N/A	N/A	N/A
EOP-005-2	R9.2.2	The ability to energize a bus. If it is not possible to energize a bus during the test, the testing entity must affirm that the unit has the capability to energize a bus such as verifying that the breaker close coil relay can be	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		energized with the voltage and frequency monitor controls disconnected from the synchronizing circuits.				
EOP-005-2	R9.3	The minimum duration of each of the required tests.	N/A	N/A	N/A	N/A
EOP-005-2	R10.	Each Transmission Operator shall include within its operations training program, annual System restoration training for its System Operators to assure the proper execution of its restoration plan. This training program shall include training on the following:	The Transmission Operator's training does not address one of the sub- requirements of Requirement R10.	The Transmission Operator's training does not address two of the sub- requirements of Requirement R10.	The Transmission Operator's training does not address three or more of the sub- requirements of Requirement R10.	The Transmission Operator has not included System restoration training in its operations training program.
EOP-005-2	R10.1	System restoration plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.	N/A	N/A	N/A	N/A
EOP-005-2	R10.2	Restoration priorities.	N/A	N/A	N/A	N/A
EOP-005-2	R10.3	Building of cranking paths.	N/A	N/A	N/A	N/A
EOP-005-2	R10.4	Synchronizing (re energized sections of the System).	N/A	N/A	N/A	N/A
EOP-005-2	R11.	Each Transmission Operator, each applicable	The Transmission Operator, applicable	The Transmission Operator, applicable	The Transmission Operator, applicable	The Transmission Operator, applicable

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Owner, and each applicable Distribution Provider shall provide a minimum of two hours of System restoration training every two calendar years to their field switching personnel identified as performing unique tasks associated with the Transmission Operator's restoration plan that are outside of their normal tasks.	Transmission Owner, or applicable Distribution Provider trained less than 100% but not less than 90% of the personnel required by Requirement R11 within a two calendar year period.	Transmission Owner, or applicable Distribution Provider trained less than 90% but not less than 75% of the personnel required by Requirement R11 within a two calendar year period.	Transmission Owner, or applicable Distribution Provider trained less than 75% but not less than 50% of the personnel required by Requirement R11 within a two calendar year period.	Transmission Owner, or applicable Distribution Provider trained less than 50 % of the personnel required by Requirement R11 within a two calendar year period.
EOP-005-2	R12.	Each Transmission Operator shall participate in its Reliability Coordinator's restoration drills, exercises, or simulations as requested by its Reliability Coordinator.	N/A	N/A	N/A	The Transmission Operator has failed to comply with a request for their participation from the Reliability Coordinator.
EOP-005-2	R13.	Each Transmission Operator and each Generator Operator with a Blackstart Resource shall have written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the	N/A	The Transmission Operator and Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.	N/A	The Transmission Operator and Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon procedure or protocol.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Blackstart Resource testing requirements.				
EOP-005-2	R14.	Each Generator Operator with a Blackstart Resource shall have documented procedures for starting each Blackstart Resource and energizing a bus.	N/A	N/A	N/A	The Generator Operator does not have documented starting and bus energizing procedures for each Blackstart Resource.
EOP-005-2	R15.	Each Generator Operator with a Blackstart Resource shall notify its Transmission Operator of any known changes to the capabilities of that Blackstart Resource affecting the ability to meet the Transmission Operator's restoration plan within 24 hours following such change.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan within 24 hours but did make the notification within 48 hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan within 48 hours but did make the notification within 72 hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan within 72 hours but did make the notification within 96 hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan within 96 hours.
EOP-005-2	R16.	Each Generator Operator with a Blackstart Resource shall perform Blackstart Resource tests, and maintain records of such testing, in accordance with the testing requirements set by the Transmission Operator to verify that	The Generator Operator with a Blackstart Resource did not maintain testing records for one of the requirements for a Blackstart Resource. OR	The Generator Operator with a Blackstart Resource did not maintain testing records for two of the requirements for a Blackstart Resource. OR	The Generator Operator with a Blackstart Resource did not maintain testing records for three of the requirements for a Blackstart Resource. OR	The Generator Operator with a Blackstart Resource did not maintain testing records for a Blackstart Resource. OR The Generator

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Blackstart Resource can perform as specified in the restoration plan.	The Generator Operator with a Blackstart Resource did not supply the Blackstart Resource testing records as requested within 59 calendar days of the request.	The Generator Operator with a Blackstart Resource did not supply the Blackstart Resource testing records as requested for 60 days to 89 calendar days after the request.	The Generator Operator with a Blackstart Resource did not supply the Blackstart Resource testing records as requested for 90 to 119 calendar days after the request.	Operator with a Blackstart Resource did not supply the Blackstart Resource testing records as requested for 120 calendar days or more after the request.
EOP-005-2	R16.1	Testing records shall include at a minimum: name of the Blackstart Resource, unit tested, date of the test, duration of the test, time required to start the unit, an indication of any testing requirements not met under Requirement R9.	N/A	N/A	N/A	N/A
EOP-005-2	R16.2	Each Generator Operator shall provide the blackstart test results within 30 calendar days following a request from its Reliability Coordinator or Transmission Operator.	N/A	N/A	N/A	N/A
EOP-005-2	R17.	Each Generator Operator with a Blackstart Resource shall provide a minimum of two hours of training every two calendar years to each of its operating personnel responsible for the startup	The Generator Operator with a Blackstart Resource trained less than 100% but not less than 95% of the personnel required by Requirement R17	The Generator Operator with a Blackstart Resource trained less than 95% but not less 90% of the personnel required by Requirement R17 within a two calendar	The Generator Operator with a Blackstart Resource trained less than 90% but not less than 85% of the personnel required by Requirement R17	The Generator Operator with a Blackstart Resource trained less than 85% of the personnel required by Requirement R17 within a two calendar

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:	within a two calendar year period.	year period.	within a two calendar year period.	year period.
EOP-005-2	R17.1	System restoration plan including coordination with the Transmission Operator.	N/A	N/A	N/A	N/A
EOP-005-2	R17.2	The procedures documented in Requirement R14.	N/A	N/A	N/A	N/A
EOP-005-2	R18.	Each Generator Operator shall participate in the Reliability Coordinator's restoration drills, exercises, or simulations as requested by the Reliability Coordinator.	N/A	N/A	N/A	N/A
EOP-006-1	R1.	Each Reliability Coordinator shall be aware of the restoration plan of each Transmission Operator in its Reliability Coordinator Area in accordance with NERC and regional requirements.	The Reliability Coordinator is not aware of 5% or less of its Transmission Operators' restoration plans.	The Reliability Coordinator is not aware of more than 5% up to (and including) 10% of its Transmission Operators' restoration plans.	The Reliability Coordinator is not aware of more than 10% up to (and including) 15% of its Transmission Operators' restoration plans.	The Reliability Coordinator is not aware of more than 15% of its Transmission Operators' restoration plans.
EOP-006-1	R2.	The Reliability Coordinator shall monitor restoration progress and coordinate any needed assistance.	N/A	N/A	The Reliability Coordinator failed to monitor restoration progress or failed to coordinate assistance.	The Reliability Coordinator failed to monitor restoration progress and failed to coordinate assistance.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-006-1	R3.	The Reliability Coordinator shall have a Reliability Coordinator Area restoration plan that provides coordination between individual Transmission Operator restoration plans and that ensures reliability is maintained during system restoration events.	N/A	The Reliability Coordinator's Reliability Coordinator Area restoration plan did not provide coordination between less than 10% of its individual Transmission Operator restoration plans.	The Reliability Coordinator's Reliability Coordinator Area restoration plan did not provide coordination between 10% or more of the Transmission Operator restoration plans.	The Reliability Coordinator does not have a Reliability Coordinator Area restoration plan. OR The Reliability Coordinator's Reliability Coordinator Area restoration plan does not ensure reliability is maintained during system restoration events.
EOP-006-1	R4.	The Reliability Coordinator shall serve as the primary contact for disseminating information regarding restoration to neighboring Reliability Coordinators and Transmission Operators or Balancing Authorities not immediately involved in restoration.	N/A	N/A	N/A	The Reliability Coordinator failed to serve as primary contact for disseminating information regarding restoration in accordance with Requirement R4.
EOP-006-1	R5.	Reliability Coordinators shall approve, communicate, and coordinate the re- synchronizing of major system islands or synchronizing points so	N/A	N/A	N/A	The Reliability Coordinator failed to approve, communicate, and coordinate the re- synchronizing of major system islands

Page 87 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		as not to cause a Burden on adjacent Transmission Operator, Balancing Authority, or Reliability Coordinator Areas.				or synchronizing points as stated in Requirement R5.
EOP-006-1	R6.	The Reliability Coordinator shall take actions to restore normal operations once an operating emergency has been mitigated in accordance with its restoration plan.	N/A	N/A	N/A	The Reliability Coordinator failed to take actions to restore normal operations once an operating emergency was mitigated in accordance with its restoration plan.
EOP-006-2	R1.	Each Reliability Coordinator shall have a Reliability Coordinator Area restoration plan. The scope of the Reliability Coordinator's restoration plan starts when Blackstart Resources are utilized to re-energize a shut down area of the Bulk Electric System (BES), or separation has occurred between neighboring Reliability Coordinators, or an energized island has been formed on the BES within the Reliability Coordinator Area. The scope of the Reliability Coordinator's restoration plan ends when all of its	The Reliability Coordinator failed to include one sub- requirement of Requirement R1 within its restoration plan.	The Reliability Coordinator failed to include two sub- requirements of Requirement R1 within its restoration plan.	The Reliability Coordinator failed to include three of the sub-requirements of Requirement R1 within its restoration plan.	The Reliability Coordinator failed to include four or more of the sub- requirements within its restoration plan. OR The scope of the Reliability Coordinator's restoration plan does not cover the period described in Requirement R1. OR The Reliability Coordinator does not have a restoration

Page 88 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Operators are interconnected and it its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator Areas. The restoration plan shall include:				plan.
EOP-006-2	R1.1	A description of the high level strategy to be employed during restoration events for restoring the Interconnection including minimum criteria for meeting the objectives of the Reliability Coordinator's restoration plan.	N/A	N/A	N/A	N/A
EOP-006-2	R1.2	Operating Processes for restoring the Interconnection.	N/A	N/A	N/A	N/A
EOP-006-2	R1.3	Descriptions of the elements of coordination between individual Transmission Operator restoration plans.	N/A	N/A	N/A	N/A
EOP-006-2	R1.4	Descriptions of the elements of coordination of restoration plans with neighboring Reliability Coordinators.	N/A	N/A	N/A	N/A
EOP-006-2	R1.5	Criteria and conditions for reestablishing interconnections with	N/A	N/A	N/A	N/A

Page 89 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		other Transmission Operators within its Reliability Coordinator Area, with Transmission Operators in other Reliability Coordinator Areas, and with other Reliability Coordinators.				
EOP-006-2	R1.6	Reporting requirements for the entities within the Reliability Coordinator Area during a restoration event.	N/A	N/A	N/A	N/A
EOP-006-2	R1.7	Criteria for sharing information regarding restoration with neighboring Reliability Coordinators and with Transmission Operators and Balancing Authorities within its Reliability Coordinator Area.	N/A	N/A	N/A	N/A
EOP-006-2	R1.8	Identification of the Reliability Coordinator as the primary contact for disseminating information regarding restoration to neighboring Reliability Coordinators, and to Transmission Operators, and Balancing Authorities within its Reliability Coordinator Area.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-006-2	R1.9	Criteria for transferring operations and authority back to the Balancing Authority.	N/A	N/A	N/A	N/A
EOP-006-2	R2.	The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators and neighboring Reliability Coordinators within 30 calendar days of creation or revision.	The Reliability Coordinator distributed the most recent Reliability Coordinator Area restoration plan to the entities identified in Requirement R2 but was more than 30 calendar days late but less than 60 calendar days late. OR	The Reliability Coordinator distributed the most recent Reliability Coordinator Area restoration plan to the entities identified in Requirement R2 but was 60 calendar days or more late, but less than or equal to 70 calendar days late. OR	The Reliability Coordinator distributed the most recent Reliability Coordinator Area restoration plan to the entities identified in Requirement R2 but was 70 or more calendar days late but less than or equal to 80 calendar days late. OR	The Reliability Coordinator distributed the most recent Reliability Coordinator Area restoration plan to entities identified in Requirement R2 but was more than80 calendar days late. OR
			The Reliability Coordinator distributed the most recent Reliability Coordinator Area restoration plan to all but one of the entities identified in Requirement R2.	The Reliability Coordinator distributed the most recent Reliability Coordinator Area restoration plan to all but two of the entities identified in Requirement R2.	The Reliability Coordinator distributed the most recent Reliability Coordinator Area restoration plan to all but three of the entities identified in Requirement R2.	The Reliability Coordinator did not distribute the most recent Reliability Coordinator Area restoration plan to four or more of the entities identified in Requirement R2.
EOP-006-2	R3.		N/A	N/A	N/A	The Reliability Coordinator did not review its restoration plan within 13 calendar months of the last review.
EOP-006-2	R4.	Each Reliability	The Reliability	The Reliability	The Reliability	The Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator shall review their neighboring Reliability Coordinator's restoration plans.	Coordinator did not resolve identified conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within 30 calendar days of their discovery but did resolve conflicts within 60 calendar days of their discovery.	Coordinator did not resolve identified conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within 60 calendar days of their discovery but did resolve conflicts within 70 calendar days of their discovery.	Coordinator did not resolve identified conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within 70 calendar days of their discovery but did resolve conflicts within 80 calendar days of their discovery.	Coordinator did not review the submitted restoration plans from its neighboring Reliability Coordinators OR The Reliability Coordinator did not resolve identified conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within 80 calendar days of their discovery.
EOP-006-2	R4.1	If the Reliability Coordinator finds conflicts between its restoration plans and any of its neighbors, the conflicts shall be resolved in 30 calendar days.	N/A	N/A	N/A	N/A
EOP-006-2	R5.	Each Reliability Coordinator shall review the restoration plans required by EOP-005 of the Transmission Operators within its Reliability Coordinator Area.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators within 30	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators within 45	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators within 55	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators for more

Page 92 of 447

#### Standard Requirement **Text of Requirement** Lower VSL Severe VSL Moderate VSL High VSL Number Number calendar days of calendar days of calendar days of than 65 calendar days receipt but did review receipt but did review receipt but did review of receipt. and and and approve/disapprove approve/disapprove approve/disapprove OR the plans within 45 the plans within 55 the plans within 65 calendar days of calendar days of calendar days of The Reliability receipt. receipt. receipt. Coordinator failed to notify the OR OR OR Transmission Operator of its approval or The Reliability The Reliability The Reliability disapproval with Coordinator failed to Coordinator failed to Coordinator failed to notify the notify the stated reasons for notify the Transmission Transmission disapproval for more Transmission Operator of its Operator of its Operator of its than 65 calendar days approval or approval or approval or of receipt. disapproval with disapproval with disapproval with stated reasons for stated reasons for stated reasons for disapproval within 30 disapproval within 45 disapproval within 55 calendar days of calendar days of calendar days of receipt but did notify receipt, but did notify receipt but did notify the Transmission the Transmission the Transmission Operator of its Operator of its Operator of its approval or approval or approval or disapproval with disapproval with disapproval with reasons within 45 reasons within 55 reasons within 65 calendar days of calendar days of calendar days of receipt. receipt receipt. The Reliability EOP-006-2 R5.1 N/A N/A N/A N/A Coordinator shall determine whether the Transmission Operator's restoration plan is coordinated and compatible with the Reliability Coordinator's

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
EOP-006-2	R6.	restoration plan and other Transmission Operators' restoration plans within its Reliability Coordinator Area. The Reliability Coordinator shall approve or disapprove, with stated reasons, the Transmission Operator's submitted restoration plan within 30 calendar days following the receipt of the restoration plan from the Transmission Operator. Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within its primary and backup control rooms so that it is available to all of its System Operators prior to the implementation date.	The Reliability Coordinator did not make its latest restoration plan and the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area available to all of its System Operators in its primary and backup control rooms prior to the implementation date within 15 calendar days of the implementation date.	The Reliability Coordinator did not make its latest restoration plan and the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area available to all of its System Operators in its primary and backup control rooms within 20 calendar days of the implementation date.	The Reliability Coordinator did not make its latest restoration plan and the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area available to all of its System Operators in its primary and backup control rooms within 25 calendar days of the implementation date.	The Reliability Coordinator did not make its latest restoration plan and the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area available to all of its System Operators in its primary and backup control rooms for more than 25 calendar days after its implementation date.
EOP-006-2	R7.	Each Reliability Coordinator shall work	N/A	N/A	N/A	The Reliability Coordinator did not

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		with its affected Generator Operators, and Transmission Operators as well as neighboring Reliability Coordinators to monitor restoration progress, coordinate restoration, and take actions to restore the BES frequency within acceptable operating limits. If the restoration plan cannot be completed as expected the Reliability Coordinator shall utilize its restoration plan strategies to facilitate System restoration.				work with its affected Generator Operators and Transmission Operators as well as neighboring Reliability Coordinators to monitor restoration progress, coordinate restoration, and take actions to restore the BES frequency within acceptable operating limits.
EOP-006-2	R8.	The Reliability Coordinator shall coordinate or authorize resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization.	N/A	N/A	N/A	The Reliability Coordinator did not coordinate or determine whether or not to authorize resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators.
EOP-006-2	R9.	Each Reliability	N/A	N/A	N/A	The Reliability

Page **95** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator shall include within its operations training program, annual System restoration training for its System Operators to assure the proper execution of its restoration plan. This training program shall address the following:				Coordinator supplied annual System restoration training but did not address one or more of the sub-requirements. OR The Reliability Coordinator supplied the required System restoration training but it did not do so on or more frequently than an annual basis.
EOP-006-2	R9.1	The coordination role of the Reliability Coordinator.	N/A	N/A	N/A	N/A
EOP-006-2	R9.2	Reestablishing the Interconnection.	N/A	N/A	N/A	N/A
EOP-006-2	R10.	Each Reliability Coordinator shall conduct two System restoration drills, exercises, or simulations per calendar year, which shall include the Transmission Operators and Generator Operators as dictated by the particular scope of the drill, exercise, or simulation that is being conducted.	The Reliability Coordinator only held one restoration drill, exercise, or simulation during the calendar year.	The Reliability Coordinator did not request a Transmission Operator or Generator Operator identified in its restoration plan to participate in a drill, exercise, or simulation at least once every two calendar years.	N/A	The Reliability Coordinator held no restoration drills, exercises, or simulations during the calendar year.
EOP-006-2	R10.1	Each Reliability Coordinator shall request each Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator identified in its restoration plan and each Generator Operator identified in the Transmission Operators' restoration plans to participate in a drill, exercise, or simulation at least every two calendar years.				
EOP-008-0	R1.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have a plan to continue reliability operations in the event its control center becomes inoperable. The contingency plan must meet the following requirements:	The responsible entity's plan to continue reliability operations in the event its control center becomes inoperable failed to comply with one (1) of the sub- requirements (R1.1, R1.2, R1.3, R1.4, R1.5, R1.6, R1.7, or R1.8).	The responsible entity's plan to continue reliability operations in the event its control center becomes inoperable failed to comply with two (2) of the sub- requirements (R1.1, R1.2, R1.3, R1.4, R1.5, R1.6, R1.7, or R1.8).	The responsible entity's plan to continue reliability operations in the event its control center becomes inoperable failed to comply with three (3) or four (4) of the sub- requirements (R1.1, R1.2, R1.3, R1.4, R1.5, R1.6, R1.7, or R1.8).	The responsible entity's plan to continue reliability operations in the event its control center becomes inoperable failed to comply with more than four (4) of the sub-requirements (R1.1, R1.2, R1.3, R1.4, R1.5, R1.6, R1.7, or R1.8).
EOP-008-0	R1.1.	The contingency plan shall not rely on data or voice communication from the primary control facility to be viable.	N/A	N/A	N/A	N/A
EOP-008-0	R1.2.	The plan shall include procedures and responsibilities for providing basic tie line control and procedures and for maintaining the status of all inter-area	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		schedules, such that there is an hourly accounting of all schedules.				
EOP-008-0	R1.3.	The contingency plan must address monitoring and control of critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events. The plan shall list the critical facilities.	N/A	N/A	N/A	N/A
EOP-008-0	R1.4.	The plan shall include procedures and responsibilities for maintaining basic voice communication capabilities with other areas.	N/A	N/A	N/A	N/A
EOP-008-0	R1.5.	The plan shall include procedures and responsibilities for conducting periodic tests, at least annually, to ensure viability of the plan.	N/A	N/A	N/A	N/A
EOP-008-0	R1.6.	The plan shall include procedures and responsibilities for providing annual training to ensure that operating personnel are able to	N/A	N/A	N/A	N/A

Page 98 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		implement the contingency plans.				
EOP-008-0	R1.7.	The plan shall be reviewed and updated annually.	N/A	N/A	N/A	N/A
EOP-008-0	R1.8.	Interim provisions must be included if it is expected to take more than one hour to implement the contingency plan for loss of primary control facility.	N/A	N/A	N/A	N/A
EOP-009-0	R1.	The Generator Operator of each blackstart generating unit shall test the startup and operation of each system blackstart generating unit identified in the BCP as required in the Regional BCP (Reliability Standard EOP-007-0_R1). Testing records shall include the dates of the tests, the duration of the tests, and an indication of whether the tests met Regional BCP requirements.	The Generator Operator failed to test 5% or less of the required blackstart units. OR The Generator Operator's testing records for Requirement R1 are missing 5% or less of the required information.	The Generator Operator failed to test more than 5% up to (and including) 10% of the required blackstart units. OR The Generator Operator's testing records for Requirement R1 are missing 5% or more but less than 10% of the required information.	The Generator Operator failed to test more than 10% up to (and including) 15% of the required blackstart units. OR The Generator Operator's testing records for Requirement R1 are missing 10% or more but less than 15% of the required information.	The Generator Operator failed to test more than 15% of the required blackstart units. OR The Generator Operator's testing records for Requirement R1 are missing 15% or more of the required information.
EOP-009-0	R2.	The Generator Owner or Generator Operator shall provide documentation of the test results of the	N/A	N/A	N/A	The Generator Owner or Generator Operator did not provide the required blackstart

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		startup and operation of each blackstart generating unit to the Regional Reliability Organizations and upon request to NERC.				documentation to its Regional Reliability Organization or upon request to NERC.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
FAC-001-0	R1.	The Transmission Owner shall document, maintain, and publish facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Reliability Organization, subregional, Power Pool, and individual Transmission Owner planning criteria and facility connection requirements. The Transmission Owner's facility connection requirements shall address connection requirements for:	Not Applicable.	The Transmission Owner failed to do one of the following: Document or maintain or publish facility connection requirements as specified in the Requirement OR Failed to include one (1) of the components and specified in R1.1, R1.2 or R1.3.	The Transmission Owner failed to do one of the following: Document or maintain or publish its facility connection requirements as specified in the Requirement. OR Failed to include (2) of the components as specified in R1.1, R1.2 or R1.3 OR Failed to document or maintain or publish its facility connection requirements as specified in the Requirement <b>and</b> failed to include one (1) of the components as specified in R1.1,	The Transmission Owner did not develop facility connection requirements

Page 101 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					R1.2 or R1.3	
FAC-001-0	R1.1.	Generation facilities,	N/A	N/A	N/A	N/A
FAC-001-0	R1.2.	Transmission facilities, and	N/A	N/A	N/A	N/A
FAC-001-0	R1.3.	End-user facilities	N/A	N/A	N/A	N/A
FAC-001-0	R2.	The Transmission Owner's facility connection requirements shall address, but are not limited to, the following items:	The Transmission Owner's facility connection requirements failed to address one of the sub-requirements.	The Transmission Owner's facility connection requirements failed to address two of the sub-requirements.	The Transmission Owner's facility connection requirements failed to address three of the sub- requirements.	The Transmission Owner's facility connection requirements failed to address four or more of the sub- requirements. OR The Transmission Owner does not have facility connection
						requirements.
FAC-001-0	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.1.	Procedures for coordinated joint studies of new facilities and their impacts on the interconnected transmission systems.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.2.	Procedures for notification of new or modified facilities to others (those responsible for the reliability of the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		interconnected transmission systems) as soon as feasible.				
FAC-001-0	R2.1.3.	Voltage level and MW and MVAR capacity or demand at point of connection.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.4.	Breaker duty and surge protection.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.5.	System protection and coordination.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.6.	Metering and telecommunications.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.7.	Grounding and safety issues.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.8.	Insulation and insulation coordination.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.9.	Voltage, Reactive Power, and power factor control.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.10.	Power quality impacts.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.11.	Equipment Ratings.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.12.	Synchronizing of facilities.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.13.	Maintenance coordination.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.14.	Operational issues (abnormal frequency and voltages).	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.15.	Inspection requirements for existing or new facilities.	N/A	N/A	N/A	N/A
FAC-001-0	R2.1.16.	Communications and procedures during normal and emergency operating conditions.	N/A	N/A	N/A	N/A
FAC-001-0	R3.	The Transmission Owner shall	The responsible	The responsible	The responsible	The responsible

Page 103 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		maintain and update its facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Reliability Organization, and NERC on request (five business days).	entity made the requirements available more than five business days but less than or equal to 10 business days after a request.	entity made the requirements available more than 10 business days but less than or equal to 20 business days after a request.	entity made the requirements available more than 20 business days less than or equal to 30 business days after a request.	entity made the requirements available more than 30 business days after a request.
FAC-002-0	R1.	The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end- user facilities shall each coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority. The assessment shall include:	The responsible entity failed to include in its assessment one of the subcomponents (R1.1 to R1.5).	The responsible entity failed to include in its assessment two of the subcomponents (R1.1 to R1.5).	The responsible entity failed to include in its assessment three of the subcomponents (R1.1 to R1.5).	The responsible entity failed to include in its assessment four or more of the subcomponents (R1.1 to R1.5).
FAC-002-0	R1.1.	Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.	N/A	N/A	N/A	N/A
FAC-002-0	R1.2.	Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		requirements.				
FAC-002-0	R1.3.	Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.	N/A	N/A	N/A	N/A
FAC-002-0	R1.4.	Evidence that the assessment included steady-state, short- circuit, and dynamics studies as necessary to evaluate system performance in accordance with Reliability Standard TPL-001-0.	N/A	N/A	N/A	N/A
FAC-002-0	R1.5.	Documentation that the assessment included study assumptions, system performance, and alternatives considered, and jointly coordinated recommendations.	N/A	N/A	N/A	N/A
FAC-002-0	R2.	The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load- Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the	The responsible entity provided the documentation more than 30 calendar days but less than or equal to 40 calendar days after a request.	The responsible entity provided the documentation more than 40 calendar days but less than or equal to 50 calendar days after a request.	The responsible entity provided the documentation more than 50 calendar days but less than or equal to 60 calendar days after a request.	The responsible entity provided the documentation more than 60 calendar days after a request or was unable to provide the documentation for

Page 105 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		reliability impact of the new facilities and their connections on the interconnected transmission systems) for three years and shall provide the documentation to the Regional Reliability Organization(s) and NERC on request (within 30 calendar days).				the required three- year period.
FAC-003-1	R1.	The Transmission owner shall prepare, and keep current, a formal transmission vegetation management program (TVMP). The TVMP shall include the Transmission Owner's objectives, practices, approved procedures, and work Specifications. 1. ANSI A300, Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices, while not a requirement of this standard, is considered to be an industry best practice.	The responsible entity did not include and keep current one of the four required elements of its TVMP, as directed by the requirement.	The responsible entity did not include and keep current two of the four required elements of its TVMP, as directed by the requirement.	The responsible entity did not include and keep current three of the four required elements of its TVMP, as directed by the requirement.	The responsible entity did not include and keep current all required elements of the TVMP, as directed by the requirement.
FAC-003-1	R1.1.	The TVMP shall define a schedule for and the type (aerial, ground) of ROW vegetation inspections. This schedule should be flexible enough to adjust for changing conditions. The inspection schedule shall be based on the anticipated growth of vegetation and any other	N/A	N/A	The applicable entity TVMP did not define a schedule, as directed by the requirement, or the type of ROW vegetation inspections, as directed by the	The applicable entity TVMP did not define a schedule, as directed by the requirement, nor the type of ROW vegetation inspections, as directed by the

Page 106 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		environmental or operational factors that could impact the relationship of vegetation to the Transmission Owner's transmission lines.			requirement.	requirement.
FAC-003-1	R1.2.	The Transmission Owner, in the TVMP, shall identify and document clearances between vegetation and any overhead, ungrounded supply conductors, taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, and the effects of wind velocities on conductor sway. Specifically, the Transmission Owner shall establish clearances to be achieved at the time of vegetation management work identified herein as Clearance 1, and shall also establish and maintain a set of clearances identified herein as Clearance 2 to prevent flashover between vegetation and overhead ungrounded supply conductors.	N/A	N/A	N/A	The responsible entity, in its TVMP, failed to identify and document clearances between vegetation and any overhead, ungrounded supply conductors.ORThe responsible entity, in its TVMP, failed to take into consideration transmission line voltage, or the effects of ambient temperature on conductor sag under maximum design loading, or the effects of wind velocities on conductor sway.ORThe responsible entity, in its TVMP, failed to take into consideration transmission line voltage, or the effects of ambient temperature on conductor sag under maximum design loading, or the effects of wind velocities on conductor sway.ORThe responsible entity, in its TVMP, failed to establish Clearance 1 or Clearance 2 values.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
FAC-003-1	R1.2.1.	Clearance 1 — The Transmission Owner shall determine and document appropriate clearance distances to be achieved at the time of transmission vegetation management work based upon local conditions and the expected time frame in which the Transmission Owner plans to return for future vegetation management work. Local conditions may include, but are not limited to: operating voltage, appropriate vegetation management techniques, fire risk, reasonably anticipated tree and conductor movement, species types and growth rates, species failure characteristics, local climate and rainfall patterns, line terrain and elevation, location of the vegetation within the span, and worker approach distance requirements. Clearance 1 distances shall be greater than those defined by Clearance 2 below.	N/A	N/A	N/A	The responsible entity failed to determine and document an appropriate clearance distance to be achieved at the time of transmission vegetation management work taking into account local conditions and the expected time frame in which the responsible entity expects to return for future vegetation management work. OR The responsible entity documented a Clearance 1 value that was smaller than its Clearance 2 value.
FAC-003-1	R1.2.2.	Clearance 2 — The Transmission Owner shall determine and document specific radial clearances to be maintained between vegetation and conductors	N/A	N/A	N/A	The responsible entity failed to determine and document Clearance 2 values taking into account local

Page 108 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		under all rated electrical operating conditions. These minimum clearance distances are necessary to prevent flashover between vegetation and conductors and will vary due to such factors as altitude and operating voltage. These Transmission Owner-specific minimum clearance distances shall be no less than those set forth in the Institute of Electrical and Electronics Engineers (IEEE) Standard 516-2003 ( <i>Guide for</i> <i>Maintenance Methods on</i> <i>Energized Power Lines</i> ) and as specified in its Section 4.2.2.3, Minimum Air Insulation Distances without Tools in the Air Gap.				conditions and the expected time frame in which the responsible entity expects to return for future vegetation management work.
FAC-003-1	R1.2.2.1.	Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5, IEEE 516-2003, phase-to- ground distances, with appropriate altitude correction factors applied.	N/A	N/A	N/A	Where transmission system transient overvoltage factors were not known, clearances were not derived from Table 5, IEEE 516-2003, phase-to-ground distances, with appropriate altitude correction factors applied.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
FAC-003-1	R1.2.2.2.	Where transmission system transient overvoltage factors are known, clearances shall be derived from Table 7, IEEE 516-2003, phase-to-phase voltages, with appropriate altitude correction factors applied.	N/A	N/A	N/A	Where transmission system transient overvoltage factors are known, clearances were not derived from Table 7, IEEE 516-2003, phase-to-phase voltages, with appropriate altitude correction factors applied.
FAC-003-1	R1.3.	All personnel directly involved in the design and implementation of the TVMP shall hold appropriate qualifications and training, as defined by the Transmission Owner, to perform their duties.	For responsible entities directly involving fewer than 20 persons in the design and implementation of the TVMP, one of those persons did not hold appropriate qualifications and training to perform their duties. For responsible entities directly involving 20 or more persons in the design and implementation of the TVMP, 5% or less of those persons did not hold appropriate qualifications and training to perform	For responsible entities directly involving fewer than 20 persons in the design and implementation of the TVMP, two of those persons did not hold appropriate qualifications and training to perform their duties. For responsible entities directly involving 20 or more persons in the design and implementation of the TVMP, more than 5% up to (and including) 10% of those persons did not hold appropriate qualifications and training to perform	For responsible entities directly involving fewer than 20 persons in the design and implementation of the TVMP, three of those persons did not hold appropriate qualifications and training to perform their duties. For responsible entities directly involving 20 or more persons in the design and implementation of the TVMP, more than 10% up to (and including) 15% of those persons did not hold appropriate qualifications and training to perform	For responsible entities directly involving fewer than 20 persons in the design and implementation of the TVMP, more than three of those persons did not hold appropriate qualifications and training to perform their duties. For responsible entities directly involving 20 or more persons in the design and implementation of the TVMP, more than 15% of those persons did not hold appropriate qualifications and training to perform

Page 110 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			their duties.	their duties.	their duties.	their duties.
FAC-003-1	R1.4.	Each Transmission Owner shall develop mitigation measures to achieve sufficient clearances for the protection of the transmission facilities when it identifies locations on the ROW where the Transmission Owner is restricted from attaining the clearances specified in Requirement 1.2.1.	N/A	N/A	N/A	The responsible entity's TVMP does not include mitigation measures to achieve sufficient clearances where restrictions to the ROW are in effect.
FAC-003-1	R1.5.	Each Transmission Owner shall establish and document a process for the immediate communication of vegetation conditions that present an imminent threat of a transmission line outage. This is so that action (temporary reduction in line rating, switching line out of service, etc.) may be taken until the threat is relieved.	N/A	N/A	N/A	The responsible entity did not establish or did not document a process for the immediate communication of vegetation conditions that present an imminent threat of line outage, as directed by the requirement.
FAC-003-1	R2.	The Transmission Owner shall create and implement an annual plan for vegetation management work to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to adjust to	The responsible entity did not meet one of the three required elements (including in the annual plan a description of methods used for vegetation management, maintaining	The responsible entity did not meet two of the three required elements (including in the annual plan a description of methods used for vegetation management, maintaining	The responsible entity did not meet the three required elements (including in the annual plan a description of methods used for vegetation management, maintaining documentation of	The responsible entity does not have an annual plan for vegetation management. OR The responsible entity has not implemented the annual plan for vegetation

Page 111 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		changing conditions, taking into consideration anticipated growth of vegetation and all other environmental factors that may have an impact on the reliability of the transmission systems. Adjustments to the plan shall be documented as they occur. The plan should take into consideration the time required to obtain permissions or permits from landowners or regulatory authorities. Each Transmission Owner shall have systems and procedures for documenting and tracking the planned vegetation management work and ensuring that the vegetation management work was completed according to work specifications.	documentation of adjustments to the annual plan, or having systems and procedures for tracking work performed as part of the annual plan) specified in the requirement.	documentation of adjustments to the annual plan, or having systems and procedures for tracking work performed as part of the annual plan) specified in the requirement.	adjustments to the annual plan, or having systems and procedures for tracking work performed as part of the annual plan) specified in the requirement.	management.
FAC-003-1	R3.	The Transmission Owner shall report quarterly to its RRO, or the RRO's designee, sustained transmission line outages determined by the Transmission Owner to have been caused by vegetation.	The responsible entity failed to provide a quarterly outage report, but did not experience any reportable outages. OR The responsible entity provided a quarterly report, but failed to report in the manner specified by one or more of the	The responsible entity provided a quarterly report, but failed to include information required by R3.3.	The responsible entity provided a quarterly outage report, but failed to include a reportable Category 3 outage as described in R3.4.3.	The responsible entity experienced reportable outages but failed to provide a quarterly report. OR The responsible entity provided a quarterly outage report, but failed to include a reportable Category 1 (as described in R3.4.1)

Page 112 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			following subcomponents of R3: R3.1 or R3.2.			or Category 2 outage (as described in R3.4.2).
FAC-003-1	R3.1.	Multiple sustained outages on an individual line, if caused by the same vegetation, shall be reported as one outage regardless of the actual number of outages within a 24-hour period.	N/A	N/A	N/A	N/A
FAC-003-1	R3.2.	The Transmission Owner is not required to report to the RRO, or the RRO's designee, certain sustained transmission line outages caused by vegetation: (1) Vegetation- related outages that result from vegetation falling into lines from outside the ROW that result from natural disasters shall not be considered reportable (examples of disasters that could create non-reportable outages include, but are not limited to, earthquakes, fires, tornados, hurricanes, landslides, wind shear, major storms as defined either by the Transmission Owner or an applicable regulatory body, ice storms, and floods), and (2) Vegetation-related outages due to human or animal activity shall not be considered reportable	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		(examples of human or animal activity that could cause a non-reportable outage include, but are not limited to, logging, animal severing tree, vehicle contact with tree, arboricultural activities or horticultural or agricultural activities, or removal or digging of vegetation).				
FAC-003-1	R3.3.	The outage information provided by the Transmission Owner to the RRO, or the RRO's designee, shall include at a minimum: the name of the circuit(s) outaged, the date, time and duration of the outage; a description of the cause of the outage; other pertinent comments; and any countermeasures taken by the Transmission Owner.	N/A	N/A	N/A	N/A
FAC-003-1	R3.4.	An outage shall be categorized as one of the following:	N/A	N/A	N/A	N/A
FAC-003-1	R3.4.1.	Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW;	N/A	N/A	N/A	N/A
FAC-003-1	R3.4.2.	Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW;	N/A	N/A	N/A	N/A
FAC-003-1	R3.4.3.	Category 3 — Fall-ins:	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Outages caused by vegetation falling into lines from outside the ROW.				
FAC-003-1	R4.	The RRO shall report the outage information provided to it by Transmission Owner's, as required by Requirement 3, quarterly to NERC, as well as any actions taken by the RRO as a result of any of the reported outages.	N/A	N/A	N/A	N/A
FAC-008-1	R1.	The Transmission Owner and Generator Owner shall each document its current methodology used for developing Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities. The methodology shall include all of the following:	The responsible entity failed to include in their methodology one of the subcomponents of R1.3, (R1.3.1 to R1.3.5).	The responsible entity failed to include in their methodology two of the subcomponents of R1.3, (R1.3.1 to R1.3.5).	The responsible entity rating methodology did not address either of the sub-components of R1.2 (R1.2.1 or R1.2.2). OR The responsible entity failed to include in their methodology three of the subcomponents of R1.3, (R1.3.1 to R1.3.5).	The Transmission Owner or Generation Owner does not have a documented Facility Ratings Methodology for use in developing facility ratings. The responsible entity's rating methodology failed to recognize a facility's rating based on the most limiting component rating as required in R1.1. OR The responsible entity rating methodology did not address the components of R1.2, (R1.2.1 and R1.2.2). OR

Page 115 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						entity failed to include in their methodology four or more of the subcomponents of R1.3, (R1.3.1 to R1.3.5).
FAC-008-1	R1.1.	A statement that a Facility Rating shall equal the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.	N/A	N/A	N/A	N/A
FAC-008-1	R1.2.	The method by which the Rating (of major BES equipment that comprises a Facility) is determined.	N/A	N/A	N/A	N/A
FAC-008-1	R1.2.1.	The scope of equipment addressed shall include, but not be limited to, generators, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.	N/A	N/A	N/A	N/A
FAC-008-1	R1.2.2.	The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.	N/A	N/A	N/A	N/A
FAC-008-1	R1.3.	Consideration of the following:	N/A	N/A	N/A	N/A
FAC-008-1	R1.3.1.	Ratings provided by equipment manufacturers.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
FAC-008-1	R1.3.2.	Design criteria (e.g., including applicable references to industry Rating practices such as manufacturer's warranty, IEEE, ANSI or other standards).	N/A	N/A	N/A	N/A
FAC-008-1	R1.3.3.	Ambient conditions.	N/A	N/A	N/A	
FAC-008-1	R1.3.4.	Operating limitations.	N/A	N/A	N/A	
FAC-008-1	R1.3.5.	Other assumptions.	N/A	N/A	N/A	
FAC-008-1	R2.	The Transmission Owner and Generator Owner shall each make its Facility Ratings Methodology available for inspection and technical review by those Reliability Coordinators, Transmission Operators, Transmission Planners, and Planning Authorities that have responsibility for the area in which the associated Facilities are located, within 15 business days of receipt of a request.	The responsible entity made the Facility Ratings Methodology available within more than 15 business days but less than or equal to 25 business days after a request.	The responsible entity made the Facility Ratings Methodology available within more than 25 business days but less than or equal to 35 business days after a request.	The responsible entity made the Facility Ratings Methodology available within more than 35 business days but less than or equal to 45 business days after a request.	
FAC-008-1	R3.	If a Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Authority provides written comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings Methodology, the Transmission Owner or Generator Owner shall	The responsible entity provided a response in more than 45 calendar days but less than or equal to 60 calendar days after a request.	The responsible entity provided a response in more than 60 calendar days but less than or equal to 70 calendar days after a request. OR The responsible entity provided a	The responsible entity provided a response in more than 70 calendar days but less than or equal to 80 calendar days after a request. OR The responsible entity provided a	

Page 117 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		provide a written response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the Facility Ratings Methodology and, if no change will be made to that Facility Ratings Methodology, the reason why.		response within 45 calendar days, and the response indicated that a change will not be made to the Facility Ratings Methodology but did not indicate why no change will be made.	response within 45 calendar days, but the response did not indicate whether a change will be made to the Facility Ratings Methodology.	
FAC-009-1	R1.	The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings Methodology for 5% or less of its solely owned and jointly owned Facilities.	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings Methodology for more than 5% up to (and including) 10% of its solely owned and jointly owned Facilities.	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings Methodology for more than 10% up to (and including) 15% of its solely owned and jointly owned Facilities.	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings Methodology for more than 15% of its solely owned and jointly owned Facilities.
FAC-009-1	R2.	The Transmission Owner and Generator Owner shall each provide Facility Ratings for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities to its associated Reliability Coordinator(s), Planning Authority(ies), Transmission	The responsible entity provided its Facility Ratings to the requesting entity but missed meeting the schedule by up to 15 calendar days.	The responsible entity provided its Facility Ratings to the requesting entity but missed meeting the schedule by more than 15 calendar days but less than or equal to 25 calendar days.	The responsible entity provided its Facility Ratings to the requesting entity but missed meeting the schedule by more than 25 calendar days but less than or equal to 35 calendar days.	The responsible entity provided its Facility Ratings to the requesting entity but missed meeting the schedule by more than 35 calendar days. OR The responsible

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.				entity did not provide its Facility Ratings to the requesting entity.
FAC-010- 2.1	R1	The Planning Authority shall have a documented SOL Methodology for use in developing SOLs within its Planning Authority Area. This SOL Methodology shall:	N/A	The Planning Authority has a documented SOL Methodology for use in developing SOLs within its Planning Authority Area, but it does not address R1.2.	The Planning Authority has a documented SOL Methodology for use in developing SOLs within its Planning Authority Area, but it does not address R1.3.	The Planning Authority has a documented SOL Methodology for use in developing SOLs within its Planning Authority Area, but it does not address R1.1. OR The Planning Authority has no documented SOL Methodology for use in developing SOLs within its Planning Authority Area.
FAC-010- 2.1	R1.1.	Be applicable for developing SOLs used in the planning horizon.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R1.2.	State that SOLs shall not exceed associated Facility Ratings.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R1.3.	Include a description of how to identify the subset of SOLs that qualify as IROLs.	N/A	N/A	N/A	N/A
FAC-010-	R2.	The Planning Authority's	The Planning	The Planning	The Planning	The Planning

Page 119 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
2.1		SOL Methodology shall include a requirement that SOLs provide BES performance consistent with the following	Authority's SOL Methodology is missing one requirement as described in R2.1, R2.2, R2.3, R2.4, R2.5, or R2.6.	Authority's SOL Methodology is missing two requirements as described in R2.1, R2.2, R2.3, R2.4, R2.5, or R2.6.	Authority's SOL Methodology is missing three requirements as described in R2.1, R2.2, R2.3, R2.4, R2.5, or R2.6.	Authority's SOL Methodology is missing four or more requirements as described in R2.1, R2.2, R2.3, R2.4, R2.5, or R2.6.
FAC-010- 2.1	R2.1.	In the pre-contingency state and with all Facilities in service, the BES shall demonstrate transient, dynamic and voltage stability; all Facilities shall be within their Facility Ratings and within their thermal, voltage and stability limits. In the determination of SOLs, the BES condition used shall reflect expected system conditions and shall reflect changes to system topology such as Facility outages.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R2.2.	Following the single Contingencies identified in Requirement 2.2.1 through Requirement 2.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	N/A	N/A	N/A	N/A
FAC-010-	R2.2.1.	Single line to ground or three-	N/A	N/A	N/A	N/A

Page 120 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
2.1		phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device.				
FAC-010- 2.1	R2.2.2.	Loss of any generator, line, transformer, or shunt device without a Fault.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R2.2.3.	Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R2.3.	Starting with all Facilities in service, the system's response to a single Contingency, may include any of the following:	N/A	N/A	N/A .	N/A
FAC-010- 2.1	R2.3.1.	Planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R2.3.2.	System reconfiguration through manual or automatic control or protection actions.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R2.4.	To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission system topology.				
FAC-010- 2.1	R2.5.	Starting with all Facilities in service and following any of the multiple Contingencies identified in Reliability Standard TPL-003 the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R2.6.	In determining the system's response to any of the multiple Contingencies, identified in Reliability Standard TPL-003, in addition to the actions identified in R2.3.1 and R2.3.2, the following shall be acceptable:	N/A	N/A	N/A	N/A
FAC-010- 2.1	R2.6.1.	Planned or controlled interruption of electric supply to customers (load shedding), the planned removal from service of certain generators, and/or the curtailment of contracted Firm (non- recallable reserved) electric power Transfers.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R3.	The Planning Authority's methodology for determining SOLs, shall include, as a	The Planning Authority's SOL Methodology	The Planning Authority's SOL Methodology	The Planning Authority's SOL Methodology	The Planning Authority's SOL Methodology is

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		minimum, a description of the following, along with any reliability margins applied for each:	includes a description for all but one of the following: R3.1 through R3.6.	includes a description for all but two of the following: R3.1 through R3.6.	includes a description for all but three of the following: R3.1 through R3.6.	missing a description of four or more of the following: R3.1 through R3.6.
FAC-010- 2.1	R3.1.	Study model (must include at least the entire Planning Authority Area as well as the critical modeling details from other Planning Authority Areas that would impact the Facility or Facilities under study).	N/A	N/A	N/A	N/A
FAC-010- 2.1	R3.2.	Selection of applicable Contingencies.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R3.3	Level of detail of system models used to determine SOLs.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R3.4.	Allowed uses of Special Protection Systems or Remedial Action Plans.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R3.5.	Anticipated transmission system configuration, generation dispatch and Load level.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R3.6.	Criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL T <sub>v</sub> .	N/A	N/A	N/A	N/A
FAC-010- 2.1	R4.	The Planning Authority shall issue its SOL Methodology,	The Planning Authority failed to	The Planning Authority failed to	The Planning Authority failed to	The Planning Authority failed to

Page 123 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		and any change to that methodology, to all of the following prior to the effectiveness of the change:	issue its SOL Methodology and/or one or more changes to that methodology to one of the required entities specified in R4.1, R4.2, and R4.3.	issue its SOL Methodology and/or one or more changes to that methodology to two of the required entities specified in R4.1, R4.2, and R4.3.	issue its SOL Methodology and/or one or more changes to that methodology to three of the required entities specified in R4.1, R4.2, and R4.3.	issue its SOL Methodology and/or one or more changes to that methodology to four or more of the required entities specified in R4.1, R4.2, and R4.3.
			For a change in methodology, the changed methodology was not provided to one or more of the required entities before the effectiveness of the change, but was provided to all the required entities no more than 30 calendar days after the effectiveness of the change.	For a change in methodology, the changed methodology was provided to one or more of the required entities more than 30 calendar days after the effectiveness of the change, but less than or equal to 40 days after the effectiveness of the change.	For a change in methodology, the changed methodology was provided to one or more of required entities more than 40 calendar days after the effectiveness of the change, but less than or equal to 50 days after the effectiveness of the change.	For a change in methodology, the changed methodology was provided to four or more of the required entities more than 50 calendar days after the effectiveness of the change.
FAC-010- 2.1	R4.1.	Each adjacent Planning Authority and each Planning Authority that indicated it has a reliability-related need for the methodology.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R4.2.	Each Reliability Coordinator and Transmission Operator that operates any portion of the Planning Authority's	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Planning Authority Area.				
FAC-010- 2.1	R4.3.	Each Transmission Planner that works in the Planning Authority's Planning Authority Area.	N/A	N/A	N/A	N/A
FAC-010- 2.1	R5.	If a recipient of the SOL Methodology provides documented technical comments on the methodology, the Planning Authority shall provide a documented response to that recipient within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the SOL Methodology and, if no change will be made to that SOL Methodology, the reason why.	The Planning Authority received documented technical comments on its SOL Methodology and provided a complete response in a time period that was longer than 45 calendar days but less than 60 calendar days.	The Planning Authority received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 60 calendar days or longer but less than 70 calendar days.	The Planning Authority received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 70 calendar days or longer but less than 80 calendar days. OR The Planning Authority's response to documented technical comments on its SOL Methodology indicated that a change will not be made, but did not include an explanation of why the change will not be made.	The Planning Authority received documented technical comments on its SOL Methodology and failed to provide a complete response in 80 or more calendar days. OR The Planning Authority's response to documented technical comments on its SOL Methodology did not indicate whether a change will be made to the SOL Methodology.
FAC-011-2	R1.	The Reliability Coordinator	N/A	The Reliability	The Reliability	The Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		shall have a documented methodology for use in developing SOLs (SOL Methodology) within its Reliability Coordinator Area. This SOL Methodology shall:		Coordinator has a documented SOL Methodology for use in developing SOLs within its Reliability Coordinator Area, but it does not address R1.2.	Coordinator has a documented SOL Methodology for use in developing SOLs within its Reliability Coordinator Area, but it does not address R1.3.	Coordinator has a documented SOL Methodology for use in developing SOLs within its Reliability Coordinator Area, but it does not address R1.1. OR The Reliability Coordinator has no documented SOL Methodology for use in developing SOLs within its Reliability Coordinator Area.
FAC-011-2	R1.1.	Be applicable for developing SOLs used in the operations horizon.	N/A	N/A	N/A	N/A
FAC-011-2	R1.2.	State that SOLs shall not exceed associated Facility Ratings.	N/A	N/A	N/A	N/A
FAC-011-2	R1.3	Include a description of how to identify the subset of SOLs that qualify as IROLs	N/A	N/A	N/A	N/A
FAC-011-2	R2.	The Reliability Coordinator's SOL Methodology shall include a requirement that SOLs provide BES performance consistent with the following:	The Reliability Coordinator's SOL Methodology is missing one requirement as described in R2.1, R2.2, R2.3, or R2.4.	The Reliability Coordinator's SOL Methodology is missing two requirements as described in R2.1, R2.2, R2.3, or R2.4.	The Reliability Coordinator's SOL Methodology is missing three requirements as described in R2.1, R2.2, R2.3, or R2.4.	The Reliability Coordinator's SOL Methodology is missing four or more requirements as described in R2.1, R2.2, R2.3, or R2.4.

