

February 15, 2013

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 ("VSLs") and Violation Risk Factors ("VRFs") Proposed by the Electric Reliability Organization ("ERO") in FERC Docket Nos. RR08-4-000, RR08-4-001, RR08-4-002, RM08-19-002, RM09-9-000, RM09-14-000, RM09-19-000, RM09-25-000, RM10-10-000, RM10-15-000, RM10-16-000, RD11-2-000, RD11-4-000, and RM11-14-000

Dear Ms. Bose:

On March 5, 2010, the North American Electric Reliability Corporation ("NERC") submitted the first of two compliance filings¹ in Response to the Federal Energy Regulatory Commission's ("FERC") June 19, 2008 Order on VSLs Proposed by the Electric Reliability Organization ("VSL Filing 1").² The VSL Filing 1 included VSLs for 83 Reliability Standards. On May 19, 2011, FERC accepted the VSL Filing 1.

On December 1, 2010, NERC submitted the second compliance filing providing modified VSLs for 78 Reliability Standards ("VSL Filing 2"). Upon further review of VSL Filing 2, NERC staff identified a need for additional modifications to VSLs in 23 Reliability Standards in order to ensure consistency with FERC VSL guidelines. 4

In addition, NERC staff identified certain VRF and VSL assignments for which FERC deferred action that required either modification or additional justification. The VRFs and VSLs identified were

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¹ NERC Compliance Filing in Response to the Order on VSLs Proposed by the ERO and Request for an Extension of Time, Docket Nos. RR08-4-000, RR08-4-001, and RR08-4-002 (March 5, 2010) ("VSL Filing 1").

² Order on VSLs Proposed by the ERO, 123 FERC \P 61,284 (2008).

³ NERC Compliance Filing in Response to the Order on VSLs Proposed by the ERO, Docket Nos. RR08-4-000, RR08-4-001, RR08-4-002, and RR08-4-005 (December 1, 2010) ("VSL Filing 2").

⁴ Order on VSLs Proposed by the ERO, 123 FERC ¶ 61,284 at P 19 (June 19, 2008).

originally proposed by NERC in a number of separate filings between 2009 and 2011,⁵ and FERC deferred action on them in separate orders.⁶ Accordingly, in this compliance filing, NERC has either proposed modifications or provided additional support for the deferred VRF or VSL assignments, consistent with FERC guidelines.

NERC posted the proposed VRFs and VSLs for a 45-day public comment period from September 5, 2012, to October 19, 2012. NERC also conducted a non-binding poll during the last 10 days of the public comment period, from October 10, 2012, to October 23, 2012. The ballot period for the non-binding poll was extended until October 23, 2012, to ensure that a quorum was reached. Following the non-binding poll, NERC staff made additional changes to certain VRFs and VSLs in response to stakeholder comments. The NERC Board of Trustees adopted the VRF and VSL changes on December 19, 2012.

By this filing, NERC submits revised VRFs and VSLs for the Reliability Standard requirements referenced herein. VRFs and VSLs contained in this filing supersede the VRFs and VSLs submitted for approval in certain previous NERC filings, including VSL Filing 2, which has not yet been acted upon by FERC.

Exhibit A to this filing includes a clean and redline version of the proposed VSLs. Exhibit B includes explanations for the to the proposed VSL modifications, in accordance with the FERC VSL guidelines. Exhibit C includes a clean and redline version of the revised VRFs, accompanied by explanations for revisions in accordance with FERC VRF guidelines. Because there is no uniform

⁰ Order on VRFs, 119 FERC ¶ 61,145 at P 18 (May 18, 2007).

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⁵ NERC Petition for Approval of One Emergency Preparedness and Operations Reliability Standard EOP-008-1 and Retirement of One Existing Reliability Standard EOP-008-0, Docket No. RM11-14-000 (2011); NERC Compliance Filing in Response to Paragraph 274 of Order No. 729 - VRFs and VSLs for Available Transfer Capability Reliability Standards, Docket No. RM08-19-002 (2010); NERC Petition for Approval of Three Emergency Preparedness and Operations Reliability Standards, Docket No. RM10-16-000 (2009); NERC Petition for Approval of Proposed New and Revised Reliability Standards for Operating Within Interconnection Operating Limits, Docket No. RM10-15-000 (2009); NERC Filing in Support of June 20, 2011 Compliance Filing of the Western Electricity Coordinating Council in Response to Order Nos. 751 and 752 on Version One Regional Reliability Standards, Docket Nos. RM09-9-000 and RM09-14-000 (2011); NERC Petition for Approval of Proposed Reliability Standards Regarding System Personnel Training, Docket No. RM09-25-000 (2009).

⁶Final Rule, *System Restoration Reliability Standards*, 134 FERC ¶ 61,215 (2011); *Order Approving Reliability Standard*, 135 FERC ¶ 61,040 (2011); Final Rule, *Mandatory Reliability Standards for Interconnection Reliability Operating Limits*, 134 FERC ¶ 61,213 (2011); Final Rule, *System Personnel Training Reliability Standards*, 133 FERC ¶ 61,159 (2010).

⁷ Unless otherwise noted, proposed VSLs are redlined against the most recent FERC-approved VSLs.

⁸ For ease of reference, **Exhibits A, B, and C** contain the text of the applicable Reliability Standard requirements. In the event of a conflict between those included in the attachment and the FERC-approved version, the FERC-approved version prevails.

⁹ In **Exhibit B**, the column labeled "Guideline 1 Comments" includes the reference "See Guideline 1 Analysis." This Guideline 1 Analysis was included in VSL Filing 1 at Exhibit D "Guideline 1 Report."



format for VRF guideline explanations, the proposed VRF guideline explanations reflect the format utilized in the original VRF filings that were deferred by FERC.

Additionally, since NERC originally filed the VRFs and VSLs that were deferred by FERC, several Reliability Standards have been updated to incorporate errata changes or interpretations. In the event that errata changes or interpretations resulted in a new version number of a standard, NERC has accounted for such version number changes in the enclosed exhibits. It should be noted, however, that errata changes and interpretations have no impact on the proposed VRF and VSL assignments.

NERC respectfully requests that FERC accept this supplemental information 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, RM08-19-002, RM09-9-000, RM09-14-000, RM09-19-000, RM09-25-000, RM10-10-000, RM10-15-000, RM10-16-000, RD11-2-000, RD11-4-000, and RM11-14-000

Exhibit A

Revised VSLs (Redline)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-003-0.1b	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: 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. R2.2. The Balancing Authority may use a variable (linear or nonlinear) 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/AThe 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. 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 characteristics, and frequency.	N/A	The Balancing Authority establisheddid not establish and maintainedmaintain a Frequency Bias Setting that was lessas close as practical to, or greater than, the Balancing Authority's Frequency Response.

^(*) One asterisk denotes Reliability Standards with VSL assignments on which FERC deferred ruling. NERC redlined the proposed changes against the original VSL assignments submitted to FERC for approval.

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^(**) Two asterisks denote Reliability Standards with VSL assignments on which FERC deferred ruling that were also included for revision in VSL Filing 2. In these cases, NERC still redlined the proposed changes against the original VSL assignments submitted to FERC for approval.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-005-0.2b	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 Authority Area.	N/A	N/AThe responsible entity did not provide its operating personnel with real-time values for one of the following: ACE, Interconnection frequency or Net Actual Interchange.	N/AThe 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 Balancing Authority failed toresponsible entity did not 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. OR The responsible entity did not provide its
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	The Transmission Operator failed to provide two of the entities identified in its approved restoration plan with a description of any changes to their	The Transmission Operator failed to provide three of the entities identified in its approved restoration plan with a description of any changes to their	operating personnel with real-time values for ACE, Interconnection frequency and Net Actual Interchange. The Transmission Operator failed to provide four or more of the entities identified in its approved restoration plan with a description
			roles and specific tasks prior to the implementation date of	roles and specific tasks prior to the implementation date of	roles and specific tasks prior to the implementation date of	of any changes to their roles and specific tasks prior to the

	Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				the plan. OR The Transmission Operator provided the information to all entities but was up to 3010 calendar days late in doing so.	the plan. OR The Transmission Operator provided the information to all entities but was more than 3010 and less than or equal to 6020 calendar days late in doing so.	the plan. OR The Transmission Operator provided the information to all entities but was more than 6020 and less than or equal to 9030 calendar days late in doing so.	implementation date of the plan. OR The Transmission Operator provided the information to all entities but was more than 9030 calendar days late in doing so.
	EOP-005-2**	R11	Each Transmission Operator, each applicable 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.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider did notfailed to train less than5% or equal to 10%less of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider did notfailed to train more than 105% and less than or equalup to 2510% of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider did notfailed to train more than 2510% and less than or equalup to 5015% of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider did notfailed to train more than 50 % of 15% the personnel required by Requirement R11 within a two calendar year period.
	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 known change in Blackstart Resource capability affecting the ability to meet the Transmission	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a known change in Blackstart Resource capability affecting the ability to meet the Transmission	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a known change in Blackstart Resource capability affecting the ability to meet the Transmission	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a known change in Blackstart Resource capability affecting the ability to meet the Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Operator's restoration plan within 24 hours but did make the notification within 48 hours.	Operator's restoration plan within 2448 hours but did make the notification within 72 hours.	Operator's restoration plan within 2472 hours but did make the notification within 96 hours.	Operator's restoration plan for more than 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 Blackstart Resource can perform as specified in the restoration plan. 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. 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.	The Generator OperatorGOP with a Blackstart Resource did not maintain testingperformed tests and maintained records for one but the records did not include all of the requirements for a Blackstart Resource. Or items in R16.1. OR The Generator Operator did not supply the Blackstart Resource testing records as requested within 59 for 31 to 60 calendar days of the request.	The Generator OperatorGOP with a Blackstart Resource did not maintain testingperformed tests and maintained records for two of the requirements for a Blackstart Resource. Orbut did not supply the Blackstart Resource testing records as requested for 6061 days to 8990 calendar days after the request.	The Generator OperatorGOP with a Blackstart Resource performed tests but either did not maintain testing records for three of the requirements for a Blackstart Resource. Oror did not supply the Blackstart Resource testing records as requested for 90 to 119 within 91 or more calendar days after the request.	The Generator Operator with a Blackstart Resource did not maintain testing records for aperform Blackstart Resource. Or did not supply the Blackstart Resource testing records as requested for 120 days or more after the request. tests.
EOP-005-2**	R18	Each Generator Operator shall participate in the Reliability Coordinator's restoration drills, exercises, or simulations as requested by the Reliability	N/A .	N/A	N/A	The Generator Operator has-failed to comply with a request for their participation fromparticipate in the Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator.				Coordinator's restoration drills, exercises, or simulations as requested by the Reliability Coordinator.
EOP-006-2**	R6	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.N/A	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.N/A	The Reliability Coordinator did not make its latest restoration plan andhave a copy of the latest approved restoration plan of eachall Transmission OperatorOperators in its Reliability Coordinator Area available to all of its System Operators in its within its primary and backup control rooms within 25 calendar days of prior to the implementation date.	The Reliability Coordinator did not make-have a copy of 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 inwithin its primary and backup control rooms for more than 25 calendar days after its-prior to the implementation date.
EOP-006-2**	R7	Each Reliability Coordinator shall 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. If the restoration plan cannot be completed as expected the Reliability	N/A	N/A	N/A	The Reliability Coordinator did not 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