Page 126 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
FAC-011-2	R2.1.	In the pre-contingency state, the BES shall demonstrate transient, dynamic and voltage stability; all Facilities shall be within their Facility Ratings and within their thermal, voltage and stability limits. In the determination of SOLs, the BES condition used shall reflect current or expected system conditions and shall reflect changes to system topology such as Facility outages.	N/A	N/A	N/A	N/A
FAC-011-2	R2.2.	Following the single Contingencies1 identified in Requirement 2.2.1 through Requirement 2.2.3, the system shall demonstrate transient, dynamic and voltage stability; all Facilities shall be operating within their Facility Ratings and within their thermal, voltage and stability limits; and Cascading or uncontrolled separation shall not occur.	N/A	N/A	N/A	N/A
FAC-011-2	R2.2.1.	Single line to ground or 3- phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device	N/A	N/A	N/A	N/A
FAC-011-2	R2.2.2.	Loss of any generator, line, transformer, or shunt device	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		without a Fault.				
FAC-011-2	R2.2.3.	Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.	N/A	N/A	N/A	N/A
FAC-011-2	R2.3.	In determining the system's response to a single Contingency, the following shall be acceptable:	N/A	N/A	N/A	N/A
FAC-011-2	R2.3.1.	Planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area.	N/A	N/A	N/A	N/A
FAC-011-2	R2.3.2.	Interruption of other network customers, (a) only if the system has already been adjusted, or is being adjusted, following at least one prior outage, or (b) if the real-time operating conditions are more adverse than anticipated in the corresponding studies	N/A	N/A	N/A	N/A
FAC-011-2	R2.3.3.	System reconfiguration through manual or automatic control or protection actions.	N/A	N/A	N/A	N/A
FAC-011-2	R2.4.	To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission system, and the transmission system topology.				
FAC-011-2	R3.	The Reliability Coordinator's methodology for determining SOLs, shall include, as a minimum, a description of the following, along with any reliability margins applied for each:	The Reliability Coordinator's SOL Methodology includes a description for all but one of the following: R3.1 through R3.7.	The Reliability Coordinator's SOL Methodology includes a description for all but two of the following: R3.1 through R3.7.	The Reliability Coordinator's SOL Methodology includes a description for all but three of the following: R3.1 through R3.7.	The Reliability Coordinator's SOL Methodology is missing a description of three four or more of the following: R3.1 through R3.7.
FAC-011-2	R3.1.	Study model (must include at least the entire Reliability Coordinator Area as well as the critical modeling details from other Reliability Coordinator Areas that would impact the Facility or Facilities under study.)	N/A	N/A	N/A	N/A
FAC-011-2	R3.2.	Selection of applicable Contingencies	N/A	N/A	N/A	N/A
FAC-011-2	R3.3.	A process for determining which of the stability limits associated with the list of multiple contingencies (provided by the Planning Authority in accordance with FAC-014 Requirement 6) are applicable for use in the operating horizon given the actual or expected system conditions.	N/A	N/A	N/A	N/A
FAC-011-2	R3.3.1.	This process shall address the need to modify these limits, to modify the list of limits, and	N/A	N/A	N/A	N/A

Page 129 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		to modify the list of associated multiple contingencies				
FAC-011-2	R3.4.	Level of detail of system models used to determine SOLs.	N/A	N/A	N/A	N/A
FAC-011-2	R3.5.	Allowed uses of Special Protection Systems or Remedial Action Plans.	N/A	N/A	N/A	N/A
FAC-011-2	R3.6.	Not applicable.	N/A	N/A	N/A	N/A
FAC-011-2	R3.7.	Criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL T <sub>v</sub> .	N/A	N/A	N/A	N/A
FAC-011-2	R4	The Reliability Coordinator shall issue its SOL Methodology and any changes to that methodology, prior to the effectiveness of the Methodology or of a change to the Methodology, to all of the following:	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to one of the required entities specified in R4.1, R4.2, and R4.3.	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to two of the required entities specified in R4.1, R4.2, and R4.3.	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to three of the required entities specified in R4.1, R4.2, and R4.3.	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to four or more of the required entities specified in R4.1, R4.2, and R4.3.
			OR	OR	OR	OR For a change in
			For a change in methodology, the changed methodology was not provided to one or	For a change in methodology, the changed methodology was provided to one or	For a change in methodology, the changed methodology was provided to one or	methodology, the changed methodology was provided to four or more of the required

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			more of the required entities before the effectiveness of the change, but was provided to all the required entities no more than 30 calendar days after the effectiveness of the change.	more of the required entities more than 30 calendar days after the effectiveness of the change, but less than or equal to 40 days after the effectiveness of the change.	more of required entities more than 40 calendar days after the effectiveness of the change, but less than or equal to 50 days after the effectiveness of the change.	entities more than 50 calendar days after the effectiveness of the change.
FAC-011-2	R4.1.	Each adjacent Reliability Coordinator and each Reliability Coordinator that indicated it has a reliability- related need for the methodology.	N/A	N/A	N/A	N/A
FAC-011-2	R4.2.	Each Planning Authority and Transmission Planner that models any portion of the Reliability Coordinator's Reliability Coordinator Area.	N/A	N/A	N/A	N/A
FAC-011-2	R4.3.	Each Transmission Operator that operates in the Reliability Coordinator Area.	N/A	N/A	N/A	N/A
FAC-011-2	R5.	If a recipient of the SOL Methodology provides documented technical comments on the methodology, the Reliability Coordinator shall provide a documented response to that recipient within 45 calendar days of receipt of those comments. The response shall	The Reliability Coordinator received documented technical comments on its SOL Methodology and provided a complete response in a time period that was longer than 45	The Reliability Coordinator received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 60 calendar days or	The Reliability Coordinator received documented technical comments on its SOL Methodology and provided a complete response in a time period that was 70 calendar days or	The Reliability Coordinator received documented technical comments on its SOL Methodology and failed to provide a complete response in less than 80 calendar days.

Page 131 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		indicate whether a change will be made to the SOL Methodology and, if no change will be made to that SOL Methodology, the reason why.	calendar days but less than 60 calendar days.	longer but less than 70 calendar days.	longer but less than 80 calendar days. OR The Reliability Coordinator's response to documented technical comments on its SOL Methodology indicated that a change will not be made, but did not include an explanation of why the change will not be made.	OR The Reliability Coordinator's response to documented technical comments on its SOL Methodology did not indicate whether a change will be made to the SOL Methodology.
FAC-013-1	R1.	The Reliability Coordinator and Planning Authority shall each establish a set of inter- regional and intra-regional Transfer Capabilities that is consistent with its current Transfer Capability Methodology.	The responsible entity has established a set of Transfer Capabilities, but 5% or less of all Transfer Capabilities required to be established, are inconsistent with the current Transfer Capability Methodology.	The responsible entity has established a set of Transfer Capabilities, but more than 5% up to (and including) 10% of all Transfer Capabilities required to be established, are inconsistent with the current Transfer Capability Methodology.	The responsible entity has established a set of Transfer Capabilities, but more than 10% up to (and including) 15% of all Transfer Capabilities required to be established, are inconsistent with the current Transfer Capability Methodology.	The responsible entity has established a set of Transfer Capabilities, but more than 15% of those Transfer Capabilities are not consistent with the current Transfer Capability Methodology OR The responsible entity has not established a set of Transfer

Violation	Severity I	Level	Matrix	(FAC)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Capabilities.
FAC-013-1	R2.	The responsible entity failed to provide Transfer Capabilities to more than 5% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 5% up to (and including) 10% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 10% up to (and including) 15% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 15% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 5% of the required entities.
FAC-013-1	R2.1.	The Reliability Coordinator shall provide its Transfer Capabilities to its associated Regional Reliability Organization(s), to its adjacent Reliability Coordinators, and to the Transmission Operators, Transmission Service Providers and Planning Authorities that work in its Reliability Coordinator Area.	The responsible entity failed to provide Transfer Capabilities to 5% or less of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 5% up to (and including) 10% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 10% up to (and including) 15% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 15% of the required entities.
FAC-013-1	R2.2.	The Planning Authority shall provide its Transfer Capabilities to its associated Reliability Coordinator(s) and Regional Reliability Organization(s), and to the Transmission Planners and Transmission Service Provider(s) that work in its Planning Authority Area.	The responsible entity failed to provide Transfer Capabilities 5% or less of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 5% up to (and including) 10% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 10% up to (and including) 15% of the required entities.	The responsible entity failed to provide Transfer Capabilities to more than 15% of the required entities.
FAC-013-1	R2.1	The Reliability Coordinator shall provide its Transfer Capabilities to its associated Regional Reliability Organization(s), to its adjacent Reliability Coordinators, and to the Transmission Operators,	N/A	N/A	N/A	N/A

Page 133 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Service Providers and Planning Authorities that work in its Reliability Coordinator Area.				
FAC-013-1	R2.2	The Planning Authority shall provide its Transfer Capabilities to its associated Reliability Coordinator(s) and Regional Reliability Organization(s), and to the Transmission Planners and Transmission Service Provider(s) that work in its Planning Authority Area.	N/A	N/A	N/A	N/A
FAC-014-2	R1.	The Reliability Coordinator shall ensure that SOLs, including Interconnection Reliability Operating Limits (IROLs), for its Reliability Coordinator Area are established and that the SOLs (including Interconnection Reliability Operating Limits) are consistent with its SOL Methodology.	The Reliability Coordinator ensured that there are SOLs established for the Reliability Coordinator area, but 5% or less were inconsistent with its SOL Methodology.	The Reliability Coordinator ensured that there are SOLs established for the Reliability Coordinator area, but more than 5% up to (and including) 10% were inconsistent with its SOL Methodology.	The Reliability Coordinator ensured that there are SOLs established for the Reliability Coordinator area, but more than 10% up to (and including) 15% were inconsistent with its SOL Methodology.	The Reliability Coordinator ensured that there are SOLs established for the Reliability Coordinator area, but more than 15% were inconsistent with its SOL Methodology. OR The Reliability Coordinator did not ensure that SOLs, including Interconnection Operating Limits (IROLs), were established for its Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Coordinator area.
FAC-014-2	R2.	The Transmission Operator shall establish SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator Area that are consistent with its Reliability Coordinator's SOL Methodology	The Transmission Operator established SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator area, but 5% or less were inconsistent with its Reliability Coordinator's SOL Methodology.	The Transmission Operator established SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator area, but more than 5% up to (and including) 10% were inconsistent with its Reliability Coordinator's SOL Methodology.	The Transmission Operator established SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator area, but more than 10% up to (and including) 15% were inconsistent with its Reliability Coordinator's SOL Methodology.	The Transmission Operator established SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator area, but more than 15% were inconsistent with its Reliability Coordinator's SOL Methodology. OR The Transmission Operator did not establish SOLs for its portion of the Reliability Coordinator area.
FAC-014-2	R3.	The Planning Authority shall establish SOLs, including IROLs, for its Planning Authority Area that are consistent with its SOL Methodology	The Planning Authority established SOLs for the Planning Authority Area, but 5% or less were inconsistent with its SOL Methodology.	The Planning Authority established SOLs for the Planning Authority Area, but more than 5% up to (and including) 10% were inconsistent with its	The Planning Authority established SOLs for the Planning Authority Area, but more than 10% up to (and including) 15% were inconsistent with its	The Planning Authority established SOLs for the Planning Authority Area, but more than 15% were inconsistent with its SOL Methodology.

Page 135 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				SOL Methodology.	SOL Methodology.	OR
						The Planning Authority did not ensure that SOLs, including Interconnection Operating Limits (IROLs), were established for its Planning Authority Area.
FAC-014-2	R4.	The Transmission Planner shall establish SOLs, including IROLs, for its Transmission Planning Area that are consistent with its Planning Authority's SOL Methodology.	The Transmission Planner established SOLs for the Transmission Planning Area, but 5% or less were inconsistent with its Planning Authority's SOL Methodology.	The Transmission Planner established SOLs for the Transmission Planning Area, but more than 5% up to (and including) 10% were inconsistent with its Planning Authority's SOL Methodology.	The Transmission Planner established SOLs for the Transmission Planning Area, but more than 10% up to (and including) 15% were inconsistent with its Planning Authority's SOL Methodology.	The Transmission Planner established SOLs for the Transmission Planning Area, but more than 15% were inconsistent with its Planning Authority's SOL Methodology. OR The Transmission Planner did not
						ensure that SOLs, including Interconnection Operating Limits (IROLs), were established for its

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Transmission Planning Area.
FAC-014-2	R5.	The Reliability Coordinator, Planning Authority and Transmission Planner shall each provide its SOLs and IROLs to those entities that have a reliability-related need for those limits and provide a written request that includes a schedule for delivery of those limits as follows	The responsible entity provided its SOLs to all entities that have a reliability related need and any that provided a written request but missed meeting one or more of the schedules by less than 15 calendar days. (R5.1 through R5.4)	The responsible entity provided its SOLs to all the required entities that have a reliability related need and any that provided a written request but missed meeting one or more of the schedules for 15 or more but less than 25 calendar days. (R5.1 through R5.4) OR The supporting information provided with the IROLs does not address 5.1.4	The responsible entity provided its SOLs to all the required entities that have a reliability related need and any that provided a written request but missed meeting one or more of the schedules for 25 or more but less than 35 calendar days. (R5.1 through R5.4) OR The supporting information provided with the IROLs does not address 5.1.3	The responsible entity failed to provide its SOLs to all the required entities have a reliability related need and any that provided a written request within 35 calendar days of the associated schedules. (R5.1 through R5.4) OR The supporting information provided with the IROLs does not address 5.1.1 and 5.1.2.
FAC-014-2	R5.1.	The Reliability Coordinator shall provide its SOLs (including the subset of SOLs that are IROLs) to adjacent Reliability Coordinators and Reliability Coordinators who indicate a reliability-related need for those limits, and to the Transmission Operators,	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Planners, Transmission Service Providers and Planning Authorities within its Reliability Coordinator Area. For each IROL, the Reliability Coordinator shall provide the following supporting information				
FAC-014-2	R5.1.1.	Identification and status of the associated Facility (or group of Facilities) that is (are) critical to the derivation of the IROL	N/A	N/A	N/A	N/A
FAC-014-2	R5.1.2.	The value of the IROL and its associated Tv.	N/A	N/A	N/A	N/A
FAC-014-2	R5.1.3.	The associated Contingency (ies).	N/A	N/A	N/A	N/A
FAC-014-2	R5.1.4.	The type of limitation represented by the IROL (e.g., voltage collapse, angular stability).	N/A	N/A	N/A	N/A
FAC-014-2	R5.2.	The Transmission Operator shall provide any SOLs it developed to its Reliability Coordinator and to the Transmission Service Providers that share its portion of the Reliability Coordinator Area.	N/A	N/A	N/A	N/A
FAC-014-2	R5.3.	The Planning Authority shall provide its SOLs (including the subset of SOLs that are	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		IROLs) to adjacent Planning Authorities, and to Transmission Planners, Transmission Service Providers, Transmission Operators and Reliability Coordinators that work within its Planning Authority Area.				
FAC-014-2	R5.4.	The Transmission Planner shall provide its SOLs (including the subset of SOLs that are IROLs) to its Planning Authority, Reliability Coordinators, Transmission Operators, and Transmission Service Providers that work within its Transmission Planning Area and to adjacent Transmission Planners.	N/A	N/A	N/A	N/A
FAC-014-2	R6.	The Planning Authority shall identify the subset of multiple contingencies (if any), from Reliability Standard TPL-003 which result in stability limits.	The Planning Authority determined that it did not have any stability related multiple contingencies, but did not notify the Reliability Coordinator of that determination. (R6.2)	N/A	N/A	The Planning Authority did not identify the subset of multiple contingencies, from TPL-003 that resulted in stability limits. OR The Planning Authority determined that it had one or more stability related

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						multiple contingencies, but did not provide the complete list of multiple contingencies and the associated stability limits to the Reliability Coordinators that monitor the facilities associated with these contingencies and limits. (R6.1)
FAC-014-2	R6.1.	The Planning Authority shall provide this list of multiple contingencies and the associated stability limits to the Reliability Coordinators that monitor the facilities associated with these contingencies and limits.	N/A	N/A	N/A	N/A
FAC-014-2	R6.2.	If the Planning Authority does not identify any stability- related multiple contingencies, the Planning Authority shall so notify the Reliability Coordinator.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
INT-001-3	R1.	The Load-Serving, Purchasing- Selling Entity shall ensure that Arranged Interchange is submitted to the Interchange Authority for:	N/A	N/A	N/A	The Load-Serving, Purchasing-Selling Entity failed to ensure that a Dynamic Schedule at the expected average MW profile for an hour was submitted to the Interchange Authority; as required by R1.1.
INT-001-3	R1.1.	All Dynamic Schedules at the expected average MW profile for each hour.	N/A	N/A	N/A	N/A
INT-001-3	R2.	The Sink Balancing Authority shall ensure that Arranged Interchange is submitted to the Interchange Authority:	N/A	N/A	N/A	The Sink Balancing Authority failed to ensure that Arranged Interchange was submitted to the Interchange Authority as required by R2.1 and R2.2.
INT-001-3	R2.1.	If a Purchasing-Selling Entity is not involved in the Interchange, such as delivery from a jointly owned generator.	N/A	N/A	N/A	N/A
INT-001-3	R2.2.	For each bilateral Inadvertent Interchange payback.	N/A	N/A	N/A	N/A
INT-003-2	R1.	Each Receiving Balancing Authority shall confirm Interchange Schedules with the Sending Balancing Authority	N/A	The responsible entity confirmed Interchange Schedule with the Sending Balancing	The responsible entity confirmed Interchange Schedule with the Sending Balancing	The responsible entity failed to confirm Interchange Schedule with the Sending

Page 141 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		prior to implementation in the Balancing Authority's ACE equation.		Authority ACE equation and the responsible Entities reached agreement; and coordinated the Interchange Schedule with the Transmission Operator of the HVDC tie as specified in R1.2; but the agreement did not include one of the elements required in sub-requirements R1.1.1 or R1.1.2.	Authority prior to implementation in the Balancing Authority ACE equation and the responsible Entities reached agreement but did not coordinate the Interchange Schedule with the Transmission Operator of the HVDC tie as specified in R1.2.	Balancing Authority prior to implementation in the Authority's ACE equation. OR The responsible entity failed to agree on the interchange as received from the Interchange Authority prior to implementation in the Balancing Authority's ACE equation.
INT-003-2	R1.1.	The Sending Balancing Authority and Receiving Balancing Authority shall agree on Interchange as received from the Interchange Authority, including:	N/A	N/A	N/A	N/A
INT-003-2	R1.1.1.	Interchange Schedule start and end time.	N/A	N/A	N/A	N/A
INT-003-2	R1.1.2.	Energy profile.	N/A	N/A	N/A	N/A
INT-003-2	R1.2.	If a high voltage direct current (HVDC) tie is on the Scheduling Path, then the Sending Balancing Authorities and Receiving Balancing Authorities shall coordinate the Interchange Schedule with the Transmission Operator of the HVDC tie.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
INT-004-2	R1.	At such time as the reliability event allows for the reloading of the transaction, the entity that initiated the curtailment shall release the limit on the Interchange Transaction tag to allow reloading the transaction and shall communicate the release of the limit to the Sink Balancing Authority.	The responsible entity that initiated a curtailment released the limit on the Interchange Transaction tag, at such time as the reliability event allowed for the reloading of the transaction, but failed to communicate the release of the limit to the Sink Balancing Authority.	N/A	N/A	The responsible entity that initiated a curtailment failed to release the limit on the Interchange Transaction tag, at such time as the reliability event allowed for the reloading of the transaction.
INT-004-2	R2.	The Purchasing-Selling Entity responsible for tagging a Dynamic Interchange Schedule shall ensure the tag is updated for the next available scheduling hour and future hours when any one of the following occurs:	N/A	N/A	The responsible entity failed to update the tag when required by sub-requirements R2.1 or R2.2.	The responsible entity failed to update the tag when required by sub-requirement R2.3.
INT-004-2	R2.1.	The average energy profile in an hour is greater than 250 MW and in that hour the actual hourly integrated energy deviates from the hourly average energy profile indicated on the tag by more than +10%.	N/A	N/A	N/A	N/A
INT-004-2	R2.2.	The average energy profile in an hour is less than or equal to 250 MW and in that hour the actual hourly integrated energy	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		deviates from the hourly average energy profile indicated on the tag by more than +25 megawatt-hours.				
INT-004-2	R2.3.	A Reliability Coordinator or Transmission Operator determines the deviation, regardless of magnitude, to be a reliability concern and notifies the Purchasing-Selling Entity of that determination and the reasons.	N/A	N/A	N/A	N/A
INT-005-3	R1.	Prior to the expiration of the time period defined in the timing requirements tables in this standard, Column A, the Interchange Authority shall distribute the Arranged Interchange information for reliability assessment to all reliability entities involved in the Interchange.	The Interchange Authority distributed the Arranged Interchange information for reliability assessment, but did not distribute it to one of the reliability entities involved in the Interchange prior to the expiration of the time period defined in the Timing Table, Column A.	The Interchange Authority distributed the Arranged Interchange information for reliability assessment, but did not distribute it to two of the reliability entities involved in the Interchange prior to the expiration of the time period defined in the Timing Table, Column A.	The Interchange Authority distributed the Arranged Interchange information for reliability assessment, but did not distribute it to three of the reliability entities involved in the Interchange prior to the expiration of the time period defined in the Timing Table, Column A.	The Interchange Authority distributed the Arranged Interchange information for reliability assessment, but did not distribute it to four or more of the reliability entities involved in the Interchange prior to the expiration of the time period defined in the Timing Table, Column A.
INT-005-3	R1.1.	When a Balancing Authority or Reliability Coordinator initiates a Curtailment to Confirmed or Implemented Interchange for reliability, the Interchange Authority shall distribute the Arranged Interchange information for reliability	N/A	N/A	The Responsible Entity initiated a Curtailment to Confirmed or Implemented Interchange for reliability but the Interchange Authority	The Responsible Entity initiated a Curtailment to Confirmed or Implemented Interchange for reliability but the Interchange Authority

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		assessment only to the Source Balancing Authority and the Sink Balancing Authority.			failed to distribute the Arranged Interchange information to the Source Balancing Authority or the Sink Balancing Authority.	failed to distribute the Arranged Interchange information to the Source Balancing Authority and the Sink Balancing Authority.
INT-006-3	R1.	Prior to the expiration of the reliability assessment period defined in the timing requirements tables in this standard, Column B, the Balancing Authority and Transmission Service Provider shall respond to each On-time Request for Interchange (RFI), and to each Emergency RFI and Reliability Adjustment RFI from an Interchange Authority to transition an Arranged Interchange to a Confirmed Interchange	N/A	The responsible entity responded to a request from an Interchange Authority to transition an Arranged Interchange to a Confirmed Interchange but it failed to evaluate one of the sub- requirements R1.1.1, R1.1.2 or R1.1.3.	The responsible entity responded to a request from an Interchange Authority to transition an Arranged Interchange to a Confirmed Interchange but in evaluating the Arranged Interchange, it failed to evaluate two of the sub- requirements R1.1.1, R1.1.2 or R1.1.3; OR The responsible entity confirmed that the transmission service arrangements associated with the Arranged Interchange, had adjacent Transmission Service Provider connectivity, and were valid but failed to confirm that the prevailing transmission system limits would not be violated. (R1.2)	The responsible entity failed to respond to a request from an Interchange Authority to transition an Arranged Interchange to a Confirmed Interchange and was deficient in one of the following: The responsible entity failed to evaluate arranged interchange with respect to all of the sub-requirements R1.1.1, R1.1.2 and R1.1.3. OR The responsible entity failed to confirm that the transmission service arrangements associated with the Arranged Interchange had adjacent Transmission Service Provider connectivity, were valid and prevailing transmission system

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						limits would not be violated (R1.2).
INT-006-3	R1.1.	Each involved Balancing Authority shall evaluate the Arranged Interchange with respect to:	N/A	N/A	N/A	N/A
INT-006-3	R1.1.1.	Energy profile (ability to support the magnitude of the Interchange).	N/A	N/A	N/A	N/A
INT-006-3	R1.1.2.	Ramp (ability of generation maneuverability to accommodate).	N/A	N/A	N/A	N/A
INT-006-3	R1.1.3.	Scheduling path (proper connectivity of Adjacent Balancing Authorities).	N/A	N/A	N/A	N/A
INT-006-3	R1.2.	Each involved Transmission Service Provider shall confirm that the transmission service arrangements associated with the Arranged Interchange have adjacent Transmission Service Provider connectivity, are valid and prevailing transmission system limits will not be violated	N/A	N/A	N/A	N/A
INT-007-1	R1.	The Interchange Authority shall verify that Arranged Interchange is balanced and valid prior to transitioning Arranged Interchange to Confirmed Interchange by verifying the following:	The Responsible Entity failed to verify one of the sub- requirements (R1.1, R1.2, R1.3, R1.3.1, R1.3.2, R1.3.3, R1.3.4, or 1.4) prior to transitioning an	The Responsible Entity failed to verify two of the sub- requirements (R1.1, R1.2, R1.3, R1.3.1, R1.3.2, R1.3.3, R1.3.4, or 1.4) prior to transitioning an	The Responsible Entity failed to verify three of the sub- requirements (R1.1, R1.2, R1.3, R1.3.1, R1.3.2, R1.3.3, R1.3.4, or 1.4) prior to transitioning an	The Responsible Entity failed to verify four or more of the sub-requirements (R1.1, R1.2, R1.3, R1.3.1, R1.3.2, R1.3.3, R1.3.4, or 1.4) prior to transitioning

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Arranged Interchange to a Confirmed Interchange.	Arranged Interchange to a Confirmed Interchange.	Arranged Interchange to a Confirmed Interchange.	an Arranged Interchange to a Confirmed Interchange.
INT-007-1	R1.1.	Source Balancing Authority megawatts equal sink Balancing Authority megawatts (adjusted for losses, if appropriate).	N/A	N/A	N/A	N/A
INT-007-1	R1.2.	All reliability entities involved in the Arranged Interchange are currently in the NERC registry.	N/A	N/A	N/A	N/A
INT-007-1	R1.3.	The following are defined:	N/A	N/A	N/A	N/A
INT-007-1	R1.3.1.	Generation source and load sink.	N/A	N/A	N/A	N/A
INT-007-1	R1.3.2.	Megawatt profile.	N/A	N/A	N/A	N/A
INT-007-1	R1.3.3.	Ramp start and stop times.	N/A	N/A	N/A	N/A
INT-007-1	R1.3.4.	Interchange duration.	N/A	N/A	N/A	N/A
INT-007-1	R1.4.	Each Balancing Authority and Transmission Service Provider that received the Arranged Interchange information from the Interchange Authority for reliability assessment has provided approval.	N/A	N/A	N/A	N/A
INT-008-3	R1.	Prior to the expiration of the time period defined in the Timing Table, Column C, the Interchange Authority shall distribute to all Balancing Authorities (including Balancing Authorities on both	The Interchange Authority distributed to all Balancing Authorities (including Balancing Authorities on both sides of a direct current tie),	The Interchange Authority distributed to all Balancing Authorities (including Balancing Authorities on both sides of a direct current tie),	The Interchange Authority distributed whether or not the Arranged Interchange has transitioned to a Confirmed Interchange but did	The Interchange Authority distributed whether or not the Arranged Interchange has transitioned to a Confirmed Interchange, but did

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		sides of a direct current tie), Transmission Service Providers and Purchasing-Selling Entities involved in the Arranged Interchange whether or not the Arranged Interchange has transitioned to a Confirmed Interchange.	Transmission Service Providers and Purchasing-Selling Entities involved in the Arranged Interchange whether or not the Arranged Interchange has transitioned to a Confirmed Interchange, but did not include one of the elements required in sub-requirements R.1.1.1 or R.1.1.2 for a Confirmed Interchange.	Transmission Service Providers and Purchasing-Selling Entities involved in the Arranged Interchange whether or not the Arranged Interchange has transitioned to a Confirmed Interchange,but did not include two of the elements required in sub-requirements R.1.1.1 or R.1.1.2 for a Confirmed Interchange.	not distribute to two of the Balancing Authorities (including Balancing Authorities on both sides of a direct current tie), Transmission Service Providers, or Purchasing-Selling Entities involved in the Arranged Interchange prior to the expiration of the time period defined in the Timing Table, Column C.	not distribute to three or more of the Balancing Authorities (including Balancing Authorities on both sides of a direct current tie), Transmission Service Providers, or Purchasing-Selling Entities involved in the Arranged Interchange prior to the expiration of the time period defined in the Timing Table, Column C.
				OR The Interchange Authority distributed whether or not the Arranged Interchange has transitioned to a Confirmed Interchange but did not distribute to one of the Balancing Authorities (including Balancing Authorities on both sides of a direct current tie), Transmission Service Providers, or Purchasing-Selling		OR The Interchange Authority did not distribute whether or not the Arranged Interchange has transitioned to a Confirmed Interchange

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				Entities involved in the Arranged Interchange, prior to the expiration of the time period defined in the Timing Table, Column C.		
INT-008-3	R1.1.	For Confirmed Interchange, the Interchange Authority shall also communicate:	N/A	N/A	N/A	N/A
INT-008-3	R1.1.1.	Start and stop times, ramps, and megawatt profile to Balancing Authorities.	N/A	N/A	N/A	N/A
INT-008-3	R1.1.2.	Necessary Interchange information to NERC- identified reliability analysis services.	N/A	N/A	N/A	N/A
INT-009-1	R1.	The Balancing Authority shall implement Confirmed Interchange as received from the Interchange Authority.	N/A	N/A	N/A	The responsible entity failed to implement a Confirmed Interchange as received from the Interchange Authority.
INT-010-1	R1.	The Balancing Authority that experiences a loss of resources covered by an energy sharing agreement shall ensure that a request for an Arranged Interchange is submitted with a start time no more than 60 minutes beyond the resource loss. If the use of the energy sharing agreement does not exceed 60 minutes from the	The responsible entity that experienced a loss of resources that exceeded 60 minutes and was covered by an energy sharing agreement ensured that a request for an Arranged Interchange was submitted, but with a start time that	The responsible entity that experienced a loss of resources that exceeded 60 minutes and was covered by an energy sharing agreement ensured that a request for an Arranged Interchange was submitted, but with a start time that	The responsible entity that experienced a loss of resources that exceeded 60 minutes and was covered by an energy sharing agreement ensured that a request for an Arranged Interchange was submitted, but with a start time that	The responsible entity that experienced a loss of resources that exceeded 60 minutes and was covered by an energy sharing agreement ensured that a request for an Arranged Interchange was submitted, but with a start time that

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		time of the resource loss, no request for Arranged Interchange is required.	was more than 60 minutes but less than 75 minutes beyond the resource loss.	was 75 minutes or more, but less than 90 minutes beyond the resource loss.	was 90 minutes or more, but less than 105 minutes beyond the resource loss.	<ul> <li>was more than 105 minutes beyond the resource loss.</li> <li>OR</li> <li>The responsible entity that experienced a loss of resources that exceeded 60 minutes and was covered by an energy sharing agreement, failed to ensure that a request for an Arranged Interchange was submitted.</li> </ul>
INT-010-1	R2.	For a modification to an existing Interchange schedule that is directed by a Reliability Coordinator for current or imminent reliability-related reasons, the Reliability Coordinator shall direct a Balancing Authority to submit the modified Arranged Interchange reflecting that modification within 60 minutes of the initiation of the event.	N/A	N/A	N/A	The responsible entity failed to direct a Balancing Authority to submit the modified Arranged Interchange reflecting the modification, within 60 minutes of the initiation of the event.
INT-010-1	R3.	For a new Interchange schedule that is directed by a Reliability Coordinator for current or imminent reliability-related reasons, the Reliability Coordinator shall direct a Balancing Authority to submit an Arranged Interchange	N/A	N/A	N/A	The responsible entity failed to direct a Balancing Authority to submit an Arranged Interchange reflecting the new Interchange schedule within 60 minutes of the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		reflecting that Interchange schedule within 60 minutes of the initiation of the event.				initiation of the event.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-001- 1.1	R1.	Each Regional Reliability Organization, subregion, or interregional coordinating group shall establish one or more Reliability Coordinators to continuously assess transmission reliability and coordinate emergency operations among the operating entities within the region and across the regional boundaries.	N/A	N/A	N/A	N/A
IRO-001- 1.1	R2.	The Reliability Coordinator shall comply with a regional reliability plan approved by the NERC Operating Committee.	N/A	N/A	N/A	The Reliability Coordinator did not comply with the approved plan.
IRO-001- 1.1	R3.	The Reliability Coordinator shall have clear decision-making authority to act and to direct actions to be taken by Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load- Serving Entities, and Purchasing- Selling Entities within its Reliability Coordinator Area to preserve the integrity and reliability of the Bulk Electric System. These actions shall be taken without delay, but no longer than 30 minutes.	N/A	N/A	The Reliability Coordinator cannot demonstrate that it has clear authority to act or direct actions to preserve transmission security and reliability of the Bulk Electric System.	The Reliability Coordinator failed to take or direct action to preserve the reliability and security of the Bulk Electric System within 30 minutes of identifying those actions.
IRO-001- 1.1	R4.	Reliability Coordinators that delegate tasks to other entities shall have formal operating agreements with each entity to which tasks are delegated. The Reliability Coordinator shall verify that all delegated tasks are understood,		The Reliability Coordinator has delegated tasks to other entities and had formal operating		The Reliability Coordinator has delegated tasks to other entities but failed to have a formal operating agreement delegating

Page 152 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		communicated, and addressed within its Reliability Coordinator Area. All responsibilities for complying with NERC and regional standards applicable to Reliability Coordinators shall remain with the Reliability Coordinator.		agreements with each of these entities but could not verify that delegated tasks were understood, communicated, and addressed within its Reliability Coordinator Area.		tasks to each of these entities.
IRO-001- 1.1	R5.	The Reliability Coordinator shall list within its reliability plan all entities to which the Reliability Coordinator has delegated required tasks.	5% or less of the delegate entities are not identified in the reliability plan.	More than 5% up to (and including) 10% of the delegate entities are not identified in the reliability plan.	More than 10% up to (and including) 15% of the delegate entities are not identified in the reliability plan.	There is no reliability plan. OR More than 15% of the delegate entities are not identified in the reliability plan.
IRO-001- 1.1	R6.	The Reliability Coordinator shall verify that all delegated tasks are carried out by NERC-certified Reliability Coordinator operating personnel.	The Reliability Coordinator failed to demonstrate that 5% or less of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.	The Reliability Coordinator failed to demonstrate that more than 5% up to (and including) 10% of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.	The Reliability Coordinator failed to demonstrate that more than 10% up to (and including) 15% of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.	The Reliability Coordinator failed to demonstrate that more than 15% of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-001- 1.1	R7.	The Reliability Coordinator shall have clear, comprehensive coordination agreements with adjacent Reliability Coordinators to ensure that System Operating Limit or Interconnection Reliability Operating Limit violation mitigation requiring actions in adjacent Reliability Coordinator Areas are coordinated.	The Reliability Coordinator has demonstrated the existence of coordination agreements with adjacent Reliability Coordinators but the agreements are not clear or comprehensive.	N/A	The Reliability Coordinator has demonstrated the existence of coordination agreements with adjacent Reliability Coordinators but the agreements do not coordinate actions required in the adjacent Reliability Coordinator Area to mitigate SOL and IROL violations in its own Reliability Coordinator area.	The Reliability Coordinator has failed to demonstrate the existence of any coordination agreements with adjacent Reliability Coordinators.
IRO-001- 1.1	R8.	Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load- Serving Entities, and Purchasing- Selling Entities shall comply with Reliability Coordinator directives unless such actions would violate safety, equipment, or regulatory or statutory requirements. Under these circumstances, the Transmission Operator, Balancing Authority, Generator Operator, Transmission Service Provider, Load-Serving Entity, or Purchasing-Selling Entity shall immediately inform the Reliability Coordinator of the inability to perform the directive so that the Reliability	N/A	The responsible entity could not comply with a directive due to qualified reasons (violation of safety, equipment or regulatory or statutory requirements) and did not immediately inform the Reliability Coordinator.	N/A	The responsible entity did not follow the Reliability Coordinator's directive.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator may implement alternate remedial actions.				
IRO-001- 1.1	R9.	The Reliability Coordinator shall act in the interests of reliability for the overall Reliability Coordinator Area and the Interconnection before the interests of any other entity.	N/A	N/A	N/A	The Reliability Coordinator did not act in the interests of reliability for the overall Reliability Coordinator Area and the Interconnection before the interests of one or more other entities.
IRO-002- 1	R1.	Each Reliability Coordinator shall have adequate communications facilities (voice and data links) to appropriate entities within its Reliability Coordinator Area. These communications facilities shall be staffed and available to act in addressing a real-time emergency condition.	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient by 5% or less of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient with more than 5% up to (and including) 10% of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient for more than 10% up to (and including) 15% of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient for more than 15% of its needed data links for at least one of the appropriate entities with which it interfaces. OR The Reliability Coordinator demonstrated that it has adequate voice and data communications facilities with all appropriate entities within its Reliability Coordinator Area but failed to have sufficient staff to address a real- time emergency event.

Page 155 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						OR The Reliability Coordinator failed to demonstrate it has communications facilities with appropriate entities within its Reliability Coordinator Area.
IRO-002- 1	R2.	Each Reliability Coordinator shall determine the data requirements to support its reliability coordination tasks and shall request such data from its Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities, or adjacent Reliability Coordinators.	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its reliability coordination tasks from <b>One</b> of the applicable entities with which it interfaces.	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its reliability coordination tasks from <b>Two</b> of the applicable entities with which it interfaces.	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its reliability coordination tasks from <b>Three</b> of the applicable entities with which it interfaces.	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its reliability coordination tasks from <b>Four or more</b> of the applicable entities with which it interfaces.
IRO-002- 1	R3.	Each Reliability Coordinator – or its Transmission Operators and Balancing Authorities – shall provide, or arrange provisions for, data exchange to other Reliability Coordinators or Transmission Operators and Balancing Authorities via a secure network.	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with 5% or less of the other Reliability Coordinators or Transmission Operators and Balancing	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with more than 5% up to (and including) 10% of the other Reliability Coordinators or Transmission Operators and	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with more than 10% up to (and including) 15% of the other Reliability Coordinators or Transmission Operators and	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with more than 15% of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.

### Requirement Standard Lower VSL Severe VSL **Text of Requirement** Moderate VSL High VSL Number Number Authorities. Balancing Balancing Authorities. Authorities. IRO-002-R4. The Reliability The Reliability The Reliability Each Reliability Coordinator shall have The Reliability multi-directional communications Coordinator has failed to Coordinator has Coordinator has Coordinator has 1 capabilities with its Transmission failed to failed to failed to demonstrate multi-Operators and Balancing Authorities, demonstrate multidemonstrate multidemonstrate multidirectional and with neighboring Reliability directional directional directional communication Coordinators, for both voice and data communication communication communication capabilities with more exchange as required to meet reliability capabilities to 5% capabilities to more capabilities to more than 15% of the applicable entities with needs of the Interconnection. or less of the than 5% up to (and than 10% up to applicable entities including) 10% of (and including) which it interfaces. the applicable with which it 15% of the entities with which interfaces. applicable entities it interfaces. with which it interfaces. The Reliability IRO-002-Each Reliability Coordinator shall have The Reliability The Reliability R5. The Reliability Coordinator's SOL/IROL 1 detailed real-time monitoring capability Coordinator's Coordinator's Coordinator's of its Reliability Coordinator Area and SOL/IROL SOL/IROL SOL/IROL monitoring systems did sufficient monitoring capability of its monitoring systems monitoring systems monitoring systems not give particular surrounding Reliability Coordinator did not give did not give emphasis to any of the provide Areas to ensure that potential or actual particular emphasis particular emphasis following: information in a System Operating Limit or way that is not to One of the to Two of the alarm management • Interconnection Reliability Operating following: easily understood following: and awareness Limit violations are identified. Each and interpreted by alarm systems • alarm • Reliability Coordinator shall have the Reliability management management • automated data monitoring systems that provide Coordinator's and awareness and awareness transfers information that can be easily operating systems systems • synchronized understood and interpreted by the personnel. automated data • automated data • information systems. Reliability Coordinator's operating transfers transfers personnel, giving particular emphasis OR to alarm management and awareness synchronized synchronized The Reliability systems, automated data transfers, and information information Coordinator's SOL/IROL synchronized information systems, systems systems monitoring systems were over a redundant and highly reliable not implemented over a infrastructure. highly reliable redundant

### Violation Severity Level Matrix (IRO)

Page 157 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						infrastructure.
IRO-002- 1	R6.	Each Reliability Coordinator shall monitor Bulk Electric System elements (generators, transmission lines, buses, transformers, breakers, etc.) that could result in SOL or IROL violations within its Reliability Coordinator Area. Each Reliability Coordinator shall monitor both real and reactive power system flows, and operating reserves, and the status of Bulk Electric System elements that are or could be critical to SOLs and IROLs and system restoration requirements within its Reliability Coordinator Area.	N/A	N/A	The Reliability Coordinator monitored BES elements (generators, transmission lines, buses, transformers, breakers, etc.) but failed to monitor one or more of the following: the status, real power flow, reactive power flow or operating reserves for a BES facility that is associated with a potential SOL/IROL or is critical to system restoration.	The Reliability Coordinator failed to monitor the BES elements associated with a potential SOL/IROL or that are critical to system restoration.
IRO-002- 1	R7.	Each Reliability Coordinator shall have adequate analysis tools such as state estimation, pre- and post-contingency analysis capabilities (thermal, stability, and voltage), and wide-area overview displays.	N/A	N/A	N/A	<ul> <li>The Reliability</li> <li>Coordinator failed to</li> <li>demonstrate that it has</li> <li>adequate analysis tools</li> <li>such as:</li> <li>State estimation</li> <li>Pre-contingency</li> <li>analysis capability</li> <li>(thermal, stability, and</li> <li>voltage);</li> </ul>

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						<ul> <li>Post-contingency analysis capability (thermal, stability, and voltage),</li> <li>Wide-area overview displays.</li> </ul>
IRO-002- 1	R8.	Each Reliability Coordinator shall continuously monitor its Reliability Coordinator Area. Each Reliability Coordinator shall have provisions for backup facilities that shall be exercised if the main monitoring system is unavailable. Each Reliability Coordinator shall ensure SOL and IROL monitoring and derivations continue if the main monitoring system is unavailable.	.N/A	The Reliability Coordinator demonstrated provisions for back-up facilities, but it failed to continuously monitor SOL/IROL conditions when the main monitoring system was unavailable.	N/A	The Reliability Coordinator failed to demonstrate provisions for back-up facilities AND The Reliability Coordinator failed to continuously monitor SOL/IROL conditions when the main monitoring system was unavailable.
IRO-002- 1	R9.	Each Reliability Coordinator shall control its Reliability Coordinator analysis tools, including approvals for planned maintenance. Each Reliability Coordinator shall have procedures in place to mitigate the effects of analysis tool outages.	N/A	The Reliability Coordinator has approval rights for planned maintenance outages of its analysis tools, but there is no procedure to mitigate the effects of these outages.	N/A	The Reliability Coordinator does not have a procedure in place to control its analysis tools including approvals for planned maintenance.
IRO-002- 2	R1	Each Reliability Coordinator shall have adequate communications facilities (voice and data links) to appropriate entities within its Reliability Coordinator Area. These communications facilities shall be	The Reliability Coordinator demonstrated that it has adequate voice communication	The Reliability Coordinator demonstrated that it has adequate voice communication	The Reliability Coordinator demonstrated that it has adequate voice communication	The Reliability Coordinator demonstrated that it has adequate voice communication facilities

Page 159 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		staffed and available to act in addressing a real-time emergency condition.	facilities and staff but is deficient by 5% or less of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	facilities and staff but is deficient with more than 5% up to (and including) 10% of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	facilities and staff but is deficient for more than 10% up to (and including) 15% of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	and staff but is deficient for more than 15% of its needed data links for at least one of the appropriate entities with which it interfaces. OR The Reliability Coordinator demonstrated that it has adequate voice and data communications facilities with all appropriate entities within its Reliability Coordinator Area but failed to have sufficient staff to address a real- time emergency event. OR The Reliability Coordinator failed to demonstrate it has adequate voice communications facilities with appropriate entities within its Reliability Coordinator failed to demonstrate it has adequate voice communications facilities with appropriate entities within its Reliability Coordinator Area.
IRO-002- 2	R2	Each Reliability Coordinator — or its Transmission Operators and Balancing Authorities — shall provide, or arrange provisions for, data exchange to other Reliability Coordinators or Transmission Operators and Balancing	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of	The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with more than 15% of the

Page 160 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Authorities via a secure network.	data with 5% or less of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.	data with more than 5% up to (and including) 10% of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.	data with more than 10% up to (and including) 15% of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.	other Reliability Coordinators or Transmission Operators and Balancing Authorities.
IRO-002- 2	R3	Each Reliability Coordinator shall have multi-directional communications capabilities with its Transmission Operators and Balancing Authorities, and with neighboring Reliability Coordinators, for both voice and data exchange as required to meet reliability needs of the Interconnection.	The Reliability Coordinator has failed to demonstrate multi- directional communication capabilities to 5% or less of the applicable entities with which it interfaces.	The Reliability Coordinator has failed to demonstrate multi- directional communication capabilities to more than 5% up to (and including) 10% of the applicable entities with which it interfaces.	The Reliability Coordinator has failed to demonstrate multi- directional communication capabilities to more than 10% up to (and including) 15% of the applicable entities with which it interfaces.	The Reliability Coordinator has failed to demonstrate multi- directional communication capabilities with more than 15% of the applicable entities with which it interfaces.
IRO-002- 2	R4	Each Reliability Coordinator shall have detailed real-time monitoring capability of its Reliability Coordinator Area and sufficient monitoring capability of its surrounding Reliability Coordinator Areas to ensure that potential or actual System Operating Limit or Interconnection Reliability Operating Limit violations are identified. Each Reliability Coordinator shall have monitoring systems that provide information that can be easily understood and interpreted by the Reliability	The Reliability Coordinator's SOL/IROL monitoring systems provide information in a way that is not easily understood and interpreted by the Reliability Coordinator's operating personnel.	The Reliability Coordinator's SOL/IROL monitoring systems did not give particular emphasis to One of the following: • alarm management and awareness systems • automated data	The Reliability Coordinator's SOL/IROL monitoring systems did not give particular emphasis to Two of the following: • alarm management and awareness systems • automated data	<ul> <li>The Reliability Coordinator's SOL/IROL monitoring systems did not give particular emphasis to any of the following:</li> <li>alarm management and awareness systems</li> <li>automated data transfers</li> <li>synchronized</li> </ul>