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		Coordinator shall utilize its restoration plan strategies to facilitate System restoration.				acceptable operating limits.
						<u>OR</u>
						When the restoration plan cannot be completed as expected, the Reliability Coordinator did not utilize its restoration plan strategies to facilitate System restoration.
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 authorize resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators.
						If the resynchronization could not be completed as expected, the Reliability Coordinator did not utilize its restoration plan

Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					strategies to facilitate resynchronization.
R9	Each Reliability 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: R9.1. The coordination role of the Reliability Coordinator. R9.2. Reestablishing the Interconnection.	N/A	N/A	N/AThe Reliability Coordinator included the annual System restoration training within its operations training program, but did not address both of the sub-requirements.	The Reliability Coordinator supplied did not include the annual System restoration training but did not address both of the subrequirements. OR The Reliability Coordinator supplied the required System restoration within its operations training but it was over two calendar years from the last training offered.program.
R1	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include the following, at a minimum: R1.1. The location and method of implementation for providing	The responsible entity had a current Operating Plan for backup functionality but the plan was missing one of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality but the plan was missing two of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality but the plan was missing three or more of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality, but the plan was missing four or more of the requirement's six Parts (1.1 through 1.6) OR The responsible entity did not have a current Operating Plan for
	Number R9	R9 Each Reliability 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: R9.1. The coordination role of the Reliability Coordinator. R9.2. Reestablishing the Interconnection. R1 Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include the following, at a minimum: R1.1. The location and method of	R9 Each Reliability 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: R9.1. The coordination role of the Reliability Coordinator. R9.2. Reestablishing the Interconnection. R1 Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include the following, at a minimum: R1.1. The location and method of implementation for providing	R9	R9 Each Reliability 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: R9.1. The coordinator. R9.2. Reestablishing the Interconnection. R9.2. Reestablishing the Interconnection. The responsible entity had a current Operating Plan for backup functionality and describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include the following, at a minimum: R1.1. The location and method of implementation for providing

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		it takes to restore the primary control center functionality.				backup functionality
		R1.2. A summary description of the elements required to support the backup functionality. These elements shall include, at a minimum:				
		R1.2.1. Tools and applications to ensure that System Operators have situational awareness of the BES.				
		R1.2.2. Data communications.				
		R1.2.3. Voice communications.				
		R1.2.4. Power source(s).				
		R1.2.5. Physical and cyber security.				
		R1.3. An Operating Process for keeping the backup functionality consistent with the primary control center.				
		R1.4. Operating Procedures, including decision authority, for use in determining when to implement the Operating Plan for backup functionality.				
		R1.5. A transition period between				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to two hours.				
		R1.6. An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to fully implement backup functionality elements identified in Requirement R1, Part 1.2. The Operating Process shall include at a minimum:				
		R1.6.1. A list of all entities to notify when there is a change in operating locations.				
		R1.6.2. Actions to manage the risk to the BES during the transition from primary to backup functionality as well as during outages of the primary or backup functionality.				
		R1.6.3. Identification of the roles for personnel involved during the initiation and implementation of the Operating Plan for backup functionality.				
EOP-008-1*	R3	Each Reliability Coordinator shall have a backup control center facility (provided through its own	The Reliability Coordinator has a backup control center	The Reliability Coordinator has a backup control center	The Reliability Coordinator has a backup control center	The Reliability Coordinator does not have a backup control

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) that provides the functionality required for maintaining compliance with all Reliability Standards that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during: • Planned outages of the primary or backup facilities of two weeks or less • Unplanned outages of the primary or backup facilities	facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) in accordance with Requirement R3 but it did not provide the functionality required for maintaining compliance with one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Lower VRF.N/A	facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) in accordance with Requirement R3 but it did not provide the functionality required for maintaining compliance with one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRFN/A	facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) in accordance with Requirement R3 but it did not provide the functionality required for maintaining compliance with one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.N/A	center facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) in accordance with Requirement R3.that provides the functionality required for maintaining compliance with all Reliability Standards that depend on primary control center functionality
EOP-008-1*	R4	Each Balancing Authority and Transmission Operator shall have backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability	The responsible entity has backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) in accordance with Requirement R4	The responsible entity has backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) in accordance with Requirement R4	The responsible entity has backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) in accordance with Requirement R4	The responsible entity does not have backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) in accordance with Requirement

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Standards that depend on a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during: • Planned outages of the primary or backup functionality of two weeks or less • Unplanned outages of the primary or backup functionality	but it did not include monitoring, control, logging, and alarming sufficient for maintaining compliance with one or more of the Requirements in the Reliability Standards applicable to the responsible entity that depend on the primary control center functionality and which have a Lower VRF.N/A	but it did not include monitoring, control, logging, and alarming sufficient for maintaining compliance with one or more of the Requirements in the Reliability Standards applicable to the responsible entity that depend on the primary control center functionality and which have a Medium VRF.N/A	but it did not include monitoring, control, logging, and alarming sufficient for maintaining compliance with one or more of the Requirements in the Reliability Standards applicable to the responsible entity that depend on the primary control center functionality and which have a High VRF.N/A	R4:that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards that depend on a Balancing Authority and Transmission Operator's primary control center functionality respectively.
EOP-008-1*	R5	Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall annually review and approve its Operating Plan for backup functionality. R5.1. An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to any part of the Operating Plan described in Requirement R1.	The responsible entity did not update and approve its Operating Plan for backup functionality for more than 60 calendar days and less than or equal to 70 calendar days after a change to any part of the Operating Plan described in Requirement R1.	The responsible entity did not update and approve its Operating Plan for backup functionality for more than 70 calendar days and less than or equal to 80 calendar days after a change to any part of the Operating Plan described in Requirement R1.	The responsible entity did not update and approve its Operating Plan for backup functionality for more than 80 calendar days and less than or equal to 90 calendar days after a change to any part of the Operating Plan described in Requirement R1.	The responsible entity did not have evidence that its dated, current, in force Operating Plan for backup functionality was annually reviewed and approved. OR, The responsible entity did not update and approve its Operating Plan for backup functionality for more than 90 calendar days after a change to any part of the Operating Plan described in Requirement R1.
EOP-008-1*	R6	Each Reliability Coordinator,	N/A	The responsible entity has primary and	The responsible entity has primary and	The responsible entity has primary and

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Balancing Authority, and Transmission Operator shall have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards.		backup functionality that do depend on each other for the control center functionality required to maintain compliance with Reliability Standards applicable for the entity that have a Lower VRF.N/A	backup functionality that do depend on each other for the control center functionality required to maintain compliance with Reliability Standards applicable for the entity that have a Medium VRF.N/A	backup functionality that do depend on each other for the control center functionality required to maintain compliance with Reliability Standards applicable for the entity that have a High VRF.
EOP-008-1*	R7	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct and document results of an annual test of its Operating Plan that demonstrates: R7.1. The transition time between the simulated loss of primary control center functionality and the time to fully implement the backup functionality. R7.2. The backup functionality for a minimum of two continuous hours.	The responsible entity conducted an annual test of its Operating Plan for backup functionality but it did not document the results. OR, The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test was for less than two continuous hours but more than or equal to 1.5 continuous hours.	The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test was for less than 1.5 continuous hours but more than or equal to 1 continuous hour.	The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test did not assess the transition time between the simulated loss of its primary control center and the time to fully implement the backup functionality OR, The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test was for less than 1 continuous hour but more than or equal to 0.5 continuous hours.	The responsible entity did not conduct an annual test of its Operating Plan for backup functionality. OR The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test was for less than 0.5 continuous hours.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
FAC-010-2.1	R2	The Planning Authority's SOL Methodology shall include a requirement that SOLs provide BES performance consistent with the following: 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. R2.2. Following the single Contingencies1identified 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. R2.2.1. Single line to ground or three-phase Fault (whichever is	The Planning Authority's SOL Methodology requires that SOLs are set to meet BES performance following single and multiple contingencies, but does not address the pre-contingency state (is missing one requirement as described in R2.1) , R2.2, R2.3, R2.4, R2.5, or R2.6.	The Planning Authority's SOL Methodology requires that SOLs are set to meet BES performance is missing two requirements as described in the pre contingency state and following single contingencies, but does not address multiple contingencies. (R2.1, R2.2, R2.3, R2.4, R2.5-, or R2.6) .	The Planning Authority's SOL Methodology requires that SOLs are set to meet BES performance is missing three requirements as described in the pre- contingency state and following multiple contingencies, but does not meet the performance for response to single contingencies. (R2.1, R2.2—, R2.3, R2.4), R2.5, or R2.6.	The Planning Authority's SOL Methodology requires that SOLs are set to meet BES performance is missing four or more requirements as described in the pre- contingency state but does not require that SOLs be set to meet the BES performance specified for response to single contingencies (R2.1, R2.2-, R2.3, R2.4) and does not require that SOLs be set to meet the BES performance specified for response to multiple contingencies. (, R2.5-, or R2.6).