Page 161 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator's operating personnel, giving particular emphasis to alarm management and awareness systems, automated data transfers, and synchronized information systems, over a redundant and highly reliable infrastructure.		transfers synchronized information systems	transfers synchronized information systems	information systems. OR The Reliability Coordinator's SOL/IROL monitoring systems were not implemented over a highly reliable redundant infrastructure.
IRO-002- 2	R5	Each Reliability Coordinator shall monitor Bulk Electric System elements (generators, transmission lines, buses, transformers, breakers, etc.) that could result in SOL or IROL violations within its Reliability Coordinator Area. Each Reliability Coordinator shall monitor both real and reactive power system flows, and operating reserves, and the status of Bulk Electric System elements that are or could be critical to SOLs and IROLs and system restoration requirements within its Reliability Coordinator Area.	N/A	N/A	The Reliability Coordinator monitored BES elements (generators, transmission lines, buses, transformers, breakers, etc.) but failed to monitor one or more of the following: the status, real power flow, reactive power flow or operating reserves for a BES facility that is associated with a potential SOL/IROL or is critical to system restoration.	The Reliability Coordinator failed to monitor the BES elements associated with a potential SOL/IROL or that are critical to system restoration.
IRO-002- 2	R6	Each Reliability Coordinator shall have adequate analysis tools such as state estimation, pre- and post-contingency analysis capabilities (thermal, stability, and voltage), and wide-area overview	N/A	N/A	N/A	The Reliability Coordinator failed to demonstrate that it has adequate analysis tools such as:

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		displays.				<ul> <li>State estimation</li> <li>Pre-contingency analysis capability (thermal, stability, and</li> <li>voltage);</li> <li>Post-contingency analysis capability (thermal, stability, and voltage),</li> <li>Wide-area overview displays.</li> </ul>
IRO-002- 2	R7	Each Reliability Coordinator shall continuously monitor its Reliability Coordinator Area. Each Reliability Coordinator shall have provisions for backup facilities that shall be exercised if the main monitoring system is unavailable. Each Reliability Coordinator shall ensure SOL and IROL monitoring and derivations continue if the main monitoring system is unavailable.	N/A	The Reliability Coordinator demonstrated provisions for back-up facilities, but it failed to continuously monitor SOL/IROL conditions when the main monitoring system was unavailable.	N/A	The Reliability Coordinator failed to demonstrate provisions for back-up facilities AND The Reliability Coordinator failed to continuously monitor SOL/IROL conditions when the main monitoring system was unavailable.
IRO-002- 2	R8	Each Reliability Coordinator shall control its Reliability Coordinator analysis tools, including approvals for planned maintenance. Each Reliability Coordinator shall have procedures in place to mitigate the effects of analysis tool outages.	N/A	The Reliability Coordinator has approval rights for planned maintenance outages of its analysis tools, but there is no procedure to mitigate the effects	N/A	The Reliability Coordinator does not have a procedure in place to control its analysis tools including approvals for planned maintenance.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				of these outages.		
IRO-003- 2	R1.	Each Reliability Coordinator shall monitor all Bulk Electric System facilities, which may include sub- transmission information, within its Reliability Coordinator Area and adjacent Reliability Coordinator Areas, as necessary to ensure that, at any time, regardless of prior planned or unplanned events, the Reliability Coordinator is able to determine any potential System Operating Limit and Interconnection Reliability Operating Limit violations within its Reliability Coordinator Area.	N/A	N/A	The Reliability Coordinator failed to demonstrate it monitored the applicable facilities within its own Reliability Coordinator Area. OR The Reliability Coordinator failed to demonstrate it monitored the applicable facilities within adjacent Reliability Coordinator Areas.	The Reliability Coordinator failed to demonstrate it monitored the applicable facilities within its own Reliability Coordinator Area. AND The Reliability Coordinator failed to demonstrate it monitored the applicable facilities within adjacent Reliability Coordinator Areas
IRO-003- 2	R2.	Each Reliability Coordinator shall know the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation. Reliability Coordinators shall also know the status of any facilities that may be required to assist area restoration objectives.	N/A	N/A	The Reliability Coordinator failed to know either the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation or the status of any facilities that may be required to assist area restoration	The Reliability Coordinator failed to know the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation and the status of any facilities that may be required to assist area restoration objectives.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-004- 1	R1.	Each Reliability Coordinator shall conduct next-day reliability analyses for its Reliability Coordinator Area to ensure that the Bulk Electric System can be operated reliably in anticipated normal and Contingency event conditions. The Reliability Coordinator shall conduct Contingency analysis studies to identify potential interface and other SOL and IROL violations, including overloaded transmission lines and transformers, voltage and stability limits, etc.	N/A	N/A	objectives.The Reliability Coordinator failed to conduct next-day reliability analyses to ensure that the Bulk Electric System can be operated reliably in anticipated normal and Contingency event conditions.ORThe Reliability Coordinator failed to conduct Contingency analysis studies to identify potential interface and other SOL and IROL violations, including overloaded transmission lines and transformers, voltage and stability limits, etc. for its Reliability Coordinator Area.	The Reliability Coordinator failed to conduct next-day reliability analyses to ensure that the Bulk Electric System can be operated reliably in anticipated normal and Contingency event conditions. AND The Reliability Coordinator failed to conduct Contingency analysis studies to identify potential interface and other SOL and IROL violations, including overloaded transmission lines and transformers, voltage and stability limits, etc. for its Reliability Coordinator Area.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-004- 1	R2.	Each Reliability Coordinator shall pay particular attention to parallel flows to ensure one Reliability Coordinator Area does not place an unacceptable or undue Burden on an adjacent Reliability Coordinator Area.	N/A	N/A	N/A	The Reliability Coordinator failed to monitor parallel flows to ensure one Reliability Coordinator Area did not place an unacceptable or undue Burden on an adjacent Reliability Coordinator Area.
IRO-004- 1	R3.	Each Reliability Coordinator shall, in conjunction with its Transmission Operators and Balancing Authorities, develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs.	N/A	N/A	N/A	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may have been required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs.
IRO-004- 1	R4.	Each Transmission Operator, Balancing Authority, Transmission Owner, Generator Owner, Generator Operator, and Load-Serving Entity in the Reliability Coordinator Area shall provide information required for system studies, such as critical facility status, Load, generation, operating	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating

Page 166 of 447

### Requirement Standard Lower VSL Severe VSL **Text of Requirement** Moderate VSL High VSL Number Number reserve projections, and known reserve projections, and critical facility critical facility critical facility Interchange Transactions. This status, Load, known Interchange status. Load. status. Load. information shall be available by 1200 generation. Transactions, but said generation. generation. Central Standard Time for the Eastern operating reserve operating reserve operating reserve information was projections, and projections, and Interconnection and 1200 Pacific provided more than three projections, and Standard Time for the Western known Interchange known Interchange hours after the required known Interchange Interconnection. Transactions, but Transactions, but Transactions, but time. said information said information said information was provided more was provided up to was provided more OR (and including) one than one hour up to than two hours up hour after the (and including) two to (and including) The responsible entity in required time. hours after the three hours after required time. the required time. the Reliability Coordinator Area did not provide the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions. IRO-004-Each Reliability Coordinator shall The Reliability The Reliability The Reliability The Reliability R5. share the results of its system studies. Coordinator shared Coordinator shared Coordinator shared the 1 Coordinator shared when conditions warrant or upon the results of its the results of its results of its system the results of its request, with other Reliability system studies. studies, when conditions system studies. system studies, Coordinators and with Transmission when conditions when conditions warranted or when they when conditions Operators, Balancing Authorities, and were requested, with warranted or when warranted or when warranted or when Transmission Service Providers within other Reliability they were they were its Reliability Coordinator Area. The they were requested, with Coordinators and with requested, with other Reliability Reliability Coordinator shall make other Reliability Transmission Operators, requested, with study results available no later than Coordinators and Coordinators and Balancing Authorities, other Reliability 1500 Central Standard Time for the with Transmission with Transmission and Transmission Coordinators and Eastern Interconnection and 1500 Operators, Operators, Service Providers within with Transmission Pacific Standard Time for the Western Balancing Balancing its Reliability Operators, Interconnection, unless circumstances Authorities, and Authorities, and Coordinator Area, but

### Violation Severity Level Matrix (IRO)

Page 167 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		warrant otherwise.	Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area, but said results were provided up to (and including) one hour after the required time.	Transmission Service Providers within its Reliability Coordinator Area, but said results were provided more than one hour up to (and including) two hours after the required time.	Transmission Service Providers within its Reliability Coordinator Area, but said results were provided more than two hours up to (and including) three hours after the required time.	said results were provided more than three hours after the required time. OR The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or when they were requested, with other Reliability Coordinators, Transmission Operators, Balancing Authorities, or Transmission Service Providers within its Reliability Coordinator Area.
IRO-004- 1	R6.	If the results of these studies indicate potential SOL or IROL violations, the Reliability Coordinator shall direct its Transmission Operators, Balancing Authorities and Transmission Service Providers to take any necessary action the Reliability Coordinator deems appropriate to address the potential SOL or IROL violation.	N/A	N/A	N/A	The Reliability Coordinator failed to direct action to address a potential SOL or IROL violation when the results of its studies indicated a potential SOL or IROL violation.
IRO-004- 1	R7.	Each Transmission Operator, Balancing Authority, and Transmission Service Provider shall comply with the directives of its Reliability Coordinator based on the next day assessments in	N/A	N/A	N/A	The responsible entity failed to comply with the directive from its Reliability Coordinator based on the next day

Page 168 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the same manner in which it would comply during real time operating events.				assessments in the same manner in which it would comply during real time operating events.
IRO-004- 2	R1	Each Transmission Operator, Balancing Authority, and Transmission Service Provider shall comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events.	N/A	N/A	N/A	The responsible entity failed to comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events.
IRO-005- 2	R1.	Each Reliability Coordinator shall monitor its Reliability Coordinator Area parameters, including but not limited to the following:	The Reliability Coordinator failed to monitor one (1) of the elements listed in R1.1 through R1.10.	The Reliability Coordinator failed to monitor two (2) of the elements listed in R1.1 through R1.10.	The Reliability Coordinator failed to monitor three (3) of the elements listed in R1.1 through R1.10.	The Reliability Coordinator failed to monitor more than three (3) of the elements listed in R1.1 through R1.10.
IRO-005- 2	R1.1.	Current status of Bulk Electric System elements (transmission or generation including critical auxiliaries such as Automatic Voltage Regulators and Special Protection Systems) and system loading.	N/A	N/A	N/A	N/A
IRO-005- 2	R1.2.	Current pre-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan's viability and scope.	N/A	N/A	N/A	N/A
IRO-005-	R1.3.	Current post-contingency element	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
2		conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan's viability and scope.				
IRO-005- 2	R1.4.	System real and reactive reserves (actual versus required).	N/A	N/A	N/A	N/A
IRO-005- 2	R1.5.	Capacity and energy adequacy conditions.	N/A	N/A	N/A	N/A
IRO-005- 2	R1.6.	Current ACE for all its Balancing Authorities.	N/A	N/A	N/A	N/A
IRO-005- 2	R1.7.	Current local or Transmission Loading Relief procedures in effect.	N/A	N/A	N/A	N/A
IRO-005- 2	R1.8.	Planned generation dispatches.	N/A	N/A	N/A	N/A
IRO-005- 2	R1.9.	Planned transmission or generation outages.	N/A	N/A	N/A	N/A
IRO-005- 2	R1.10.	Contingency events.	N/A	N/A	N/A	N/A
IRO-005- 2	R2.	Each Reliability Coordinator shall be aware of all Interchange Transactions that wheel through, source, or sink in its Reliability Coordinator Area, and make that Interchange Transaction information available to all Reliability Coordinators in the Interconnection.	N/A	N/A	The Reliability Coordinator was aware of all Interchange Transactions that wheeled through, sourced, or sinked in its Reliability Coordinator Area, but failed to make that Interchange Transaction information	The Reliability Coordinator failed to be aware of all Interchange Transactions that wheeled through, sourced, or sinked in its Reliability Coordinator Area, and failed to make that Interchange Transaction information available to all Reliability Coordinators in the Interconnection.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					available to all Reliability Coordinators in the Interconnection.	
IRO-005- 2	R3.	As portions of the transmission system approach or exceed SOLs or IROLs, the Reliability Coordinator shall work with its Transmission Operators and Balancing Authorities to evaluate and assess any additional Interchange Schedules that would violate those limits. If a potential or actual IROL violation cannot be avoided through proactive intervention, the Reliability Coordinator shall initiate control actions or emergency procedures to relieve the violation without delay, and no longer than 30 minutes. The Reliability Coordinator shall ensure all resources, including load shedding, are available to address a potential or actual IROL violation.	N/A	The Reliability Coordinator worked with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and initiated control actions or emergency procedures to relieve the violation within 30 minutes, but failed to ensure all resources, including load shedding, were available to address a potential or actual IROL violation.	The Reliability Coordinator worked with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and ensured all resources, including load shedding, were available to address a potential or actual IROL violation, but failed to initiate control actions or emergency procedures to relieve the violation within 30 minutes.	The Reliability Coordinator failed to work with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and failed to initiate control actions or emergency procedures to relieve the violation within 30 minutes.
IRO-005-	R4.	Each Reliability Coordinator shall monitor its Balancing Authorities'	N/A	The Reliability Coordinator failed	The Reliability Coordinator failed	The Reliability Coordinator failed to

Page 171 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
2		parameters to ensure that the required amount of operating reserves is provided and available as required to meet the Control Performance Standard and Disturbance Control Standard requirements. If necessary, the Reliability Coordinator shall direct the Balancing Authorities in the Reliability Coordinator Area to arrange for assistance from neighboring Balancing Authorities. The Reliability Coordinator shall issue Energy Emergency Alerts as needed and at the request of its Balancing Authorities and Load-Serving Entities.		to direct the Balancing Authorities in the Reliability Coordinator Area to arrange for assistance from neighboring Balancing Authorities.	to issue Energy Emergency Alerts as needed and at the request of its Balancing Authorities and Load-Serving Entities.	monitor its Balancing Authorities' parameters to ensure that the required amount of operating reserves was provided and available as required to meet the Control Performance Standard and Disturbance Control Standard requirements.
IRO-005- 2	R5.	Each Reliability Coordinator shall identify the cause of any potential or actual SOL or IROL violations. The Reliability Coordinator shall initiate the control action or emergency procedure to relieve the potential or actual IROL violation without delay, and no longer than 30 minutes. The Reliability Coordinator shall be able to utilize all resources, including load shedding, to address an IROL violation.	N/A	N/A	The Reliability Coordinator identified the cause of a potential or actual SOL or IROL violation, but failed to initiate a control action or emergency procedure to relieve the potential or actual IROL violation within 30 minutes.	The Reliability Coordinator failed to identify the cause of a potential or actual SOL or IROL violation and failed to initiate a control action or emergency procedure to relieve the potential or actual IROL violation.
IRO-005- 2	R6.	Each Reliability Coordinator shall ensure its Transmission Operators and Balancing Authorities are aware of Geo-Magnetic Disturbance (GMD) forecast information and assist as needed in the development of any	N/A	N/A	The Reliability Coordinator ensured its Transmission Operators and Balancing Authorities were	The Reliability Coordinator failed to ensure its Transmission Operators and Balancing Authorities were aware of Geo-Magnetic Disturbance (GMD) Page <b>172</b> of <b>447</b>

Page 172 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		required response plans.			aware of Geo- Magnetic Disturbance (GMD) forecast information, but failed to assist, when needed, in the development of any required response plans.	forecast information.
IRO-005- 2	R7.	The Reliability Coordinator shall disseminate information within its Reliability Coordinator Area, as required.	N/A	N/A	N/A	The Reliability Coordinator failed to disseminate information within its Reliability Coordinator Area, when required.
IRO-005- 2	R8.	Each Reliability Coordinator shall monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. The Transmission Operators and Balancing Authorities shall utilize all resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition.	N/A	N/A	The Reliability Coordinator monitored system frequency and its Balancing Authorities' performance but failed to direct any necessary rebalancing to return to CPS and DCS compliance.	The Reliability Coordinator failed to monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. OR The responsible entity failed to utilize all resources, including firm load shedding, as directed by its Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						the emergent condition.
IRO-005- 2	R9.	The Reliability Coordinator shall coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations. The Reliability Coordinator shall coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real-time and next-day reliability analysis timeframes.	N/A	The Reliability Coordinator coordinated with Transmission Operators, Balancing Authorities, and Generator Operators, as needed, to develop action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations but failed to implement said plans.ORThe Reliability Coordinated pending generation and transmission maintenance outages with Transmission Operators, as needed in the real- time reliability	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations. OR The Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real-time and next- day reliability	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations. AND The Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real- time and next-day reliability analysis timeframes.

Page 174 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				analysis timeframe but failed to coordinate pending generation and transmission maintenance outages in the next- day reliability analysis timeframe.	analysis timeframes.	
IRO-005- 2	R10.	As necessary, the Reliability Coordinator shall assist the Balancing Authorities in its Reliability Coordinator Area in arranging for assistance from neighboring Reliability Coordinator Areas or Balancing Authorities.	N/A	N/A	N/A	The Reliability Coordinator failed to assist the Balancing Authorities in its Reliability Coordinator Area in arranging for assistance from neighboring Reliability Coordinator Areas or Balancing Authorities, when necessary.
IRO-005- 2	R11.	The Reliability Coordinator shall identify sources of large Area Control Errors that may be contributing to Frequency Error, Time Error, or Inadvertent Interchange and shall discuss corrective actions with the appropriate Balancing Authority. The Reliability Coordinator shall direct its Balancing Authority to comply with CPS and DCS.	N/A	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange and discussed corrective actions with the appropriate Balancing Authority but failed	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange but failed to discuss corrective actions with the appropriate Balancing	The Reliability Coordinator failed to identify sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				to direct the Balancing Authority to comply with CPS and DCS.	Authority.	
IRO-005- 2	R12.	Whenever a Special Protection System that may have an inter-Balancing Authority, or inter-Transmission Operator impact (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the Reliability Coordinators shall be aware of the impact of the operation of that Special Protection System on inter-area flows. The Transmission Operator shall immediately inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected.	N/A	N/A	N/A	The Reliability Coordinator failed to be aware of the impact on inter-area flows of an inter-Balancing Authority or inter- Transmission Operator, following the operation of a Special Protection System that was armed (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation). OR The Transmission Operator failed to immediately inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected.
IRO-005- 2	R13.	Each Reliability Coordinator shall ensure that all Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and	N/A	N/A	N/A	The Reliability Coordinator failed to ensure that all Transmission Operators, Balancing Authorities,

Page 176 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Purchasing-Selling Entities operate to prevent the likelihood that a disturbance, action, or non-action in its Reliability Coordinator Area will result in a SOL or IROL violation in another area of the Interconnection. In instances where there is a difference in derived limits, the Reliability Coordinator and its Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities shall always operate the Bulk Electric System to the most limiting parameter.				Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing- Selling Entities operated to prevent the likelihood that a disturbance, action, or non-action in its Reliability Coordinator Area could result in a SOL or IROL violation in another area of the Interconnection. OR The responsible entity failed to operate the Bulk Electric System to the most limiting parameter in instances where there was a difference in derived limits.
IRO-005- 2	R14.	Each Reliability Coordinator shall make known to Transmission Service Providers within its Reliability Coordinator Area, SOLs or IROLs within its wide-area view. The Transmission Service Providers shall respect these SOLs or IROLs in accordance with filed tariffs and regional Total Transfer Calculation and Available Transfer Calculation processes.	N/A	N/A	N/A	The Reliability Coordinator failed to make known to Transmission Service Providers within its Reliability Coordinator Area, SOLs or IROLs within its wide-area view. OR The Transmission Service Providers failed to respect these SOLs or IROLs in accordance

Page 177 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						with filed tariffs and regional Total Transfer Calculation and Available Transfer Calculation processes.
IRO-005- 2	R15.	Each Reliability Coordinator who foresees a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its Reliability Coordinator Area shall issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area without delay. The receiving Reliability Coordinator shall disseminate this information to its impacted Transmission Operators and Balancing Authorities. The Reliability Coordinator shall notify all impacted Transmission Operators, Balancing Authorities, when the transmission problem has been mitigated.	N/A	The Reliability Coordinator failed to notify all impacted Transmission Operators and Balancing Authorities, when the transmission problem had been mitigated.	N/A	The Reliability Coordinator who foresaw a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its Reliability Coordinator Area failed to issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area. OR The receiving Reliability Coordinator failed to disseminate this information to its impacted Transmission Operators and Balancing Authorities.
IRO-005- 2	R16.	Each Reliability Coordinator shall confirm reliability assessment results and determine the effects within its own and adjacent Reliability Coordinator Areas. The Reliability Coordinator shall discuss options to mitigate potential or actual SOL or IROL violations and take actions as	N/A	N/A	The Reliability Coordinator confirmed the reliability assessment results and determined the effects within its own and adjacent	The Reliability Coordinator failed to confirm reliability assessment results and determine the effects within its own and adjacent Reliability Coordinator Areas.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		necessary to always act in the best interests of the Interconnection at all times.			Reliability Coordinator Areas and discussed options to mitigate potential or actual SOL or IROL violations, <b>but</b> failed to take actions as necessary to always act in the best interests of the Interconnection at all times.	OR The Reliability Coordinator failed to discuss options to mitigate potential or actual SOL or IROL violations and take actions as necessary to always act in the best interests of the Interconnection at all times.
IRO-005- 2	R17.	When an IROL or SOL is exceeded, the Reliability Coordinator shall evaluate the local and wide-area impacts, both real-time and post- contingency, and determine if the actions being taken are appropriate and sufficient to return the system to within IROL in thirty minutes. If the actions being taken are not appropriate or sufficient, the Reliability Coordinator shall direct the Transmission Operator, Balancing Authority, Generator Operator, or Load-Serving Entity to return the system to within IROL or SOL.	N/A	N/A	N/A	The Reliability Coordinator either failed to evaluate the local and wide-area impacts of an IROL or SOL that was exceeded, in either real- time or post-contingency. OR The Reliability Coordinator evaluated the local and wide-area impacts of an IROL or SOL that was exceeded, both real-time and post- contingency, and determined that the actions being taken were not appropriate and sufficient to return the system to within IROL in thirty (30) minutes, but failed to direct the

Page 179 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Transmission Operator, Balancing Authority, Generator Operator, or Load-Serving Entity to return the system to within IROL or SOL.
IRO-005- 3	R1	Each Reliability Coordinator shall monitor its Reliability Coordinator Area parameters, including but not limited to the following:	The Reliability Coordinator failed to monitor one (1) of the elements listed in R1.1 through R1.10.	The Reliability Coordinator failed to monitor two (2) of the elements listed in R1.1 through R1.10.	The Reliability Coordinator failed to monitor three (3) of the elements listed in R1.1 through R1.10.	The Reliability Coordinator failed to monitor more than three (3) of the elements listed in R1.1 through R1.10.
IRO-005- 3	R1.1	Current status of Bulk Electric System elements (transmission or generation including critical auxiliaries such as Automatic Voltage Regulators and Special Protection Systems) and system loading.	N/A	N/A	N/A	N/A
IRO-005- 3	R1.2	Current pre-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan's viability and scope.	N/A	N/A	N/A	N/A
IRO-005- 3	R1.3	Current post-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan's viability and scope.	N/A	N/A	N/A	N/A
IRO-005- 3	R1.4	System real and reactive reserves (actual versus required).	N/A	N/A	N/A	N/A
IRO-005- 3	R1.5	Capacity and energy adequacy conditions.	N/A	N/A	N/A	N/A

Page 180 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-005- 3	R1.6	Current ACE for all its Balancing Authorities.	N/A	N/A	N/A	N/A
IRO-005- 3	R1.7	Current local or Transmission Loading Relief procedures in effect.	N/A	N/A	N/A	N/A
IRO-005- 3	R1.8	Planned generation dispatches.	N/A	N/A	N/A	N/A
IRO-005- 3	R1.9	Planned transmission or generation outages.	N/A	N/A	N/A	N/A
IRO-005- 3	R1.10	Contingency events.	N/A	N/A	N/A	N/A
IRO-005- 3	R2	Each Reliability Coordinator shall monitor its Balancing Authorities' parameters to ensure that the required amount of operating reserves is provided and available as required to meet the Control Performance Standard and Disturbance Control Standard requirements. If necessary, the Reliability Coordinator shall direct the Balancing Authorities in the Reliability Coordinator Area to arrange for assistance from neighboring Balancing Authorities. The Reliability Coordinator shall issue Energy Emergency Alerts as needed and at the request of its Balancing Authorities and Load-Serving Entities.	N/A	The Reliability Coordinator failed to direct the Balancing Authorities in the Reliability Coordinator Area to arrange for assistance from neighboring Balancing Authorities.	The Reliability Coordinator failed to issue Energy Emergency Alerts as needed and at the request of its Balancing Authorities and Load-Serving Entities.	The Reliability Coordinator failed to monitor its Balancing Authorities' parameters to ensure that the required amount of operating reserves was provided and available as required to meet the Control Performance Standard and Disturbance Control Standard requirements.
IRO-005- 3	R3	Each Reliability Coordinator shall ensure its Transmission Operators and Balancing Authorities are aware of Geo-Magnetic Disturbance (GMD) forecast information and assist as needed in the development of any required response plans.	N/A	N/A	The Reliability Coordinator ensured its Transmission Operators and Balancing Authorities were	The Reliability Coordinator failed to ensure its Transmission Operators and Balancing Authorities were aware of Geo-Magnetic Disturbance (GMD)

Page 181 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					aware of Geo- Magnetic Disturbance (GMD) forecast information, but failed to assist, when needed, in the development of any required response plans.	forecast information.
IRO-005- 3	R4	The Reliability Coordinator shall disseminate information within its Reliability Coordinator Area, as required.	N/A	N/A	N/A	The Reliability Coordinator failed to disseminate information within its Reliability Coordinator Area, when required.
IRO-005- 3	R5	Each Reliability Coordinator shall monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. The Transmission Operators and Balancing Authorities shall utilize all resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition.	N/A	N/A	The Reliability Coordinator monitored system frequency and its Balancing Authorities' performance but failed to direct any necessary rebalancing to return to CPS and DCS compliance.	The Reliability Coordinator failed to monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. OR The responsible entity failed to utilize all
						resources, including firm load shedding, as directed by its Reliability Coordinator to relieve

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						the emergent condition.
IRO-005- 3	R6	The Reliability Coordinator shall coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, CPS, or DCS violations. The Reliability Coordinator shall coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real time and next-day reliability analysis timeframes.	N/A	The ReliabilityCoordinatorcoordinated withTransmissionOperators,BalancingAuthorities, andGeneratorOperators, asneeded, to developaction plans tomitigate potentialor actual SOL,CPS, or DCSviolations but failedto implement saidplans,ORThe ReliabilityCoordinatorcoordinatedpending generationand transmissionmaintenanceoutages withTransmissionOperators,BalancingAuthorities, andGeneratorOperators asneeded in the real-time reliability	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, CPS, or DCS violations OR The Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real-time and next- day reliability	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, CPS, or DCS violations and the Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real- time and next-day reliability analysis timeframes.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				analysis timeframe but failed to coordinate pending generation and transmission maintenance outages in the next- day reliability analysis timeframe.	analysis timeframes.	
IRO-005- 3	R7	As necessary, the Reliability Coordinator shall assist the Balancing Authorities in its Reliability Coordinator Area in arranging for assistance from neighboring Reliability Coordinator Areas or Balancing Authorities.	N/A	N/A	N/A	The Reliability Coordinator failed to assist the Balancing Authorities in its Reliability Coordinator Area in arranging for assistance from neighboring Reliability Coordinator Areas or Balancing Authorities, when necessary.
IRO-005- 3	R8	The Reliability Coordinator shall identify sources of large Area Control Errors that may be contributing to Frequency Error, Time Error, or Inadvertent Interchange and shall discuss corrective actions with the appropriate Balancing Authority. The Reliability Coordinator shall direct its Balancing Authority to comply with CPS and DCS.	N/A	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange and discussed corrective actions with the appropriate Balancing Authority but failed	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange but failed to discuss corrective actions with the appropriate Balancing	The Reliability Coordinator failed to identify sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				to direct the Balancing Authority to comply with CPS and DCS.	Authority.	
IRO-005- 3	R9	Whenever a Special Protection System that may have an inter-Balancing Authority, or inter-Transmission Operator impact (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the Reliability Coordinators shall be aware of the impact of the operation of that Special Protection System on inter-area flows. The Transmission Operator shall immediately inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected.	N/A	N/A	N/A	<ul> <li>The Reliability         <ul> <li>Coordinator failed to be aware of the impact on inter-area flows of an inter-Balancing</li> <li>Authority or inter-Transmission Operator, following the operation of a Special Protection</li> <li>System that is armed (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation)</li> </ul> </li> <li>OR         <ul> <li>The Transmission Operator the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected.</li> </ul> </li> </ul>
IRO-005- 3	R10	In instances where there is a difference in derived limits, the Transmission Operators, Balancing Authorities,	N/A	N/A	N/A	The responsible entity failed to operate the Bulk Electric System to the

Page 185 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities shall always operate the Bulk Electric System to the most limiting parameter.				most limiting parameter in instances where there was a difference in derived limits.
IRO-005- 3	R11	The Transmission Service Provider shall respect SOLs and IROLs in accordance with filed tariffs and regional Total Transfer Calculation and Available Transfer Calculation processes.	N/A	N/A	N/A	The Transmission Service Provider failed to respect SOLs or IROLs in accordance with filed tariffs and regional Total Transfer Calculation and Available Transfer Calculation processes.
IRO-005- 3	R12	Each Reliability Coordinator who foresees a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its Reliability Coordinator Area shall issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area without delay. The receiving Reliability Coordinator shall disseminate this information to its impacted Transmission Operators and Balancing Authorities. The Reliability Coordinator shall notify all impacted Transmission Operators, Balancing Authorities, when the transmission problem has been mitigated.	N/A	The Reliability Coordinator failed to notify all impacted Transmission Operators, Balancing Authorities, when a transmission problem had been mitigated.	N/A	The Reliability Coordinator who foresaw a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its Reliability Coordinator Area failed to issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area OR The receiving Reliability Coordinator failed to disseminate this information to its impacted Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Operators and Balancing Authorities.
IRO-006- 3	R2	A Reliability Coordinator experiencing a potential or actual SOL or IROL violation within its Reliability Coordinator Area shall, at its discretion, select from either a "local" (Regional, Interregional, or subregional) transmission loading relief procedure or an Interconnection-wide procedure.	N/A	N/A	N/A	The Reliability Coordinator experiencing a potential or actual SOL or IROL violation within its Reliability Coordinator Area failed to select from either a "local" (Regional, Interregional, or subregional) transmission loading relief procedure or an Interconnection-wide procedure.
IRO-006- 3	R2.1	The Interconnection-wide Transmission Loading Relief (TLR) procedure for use in the Eastern Interconnection is provided in Attachment 1-IRO-006-0.	N/A	N/A	N/A	N/A
IRO-006- 3	R2.2	The equivalent Interconnection-wide transmission loading relief procedure for use in the Western Interconnection is the "WSCC Unscheduled Flow Mitigation Plan," provided at: <u>http://www.wecc.biz/documents/library</u> / <u>UFAS/UFAS_mitigation_plan_rev_20</u> 01-clean_8-8-03.pdf.	N/A	N/A	N/A	N/A
IRO-006- 3	R2.3	The Interconnection-wide transmission loading relief procedure for use in ERCOT is provided as Section 7 of the ERCOT Protocols, posted at:	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		http://www.ercot.com/mktrules/protoco ls/library/2007/02/February 1, 2007 P rotocols.pdf.				
IRO-006- 3	R3	The Reliability Coordinator may use local transmission loading relief or congestion management procedures, provided the Transmission Operator experiencing the potential or actual SOL or IROL violation is a party to those procedures.	N/A	N/A	N/A	The Reliability Coordinator used a local transmission loading relief or congestion management procedure when the Transmission Operator experiencing the potential or actual SOL or IROL violation was not a party to said procedure.
IRO-006- 3	R4	A Reliability Coordinator may implement a local transmission loading relief or congestion management procedure simultaneously with an Interconnection-wide procedure. However, the Reliability Coordinator shall follow the curtailments as directed by the Interconnection-wide procedure. A Reliability Coordinator desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection-wide procedure shall have such use approved by the NERC Operating Committee.	N/A	N/A	A Reliability Coordinator used a local procedure as a substitute for curtailments as directed by an Interconnection- wide procedure without having said procedure approved for use by the NERC Operating Committee.	A Reliability Coordinator implemented a local transmission loading relief or congestion management procedure simultaneously with an Interconnection-wide procedure and failed to follow the curtailments as directed by the Interconnection-wide procedure.
IRO-006- 3	R5	When implemented, all Reliability Coordinators shall comply with the provisions of the Interconnection-wide procedure including, for example,	N/A	N/A	N/A	The Reliability Coordinator failed to comply with the provisions of an

Page 188 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		action by Reliability Coordinators in other Interconnections to curtail an Interchange Transaction that crosses an Interconnection boundary.				Interconnection-wide procedure when the procedure was implemented.
IRO-006- 3	R6	During the implementation of relief procedures, and up to the point that emergency action is necessary, Reliability Coordinators and Balancing Authorities shall comply with interchange scheduling standards INT- 001 through INT-004.	The responsible entity failed to comply with 5% or less of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.	The responsible entity failed to comply with more than 5% up to (and including) 10% of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.	The responsible entity failed to comply with more than 10% up to (and including) 15% of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.	The responsible entity failed to comply with more than 15% of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.
IRO-006- 4.1	R1.	A Reliability Coordinator experiencing a potential or actual SOL or IROL violation within its Reliability Coordinator Area shall, with its authority and at its discretion, select one or more procedures to provide transmission loading relief. These procedures can be a "local" (regional, interregional, or sub-regional) transmission loading relief procedure or one of the following Interconnection-wide procedures:	For each TLR in the Eastern Interconnection, the Reliability Coordinator violates one (1) requirement of the applicable Interconnection- wide procedure	For each TLR in the Eastern Interconnection, the Reliability Coordinator violated two (2) to three (3) requirements of the applicable Interconnection- wide procedure	For each TLR in the Eastern Interconnection, the applicable Reliability Coordinator violated four (4) to five (5) requirements of the applicable Interconnection- wide procedure	For each TLR in the Eastern Interconnection, the Reliability Coordinator violated six (6) or more of the requirements of the applicable Interconnection-wide procedure OR While attempting to mitigate an existing IROL violation in the Eastern Interconnection, the Reliability Coordinator applied TLR

Page 189 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						as the sole remedy for an existing IROL violation.
						OR
						<ul> <li>While attempting to mitigate an existing constraint in the Western Interconnection using the "WSCC Unscheduled</li> <li>Flow Mitigation Plan", the Reliability</li> <li>Coordinator did not follow the procedure correctly</li> <li>OR</li> <li>While attempting to mitigate an existing constraint in ERCOT using Section 7 of the ERCOT Protocols, the Reliability Coordinator</li> </ul>
						did not follow the procedure correctly
IRO-006- 4.1	R1.1	The Interconnection-wide Transmission Loading Relief (TLR) procedure for use in the Eastern Interconnection provided in Attachment 1-IRO-006-4. The TLR procedure alone is an inappropriate and ineffective tool to mitigate an IROL violation due to the time required to implement the procedure. Other	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		acceptable and more effective procedures to mitigate actual IROL violations include: reconfiguration, redispatch, or load shedding.				
IRO-006- 4.1	R1.2	The Interconnection-wide transmission loading relief procedure for use in the Western Interconnection isWECC- IRO-STD-006-0 provided at: ftp://www.nerc.com/pub/sys/all_updl/st andards/rrs/IRO-STD-006- 0_17Jan07.pdf.	N/A	N/A	N/A	N/A
IRO-006- 4.1	R1.3	The Interconnection-wide transmission loading relief procedure for use in ERCOT is provided as Section 7 of the ERCOT Protocols, posted at: http://www.ercot.com/mktrules/protoco ls/current.html	N/A	N/A	N/A	N/A
IRO-006- 4.1	R2	The Reliability Coordinator shall only use local transmission loading relief or congestion management procedures to which the Transmission Operator experiencing the potential or actual SOL or IROL violation is a party.	N/A	N/A	N/A	A Reliability Coordinator implemented local transmission loading relief or congestion management procedures to relieve congestion but the Transmission Operator experiencing the congestion was not a party to those procedure
IRO-006- 4.1	R3.	Each Reliability Coordinator with a relief obligation from an Interconnection-wide procedure shall follow the curtailments as directed by the Interconnection-wide procedure. A Reliability Coordinator desiring to use	N/A	N/A	N/A	A Reliability Coordinator implemented a local transmission loading relief or congestion management procedure

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		a local procedure as a substitute for curtailments as directed by the Interconnection-wide procedure shall obtain prior approval of the local procedure from the ERO.				<ul> <li>as a substitute for curtailment as directed by the Interconnection- wide procedure, but the local procedure had not received prior approval from the ERO.</li> <li>OR</li> <li>A Reliability Coordinator with a relief obligation from an Interconnection-wide procedure did not follow the curtailments as directed by the Interconnection-wide procedure and did not use a substitute procedure previously</li> </ul>
IRO-006- 4.1	R4	When Interconnection-wide procedures are implemented to curtail Interchange Transactions that cross an Interconnection boundary, each Reliability Coordinator shall comply with the provisions of the Interconnection-wide procedure.	N/A	N/A	N/A	approved by the ERO.When requested to curtail an Interchange Transaction that crosses an Interconnection boundary utilizing an Interconnection-wide procedure, the responding Reliability Coordinator did not comply with the provisions of the Interconnection-wide procedure as requested

Page 192 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						by the initiating Reliability Coordinator.
IRO-006- 4.1	R5	During the implementation of relief procedures, and up to the point that emergency action is necessary, Reliability Coordinators and Balancing Authorities shall comply with applicable Interchange scheduling standards.	N/A	N/A	N/A	The Reliability Coordinators or Balancing Authorities did not comply with applicable Interchange scheduling standards during the implementation of the relief procedures, up to the point emergency action is necessary.
IRO-008- 1	R1	Each Reliability Coordinator shall perform an Operational Planning Analysis to assess whether the planned operations for the next day within its Wide Area, will exceed any of its Interconnection Reliability Operating Limits (IROLs) during anticipated normal and Contingency event conditions.	N/A	N/A	N/A	The Reliability Coordinator did not perform a day-ahead Operational Planning Analysis that covered all aspects of the requirement.
IRO-008- 1	R2	Each Reliability Coordinator shall perform a Real-Time Assessment at least once every 30 minutes to determine if its Wide Area is exceeding any IROLs or is expected to exceed any IROLs.	N/A	N/A	N/A	The Reliability Coordinator did not conduct a Real-time Assessment at least once every 30 minutes as described in the requirement.
IRO-008- 1	R3	When a Reliability Coordinator determines that the results of an Operational Planning Analysis or Real- Time Assessment indicates the need for specific operational actions to prevent or mitigate an instance of exceeding an	N/A	The Reliability Coordinator shared the results with some but not all of the entities that were required to	N/A	The Reliability Coordinator shared the results of its analyses or assessments with none of the entities that were

Page 193 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		IROL, the Reliability Coordinator shall share its results with those entities that are expected to take those actions.		take action.		required to take action.
IRO-009- 1	R1		N/A	N/A	N/A	The Reliability Coordinator identified an IROL in its Reliability Coordinator Area one or more days in advance, but the Reliability Coordinator does not have an Operating Process, Procedure, or Plan that identifies actions to prevent exceeding that IROL.
IRO-009- 1	R2	For each IROL (in its Reliability Coordinator Area) that the Reliability Coordinator identifies one or more days prior to the current day, the Reliability Coordinator shall have one or more Operating Processes, Procedures, or Plans that identify actions it shall take or actions it shall direct others to take (up to and including load shedding) to mitigate the magnitude and duration of exceeding that IROL such that the IROL is relieved within the IROL's Tv.	N/A	N/A	N/A	The Reliability Coordinator identified an IROL in its Reliability Coordinator Area one or more days in advance, but the Reliability Coordinator does not have an Operating Process, Procedure, or Plan that identifies actions to mitigate the magnitude and duration of exceeding that IROL within the IROL's Tv.
IRO-009- 1	R3	When an assessment of actual or expected system conditions predicts that an IROL in its Reliability Coordinator Area will be exceeded, the Reliability Coordinator shall implement one or more Operating	N/A	N/A	N/A	An assessment of actual or expected system conditions predicted that an IROL in the Reliability Coordinator's Area would be exceeded,

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Processes, Procedures or Plans (not limited to the Operating Processes, Procedures, or Plans developed for Requirements R1) to prevent exceeding that IROL.				but the Reliability Coordinator did not implement any Operating Processes, Procedures, or Plans to prevent exceeding that IROL.
IRO-009- 1	R4	When actual system conditions show that there is an instance of exceeding an IROL in its Reliability Coordinator Area, the Reliability Coordinator shall, without delay, act or direct others to act to mitigate the magnitude and duration of the instance of exceeding that IROL within the IROL's Tv.	N/A	N/A	Actual system conditions showed that there was an instance of exceeding an IROL in its Reliability Coordinator Area, and the Reliability Coordinator delayed acting or directing others to act to mitigate the magnitude and duration of the instance of exceeding that IROL; however the IROL was mitigated within the IROL Tv. (R4)	Actual system conditions showed that there was an instance of exceeding an IROL in its Reliability Coordinator Area, and the Reliability Coordinator did not act or direct others to act such that the that IROL was mitigated within the IROL's Tv. (R4)
IRO-009- 1	R5	If unanimity cannot be reached on the value for an IROL or its Tv, each Reliability Coordinator that monitors that Facility (or group of Facilities) shall, without delay, use the most conservative of the values (the value with the least impact on reliability) under consideration.	N/A	N/A	N/A	When there was a disagreement on the value of the IROL or its Tv, the Reliability Coordinator did not use the most conservative limit under consideration. (R5)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-010- 1	R1	The Reliability Coordinator shall have a documented specification for data and information to build and maintain models to support Real-time monitoring, Operational Planning Analyses, and Real-time Assessments of its Reliability Coordinator Area to prevent instability, uncontrolled separation, and cascading outages. The specification shall include the following:	The Reliability Coordinator's data specification is missing the mutually agreeable format as specified in R1.2.	The Reliability Coordinator's data specification is missing a process for data provision when automated Real-Time system operating data is unavailable s specified in R1.4.	The Reliability Coordinator's data specification is missing either the list of required data as specified in R1.1, or the timeframe for providing data as specified in R1.3.	The Reliability Coordinator has no data specification.
IRO-010- 1	R1.1	List of required data and information needed by the Reliability Coordinator to support Real-Time Monitoring, Operational Planning Analyses, and Real-Time Assessments.	N/A	N/A	N/A	N/A
IRO-010- 1	R1.2.	Mutually agreeable format.	N/A	N/A	N/A	N/A
IRO-010- 1	R1.3.	Timeframe and periodicity for providing data and information (based on its hardware and software requirements, and the time needed to do its Operational Planning Analyses).	N/A	N/A	N/A	N/A
IRO-010- 1	R1.4.	Process for data provision when automated Real-Time system operating data is unavailable.	N/A	N/A	N/A	N/A
IRO-010- 1	R2	The Reliability Coordinator shall distribute its data specification to entities that have Facilities monitored by the Reliability Coordinator and to entities that provide Facility status to the Reliability Coordinator.	The Reliability Coordinator distributed its data specification to greater than or equal to 95% but less than 100% of the entities that have Facilities	The Reliability Coordinator distributed its data specification to greater than or equal to 85% but less than 95% of the entities that have Facilities	The Reliability Coordinator distributed its data specification to greater than or equal to 75% but less than 85% of the entities that have Facilities	The Reliability Coordinator data specification distributed to less than 75% of the entities that have Facilities monitored by the Reliability Coordinator and the entities that provide the

Page 196 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			monitored by the Reliability Coordinator and the entities that provide the Reliability Coordinator with Facility status.	monitored by the Reliability Coordinator and the entities that provide the Reliability Coordinator with Facility status.	monitored by the Reliability Coordinator and the entities that provide the Reliability Coordinator with Facility status.	Reliability Coordinator with Facility status.
IRO-010- 1	R3	Each Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-serving Entity, Reliability Coordinator, Transmission Operator, and Transmission Owner shall provide data and information, as specified, to the Reliability Coordinator(s) with which it has a reliability relationship.	The responsible entity provided greater than or equal to 95% but less than 100% of the data and information as specified.	The responsible entity provided greater than or equal to 85% but less than 95% of the data and information as specified.	The responsible entity provided greater than or equal to 75% but less than 85% of the data and information as specified.	The responsible entity provided less than 75% of the data and information as specified.
IRO-010- 1a	R1	The Reliability Coordinator shall have a documented specification for data and information to build and maintain models to support Real-time monitoring, Operational Planning Analyses, and Real-time Assessments of its Reliability Coordinator Area to prevent instability, uncontrolled separation, and cascading outages. The specification shall include the following:	The Reliability Coordinator's data specification is missing the mutually agreeable format as specified in R1.2.	The Reliability Coordinator's data specification is missing a process for data provision when automated Real-Time system operating data is unavailable s specified in R1.4.	The Reliability Coordinator's data specification is missing either the list of required data as specified in R1.1, or the timeframe for providing data as specified in R1.3.	The Reliability Coordinator has no data specification.
IRO-010- 1a	R1.1	List of required data and information needed by the Reliability Coordinator to support Real-Time Monitoring, Operational Planning Analyses, and Real-Time Assessments.	N/A	N/A	N/A	N/A
IRO-010- 1a	R1.2	Mutually agreeable format.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
IRO-010- 1a	R1.3	Timeframe and periodicity for providing data and information (based on its hardware and software requirements, and the time needed to do its Operational Planning Analyses).	N/A	N/A	N/A	N/A
IRO-010- 1a	R1.4	Process for data provision when automated Real-Time system operating data is unavailable.	N/A	N/A	N/A	N/A
IRO-010- 1a	R2	The Reliability Coordinator shall distribute its data specification to entities that have Facilities monitored by the Reliability Coordinator and to entities that provide Facility status to the Reliability Coordinator.	The Reliability Coordinator distributed its data specification to greater than or equal to 95% but less than 100% of the entities that have Facilities monitored by the Reliability Coordinator and the entities that provide the Reliability Coordinator with Facility status.	The Reliability Coordinator distributed its data specification to greater than or equal to 85% but less than 95% of the entities that have Facilities monitored by the Reliability Coordinator and the entities that provide the Reliability Coordinator with Facility status.	The Reliability Coordinator distributed its data specification to greater than or equal to 75% - but less than 85% of the entities that have Facilities monitored by the Reliability Coordinator and the entities that provide the Reliability Coordinator with Facility status.	The Reliability Coordinator data specification distributed to less than 75% of the entities that have Facilities monitored by the Reliability Coordinator and the entities that provide the Reliability Coordinator with Facility status.
IRO-010- 1a	R3	Each Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-serving Entity, Reliability Coordinator, Transmission Operator, and Transmission Owner shall provide data and information, as specified, to the Reliability Coordinator(s) with which it has a reliability relationship.	The responsible entity provided greater than or equal to 95% but less than 100% of the data and information as specified.	The responsible entity provided greater than or equal to 85% but less than 95% of the data and information as specified.	The responsible entity provided greater than or equal to 75% but less than 85% of the data and information as specified.	The responsible entity provided less than 75% of the data and information as specified.
IRO-014- 1	R1.	The Reliability Coordinator shall have Operating Procedures, Processes, or Plans in place for activities that require	N/A	N/A	The Reliability Coordinator has Operating	The Reliability Coordinator failed to have Operating