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device.				
		R2.2.2. Loss of any generator, line, transformer, or shunt device without a Fault.				
		R2.2.3. Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.				
		R2.3. Starting with all Facilities in service, the system's response to a single Contingency, may include any of the following:				
		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.				
		R2.3.2. System reconfiguration through manual or automatic control or protection actions.				
		R2.4. To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.				
		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:				
		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.				
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 has a methodology for determining SOLs thatCoordinator's SOL Methodology includes a description for all but	The Reliability Coordinator has a methodology for determining SOLs thatCoordinator's SOL Methodology includes a description for all but	The Reliability Coordinator has a methodology for determining SOLs thatCoordinator's SOL Methodology includes a description for all but	The Reliability Coordinator has a methodology for determining SOLs thatCoordinator's SOL Methodology is missing a description

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.)	one of the following: R3.1 through R3.7.	two of the following: R3.1 through R3.7.	three of the following: R3.1 through R3.7.	of four or more of the following: R3.1 through R3.7.
		R3.2. Selection of applicable Contingencies				
		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.				
		R3.3.1. This process shall address the need to modify these limits, to modify the list of limits, and to modify the list of associated multiple contingencies.				
		R3.4. Level of detail of system models used to determine SOLs.				
		R3.5. Allowed uses of Special Protection Systems or Remedial Action Plans.				
		R3.6. Anticipated transmission				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		system configuration, generation dispatch and Load level				
		R3.7. Criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL Tv.				
FAC-011-2	R3.6	Not applicable. Anticipated transmission system configuration, generation dispatch and Load level	Not applicable.N/A	Not applicable.N/A	The methodology does not describe the anticipated transmission system configuration, generation dispatch and Load level. 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: R4.1. Each adjacent Reliability Coordinator and each Reliability Coordinator that indicated it has a reliability-related need for the methodology. R4.2. Each Planning Authority and Transmission Planner that	One or both of the following: The Reliability Coordinator issuedfailed to issue its SOL Methodology and/or one or more changes to that methodology to all but one of the required entities- specified in R4.1, R4.2, and R4.3.	One of the two following: The Reliability Coordinator issuedfailed to issue its SOL Methodology and/or one or more changes to that methodology to all but onetwo of the required entities AND for a changespecified in methodology, the changed methodology was provided 30 calendar days or more, but less than 60	One of the following: The Reliability Coordinator issuedfailed to issue its SOL Methodology and/or one or more changes to that methodology to all but onethree of the required entities AND for a changespecified in methodology, the changed methodology was provided 60 calendar days or more, but less than 90 calendar days after the	One of the following: The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to four or more than three of the required entities- The Planning Authority issued its SOL Methodology specified in R4.1, R4.2, and changes to that methodology to all but one of the required entities AND R4.3.
		models any portion of the Reliability Coordinator's Reliability Coordinator Area.	For a change in methodology, the changed methodology was provided up to	ealendar days after the effectiveness of the change. OR The Reliability	effectiveness of the change. OR The Reliability Coordinator issued its	OR For a change in

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R4.3. Each Transmission Operator that operates in the Reliability Coordinator Area.	30to one or more of the required entities before the effectiveness of the change, but was provided to all the required entities no more than 10 calendar days after the effectiveness of the change.	Coordinator issued its SOL MethodologyR4.1, R4.2, and changes to that methodology to all but two of the required entities AND R4.3. OR For a change in methodology, the changed methodology, was provided upto one or more of the required entities more than 10 calendar days after the effectiveness of the change, but less than or equal to 30 calendar 20 days after the effectiveness of the change.	SOL MethodologyR4.1, R4.2, and changes to that methodology to all but two of the required entities AND-R4.3. OR For a change in methodology, the changed methodology, the changed methodology was provided 30 to one or more of required entities more than 20 calendar days or moreafter the effectiveness of the change, but less than 60 calendar or equal to 30 days after the effectiveness of the change. OR The Reliability Coordinator issued its SOL Methodology and changes to that methodology to all but three of the required entities AND for a change in methodology, the changed methodology was provided up to 30 calendar days after the effectiveness of the change.	methodology, the changed methodology was provided 90to one or more of the required entities more than30 calendar days or more after the effectiveness of the change. OR The Reliability Coordinator issued its SOL Methodology and changes to that methodology to all but two of the required entities AND for a change in methodology, the changed methodology was provided 60 calendar days or more, but less than 90 calendar days after the effectiveness of the change. OR The Reliability Coordinator issued its SOL Methodology and changes to that methodology to all but three of the required entities AND for a change in methodology, the change in methodology, the changed methodology was provided 30 calendar days or more,

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						but less than 60 calendar days after the effectiveness of the change.
						The Reliability Coordinator issued its SOL Methodology and changes to that methodology to all but four of the required entities AND for a change in methodology, the changed methodology was provided up to 30 calendar days after the effectiveness of the change
FAC-013-1	R2	The Reliability Coordinator and Planning Authority shall each provide its inter-regional and intra-regional Transfer Capabilities to those entities that have a reliability-related need for such Transfer Capabilities and make a written request that includes a schedule for delivery of such Transfer Capabilities as follows: 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 Reliability Coordinator or Planning Authority has provided itsresponsible entity failed to provide Transfer Capabilities but missed meeting one schedule byto up to 15 calendar days(and including) 5% of the required entities.	The Reliability Coordinator or Planning Authority has provided its responsible entity failed to provide Transfer Capabilities but missed meeting two schedules to more than 5% up to (and including) 10% of the required entities.	The Reliability Coordinator or Planning Authority has provided itsresponsible entity failed to provide Transfer Capabilities but missed meetingto more than two schedules 10% up to (and including) 15% of the required entities.	The Reliability Coordinator or Planning Authority has provided itsresponsible entity failed to provide Transfer Capabilities but missed meeting all schedules within 30 calendar daysto more than 15% of the associated schedulesrequired entities.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Operators, Transmission Service Providers and Planning Authorities that work in its Reliability Coordinator Area. 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.				
FAC-501- WECC-1	R1	Transmission Owners shall have a TMIP detailing their inspection and maintenance requirements that apply to all transmission facilities necessary for System Operating Limits associated with each of the transmission paths identified in table titled "Major WECC Transfer Paths in the Bulk Electric System."	The TMIP does not include associated Facilities for one of the Paths identified in Attachment 1 FAC-501 WECC 1 as required by R.1 but Transmission Owners are performing maintenance and inspection for the missing Facilities. N/A	The TMIP does not include associated Facilities for two of the Paths identified in the most current Table titled "Major WECC Transfer Paths in the Bulk Electric System" as required by R. 1 and Transmission Owners are not performing maintenance and inspection for the missing Facilities. N/A	The Transmission Owners had a TMIP does, but it did not include inspection and maintenance requirements that apply to all transmission facilities necessary for System Operating Limits associated Facilities for three with each of the Pathstransmission paths identified in the most current Tabletable titled "Major WECC Transfer Paths in the Bulk Electric System" as required by R. 1 and Transmission Owners are not performing	The TMIP does not include associated Facilities for more than three of the Paths identified in the most current Table titled "Major WECC Transfer Paths in the Bulk Electric System" as required by R.1 and Transmission Owners are not performing maintenance and inspection for the missing Facilities, Transmission Owners do not have a TMIP.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					maintenance and inspection for the missing Facilities"	
FAC-501- WECC-1	R1.1	Transmission Owners shall annually review their TMIP and update as required.	Transmission Owners did not review their TMIP annually as required by R.1.1. N/A	N/A	N/A	N/ATransmission Owners did not review their TMIP annually as required by R.1.1.
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. N/A	The Reliability Coordinator does not have clear authority to act or direct actions to preserve transmission security and reliability of the Bulk Electric System. OR 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	R7	The Reliability Coordinator shall have clear, comprehensive coordination agreements with adjacent Reliability Coordinators to ensure that System Operating	The Reliability Coordinator has demonstrated the existence of coordination	The Reliability Coordinator has demonstrated the existence of the coordination	The Reliability Coordinator has demonstrated the existence of the coordination	The Reliability Coordinator has failed to demonstrate the existence of anydoes not have coordination

Standard F Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Limit or Interconnection Reliability Operating Limit violation mitigation requiring actions in adjacent Reliability Coordinator Areas are coordinated.	agreements with adjacent Reliability Coordinators but the agreements are not clear or comprehensive.N/A	agreements with adjacent Reliability Coordinators, but the agreements doare not coordinate actions required in the adjacent Reliability Coordinator to mitigate SOLclear or IROL violations in its own Reliability Coordinator areacomprehensive.	agreements with adjacent Reliability Coordinators but the agreements do not coordinate actions required in the adjacent Reliability Coordinator to mitigate SOL and IROL violations in its own Reliability Coordinator area. N/A	agreements with adjacent Reliability Coordinators.
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.	The Reliability Coordinator failed to monitor: 1) the status, real power flow or reactive power flow of Bulk Electric System elements that could result in one SOL violations or 2) or operating reserves for a small portion of the Reliability Authority Area.N/A	The Reliability Coordinator failed to monitor: 1) the status, real power flow or reactive power flow of Bulk Electric System elements critical to assessing one IROL or to system restoration, 2) the status, real power flow or reactive power flow of Bulk Electric System elements that could result in multiple SOL violations, or 3) operating reserves. N/A	The Reliability Coordinator failed to monitor: 1) the status, real power flow or reactive power flow ofmonitored Bulk Electric System elements eritical to assessing two or more IROLs; or one IROL and to system restoration, 2) the status, real power flow or reactive power flow of Bulk Electric System elements that (generators, transmission lines, buses, transformers, breakers, etc.) that could result in multiple SOL or IROL violations and within its Reliability	The Reliability Coordinator failed to monitor: 1) the status, real power flow or reactive power flow of any Bulk Electric System elements eritical to assessing all IROLs and to system restoration, or 2) the status, real power flow or reactive power flow or reactive power flow of Bulk Electric System elements critical to assessing all(generators, transmission lines, buses, transformers, breakers, etc.) that could result in SOL or IROL violations and operating reserves: within its Reliability Coordinator