Page 198 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		notification, exchange of information or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability. These Operating Procedures, Processes, or Plans shall address Scenarios that affect other Reliability Coordinator Areas as well as those developed in coordination with other Reliability Coordinators.			Procedures, Processes, or Plans in place for activities that require notification, exchange of information or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability, but failed to address Scenarios that affect other Reliability Coordinator Areas.	Procedures, Processes, or Plans in place for activities that require notification, exchange of information or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability.
IRO-014- 1	R1.1.	These Operating Procedures, Processes, or Plans shall collectively address, as a minimum, the following:	N/A	The Reliability Coordinator failed to include one of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in its Operating Procedures, Processes, or Plans.	The Reliability Coordinator failed to include two of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in its Operating Procedures, Processes, or Plans.	The Reliability Coordinator failed to include more than two of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in its Operating Procedures, Processes, or Plans.
IRO-014- 1	R1.1.1.	Communications and notifications, including the conditions under which one Reliability Coordinator notifies other Reliability Coordinators; the process to follow in making those notifications; and the data and	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		information to be exchanged with other Reliability Coordinators.				
IRO-014- 1	R1.1.2.	Energy and capacity shortages.	N/A	N/A	N/A	N/A
IRO-014- 1	R1.1.3.	Planned or unplanned outage information.	N/A	N/A	N/A	N/A
IRO-014- 1	R1.1.4.	Voltage control, including the coordination of reactive resources for voltage control.	N/A	N/A	N/A	N/A
IRO-014- 1	R1.1.5.	Coordination of information exchange to support reliability assessments.	N/A	N/A	N/A	N/A
IRO-014- 1	R1.1.6.	Authority to act to prevent and mitigate instances of causing Adverse Reliability Impacts to other Reliability Coordinator Areas.	N/A	N/A	N/A	N/A
IRO-014- 1	R2.	Each Reliability Coordinator's Operating Procedure, Process, or Plan that requires one or more other Reliability Coordinators to take action (e.g., make notifications, exchange information, or coordinate actions) shall be:	N/A	The Reliability Coordinator's Operating Procedure, Process, or Plan was not agreed to by all the Reliability Coordinators required to take the indicated action(s). (R2.1) OR The Reliability Coordinator's Operating	N/A	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to comply with both R2.1 and R2.2.
				The Reliability		

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				or Plan was not distributed to all Reliability Coordinators that are required to take the indicated action(s). (R2.2)		
IRO-014- 1	R2.1.	Agreed to by all the Reliability Coordinators required to take the indicated action(s).	N/A	N/A	N/A	N/A
IRO-014- 1	R2.2.	Distributed to all Reliability Coordinators that are required to take the indicated action(s).	N/A	N/A	N/A	N/A
IRO-014- 1	R3.	A Reliability Coordinator's Operating Procedures, Processes, or Plans developed to support a Reliability Coordinator-to-Reliability Coordinator Operating Procedure, Process, or Plan shall include:	N/A	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to reference the associated Reliability Coordinator-to- Reliability Coordinator Operating Procedure, Process, or Plan. (R3.1)ORThe Reliability Coordinator's Operating Procedure, Process, or Plan failed to	N/A	The Reliability Coordinator's Operating Procedure, Process, or Plan complied with neither R3.1 nor R3.2.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				include the agreed- upon actions from the associated Reliability Coordinator-to- Reliability Coordinator Operating Procedure, Process, or Plan. (R3.2)		
IRO-014- 1	R3.1.	A reference to the associated Reliability Coordinator-to-Reliability Coordinator Operating Procedure, Process, or Plan.	N/A	N/A	N/A	N/A
IRO-014- 1	R3.2.	The agreed-upon actions from the associated Reliability Coordinator-to- Reliability Coordinator Operating Procedure, Process, or Plan.	N/A	N/A	N/A	N/A
IRO-014- 1	R4.	Each of the Operating Procedures, Processes, and Plans addressed in Reliability Standard IRO-014 Requirement 1 and Requirement 3 shall:	N/A	The Operating Procedures, Processes and Plans did not include <b>one</b> of the elements listed in IRO-014-1 R4.1 through R4.3.	The Operating Procedures, Processes and Plans did not include <b>two</b> of the elements listed in IRO-014-1 R4.1 through R4.3.	The Operating Procedures, Processes and Plans did not include <b>any</b> of the elements listed in IRO-014-1 R4.1 through R4.3.
IRO-014- 1	R4.1.	Include version control number or date	N/A	N/A	N/A	N/A
IRO-014- 1	R4.2.	Include a distribution list.	N/A	N/A	N/A	N/A
IRO-014- 1	R4.3.	Be reviewed, at least once every three years, and updated if needed.	N/A	N/A	N/A	N/A
IRO-015- 1	R1.	The Reliability Coordinator shall follow its Operating Procedures,	The Reliability Coordinator failed	The Reliability Coordinator failed	The Reliability Coordinator failed	The Reliability Coordinator failed to

Page 202 of 447

#### Standard Requirement Lower VSL Severe VSL **Text of Requirement** Moderate VSL High VSL Number Number Processes, or Plans for making to notify more than to notify 5% or less to notify more than notify more than 15% of notifications and exchanging 5% up to (and 10% up to (and the other Reliability of the other reliability-related information with Reliability including) 10% of including) 15% of Coordinators of other Reliability Coordinators. the other Reliability the other Reliability Coordinators of conditions in its conditions in its **Reliability Coordinator** Coordinators of Coordinators of conditions in its conditions in its Area that may impact Reliability Coordinator Area Reliability Reliability them as per R1.1. that may impact Coordinator Area Coordinator Area them as per R1.1. that may impact that may impact them as per R1.1. them as per R1.1. OR The Reliability Coordinator failed to follow its Operating Procedures, Processes, or Plans for making notifications and exchanging reliability-related information with other Reliability Coordinators. IRO-015-R1.1. The Reliability Coordinator shall make N/A N/A N/A N/A 1 notifications to other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact other Reliability Coordinator Areas. IRO-015-R2. The Reliability Coordinator shall The Reliability The Reliability The Reliability The Reliability participate in agreed upon conference Coordinator failed to 1 Coordinator failed Coordinator failed Coordinator failed calls and other communication forums to participate in 5% to participate in participate in more than to participate in 15% of agreed upon with adjacent Reliability Coordinators. more than 10% up or less of agreed more than 5% up to

#### Violation Severity Level Matrix (IRO)

Page 203 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			upon conference calls and other communication forums with adjacent Reliability Coordinators as per R2.1.	(and including) 10% of agreed upon conference calls and other communication forums with adjacent Reliability Coordinators as per R2.1.	to (and including) 15% of agreed upon conference calls and other communication forums with adjacent Reliability Coordinators as per R2.1.	conference calls and other communication forums with adjacent Reliability Coordinators as per R2.1.
IRO-015- 1	R2.1.	The frequency of these conference calls shall be agreed upon by all involved Reliability Coordinators and shall be at least weekly.	N/A	N/A	N/A	N/A
IRO-015- 1	R3.	The Reliability Coordinator shall provide reliability-related information as requested by other Reliability Coordinators.				The Reliability Coordinator failed to provide reliability-related information as requested by other Reliability Coordinators.
IRO-016- 1	R1.	The Reliability Coordinator that identifies a potential, expected, or actual problem that requires the actions of one or more other Reliability Coordinators shall contact the other Reliability Coordinator(s) to confirm that there is a problem and then discuss options and decide upon a solution to prevent or resolve the identified problem.	The Reliability Coordinator failed to contact other Reliability Coordinators to confirm that there was a problem when it identified a potential or expected problem that required the actions of those other Reliability Coordinators as per R1.1 through R1.3.	The Reliability Coordinator failed to discuss options and decide upon a solution to prevent or resolve the identified expected or potential problem when it contacted other Reliability Coordinators to confirm that there was a problem when it identified a potential or	The Reliability Coordinator failed to contact other Reliability Coordinators to confirm that there was a problem when it identified an actual problem that required the actions of those other Reliability Coordinators as per R1.1 through R1.3.	The Reliability Coordinator failed to discuss options and decide upon a solution to prevent or resolve the identified actual problem when it contacted other Reliability Coordinators to confirm that there was a problem when it identified a potential or expected problem that required the actions of those other Reliability Coordinators as per R1.1 through R1.3.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				expected problem that required the actions of those other Reliability Coordinators as per R1.1 through R1.3.		
IRO-016- 1	R1.1.	If the involved Reliability Coordinators agree on the problem and the actions to take to prevent or mitigate the system condition, each involved Reliability Coordinator shall implement the agreed-upon solution, and notify the involved Reliability Coordinators of the action(s) taken.	N/A	N/A	N/A	N/A
IRO-016- 1	R1.2.	If the involved Reliability Coordinators cannot agree on the problem(s) each Reliability Coordinator shall re- evaluate the causes of the disagreement (bad data, status, study results, tools, etc.).	N/A	N/A	N/A	N/A
IRO-016- 1	R1.2.1.	If time permits, this re-evaluation shall be done before taking corrective actions.	N/A	N/A	N/A	N/A
IRO-016- 1	R1.2.2.	If time does not permit, then each Reliability Coordinator shall operate as though the problem(s) exist(s) until the conflicting system status is resolved.	N/A	N/A	N/A	N/A
IRO-016- 1	R1.3.	If the involved Reliability Coordinators cannot agree on the solution, the more conservative solution shall be implemented.	N/A	N/A	N/A	N/A
IRO-016- 1	R2.	The Reliability Coordinator shall document (via operator logs or other	N/A	N/A	N/A	The Reliability Coordinator failed to

Page 205 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		data sources) its actions taken for either the event or for the disagreement on the problem(s) or for both.				document (via operator logs or other data sources) its actions taken for either the event or for the disagreement on the problem(s) or for both.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-001-1	R1	Each Transmission Operator shall select one of the methodologies listed below for calculating Available Transfer Capability (ATC) or Available Flowgate Capability (AFC) for each ATC Path per time period identified in R2 for those Facilities within its Transmission operating area: - The Area Interchange Methodology, as described in MOD- 028 - The Rated System Path Methodology, as described in MOD- 029 - The Flowgate Methodology, as described in MOD- 030	N/A	N/A	N/A	The Transmission Operator did not select one of the specified methodologies for each ATC Path per time period identified in R2 for those Facilities within its Transmission operating area.
MOD-001-1	R2	Each Transmission Service Provider shall calculate ATC or AFC	One or more of the following: § The	One or more of the following: § The	One or more of the following: § The	One or more of the following: § The

Page 207 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		values as listed below using the methodology or methodologies selected by its Transmission Operator(s):	Transmission Service Provider has calculated hourly ATC or AFC values for more than the next 30 hours but less than the next 48 hours. § Has calculated daily ATC or AFC values for more than the next 21 calendar days but less than the next 31 calendar days. § Has calculated monthly ATC or AFC values for more than the next 9 months but less than the next 12 months.	Transmission Service Provider has calculated hourly ATC or AFC values for more than the next 20 hours but less than the next 31 hours. § Has calculated daily ATC or AFC values for more than the next 14 calendar days but less than the next 22 calendar days. § Has calculated monthly ATC or AFC values for more than the next 6 months but less than the next 10 months.	Transmission Service Provider has calculated hourly ATC or AFC values for more than the next 10 hours but less than the next 21 hours. § Has calculated daily ATC or AFC values for more than the next 7 calendar days but less than the next 15 calendar days. § Has calculated monthly ATC or AFC values for more than the next 3 months but less than the next 7 months.	Transmission Service Provider has calculated hourly ATC or AFC values for less than the next 11 hours. § Has calculated daily ATC or AFC values for less than the next 8 calendar days. § Has calculated monthly ATC or AFC values for less than the next 4 months. § Did not use the selected methodology(ies) to calculate ATC.
MOD-001-1	R2.1	Hourly values for at least the next 48 hours.	N/A	N/A	N/A	N/A
MOD-001-1	R2.2	Daily values for at least the next 31 calendar days.	N/A	N/A	N/A	N/A
MOD-001-1	R2.3.	Monthly values for at least the next 12 months (months 2-13).	N/A	N/A	N/A	N/A
MOD-001-1	R3	Each Transmission Service Provider shall prepare and keep current an Available	The Transmission Service Provider has an ATCID that does not incorporate	The Transmission Service Provider has an ATCID that does not incorporate	The Transmission Service Provider has an ATCID that does not incorporate changes made more	The Transmission Service Provider has an ATCID that does not incorporate

Page 208 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transfer Capability Implementation Document (ATCID) that includes, at a minimum, the following information:	changes made up to three months ago.	changes made more than three months but not more than six months ago.	<ul> <li>than six months but not more than one year ago.</li> <li>OR</li> <li>The Transmission</li> <li>Service Provider has an ATCID, but it does not include one or two of the information items described in R3.</li> </ul>	changes made a year or more ago. OR The Transmission Service Provider does not have an ATCID, or its ATCID does not include three or more of the information items described in R3.
MOD-001-1	R3.1	Information describing how the selected methodology (or methodologies) has been implemented, in such detail that, given the same information used by the Transmission Service Provider, the results of the ATC or AFC calculations can be validated.	N/A	N/A	N/A	N/A
MOD-001-1	R3.2	A description of the manner in which the Transmission Service Provider will account for counterflows including:	N/A	N/A	N/A	N/A
MOD-001-1	R3.2.1	How confirmed Transmission reservations, expected Interchange and	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		internal counterflow are addressed in firm and non-firm ATC or AFC calculations.				
MOD-001-1	R3.2.2.	A rationale for that accounting specified in R3.2.	N/A	N/A	N/A	N/A
MOD-001-1	R3.3	The identity of the Transmission Operators and Transmission Service Providers from which the Transmission Service Provider receives data for use in calculating ATC or AFC.	N/A	N/A	N/A	N/A
MOD-001-1	R3.4	The identity of the Transmission Service Providers and Transmission Operators to which it provides data for use in calculating transfer or Flowgate capability.	N/A	N/A	N/A	N/A
MOD-001-1	R3.5	A description of the allocation processes listed below that are applicable to the Transmission Service Provider: - Processes used to	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		allocate transfer or Flowgate capability among multiple lines or sub-paths within a larger ATC Path or Flowgate. - Processes used to allocate transfer or Flowgate capabilities among multiple owners or users of an ATC Path or Flowgate.				
		- Processes used to allocate transfer or Flowgate capabilities between Transmission Service Providers to address issues such as forward looking congestion management and seams coordination.				
MOD-001-1	R3.6	A description of how generation and transmission outages are considered in transfer or Flowgate capability calculations, including:	N/A	N/A	N/A	N/A
MOD-001-1	R3.6.1	The criteria used to determine when an outage that is in effect part of a day impacts a	N/A	N/A	N/A	N/A

Page 211 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		daily calculation.				
MOD-001-1	R3.6.2	The criteria used to determine when an outage that is in effect part of a month impacts a monthly calculation.	N/A	N/A	N/A	N/A
MOD-001-1	R3.6.3	How outages from other Transmission Service Providers that can not be mapped to the Transmission model used to calculate transfer or Flowgate capability are addressed.	N/A	N/A	N/A	N/A
MOD-001-1	R4.	The Transmission Service Provider shall notify the following entities before implementing a new or revised ATCID:	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID after, but not more than 30 calendar days after, its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 30, but not more than 60, calendar days after its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 60, but not more than 90, calendar days after its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 90 calendar days after its implementation. OR The Transmission Service Provider did not notify one or more of the parties specified
						in R4 of a new or modified ATCID for more than 90 calendar days after its

Page 212 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						implementation.
MOD-001-1	R4.1	Each Planning Coordinator associated with the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.2	Each Reliability Coordinator associated with the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.3	Each Transmission Operator associated with the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.4	Each Planning Coordinator adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.5	Each Reliability Coordinator adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.6.	Each Transmission Service Provider whose area is adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-001-1	R5	The Transmission Service Provider shall make available the current ATCID to all of the entities specified in R4.	N/A	N/A	N/A	The Transmission Service Provider did not make the ATCID available to the parties described in R4.
MOD-001-1	R6	When calculating Total Transfer Capability (TTC) or Total Flowgate Capability (TFC) the Transmission Operator shall use assumptions no more limiting than those used in the planning of operations for the corresponding time period studied, providing such planning of operations has been performed for that time period.	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than zero ATC Paths or Flowgates, but not more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater), but not more than 10% of all ATC Paths or Flowgates or 2 ATC Paths or Flowgates (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 10% of all ATC Paths or Flowgates or 2 ATC Path or Flowgate (whichever is greater), but not more than 15% of all ATC Paths or Flowgates or 3 ATC Paths or Flowgates (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 15% of all ATC Paths or Flowgates or more than 3 ATC Paths or Flowgates (whichever is greater).
MOD-001-1	R7	When calculating ATC or AFC the Transmission Service Provider shall use assumptions no more limiting than those used in the planning of operations for the corresponding time	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 10%, of	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for

Page 214 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		period studied, providing such planning of operations has been performed for that time period.	for more than zero ATC Paths or Flowgates, but not more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater).	more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater), but not more than 10% of all ATC Paths or Flowgates or 2 ATC Paths or Flowgates (whichever is greater).	all ATC Paths or Flowgates or 2 ATC Path or Flowgate (whichever is greater), but not more than 15% of all ATC Paths or Flowgates or 3 ATC Paths or Flowgates (whichever is greater).	more than 15% of all ATC Paths or Flowgates or more than 3 ATC Paths or Flowgates (whichever is greater).
MOD-001-1	R8	Each Transmission Service Provider that calculates ATC shall recalculate ATC at a minimum on the following frequency, unless none of the calculated values identified in the ATC equation have changed:	One or more of the following: § For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for one or more hours but not more than 15 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for one or more calendar days but not more than 3	One or more of the following: § For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 15 hours but not more than 20 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 3 calendar days but not more than 4	One or more of the following: § For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 20 hours but not more than 25 hours, and was in excess of the 175-hour per year requirement. For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 4 calendar days but not more than 5 calendar days.	One or more of the following: § For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 25 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days. § For Monthly, the values described in

Page 215 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			calendar days. § For Monthly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for seven or more calendar days, but less than 14 calendar days.	calendar days. § For Monthly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for 14 or more calendar days, but less than 21 calendar days.	§ For Monthly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for 21 or more calendar days, but less than 28 calendar days.	the ATC equation changed and the Transmission Service provider did not calculate for 28 or more calendar days.
MOD-001-1	R8.1	Hourly values, once per hour. Transmission Service Providers are allowed up to 175 hours per calendar year during which calculations are not required to be performed, despite a change in a calculated value identified in the ATC equation.	N/A	N/A	N/A	N/A
MOD-001-1	R8.2	Daily values, once per day.	N/A	N/A	N/A	N/A
MOD-001-1	R8.3	Monthly values, once per week.	N/A	N/A	N/A	N/A
MOD-001-1	R9	Within thirty calendar days of receiving a request by any Transmission Service Provider, Planning Coordinator,	N/A	The Transmission Service Provider made the requested data items specified in R9 available to the requesting entities	The Transmission Service Provider made the requested data items specified in R9 available to the requesting entities specified within the	The Transmission Service Provider did not make the requested data items specified in R9 available to the

Page 216 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Reliability Coordinator, or Transmission Operator for data from the list below solely for use in the requestor's ATC or AFC calculations, each Transmission Service Provider receiving said request shall begin to make the requested data available to the requestor, subject to the conditions specified in R9.1 and R9.2:		specified within the requirement, per the schedule specified in the request, subject to the limitations specified in R9, available more than 30 calendar days but less than 45 calendar days after receiving a request.	requirement, per the schedule specified in the request, subject to the limitations specified in R9, available 45 calendar days or more but less than 60 calendar days after receiving a request.	requesting entities specified within the requirement, per the schedule specified in the request, subject to the limitations specified in R9, available for 60 calendar days or more after receiving a request.
		- Expected generation and Transmission outages, additions, and retirements.				
		- Load forecasts. - Unit commitments and order of dispatch, to include all designated network resources and other resources that are committed or have the legal obligation to run, as they are expected to run, in one of the following formats chosen by the data provider:				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- Dispatch Order				
		- Participation Factors				
		- Block Dispatch				
		- Aggregated firm capacity set-aside for Network Integration Transmission Service and aggregated non- firm capacity set aside for Network Integration Transmission Service (i.e. Secondary Service).				
		- Firm and non-firm Transmission reservations.				
		- Aggregated capacity set-aside for Grandfathered obligations				
		- Firm roll-over rights.				
		- Any firm and non- firm adjustments applied by the Transmission Service Provider to reflect parallel path impacts.				
		<ul> <li>Power flow models and underlying assumptions.</li> <li>Contingencies,</li> </ul>				
		provided in one or				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		more of the following formats:				
		- A list of Elements				
		- A list of Flowgates				
		- A set of selection criteria that can be applied to the Transmission model used by the Transmission Operator and/or Transmission Service Provider				
		- Facility Ratings.				
		- Any other services that impact Existing Transmission Commitments (ETCs).				
		- Values of Capacity Benefit Margin (CBM) and Transmission Reliability Margin (TRM) for all ATC Paths or Flowgates.				
		- Values of Total Flowgate Capability (TFC) and AFC for any Flowgates considered by the Transmission Service Provider receiving the request when selling Transmission service.				
		- Values of TTC and				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		ATC for all ATC Paths for those Transmission Service Providers receiving the request that do not consider Flowgates when selling Transmission Service. - Source and sink identification and mapping to the model.				
MOD-001-1	R9.1	The Transmission Service Provider shall make its own current data available, in the format maintained by the Transmission Service Provider, for up to 13 months into the future (subject to confidentiality and security requirements).	N/A	N/A	N/A	N/A
MOD-001-1	R9.1.1	If the Transmission Service Provider uses the data requested in its transfer or Flowgate capability calculations, it shall make the data used available	N/A	N/A	N/A	N/A
MOD-001-1	R9.1.2	If the Transmission Service Provider does not use the data requested in its	N/A	N/A	N/A	N/A

Page 220 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transfer or Flowgate capability calculations, but maintains that data, it shall make that data available				
MOD-001-1	R9.1.3	If the Transmission Service Provider does not use the data requested in its transfer or Flowgate capability calculations, and does not maintain that data, it shall not be required to make that data available	N/A	N/A	N/A	N/A
MOD-001-1	R9.2	This data shall be made available by the Transmission Provider on the schedule specified by the requestor (but no more frequently than once per hour, unless mutually agreed to by the requester and the provider).	N/A	N/A	N/A	N/A
MOD-004-1	R1	The Transmission Service Provider that maintains CBM shall prepare and keep current a "Capacity Benefit Margin Implementation Document" (CBMID)	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made within the last three months.	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made more than three, but not more than six,	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made more than six, but not more than twelve,	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made more than twelve months ago.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		that includes, at a minimum, the following information:		months ago. OR The CBM maintaining Transmission Service Provider's CBMID does not address one of the sub requirements.	months ago. OR The CBM maintaining Transmission Service Provider's CBMID does not address two of the sub requirements.	OR The Transmission Service Provider that maintains CBM does not have a CBMID; OR The CBM maintaining Transmission Service Provider's CBMID does not address three of the sub requirements.
MOD-004-1	R1.1	The process through which a Load-Serving Entity within a Balancing Authority Area associated with the Transmission Service Provider, or the Resource Planner associated with that Balancing Authority Area, may ensure that its need for Transmission capacity to be set aside as CBM will be reviewed and accommodated by the Transmission Service Provider to the extent Transmission capacity is available.	N/A	N/A	N/A	N/A
MOD-004-1	R1.2	The procedure and assumptions for	N/A	N/A	N/A	N/A

Page 222 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		establishing CBM for each Available Transfer Capability (ATC) Path or Flowgate.				
MOD-004-1	R1.3	The procedure for a Load-Serving Entity or Balancing Authority to use Transmission capacity set aside as CBM, including the manner in which the Transmission Service Provider will manage situations where the requested use of CBM exceeds the amount of CBM available.	N/A	N/A	N/A	N/A
MOD-004-1	R2	The Transmission Service Provider that maintains CBM shall make available its current CBMID to the Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, Resource Planners, and Planning Coordinators that are within or adjacent to the Transmission	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID after the effective date of the change, but not more than 30 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 30 or more calendar days but not more than 60 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 60 or more calendar days but not more than 90 calendar days after the effective date of the change. OR The Transmission Service Provider that	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID more than 90 calendar days after the effective date of the change. OR The Transmission Service Provider that maintains CBM made available the CBMID

Page 223 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Service Provider's area, and to the Load Serving Entities and Balancing Authorities within the Transmission Service Provider's area, and notify those entities of any changes to the CBMID prior to the effective date of the change.			maintains CBM made available the CBMID to at least one, but not all, of the entities specified in R2.	to none of the entities specified in R2.
MOD-004-1	R3	Each Load-Serving Entity determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:	N/A	The Load-Serving Entity did not use one of the methods described in R3.1 AND The Load-Serving Entity did not identify paths or regions as described in R3.2	N/A	The Load-Serving Entity did not use one of the methods described in R3.1 AND The Load-Serving Entity did not identify paths or regions as described in R3.2
MOD-004-1	R3.1	Using one or more of the following to determine the GCIR: - Loss of Load Expectation (LOLE) studies - Loss of Load Probability (LOLP) studies	N/A	N/A	N/A	N/A

Page 224 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- Deterministic risk- analysis studies				
		- Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R3.2	Identifying expected import path(s) or source region(s).	N/A	N/A	N/A	N/A
MOD-004-1	R4	Each Resource Planner determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:	N/A	The Resource Planner did not use one of the methods described in R4.1 OR The Resource Planner did not identify paths or regions as described in R4.2	N/A	The Resource Planner did not use one of the methods described in R4.1 AND The Resource Planner did not identify paths or regions as described in R4.2
MOD-004-1	R4.1	Using one or more of the following to determine the GCIR:	N/A	N/A	N/A	N/A

Page 225 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- Loss of Load Expectation (LOLE) studies				
		- Loss of Load Probability (LOLP) studies				
		- Deterministic risk- analysis studies				
		- Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R4.2	Identifying expected import path(s) or source region(s).	N/A	N/A	N/A	N/A
MOD-004-1	R5	At least every 13 months, the Transmission Service Provider that maintains CBM shall	The Transmission Service Provider that maintains CBM established CBM more than 13 months,	The Transmission Service Provider that maintains CBM established CBM more than 16 months,	The Transmission Service Provider that maintains CBM established CBM more than 19 months,	The Transmission Service Provider that maintains CBM established CBM more than 22 months

Page 226 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		establish a CBM value for each ATC Path or Flowgate to be used for ATC or Available Flowgate Capability (AFC) calculations during the 13 full calendar months (months 2-14) following the current month (the month in which the Transmission Service Provider is establishing the CBM values). This value shall:	but not more than 16 months, after the last time the values were established.	but not more than 19 months, after the last time the values were established. OR The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available. OR The Transmission Service Provider that maintains CBM did not base the allocation on one or more paths or regions as described in R5.2.	but not more than 22 months, after the last time the values were established.	after the last time the values were established. OR The Transmission Service Provider that maintains CBM failed to establish an initial value for CBM. OR The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available, and did not base the allocation on one or more paths or regions as described in R5.2
MOD-004-1	R5.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load- Serving Entities for loads within the Transmission Service Provider's area	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- Any studies (as described in R4.1) performed by Resource Planners for loads within the Transmission Service Provider's area				
		- Any reserve margin or resource adequacy requirements for loads within the Transmission Service Provider's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R5.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- For Flowgates, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Service Provider				
MOD-004-1	R6	At least every 13 months, the Transmission Planner shall establish a CBM value for each ATC Path or Flowgate to be used in planning during each of the full calendar years two through ten following the current year (the year in which the Transmission Planner is establishing the CBM values). This value shall:	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 13 months, but not more than 16 months, after the last time the values were established.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 16 months, but not more than 19 months, after the last time the values were established. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM did	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 19 months, but not more than 22 months, after the last time the values were established.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 22 months after the last time the values were established. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM failed to establish an initial value for CBM for

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				not consider one or more of the items described in R6.1 that was available. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not base the allocation on one or more paths or regions as described in R6.2		each of the years 2 through 10. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not consider one or more of the items described in R6.1 that was available, and did not base the allocation on one or more paths or regions as described in R6.2
MOD-004-1	R6.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load- Serving Entities for loads within the Transmission Planner's area - Any studies (as described in R4.1) performed by Resource Planners for loads within the	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Planner's area				
		- Any reserve margin or resource adequacy requirements for loads within the Transmission Planner's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R6.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners - For Flowgates, based on the expected import paths or source regions provided by	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Planner.				
MOD-004-1	R7	Less than 31 calendar days after the establishment of CBM, the Transmission Service Provider that maintains CBM shall notify all the Load- Serving Entities and Resource Planners that determined they had a need for CBM on the Transmission Service Provider's system of the amount of CBM set aside.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 31 or more days, but less than 45 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 45 or more days, but less than 60 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 60 or more days, but less than 75 days. OR The Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 75 or more days, OR The Transmission Service Provider that maintains CBM notified none of the entities as required.
MOD-004-1	R8	Less than 31 calendar days after the establishment of CBM, the Transmission Planner shall notify all the Load-Serving Entities and Resource Planners that determined they had a need for CBM on the system being planned by the	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 31 or more days, but less than 45 days.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 45 or more days, but less than 60 days.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 60 or more days, but less than 75 days. OR	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 75 or more days, OR The Transmission

Page 232 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Planner of the amount of CBM set aside.			The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	Planner with an associated Transmission Service Provider that maintains CBM notified none of the entities as required.
MOD-004-1	R9	The Transmission Service Provider that maintains CBM and the Transmission Planner shall each provide (subject to confidentiality and security requirements) copies of the applicable supporting data, including any models, used for determining CBM or allocating CBM over each ATC Path or Flowgate to the following:	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 30, but not more than 45, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 45, but not more than 60, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 60, but not more than 75, days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided at least one, but not all, of the requesters specified in R9 with the supporting data, including models, used to allocate CBM.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 75 days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided none of the requesters specified in R9 with the supporting data, including models, used to allocate CBM.
MOD-004-1	R9.1	Each of its associated	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Operators within 30 calendar days of their making a request for the data.				
MOD-004-1	R9.2	To any Transmission Service Provider, Reliability Coordinator, Transmission Planner, Resource Planner, or Planning Coordinator within 30 calendar days of their making a request for the data.	N/A	N/A	N/A	N/A
MOD-004-1	R10	The Load-Serving Entity or Balancing Authority shall request to import energy over firm Transfer Capability set aside as CBM only when experiencing a declared NERC Energy Emergency Alert (EEA) 2 or higher.	N/A	N/A	N/A	A Load-Serving Entity or Balancing Authority requested to schedule energy over CBM while not in an EEA 2 or higher.
MOD-004-1	R11	When reviewing an Arranged Interchange using CBM, all Balancing Authorities and Transmission Service Providers shall waive, within the	N/A	N/A	N/A	A Balancing Authority or Transmission Service Provider denied an Arranged Interchange using CBM based on timing or ramping

Page 234 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		bounds of reliable operation, any Real- time timing and ramping requirements.				requirements without a reliability reason to do so.
MOD-004-1	R12	The Transmission Service Provider that maintains CBM shall approve, within the bounds of reliable operation, any Arranged Interchange using CBM that is submitted by an "energy deficient entity1" under an EEA 2 if:	N/A	N/A	N/A	The Transmission Service Provider failed to approve an Arranged Interchange for CBM that met the criteria described in R12 without a reliability reason to do so.
MOD-004-1	R12.1	The CBM is available	N/A	N/A	N/A	N/A
MOD-004-1	R12.2	The EEA 2 is declared within the Balancing Authority Area of the "energy deficient entity," and	N/A	N/A	N/A	N/A
MOD-004-1	R12.3	The Load of the "energy deficient entity" is located within the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-006-0.1	R1.	Each Transmission Service Provider shall	The responsible entity documented its	The responsible entity documented its	The responsible entity documented its	The responsible entity failed to document its

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		document its procedure on the use of Capacity Benefit Margin (CBM) (scheduling of energy against a CBM reservation). The procedure shall include the following three components:	procedure on the use of Capacity Benefit Margin (CBM) but failed to include one (1) of the components as specified in R1.1, R1.2 or R1.3.	procedure on the use of Capacity Benefit Margin (CBM) but failed to include two (2) of the components as specified in R1.1, R1.2 or R1.3.	procedure on the use of Capacity Benefit Margin (CBM) but failed to include three (3) of the components as specified in R1.1, R1.2 and R1.3.	procedure on the use of Capacity Benefit Margin (CBM).
MOD-006-0.1	R1.1.	Require that CBM be used only after the following steps have been taken (as time permits): all non-firm sales have been terminated, Direct- Control Load Management has been implemented, and customer interruptible demands have been interrupted. CBM may be used to reestablish Operating Reserves.	N/A	N/A	N/A	N/A
MOD-006-0.1	R1.2.	Require that CBM shall only be used if the Load-Serving Entity calling for its use is experiencing a generation deficiency and its Transmission Service Provider is also experiencing	N/A	N/A	N/A	N/A

Page 236 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Constraints relative to imports of energy on its transmission system.				
MOD-006-0.1	R1.3.	Describe the conditions under which CBM may be available as Non-Firm Transmission Service.	N/A	N/A	N/A	N/A
MOD-006-0.1	R2.	Each Transmission Service Provider shall make its CBM use procedure available on a web site accessible by the Regional Reliability Organizations, NERC, and transmission users.	N/A	The Transmission Service Provider made its CBM use procedure available on a web site but failed to make it accessible to one (1) of the following: Regional Reliability Organizations, NERC or transmission users.	The Transmission Service Provider made its CBM use procedure available on a web site but failed to make it accessible to two (2) of the following: Regional Reliability Organizations, NERC or transmission users.	The Transmission Service Provider made its CBM use procedure available on a web site but failed to make it accessible to all of the following: Regional Reliability Organizations, NERC or transmission users OR The Transmission Service Provider did not make its CBM use procedure available on a web site.
MOD-007-0	R1.	Each Transmission Service Provider that uses CBM shall report (to the Regional Reliability	N/A	The responsible entity uses CBM and failed to report the use of CBM to one (1) of the following: Regional	The responsible entity uses CBM and failed to report the use of CBM to two (2) of the following: Regional	The responsible entity uses CBM and failed to report the use of CBM to all of the following: Regional

Page 237 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Organization, NERC and the transmission users) the use of CBM by the Load-Serving Entities' Loads on its system, except for CBM sales as Non- Firm Transmission Service. (This use of CBM shall be consistent with the Transmission Service Provider's procedure for use of CBM.)		Reliability Organization, NERC or transmission users.	Reliability Organization, NERC or transmission users.	Reliability Organization, NERC and transmission users.
MOD-007-0	R2.	The Transmission Service Provider shall post the following three items within 15 calendar days after the use of CBM for an Energy Emergency. This posting shall be on a web site accessible by the Regional Reliability Organizations, NERC, and transmission users.	N/A	The responsible entity that used CBM for an Energy Emergency and failed to post one (1) of the following items within 15 calendar days: R2.1, R2.2 or R2.3. OR The responsible entity used CBM for an Energy Emergency and posted the following items in R2.1, R2.2 and R2.3 on a web site but failed to make the web site accessible to one (1) of the following:	The responsible entity that used CBM for an Energy Emergency and failed to post two (2) of the following items within 15 calendar days: R2.1, R2.2 or R2.3. OR The responsible entity used CBM for an Energy Emergency and posted the following items in R2.1, R2.2 and R2.3 on a web site but failed to make the web site accessible to two (2) of the following:	The responsible entity that used CBM for an Energy Emergency and failed to post all of the following items within 15 calendar days: R2.1, R2.2 and R2.3. OR The responsible entity used CBM for an Energy Emergency and posted the following items in R2.1, R2.2 and R2.3 on a web site but failed to make the web site accessible to three (3) or more of the

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				Regional Reliability Organizations, NERC or transmission users.	Regional Reliability Organizations, NERC or transmission users.	following: Regional Reliability Organizations, NERC or transmission users.
MOD-007-0	R2.1.	Circumstances.	N/A	N/A	N/A	N/A
MOD-007-0	R2.2.	Duration.	N/A	N/A	N/A	N/A
MOD-007-0	R2.3.	Amount of CBM used.	N/A	N/A	N/A	N/A
MOD-008-1	R1	Each Transmission Operator shall prepare and keep current a TRM Implementation Document (TRMID) that includes, as a minimum, the following information:	The Transmission Operator has a TRMID that does not incorporate changes made up to three months ago.	The Transmission Operator has a TRMID that does not incorporate changes that have been made three or more months ago but less than six months ago. OR The Transmission Operator's TRMID does not address one of the following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3	The Transmission Operator has a TRMID that does not incorporate changes that have been made six or more months ago but less than one year ago. OR The Transmission Operator's TRMID does not address two of the following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3	The Transmission Operator has a TRMID that does not incorporate changes that have been made one year ago or more. OR The Transmission Operator does not have a TRMID. OR The Transmission Operator's TRMID does not address three of the following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3
MOD-008-1	R1.1	Identification of (on each of its respective ATC Paths or	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Flowgates) each of the following components of uncertainty if used in establishing TRM, and a description of how that component is used to establish a TRM value:				
		- Aggregate Load forecast. - Load distribution uncertainty. -				
		Forecast uncertainty in Transmission system topology (including, but not limited to, forced or unplanned outages and maintenance outages).				
		Allowances for parallel path (loop flow) impacts. - Allowances for				
		simultaneous path interactions. - Variations in generation dispatch				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		(including, but not limited to, forced or unplanned outages, maintenance outages and location of future generation). - Short-term System Operator response (Operating Reserve actions ). - Reserve sharing				
		requirements.				
		Inertial response and frequency bias.				
MOD-008-1	R1.2	The description of the method used to allocate TRM across ATC Paths or Flowgates.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3	The identification of the TRM calculation used for the following time periods:	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.1	Same day and real- time.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.2	Day-ahead and pre- schedule.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.3.	Beyond day-ahead and pre-schedule, up to	N/A	N/A	N/A	N/A

Page 241 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		thirteen months ahead.				
MOD-008-1	R2.	Each Transmission Operator shall only use the components of uncertainty from R1.1 to establish TRM, and shall not include any of the components of Capacity Benefit Margin (CBM). Transmission capacity set aside for reserve sharing agreements can be included in TRM.	N/A	N/A	N/A	One or both of the following: § The Transmission Operator included elements of uncertainty not defined in R1 in their establishment of TRM. § The Transmission Operator included components of CBM in TRM.
MOD-008-1	R3.	Each Transmission Operator shall make available its TRMID, and if requested, underlying documentation (if any) used to determine TRM, in the format used by the Transmission Operator, to any of the following who make a written request no more than 30 calendar days after receiving the request. - Transmission Service Providers	The Transmission Operator made the TRMID available to a requesting entity specified in R3 but provided TRMID in more than 30 days but less than 45 days.	The Transmission Operator made the TRMID available to a requesting entity specified in R3 but provided TRMID in 45 days or more but less than 60 days.	The Transmission Operator made the TRMID available to a requesting entity specified in R3 but provided TRMID in 60 days or more but less than 90 days.	The Transmission Operator did not make the TRMID available for 90 days or more.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		<ul> <li>Reliability Coordinators</li> <li>Planning Coordinators</li> <li>Transmission Planner</li> <li>Transmission Operators</li> </ul>				
MOD-008-1	R4	Each Transmission Operator that maintains TRM shall establish TRM values in accordance with the TRMID at least once every 13 months.	The Transmission Operator established TRM values on schedule BUT the values were incomplete or incorrect. Not more than 5% or 1 value (whichever is greater) were incorrect or missing.	The Transmission Operator did not establish TRM within thirteen months of the previous determination, and the last determination was not more than 15 months ago OR The Transmission Operator established TRM values on schedule BUT the values were incomplete. More than 5%, or 1 value (which ever is greater) were incorrect or missing, but not more than 10% or 2 values	The Transmission Operator did not establish TRM within 15 months of the previous determination, and the last determination was not more than 18 months ago. OR The Transmission Operator established TRM values on schedule BUT the values were incomplete or incorrect. More than 10% or 2 values (which ever is greater) were incorrect or missing, but not more	The Transmission Operator did not establish TRM OR The last determination of TRM was more than 18 months ago. OR The Transmission Operator established TRM values on schedule BUT the values were incomplete or incorrect. More than 15% or 3 values (which ever is greater) were incorrect or missing.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				(whichever is greater).	than 15% or 3 values.	
MOD-008-1	R5	The Transmission Operator that maintains TRM shall provide the TRM values to its Transmission Service Provider(s) and Transmission Planner(s) no more than seven calendar days after a TRM value is initially established or subsequently changed.	The Transmission Operator did provide the TRM values to all entities specified in more then 7 days but less than 14 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. Not more than 5% or 1 value (which ever is greater) were incorrect or missing.	The Transmission Operator did provide the TRM values to all entities specified in 14 days or more, but less than 30 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 5% or 1 value (which ever is greater) were incorrect or missing, but not more than 10% or 2 values (whichever is greater).	The Transmission Operator did provide the TRM values to all entities specified in 30 days or more, but less than 60 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 10% or 2 values (which ever is greater) were incorrect or missing, but not more than 15% or 3 values.	The Transmission Operator did not provide the TRM values to all entities specified within 60 days of the change. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 15% or 3 values (which ever is greater) were incorrect or missing.
MOD-010-0	R1.	The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting procedures of MOD- 011-0_R1) shall provide appropriate equipment	The responsible entity failed to provide 5% or less of the appropriate equipment characteristics, system data, and existing and future Interchange Schedules in compliance with its respective Interconnection	The responsible entity failed to provide more than 5% up to (and including) 10% of the appropriate equipment characteristics, system data, and existing and future Interchange Schedules in compliance with its respective	The responsible entity failed to provide more than 10% up to (and including) 15% of the appropriate equipment characteristics, system data, and existing and future Interchange Schedules in compliance with its respective	The responsible entity failed to provide more than 15% of the appropriate equipment characteristics, system data, and existing and future Interchange Schedules in compliance with its respective Interconnection

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		characteristics, system data, and existing and future Interchange Schedules in compliance with its respective Interconnection Regional steady-state modeling and simulation data requirements and reporting procedures as defined in Reliability Standard MOD-011-0_R 1.	Regional steady-state modeling and simulation data requirements and reporting procedures, as defined in Reliability Standard MOD-011-0_R 1	Interconnection Regional steady-state modeling and simulation data requirements and reporting procedures, as defined in Reliability Standard MOD-011-0_R1.	Interconnection Regional steady-state modeling and simulation data requirements and reporting procedures, as defined in Reliability Standard MOD-011-0_R1.	Regional steady-state modeling and simulation data requirements and reporting procedures, as defined in Reliability Standard MOD-011-0_R1.
MOD-010-0	R2.	The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting procedures of MOD- 011-0_R1) shall provide this steady- state modeling and simulation data to the Regional Reliability Organizations, NERC, and those entities specified within Reliability Standard MOD-011-0_R 1. If no schedule exists,	The Responsible Entity failed to provide 5% or less of the steady-state modeling and simulation data to the Regional Reliability Organizations, NERC, and those entities specified within Reliability Standard MOD-011-0_R 1. OR No schedule existed, and the Responsible Entity provided data more than 30 but less	The Responsible Entity failed to provide more than 5% but less than or equal to 10% of the steady- state modeling and simulation data to the Regional Reliability Organizations, NERC, and those entities specified within Reliability Standard MOD-011-0_R 1. OR No schedule existed, and the Responsible Entity provided data more than 40 but less	The Responsible Entity failed to provide more than 10% but less than or equal to 15% of the steady-state modeling and simulation data to the Regional Reliability Organizations, NERC, and those entities specified within Reliability Standard MOD-011-0_R 1. OR No schedule existed, and the Responsible Entity provided data	The Responsible Entity failed to provide more than 15% of the steady- state modeling and simulation data to the Regional Reliability Organizations, NERC, and those entities specified within Reliability Standard MOD-011-0_R 1. OR No schedule existed, and the Responsible Entity failed to provide data more

Page 245 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		shall provide the data on request (30 calendar days).	calendar days following the request.	than or equal to 50 calendar days following the request.	more than 50 but less than or equal to 60 calendar days following the request.	following the request.
MOD-012-0	R1.	The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting procedures of MOD- 013-0_R1) shall provide appropriate equipment characteristics and system data in compliance with the respective Interconnection-wide Regional dynamics system modeling and simulation data requirements and reporting procedures as defined in Reliability Standard MOD-013-0_R1.	The responsible entity failed to provide 5% or less of the appropriate equipment characteristics and system data in compliance with the respective Interconnection-wide Regional dynamics system modeling and simulation data requirements and reporting procedures; as defined in Reliability Standard MOD-013-0_R1	The responsible entity failed to provide more than 5% up to (and including) 10% of the appropriate equipment characteristics and system data in compliance with the respective Interconnection-wide Regional dynamics system modeling and simulation data requirements and reporting procedures as defined in Reliability Standard MOD-013-0_R1.	The responsible entity failed to provide more than 10% up to (and including) 15% of the appropriate equipment characteristics and system data in compliance with the respective Interconnection-wide Regional dynamics system modeling and simulation data requirements and reporting procedures as defined in Reliability Standard MOD-013-0_R1.	The responsible entity failed to provide more than 15% of the appropriate equipment characteristics and system data in compliance with the respective Interconnection-wide Regional dynamics system modeling and simulation data requirements and reporting procedures as defined in Reliability Standard MOD-013-0_R1.
MOD-012-0	R2.	The Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners (specified in the data requirements and reporting	The Responsible Entity failed to provide 5% or less of the dynamic system modeling and simulation data to the Regional Reliability	The Responsible Entity failed to provide more than 5% but less than or equal to 10% of the dynamic system modeling and simulation data to the	The Responsible Entity failed to provide more than 10% but less than or equal to 15% of the dynamic system modeling and	The Responsible Entity failed to provide more than 15% of the dynamic system modeling and simulation data to the Regional Reliability

Page 246 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		procedures of MOD- 013-0_R4) shall provide dynamics system modeling and simulation data to its Regional Reliability Organization(s), NERC, and those entities specified within the applicable reporting procedures identified in Reliability Standard MOD-013-0_R 1. If no schedule exists, then these entities shall provide data on request (30 calendar days).	Organizations, NERC, and those entities specified within Reliability Standard MOD-013-0_R 1. OR No schedule existed, and the Responsible Entity provided data more than 30 but less than or equal to 40 calendar days following the request.	Regional Reliability Organizations, NERC, and those entities specified within Reliability Standard MOD-013-0_R 1. OR No schedule existed, and the Responsible Entity provided data more than 40 but less than or equal to 50 calendar days following the request.	simulation data to the Regional Reliability Organizations, NERC, and those entities specified within Reliability Standard MOD-013-0_R 1. OR No schedule existed, and the Responsible Entity provided data more than 50 but less than or equal to 60 calendar days following the request.	Organizations, NERC, and those entities specified within Reliability Standard MOD-013-0_R 1. OR No schedule existed, and the Responsible Entity failed to provide data more than 60 calendar days following the request.
MOD-016-1.1	R1.	The Planning Authority and Regional Reliability Organization shall have documentation identifying the scope and details of the actual and forecast (a) Demand data, (b) Net Energy for Load data, and (c) controllable DSM data to be reported for system modeling and reliability analyses.	N/A	The responsible entity did not have documentation identifying the scope and details of the actual and forecast data for one (1) of the following types of data to be reported for system modeling and reliability analyses: • Demand data • Net Energy for Load data Controllable DSM	The responsible entity did not have documentation identifying the scope and details of the actual and forecast data for two (2) of the following to be reported for system modeling and reliability analyses: • Demand data • Net Energy for Load data Controllable DSM	The responsible entity did not have documentation identifying the scope and details of the actual and forecast data to be reported for system modeling and reliability analyses.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				data	data	
MOD-016-1.1	R1.1.	The aggregated and dispersed data submittal requirements shall ensure that consistent data is supplied for Reliability Standards TPL-005, TPL-006, MOD-010, MOD-011, MOD-012, MOD-013, MOD-014, MOD-015, MOD-016, MOD-017, MOD-018, MOD-019, MOD-020, and MOD- 021. The data submittal requirements shall stipulate that each Load-Serving Entity count its customer Demand once and only once, on an aggregated and dispersed basis, in developing its actual and forecast customer Demand values.	The responsible entity failed to ensure that consistent data is supplied for one of the Reliability Standards as specified in R1.1.	The responsible entity failed to ensure that consistent data is supplied for two of the Reliability Standards as specified in R1.1.	The responsible entity failed to ensure that consistent data is supplied for three of the Reliability Standards as specified in R1.1.	The responsible entity failed to ensure that consistent data is supplied for four or more of the Reliability Standards as specified in R1.1. OR The responsible entity failed to stipulate that each Load-Serving Entity count its customer Demand once and only once, on an aggregated and dispersed basis, in developing its actual and forecast customer Demand values.
MOD-016-1.1	R2.	The Regional Reliability Organization shall distribute its documentation required in Requirement 1 and	N/A	N/A	N/A	N/A