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					Coordinator Area, but failed to monitor one or more of the following: Real power system flows, reactive power system flows, operating reserves, or 3) the status, real power flow or reactive power flow of Bulk Electric System elements that are, or could be, critical to assessing one IROL or SOLs and IROLs and system restoration and operating reserves. requirements within its Reliability Coordinator Area.	Area
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.	The Reliability Coordinator failed to demonstrate that: 1) it or a delegated entity monitored SOLs when the main monitoring system was unavailable or 2) it has provisions to monitor SOLs when the main monitoring system is not available. N/A	The Reliability Coordinator had provisions for backup facilities, but it failed to demonstrateensure that: 1) it or a delegated entity monitored one monitoring and derivations of SOL and IROL conditions continued when the main monitoring system was unavailable or 2) it has provisions to monitor one IROL	The Reliability Coordinator failed to demonstrate that: 1) it or a delegated entity monitored two or more IROLs when the main monitoring system was unavailable, 2) it or a delegated entity monitored SOLs and one IROL when the main monitoring system was unavailable 3) it has provisions to monitor two or more	The Reliability Coordinator failed to demonstrate that itdid not continuously monitoredmonitor its Reliability AuthorityCoordinator Area. OR The Reliability Coordinator did not have provisions for backup facilities.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				when the main monitoring system is not available.	IROLs when the main monitoring system is not available, or 4) it has provisions to monitor SOLs and one IROL when the main monitoring system was unavailable. N/A	
IRO-005- 3.1a**	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 Reliability Coordinator coordinated with Transmission Operators, Balancing Authorities, and Generator Operators, as needed, to develop action plans to mitigate potential or actual SOL, CPS, or DCS violations but failed to implement said plans; or the. OR The Reliability Coordinator coordinated failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in cither 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. 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 analysis timeframes.	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 intime frame or the next-day reliability analysis timeframetime frame.		
IRO-006- WECC-1	R1	Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes.	There shall be a Lower Level of non- compliance if there is one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a Step 4 or greater request greater than five minutes after receipt of notification from the Transmission Operator of a Qualified Transfer Path. N/A	N/A	N/A	N/AThere was one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a Step 4 or greater request greater than five minutes after receipt of notification from the Transmission Operator of a Qualified Transfer Path.
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 IROL, the Reliability Coordinator shall share its results with those entities that are expected to take those actions.	N/A	Shared the results with some but not all of the entities that were required to take action (R3)N/A	N/A	Did not The Reliability Coordinator failed to share the results of its analyses or assessments with any of the entities that were required to take action (R3)
IRO-015-1	R1	The Reliability Coordinator shall follow its Operating Procedures,	N/AThe Reliability Coordinator failed to	The Reliability Coordinator failed to	N/AThe Reliability Coordinator failed to	The Reliability Coordinator failed to