Page 248 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		any changes to that documentation, to all Planning Authorities that work within its Region.				
MOD-016-1.1	R2.1.	The Regional Reliability Organization shall make this distribution within 30 calendar days of approval.	N/A	N/A	N/A	N/A
MOD-016-1.1	R3.	The Planning Authority shall distribute its documentation required in R1 for reporting customer data and any changes to that documentation, to its Transmission Planners and Load-Serving Entities that work within its Planning Authority Area.	The responsible entity failed to distribute its documentation required in Requirement R1 and any changes to that documentation to 5% or less of all Transmission Planners and Load-Serving Entities that work within its Region. OR The responsible entity distributed the documentation more than 30 calendar days but less than or equal to 40 calendar days following approval.	The responsible entity failed to distribute its documentation required in Requirement R1 and any changes to that documentation to more than 5% up to (and including) 10% of all Transmission Planners and Load- Serving Entities that work within its Region. OR The responsible entity made the distribution more than 40 calendar days but less than or equal to 50 calendar days following approval.	The responsible entity failed to distribute its documentation required in Requirement R1 and any changes to that documentation to more than 10% up to (and including) 15% of all Transmission Planners and Load- Serving Entities that work within its Region. OR The responsible entity made the distribution more than 50 calendar days but less than or equal to 60 calendar days following approval.	The responsible entity failed to distribute its documentation as specified in Requirement R1 to more than 15% of all Transmission Planners and Load-Serving Entities that work within its Region. OR The responsible entity failed to make the distribution more than 60 calendar days following approval.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-016-1.1	R3.1.	The Planning Authority shall make this distribution within 30 calendar days of approval.	N/A	N/A	N/A	N/A
MOD-017-0.1	R1.	The Load-Serving Entity, Planning Authority, and Resource Planner shall each provide the following information annually on an aggregated Regional, subregional, Power Pool, individual system, or Load- Serving Entity basis to NERC, the Regional Reliability Organizations, and any other entities specified by the documentation in Standard MOD-016- 1_R1.	The responsible entity failed to provide one (1) of the elements of information as specified in R1.1, R1.2, R1.3 or R1.4 on an annual basis.	The responsible entity failed to provide two (2) of the elements of information as specified in R1.1, R1.2, R1.3 or R1.4 on an annual basis.	The responsible entity failed to provide three (3) of the elements of information as specified in R1.1, R1.2, R1.3 or R1.4 on an annual basis.	The responsible entity failed to provide all of the elements of information as specified in R1.1, R1.2, R1.3 and R1.4 on an annual basis.
MOD-017-0.1	R1.1.	Integrated hourly demands in megawatts (MW) for the prior year.	N/A	N/A	N/A	N/A
MOD-017-0.1	R1.2.	Monthly and annual peak hour actual demands in MW and Net Energy for Load in gigawatthours	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		(GWh) for the prior year.				
MOD-017-0.1	R1.3.	Monthly peak hour forecast demands in MW and Net Energy for Load in GWh for the next two years.	N/A	N/A	N/A	N/A
MOD-017-0.1	R1.4.	Annual Peak hour forecast demands (summer and winter) in MW and annual Net Energy for load in GWh for at least five years and up to ten years into the future, as requested.	N/A	N/A	N/A	N/A
MOD-018-0	R1.	The Load-Serving Entity, Planning Authority, Transmission Planner and Resource Planner's report of actual and forecast demand data (reported on either an aggregated or dispersed basis) shall:	N/A	The responsible entity's report failed to include one (1) of the items as specified in R1.1, R1.2, or R1.3.	The responsible entity's report failed to include two (2) of the items as specified in R1.1, R1.2, or R1.3.	The responsible entity's report failed to include any of the items as specified in R1.1, R1.2, and R1.3.
MOD-018-0	R1.1.	Indicate whether the demand data of nonmember entities within an area or Regional Reliability Organization are	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		included, and				
MOD-018-0	R1.2.	Address assumptions, methods, and the manner in which uncertainties are treated in the forecasts of aggregated peak demands and Net Energy for Load.	N/A	N/A	N/A	N/A
MOD-018-0	R1.3.	Items (MOD-018-0_R 1.1) and (MOD-018- 0_R 1.2) shall be addressed as described in the reporting procedures developed for Standard MOD- 016-1_R1.	N/A	N/A	N/A	N/A
MOD-018-0	R2.	The Load-Serving Entity, Planning Authority, Transmission Planner, and Resource Planner shall each report data associated with Reliability Standard MOD-018-0_R1 to NERC, the Regional Reliability Organization, Load- Serving Entity, Planning Authority, and Resource Planner on request (within 30 calendar days).	The responsible entity reported the data associated with R1 to NERC, the Regional Reliability Organization, Load- Serving Entity, Planning Authority, and Resource Planner more than 30 calendar days but less than or equal to 40 calendar days following the request.	The responsible entity reported the data associated with R1 to NERC, the Regional Reliability Organization, Load- Serving Entity, Planning Authority, and Resource Planner more than 40 calendar days but less than or equal to 50 calendar days following the request.	The responsible entity reported the data associated with R1 to NERC, the Regional Reliability Organization, Load- Serving Entity, Planning Authority, and Resource Planner more than 50 calendar days but less than or equal to 60 calendar days following the request.	The responsible entity reported the data associated with R1 to NERC, the Regional Reliability Organization, Load- Serving Entity, Planning Authority, and Resource Planner more than 60 calendar days following the request. OR The responsible entity failed to report the

Page 252 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						data associated with R1 to one or more of the following: NERC, the Regional Reliability Organization, Load- Serving Entity, Planning Authority, or Resource Planner.
MOD-019-0.1	R1.	The Load-Serving Entity, Planning Authority, Transmission Planner, and Resource Planner shall each provide annually its forecasts of interruptible demands and Direct Control Load Management (DCLM) data for at least five years and up to ten years into the future, as requested, for summer and winter peak system conditions to NERC, the Regional Reliability Organizations, and other entities (Load- Serving Entities, Planning Authorities, and Resource Planners) as specified	N/A	The responsible entity failed to provide annually its forecast for interruptible demands and Direct Control Load Management (DCLM) data for at least five years and up to ten years into the future, as requested, for summer peak system conditions to NERC, the Regional Reliability Organizations, and other entities (Load- Serving Entities, Planning Authorities, and Resource Planners) as specified by the documentation in Reliability Standard MOD-016-0_R1.	N/A	The responsible entity failed to provide annually its forecast for interruptible demands and Direct Control Load Management (DCLM) data for at least five years and up to ten years into the future, as requested, for summer and winter peak system conditions to NERC, the Regional Reliability Organizations, and other entities (Load- Serving Entities, Planning Authorities, and Resource Planners) as specified by the documentation in Reliability Standard MOD-016-0_R1.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		by the documentation in Reliability Standard MOD-016-0_R 1.		The responsible entity failed to provide annually its forecast for interruptible demands and Direct Control Load Management (DCLM) data for at least five years and up to ten years into the future, as requested, for winter peak system conditions to NERC, the Regional Reliability Organizations, and other entities (Load- Serving Entities, Planning Authorities, and Resource Planners) as specified by the documentation in Reliability Standard MOD-016-0_R1.		
MOD-020-0	R1.	The Load-Serving Entity, Transmission Planner, and Resource Planner shall each make known its amount of interruptible demands and Direct Control Load Management (DCLM) to	The responsible entity made known its amount of interruptible demands and Direct Control Load Management (DCLM) more than 30 calendar days but less than or equal to 40 calendar days	The responsible entity made known its amount of interruptible demands and Direct Control Load Management (DCLM) more than 40 calendar days but less than or equal to 50 calendar days	The responsible entity made known its amount of interruptible demands and Direct Control Load Management (DCLM) more than 50 calendar days but less than or equal to 60 calendar days	The responsible entity made known its amount of interruptible demands and Direct Control Load Management (DCLM) more than 60 calendar days following the request from Transmission

Page 254 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Operators, Balancing Authorities, and Reliability Coordinators on request within 30 calendar days.	following the request from Transmission Operators, Balancing Authorities, and Reliability Coordinators.	following the request from Transmission Operators, Balancing Authorities, and Reliability Coordinators.	following the request from Transmission Operators, Balancing Authorities, and Reliability Coordinators.	Operators, Balancing Authorities, and Reliability Coordinators. OR The responsible entity failed to make known its amount of interruptible demands and Direct Control Load Management to one or more of the following entities following their request: Transmission Operator, Balancing Authority, and Reliability Coordinator.
MOD-021-0.1	R1.	The Load-Serving Entity, Transmission Planner, and Resource Planner's forecasts shall each clearly document how the Demand and energy effects of DSM programs (such as conservation, time-of- use rates, interruptible Demands, and Direct Control Load Management) are	The responsible entity's forecasts document how the Demand and energy effects of DSM programs but failed to document how one (1) of the following elements of the Demand and energy effects of DSM programs are addressed: conservation, time-of-	The responsible entity's forecasts document how the Demand and energy effects of DSM programs but failed to document how two (2) of the following elements of the Demand and energy effects of DSM programs are addressed: conservation, time-of-	The responsible entity's forecasts document how the Demand and energy effects of DSM programs but failed to document how three (3) of the following elements of the Demand and energy effects of DSM programs are addressed: conservation, time-of-	The responsible entity's forecasts failed to document how the Demand and energy effects of DSM programs are addressed.

Page 255 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		addressed.	use rates, interruptible Demands or Direct Control Load Management.	use rates, interruptible Demands or Direct Control Load Management.	use rates, interruptible Demands or Direct Control Load Management.	
MOD-021-0.1	R2.	The Load-Serving Entity, Transmission Planner, and Resource Planner shall each include information detailing how Demand-Side Management measures are addressed in the forecasts of its Peak Demand and annual Net Energy for Load in the data reporting procedures of Standard MOD-016- 0_R1.	N/A	N/A	N/A	The responsible entity failed to include information detailing how Demand-Side Management measure(s) are addressed in the forecasts of its Peak Demand and annual Net Energy for Load in the data reporting procedures of Standard MOD-016- 0_R 1.
MOD-021-0.1	R3.	The Load-Serving Entity, Transmission Planner, and Resource Planner shall each make documentation on the treatment of its DSM programs available to NERC on request (within 30 calendar days).	The responsible entity provided documentation on the treatment of its DSM programs more than 30 calendar days but less than or equal to 40 calendar days following the request from NERC.	The responsible entity provided documentation on the treatment of its DSM programs more than 40 calendar days but less than or equal to 50 calendar days following the request from NERC.	The responsible entity provided documentation on the treatment of its DSM programs more than 50 calendar days but less than or equal to 60 calendar days following the request from NERC.	The responsible entity provided documentation on the treatment of its DSM programs more than 60 calendar days following the request from NERC. OR The responsible entity failed to provide

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						documentation on the treatment of its DSM programs following a request from NERC.
MOD-028-1	R1.	Each Transmission Service Provider shall include in its Available Transfer Capability Implementation Document (ATCID), at a minimum, the following information relative to its methodology for determining Total Transfer Capability (TTC):	The Transmission Service Provider has an ATCID but it is missing one of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub- subrequirements)	The Transmission Service Provider has an ATCID but it is missing two of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub- subrequirements)	The Transmission Service Provider has an ATCID but it is missing three of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub- subrequirements)	The Transmission Service Provider has an ATCID but it is missing more than three of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub- subrequirements)
MOD-028-1	R1.1	Information describing how the selected methodology has been implemented, in such detail that, given the same information used by the Transmission Operator, the results of the TTC calculations can be validated.	N/A	N/A	N/A	N/A
MOD-028-1	R1.2	A description of the manner in which the Transmission Operator will account for Interchange Schedules in the calculation of	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		TTC.				
MOD-028-1	R1.3	Any contractual obligations for allocation of TTC.	N/A	N/A	N/A	N/A
MOD-028-1	R1.4	A description of the manner in which Contingencies are identified for use in the TTC process.	N/A	N/A	N/A	N/A
MOD-028-1	R1.5	The following information on how source and sink for transmission service is accounted for in ATC calculations including:	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.1	Define if the source used for Available Transfer Capability (ATC) calculations is obtained from the source field or the Point of Receipt (POR) field of the transmission reservation	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.2	Define if the sink used for ATC calculations is obtained from the sink field or the Point of Delivery (POD) field of the transmission reservation	N/A	N/A	N/A	N/A

Page 258 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-028-1	R1.5.3	The source/sink or POR/POD identification and mapping to the model.	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.4	If the Transmission Service Provider's ATC calculation process involves a grouping of generation, the ATCID must identify how these generators participate in the group.	N/A	N/A	N/A	N/A
MOD-028-1	R2.	When calculating TTC for ATC Paths, the Transmission Operator shall use a Transmission model that contains all of the following:	The Transmission Operator used one to ten Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.	The Transmission Operator used eleven to twenty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.	<ul> <li>One or both of the following:</li> <li>The Transmission</li> <li>Operator used twenty-one to thirty Facility</li> <li>Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.</li> <li>The Transmission model</li> <li>The Transmission model that includes modeling data and topology (or equivalent representation) for one adjacent Reliability</li> </ul>	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator used more than thirty Facility</li> <li>Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.</li> <li>The Transmission</li> <li>Operator's model includes equivalent representation of nonradial facilities greater than 161 kV for its own Reliability</li> <li>Coordinator Area.</li> </ul>

Page 259 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					Coordinator Area.	• The Transmission Operator did not use a Transmission model that includes modeling data and topology (or equivalent representation) for two or more adjacent Reliability Coordinator Areas.
MOD-028-1	R2.1	Modeling data and topology of its Reliability Coordinator's area of responsibility. Equivalent representation of radial lines and facilities 161 kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-028-1	R2.2	Modeling data and topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination areas.	N/A	N/A	N/A	N/A
MOD-028-1	R2.3	Facility Ratings specified by the Generator Owners and Transmission Owners.	N/A	N/A	N/A	N/A
MOD-028-1	R3.	When calculating TTCs for ATC Paths,	The Transmission Operator did not	The Transmission Operator did not	The Transmission Operator did not	One or more of the following:

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Operator shall include the following data for the Transmission Service Provider's area. The Transmission Operator shall also include the following data associated with Facilities that are explicitly represented in the Transmission model, as provided by adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed:	include in the TTC process one to ten expected generation and Transmission outages, additions or retirements as specified in the ATCID.	include in the TTC process eleven to twenty-five expected generation and Transmission outages, additions or retirements as specified in the ATCID.	include in the TTC process twenty-six to fifty expected generation and Transmission outages, additions or retirements as specified in the ATCID.	<ul> <li>The Transmission Operator did not include in the TTC process more than fifty expected generation and Transmission outages, additions or retirements as specified in the ATCID.</li> <li>The Transmission Operator did not include the Load forecast or unit commitment in its TTC calculation as described in R3.</li> </ul>
MOD-028-1	R3.1	For on-peak and off- peak intra-day and next-day TTCs, use the following (as well as any other values and additional parameters as specified in the ATCID):	N/A	N/A	N/A	N/A
MOD-028-1	R3.1.1	Expected generation and Transmission outages, additions, and	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		retirements, included as specified in the ATCID.				
MOD-028-1	R3.1.2	Load forecast for the applicable period being calculated.	N/A	N/A	N/A	N/A
MOD-028-1	R3.1.3	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	N/A	N/A	N/A	N/A
MOD-028-1	R3.2	For days two through 31 TTCs and for months two through 13 TTCs, use the following (as well as any other values and internal parameters as specified in the ATCID):	N/A	N/A	N/A	N/A
MOD-028-1	R3.2.1	Expected generation and Transmission outages, additions, and Retirements, included as specified in the ATCID.	N/A	N/A	N/A	N/A
MOD-028-1	R3.2.2.	Daily load forecast for	N/A	N/A	N/A	N/A

Page 262 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the days two through 31 TTCs being calculated and monthly forecast for months two through 13 months TTCs being calculated.				
MOD-028-1	R3.2.3.	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	N/A	N/A	N/A	N/A
MOD-028-1	R4.	When calculating TTCs for ATC Paths, the Transmission Operator shall meet all of the following conditions:	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than zero reservations, but not more than 5% of all reservations; or 1 reservation, whichever is greater.	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than 5%, but not more than 10% of all reservations; or 2 reservations, whichever is greater.	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than 10%, but not more than 15% of all reservations; or 3 reservations, whichever is greater.	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator did not include in the TTC calculation the contingencies that met the criteria described in the ATCID.</li> <li>The Transmission</li> <li>Operator did not respect contractual allocations of TTC.</li> <li>The Transmission</li> <li>Operator did not model reservations'</li> </ul>

Page 263 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						<ul> <li>sources or sinks as described in R4.3 for more than 15% of all reservations; or more than 3 reservations, whichever is greater.</li> <li>The Transmission Operator did not use firm reservations to estimate interchange or did not utilize that estimate in the TTC calculation as described in R4.3.</li> </ul>
MOD-028-1	R4.1	Use all Contingencies meeting the criteria described in the ATCID.	N/A	N/A	N/A	N/A
MOD-028-1	R4.2	Respect any contractual allocations of TTC.	N/A	N/A	N/A	N/A
MOD-028-1	R4.3	Include, for each time period, the Firm Transmission Service expected to be scheduled as specified in the ATCID (filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers) for the	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
	Number	Transmission Service Provider, all adjacent Transmission Service Providers, and any Transmission Service Providers with which coordination agreements have been executed modeling the source and sink as follows: - If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the Transmission Service Provider's				
		Transmission model,				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		use the modeled equivalence or aggregate as the source.				
		- If the source, as specified in the ATCID, has been identified in the				
		reservation and the point cannot be mapped to a discretely modeled point, an				
		"equivalence," or an "aggregate representation" in the Transmission Service				
		Provider's Transmission model, use the immediately adjacent Balancing				
		Authority associated with the Transmission Service Provider from which the power is to				
		be received as the source. - If the source, as				
		specified in the ATCID, has not been identified in the				
		reservation, use the immediately adjacent Balancing Authority associated with the Transmission Service				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Provider from which the power is to be received as the source.				
		- If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely				
		modeled point shall as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the				
		Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as specified in the				
		ATCID, has been identified in the reservation and the				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		point can not be mapped to a discretely modeled point, an "equivalence," or an "aggregate representation" in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is to be delivered as the sink. - If the sink, as specified in the ATCID, has not been identified in the reservation, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is being delivered as the sink.				
MOD-028-1	R5.	Each Transmission Operator shall establish TTC for each ATC Path as defined below:	One or more of the following: • The Transmission Operator did not establish TTCs for use in hourly or daily	One or more of the following: • The Transmission Operator did not establish TTCs for use in hourly or daily	One or more of the following: • The Transmission Operator did not establish TTCs for used in hourly or daily	One or more of the following: • The Transmission Operator did not establish TTCs for used in hourly or daily

Page 268 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			<ul> <li>ATCs within 7</li> <li>calendar days but did</li> <li>establish the values</li> <li>within 10 calendar</li> <li>days</li> <li>The Transmission</li> <li>Operator did not</li> <li>establish TTCs for use</li> <li>in monthly ATCs</li> <li>during a calendar</li> <li>month but did</li> <li>establish the values</li> <li>within the next</li> <li>consecutive calendar</li> <li>month</li> </ul>	ATCs in 10 calendar days but did establish the values within 13 calendar days • The Transmission Operator did not establish TTCs for use in monthly ATCs during a two consecutive calendar month period but did establish the values within the third consecutive calendar month	ATCs in 13 calendar days but did establish the values within 16 calendar days • The Transmission Operator did not establish TTCs for use in monthly ATCs during a three consecutive calendar month period but did establish the values within the fourth consecutive calendar month	ATCs in 16 calendar days • The Transmission Operator did not establish TTCs for use in monthly ATCs during a four or more consecutive calendar month period • The Transmission Operator did not establish TTCs within 24 hrs of the triggers defined in R5.3
MOD-028-1	R5.1	At least once within the seven calendar days prior to the specified period for TTCs used in hourly and daily ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R5.2	At least once per calendar month for TTCs used in monthly ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R5.3	Within 24 hours of the unexpected outage of a 500 kV or higher transmission Facility or a transformer with a low-side voltage of 200 kV or higher for TTCs in effect during	N/A	N/A	N/A	N/A

Page 269 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the anticipated duration of the outage, provided such outage is expected to last 24 hours or longer.				
MOD-028-1	R6.	Each Transmission Operator shall establish TTC for each ATC Path using the following process:	N/A	N/A	N/A	The Transmission Operator did not calculate TTCs per the process specified in R6.
MOD-028-1	R6.1	Determine the incremental Transfer Capability for each ATC Path by increasing generation and/or decreasing load within the source Balancing Authority area and decreasing generation and/or increasing load within the sink Balancing Authority area until either: - A System Operating Limit is reached on the Transmission Service Provider's system, or - A SOL is reached on any other adjacent system in the Transmission model that is not on the study path and the	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		distribution factor is 5% or greater.				
MOD-028-1	R6.2	If the limit in step R6.1 can not be reached by adjusting any combination of load or generation, then set the incremental Transfer Capability by the results of the case where the maximum adjustments were applied.	N/A	N/A	N/A	N/A
MOD-028-1	R6.3	Use (as the TTC) the lesser of: - The sum of the incremental Transfer Capability and the impacts of Firm Transmission Services, as specified in the Transmission Service Provider's ATCID, that were included in the study model, or - The sum of Facility Ratings of all ties comprising the ATC Path.	N/A	N/A	N/A	N/A
MOD-028-1	R6.4	For ATC Paths whose capacity uses jointly-	N/A	N/A	N/A	N/A

Page 271 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		owned or allocated Facilities, limit TTC for each Transmission Service Provider so the TTC does not exceed each Transmission Service Provider's contractual rights.				
MOD-028-1	R7.	The Transmission Operator shall provide the Transmission Service Provider of that ATC Path with the most current value for TTC for that ATC Path no more than:	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator provided its</li> <li>Transmission Service</li> <li>Provider with its ATC</li> <li>Path TTCs used in</li> <li>hourly or daily ATC</li> <li>calculations more than</li> <li>one calendar day after</li> <li>their determination,</li> <li>but not been more</li> <li>than two calendar</li> <li>days after their</li> <li>determination.</li> <li>The Transmission</li> <li>Operator has not</li> <li>provided its</li> <li>Transmission Service</li> <li>Provider with its ATC</li> <li>Path TTCs used in</li> <li>monthly ATC</li> <li>calculations more than</li> <li>seven calendar days</li> </ul>	One or more of the following: • The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than two calendar days after their determination, but not been more than three calendar days after their determination. • The Transmission Operator has not provided its Transmission Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 14 calendar days after	One or more of the following: • The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than three calendar days after their determination, but not been more than four calendar days after their determination. • The Transmission Operator has not provided its Transmission Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 21 calendar days after	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator provided its</li> <li>Transmission Service</li> <li>Provider with its ATC</li> <li>Path TTCs used in</li> <li>hourly or daily ATC</li> <li>calculations more than</li> <li>four calendar days</li> <li>after their</li> <li>determination.</li> <li>The Transmission</li> <li>Operator did not</li> <li>provide its</li> <li>Transmission Service</li> <li>Provider with its ATC</li> <li>Path TTCs used in</li> <li>hourly or daily ATC</li> <li>calculations.</li> <li>The Transmission</li> <li>Operator did not</li> <li>provide its</li> <li>Transmission Service</li> <li>Provider with its ATC</li> <li>Path TTCs used in</li> <li>hourly or daily ATC</li> <li>calculations.</li> <li>The Transmission</li> <li>Operator provided its</li> <li>Transmission Service</li> <li>Provider with its ATC</li> </ul>
			after their determination, but not	their determination, but not been more	their determination, but not been more	Provider with its ATC Path TTCs used in

Page 272 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			more than 14 calendar days since their determination.	than 21 calendar days after their determination.	than 28 calendar days after their determination.	<ul> <li>monthly ATC</li> <li>calculations more than</li> <li>28 calendar days after</li> <li>their determination.</li> <li>The Transmission</li> <li>Operator did not</li> <li>provide its</li> <li>Transmission Service</li> <li>Provider with its ATC</li> <li>Path TTCs used in</li> <li>monthly ATC</li> <li>calculations.</li> </ul>
MOD-028-1	R7.1	One calendar day after its determination for TTCs used in hourly and daily ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R7.2	Seven calendar days after its determination for TTCs used in monthly ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R8.	When calculating Existing Transmission Commitments (ETCs) for firm commitments (ETCF) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm:	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 15% of the value calculated in the	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 25% of the value calculated in the	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 35% of the value calculated in the	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 45% of the value calculated in the

Page 273 of 447

#### Require **Text of Requirement** High VSL Severe VSL **Standard Number** Lower VSL Moderate VSL ment Number measure or 15MW. measure or 25MW. measure or 35MW. measure or 45MW. whichever is greater, whichever is greater, whichever is greater. whichever is greater, but not more than but not more than but not more than 35% of the value 25% of the value 45% of the value calculated in the calculated in the calculated in the measure or 25MW. measure or 35MW. measure or 45MW, whichever is greater. whichever is greater. whichever is greater. MOD-028-1 R9. When calculating ETC For a specified period, For a specified period, For a specified period, For a specified period, for non-firm the Transmission the Transmission the Transmission the Transmission Service Provider Service Provider Service Provider Service Provider commitments (ETCNF) for all time calculated a non-firm calculated a non-firm calculated a non-firm calculated a non-firm periods for an ATC ETC with an absolute ETC with an absolute ETC with an absolute ETC with an absolute Path the Transmission value different than value different than value different than value different than Service Provider shall that calculated in M11 that calculated in M11 that calculated in M11 that calculated in M11 for the same period, use the following for the same period, for the same period, for the same period, and the absolute value algorithm: and the absolute value and the absolute value and the absolute value difference was more difference was more difference was more difference was more than 15% of the value than 25% of the value than 35% of the value than 45% of the value calculated in the calculated in the calculated in the calculated in the measure or 45MW, measure or 15MW. measure or 25MW, measure or 35MW, whichever is greater. whichever is greater. whichever is greater, whichever is greater, but not more than but not more than but not more than 25% of the value 35% of the value 45% of the value calculated in the calculated in the calculated in the measure or 25MW, measure or 35MW, measure or 45MW, whichever is greater. whichever is greater. whichever is greater. The Transmission When calculating firm The Transmission The Transmission The Transmission MOD-028-1 R10. ATC for an ATC Path Service Provider did Service Provider did Service Provider did Service Provider did for a specified period, not use all the not use all the not use all the not use all the the Transmission elements defined in elements defined in elements defined in elements defined in Service Provider shall R10 when R10 when R10 when R10 when determining firm utilize the following determining firm determining firm determining firm ATC, or used ATC, or used ATC, or used ATC, or used algorithm: additional elements. additional elements. additional elements. additional elements,

#### Violation Severity Level Matrix (MOD)

Page 274 of 447

#### Require **Text of Requirement** High VSL Standard Number Lower VSL Moderate VSL Severe VSL ment Number for more than 5% of for more than 10% of for more than 15% of for more than zero all ATC Paths or 1 all ATC Paths or 2 all ATC Paths or more ATC Paths, but not ATC Path (whichever more than 5% of all ATC Paths than 3 ATC Paths (whichever is greater), ATC Paths or 1 ATC is greater), but not (whichever is greater). Path (whichever is more than 10% of all but not more than ATC Paths or 2 ATC 15% of all ATC Paths greater). Paths (whichever is or 3 ATC Paths (whichever is greater). greater). MOD-028-1 R11. When calculating non-The Transmission The Transmission The Transmission The Transmission Service Provider did Service Provider did Service Provider did firm ATC for a ATC Service Provider did Path for a specified not use all the not use all the not use all the not use all the elements defined in elements defined in elements defined in elements defined in period, the Transmission Service R11 when R11 when R11 when R11 when determining non-firm Provider shall use the determining non-firm determining non-firm determining non-firm following algorithm ATC. or used ATC. or used ATC. or used ATC. or used additional elements. additional elements. additional elements. additional elements. for more than zero for more than 5% of for more than 10% of for more than 15% of all ATC Paths or 2 ATC Paths, but not all ATC Paths or 1 all ATC Paths or more ATC Paths more than 5% of all ATC Path (whichever than 3 ATC Paths ATC Paths or 1 ATC (whichever is greater). is greater), but not (whichever is greater), but not more than more than 10% of all Path (whichever is greater). ATC Paths or 2 ATC 15% of all ATC Paths Paths (whichever is or 3 ATC Paths (whichever is greater). greater). The Transmission MOD-029-1 R1. When calculating The Transmission The Transmission The Transmission Operator used a model Operator used a model TTCs for ATC Paths. Operator used a model Operator used a model that met all but one of that met all but two of that met all but three that did not meet four the Transmission Operator shall use a the modeling the modeling of the modeling or more of the requirements specified requirements specified requirements specified Transmission model modeling which satisfies the in R1.1. in R1.1. in R1.1. requirements specified in R1.1. following OR OR OR requirements: OR The Transmission The Transmission The Transmission Operator utilized Operator utilized one The Transmission Operator utilized eleven to twenty Operator utilized more to ten Facility Ratings twenty-one to thirty

#### Violation Severity Level Matrix (MOD)

Page 275 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	than thirty Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)
MOD-029-1	R1.1	The model utilizes data and assumptions consistent with the time period being studied and that meets the following criteria:	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1	Includes at least:	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1.1.	The Transmission Operator area. Equivalent representation of radial lines and facilities 161kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1.2	All Transmission Operator areas contiguous with its own Transmission Operator area. (Equivalent representation is allowed.)	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1.3	Any other Transmission Operator	N/A	N/A	N/A	N/A

Page 276 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		area linked to the Transmission Operator's area by joint operating agreement. (Equivalent representation is allowed.)				
MOD-029-1	R1.1.2	Models all system Elements as in-service for the assumed initial conditions.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.3	Models all generation (may be either a single generator or multiple generators) that is greater than 20 MVA at the point of interconnection in the studied area.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.4	Models phase shifters in non-regulating mode, unless otherwise specified in the Available Transfer Capability Implementation Document (ATCID).	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.5	Uses Load forecast by Balancing Authority.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.6	Uses Transmission Facility additions and retirements.	N/A	N/A	N/A	N/A

Page 277 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-029-1	R1.1.7	Uses Generation Facility additions and retirements.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.8	Uses Special Protection System (SPS) models where currently existing or projected for implementation within the studied time horizon.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.9	Models series compensation for each line at the expected operating level unless specified otherwise in the ATCID.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.10	Includes any other modeling requirements or criteria specified in the ATCID.	N/A	N/A	N/A	N/A
MOD-029-1	R1.2	Uses Facility Ratings as provided by the Transmission Owner and Generator Owner	N/A	N/A	N/A	N/A
MOD-029-1	R2.	The Transmission Operator shall use the following process to determine TTC:	One or both of the following: • The Transmission Operator did not calculate TTC using	One or both of the following: • The Transmission Operator did not calculate TTC using	One or both of the following: • The Transmission Operator did not calculate TTC using	One or more of the following: • The Transmission Operator did not calculate TTC using

Page 278 of 447

#### Require **Text of Requirement** Lower VSL High VSL Severe VSL **Standard Number** ment Moderate VSL Number one of the items in two of the items in three of the items in four or more of the sub-requirements sub-requirements sub-requirements items in sub-R2.1-R2.6. requirements R2.1-R2.1-R2.6. R2.1-R2.6. R2.6. The The The Transmission Transmission Transmission The Operator does not Operator does not Operator does not Transmission include one required include two required include three required Operator did not apply item in the study items in the study items in the study R2.7. report required in report required in report required in The R2.8. R2.8. R2.8. Transmission Operator does not include four or more required items in the study report required in R2.8 R2.1 MOD-029-1 Except where N/A N/A N/A N/A otherwise specified within MOD-029-1. adjust base case generation and Load levels within the updated power flow model to determine the TTC (maximum flow or reliability limit) that can be simulated on the ATC Path while at the same time satisfying all planning criteria contingencies as follows: MOD-029-1 R2.1.1 When modeling N/A N/A N/A N/A normal conditions, all

#### Violation Severity Level Matrix (MOD)

Page 279 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Elements will be modeled at or below 100% of their continuous rating.				
MOD-029-1	R2.1.2	When modeling contingencies the system shall demonstrate transient, dynamic and voltage stability, with no Transmission Element modeled above its Emergency Rating.	N/A	N/A	N/A	N/A
MOD-029-1	R2.1.3	Uncontrolled separation shall not occur.	N/A	N/A	N/A	N/A
MOD-029-1	R2.2	Where it is impossible to actually simulate a reliability-limited flow in a direction counter to prevailing flows (on an alternating current Transmission line), set the TTC for the non- prevailing direction equal to the TTC in the prevailing direction. If the TTC in the prevailing flow direction is dependant on a Special Protection System (SPS), set the TTC for	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the non-prevailing flow direction equal to the greater of the maximum flow that can be simulated in the non-prevailing flow direction or the maximum TTC that can be achieved in the prevailing flow direction without use of a SPS.				
MOD-029-1	R2.3	For an ATC Path whose capacity is limited by contract, set TTC on the ATC Path at the lesser of the maximum allowable contract capacity or the reliability limit as determined by R2.1.	N/A	N/A	N/A	N/A
MOD-029-1	R2.4	For an ATC Path whose TTC varies due to simultaneous interaction with one or more other paths, develop a nomogram describing the interaction of the paths and the resulting TTC under specified conditions.	N/A	N/A	N/A	N/A
MOD-029-1	R2.5	The Transmission Operator shall identify	N/A	N/A	N/A	N/A

Page 281 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		when the TTC for the ATC Path being studied has an adverse impact on the TTC value of any existing path. Do this by modeling the flow on the path being studied at its proposed new TTC level simultaneous with the flow on the existing path at its TTC level while at the same time honoring the reliability criteria outlined in R2.1. The Transmission Operator shall include the resolution of this adverse impact in its study report for the ATC Path.				
MOD-029-1	R2.6	Where multiple ownership of Transmission rights exists on an ATC Path, allocate TTC of that ATC Path in accordance with the contractual agreement made by the multiple owners of that ATC Path.	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-029-1	R2.7	For ATC Paths whose path rating, adjusted for seasonal variance, was established, known and used in operation since January 1, 1994, and no action has been taken to have the path rated using a different method, set the TTC at that previously established amount.	N/A	N/A	N/A	N/A
MOD-029-1	R2.8	Create a study report that describes the steps above that were undertaken (R2.1 – R2.7), including the contingencies and assumptions used, when determining the TTC and the results of the study. Where three phase fault damping is used to determine stability limits, that report shall also identify the percent used and include justification for use unless specified otherwise in the ATCID.	N/A	N/A	N/A	N/A
MOD-029-1	R3.	Each Transmission	The Transmission	The Transmission	The Transmission	The Transmission

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator shall establish the TTC at the lesser of the value calculated in R2 or any System Operating Limit (SOL) for that ATC Path.	Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than zero ATC Paths, BUT, not more than 1% of all ATC Paths or 1 ATC Path (whichever is greater).	Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than 1% of all ATC Paths or 1 ATC Path (whichever is greater), BUT not more than 2% of all ATC Paths or 2 ATC Paths (whichever is greater).	Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than 2% of all ATC Paths or 2 ATC Paths (whichever is greater), BUT not more than 5% of all ATC Paths or 3 ATC Paths (whichever is greater).	Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL, for more than 5% of all ATC Paths or 3 ATC Paths (whichever is greater).
MOD-029-1	R4.	Within seven calendar days of the finalization of the study report, the Transmission Operator shall make available to the Transmission Service Provider of the ATC Path, the most current value for TTC and the TTC study report documenting the assumptions used and steps taken in determining the current value for TTC for that ATC Path.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than seven, but not more than 14 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 14, but not more than 21 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 21, but not more than 28 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 28 calendar days after the report was finalized.
MOD-029-1	R5.	When calculating ETC for firm Existing Transmission	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Commitments (ETCF) for a specified period for an ATC Path, the Transmission Service Provider shall use the algorithm below:	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-029-1	R6.	When calculating ETC for non-firm Existing Transmission Commitments (ETCNF) for all time horizons for an ATC Path the Transmission Service Provider shall use the following algorithm:	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-029-1	R7.	When calculating firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-029-1	R8.	When calculating non- firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-030-2	R1.	The Transmission Service Provider shall include in its	The Transmission Service Provider does not include in its	The Transmission Service Provider does not include in its	The Transmission Service Provider does not include in its	The Transmission Service Provider does not include in its

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		"Available Transfer Capability Implementation Document" (ATCID).	ATCID one or two of the sub-requirements listed under R1.2, or the sub-requirement is incomplete.	ATCID three of the sub-requirements listed under R1.2, or the sub-requirement is incomplete.	ATCID the information described in R1.1. OR The Transmission Service Provider does not include in its ATCID the information described in R1.2 (1.2.1, 1.2.2., 1.2.3, and 1.2.4 are missing).	ATCID the information described in R1.1 and R1.2 (1.2.1, 1.2.2., 1.2.3, and 1.2.4 are missing).
MOD-030-2	R1.1	The criteria used by the Transmission Operator to identify sets of Transmission Facilities as Flowgates that are to be considered in Available Flowgate Capability (AFC) calculations.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2	The following information on how source and sink for transmission service is accounted for in AFC calculations including:	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.1	Define if the source used for AFC calculations is obtained from the	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		source field or the Point of Receipt (POR) field of the transmission reservation.				
MOD-030-2	R1.2.2.	Define if the sink used for AFC calculations is obtained from the sink field or the Point of Delivery (POD) field of the transmission reservation.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.3	The source/sink or POR/POD identification and mapping to the model.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.4	If the Transmission Service Provider's AFC calculation process involves a grouping of generators, the ATCID must identify how these generators participate in the group.	N/A	N/A	N/A	N/A
MOD-030-2	R2.	The Transmission Operator shall perform the following:	One or more of the following: • The Transmission Operator established its list of internal Flowgates less	One or more of the following: • The Transmission Operator did not include a Flowgate in their AFC calculations	One or more of the following: • The Transmission Operator did not include two to five Flowgates in their	One or more of the following: • The Transmission Operator did not include six or more Flowgates in their

Page 288 of 447

#### Require **Text of Requirement** High VSL Severe VSL **Standard Number** Lower VSL Moderate VSL ment Number frequently than once that met the criteria AFC calculations that AFC calculations that per calendar year, but described in R2.1. met the criteria met the criteria not more than three described in R2.1. described in R2.1. • The Transmission months late as Operator established • The Transmission The Transmission described in R2.2. its list of internal Operator established Operator established • The Transmission its list of internal Flowgates more than its list of internal three months late, but Flowgates more than Flowgates more than Operator established its list of external not more than six six months late, but nine months late as Flowgates more than months late as not more than nine described in R2.2. thirty days, but not described in R2.2. months late as • The Transmission more than sixty days, described in R2.2. • The Transmission Operator did not following a request to Operator established • The Transmission establish its list of create, modify or its list of external Operator established internal Flowgates as delete an external Flowgates more than described in R2.2. its list of external flowgate as described sixty days, but not Flowgates more than · The Transmission in R2.3. more than ninety days, ninety days, but not Operator established • The Transmission following a request to more than 120 days, its list of external Operator has not create, modify or following a request to Flowgates more than updated its Flowgate delete an external create, modify or 120 days following a TFC when notified by delete an external flowgate as described request to create, the Transmission in R2.3. flowgate as described modify or delete an Owner in more than 7 in R2.3. • The Transmission external flowgate as days, but it has not Operator has not The Transmission described in R2.3. been more than 14 updated its Flowgate Operator has not • The Transmission days since the updated its Flowgate TFCs at least once Operator did not notification (R2.5.1) TFCs at least once within a calendar year, establish its list of · The Transmission and it has been not within a calendar year, external Flowgates Operator has not more than 15 months and it has been more following a request to provided its since the last update. than 15 months but create, modify or Transmission Service not more than 18 • The Transmission delete an external Provider with its months since the last Operator has not flowgate as described Flowgate TFCs within update. updated its Flowgate in R2.3. seven days (one week) TFC when notified by • The Transmission • The Transmission of their determination, the Transmission Operator has not Operator did not but is has not been Owner in more than updated its Flowgate

#### Violation Severity Level Matrix (MOD)

Page 289 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			more than 14 days (two weeks) since their determination.	14 days, but it has not been more than 21 days since the notification (R2.5.1) • The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 14 days (two weeks) of their determination, but is has not been more than 21 days (three weeks) since their determination.	TFCs when notified by the Transmission Owner in more than 21 days, but it has not been more than 28 days since the notification (R2.5.1) • The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 21 days (three weeks) of their determination, but is has not been more than 28 days (four weeks)	determine the TFC for a flowgate as described in R2.4. • The Transmission Operator has not updated its Flowgate TFCs at least once within a calendar year, and it has been more than 18 months since the last update. (R2.5) • The Transmission Operator has not updated its Flowgate TFCs when notified by the Transmission Owner in more than 28 calendar days (R2.5.1) • The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 28 days (4 weeks) of their determination.
MOD-030-2	R2.1	Include Flowgates used in the AFC process based, at a minimum, on the following criteria:	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.1	Results of a first	N/A	N/A	N/A	N/A

Page 290 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Contingency transfer analysis for ATC Paths internal to a Transmission Operator's system up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an OTDF of at least 5% and within the Transmission Operator's system are included as Flowgates.				
MOD-030-2	R2.1.1.1.	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.1.2	Only the most limiting element in a series configuration needs to be included as a Flowgate.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.1.3	If any limiting element	N/A	N/A	N/A	N/A

Page 291 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.				
MOD-030-2	R2.1.2.	Results of a first Contingency transfer analysis from all adjacent Balancing Authority source and sink (as defined in the ATCID) combinations up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an Outage Transfer Distribution Factor (OTDF) of at least 5% and within the Transmission Operator's system are included as Flowgates unless the interface between such adjacent Balancing Authorities	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		is accounted for using another ATC methodology.				
MOD-030-2	R2.1.2.1	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.2.	Only the most limiting element in a series configuration needs to be included as a Flowgate.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.3	If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.3	Any limiting Element/Contingency combination at least within its Reliability	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator's Area that has been subjected to an Interconnection-wide congestion management procedure within the last 12 months, unless the limiting Element/Contingency combination is accounted for using another ATC methodology or was created to address temporary operating conditions.				
MOD-030-2	R2.1.4	Any limiting Element/Contingency combination within the Transmission model that has been requested to be included by any other Transmission Service Provider using the Flowgate Methodology or Area Interchange Methodology, where:	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.4.1	The coordination of the limiting Element/Contingency combination is not	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		already addressed through a different methodology, and				
		- Any generator within the Transmission Service Provider's area has at least a 5% Power Transfer Distribution Factor (PTDF) or Outage Transfer Distribution Factor (OTDF) impact on the Flowgate when delivered to the aggregate load of its own area, or				
		<ul> <li>A transfer from any Balancing Area within the Transmission Service Provider's area to a Balancing Area adjacent has at least a 5% PTDF or OTDF impact on the Flowgate.</li> <li>The Transmission Operator may utilize distribution factors less than 5% if desired.</li> </ul>				
MOD-030-2	R2.1.4.2	The limiting Element/Contingency combination is included in the	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		requesting Transmission Service Provider's methodology.				
MOD-030-2	R2.2	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgate definitions at least once per calendar year.	N/A	N/A	N/A	N/A
MOD-030-2	R2.3	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgates that have been requested as part of R2.1.4 within thirty calendar days from the request.	N/A	N/A	N/A	N/A
MOD-030-2	R2.4	Establish the TFC of each of the defined Flowgates as equal to: - For thermal limits, the System Operating Limit (SOL) of the Flowgate. - For voltage or stability limits, the flow that will respect the SOL of the Flowgate.	N/A	N/A	N/A	N/A
MOD-030-2	R2.5	At a minimum,	N/A	N/A	N/A	N/A

Page 296 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		establish the TFC once per calendar year.				
MOD-030-2	R2.5.1	If notified of a change in the Rating by the Transmission Owner that would affect the TFC of a flowgate used in the AFC process, the TFC should be updated within seven calendar days of the notification.	N/A	N/A	N/A	N/A
MOD-030-2	R2.6	Provide the Transmission Service Provider with the TFCs within seven calendar days of their establishment.	N/A	N/A	N/A	N/A
MOD-030-2	R3.	The Transmission Operator shall make available to the Transmission Service Provider a Transmission model to determine Available Flowgate Capability (AFC) that meets the following criteria:	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator used one to ten Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.</li> <li>The Transmission</li> <li>Operator did not update the model per</li> </ul>	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator used eleven to twenty Facility</li> <li>Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.</li> <li>The Transmission</li> <li>Operator did not</li> </ul>	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator used twenty-one to thirty Facility</li> <li>Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.</li> <li>The Transmission</li> <li>Operator did not</li> </ul>	<ul> <li>One or more of the following:</li> <li>The Transmission</li> <li>Operator did not update the model per R3.2 for more than 4 calendar days</li> <li>The Transmission</li> <li>Operator did not update the model for per R3.3 for more than ten weeks</li> <li>The Transmission</li> <li>Operator used more</li> </ul>

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			R3.2 for one or more calendar days but not more than 2 calendar days • The Transmission Operator did not update the model for per R3.3 for one or more months but not more than six weeks	update the model per R3.2 for more than 2 calendar days but not more than 3 calendar days • The Transmission Operator did not update the model for per R3.3 for more than six weeks but not more than eight weeks	update the model per R3.2 for more than 3 calendar days but not more than 4 calendar days • The Transmission Operator did not update the model for per R3.3 for more than eight weeks but not more than ten weeks	<ul> <li>than thirty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.</li> <li>The Transmission operator did not include in the Transmission model detailed modeling data and topology for its own Reliability Coordinator area.</li> <li>The Transmission operator did not include in the Transmission modeling data and topology for immediately adjacent and beyond Reliability Coordinator area.</li> </ul>
MOD-030-2	R3.1	Contains generation Facility Ratings, such as generation maximum and minimum output levels, specified by the Generator Owners of the Facilities within the model.	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-030-2	R3.2	Updated at least once per day for AFC calculations for intra- day, next day, and days two through 30.	N/A	N/A	N/A	N/A
MOD-030-2	R3.3	Updated at least once per month for AFC calculations for months two through 13.	N/A	N/A	N/A	N/A
MOD-030-2	R3.4	Contains modeling data and system topology for the Facilities within its Reliability Coordinator's Area. Equivalent representation of radial lines and Facilities161kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-030-2	R3.5	Contains modeling data and system topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination Areas.	N/A	N/A	N/A	N/A
MOD-030-2	R4.	When calculating AFCs, the Transmission Service Provider shall	The Transmission Service Provider did not represent the impact of			

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		represent the impact of Transmission Service as follows: - If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the source. - If the source, as specified in the	Transmission Service as described in R4 for more than zero, but not more than 5% of all reservations; or more than zero, but not more than 1 reservation, whichever is greater	Transmission Service as described in R4 for more than 5%, but not more than 10% of all reservations; or more than 1, but not more than 2 reservations, whichever is greater	Transmission Service as described in R4 for more than 10%, but not more than 15% of all reservations; or more than 2, but not more than 3 reservations, whichever is greater	Transmission Service as described in R4 for more than 15% of all reservations; or more than 3 reservations, whichever is greater

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		reservation and the point cannot be mapped to a discretely modeled point or an "equivalence" representation in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to				
		be received as the source. - If the source, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Service Provider's Transmission model, use the discretely modeled point as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point or an "equivalence" representation in the Transmission Service				
		Transmission model, use the immediately				

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink. - If the sink, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink.				
MOD-030-2	R5.	When calculating AFCs, the Transmission Service Provider shall:	The Transmission Service Provider did not include in the AFC process one to ten expected generation or Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	The Transmission Service Provider did not include in the AFC process eleven to twenty-five expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	The Transmission Service Provider did not include in the AFC process twenty- six to fifty expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	<ul> <li>One or more of the following:</li> <li>The Transmission Service Provider did not use the model provided by the Transmission Operator.</li> <li>The Transmission Service Provider did not include in the AFC process more than fifty expected generation and Transmission outages, additions or retirements within the</li> </ul>

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						scope of the model as specified in the ATCID.
						• The Transmission Service provider did not use AFC provided by a third party.
MOD-030-2	R5.1	Use the models provided by the Transmission Operator.	N/A	N/A	N/A	N/A
MOD-030-2	R5.2	Include in the transmission model expected generation and Transmission outages, additions, and retirements within the scope of the model as specified in the ATCID and in effect during the applicable period of the AFC calculation for the Transmission Service Provider's area, all adjacent Transmission Service Providers, and any Transmission Service Providers with which coordination agreements have been executed.	N/A	N/A	N/A	N/A
MOD-030-2	R5.3	For external Flowgates, identified	N/A	N/A	N/A	N/A

Page **304** of **447** 

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		in R2.1.4, use the AFC provided by the Transmission Service Provider that calculates AFC for that Flowgate.				
MOD-030-2	R6.	When calculating the impact of ETC for firm commitments (ETCFi) for all time periods for a Flowgate, the Transmission Service Provider shall sum the following:	N/A	N/A	N/A	N/A
MOD-030-2	R6.1	The impact of firm Network Integration Transmission Service, including the impacts of generation to load, in the model referenced in R5.2 for the Transmission Service Provider's area, based on:	N/A	N/A	N/A	N/A
MOD-030-2	R6.1.1.	Load forecast for the time period being calculated, including Native Load and Network Service load	N/A	N/A	N/A	N/A
MOD-030-2	R6.1.2	to include all designated network resources and other	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		resources that are committed or have the legal obligation to run as specified in the Transmission Service Provider's ATCID.				
MOD-030-2	R6.2	The impact of any firm Network Integration Transmission Service, including the impacts of generation to load in the model referenced in R5.2 and has a distribution factor equal to or greater than the percentage1 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed based on:	N/A	N/A	N/A	N/A
MOD-030-2	R6.2.1	Load forecast for the	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		time period being calculated, including Native Load and Network Service load				
MOD-030-2	R6.2.2.	Unit commitment and Dispatch Order, to include all designated network resources and other resources that are committed or have the legal obligation to run as specified in the Transmission Service Provider's ATCID.	N/A	N/A	N/A	N/A
MOD-030-2	R6.3	The impact of all confirmed firm Point- to-Point Transmission Service expected to be scheduled, including roll-over rights for Firm Transmission Service contracts, for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R6.4	The impact of any confirmed firm Point- to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		from multiple Transmission Service Providers, including roll-over rights for Firm Transmission Service contracts having a distribution factor equal to or greater than the percentage2 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R6.5	The impact of any Grandfathered firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R6.6	The impact of any	N/A	N/A	N/A	N/A

Page 308 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Grandfathered firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater than the percentage3 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R6.7	The impact of other firm services determined by the Transmission Service Provider.	N/A	N/A	N/A	N/A
MOD-030-2	R7.	When calculating the impact of ETC for non-firm commitments (ETCNFi) for all time periods for a Flowgate	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Service Provider shall sum:	that calculated in M14 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	that calculated in M14 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	that calculated in M14 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	that calculated in M14 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-030-2	R7.1	The impact of all confirmed non-firm Point-to-Point Transmission Service expected to be scheduled for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R7.2	The impact of any confirmed non-firm Point-to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, that have a	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		distribution factor equal to or greater than the percentage4 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.3	The impact of any Grandfathered non- firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R7.4	The impact of any Grandfathered non- firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		than the percentage5 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.5	The impact of non- firm Network Integration Transmission Service serving Load within the Transmission Service Provider's area (i.e., secondary service), to include load growth, and losses not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	N/A	N/A	N/A	N/A
MOD-030-2	R7.6	The impact of any non-firm Network	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Integration Transmission Service (secondary service) with a distribution factor equal to or greater than the percentage6 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.7	The impact of other non-firm services determined by the Transmission Service Provider.	N/A	N/A	N/A	N/A

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-030-2	R8.	When calculating firm AFC for a Flowgate for a specified period, the Transmission Service Provider shall use the following algorithm (subject to allocation processes described in the ATCID):	The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than 5% of all Flowgates or 1 Flowgates (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).
MOD-030-2	R9.	When calculating non- firm AFC for a Flowgate for a specified period, the Transmission Service Provider shall use the following algorithm (subject to allocation processes described in the ATCID):	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 5% of all Flowgates or 1 Flowgate (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).
MOD-030-2	R10.	Each Transmission Service Provider shall	One or more of the following:	One or more of the following:	One or more of the following:	One or more of the following:

Page **314** of **447** 

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		recalculate AFC, utilizing the updated models described in R3.2, R3.3, and R5, at a minimum on the following frequency, unless none of the calculated values identified in the AFC equation have changed:	<ul> <li>§ For Hourly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for one or more hours but not more than 15 hours, and was in excess of the 175-hour per year requirement.</li> <li>§ For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for one or more calendar days but not more than 3 calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for one or more calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for seven or more calendar days, but less than 14 calendar days.</li> </ul>	<ul> <li>§ For Hourly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 15 hours but not more than 20 hours, and was in excess of the 175-hour per year requirement.</li> <li>§ For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 3 calendar days but not more than 4 calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 4 calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 14 or more calendar days, but less than 21 calendar days.</li> </ul>	<ul> <li>§ For Hourly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 20 hours but not more than 25 hours, and was in excess of the 175-hour per year requirement.</li> <li>§ For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 4 calendar days but not more than 5 calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 21 or more calendar days, but less than 28 calendar days.</li> </ul>	<ul> <li>§ For Hourly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 25 hours, and was in excess of the 175-hour per year requirement.</li> <li>§ For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days.</li> <li>§ For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days.</li> </ul>
MOD-030-2	R10.1	For hourly AFC, once per hour. Transmission Service	N/A	N/A	N/A	N/A

Page 315 of 447

Standard Number	Require ment Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Providers are allowed up to 175 hours per calendar year during which calculations are not required to be performed, despite a change in a calculated value identified in the AFC equation.				
MOD-030-2	R10.2	For daily AFC, once per day.	N/A	N/A	N/A	N/A
MOD-030-2	R10.3	For monthly AFC, once per week.	N/A	N/A	N/A	N/A
MOD-030-2	R11.	When converting Flowgate AFCs to ATCs for ATC Paths, the Transmission Service Provider shall convert those values based on the following algorithm:	N/A	N/A	N/A	The Transmission Service Provider did not follow the procedure for converting Flowgate AFCs to ATCs (and/or TFCs to TTCs) described in R11.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
NUC-001-2	R1.	The Nuclear Plant Generator Operator shall provide the proposed NPIRs in writing to the applicable Transmission Entities and shall verify receipt.	The Nuclear Plant Generator Operator provided the NPIR's to the applicable entities but did not verify receipt.	The Nuclear Plant Generator Operator did not provide the proposed NPIR to one of the applicable entities.	The Nuclear Plant Generator Operator did not provide the proposed NPIR's to two of the applicable entities.	The Nuclear Plant Generator Operator did not provide the proposed NPIR's to more than two of applicable entities.
NUC-001-2	R2.	The Nuclear Plant Generator Operator and the applicable Transmission Entities shall have in effect one or more Agreements that include mutually agreed to NPIRs and document how the Nuclear Plant Generator Operator and the applicable Transmission Entities shall address and implement these NPIRs.	N/A	N/A	N/A	The Nuclear Plant Generator Operator or the applicable Transmission Entity does not have in effect one or more agreements that include mutually agreed to NPIRs and document the implementation of the NPIRs.
NUC-001-2	R3.	Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall incorporate the NPIRs into their planning analyses of the electric system and shall communicate the results of these analyses to the Nuclear Plant Generator Operator.	N/A	The responsible entity incorporated the NPIRs into its planning analyses but did not communicate the results to the Nuclear Plant Generator Operator.	N/A	The responsible entity did not incorporate the NPIRs into its planning analyses of the electric system.
NUC-001-2	R4.	Per the Agreements developed in accordance	N/A	The responsible entity did not comply with	The responsible entity did not comply with	The responsible entity did not comply with

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		with this standard, the applicable Transmission Entities shall:		sub-requirement R4.3 but is compliant with sub-requirements R4.1 and R4.2.	R4.1 but is compliant with R4.2.	R4.2.
NUC-001-2	R4.1	Incorporate the NPIRs into their operating analyses of the electric system.	N/A	N/A	N/A	N/A
NUC-001-2	R4.2	Operate the electric system to meet the NPIRs.	N/A	N/A	N/A	N/A
NUC-001-2	R4.3	Inform the Nuclear Plant Generator Operator when the ability to assess the operation of the electric system affecting NPIRs is lost.	N/A	N/A	N/A	N/A
NUC-001-2	R5.	The Nuclear Plant Generator Operator shall operate per the Agreements developed in accordance with this standard.	N/A	N/A	N/A	The Nuclear Plant Generator Operator failed to operate per the Agreements developed in accordance with this standard.
NUC-001-2	R6.	Per the Agreements developed in accordance with this standard, the applicable Transmission Entities and the Nuclear Plant Generator Operator shall coordinate outages and maintenance activities which affect the NPIRs.	N/A	N/A	N/A	The responsible entity had an outage or maintenance activity which affected an NPIR and failed to coordinate per the Agreements developed in accordance with this standard.
NUC-001-2	R7.	Per the Agreements	N/A	The Nuclear Plant	N/A	The Nuclear Plant

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		developed in accordance with this standard, the Nuclear Plant Generator Operator shall inform the applicable Transmission Entities of actual or proposed changes to nuclear plant design, configuration, operations, limits, protection systems, or capabilities that may impact the ability of the electric system to meet the NPIRs.		Generator Operator did not inform the applicable Transmission Entities per the Agreements developed in accordance with this standard of a proposed change to nuclear plant design, configuration, operations, limits, protection systems, or capabilities that may impact the ability of the electric system to meet the NPIRs.		Generator Operator did not inform the applicable Transmission Entities per the Agreements developed in accordance with this standard of an actual change to nuclear plant design, configuration, operations, limits, protection systems, or capabilities that may impact the ability of the electric system to meet the NPIRs.
NUC-001-2	R8.	Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall inform the Nuclear Plant Generator Operator of actual or proposed changes to electric system design, configuration, operations, limits, protection systems, or capabilities that may impact the ability of the electric system to meet the NPIRs.	N/A	The applicable Transmission Entity did not inform the Nuclear Plant Generator Operator per the Agreements developed in accordance with this standard of a proposed change to transmission system design, configuration, operations, limits, protection systems, or capabilities that may impact the ability of the electric system to meet the NPIRs.	N/A	The applicable Transmission Entity did not inform the Nuclear Plant Generator Operator per the Agreements developed in accordance with this standard of an actual change to transmission system design, configuration, operations, limits, protection systems, or capabilities that may impact the ability of the electric system to meet the NPIRs.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
NUC-001-2	R9.	The Nuclear Plant Generator Operator and the applicable Transmission Entities shall include, as a minimum, the following elements within the agreement(s) identified in R2:	The agreement identified in R2. between the Nuclear Plant Generator Operator and the applicable Transmission Entities is missing one or more sub-components of R9.1.	The agreement identified in R2. between the Nuclear Plant Generator Operator and the applicable Transmission Entities is missing from one to five of the combined sub-components in R9.2, R9.3 and R9.4.	The agreement identified in R2. between the Nuclear Plant Generator Operator and the applicable Transmission Entities is missing from six to ten of the combined sub-components in R9.2, R9.3 and R9.4.	The agreement identified in R2. between the Nuclear Plant Generator Operator and the applicable Transmission Entities is missing eleven or more of the combined sub-components in R9.2, R9.3 and R9.4.
NUC-001-2	R9.1	Administrative elements:	N/A	N/A	N/A	N/A
NUC-001-2	R9.1.1	Definitions of key terms used in the agreement.	N/A	N/A	N/A	N/A
NUC-001-2	R9.1.2	Names of the responsible entities, organizational relationships, and responsibilities related to the NPIRs.	N/A	N/A	N/A	N/A
NUC-001-2	R9.1.3	A requirement to review the agreement(s) at least every three years.	N/A	N/A	N/A	N/A
NUC-001-2	R9.1.4	A dispute resolution mechanism.	N/A	N/A	N/A	N/A
NUC-001-2	R9.2	Technical requirements and analysis:	N/A	N/A	N/A	N/A
NUC-001-2	R9.2.1	Identification of parameters, limits, configurations, and operating scenarios included in the NPIRs and, as applicable, procedures for providing any specific data not provided within the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		agreement.				
NUC-001-2	R9.2.2	Identification of facilities, components, and configuration restrictions that are essential for meeting the NPIRs.	N/A	N/A	N/A	N/A
NUC-001-2	R9.2.3	Types of planning and operational analyses performed specifically to support the NPIRs, including the frequency of studies and types of Contingencies and scenarios required.	N/A	N/A	N/A	N/A
NUC-001-2	R9.3	Operations and maintenance coordination:	N/A	N/A	N/A	N/A
NUC-001-2	R9.3.1	Designation of ownership of electrical facilities at the interface between the electric system and the nuclear plant and responsibilities for operational control coordination and maintenance of these facilities.	N/A	N/A	N/A	N/A
NUC-001-2	R9.3.2	Identification of any maintenance requirements for equipment not owned or controlled by the Nuclear Plant Generator Operator that are necessary to meet the NPIRs.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
NUC-001-2	R9.3.3	Coordination of testing, calibration and maintenance of on-site and off-site power supply systems and related components.	N/A	N/A	N/A	N/A
NUC-001-2	R9.3.4	Provisions to address mitigating actions needed to avoid violating NPIRs and to address periods when responsible Transmission Entity loses the ability to assess the capability of the electric system to meet the NPIRs. These provisions shall include responsibility to notify the Nuclear Plant Generator Operator within a specified time frame.	N/A	N/A	N/A	N/A
NUC-001-2	R9.3.5	Provision for considering, within the restoration process, the requirements and urgency of a nuclear plant that has lost all off-site and on-site AC power.	N/A	N/A	N/A	N/A
NUC-001-2	R9.3.6	Coordination of physical and cyber security protection of the Bulk Electric System at the nuclear plant interface to ensure each asset is covered under at least one entity's plan.	N/A	N/A	N/A	N/A
NUC-001-2	R9.3.7	Coordination of the NPIRs with transmission system	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Special Protection Systems and underfrequency and undervoltage load shedding programs.				
NUC-001-2	R9.4	Communications and training:	N/A	N/A	N/A	N/A
NUC-001-2	R9.4.1	Provisions for communications between the Nuclear Plant Generator Operator and Transmission Entities, including communications protocols, notification time requirements, and definitions of terms.	N/A	N/A	N/A	N/A
NUC-001-2	R9.4.2	Provisions for coordination during an off-normal or emergency event affecting the NPIRs, including the need to provide timely information explaining the event, an estimate of when the system will be returned to a normal state, and the actual time the system is returned to normal.	N/A	N/A	N/A	N/A
NUC-001-2	R9.4.3	Provisions for coordinating investigations of causes of unplanned events affecting the NPIRs and developing solutions to minimize future risk of such events.	N/A	N/A	N/A	N/A
NUC-001-2	R9.4.4	Provisions for supplying information necessary to	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		report to government agencies, as related to NPIRs.				
NUC-001-2	R9.4.5	Provisions for personnel training, as related to NPIRs.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
PER-001- 0.1	R1.	Each Transmission Operator and Balancing Authority shall provide operating personnel with the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.	N/A	N/A	The Transmission Operator or Balancing Authority failed to demonstrate that it communicated to its operating personnel their responsibility or their authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.	The Transmission Operator or Balancing Authority failed to demonstrate that it communicated to its operating personnel their responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.
PER-002-0	R1.	Each Transmission Operator and Balancing Authority shall be staffed with adequately trained operating personnel.	The responsible entity failed to staff 5% or less with adequately trained operating personnel.	The responsible failed to staff more than 5% up to (and including) 10% with adequately trained operating personnel.	The responsible entity failed to staff more than 10% up to (and including) 15% with adequately trained operating personnel.	The responsible entity failed to staff more than 15% with adequately trained operating personnel.
PER-002-0	R2.	Each Transmission Operator and Balancing Authority shall have a training program for all operating personnel that are in:	The responsible entity did not train operating personnel for positions described in R2.1 or R2.2, affecting 5% or less of its operating personnel.	The responsible entity did not train operating personnel for positions described in R2.1 or R2.2, affecting more than 5% up to (and including) 10% of its operating personnel.	The responsible entity did not train operating personnel for positions described in R2.1 or R2.2, affecting more than 10% up to (and including) 15% of its operating personnel.	The responsible entity did not train operating personnel for positions described in R2.1 or R2.2, affecting more than 15% of its operating personnel.
PER-002-0	R2.1.	Positions that have the primary responsibility, either directly or through communications with	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		others, for the real-time operation of the interconnected Bulk Electric System.				
PER-002-0	R2.2.	Positions directly responsible for complying with NERC standards.	N/A	N/A	N/A	N/A
PER-002-0	R3.	For personnel identified in Requirement R2, the Transmission Operator and Balancing Authority shall provide a training program meeting the following criteria:	The responsible entity provided a training program that did not comply with one of the following sub- requirements: R3.1, R3.2, R3.3, or R3.4.	The responsible entity provided a training program that did not comply with two of the following sub- requirements: R3.1, R3.2, R3.3, or R3.4.	The responsible entity provided a training program that did not comply with three of the following sub- requirements: R3.1, R3.2, R3.3, or R3.4.	The responsible entity provided a training program that did not comply with any of the following sub- requirements: R3.1, R3.2, R3.3, and R3.4. OR The responsible entity did not provide a training program.
PER-002-0	R3.1.	A set of training program objectives must be defined, based on NERC and Regional Reliability Organization standards, entity operating procedures, and applicable regulatory requirements. These objectives shall reference the knowledge and competencies needed to apply those standards, procedures, and requirements to normal, emergency, and restoration	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		conditions for the Transmission Operator and Balancing Authority operating positions.				
PER-002-0	R3.2.	The training program must include a plan for the initial and continuing training of Transmission Operator and Balancing Authority operating personnel. That plan shall address knowledge and competencies required for reliable system operations.	N/A	N/A	N/A	N/A
PER-002-0	R3.3.	The training program must include training time for all Transmission Operator and Balancing Authority operating personnel to ensure their operating proficiency.	N/A	N/A	N/A	N/A
PER-002-0	R3.4.	Training staff must be identified, and the staff must be competent in both knowledge of system operations and instructional capabilities.	N/A	N/A	N/A	N/A
PER-002-0	R4.	For personnel identified in Requirement R2, each Transmission Operator and Balancing Authority shall provide its operating personnel at least five days per year of training and drills using realistic	The responsible entity did not provide five days per year of training and drills, as directed by the requirement, affecting 5% or less of its	The responsible entity did not provide five days per year of training and drills, as directed by the requirement, affecting more than 5% up to (and including) 10%	The responsible entity did not provide five days per year of training and drills, as directed by the requirement, affecting more than 10% up to (and including) 15%	The responsible entity did not provide five days per year of training and drills, as directed by the requirement, affecting more than 15% of its

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.	operating personnel.	of its operating personnel.	of its operating personnel.	operating personnel.
PER-003-0	R1.	Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall staff all operating positions that meet both of the following criteria with personnel that are NERC-certified for the applicable functions:	N/A	N/A	N/A	The responsible entity did not staff all of its operating positions with personnel that are NERC-certified as required by the criteria described in R1.1 and R1.2.
PER-003-0	R1.1.	Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.	N/A	N/A	N/A	N/A
PER-003-0	R1.2.	Positions directly responsible for complying with NERC standards.	N/A	N/A	N/A	N/A
PER-004-1	R1.	Each Reliability Coordinator shall be staffed with adequately trained and NERC-certified Reliability Coordinator operators, 24 hours per day, seven days per week.	N/A	N/A	N/A	The responsible entity has failed to be staffed with adequately trained and NERC- certified Reliability Coordinator operators, 24 hours per day, seven days per week.
PER-004-1	R2.	All Reliability Coordinator	The responsible entity	The responsible entity	The responsible entity	The responsible entity

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		operating personnel shall each complete a minimum of five days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.	did not provide five days per year of training and drills, as directed by the requirement, affecting 5% or less of its operating personnel.	did not provide five days per year of training and drills, as directed by the requirement, more than 5% up to (and including) 10% of its operating personnel.	did not provide five days per year of training and drills, as directed by the requirement, affecting more than 10% up to (and including) 15% of its operating personnel.	did not provide five days per year of training and drills, as directed by the requirement, affecting more than 15% of its operating personnel.
PER-004-1	R3.	Reliability Coordinator operating personnel shall have a comprehensive understanding of the Reliability Coordinator Area and interactions with neighboring Reliability Coordinator Areas.	5% or less of the Reliability Coordinator operating personnel did not have a comprehensive understanding of the Reliability Coordinator Area and interactions with neighboring Reliability Coordinator Areas.	More than 5% up to (and including) 10% of the Reliability Coordinator operating personnel did not have a comprehensive understanding of the Reliability Coordinator Area and interactions with neighboring Reliability Coordinator Areas.	More than 10% up to (and including) 15% of the Reliability Coordinator operating personnel did not have a comprehensive understanding of the Reliability Coordinator Area and interactions with neighboring Reliability Coordinator Areas.	More than 15% of the Reliability Coordinator operating personnel did not have a comprehensive understanding of the Reliability Coordinator Area and interactions with neighboring Reliability Coordinator Areas.
PER-004-1	R4.	Reliability Coordinator operating personnel shall have an extensive understanding of the Balancing Authorities, Transmission Operators, and Generation Operators within the Reliability Coordinator Area, including the operating staff, operating practices and procedures, restoration priorities and objectives, outage plans,	5% or less of the Reliability Coordinator operating personnel did not have an extensive understanding of the Balancing Authorities, Transmission Operators, and Generation Operators within the Reliability Coordinator Area, including the	More than 5% up to (and including) 10% of the Reliability Coordinator operating personnel did not have an extensive understanding of the Balancing Authorities, Transmission Operators, and Generation Operators within the Reliability Coordinator Area,	More than 10% up to (and including) 15% of the Reliability Coordinator operating personnel did not have an extensive understanding of the Balancing Authorities, Transmission Operators, and Generation Operators within the Reliability Coordinator Area,	More than 15% of the Reliability Coordinator operating personnel did not have an extensive understanding of the Balancing Authorities, Transmission Operators, and Generation Operators within the Reliability Coordinator Area, including the

Page 329 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		equipment capabilities, and operational restrictions.	operating staff, operating practices and procedures, restoration priorities and objectives, outage plans, equipment capabilities, and operational restrictions.	including the operating staff, operating practices and procedures, restoration priorities and objectives, outage plans, equipment capabilities, and operational restrictions.	including the operating staff, operating practices and procedures, restoration priorities and objectives, outage plans, equipment capabilities, and operational restrictions.	operating staff, operating practices and procedures, restoration priorities and objectives, outage plans, equipment capabilities, and operational restrictions.
PER-004-1	R5.	Reliability Coordinator operating personnel shall place particular attention on SOLs and IROLs and inter- tie facility limits. The Reliability Coordinator shall ensure protocols are in place to allow Reliability Coordinator operating personnel to have the best available information at all times.	Reliability Coordinator operating personnel did not place particular attention on 5% or less of the SOLs or IROLs or inter-tie facility limits.	Reliability Coordinator operating personnel did not place particular attention on more than 5% up to (and including) 10% of the SOLs or IROLs or inter-tie facility limits.	Reliability Coordinator operating personnel did not place particular attention on more than 10% up to (and including) 15% of the SOLs or IROLs or inter-tie facility limits.	Reliability Coordinator operating personnel did not place particular attention on more than 15% of the SOLs or IROLs or inter-tie facility limits. OR The Reliability Coordinator did not ensure protocols are in place to allow Reliability Coordinator operating personnel to have the best available information at all times.
PER-005-1	R1.	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall use a	N/A	The responsible entity-had a Protection System maintenance and	The responsible entity-had a Protection System maintenance and	The responsible entity-failed to have Protection System maintenance and

Page 330 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		systematic approach to training to establish a training program for the BES company-specific reliability-related tasks performed by its System Operators and shall implement the program.		testing program for Protection Systems that affect the reliability of the BES, but the summary of maintenance and testing procedures was missing or incomplete. (R1.2)	testing program for Protection Systems that affect the reliability of the BES, but the maintenance and testing intervals and their basis were missing or incomplete. (R1.1)	testing program for Protection Systems that affect the reliability of the BES.
PER-005-1	R1.1	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall create a list of BES company-specific reliability-related tasks performed by its System Operators.	N/A	N/A	N/A	N/A
PER-005-1	R1.1.1.	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall update its list of BES company-specific reliability-related tasks performed by its System Operators each calendar year to identify new or modified tasks for inclusion in training.	N/A	N/A	N/A	N/A
PER-005-1	R1.2	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall design and develop learning objectives and training materials based	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		on the task list created in R1.1.				
PER-005-1	R1.3	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall deliver the training established in R1.2.	N/A	N/A	N/A	N/A
PER-005-1	R1.4	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall conduct an annual evaluation of the training program established in R1, to identify any needed changes to the training program and shall implement the changes identified.	N/A	N/A	N/A	N/A
PER-005-1	R2.	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall verify each of its System Operator's capabilities to perform each assigned task identified in R1.1 at least one time.	N/A	The responsible entity verified at least 90% but less than 100% of its System Operators' capabilities to perform each assigned task from its list of BES company-specific reliability-related tasks. (R2)	The responsible entity verified at least 70% but less than 90% of its System Operators' capabilities to perform each assigned task from its list of BES company-specific reliability-related tasks. (R2) OR	The responsible entity verified less than 70% of its System Operators' capabilities to perform each assigned task from its list of BES company- specific reliability- related tasks. (R2)
					The responsible entity failed to verify its System Operators capabilities to perform each new or modified	

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					task within six months of making a modification to its BES company- specific reliability- related task list. (R2.1)	
PER-005-1	R2.1	Within six months of a modification of the BES company-specific reliability-related tasks, each Reliability Coordinator, Balancing Authority and Transmission Operator shall verify each of its System Operator's capabilities to perform the new or modified tasks.	N/A	N/A	N/A	N/A
PER-005-1	R3	At least every 12 months each Reliability Coordinator, Balancing Authority and Transmission Operator shall provide each of its System Operators with at least 32 hours of emergency operations training applicable to its organization that reflects emergency operations topics, which includes system restoration using drills, exercises or other training required to maintain qualified personnel.	N/A	The responsible entity provided at least 32 hours of emergency operations training to at least 90% but less than 100% of their System Operators. (R3)	The responsible entity provided at least 32 hours of emergency operations training to at least 70% but less than 90% of its System Operators. (R3)	The responsible entity provided 32 hours of emergency operations training to less than 70% of its System Operators (R3) OR The responsible entity did not include simulation technology replicating the operational behavior of the BES in its emergency operations training. (R3.1)
PER-005-1	R3.1	Each Reliability Coordinator, Balancing Authority and Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator that has				
		operational authority or				
		control over Facilities with				
		established IROLs or has				
		established operating guides				
		or protection systems to				
		mitigate IROL violations				
		shall provide each System				
		Operator with emergency				
		operations training using				
		simulation technology such				
		as a simulator, virtual				
		technology, or other				
		technology that replicates				
		the operational behavior of				
		the BES during normal and				
		emergency conditions.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
PRC-001- 1	R1.	Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area.	N/A	N/A	The responsible entity failed to be familiar with the limitations of protection system schemes applied in its area.	The responsible entity failed to be familiar with the purpose of protection system schemes applied in its area.
PRC-001- 1	R2.	Each Generator Operator and Transmission Operator shall notify reliability entities of relay or equipment failures as follows:	N/A	The responsible entity failed to provide notification of relay or equipment failure that reduced system reliability to the applicable entities, but corrective action was taken as required by R2.1 or R2.2.	Responsible entity provided notification of relay or equipment failure that reduced system reliability to the applicable entities, but corrective action was not taken as required by R2.1 or R2.2.	The responsible entity failed to provide notification of relay or equipment failure that reduced system reliability to the applicable entities, and failed to take corrective action as required by R2.1 or R2.2.
PRC-001- 1	R2.1.	If a protective relay or equipment failure reduces system reliability, the Generator Operator shall notify its Transmission Operator and Host Balancing Authority. The Generator Operator shall take corrective action as	N/A	N/A	N/A	N/A

Page 335 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
	Daa	soon as possible.				
PRC-001- 1	R2.2.	If a protective relay or equipment failure reduces system reliability, the Transmission Operator shall notify its Reliability Coordinator and affected Transmission Operators and Balancing Authorities. The Transmission Operator shall take corrective action as soon as possible.	N/A	N/A	N/A	N/A
PRC-001- 1	R3.	A Generator Operator or Transmission Operator shall coordinate new protective systems and changes as follows.	N/A	N/A	N/A	N/A
PRC-001- 1	R3.1.	Each Generator Operator shall coordinate all new protective systems and all protective system changes with its Transmission Operator and Host Balancing Authority.	The Generator Operator failed to coordinate one new protective system or protective system change with either its Transmission Operator or its Host Balancing Authority or both.	The Generator Operator failed to coordinate two new protective systems or protective system changes with either its Transmission Operator or its Host Balancing Authority, or both.	The Generator Operator failed to coordinate three new protective systems or protective system changes with either its Transmission Operator or its Host Balancing Authority, or both.	The Generator Operator failed to coordinate more than three new protective systems or protective system changes with its Transmission Operator or its Host Balancing Authority, or both.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
PRC-001- 1	R3.2.	Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities.	The Transmission Operator failed to coordinate one new protective system or protective system change with neighboring Transmission Operators or Balancing Authorities or both.	The Transmission Operator failed to coordinate two new protective systems or protective system changes with neighboring Transmission Operators or Balancing Authorities or both.	The Transmission Operator failed to coordinate three new protective systems or protective system changes with neighboring Transmission Operators or Balancing Authorities or both.	The Transmission Operator failed to coordinate more than three new protective systems or protective system changes with neighboring Transmission Operators or Balancing Authorities or both.
PRC-001- 1	R4.	Each Transmission Operator shall coordinate protection systems on major transmission lines and interconnections with neighboring Generator Operators, Transmission Operators, and Balancing Authorities.	The Transmission Operator failed to coordinate protection systems on major transmission lines and interconnections with one of its neighboring Generator Operators, Transmission Operators, or Balancing Authorities.	The Transmission Operator failed to coordinate protection systems on major transmission lines and interconnections with two of its neighboring Generator Operators, Transmission Operators, or Balancing Authorities.	The Transmission Operator failed to coordinate protection systems on major transmission lines and interconnections with three of its neighboring Generator Operators, Transmission Operators, or Balancing Authorities.	The Transmission Operator failed to coordinate protection systems on major transmission lines and interconnections with more than three of its neighboring Generator Operators, Transmission Operators, and Balancing Authorities.
PRC-001- 1	R5.	A Generator Operator or Transmission Operator shall coordinate changes in generation, transmission, load or operating conditions that could require changes in the protection systems of	N/A	N/A	The Generator Operator failed to notify its Transmission Operator at all of changes in generation or operating conditions that could require changes in the Transmission	The Generator Operator failed to notify its Transmission Operator at all of changes in generation or operating conditions that could require changes in the Transmission

Page 337 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		others:			Operator's protection systems. (R5.1) OR The Transmission Operator failed to notify neighboring Transmission Operators at all of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' protection systems. (R5.2)	Operator's protection systems. (R5.1) AND The Transmission Operator failed to notify neighboring Transmission Operators at all of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' protection systems. (R5.2)
PRC-001- 1	R5.1.	Each Generator Operator shall notify its Transmission Operator in advance of changes in generation or operating conditions that could require changes in the Transmission Operator's protection systems.	N/A	N/A	N/A	N/A
PRC-001- 1	R5.2.	Each Transmission Operator shall notify neighboring Transmission Operators in advance of changes in generation,	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission, load, or operating conditions that could require changes in the other Transmission Operators' protection systems.				
PRC-001- 1	R6.	Each Transmission Operator and Balancing Authority shall monitor the status of each Special Protection System in their area, and shall notify affected Transmission Operators and Balancing Authorities of each change in status.	N/A	N/A	The responsible entity monitored the status of each Special Protection System in its area but notification of a change in status of a Special Protection System was not made to the affected Transmission Operators and Balancing Authorities.	The responsible entity failed to monitor the status of each Special Protection System in its area, and did not notify affected Transmission Operators and Balancing Authorities of each change in status.
PRC-004- 1	R1.	The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature	N/A	The responsible entity provided evidence of analyzing a Misoperation but the documentation and implementation of the associated Corrective Action Plan was not provided.	N/A	The responsible entity did not perform an analysis of a Misoperation.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		according to the Regional Reliability Organization's procedures developed for Reliability Standard PRC-003 Requirement 1.				
PRC-004- 1	R2.	The Generator Owner shall analyze its generator Protection System Misoperations, and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional Reliability Organization's procedures developed for PRC-003 R1.	N/A	The Generator Owner provided evidence of analyzing a Misoperation but the documentation and implementation of the associated Corrective Action Plan was not provided.	N/A	The Generator Owner did not perform an analysis of a Misoperation.
PRC-004- 1	R3.	The Transmission Owner, any Distribution Provider that owns a transmission Protection System, and the Generator Owner shall each provide to its Regional Reliability Organization, documentation of its Misoperations	The responsible entity provided its Regional Reliability Organization with documentation of its Misoperations analyses and its Corrective Action Plans, but did not provide these according to the Regional Reliability Organization's	N/A	The responsible entity provided its Regional Reliability Organization with documentation of its Misoperations analyses but did not provide its Corrective Action Plans.	The responsible entity did not provide its Regional Reliability Organization with documentation of its Misoperations analyses and did not provide its Corrective Action Plans.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		analyses and Corrective Action Plans according to the Regional Reliability Organization's procedures developed for PRC-003 R1.	procedures.			
PRC-005- 1	R1.	Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall have a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES. The program shall include:	N/A	The responsible entity-had a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES, but the summary of maintenance and testing procedures was missing or incomplete. (R1.2)	The responsible entity-had a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES, but the maintenance and testing intervals and their basis were missing or incomplete. (R1.1)	The responsible entity-failed to have Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES.
PRC-005- 1	R1.1.	Maintenance and testing intervals and their basis.	N/A	N/A	N/A	N/A
PRC-005- 1	R1.2.	Summary of maintenance and testing procedures.	N/A	N/A	N/A	N/A
PRC-005- 1	R2.	Each Transmission Owner and any Distribution Provider	The responsible entity provided documentation of its	Evidence Protection System devices were maintained and tested	Evidence Protection System devices were maintained and tested	Evidence Protection System devices were maintained and tested

Page 341 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall provide documentation of its Protection System maintenance and testing program and the implementation of that program to its Regional Reliability Organization on request (within 30 calendar days). The documentation of the program implementation shall include:	Protection System maintenance and testing program more than 30 calendar days following a request from its Regional Reliability Organization and/or NERC. OR Evidence Protection System devices were maintained and tested within the defined intervals (R2.1 and R2.2) was missing 5% or less of the applicable devices.	within the defined intervals (R2.1 and R2.2) was missing more than 5% up to (and including) 10% of the applicable devices.	within the defined intervals (R2.1 and R2.2) was missing more than 10% up to (and including) 15% of the applicable devices.	within the defined intervals (R2.1 and R2.2) was missing more than 15% of the applicable devices.
PRC-005- 1	R2.1.	Evidence Protection System devices were maintained and tested within the defined intervals.	N/A	N/A	N/A	N/A
PRC-005- 1	R2.2.	Date each Protection System device was last tested/maintained.	N/A	N/A	N/A	N/A
PRC-007- 0	R1.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its	The evaluation of the entity's UFLS program for consistency with its Regional Reliability	The amount of load shedding is less than 95 percent of the Regional requirement in any of the load	The amount of load shedding is less than 90 percent of the Regional requirement in any of the load	The amount of load shedding is less than 85 percent of the Regional requirement in any of the load

Page 342 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Regional Reliability Organization) shall ensure that its UFLS program is consistent with its Regional Reliability Organization's UFLS program requirements.	Organization's UFLS program is incomplete or inconsistent in one or more of the Regional Reliability Organization program requirements, but is consistent with the required amount of load shedding.	steps.	steps.	steps.
PRC-007-0	R2.	The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database.	The responsible entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) provided its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database but its annual update was late by 30 calendar days or less.	The responsible entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) provided its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database but its annual update was late by more than 30 calendar days but less than or equal to 40 calendar days	The responsible entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) provided its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database but its annual update was late by more than 40 calendar days but less than or equal to 50 calendar days.	The responsible entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) did not provided its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database, OR The responsible entity's annual update was late by more than 50 calendar days.
PRC-007- 0	R3.	The Transmission Owner and Distribution Provider that owns a UFLS program (as required by its Regional	The responsible entity has provided the documentation in more than 30 calendar days but less than or equal to 40 calendar	The responsible entity has provided the documentation in more than 40 calendar days but less than or equal to 50 calendar	The responsible entity has provided the documentation in more than 50 calendar days but less than or equal to 60 calendar	The responsible entity has not provided the documentation for more than 60 calendar days.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Reliability Organization) shall provide its documentation of that UFLS program to its Regional Reliability Organization on request (30 calendar days).	days.	days.	days.	
PRC-008- 0	R1.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall have a UFLS equipment maintenance and testing program in place. This UFLS equipment maintenance and testing program shall include UFLS equipment identification, the schedule for UFLS equipment testing, and the schedule for UFLS equipment maintenance.	The UFLS equipment identification, testing schedule or maintenance schedule for the responsible entity's UFLS equipment maintenance and testing program was missing 5% or less of the applicable equipment.	The UFLS equipment identification, testing schedule, or maintenance schedule for the responsible entity's UFLS equipment maintenance and testing program was missing for more than 5% up to (and including) 10% of the applicable equipment.	The UFLS equipment identification, testing schedule, or maintenance schedule for the responsible entity's UFLS equipment maintenance and testing program was missing more than 10% up to (and including) 15% of the applicable equipment.	The responsible entity failed to implement UFLS equipment maintenance and testing program. OR The UFLS equipment identification, testing schedule, or maintenance schedule for the responsible entity's UFLS equipment maintenance and testing program was missing more than 15% of the applicable equipment.
PRC-008- 0	R2.	The Transmission Owner and Distribution Provider with a UFLS program	The responsible entity provided documentation of its UFLS equipment	Evidence UFLS equipment was maintained and tested within the defined	Evidence UFLS equipment was maintained and tested within the defined	Evidence UFLS equipment was maintained and tested within the defined Page <b>344</b> of <b>447</b>

Page 344 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		(as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results to its Regional Reliability Organization and NERC on request (within 30 calendar days).	maintenance and testing program more than 30 calendar days following a request from its Regional Reliability Organization and/or NERC. OR Evidence UFLS equipment was maintained and tested within the defined intervals was missing for 5% or less of the applicable devices.	intervals was missing for more than 5% up to (and including) 10% of the applicable devices.	intervals was missing for more than 10% up to (and including) 15% of the applicable devices.	intervals was missing for more than 15% of the applicable devices.
PRC-009- 0	R1.	The Transmission Owner, Transmission Operator, Load- Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization's UFLS program. The analysis shall address the performance of UFLS equipment and	The responsible entity that owns or operates a UFLS program failed to include one of the elements listed in PRC-009-0 R1.1 through R1.4 in the analysis of the performance of UFLS equipment and Program effectiveness, as described in PRC- 009-0 R1, following system events resulting in system frequency excursions below the initializing set points of the UFLS	The responsible entity that owns or operates a UFLS program failed to include two of the elements listed in PRC-009-0 R1.1 through R1.4 in the analysis of the performance of UFLS equipment and Program effectiveness, as described in PRC- 009-0 R1, following system events resulting in system frequency excursions below the initializing set points of the UFLS	The responsible entity that owns or operates a UFLS program failed to include three of the elements listed in PRC-009-0 R1.1 through R1.4 in the analysis of the performance of UFLS equipment and Program effectiveness, as described in PRC- 009-0 R1, following system events resulting in system frequency excursions below the initializing set points of the UFLS	The responsible entity that owns or operates a UFLS program failed to conduct an analysis of the performance of UFLS equipment and Program effectiveness, as described in PRC- 009-0 R1, following system events resulting in system frequency excursions below the initializing set points of the UFLS program.

Page 345 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		program effectiveness following system events resulting in system frequency excursions below the initializing set points of the UFLS program. The analysis shall include, but not be limited to:	program.	program.	program.	
PRC-009- 0	R1.1.	A description of the event including initiating conditions.	N/A	N/A	N/A	N/A
PRC-009- 0	R1.2.	A review of the UFLS set points and tripping times.	N/A	N/A	N/A	N/A
PRC-009- 0	R1.3.	A simulation of the event.	N/A	N/A	N/A	N/A
PRC-009- 0	R1.4.	A summary of the findings.	N/A	N/A	N/A	N/A
PRC-009- 0	R2.	The Transmission Owner, Transmission Operator, Load- Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS	The responsible entity has provided the documentation in more than 90 calendar days but less than 100 calendar days.	The responsible entity has provided the documentation in more than 100 calendar days but less than 110 calendar days.	The responsible entity has provided the documentation in more than 110 calendar days but less than 120 calendar days.	The responsible entity has provided the documentation more than 120 calendar days after the system event. OR The responsible entity has not provided the documentation.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		program to its Regional Reliability Organization and NERC on request 90 calendar days after the system event.				
PRC-010- 0	R1.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission Planner(s) and Planning Authority(ies).	The responsible entity conducted an assessment of the effectiveness of its UVLS system within 5 years or as required by changes in system conditions but did not include the associated Transmission Planner(s) and Planning Authority(ies).	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 5 years but did in less than or equal to 6 years. OR The assessment of the effectiveness of the responsible entity's UVLS system did not address one of the elements in R1 (R1.1.1 through R1.1.3).	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 6 years but did in less than or equal to 7 years. OR The assessment of the effectiveness of the responsible entity's UVLS system did not address two of the elements in R1 (R1.1.1 through R1.1.3).	The responsible entity did not conduct an assessment of the effectiveness of its UVLS system for more than 7 years. OR The assessment of the effectiveness of the responsible entity's UVLS system did not address any of the elements in R1 (R1.1.1 through R1.1.3).
PRC-010- 0	R1.1.	This assessment shall include, but is not limited to:	N/A	N/A	N/A	N/A
PRC-010- 0	R1.1.1.	Coordination of the UVLS programs with other protection and	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		control systems in the Region and with other Regional Reliability Organizations, as appropriate.				
PRC-010- 0	R1.1.2.	Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL- 002-0, TPL-003-0 and TPL-004-0.	N/A	N/A	N/A	N/A
PRC-010- 0	R1.1.3.	A review of the voltage set points and timing.	N/A	N/A	N/A	N/A
PRC-010- 0	R2.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days).	The responsible entity provided documentation of its current UVLS program assessment more than 30 calendar but less than or equal to 40 calendar days following a request from its Regional Reliability Organization or NERC.	The responsible entity provided documentation of its current UVLS program assessment more than 40 calendar days but less than or equal to 50 calendar days following a request from its Regional Reliability Organization or NERC.	The responsible entity provided documentation of its current UVLS program assessment more than 50 calendar days but less than or equal to 60 calendar days following a request from its Regional Reliability Organization or NERC.	The responsible entity did not provide documentation of its current UVLS program assessment for more than 60 calendar days following a request from its Regional Reliability Organization or NERC.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
PRC-011- 0	R1.	The Transmission Owner and Distribution Provider that owns a UVLS system shall have a UVLS equipment maintenance and testing program in place. This program shall include:	The responsible entity's UVLS equipment maintenance and testing program did not address one of the subrequirements in R1.2 through R1.6. OR The responsible entity's UVLS program did not address one of the equipment classes as specified in R1.1.1 through R1.1.4.	The responsible entity's UVLS equipment maintenance and testing program did not address two of the subrequirements in R1.2 through R1.6. OR The responsible entity's UVLS program did not address two of the equipment classes as specified in R1.1.1 through R1.1.4.	The responsible entity's UVLS equipment maintenance and testing program did not address three of the subrequirements in R1.1 through R1.6. OR The responsible entity's UVLS program did not address three of the equipment classes as specified in R1.1.1 through R1.1.4.	The responsible entity's UVLS equipment maintenance and testing program did not address four or more of the subrequirements in R1.2 through R1.6. OR The responsible entity's UVLS program did not address any of the equipment classes as specified in R1.1.1 through R1.1.4.
PRC-011- 0	R1.1.	The UVLS system identification which shall include but is not limited to:	N/A	N/A	N/A	N/A
PRC-011- 0	R1.1.1.	Relays.	N/A	N/A	N/A	N/A
PRC-011- 0	R1.1.2.	Instrument transformers.	N/A	N/A	N/A	N/A
PRC-011- 0	R1.1.3.	Communications systems, where appropriate.	N/A	N/A	N/A	N/A
PRC-011- 0	R1.1.4.	Batteries.	N/A	N/A	N/A	N/A
PRC-011- 0	R1.2.	Documentation of maintenance and testing intervals and	N/A	N/A	N/A	N/A

Page 349 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		their basis.				
PRC-011- 0	R1.3.	Summary of testing procedure.	N/A	N/A	N/A	N/A
PRC-011- 0	R1.4.	Schedule for system testing.	N/A	N/A	N/A	N/A
PRC-011- 0	R1.5.	Schedule for system maintenance.	N/A	N/A	N/A	N/A
PRC-011- 0	R1.6.	Date last tested/maintained.	N/A	N/A	N/A	N/A
PRC-011- 0	R2.	The Transmission Owner and Distribution Provider that owns a UVLS system shall provide documentation of its UVLS equipment maintenance and testing program and the implementation of that UVLS equipment maintenance and testing program to its Regional Reliability Organization and NERC on request (within 30 calendar days).	The responsible entity provided documentation of its UVLS equipment maintenance and testing program more than 30 but less than or equal to 40 days following a request from its Regional Reliability Organization and/or NERC. OR Evidence UVLS equipment was maintained and tested within the defined intervals was missing for 5% or less of the applicable devices.	The responsible entity provided documentation of its UVLS equipment maintenance and testing program more than 40 but less than or equal to 50 days following a request from its Regional Reliability Organization and/or NERC. OR Evidence UVLS equipment was maintained and tested within the defined intervals was missing for more than 5% up to (and including) 10% of the applicable devices.	The responsible entity provided documentation of its UVLS equipment maintenance and testing program more than 50 but less than or equal to 60 days following a request from its Regional Reliability Organization and/or NERC. OR Evidence UVLS equipment was maintained and tested within the defined intervals was missing for more than 10% up to (and including) 15% of the applicable devices.	The responsible entity did not provide documentation of its UVLS equipment maintenance and testing program for more than 60 days following a request from its Regional Reliability Organization and/or NERC. OR Evidence UVLS equipment was maintained and tested within the defined intervals was missing for more than 15% of the applicable devices.
PRC-015-	R1.	The Transmission	N/A	The responsible	The responsible	The responsible

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
0		Owner, Generator Owner, and Distribution Provider that owns an SPS shall maintain a list of and provide data for existing and proposed SPSs as specified in Reliability Standard PRC-013-0_R1.		entity's list of existing or proposed SPSs did not address one of the subrequirements in R1.1 through R1.3 as specified in Reliability Standard PRC-013- 0_R1.	entity's list of existing or proposed SPSs did not address two of the subrequirements in R1.1 through R1.3 as specified in Reliability Standard PRC-013- 0_R1.	entity's list of existing or proposed SPSs did not address any of the subrequirements in R1.1 through R1.3 as specified in Reliability Standard PRC-013- 0_R1.
PRC-015- 0	R2.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have evidence it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures as defined in Reliability Standard PRC-012- 0_R1 prior to being placed in service.	The responsible entity was not compliant in that evidence that it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures did not address one of the subrequirements in R1.1 through R1.9 as specified in Reliability Standard PRC-012- 0_R1 prior to being placed in service.	The responsible entity was not compliant in that evidence that it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures did not address two of the subrequirements in R1.1 through R1.9 as specified in Reliability Standard PRC-012- 0_R1 prior to being placed in service.	The responsible entity was not compliant in that evidence that it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures did not address three of the subrequirements in R1.1 through R1.9 as specified in Reliability Standard PRC-012- 0_R1 prior to being placed in service.	The responsible entity was not compliant in that evidence that it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures did not address four or more of the subrequirements in R1.1 through R1.9 as specified in Reliability Standard PRC-012- 0_R1 prior to being placed in service.
PRC-015- 0	R3.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of	The responsible entity provided documentation of its SPS data and the results of the studies that show compliance of new or functionally	The responsible entity provided documentation of its SPS data and the results of the studies that show compliance of new or functionally	The responsible entity provided documentation of its SPS data and the results of the studies that show compliance of new or functionally	The responsible entity provided documentation of its SPS data and the results of the studies that show compliance of new or functionally

Page 351 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		SPS data and the results of studies that show compliance of new or functionally modified SPSs with NERC Reliability Standards and Regional Reliability Organization criteria to affected Regional Reliability Organizations and NERC on request (within 30 calendar days).	modified SPSs more than 30 calendar days but less than or equal to 40 calendar days following a request from its Regional Reliability Organization or NERC.	modified SPSs more than 40 calendar days but less than or equal to 50 calendar days following a request from its Regional Reliability Organization or NERC.	modified SPSs more than 50 calendar days but less than or equal to 60 calendar days following a request from its Regional Reliability Organization or NERC.	modified SPSs more than 60 calendar days following a request from its Regional Reliability Organization or NERC.
PRC-016- 0.1	R1.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall analyze its SPS operations and maintain a record of all misoperations in accordance with the Regional SPS review procedure specified in Reliability Standard PRC-012- 0_R1.	N/A	N/A	N/A	The responsible entity that owns an SPS did not analyze its SPS operations and maintain a record of all Misoperations in accordance with the Regional SPS review procedure specified in Reliability Standard PRC-012-0_R 1.
PRC-016- 0.1	R2.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall take corrective	For each Misoperation, the responsible entity that owns an SPS did not take 5% or less of the corrective actions	For each Misoperation, the responsible entity that owns an SPS did not take more than 5% up to (and including)	For each Misoperation, the responsible entity that owns an SPS did not take more than 10% up to (and including)	For each Misoperation, the responsible entity that owns an SPS did not take more than 15% of the corrective actions Page 352 of 447

Page 352 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		actions to avoid future misoperations.	designed to avoid future SPS Misoperations.	10% of the corrective actions designed to avoid future SPS Misoperations.	15% of the corrective actions designed to avoid future SPS Misoperations.	designed to avoid future SPS Misoperations.
PRC-016- 0.1	R3.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of the misoperation analyses and the corrective action plans to its Regional Reliability Organization and NERC on request (within 90 calendar days).	The responsible entity provided documentation of its SPS Misoperation analyses and the corrective action plans more than 90 calendar days but less than or equal to 120 calendar days following a request from its Regional Reliability Organization or NERC.	The responsible entity provided documentation of its SPS Misoperation analyses and the corrective action plans more than 120 calendar days but less than or equal to 130 calendar days following a request from its Regional Reliability Organization or NERC.	The responsible entity provided documentation of its SPS Misoperation analyses and the corrective action plans more than 130 calendar days but less than or equal to140 calendar days following a request from its Regional Reliability Organization or NERC.	The responsible entity provided documentation of its SPS Misoperation analyses and the corrective action plans more than 140 calendar days following a request from its Regional Reliability Organization or NERC. OR Did not provide the documentation.
PRC-017- 0	R1.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have a system maintenance and testing program(s) in place. The program(s) shall include:	The responsible entity's SPS equipment maintenance and testing program did not address one of the subrequirements in R1.2 through R1.6. OR The responsible entity's SPS program did not address one of the equipment classes as specified in R1.1.1	The responsible entity's SPS equipment maintenance and testing program did not address two of the subrequirements in R1.2 through R1.6. OR The responsible entity's SPS program did not address two of the equipment classes as specified in R1.1.1	The responsible entity's SPS equipment maintenance and testing program did not address three of the subrequirements in R1.2 through R1.6. OR The responsible entity's SPS program did not address three of the equipment classes as specified in R1.1.1 through	The responsible entity's SPS equipment maintenance and testing program did not address four or more of the subrequirements in R1.2 through R1.6. OR The responsible entity's SPS program did not address any of the equipment classes as specified in R1.1.1

Page 353 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			through R1.1.4.	through R1.1.4.	R1.1.4.	through R1.1.4.
PRC-017- 0	R1.1.	SPS identification shall include but is not limited to:	N/A	N/A	N/A	N/A
PRC-017- 0	R1.1.1.	Relays.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.1.2.	Instrument transformers.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.1.3.	Communications systems, where appropriate.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.1.4.	Batteries.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.2.	Documentation of maintenance and testing intervals and their basis.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.3.	Summary of testing procedure.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.4.	Schedule for system testing.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.5.	Schedule for system maintenance.	N/A	N/A	N/A	N/A
PRC-017- 0	R1.6.	Date last tested/maintained.	N/A	N/A	N/A	N/A
PRC-017- 0	R2.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide	The responsible entity provided documentation of its SPS maintenance and testing program more than 30 but less than	The responsible entity provided documentation of its SPS maintenance and testing program more than 40 but less than	The responsible entity provided documentation of its SPS maintenance and testing program more than 50 but less than	The responsible entity provided documentation of its SPS maintenance and testing program and its implementation

Page 354 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		documentation of the program and its implementation to the appropriate Regional Reliability Organizations and NERC on request (within 30 calendar days).	or equal to 40 days following a request from its Regional Reliability Organization and/or NERC.	or equal to 50 days following a request from its Regional Reliability Organization and/or NERC.	or equal to 60 days following a request from its Regional Reliability Organization and/or NERC.	more than 60 calendar days following a request from its Regional Reliability Organization or NERC. OR The responsible entity did not provide documentation of its SPS maintenance and testing program and its implementation following a request from its Regional Reliability Organization and/or NERC.
PRC-018- 1	R1.	Each Transmission Owner and Generator Owner required to install DMEs by its Regional Reliability Organization (reliability standard PRC-002 Requirements 1-3) shall have DMEs installed that meet the following requirements:	N/A	N/A	The installation of DMEs does not include one of the subrequirements in R1.1 and R1.2.	The installation of DMEs does not include any of the subrequirements in R1.1 and R1.2.
PRC-018- 1	R1.1.	Internal Clocks in DME devices shall be	N/A	N/A	N/A	N/A

Page 355 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		synchronized to within 2 milliseconds or less of Universal Coordinated Time scale (UTC)				
PRC-018- 1	R1.2.	Recorded data from each Disturbance shall be retrievable for ten calendar days.	N/A	N/A	N/A	N/A
PRC-018- 1	R2.	The Transmission Owner and Generator Owner shall each install DMEs in accordance with its Regional Reliability Organization's installation requirements (reliability standard PRC-002 Requirements 1 through 3).	The responsible entity failed to install 5% or less of the DME devices in accordance with its Regional Reliability Organization's installation requirements as defined in PRC-002 R1 through R3.	The responsible entity failed to install more than 5% up to (and including) 10% of the DME devices in accordance with its Regional Reliability Organization's installation requirements as defined in PRC-002 R1 through R3.	The responsible entity failed to install more than 10% up to (and including) 15% of the DME devices in accordance with its Regional Reliability Organization's installation requirements as defined in PRC-002 R1 through R3.	The responsible entity failed to install more than 15% of the DME devices in accordance with its Regional Reliability Organization's installation requirements as defined in PRC-002 R1 through R3.
PRC-018- 1	R3.	The Transmission Owner and Generator Owner shall each maintain, and report to its Regional Reliability Organization on request, the following data on the DMEs installed to meet that region's installation requirements (reliability standard	Evidence that the responsible entity maintained data on the DMEs installed to meet that region's installation requirements was missing or not reported for one of the subrequirements in R3.1 through R3.8.	Evidence that the responsible entity maintained data on the DMEs installed to meet that region's installation requirements was missing or not reported for two of the subrequirements in R3.1 through R3.8.	Evidence that the responsible entity maintained data on the DMEs installed to meet that region's installation requirements was missing or not reported for three of the subrequirements in R3.1 through R3.8.	Evidence that the responsible entity maintained data on the DMEs installed to meet that region's installation requirements was missing or not reported for four or more of the subrequirements in R3.1 through R3.8.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		PRC-002 Requirements1.1, 2.1 and 3.1):				
PRC-018- 1	R3.1.	Type of DME (sequence of event recorder, fault recorder, or dynamic disturbance recorder).	N/A	N/A	N/A	N/A
PRC-018- 1	R3.2.	Make and model of equipment.	N/A	N/A	N/A	N/A
PRC-018- 1	R3.3.	Installation location.	N/A	N/A	N/A	N/A
PRC-018- 1	R3.4.	Operational status.	N/A	N/A	N/A	N/A
PRC-018- 1	R3.5.	Date last tested.	N/A	N/A	N/A	N/A
PRC-018- 1	R3.6.	Monitored elements, such as transmission circuit, bus section, etc.	N/A	N/A	N/A	N/A
PRC-018- 1	R3.7.	Monitored devices, such as circuit breaker, disconnect status, alarms, etc.	N/A	N/A	N/A	N/A
PRC-018- 1	R3.8.	Monitored electrical quantities, such as voltage, current, etc.	N/A	N/A	N/A	N/A
PRC-018- 1	R4.	The Transmission Owner and Generator Owner shall each provide Disturbance data (recorded by	The responsible entity did not provide 5% or less of the disturbance data (recorded by DMEs) in accordance	The responsible entity did not provide more than 5% up to (and including) 10% of the disturbance data	The responsible entity did not provide more than 10% up to (and including) 15% of the disturbance data	The responsible entity did not provide more than 15% of the disturbance data (recorded by DMEs)

Page 357 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		DMEs) in accordance with its Regional Reliability Organization's requirements (reliability standard PRC-002 Requirement 4).	with its Regional Reliability Organization's requirements.	(recorded by DMEs) in accordance with its Regional Reliability Organization's requirements.	(recorded by DMEs) in accordance with its Regional Reliability Organization's requirements.	in accordance with its Regional Reliability Organization's requirements.
PRC-018- 1	R5.	The Transmission Owner and Generator Owner shall each archive all data recorded by DMEs for Regional Reliability Organization- identified events for at least three years.	5% or less of the responsible entity's data recorded by DMEs for Regional Reliability Organization- identified events was not archived for at least three years.	More than 5% up to (and including) 10% of the responsible entity's data recorded by DMEs for Regional Reliability Organization- identified events was not archived for at least three years.	More than 10% up to (and including) 15% of the responsible entity's data recorded by DMEs for Regional Reliability Organization- identified events was not archived for at least three years.	More than 15% of the responsible entity's data recorded by DMEs for Regional Reliability Organization- identified events was not archived for at least three years.
PRC-018- 1	R6.	Each Transmission Owner and Generator Owner that is required by its Regional Reliability Organization to have DMEs shall have a maintenance and testing program for those DMEs that includes:	N/A	N/A	The responsible entity's maintenance and testing program for DMEs does not include one of the components listed in R6.1 and 6.2.	The responsible entity's maintenance and testing program for DMEs does not include any of the components listed in R6.1 and 6.2.
PRC-018- 1	R6.1.	Maintenance and testing intervals and their basis.	N/A	N/A	N/A	N/A
PRC-018- 1	R6.2.	Summary of maintenance and	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		testing procedures.				
PRC-021- 1	R1.	Each Transmission Owner and Distribution Provider that owns a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall annually update its UVLS data to support the Regional UVLS program database. The following data shall be provided to the Regional Reliability Organization for each installed UVLS system:	UVLS data was provided but did not address one of the subrequirements in R1.1 through R1.5.	UVLS data was provided but did not address two of the subrequirements in R1.1 through R1.5.	UVLS data was provided but did not address three of the subrequirements in R1.1 through R1.5.	No annual UVLS data was provided. OR UVLS data was provided but did not address four or more of the subrequirements in R1.1 through R1.5.
PRC-021- 1	R1.1.	Size and location of customer load, or percent of connected load, to be interrupted.	N/A	N/A	N/A	N/A
PRC-021- 1	R1.2.	Corresponding voltage set points and overall scheme clearing times.	N/A	N/A	N/A	N/A
PRC-021- 1	R1.3.	Time delay from initiation to trip signal.	N/A	N/A	N/A	N/A
PRC-021- 1	R1.4.	Breaker operating times.	N/A	N/A	N/A	N/A

Page 359 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
PRC-021- 1	R1.5.	Any other schemes that are part of or impact the UVLS programs such as related generation protection, islanding schemes, automatic load restoration schemes, UFLS and Special Protection Systems.	N/A	N/A	N/A	N/A
PRC-021- 1	R2.	Each Transmission Owner and Distribution Provider that owns a UVLS program shall provide its UVLS program data to the Regional Reliability Organization within 30 calendar days of a request.	The responsible entity updated its UVLS data more than 30 calendar days but less than or equal to 40 calendar days following a request from its Regional Reliability Organization.	The responsible entity updated its UVLS data more than 40 calendar days but less than or equal to 50 calendar days following a request from its Regional Reliability Organization.	The responsible entity updated its UVLS data more than 50 calendar days but less than or equal to 60 calendar days following a request from its Regional Reliability Organization.	The responsible entity did not update its UVLS data for more than 60 calendar days following a request from its Regional Reliability Organization.
PRC-022- 1	R1.	Each Transmission Operator, Load- Serving Entity, and Distribution Provider that operates a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall analyze and document all UVLS operations and Misoperations. The	The overall analysis program did not address one of the subrequirements in R1.1 through R1.5.	The overall analysis program did not address two of the subrequirements in R1.1 through R1.5.	The overall analysis program did not address three of the subrequirements in R1.1 through R1.5.	The responsible entity failed to analyze and document a UVLS operation and Misoperation. OR The overall analysis program did not address four or more of the subrequirements in R1.1 through R1.5.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		analysis shall include:				
PRC-022- 1	R1.1.	A description of the event including initiating conditions.	N/A	N/A	N/A	N/A
PRC-022- 1	R1.2.	A review of the UVLS set points and tripping times.	N/A	N/A	N/A	N/A
PRC-022- 1	R1.3.	A simulation of the event, if deemed appropriate by the Regional Reliability Organization. For most events, analysis of sequence of events may be sufficient and dynamic simulations may not be needed.	N/A	N/A	N/A	N/A
PRC-022- 1	R1.4.	A summary of the findings.	N/A	N/A	N/A	N/A
PRC-022- 1	R1.5.	For any Misoperation, a Corrective Action Plan to avoid future Misoperations of a similar nature.	N/A	N/A	N/A	N/A
PRC-022- 1	R2.	Each Transmission Operator, Load- Serving Entity, and Distribution Provider that operates a UVLS program shall provide	The responsible entity provided documentation of the analysis of UVLS program performance more than 90 calendar days but less than or	The responsible entity provided documentation of the analysis of UVLS program performance more than 120 calendar days but less	The responsible entity provided documentation of the analysis of UVLS program performance more than 130 calendar days but less	The responsible entity did not provide documentation of the analysis of UVLS program performance for more than 140 calendar days

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		documentation of its analysis of UVLS program performance to its Regional Reliability Organization within 90 calendar days of a request.	equal to 120 calendar days following a request from its Regional Reliability Organization.	than or equal to 130 calendar days following a request from its Regional Reliability Organization.	than or equal to 140 calendar days following a request from its Regional Reliability Organization.	following a request from its Regional Reliability Organization.
PRC-023-1	R1.	Each Transmission Owner, Generator Owner, and Distribution Provider shall use any one of the following criteria (R1.1 through R1.13) for any specific circuit terminal to prevent its phase protective relay settings from limiting transmission system loadability while maintaining reliable protection of the Bulk Electric System for all fault conditions. Each Transmission Owner, Generator Owner, and Distribution Provider shall evaluate relay loadability at 0.85 per unit voltage and a power factor angle of 30 degrees: [Mitigation Time				A Transmission Owner, Generator Owner, or Distribution Provider did not use any one of the following criteria (R1.1 through R1.13) for any specific circuit terminal to prevent its phase protective relay settings from limiting transmission system loadability while maintaining reliable protection of the Bulk Electric System for all fault conditions. OR A Transmission Owner, Generator Owner, or Distribution Provider did not

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Horizon: Long Term Planning].				evaluate relay loadability at 0.85 per unit voltage and a power factor angle of 30 degrees.
PRC-023- 1	R2.	The Transmission Owner, Generator Owner, or Distribution Provider that uses a circuit capability with the practical limitations described in R1.6, R1.7, R1.8, R1.9, R1.12, or R1.13 shall use the calculated circuit capability as the Facility Rating of the circuit and shall obtain the agreement of the Planning Coordinator, Transmission Operator, and Reliability Coordinator with the calculated circuit capability. [Time Horizon: Long Term Planning]				A TransmissionOwner, GeneratorOwner, orDistributionProvider that uses acircuit capabilitywith the practicallimitationsdescribed in R1.6,R1.7, R1.8, R1.9,R1.12, or R1.13 didnot use thecalculated circuitcapability as theFacility Rating ofthe circuit.ORA TransmissionOwner, GeneratorOwner, orDistributionProvider did notobtain theagreement of thePlanningCoordinator,TransmissionOperator, andReliability

Page 363 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Coordinator with the calculated circuit capability.
PRC-023-1	R3.	The Planning Coordinator shall determine which of the facilities (transmission lines operated at 100 kV to 200 kV and transformers with low voltage terminals connected at 100 kV to 200 kV) in its Planning Coordinator Area are critical to the reliability of the Bulk Electric System to identify the facilities from 100 kV to 200 kV that must meet Requirement 1 to prevent potential cascade tripping that may occur when protective relay settings limit transmission loadability. [Time Horizon: Long Term Planning]				The Planning Coordinator did not determine which of the facilities (transmission lines operated at 100 kV to 200 kV and transformers with low voltage terminals connected at 100 kV to 200 kV) in its Planning Coordinator Area are critical to the reliability of the Bulk Electric System.ORThe Planning Coordinator did not identify the facilities from 100 kV to 200 kV to 200 kV to 200
						protective relay settings limit transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						loadability.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TOP-001-1	R1.	Each Transmission Operator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area and shall exercise specific authority to alleviate operating emergencies.	N/A	N/A	The Transmission Operator has no clear decision- making authority to ensure reliability in its area.	The Transmission Operator failed to exercise specific authority to alleviate operating emergencies.
TOP-001-1	R2.	Each Transmission Operator shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.	N/A	N/A	N/A	The Transmission Operator failed to have evidence that it took immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.
TOP-001-1	R3.	Each Transmission Operator, Balancing Authority, and Generator Operator shall comply with reliability directives issued by the Reliability Coordinator, and each Balancing Authority and Generator Operator shall comply with reliability directives issued by the Transmission Operator, unless such actions	N/A	N/A	N/A	The responsible entity failed to comply with reliability directives issued by the Reliability Coordinator or the Transmission Operator (when applicable), when

Page 366 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the Transmission Operator, Balancing Authority, or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions.				said directives would not have resulted in actions that would violate safety, equipment, regulatory or statutory requirements, or under circumstances that said directives would have resulted in actions that would violate safety, equipment, regulatory or statutory requirements the responsible entity failed to inform the Reliability Coordinator or Transmission Operator (when applicable) of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator could implement alternate remedial actions.
TOP-001-1	R4.	Each Distribution Provider and Load-Serving Entity shall comply with all reliability directives issued by the	N/A	N/A	N/A	The responsible entity failed to comply with all reliability directives

Page 367 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Operator, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances, the Distribution Provider or Load- Serving Entity shall immediately inform the Transmission Operator of the inability to perform the directive so that the Transmission Operator can implement alternate remedial actions.				issued by the Transmission Operator, including shedding firm load, when said directives would not have resulted in actions that would violate safety, equipment, regulatory or statutory requirements, or under circumstances when said directives would have violated safety, equipment, regulatory or statutory requirements, the responsible entity failed to immediately inform the Transmission Operator of the inability to perform the directive so that the Transmission Operator could implement alternate remedial actions.
TOP-001-1	R5.	Each Transmission Operator shall inform its Reliability Coordinator and any other potentially affected Transmission Operators of real-time or anticipated emergency	N/A	The Transmission Operator failed to inform its Reliability Coordinator and any other potentially	N/A	The Transmission Operator failed to inform its Reliability Coordinator and any other potentially

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		conditions, and take actions to avoid, when possible, or mitigate the emergency.		affected Transmission Operators of real- time or anticipated emergency conditions, but did take actions to avoid, when possible, or mitigate the emergency.		affected Transmission Operators of real- time or anticipated emergency conditions, and failed to take actions to avoid, when possible, or mitigate the emergency.
TOP-001-1	R6.	Each Transmission Operator, Balancing Authority, and Generator Operator shall render all available emergency assistance to others as requested, provided that the requesting entity has implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements.	N/A	N/A	N/A	The responsible entity failed to render all available emergency assistance to others as requested, after the requesting entity had implemented its comparable emergency procedures, when said assistance would not have resulted in actions that would violate safety, equipment, or regulatory or statutory requirements.
TOP-001-1	R7.	Each Transmission Operator and Generator Operator shall not remove Bulk Electric System facilities from service if removing those facilities would burden neighboring systems	N/A	N/A	N/A	The responsible entity removed Bulk Electric System facilities from service and removal of said facilities burdened a

Page 369 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		unless:				neighboring system, without complying with the applicable requirements listed in R7.1 through R7.3.
TOP-001-1	R7.1.	For a generator outage, the Generator Operator shall notify and coordinate with the Transmission Operator. The Transmission Operator shall notify the Reliability Coordinator and other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.	N/A	N/A	N/A	N/A
TOP-001-1	R7.2.	For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.	N/A	N/A	N/A	N/A
TOP-001-1	R7.3.	When time does not permit such notifications and coordination, or when immediate action is required to prevent a hazard to the public, lengthy customer service interruption, or damage to facilities, the Generator Operator shall notify the Transmission Operator, and the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Operator shall notify its Reliability Coordinator and adjacent Transmission Operators, at the earliest possible time.				
TOP-001-1	R8.	During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.	N/A	N/A	N/A	The responsible entity failed to take immediate actions to restore the Real and Reactive Power Balance during a system emergency. OR The responsible entity failed to request emergency assistance from the Reliability Coordinator during a period when it was unable to restore the Real and Reactive Power Balance, OR During a period when corrective actions or emergency assistance was not adequate to mitigate the Real and Reactive Power Balance, the responsible entity failed to implement

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						firm load shedding.
TOP-002-2a	R1.	Each Balancing Authority and Transmission Operator shall maintain a set of current plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period. In addition, each Balancing Authority and Transmission Operator shall be responsible for using available personnel and system equipment to implement these plans to ensure that interconnected system reliability will be maintained.	N/A	N/A	The responsible entity maintained a set of current plans that were designed to evaluate options and set procedures for reliable operation through a reasonable future time period, but failed to utilize available personnel and system equipment to implement these plans to ensure that interconnected system reliability would be maintained.	The responsible entity failed to maintain a set of current plans that were designed to evaluate options and set procedures for reliable operation through a reasonable future time period.
TOP-002-2a	R2.	Each Balancing Authority and Transmission Operator shall ensure its operating personnel participate in the system planning and design study processes, so that these studies contain the operating personnel perspective and system operating personnel are aware of the planning purpose.	N/A	N/A	N/A	The responsible entity failed to ensure its operating personnel participated in the system planning and design study processes.
TOP-002-2a	R3.	Each Load-Serving Entity and Generator Operator shall coordinate (where confidentiality agreements allow) its current-	N/A	The responsible entity failed to coordinate (where confidentiality	The responsible entity failed to coordinate (where confidentiality	The responsible entity failed to coordinate (where confidentiality

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		day, next-day, and seasonal operations with its Host Balancing Authority and Transmission Service Provider. Each Balancing Authority and Transmission Service Provider shall coordinate its current-day, next-day, and seasonal operations with its Transmission Operator.		agreements allow) one of the following three categories of operations (current- day, next-day or seasonal) with the applicable entity(ies)	agreements allow) two of the following three categories of operations (current- day, next-day or seasonal) with the applicable entity (ies).	agreements allow) all three of the following categories of operations (current-day, next- day or seasonal) with the applicable entity (ies).
TOP-002-2a	R4.	Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current- day, next-day, and seasonal planning and operations with neighboring Balancing Authorities and Transmission Operators and with its Reliability Coordinator, so that normal Interconnection operation will proceed in an orderly and consistent manner.		The responsible entity failed to coordinate (where confidentiality agreements allow) one of the following three categories of operations (current- day, next-day or seasonal) with the applicable entity(ies)	The responsible entity failed to coordinate (where confidentiality agreements allow) two of the following three categories of operations (current- day, next-day or seasonal) with the applicable entity(ies)	The responsible entity failed to coordinate (where confidentiality agreements allow) all three of the following categories of operations (current-day, next- day or seasonal) with the applicable entity(ies)
TOP-002-2a	R5.	Each Balancing Authority and Transmission Operator shall plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns.	N/A	N/A	N/A	The responsible entity failed to plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns.
TOP-002-2a	R6.	Each Balancing Authority and Transmission Operator shall plan to meet unscheduled changes in system configuration and	N/A	N/A	N/A	The responsible entity failed to plan to meet unscheduled changes in system

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional Reliability Organization, subregional, and local reliability requirements.				configuration and generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional Reliability Organization, subregional and local reliability requirements.
TOP-002-2a	R7.	Each Balancing Authority shall plan to meet capacity and energy reserve requirements, including the deliverability/capability for any single Contingency.	N/A	N/A	N/A	The Balancing Authority failed to plan to meet capacity and energy reserve requirements, including the deliverability/capabi lity for any single Contingency.
TOP-002-2a	R8.	Each Balancing Authority shall plan to meet voltage and/or reactive limits, including the deliverability/capability for any single contingency.	N/A	N/A	N/A	The Balancing Authority failed to plan to meet voltage and/or reactive limits, including the deliverability/capabi lity for any single contingency.
TOP-002-2a	R9.	Each Balancing Authority shall plan to meet Interchange Schedules and ramps.	N/A	N/A	N/A	The Balancing Authority failed to plan to meet Interchange Schedules and

Page **374** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Ramps.
TOP-002-2a	R10.	Each Balancing Authority and Transmission Operator shall plan to meet all System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs).	N/A	N/A	N/A	The responsible entity failed to plan to meet all System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs).
TOP-002-2a	R11.	The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject confidentiality requirements), and to its Reliability Coordinator.	The Transmission Operator performed and updated the Bulk Electric System studies as necessary to reflect current system conditions but failed to make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities, (subject to confidentiality requirements), and to its Reliability Coordinator.	For common facilities, the Transmission Operator failed to utilize SOLs identical to those used by its neighboring Transmission Operators.	The Transmission Operator performed the required seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs but failed to update the Bulk Electric System studies as necessary to reflect current system conditions.	The Transmission Operator failed to perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs.
TOP-002-2a	R12.	The Transmission Service Provider shall include known SOLs or IROLs within its area and neighboring areas in the determination of transfer	N/A	N/A	N/A	The Transmission Service Provider failed to include known SOLs or IROLs within its

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		capabilities, in accordance with filed tariffs and/or regional Total Transfer Capability and Available Transfer Capability calculation processes.				area and neighboring areas in the determination of transfer capabilities, in accordance with filed tariffs and/or regional Total Transfer Capability and Available Transfer Capability calculation processes.
TOP-002-2a	R13.	At the request of the Balancing Authority or Transmission Operator, a Generator Operator shall perform generating real and reactive capability verification that shall include, among other variables, weather, ambient air and water conditions, and fuel quality and quantity, and provide the results to the Balancing Authority or Transmission Operator operating personnel as requested.	N/A	N/A	N/A	The Generator Operator failed to perform generating real and reactive capability verification that included, among other variables, weather, ambient air and water conditions, and fuel quality and quantity, or failed to provide the results of generating real and reactive verifications Balancing Authority or Transmission Operator operating personnel, when requested.
TOP-002-2a	R14.	Generator Operators shall, without any intentional time	N/A	N/A	N/A	The Generator Operator failed to

Page 376 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		delay, notify their Balancing Authority and Transmission Operator of changes in capabilities and characteristics including but not limited to:				notify its Balancing Authority or Transmission Operator of changes in capabilities and characteristics including real output capabilities.
TOP-002-2a	R14.1.	Changes in real output capabilities.	N/A	N/A	N/A	N/A
TOP-002-2a	R14.2.	Automatic Voltage Regulator status and mode setting. (Retired August 1, 2007)	N/A	N/A	N/A	N/A
TOP-002-2a	R15.	Generation Operators shall, at the request of the Balancing Authority or Transmission Operator, provide a forecast of expected real power output to assist in operations planning (e.g., a seven-day forecast of real output).	N/A	N/A	N/A	The Generator Operator failed to provide, at the request of the Balancing Authority or Transmission Operator, a forecast of expected real power output to assist in operations planning (e.g., a seven-day forecast of real output).
TOP-002-2a	R16.	Subject to standards of conduct and confidentiality agreements, Transmission Operators shall, without any intentional time delay, notify their Reliability Coordinator and Balancing Authority of changes in capabilities and characteristics	N/A	N/A	Subject to standards of conduct and confidentiality agreements, the Transmission Operator intentionally failed to notify its Reliability	Subject to standards of conduct and confidentiality agreements, the Transmission Operator intentionally failed to notify its Reliability

Page 377 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		including but not limited to:			Coordinator and Balancing Authority of changes in transmission facility status. (R 16.1) OR	Coordinator and Balancing Authority of changes in transmission facility status (R 16.1) and changes in transmission facility rating. (R 16.2).
					Subject to standards of conduct and confidentiality agreements, the Transmission Operator intentionally failed to notify its Reliability Coordinator and Balancing Authority of changes in transmission facility rating (R16.2).	
TOP-002-2a	R16.1.	Changes in transmission facility status.	N/A	N/A	N/A	N/A
TOP-002-2a	R16.2.	Changes in transmission facility rating.	N/A	N/A	N/A	N/A
TOP-002-2a	R17.	Balancing Authorities and Transmission Operators shall, without any intentional time delay, communicate the information described in the requirements R1 to R16 above to their Reliability Coordinator.	N/A	N/A	N/A	The responsible entity did not communicate the information described in the requirements R1 to R16 above to its Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Coordinator.
						OR
						The responsible entity intentionally delayed communication of the information described in the requirements R1 to R16 to its Reliability Coordinator.
TOP-002-2a	R18.	Neighboring Balancing Authorities, Transmission Operators, Generator Operators, Transmission Service Providers, and Load-Serving Entities shall use uniform line identifiers when referring to transmission facilities of an interconnected network.	N/A	N/A	N/A	The responsible entity failed to use uniform line identifiers when referring to transmission facilities of an interconnected network.
TOP-002-2a	R19.	Each Balancing Authority and Transmission Operator shall maintain accurate computer models utilized for analyzing and planning system operations.	N/A	N/A	N/A	The responsible entity failed to maintain accurate computer models utilized for analyzing and planning system operations.
TOP-003-0	R1.	Generator Operators and Transmission Operators shall provide planned outage information.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TOP-003-0	R1.1.	Each Generator Operator shall provide outage information daily to its Transmission Operator for scheduled generator outages planned for the next day (any foreseen outage of a generator greater than 50 MW). The Transmission Operator shall establish the outage reporting requirements.	N/A	N/A	N/A	The Generator Operator failed to provide outage information, in accordance with its Transmission Operator's established outage reporting requirements, to its Transmission Operator for scheduled generator outages planned for the next day (any foreseen outage of a generator greater than 50 MW). OR The Transmission Operator failed to establish the outage reporting requirements.
TOP-003-0	R1.2.	Each Transmission Operator shall provide outage information daily to its Reliability Coordinator, and to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV	N/A	N/A	N/A	The Transmission Operator failed to provide outage information, in accordance with its Reliability Coordinators established outage reporting requirement, to its Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation. The Reliability Coordinator shall establish the outage reporting requirements.				Coordinator, and to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation. OR The Reliability Coordinator failed to establish the outage reporting requirements.
TOP-003-0	R1.3.	Such information shall be available by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific Standard Time for the Western Interconnection.	The responsible entity failed to provide the information by 1200 Central Standard Time for the Eastern Interconnection or 1200 Pacific	The responsible entity failed to provide the information by 1230 Central Standard Time for the Eastern Interconnection or 1230 Pacific	The responsible entity failed to provide the information by 1300 Central Standard Time for the Eastern Interconnection or 1300 Pacific	The responsible entity failed to provide the information by 1330 Central Standard Time for the Eastern Interconnection or 1330 Pacific

Page 381 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Standard Time for the Western Interconnection but did provide the information by 1230 for the applicable interconnection.	Standard Time for the Western Interconnection but did provide the information by 1300 for the applicable interconnection.	Standard Time for the Western Interconnection but did provide the information by 1330 for the applicable interconnection.	Standard Time for the Western Interconnection.
TOP-003-0	R2.	Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of system voltage regulating equipment, such as automatic voltage regulators on generators, supplementary excitation control, synchronous condensers, shunt and series capacitors, reactors, etc., among affected Balancing Authorities and Transmission Operators as required.	N/A	N/A	N/A	The responsible entity failed to plan or coordinate scheduled outages of system voltage regulating equipment, such as automatic voltage regulators on generators, supplementary excitation control, synchronous condensers, shunt and series capacitors, reactors, etc., among affected Balancing Authorities and Transmission Operators when required.
TOP-003-0	R3.	Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of telemetering and control equipment and associated communication channels	N/A	N/A	The responsible entity planned scheduled outages of telemetering and control equipment and associated communication	The responsible entity failed to plan and coordinate scheduled outages of telemetering and control equipment and associated

Page 382 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		between the affected areas.			channels but failed to coordinate between the affected areas.	communication channels between the affected areas.
TOP-003-0	R4.	Each Reliability Coordinator shall resolve any scheduling of potential reliability conflicts.	N/A	N/A	N/A	The Reliability Coordinator failed to resolve any scheduling of potential reliability conflicts.
TOP-003-1	RI	Generator Operators and Transmission Operators shall provide planned outage information.	The responsible entity failed to provide the information by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific Standard Time for the Western Interconnection.	N/A	N/A	The Generator Operator failed to provide outage information, in accordance with its Transmission Operators established outage reporting requirements, to its Transmission Operator for scheduled generator outages planned for the next day (any foreseen outage of a generator greater than 50 MW). OR The Transmission Operator failed to provide outage information, in accordance with its

Page 383 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Reliability Coordinators established outage reporting requirement, to its Reliability Coordinator, and to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation.
TOP-003-1	R1.1	Each Generator Operator shall provide outage information daily to its Transmission Operator for scheduled generator outages planned for the next day (any foreseen outage of a generator greater than 50 MW). The Transmission Operator shall	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		establish the outage reporting requirements.				
TOP-003-1	R1.2	Each Transmission Operator shall provide outage information daily to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation.	N/A	N/A	N/A	N/A
TOP-003-1	R1.3	Such information shall be available by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific Standard Time for the Western Interconnection.	N/A	N/A	N/A	N/A
TOP-003-1	R2	Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of system voltage regulating equipment, such as automatic voltage regulators on generators, supplementary excitation control, synchronous condensers, shunt and series capacitors, reactors, etc., among affected Balancing Authorities and Transmission	N/A	N/A	N/A	The responsible entity failed to plan or coordinate scheduled outages of system voltage regulating equipment, such as automatic voltage regulators on generators, supplementary excitation control,

Page 385 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operators as required.				synchronous condensers, shunt and series capacitors, reactors, etc., among affected Balancing Authorities and Transmission Operators when required.
TOP-003-1	R3	Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of telemetering and control equipment and associated communication channels between the affected areas.	N/A	N/A	N/A	The responsible entity failed to plan and coordinate scheduled outages of telemetering and control equipment and associated communication channels between the affected areas.
TOP-003-1	R4.	Each Reliability Coordinator shall resolve any scheduling of potential reliability conflicts.	N/A	N/A	N/A	The Reliability Coordinator failed to resolve any scheduling of potential reliability conflicts.
TOP-004-2	R1.	Each Transmission Operator shall operate within the Interconnection Reliability Operating Limits (IROLs) and System Operating Limits (SOLs).	N/A	N/A	N/A	The Transmission Operator failed to operate within the Interconnection Reliability Operating Limits (IROLs) and System Operating Limits (SOLs).

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TOP-004-2	R2.	Each Transmission Operator shall operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency.	N/A	N/A	N/A	The Transmission Operator failed to operate so that instability, uncontrolled separation, or cascading outages would not occur as a result of the most severe single contingency.
TOP-004-2	R3.	Each Transmission Operator shall operate to protect against instability, uncontrolled separation, or cascading outages resulting from multiple outages, as specified by its Reliability Coordinator.	N/A	N/A	N/A	The Transmission Operator failed to operate to protect against instability, uncontrolled separation, or cascading outages resulting from multiple outages, as specified by Reliability Coordinator policy.
TOP-004-2	R4.	If a Transmission Operator enters an unknown operating state (i.e., any state for which valid operating limits have not been determined), it will be considered to be in an emergency and shall restore operations to respect proven reliable power system limits within 30 minutes.	N/A	N/A	N/A	The Transmission Operator entered an unknown operating state (i.e., any state for which valid operating limits have not been determined), and failed to restore operations to respect proven reliable power system limits

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						for more than 30 minutes.
TOP-004-2	R5.	Each Transmission Operator shall make every effort to remain connected to the Interconnection. If the Transmission Operator determines that by remaining interconnected, it is in imminent danger of violating an IROL or SOL, the Transmission Operator may take such actions, as it deems necessary, to protect its area.	N/A	N/A	N/A	The Transmission Operator did not make every effort to remain connected to the Interconnection except when the Transmission Operator determined that by remaining interconnected, it was in imminent danger of violating an IROL or SOL.
TOP-004-2	R6.	Transmission Operators, individually and jointly with other Transmission Operators, shall develop, maintain, and implement formal policies and procedures to provide for transmission reliability. These policies and procedures shall address the execution and coordination of activities that impact inter- and intra-Regional reliability, including:	The Transmission Operator, individually and jointly with other Transmission Operators, developed, maintained, and implemented formal policies and procedures to provide for transmission reliability, addressing the execution and coordination of activities that impact inter- and intra- Regional reliability, but failed to include	The Transmission Operator, individually and jointly with other Transmission Operators, developed, maintained, and implemented formal policies and procedures to provide for transmission reliability, addressing the execution and coordination of activities that impact inter- and intra- Regional reliability, but failed to include	The Transmission Operator, individually and jointly with other Transmission Operators, developed, maintained, and implemented formal policies and procedures to provide for transmission reliability, addressing the execution and coordination of activities that impact inter- and intra- Regional reliability, but failed to include	The Transmission Operator, failed to develop, maintain, and implemented formal policies and procedures to provide for transmission reliability, addressing the execution and coordination of activities that impact inter- and intra- Regional reliability. If formal policies and procedures were developed, such policies and procedures failed to include any of the

Page 388 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			information required by one of the subrequirements R6.1 thru R6.4	information required by 2 of the subrequirements R6.1 thru R6.4.	information required by 3 of the subrequirements R6.1 thru R6.4.	information required in subrequirements R6.1 thru R6.4.
TOP-004-2	R6.1.	Monitoring and controlling voltage levels and real and reactive power flows.	N/A	N/A	N/A	N/A
TOP-004-2	R6.2.	Switching transmission elements.	N/A	N/A	N/A	N/A
TOP-004-2	R6.3.	Planned outages of transmission elements.	N/A	N/A	N/A	N/A
TOP-004-2	R6.4.	Responding to IROL and SOL violations.	N/A	N/A	N/A	N/A
TOP-005- 1.1	R1.	Each Transmission Operator and Balancing Authority shall provide its Reliability Coordinator with the operating data that the Reliability Coordinator requires to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.	The responsible entity failed to provide to its Reliability Coordinator 5% or less of the operating data that the Reliability Coordinator requested to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.	The responsible entity failed to provide to its Reliability Coordinator more than 5% up to (and including) 10% of the operating data that the Reliability Coordinator requested to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.	The responsible entity failed to provide to its Reliability Coordinator more than 10% up to (and including) 15% of the operating data that the Reliability Coordinator requested to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.	The responsible entity failed to provide to its Reliability Coordinator more than 15% of the operating data that the Reliability Coordinator requested to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.
TOP-005-	R1.1.	Each Reliability Coordinator	The Reliability	The Reliability	The Reliability	The Reliability

Page 389 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
1.1		shall identify the data requirements from the list in Attachment 1-TOP-005-0 "Electric System Reliability Data" and any additional operating information requirements relating to operation of the bulk power system within the Reliability Coordinator Area.	Coordinator failed to identify 5% or less of the data requirements from Attachment 1 - TOP-005-0 and any additional operating information requirements relating to operation of the bulk power system within the Reliability Coordinator Area	Coordinator failed to identify more than 5% up to (and including) 10% of the data requirements from Attachment 1 - TOP-005-0 and any additional operating information requirements relating to operation of the bulk power system within the Reliability Coordinator Area	Coordinator failed to identify more than 10% up to (and including) 15% of the data requirements from Attachment 1 - TOP-005-0 and any additional operating information requirements relating to operation of the bulk power system within the Reliability Coordinator Area.	Coordinator failed to identify more than 15% of the data requirements from Attachment 1 - TOP-005-0 and any additional operating information requirements relating to operation of the bulk power system within the Reliability Coordinator Area.
TOP-005- 1.1	R2.	As a condition of receiving data from the Interregional Security Network (ISN), each ISN data recipient shall sign the NERC Confidentiality Agreement for "Electric System Reliability Data."	N/A	N/A	N/A	The ISN data recipient failed to sign the NERC Confidentiality Agreement for "Electric System Reliability Data".
TOP-005- 1.1	R3.	Upon request, each Balancing Authority and Transmission Operator shall provide to other Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability, the operating data that are necessary to allow these Balancing Authorities and Transmission Operators to perform operational reliability assessments and to coordinate reliable operations.	The Balancing Authority or Transmission Operator, upon the request of a Balancing Authority or Transmission Operator that has immediate responsibility for operational reliability, failed to provide 5% or less	The Balancing Authority or Transmission Operator, upon the request of a Balancing Authority or Transmission Operator that has immediate responsibility for operational reliability, failed to provide more than	The Balancing Authority or Transmission Operator, upon the request of a Balancing Authority or Transmission Operator that has immediate responsibility for operational reliability, failed to provide more than	The Balancing Authority or Transmission Operator, upon the request of a Balancing Authority or Transmission Operator that has immediate responsibility for operational reliability, failed to provide more than

Page **390** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Balancing Authorities and Transmission Operators shall provide the types of data as listed in Attachment 1-TOP-005-0 "Electric System Reliability Data," unless otherwise agreed to by the Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability.	of the operating data necessary to perform operational reliability assessments and to coordinate reliable operations.	5% up to (and including) 10% of the operating data necessary to perform operational reliability assessments and to coordinate reliable operations.	10% up to (and including) 15% of the operating data necessary to perform operational reliability assessments and to coordinate reliable operations.	15% of the operating data necessary to perform operational reliability assessments and to coordinate reliable operations.
TOP-005- 1.1	R4.	Each Purchasing-Selling Entity shall provide information as requested by its Host Balancing Authorities and Transmission Operators to enable them to conduct operational reliability assessments and coordinate reliable operations.	The responsible entity failed to provide 5% or less of the data requested by other Balancing Authorities or Transmission Operators.	The responsible entity failed to provide more than 5% up to (and including) 10% of the data requested by other Balancing Authorities or Transmission Operators.	The responsible entity failed to provide more than 10% up to (and including) 15% of the data requested by other Balancing Authorities or Transmission Operators.	The responsible entity failed to provide more than 15% of the data requested by its host Balancing Authority or Transmission Operator.
TOP-005-2	R1	As a condition of receiving data from the Interregional Security Network (ISN), each ISN data recipient shall sign the NERC Confidentiality Agreement for "Electric System Reliability Data."	N/A	N/A	N/A	The ISN data recipient failed to sign the NERC Confidentiality Agreement for "Electric System Reliability Data".
TOP-005-2	R2	Upon request, each Balancing Authority and Transmission Operator shall provide to other Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability, the	The responsible entity provided at least 95%, but not 100%, of the data requested by other Balancing Authorities or	The responsible entity provided at least 90%, but not more than 95% of the data requested by other Balancing Authorities or	The responsible entity provided at least 85%, but not more than 90% of the data requested by other Balancing Authorities or	The responsible entity provided less than 85% of the data requested by other Balancing Authorities or Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		operating data that are necessary to allow these Balancing Authorities and Transmission Operators to perform operational reliability assessments and to coordinate reliable operations. Balancing Authorities and Transmission Operators shall provide the types of data as listed in Attachment 1-TOP-005 "Electric System Reliability Data," unless otherwise agreed to by the Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability.	Transmission Operators.	Transmission Operators.	Transmission Operators.	Operators.
TOP-005-2	R3	Each Purchasing-Selling Entity shall provide information as requested by its Host Balancing Authorities and Transmission Operators to enable them to conduct operational reliability assessments and coordinate reliable operations.	The responsible entity failed to provide 5% or less of the data requested by other Balancing Authorities or Transmission Operators.	The responsible entity failed to provide more than 5% up to (and including) 10% of the data requested by other Balancing Authorities or Transmission Operators.	The responsible entity failed to provide more than 10% up to (and including) 15% of the data requested by other Balancing Authorities or Transmission Operators.	The responsible entity failed to provide more than 15% of the data requested by its host Balancing Authority or Transmission Operator.
TOP-006-1	R1.	Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use.	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator,

Page **392** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Transmission Operator, or Balancing Authority.
TOP-006-1	R1.1.	Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.	N/A	N/A	N/A	The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.
TOP-006-1	R1.2.	Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.	N/A	N/A	N/A	The responsible entity failed to inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.
TOP-006-1	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap- changer settings, and status of rotating and static reactive	The responsible entity failed to monitor 5% or less of applicable transmission line status, real and reactive power flows, voltage, load-	The responsible entity failed to monitor more than 5% up to (and including) 10% of applicable transmission line status, real and	The responsible entity failed to monitor more than 10% up to (and including) 15% of applicable transmission line status, real and	The responsible entity failed to monitor more than 15% of applicable transmission line status, real and reactive power flows, voltage, load-

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		resources.	tap-changer settings, and status of rotating and static reactive resources.	reactive power flows, voltage, load- tap-changer settings, and status of rotating and static reactive resources.	reactive power flows, voltage, load- tap-changer settings, and status of rotating and static reactive resources.	tap-changer settings, and status of rotating and static reactive resources.
TOP-006-1	R3.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.	The responsible entity failed to provide 5% or less of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 5% up to (and including) 10% of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 10% up to (and including) 15% of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 15% of the appropriate technical information concerning protective relays to its operating personnel.
TOP-006-1	R4.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern.	N/A	N/A	The responsible entity has either weather forecasts or past load patterns available to predict the system's near- term load pattern, but not both.	The responsible entity failed to have both weather forecasts and past load patterns available to predict the system's near- term load pattern.
TOP-006-1	R5.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action.	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but does	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions.

Page **394** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					not have indication of the need for corrective action.	
TOP-006-1	R6.	Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
TOP-006-1	R7.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency.	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.
TOP-006-2	R1	Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use.	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						ORThe Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all 
TOP-006-2	R1.1	Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.	N/A	N/A	N/A	N/A
TOP-006-2	R1.2	Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and	N/A	N/A	N/A	N/A

Page **396** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.				
TOP-006-2	R2	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap- changer settings, and status of rotating and static reactive resources.	The responsible entity failed to monitor 5% or less of applicable transmission line status, real and reactive power flows, voltage, load- tap-changer settings, and status of rotating and static reactive resources.	The responsible entity failed to monitor more than 5% up to (and including) 10% of applicable transmission line status, real and reactive power flows, voltage, load- tap-changer settings, and status of rotating and static reactive resources.	The responsible entity failed to monitor more than 10% up to (and including) 15% of applicable transmission line status, real and reactive power flows, voltage, load- tap-changer settings, and status of rotating and static reactive resources.	The responsible entity failed to monitor more than 15% of applicable transmission line status, real and reactive power flows, voltage, load- tap-changer settings, and status of rotating and static reactive resources.
TOP-006-2	R3	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.	The responsible entity failed to provide 5% or less of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 5% up to (and including) 10% of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 10% up to (and including) 15% of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 15% of the appropriate technical information concerning protective relays to its operating personnel.
TOP-006-2	R4	Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns,	N/A	N/A	The responsible entity has either weather forecasts or past load patterns,	The responsible entity has neither weather forecasts nor past load

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		available to predict the system's near-term load pattern.			available to predict the system's near- term load pattern, but not both.	patterns available to predict the system's near-term load pattern.
TOP-006-2	R5	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action.	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but it does not have indication of the need for corrective action.	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions.
TOP-006-2	R6	Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
TOP-006-2	R7	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency.	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TOP-007-0	R1.	A Transmission Operator shall inform its Reliability Coordinator when an IROL or SOL has been exceeded and the actions being taken to return the system to within limits.	N/A	N/A	The Transmission Operator informed its Reliability Coordinator when an IROL or SOL had been exceeded but failed to provide the actions being taken to return the system to within limits.	The Transmission Operator failed to inform its Reliability Coordinator when an IROL or SOL had been exceeded.
TOP-007-0	R2.	Following a Contingency or other event that results in an IROL violation, the Transmission Operator shall return its transmission system to within IROL as soon as possible, but not longer than 30 minutes.	Following a Contingency or other event that resulted in an IROL violation of a magnitude of 5% or less, the Transmission Operator failed to return its transmission system to within the IROL in less than or equal to 35 minutes.	Following a Contingency or other event that resulted in an IROL violation, the Transmission Operator failed to return its transmission system to within the IROL in accordance with the following: (a) an IROL with a magnitude of 5% or less for a period of time greater than 35 minutes but less than or equal to 45 minutes, or (b) an IROL with a magnitude of more than 5% up to (and including) 10% for a period of time less	Following a Contingency or other event that resulted in an IROL violation, the Transmission Operator failed to return its transmission system to within the IROL in accordance with the following: (a) an IROL with a magnitude of 5% or less for a period of time greater than 45 minutes, or (b) an IROL with a magnitude of more than 5% up to (and including) 10% for a period of time greater than 40 minutes, or	Following a Contingency or other event that resulted in an IROL violation, the Transmission Operator failed to return its transmission system to within the IROL in accordance with the following: (a) an IROL with a magnitude of more than 10% up to (and including) 15% for a period of time greater than 45 minutes, or (b) an IROL with a magnitude of more than 15% up to (and including) 20% for a period of time

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				than or equal to 40 minutes, or (c) an IROL with a magnitude of more than 10% up to (and including) 15% for a period of time less than or equal to 35 minutes.	<ul> <li>(c) an IROL with a magnitude of more than 10% up to (and including) 15% for a period of time greater than 35 minutes but less than or equal to 45 minutes, or</li> <li>(d) an IROL with a magnitude of more than 15% up to (and including) 20% for a period of time less than or equal to 40 minutes, or</li> <li>(e) an IROL with a magnitude of more than 20% up to (and including) 25% for a period of time less than or equal to 35 minutes.</li> </ul>	greater than 40 minutes, or (c) an IROL with a magnitude of more than 20% up to (and including) 25% for a period of time greater than 35 minutes, or (d) an IROL with a magnitude of more than 25% for a period of greater than 30 minutes.
TOP-007-0	R3.	A Transmission Operator shall take all appropriate actions up to and including shedding firm load, or directing the shedding of firm load, in order to comply with Requirement R 2.	N/A	N/A	N/A	The Transmission Operator failed to take all appropriate actions up to and including shedding firm load, or directing the shedding of firm load, in order to return the transmission system to IROL within 30

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						minutes.
TOP-007-0	R4.	The Reliability Coordinator shall evaluate actions taken to address an IROL or SOL violation and, if the actions taken are not appropriate or sufficient, direct actions required to return the system to within limits.	The Reliability Coordinator evaluated actions taken to address an SOL violation and found the actions taken were inappropriate or insufficient, but failed to direct actions required to return the system to within limits.	The Reliability Coordinator did not evaluate actions taken to address an SOL violation and failed to direct actions required to return the system to within limits.	The Reliability Coordinator evaluated actions taken to address an IROL violation and found the actions taken were inappropriate or insufficient, but failed to direct actions required to return the system to within limits.	The Reliability Coordinator failed to evaluate actions taken to address an IROL violation and did not direct actions required to return the system to within limits.
TOP-008-1	R1.	The Transmission Operator experiencing or contributing to an IROL or SOL violation shall take immediate steps to relieve the condition, which may include shedding firm load.	N/A	N/A	N/A	The Transmission Operator experiencing or contributing to an IROL or SOL violation failed to take immediate steps to relieve the condition, which may have included shedding firm load.
TOP-008-1	R2.	Each Transmission Operator shall operate to prevent the likelihood that a disturbance, action, or inaction will result in an IROL or SOL violation in its area or another area of the Interconnection. In instances where there is a difference in derived operating limits, the Transmission Operator shall	N/A	N/A	The Transmission Operator operated to prevent the likelihood that a disturbance, action, or inaction would result in an IROL or SOL violation in its area or another area of the	The Transmission Operator failed to operate to prevent the likelihood that a disturbance, action, or inaction would result in an IROL or SOL violation in its area or another area of the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		always operate the Bulk Electric System to the most limiting parameter.			Interconnection but failed to operate the Bulk Electric System to the most limiting parameter in instances where there was a difference in derived operating limits.	Interconnection.
TOP-008-1	R3.	The Transmission Operator shall disconnect the affected facility if the overload on a transmission facility or abnormal voltage or reactive condition persists and equipment is endangered. In doing so, the Transmission Operator shall notify its Reliability Coordinator and all neighboring Transmission Operators impacted by the disconnection prior to switching, if time permits, otherwise, immediately thereafter.	N/A	N/A	The Transmission Operator disconnected the affected facility when the overload on a transmission facility or abnormal voltage or reactive condition persisted and equipment was endangered but failed to notify its Reliability Coordinator and all neighboring Transmission Operators impacted by the disconnection either prior to switching, if time permitted, otherwise, immediately thereafter.	The Transmission Operator failed to disconnect the affected facility when the overload on a transmission facility or abnormal voltage or reactive condition persisted and equipment was endangered.
TOP-008-1	R4.	The Transmission Operator shall have sufficient information and analysis tools to determine the	N/A	N/A	The Transmission Operator failed to conduct analyses to	The Transmission Operator failed to have sufficient

Page 402 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		cause(s) of SOL violations. This analysis shall be conducted in all operating timeframes. The Transmission Operator shall use the results of these analyses to immediately mitigate the SOL violation.			determine the cause(s) of SOL violations for all operating timeframes.	information and analysis tools to determine the cause(s) of SOL violations. OR The responsible entity failed to use the results of analyses to immediately
						mitigate the SOL violation.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TPL-001-0.1	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that, with all transmission facilities in service and with normal (pre- contingency) operating procedures in effect, the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services at all Demand levels over the range of forecast system demands, under the conditions defined in Category A of Table I. To be considered valid, the Planning Authority and Transmission Planner assessments shall:	The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for the near-term period exists. (R 1.2) OR The responsible entity is non- compliant with one of the sub- components of requirement R1.3. (R1.3.1 through R1.3.9)	The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for the long-term period exists. (R1.2) OR The responsible entity is non-compliant with two of the sub- components of requirement R1.3. (R1.3.1 through 1.3.9)	The responsible entity is non-compliant with three of the sub- components of requirement R1.3. (R1.3.1 through 1.3.9)	The responsible entity did not perform the transmission assessments annually. (R1.1) OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2) OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3. (R1.3.1 through 1.3.9) OR The responsible entity has failed to demonstrate that a corrective action plan exists in order to

Page 404 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						satisfy Category A planning requirements. (R1.4)
TPL-001-0.1	R1.1.	Be made annually.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.2.	Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category A of Table 1 (no contingencies). The specific elements selected (from each of the following categories) shall be acceptable to the associated Regional Reliability Organization(s).	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.1.	Cover critical system conditions and study years as deemed appropriate by the entity performing the study.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.2.	Be conducted annually unless changes to system conditions do not warrant such analyses.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TPL-001-0.1	R1.3.3.	Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.4.	Have established normal (pre-contingency) operating procedures in place.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.5.	Have all projected firm transfers modeled.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.6.	Be performed for selected demand levels over the range of forecast system demands.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.7.	Demonstrate that system performance meets Table 1 for Category A (no contingencies).	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.8.	Include existing and planned facilities.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.3.9.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet system performance.	N/A	N/A	N/A	N/A
TPL-001-0.1	R1.4.	Address any planned upgrades needed to meet the performance requirements of Category A.	N/A	N/A	N/A	N/A
TPL-001-0.1	R2.	When system simulations	N/A	The responsible entity	The responsible entity	The responsible entity

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-001-0_R1, the Planning Authority and Transmission Planner shall each:		has failed to review the continuing need for previously identified facility additions through subsequent annual assessments. (R2.2)	provided documented evidence of corrective action plans in order to satisfy Category A planning requirements, but failed to include an implementation schedule with in- service dates (R2.1.1 and R2.1.2) OR The responsible entity failed to consider necessary lead times to implement its corrective action plan. (R2.1.3)	has failed to provide documented evidence of corrective action plans in order to satisfy Category A planning requirements. (R2.1)
TPL-001-0.1	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon.	N/A	N/A	N/A	N/A
TPL-001-0.1	R2.1.1.	Including a schedule for implementation.	N/A	N/A	N/A	N/A
TPL-001-0.1	R2.1.2.	Including a discussion of expected required in- service dates of facilities.	N/A	N/A	N/A	N/A
TPL-001-0.1	R2.1.3.	Consider lead times necessary to implement plans.	N/A	N/A	N/A	N/A
TPL-001-0.1	R2.2.	Review, in subsequent annual assessments, (where	N/A	N/A	N/A	N/A

Page 407 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.				
TPL-001-0.1	R3.	The Planning Authority and Transmission Planner shall each document the results of these reliability assessments and corrective plans and shall annually provide these to its respective NERC Regional Reliability Organization(s), as required by the Regional Reliability Organization.	N/A	The responsible entity documented the results of its reliability assessments and corrective plans but did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization	N/A	The responsible entity DID NOT document the results of its annual reliability assessments and corrective plans AND did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization
TPL-002-0a	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency	The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for the near-term period exists. (R 1.2) OR The responsible entity is non- compliant with one of the sub- components of	The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for the long-term period exists. (R1.2) OR The responsible entity is non-compliant with two of the sub- components of requirement R1.3.	The responsible entity is non-compliant with three of the sub- components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was	The responsible entity did not perform the transmission assessments annually. (R1.1) OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		conditions as defined in Category B of Table I. To be valid, the Planning Authority and Transmission Planner assessments shall:	requirement R1.3. (R1.3.1 through R1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to 5% or less of all applicable contingencies. (R1.5)	(R1.3.1 through 1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 5% up to (and including) 10% of all applicable contingencies. (R1.5)	deficient with respect to more than 10% up to (and including) 15% of all applicable contingencies. (R1.5)	OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3. (R1.3.1 through 1.3.12). OR The responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category B planning requirements. (R1.4) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)
TPL-002-0a	R1.1.	Be made annually.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TPL-002-0a	R1.2.	Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.1.	Be performed and evaluated only for those Category B contingencies that would produce the more severe System results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		system results shall be available as supporting information.				
TPL-002-0a	R1.3.2.	Cover critical system conditions and study years as deemed appropriate by the responsible entity.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.3.	Be conducted annually unless changes to system conditions do not warrant such analyses.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.4.	Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.5.	Have all projected firm transfers modeled.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.6.	Be performed and evaluated for selected demand levels over the range of forecast system Demands.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.7.	Demonstrate that system performance meets Category B contingencies.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.8.	Include existing and planned facilities.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.9.	Include Reactive Power resources to ensure that adequate reactive resources	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		are available to meet system performance.				
TPL-002-0a	R1.3.10.	Include the effects of existing and planned protection systems, including any backup or redundant systems.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.11.	Include the effects of existing and planned control devices.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.3.12.	Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.4.	Address any planned upgrades needed to meet the performance requirements of Category B of Table I.	N/A	N/A	N/A	N/A
TPL-002-0a	R1.5.	Consider all contingencies applicable to Category B.	N/A	N/A	N/A	N/A
TPL-002-0b	R1		The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment	The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for	The responsible entity is non-compliant with three of the sub- components of requirement R1.3. (R1.3.1 through	The responsible entity did not perform the transmission assessments annually. (R1.1)

ORORThe responsible entity is non-compliant with one of the sub- components of requirement R1.3. (R1.3.1 through I.3.12)The responsible entity is non-compliant with or of the sub- components of requirement R1.3. (R1.3.1 through I.3.12)The responsible entity is non-compliant with out of the sub- components of requirement R1.3. (R1.3.1 through I.3.12)The responsible entity is non-compliant with out of and including) I.3.12)Has failed to demonstrate a valid applicable to their system, but was deficient with respect to more than 10% up to (and including) I.3.12)Has failed to demonstrate a valid applicable to their system, but was deficient with respect to for or more of the sub-components of requirement R1.3. (R1.3.1 through to fail applicable contingencies applicable to their system, but was deficient with respect to 5% or less of all applicable contingencies. (R1.5)Has failed to demonstrate that a corrective action planORThe responsible entity has failed to their system, but was deficient with respect to 5% or less of all applicable contingencies. (R1.5)ORThe responsible entity has failed to demonstrate that a corrective action planORThe responsible entity has failed to demonstrate that a corrective action plan applicable contingencies. (R1.5)ORThe responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category B planning requirements. (R1.4)ORORORThe responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category B <th>equirement Number</th> <th>Text of Requirement</th> <th>Lower VSL</th> <th>Moderate VSL</th> <th>High VSL</th> <th>Severe VSL</th>	equirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
applicable contingencies. (R1.5)       of all applicable contingencies. (R1.5)       demonstrate that a corrective action plan exists in order to satisfy Category B planning requirements. (R1.4)         OR		Text of Requirement	for the near-term period exists. (R 1.2) OR The responsible entity is non- compliant with one of the sub- components of requirement R1.3. (R1.3.1 through R1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect	the long-term period exists. (R1.2) OR The responsible entity is non-compliant with two of the sub- components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 5% up to	1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 10% up to (and including) 15% of all applicable	OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2) OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity
has considered the			to 5% or less of all applicable	(and including) 10% of all applicable		has failed to demonstrate that a corrective action plan exists in order to satisfy Category B planning requirements. (R1.4) OR The responsible entity

Page 413 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						NERC Category B contingencies applicable to their system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)
TPL-002-0b	R1.1		N/A	N/A	N/A	N/A
TPL-002-0b	R1.2		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.1		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.2		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.3		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.4		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.5		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.6		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.7		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.8		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.9		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.10		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.11		N/A	N/A	N/A	N/A
TPL-002-0b	R1.3.12		N/A	N/A	N/A	N/A
TPL-002-0b	R1.4		N/A	N/A	N/A	N/A
TPL-002-0b	R1.5		N/A	N/A	N/A	N/A
TPL-002-0b	R2		N/A	The responsible entity has failed to review the	The responsible entity provided documented	The responsible entity has failed to provide documented

Page 414 of 447

#### Standard Requirement **Text of Requirement** Lower VSL Moderate VSL High VSL Severe VSL Number Number continuing need for evidence of evidence of previously identified corrective action corrective action facility additions plans in order to plans in order to through subsequent satisfy Category B satisfy Category B annual assessments. planning planning requirements, but requirements. (R2.1) (R2.2) failed to include a implementation schedule with inservice dates (R2.1.1 and R2.1.2) OR The responsible entity failed to consider necessary lead times to implement its corrective action plan. (R2.1.3) TPL-002-0b R2.1 N/A N/A N/A N/A R2.1.1 N/A N/A N/A TPL-002-0b N/A N/A TPL-002-0b R2.1.2 N/A N/A N/A N/A TPL-002-0b R2.1.3 N/A N/A N/A R2.2 TPL-002-0b N/A N/A N/A N/A The responsible The responsible TPL-002-0b R3 N/A N/A entity DID NOT entity documented the results of its document the results reliability of its annual assessments and reliability corrective plans but assessments and

#### Violation Severity Level Matrix (TPL)

Page 415 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization.		corrective plans AND did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization.
TPL-003-0a	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission systems is planned such that the network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand Levels over the range of forecast system demands, under the contingency conditions as defined in Category C of Table I (attached). The controlled interruption of customer Demand, the planned removal of generators, or the Curtailment of firm (non-recallable reserved) power transfers may be	The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for the near-term period exists. (R 1.2) OR The responsible entity is non- compliant with one of the sub- components of requirement R1.3. (R1.3.1 through R1.3.12) OR The responsible entity has considered the NERC Category	The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for the long-term period exists. (R1.2) OR The responsible entity is non-compliant with two of the sub- components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity has considered the NERC Category C contingencies	The responsible entity is non-compliant with three of the sub- components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to more than 10% up to (and including) 15% of all applicable contingencies. (R1.5)	The responsible entity did not perform the transmission assessments annually. (R1.1) OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2) OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3. (R1.3.1 through 1.3.12)

Page **416** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		necessary to meet this standard. To be valid, the Planning Authority and Transmission Planner assessments shall:	C contingencies applicable to their system, but was deficient with respect to 5% or less of all applicable contingencies. (R1.5)	applicable to their system, but was deficient with respect to more than 5% up to (and including) 10% of all applicable contingencies. (R1.5)		ORThe responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category C planning requirements. (R1.4)ORThe responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)
TPL-003-0a	R1.1.	Be made annually.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.2.	Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		following categories, showing system performance following Category C of Table 1 (multiple contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).				
TPL-003-0a	R1.3.1.	Be performed and evaluated only for those Category C contingencies that would produce the more severe system results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.2.	Cover critical system conditions and study years as deemed appropriate by the responsible entity.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.3.	Be conducted annually unless changes to system	N/A	N/A	N/A	N/A

Page 418 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		conditions do not warrant such analyses.				
TPL-003-0a	R1.3.4.	Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.5.	Have all projected firm transfers modeled.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.6.	Be performed and evaluated for selected demand levels over the range of forecast system demands.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.7.	Demonstrate that System performance meets Table 1 for Category C contingencies.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.8.	Include existing and planned facilities.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.9.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet System performance.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.10.	Include the effects of existing and planned protection systems, including any backup or redundant systems.	N/A	N/A	N/A	N/A
TPL-003-0a	R1.3.11.	Include the effects of	N/A	N/A	N/A	N/A

Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
	existing and planned control devices.				
R1.3.12.	Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those Demand levels for which planned (including maintenance) outages are performed.	N/A	N/A	N/A	N/A
R1.4.	Address any planned upgrades needed to meet the performance requirements of Category C.	N/A	N/A	N/A	N/A
R1.5.	Consider all contingencies applicable to Category C.	N/A	N/A	N/A	N/A
R2.	When system simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-003-0_R1, the Planning Authority and Transmission Planner shall each:	N/A	The responsible entity has failed to review the continuing need for previously identified facility additions through subsequent annual assessments. (R2.2)	The responsible entity provided documented evidence of corrective action plans in order to satisfy Category C planning requirements, but failed to include an implementation schedule with in- service dates. (R2.1.1 and R2.1.2) OR The responsible entity	The responsible entity has failed to provide documented evidence of corrective action plans in order to satisfy Category C planning requirements. (R2.1)
	Number           R1.3.12.           R1.4.           R1.5.	NumberText of Requirementexisting and planned control devices.R1.3.12.Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those Demand levels for which planned (including maintenance) outages are performed.R1.4.Address any planned upgrades needed to meet the performance requirements of Category C.R1.5.Consider all contingencies applicable to Category C.R2.When system simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-003-0_R1, the Planning Authority and Transmission Planner shall	NumberText of RequirementLower VSLNumberexisting and planned control devices.N/AR1.3.12.Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those Demand levels for which planned (including maintenance) outages are performed.N/AR1.4.Address any planned upgrades needed to meet the performance requirements of Category C.N/AR1.5.Consider all contingencies applicable to Category C.N/AR2.When system simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-003-0_R1, the Planning Authority and Transmission Planner shallN/A	NumberText of RequirementLower VSLModerate VSLexisting and planned control devices.existing and planned control devices.N/AN/AR1.3.12.Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those Demand levels for which planned (including maintenance) outages are performed.N/AN/AR1.4.Address any planned upgrades needed to meet the performance requirements of Category C.N/AN/AR1.5.Consider all contingencies applicable to Category C.N/AN/AR2.When system simulations indicate an inability of the systems to respond as 	NumberText of RequirementLower vsLModerate vsLHigh vsLexisting and planned control devices. </td

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					necessary lead times to implement its corrective action plan. (R2.1.3)	
TPL-003-0a	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:	N/A	N/A	N/A	N/A
TPL-003-0a	R2.1.1.	Including a schedule for implementation.	N/A	N/A	N/A	N/A
TPL-003-0a	R2.1.2.	Including a discussion of expected required in- service dates of facilities.	N/A	N/A	N/A	N/A
TPL-003-0a	R2.1.3.	Consider lead times necessary to implement plans.	N/A	N/A	N/A	N/A
TPL-003-0a	R2.2.	Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.	N/A	N/A	N/A	N/A
TPL-003-0a	R3.	The Planning Authority and Transmission Planner shall each document the results of these Reliability Assessments and corrective plans and shall annually provide these to its respective NERC Regional	N/A	The responsible entity documented the results of its reliability assessments and corrective plans but did not annually provide them to its respective NERC	N/A	The responsible entity DID NOT document the results of its annual reliability assessments and corrective plans AND did not annually provide them to its

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Reliability Organization(s), as required by the Regional Reliability Organization.		Regional Reliability Organization(s) as required by the Regional Reliability Organization.		respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization.
TPL-003-0b	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission systems is planned such that the network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand Levels over the range of forecast system demands, under the contingency conditions as defined in Category C of Table I (attached). The controlled interruption of customer Demand, the planned removal of generators, or the Curtailment of firm (non-recallable reserved) power transfers may be necessary to meet this standard. To be valid, the Planning Authority and Transmission Planner	The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for the near-term period exists. (R 1.2) OR The responsible entity is non- compliant with one of the sub- components of requirement R1.3. (R1.3.1 through R1.3.12) OR The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect	The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for the long-term period exists. (R1.2) OR The responsible entity is non-compliant with two of the sub- components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to more than 5% up to (and including) 10%	The responsible entity is non-compliant with three of the sub- components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to more than 10% up to (and including) 15% of all applicable contingencies. (R1.5)	The responsible entity did not perform the transmission assessments annually. (R1.1) OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2) OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity

Page 422 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		assessments shall:	to 5% or less of all applicable contingencies. (R1.5)	of all applicable contingencies. (R1.5)		has failed to demonstrate that a corrective action plan exists in order to satisfy Category C planning requirements. (R1.4) OR The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)
TPL-003-0b	R1.1.	Be made annually.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.2.	Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category C of Table 1 (multiple contingencies).	N/A	N/A	N/A	N/A

Page **423** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).				
TPL-003-0b	R1.3.1.	Be performed and evaluated only for those Category C contingencies that would produce the more severe system results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.2.	Cover critical system conditions and study years as deemed appropriate by the responsible entity.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.3.	Be conducted annually unless changes to system conditions do not warrant such analyses.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.4.	Be conducted beyond the five-year horizon only as needed to address identified	N/A	N/A	N/A	N/A

Page **424** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		marginal conditions that may have longer lead-time solutions.				
TPL-003-0b	R1.3.5.	Have all projected firm transfers modeled.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.6.	Be performed and evaluated for selected demand levels over the range of forecast system demands.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.7.	Demonstrate that System performance meets Table 1 for Category C contingencies.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.8.	Include existing and planned facilities.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.9.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet System performance.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.10.	Include the effects of existing and planned protection systems, including any backup or redundant systems.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.11.	Include the effects of existing and planned control devices.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.3.12.	Include the planned (including maintenance) outage of any bulk electric	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		equipment (including protection systems or their components) at those Demand levels for which planned (including maintenance) outages are performed.				
TPL-003-0b	R1.4.	Address any planned upgrades needed to meet the performance requirements of Category C.	N/A	N/A	N/A	N/A
TPL-003-0b	R1.5.	Consider all contingencies applicable to Category C.	N/A	N/A	N/A	N/A
TPL-003-0b	R2.	When system simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-003-0_R1, the Planning Authority and Transmission Planner shall each:	N/A	The responsible entity has failed to review the continuing need for previously identified facility additions through subsequent annual assessments. (R2.2)	The responsible entity provided documented evidence of corrective action plans in order to satisfy Category C planning requirements, but failed to include an implementation schedule with in- service dates. (R2.1.1 and R2.1.2) OR The responsible entity failed to consider necessary lead times to implement its corrective action plan. (R2.1.3)	The responsible entity has failed to provide documented evidence of corrective action plans in order to satisfy Category C planning requirements. (R2.1)
TPL-003-0b	R2.1.	Provide a written summary	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		of its plans to achieve the required system performance as described above throughout the planning horizon:				
TPL-003-0b	R2.1.1.	Including a schedule for implementation.	N/A	N/A	N/A	N/A
TPL-003-0b	R2.1.2.	Including a discussion of expected required in- service dates of facilities.	N/A	N/A	N/A	N/A
TPL-003-0b	R2.1.3.	Consider lead times necessary to implement plans.	N/A	N/A	N/A	N/A
TPL-003-0b	R2.2.	Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.	N/A	N/A	N/A	N/A
TPL-003-0b	R3.	The Planning Authority and Transmission Planner shall each document the results of these Reliability Assessments and corrective plans and shall annually provide these to its respective NERC Regional Reliability Organization(s), as required by the Regional Reliability Organization.	N/A	The responsible entity documented the results of its reliability assessments and corrective plans but did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization.	N/A	The responsible entity DID NOT document the results of its annual reliability assessments and corrective plans AND did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization.

Page 427 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TPL-004-0	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is evaluated for the risks and consequences of a number of each of the extreme contingencies that are listed under Category D of Table I. To be valid, the Planning Authority's and Transmission Planner's assessment shall:	The responsible entity is non- compliant with one of the sub- components of requirement R1.3 (R1.3.1 through R1.3.9). OR The responsible entity has considered the NERC Category D contingencies applicable to their system, but was deficient with respect to 5% or less of all applicable contingencies. (R1.4)	The responsible entity is non-compliant with two of the sub- components of requirement R1.3 (R1.3.1 through 1.3.9). OR The responsible entity has considered the NERC Category D contingencies applicable to their system, but was deficient with respect to more than 5% up to (and including) 10% of all applicable contingencies. (R1.4)	The responsible entity is non-compliant with three of the sub- components of requirement R1.3 (R1.3.1 through 1.3.9). OR The responsible entity has considered the NERC Category D contingencies applicable to their system, but was deficient with respect to more than 10% up to (and including) 15% of all applicable contingencies. (R1.4)	The responsible entity did not perform the transmission assessments annually. (R1.1) OR The responsible entity has failed to demonstrate a valid assessment for the near-term planning period. (R1.2) OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3 (R1.3.1 through 1.3.9). OR The responsible entity has considered the NERC Category D contingencies applicable to its system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.4)
TPL-004-0	R1.1.	Be made annually.	N/A	N/A	N/A	N/A
TPL-004-0	R1.2.	Be conducted for near-term (years one through five).	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TPL-004-0	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category D contingencies of Table I. The specific elements selected (from within each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.1.	Be performed and evaluated only for those Category D contingencies that would produce the more severe system results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.2.	Cover critical system conditions and study years	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		as deemed appropriate by the responsible entity.				
TPL-004-0	R1.3.3.	Be conducted annually unless changes to system conditions do not warrant such analyses.	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.4.	Have all projected firm transfers modeled.	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.5.	Include existing and planned facilities.	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.6.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet system performance.	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.7.	Include the effects of existing and planned protection systems, including any backup or redundant systems.	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.8.	Include the effects of existing and planned control devices.	N/A	N/A	N/A	N/A
TPL-004-0	R1.3.9.	Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed.	N/A	N/A	N/A	N/A

Page **430** of **447** 

Violation Severity Level Matrix (TPL)
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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TPL-004-0	R1.4.	Consider all contingencies applicable to Category D.	N/A	N/A	N/A	N/A
TPL-004-0	R2.	The Planning Authority and Transmission Planner shall each document the results of its reliability assessments and shall annually provide the results to its entities' respective NERC Regional Reliability Organization(s), as required by the Regional Reliability Organization.	N/A	The responsible entity documented the results of its reliability assessments but did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization.	N/A	The responsible entity DID NOT document the results of its annual reliability assessments AND did not annually provide them to its respective NERC Regional Reliability Organization(s) as required by the Regional Reliability Organization.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
VAR-001-1	R1.	Each Transmission Operator, individually and jointly with other Transmission Operators, shall ensure that formal policies and procedures are developed, maintained, and implemented for monitoring and controlling voltage levels and Mvar flows within their individual areas and with the areas of neighboring Transmission Operators.	N/A	The Transmission Operator has formal policies and procedures for monitoring and controlling voltage and MVAR flows, but they are not current.	The Transmission Operator has formal policies and procedures for monitoring and controlling voltage and MVAR flows that are current, but they have not been coordinated with one or more neighboring Transmission Operators.	The Transmission Operator has formal policies and procedures for monitoring and controlling voltage and MVAR flows, but has not implemented them. OR The Transmission Operator does not have formal policies and procedures for monitoring and controlling voltage and MVAR flows.
VAR-001-1	R2.	Each Transmission Operator shall acquire sufficient reactive resources within its area to protect the voltage levels under normal and Contingency conditions. This includes the Transmission Operator's share of the reactive requirements of interconnecting transmission circuits.	The responsible entity did not acquire 5% or less of the reactive resources within its area needed to protect the voltage levels under normal and Contingency conditions including the Transmission Operator's share of the reactive requirements of interconnecting transmission circuits.	The responsible entity did not acquire more than 5% up to (and including) 10% of the reactive resources within its area needed to protect the voltage levels under normal and Contingency conditions, including the Transmission Operator's share of the reactive requirements of interconnecting	The responsible entity did not acquire more than 10% up to (and including) 15% of the reactive resources within its area needed to protect the voltage levels under normal and Contingency conditions, including the Transmission Operator's share of the reactive requirements of interconnecting transmission circuits.	The responsible entity did not acquire more than 15% of the reactive resources within its area needed to protect the voltage levels under normal and Contingency conditions, including the Transmission Operator's share of the reactive requirements of interconnecting transmission circuits.

Page **432** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				transmission circuits.		
VAR-001-1	R3.	The Transmission Operator shall specify criteria that exempts generators from compliance with the requirements defined in Requirement 4, and Requirement 6.1.	N/A	N/A	N/A	The Transmission Operator did not specify criteria that exempted generators from compliance with the requirements defined in Requirement R4, and Requirement R6.1.
VAR-001-1	R3.1.	Each Transmission Operator shall maintain a list of generators in its area that are exempt from following a voltage or Reactive Power schedule.	The Transmission Operator maintained the list of generators in its area that are exempt from following a voltage or Reactive Power schedule, but is missing 5% or less of those eligible for the list.	The Transmission Operator maintained the list of generators in its area that are exempt from following a voltage or Reactive Power schedule, but is missing 5% up to (and including) 10% of those eligible for the list.	The Transmission Operator maintained the list of generators in its area that are exempt from following a voltage or Reactive Power schedule, but is missing 10% up to (and including) 15% of those eligible for the list.	The Transmission Operator maintained the list of generators in its area that are exempt from following a voltage or Reactive Power schedule, but is missing more than 15% of those eligible for the list.
VAR-001-1	R3.2.	For each generator that is on this exemption list, the Transmission Operator shall notify the associated Generator Owner.	The Transmission Operator failed to notify 5% or less of the Generator Owners associated with a generator on the exemption list specified in R3.1.	The Transmission Operator failed to notify more than 5% up to (and including) 10% of the Generator Owners associated with a generator on the exemption list specified in R3.1.	The Transmission Operator failed to notify more than 10% up to (and including) 15% of the Generator Owners associated with a generator on the exemption list specified in R3.1.	The Transmission Operator failed to notify more than 15% of the Generator Owners associated with a generator on the exemption list specified in R3.1.
VAR-001-1	R4.	Each Transmission Operator shall specify a voltage or	The Transmission Operator failed to	The Transmission Operator failed to	The Transmission Operator failed to	The Transmission Operator failed to

Page 433 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Reactive Power schedule at the interconnection between the generator facility and the Transmission Owner's facilities to be maintained by each generator. The Transmission Operator shall provide the voltage or Reactive Power schedule to the associated Generator Operator and direct the Generator Operator to comply with the schedule in automatic voltage control mode (AVR in service and controlling voltage).	direct the Generator Operator to comply with the Voltage or Reactive Power schedules for 5% or less of the generating units as required in R4.	direct the Generator Operator to comply with the Voltage or Reactive Power schedules for more than 5% up to (and including) 10% of the generating units as required in R4.	direct the Generator Operator to comply with the Voltage or Reactive Power schedules for more than 10% up to (and including) 15% of the generating units as required in R4.	direct the Generator Operator to comply with the Voltage or Reactive Power schedules for more than 15% of the generating units as required in R4. OR The Transmission Operator failed to specify a voltage or Reactive Power schedule at the interconnection between the generator facility and the Transmission Owner's facilities to be maintained by each generator. OR The Transmission Operator failed to provide the voltage or Reactive Power schedule to the associated Generator Operator
VAR-001-1	R5.	Each Purchasing-Selling Entity	The responsible	The responsible	The responsible	The responsible entity

Page **434** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		shall arrange for (self-provide or purchase) reactive resources to satisfy its reactive requirements identified by its Transmission Service Provider.	entity did not arrange for reactive resources, as directed by the requirement, affecting 5% or less of its reactive requirements.	entity did not arrange for reactive resources, as directed by the requirement, affecting more than 5% up to (and including) 10% of its reactive requirements.	entity did not arrange for reactive resources, as directed by the requirement, affecting more than 10% up to (and including) 15% of its reactive requirements.	did not arrange for reactive resources, as directed by the requirement, affecting more than 15% of its reactive requirements.
VAR-001-1	R6.	The Transmission Operator shall know the status of all transmission Reactive Power resources, including the status of voltage regulators and power system stabilizers.	The Transmission Operator did not know the status of all transmission reactive power resources, including the status of voltage regulators and power system stabilizers, as directed by the requirement, affecting 5% or less of the required resources.	The Transmission Operator did not know the status of all transmission reactive power resources, including the status of voltage regulators and power system stabilizers, as directed by the requirement, affecting more than 5% up to (and including) 10% of the required resources.	The Transmission Operator did not know the status of all transmission reactive power resources, including the status of voltage regulators and power system stabilizers, as directed by the requirement, affecting more than 10% up to (and including) 15% of the required resources.	The Transmission Operator did not know the status of all transmission reactive power resources, including the status of voltage regulators and power system stabilizers, as directed by the requirement, affecting more than 15% of required resources.
VAR-001-1	R6.1.	When notified of the loss of an automatic voltage regulator control, the Transmission Operator shall direct the Generator Operator to maintain or change either its voltage schedule or its Reactive Power schedule.	N/A	N/A	N/A	The Transmission Operator has not provided evidence to show that directives were issued to the Generator Operator to maintain or change either its voltage schedule or its

Page **435** of **447** 

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Reactive Power schedule in accordance with R6.1.
VAR-001-1	R7.	The Transmission Operator shall be able to operate or direct the operation of devices necessary to regulate transmission voltage and reactive flow.	The Transmission Operator was not able to operate or direct the operation of devices necessary to regulate transmission voltage and reactive flow, affecting 5% or less of the required devices.	The Transmission Operator was not able to operate or direct the operation of devices necessary to regulate transmission voltage and reactive flow, affecting more than 5% up to (and including) 10% of the required devices.	The Transmission Operator was not able to operate or direct the operation of devices necessary to regulate transmission voltage and reactive flow, affecting more than 10% up to (and including) 15% of the required devices.	The Transmission Operator was not able to operate or direct the operation of devices necessary to regulate transmission voltage and reactive flow, affecting more than 15% of the required devices.
VAR-001-1	R8.	Each Transmission Operator shall operate or direct the operation of capacitive and inductive reactive resources within its area – including reactive generation scheduling; transmission line and reactive resource switching; and, if necessary, load shedding – to maintain system and Interconnection voltages within established limits.	The Transmission Operator did not operate or direct the operation of capacitive and inductive reactive resources or load shedding within its area, as directed by the requirement, affecting 5% or less of the required resources.	The Transmission Operator did not operate or direct the operation of capacitive and inductive reactive resources or load shedding within its area, as directed by the requirement, affecting more than 5% up to (and including) 10% of the required resources.	The Transmission Operator did not operate or direct the operation of capacitive and inductive reactive resources or load shedding within its area, as directed by the requirement, more than 10% up to (and including) 15% of the required resources.	The Transmission Operator did not operate or direct the operation of capacitive and inductive reactive resources or load shedding within its area, as directed by the requirement, affecting more than 15% of the required resources.
VAR-001-1	R9.	Each Transmission Operator shall maintain reactive resources to support its voltage under first Contingency	The Transmission Operator did not maintain 5% or less of the reactive	The Transmission Operator did not maintain more than 5% up to (and	The Transmission Operator did not maintain more than 10% up to (and	The Transmission Operator did not maintain more than 15% of the reactive

### Requirement Standard Lower VSL Severe VSL **Text of Requirement** Moderate VSL High VSL Number Number conditions. including) 15% of the resources needed to including) 10% of resources needed to support its voltage support its voltage the reactive reactive resources needed to support its under first resources needed to under first Contingency support its voltage voltage under first Contingency Contingency conditions. under first conditions. Contingency conditions. conditions. OR OR OR OR The Transmission The Transmission Operator did not The Transmission Operator did not disperse and/or locate Operator did not disperse and/or locate The Transmission the reactive Operator entity did disperse and/or locate the reactive resources. the reactive resources, as directed not disperse and/or as directed in the in the requirement, locate the reactive resources, as directed requirement, affecting affecting 5% or less in the requirement, more than 15% of the resources. as of the resources. directed in the affecting more than resources. 10% up to (and requirement, including) 15% of the affecting more than 5% up to (and resources. including) 10% of the resources. Each Transmission Operator The Transmission The Transmission VAR-001-1 R9.1. The Transmission The Transmission shall disperse and locate the Operator did not Operator entity did Operator did not Operator did not reactive resources so that the disperse and/or locate not disperse and/or disperse and/or locate disperse and/or locate the reactive locate the reactive the reactive the reactive resources. resources can be applied effectively and quickly when resources, as directed resources. as resources, as directed as directed in the Contingencies occur. in the requirement, in the requirement, requirement, affecting directed in the affecting 5% or less affecting more than more than 15% of the requirement. of the resources. affecting more than 10% up to (and resources. 5% up to (and including) 15% of the including) 10% of resources. the resources. The Transmission The Transmission VAR-001-1 R10. Each Transmission Operator The Transmission The Transmission shall correct IROL or SOL Operator did not Operator did not Operator did not Operator did not violations resulting from correct the IROL or correct the IROL or correct the IROL or correct the IROL or

### Violation Severity Level Matrix (VAR)

Page 437 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		reactive resource deficiencies (IROL violations must be corrected within 30 minutes) and complete the required IROL or SOL violation reporting.	SOL violations, resulting from reactive resource deficiencies and complete the required IROL or SOL violation reporting for 5% or less of the applicable occurrences.	SOL violations, resulting from reactive resource deficiencies and complete the required IROL or SOL violation reporting for more than 5% up to (and including) 10% of the applicable occurrences.	SOL violations, resulting from reactive resource deficiencies and complete the required IROL or SOL violation reporting for more than 10% up to (and including) 15% of the applicable occurrences.	SOL violations, resulting from reactive resource deficiencies and complete the required IROL or SOL violation reporting for more than 15% of the applicable occurrences.
VAR-001-1	R11.	After consultation with the Generator Owner regarding necessary step-up transformer tap changes, the Transmission Operator shall provide documentation to the Generator Owner specifying the required tap changes, a timeframe for making the changes, and technical justification for these changes.	N/A	The Transmission Operator provided documentation to the Generator Owner specifying required step-up transformer tap changes and a timeframe for making these changes, but failed to provide technical justification for these changes.	The Transmission Operator provided documentation to the Generator Owner specifying required step-up transformer tap changes, but failed to provide a timeframe for making these changes and technical justification for these changes.	The Transmission Operator failed to provide documentation to the Generator Owner specifying required step-up transformer tap changes, a timeframe for making these changes, and technical justification for these changes.
VAR-001-1	R12.	The Transmission Operator shall direct corrective action, including load reduction, necessary to prevent voltage collapse when reactive resources are insufficient.	N/A	N/A	N/A	The Transmission Operator has failed to direct corrective action, including load reduction, necessary to prevent voltage collapse when reactive resources are insufficient.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
VAR-002-1.1a	R1.	The Generator Operator shall operate each generator connected to the interconnected transmission system in the automatic voltage control mode (automatic voltage regulator in service and controlling voltage) unless the Generator Operator has notified the Transmission Operator.	N/A	N/A	N/A	The responsible entity did not operate each generator in the automatic voltage control mode and failed to notify the Transmission Operator as identified in R1.
VAR-002-1.1a	R2.	Unless exempted by the Transmission Operator, each Generator Operator shall maintain the generator voltage or Reactive Power output (within applicable Facility Ratings. [1] as directed by the Transmission Operator	When directed by the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directed values by 5% or less.	When directed by the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directed values by more than 5% up to (and including) 10% OR When a generator's automatic voltage regulator is out of service, the Generator Operator failed to use an alternative method	When directed by the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directed values by more than 10% up to (and including) 15%	When directed by the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directed values by more than 15%. OR When a generator's automatic voltage regulator is out of service, the Generator Operator failed to use an alternative method to control the generator voltage and reactive output to meet the voltage or Reactive

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				to control the generator voltage and reactive output to meet the voltage or Reactive Power schedule directed by the Transmission Operator. OR The Generator Operator failed to provide an explanation of why the voltage schedule could not be met.		Power schedule directed by the Transmission Operator and the Generator Operator failed to provide an explanation of why the voltage schedule could not be met.
VAR-002-1.1a	R2.1.	When a generator's automatic voltage regulator is out of service, the Generator Operator shall use an alternative method to control the generator voltage and reactive output to meet the voltage or Reactive Power schedule directed by the Transmission Operator.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R2.2.	When directed to modify voltage, the Generator Operator shall comply or provide an explanation of why the schedule cannot be met.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R3.	Each Generator Operator shall notify its associated Transmission Operator as soon as practical, but within 30 minutes of any of the following:	N/A	N/A	The Generator Operator failed to notify the Transmission Operator within 30 minutes of the	The Generator Operator failed to notify the Transmission Operator within 30 minutes of the information as specified in both R3.1

Page 440 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					information as specified in either R3.1 or R3.2	and R3.2
VAR-002-1.1a	R3.1.	A status or capability change on any generator Reactive Power resource, including the status of each automatic voltage regulator and power system stabilizer and the expected duration of the change in status or capability.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R3.2.	A status or capability change on any other Reactive Power resources under the Generator Operator's control and the expected duration of the change in status or capability.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R4.	The Generator Owner shall provide the following to its associated Transmission Operator and Transmission Planner within 30 calendar days of a request.	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner one of the types of data as specified in R4.1.1 or R 4.1.2 or 4.1.3 or 4.1.4 OR The information was provided in more than 30, but less than or equal to 35 calendar days of the request.	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner two of the types of data as specified in R4.1.1 or R 4.1.2 or 4.1.3 or 4.1.4 OR The information was provided in more than 35, but less than or equal to 40 calendar days of	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner three of the types of data as specified in R4.1.1 or R 4.1.2 or 4.1.3 or 4.1.4 OR The information was provided in more than 40, but less than or equal to 45 calendar days of the request.	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner any of the types of data as specified in R4.1.1 and R 4.1.2 and 4.1.3 and 4.1.4 OR The information was provided in more than 45 calendar days of the request.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				the request.		
VAR-002-1.1a	R4.1.	For generator step-up transformers and auxiliary transformers with primary voltages equal to or greater than the generator terminal voltage:	N/A	N/A	N/A	N/A
VAR-002-1.1a	R4.1.1.	Tap settings.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R4.1.2.	Available fixed tap ranges.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R4.1.3.	Impedance data.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R4.1.4.	The +/- voltage range with step-change in % for load-tap changing transformers.	N/A	N/A	N/A	N/A
VAR-002-1.1a	R5.	After consultation with the Transmission Operator regarding necessary step-up transformer tap changes, the Generator Owner shall ensure that transformer tap positions are changed according to the specifications provided by the Transmission Operator, unless such action would violate safety, an equipment rating, a regulatory requirement, or a statutory requirement.	N/A	N/A	N/A	The responsible entity failed to ensure that transformer tap positions were changed according to the specifications provided by the Transmission Operator when said actions would not have violated safety, an equipment rating, a regulatory requirement, or a statutory requirement.
VAR-002-1.1a	R5.1.	If the Generator Operator can't comply with the Transmission Operator's specifications, the Generator Operator shall notify the Transmission Operator and shall provide the technical	N/A	N/A	N/A	The responsible entity failed to notify the Transmission Operator and to provide technical justification.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
VAR-002-1.1b	R1	justification. The Generator Operator shall operate each generator connected to the interconnected transmission system in the automatic voltage control mode (automatic voltage regulator in service and controlling voltage) unless the Generator Operator has	N/A	N/A	N/A	The responsible entity did not operate each generator in the automatic voltage control mode and failed to notify the Transmission
VAR-002-1.1b	R2	notified the Transmission Operator. Unless exempted by the	When directed by	When directed by	When directed by	Operator as identified in R1. When directed by
VAR-002-1.10		Transmission Operator, each Generator Operator shall maintain the generator voltage or Reactive Power output (within applicable Facility Ratings1) as directed by the Transmission Operator.	the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directedvalues by 5% or less.	the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directed values by more than 5% up to (and including) 10%.	the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directed values by more than 10% up to (and including) 15%.	the Transmission Operator to maintain the generator voltage or reactive power output the Generator Operator failed to meet the directed values by more than 15%. OR
				OR When a generator's automatic voltage regulator is out of service, the Generator Operator		When a generator's automatic voltage regulator is out of service, the Generator Operator failed to use an alternative method to control the generator

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				failed to use an alternative method tocontrol the generator voltage and reactive output to meet the voltage or Reactive Power schedule directed by the Transmission Operator. OR The Generator Operator failed to provide an explanation of why the voltage schedule could not be met.		voltage and reactive output to meet the voltage or Reactive Power schedule directed by the Transmission Operator and the Generator Operator failed to provide an explanation of why the voltage schedule could not be met.
VAR-002-1.1b	R2.1	When a generator's automatic voltage regulator is out of service, the Generator Operator shall use an alternative method to control the generator voltage and reactive output to meet the voltage or Reactive Power schedule directed by the Transmission Operator.	N/A	N/A	N/A	N/A
VAR-002-1.1b	R2.2	When directed to modify voltage, the Generator Operator shall comply or provide an explanation of why the schedule cannot be met.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
VAR-002-1.1b	R3	Each Generator Operator shall notify its associated Transmission Operator as soon as practical, but within 30 minutes of any of the following:	N/A	N/A	The Generator Operator failed to notify the Transmission Operator within 30 minutes of the information as specified in either R3.1 or R3.2.	The Generator Operator failed to notify the Transmission Operator within 30 minutes of the information as specified in both R3.1 and R3.2.
VAR-002-1.1b	R3.1	A status or capability change on any generator Reactive Power resource, including the status of each automatic voltage regulator and power system stabilizer and the expected duration of the change in status or capability.	N/A	N/A	N/A	N/A
VAR-002-1.1b	R3.2	A status or capability change on any other Reactive Power resources under the Generator Operator's control and the expected duration of the change in status or capability.	N/A	N/A	N/A	N/A
VAR-002-1.1b	R4	The Generator Owner shall provide the following to its associated Transmission Operator and Transmission Planner within 30 calendar days of a request.	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner one of the types of data as specified in R4.1.1 or R 4.1.2 or 4.1.3 or 4.1.4.	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner two of the types of data as specified in R4.1.1 or R 4.1.2 or 4.1.3 or	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner three of the types of data as specified in R4.1.1 or R 4.1.2 or 4.1.3 or 4.1.4.	The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner any of the types of data as specified in R4.1.1 and R 4.1.2 and 4.1.3 and 4.1.4.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			OR The information was provided in more than 30, but less than or equal to 35 calendar days of the request.	4.1.4. OR The information was provided in more than 35, but less than or equal to 40 calendar days of the request.	OR The information was provided in more than 40, but less than or equal to 45 calendar days of the request.	OR The information was provided in more than 45 calendar days of the request.
VAR-002-1.1b	R4.1	For generator step-up transformers and auxiliary transformers with primary voltages equal to or greater than the generator terminal voltage:	N/A	N/A	N/A	N/A
VAR-002-1.1b	R4.1.1	Tap settings.	N/A	N/A	N/A	N/A
VAR-002-1.1b	R4.1.2	Available fixed tap ranges.	N/A	N/A	N/A	N/A
VAR-002-1.1b	R4.1.3	Impedance data.	N/A	N/A	N/A	N/A
VAR-002-1.1b	R4.1.4	The +/- voltage range with step-change in % for load-tap changing transformers.	N/A	N/A	N/A	N/A
VAR-002-1.1b	R5	After consultation with the Transmission Operator regarding necessary step-up transformer tap changes, the Generator Owner shall ensure that transformer tap positions are changed according to the specifications provided by the Transmission Operator, unless such action would violate safety, an equipment rating, a regulatory requirement, or a statutory requirement.	N/A	N/A	N/A	The responsible entity failed to ensure that transformer tap positions were changed according to the specifications provided by the Transmission Operator when said actions would not have violated safety, an equipment rating, a regulatory

Page 446 of 447

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						requirement, or a statutory requirement.
VAR-002-1.1b	R5.1	If the Generator Operator can't comply with the Transmission Operator's specifications, the Generator Operator shall notify the Transmission Operator and shall provide the technical justification.	N/A	N/A	N/A	The responsible entity failed to notify the Transmission Operator and to provide technical justification.