	irement Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
	Processes, or Plans for makinotifications and exchanging reliability-related information with other Reliability Coordinators. R1.1. The Reliability Coordinators to on Reliability Coordinators of conditions in its Reliability Coordinator Area that may in other Reliability Coordinator Areas.	other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.	follow its Operating Procedures, Processes, or Plans for making notifications-notify more than 5% up to (and exchanging reliability related information with including) 10% of the other Reliability Coordinators but no adverse reliability impacts resulted from the incident of conditions in its Reliability Coordinator Area that may impact them as per R1.1.	notify more than 10% up to (and including) 15% of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.	notify more than 15% of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1. OR The Reliability Coordinator Area that may impact 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 and adverse reliability impacts resulted from the incident.
MOD-028-1* R8	When calculating Existing Transmission Commitments (ETCs) for firm commitmen (ETC _F) for all time periods f ATC Path the Transmission Service Provider shall use th following algorithm: ETC _F = NITS _F + GF _F + PTP _F ROR _F + OS _F Where:	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value	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 measure or 25MW, whichever is greater,	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 measure or 35MW, whichever is greater,	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 measure or 45MW, whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		NITS _F is the firm capacity set aside for Network Integration Transmission Service (including the capacity used to serve bundled load within the Transmission Service Provider's area with external sources) on ATC Paths that serve as interfaces with other Balancing Authorities.	of the value calculated in the measure or 25MW, whichever is greater.	of the value calculated in the measure or 35MW, whichever is greater.	of the value calculated in the measure or 45MW, whichever is greater.	
		GF _F is the firm capacity set aside for Grandfathered Firm Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or safe harbor tariff on ATC Paths that serve as interfaces with other Balancing Authorities.				
		PTP _F is the firm capacity reserved for confirmed Point-to-Point Transmission Service.				
		ROR _F is the capacity reserved for roll-over rights for Firm Transmission Service contracts granting Transmission Customers the right of first refusal to take or continue to take Transmission Service when the Transmission Customer's Transmission Service contract expires or is eligible for renewal.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		OS _F is the firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using Firm Transmission Service, including another firm adjustments to reflect impacts from other ATC Paths of the Transmission Service Provider as specified in the ATCID.				
MOD-028-1*	R9	When calculating ETC for non- firm commitments (ETC _{NF}) 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 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
		$ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$ $\textbf{Where:}$	that calculated in M11 for the same period, and the absolute value difference was more than 15% of the value calculated in the	that calculated in M11 for the same period, and the absolute value difference was more than 25% of the value calculated in the	that calculated in M11 for the same period, and the absolute value difference was more than 35% of the value calculated in the	that calculated in M11 for the same period, and the absolute value difference was more than 45% of the value calculated in the
		NITS _{NF} is the non-firm capacity set aside for Network Integration Transmission Service (i.e., secondary service, including the capacity used to serve bundled load within the Transmission Service Provider's area with external sources) reserved on ATC Paths that serve as interfaces with other Balancing Authorities.	measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater	measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	measure or 45MW, whichever is greater.
		GF _{NF} is the non-firm capacity reserved for Grandfathered Non-Firm Transmission Service and contracts for energy and/or				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or safe harbor tariff on ATC Paths that serve as interfaces with other Balancing Authorities.				
		PTP _{NF} is non-firm capacity reserved for confirmed Point-to-Point Transmission Service.				
		OS _{NF} is the non-firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using Non-Firm Transmission Service, including any other firm adjustments to reflect impacts from other ATC Paths of the Transmission Service Provider as specified in the ATCID.				
MOD-029-1a*	R5	When calculating ETC for firm Existing Transmission Commitments (ETCF) for a specified period for an ATC Path, the Transmission Service Provider shall use the algorithm below:	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for
		$ETC_F = NL_F + NITS_F + GF_F + \\ PTP_F + ROR_F + OS_F $ Where:	the same period, and the absolute value difference was more than 15% of the value calculated in the	the same period, and the absolute value difference was more than 25% of the value calculated in the	the same period, and the absolute value difference was more than 35% of the value calculated in the	the same period, and the absolute value difference was more than 45% of the value calculated in the
		$\mathbf{NL_F}$ is the firm capacity set aside	measure or 15MW, whichever is greater, but not more than 25%	measure or 25MW, whichever is greater, but not more than 35%	measure or 35MW, whichever is greater, but not more than 45%	measure or 45MW, whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		to serve peak Native Load forecast commitments for the time period being calculated, to include losses, and Native Load growth, not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	of the value calculated in the measure or 25MW, whichever is greater.	of the value calculated in the measure or 35MW, whichever is greater.	of the value calculated in the measure or 45MW, whichever is greater.	
		NITS _F is the firm capacity reserved for Network Integration Transmission Service serving Load, to include losses, and Load growth, not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.				
		GF _F is the firm capacity set aside for grandfathered Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or "safe harbor tariff."				
		PTP _F is the firm capacity reserved for confirmed Point-to-Point Transmission Service.				
		ROR _F is the firm capacity reserved for Roll-over rights for contracts granting Transmission Customers the right of first refusal to take or continue to take Transmission Service when the Transmission Customer's				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Service contract expires or is eligible for renewal.				
		OS _F is the firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using Firm Transmission Service as specified in the ATCID.				
MOD-029-1a*	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 a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8
		$\begin{split} ETC_{NF} &= NITS_{NF} + GF_{NF} + PTP_{NF} \\ &+ OS_{NF} \end{split}$	for the same period, and the absolute value difference was more than 15% of the value	for the same period, and the absolute value difference was more than 25% of the value	for the same period, and the absolute value difference was more than 35% of the value	for the same period, and the absolute value difference was more than 45% of the value
		Where:	calculated in the measure or 15MW,	calculated in the measure or 25MW,	calculated in the measure or 35MW,	calculated in the measure or 45MW,
		NITS _{NF} is the non-firm capacity set aside for Network Integration Transmission Service serving Load (i.e., secondary service), to	whichever is greater, but not more than 25% of the value calculated in the measure or	whichever is greater, but not more than 35% of the value calculated in the measure or	whichever is greater, but not more than 45% of the value calculated in the mature or	whichever is greater.
		include losses, and load growth not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	25MW, whichever is greater.	35MW, whichever is greater.	45MW, whichever is greater.	
		GF _{NF} is the non-firm capacity set aside for grandfathered Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		of a Transmission Service Provider's Open Access Transmission Tariff or "safe harbor tariff."				
		PTP _{NF} is non-firm capacity reserved for confirmed Point-to-Point Transmission Service.				
		OS _{NF} is the non-firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using non-firm transmission service as specified in the ATCID.				
NUC-001-2	R4	Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall:	The applicable Transmission Entity failed to incorporate one or more applicable NPIRs into their	The applicable Transmission Entity failed to incorporate any NPIRs into their operating analyses OR	The applicable Transmission Entity failed to operate the system to meet the NPIRsThe responsible	N/AThe responsible entity did not comply with R4.2.
		R4.1. Incorporate the NPIRs into their operating analyses of the electric system.	operating analyses.N/A	did not inform NPG operator when their ability of assess the operation of the electric system	entity did not comply with R4.1.	
		R4.2. Operate the electric system to meet the NPIRs.		affecting the NPIRs was lost.The responsible entity did not comply with sub-		
		R4.3. Inform the Nuclear Plant Generator Operator when the ability to assess the operation of the electric system affecting NPIRs is lost.		requirement R4.3.		
PER-005-1**	R1	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall use a	None N/A	The responsible entity failed to provide evidence that it	The responsible entity failed to design and develop learning	The responsible entity failed to prepare a BES company-specific

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. 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. 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. R1.2. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall design and develop learning objectives and training materials based on the task list created in R1.1. R1.3. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall design and develop learning objectives and training materials based on the task list created in R1.1.		updated itsupdate its BES company-specific reliability-related task list to identify new or modified tasks each calendar year. (R1.1.1) OR The responsible entity failed to provide evidence of evaluatingevaluate its training program to identify needed changes to its training program(s). (R1.4) OR An entity evaluated its training program and identified changes, but failed to implement them. (R1.4)	objectives and training materials based on the BES company specific reliability related tasks. (R1.2)	reliability-related task list_ (R1.1) OR The responsible entity failed to deliver training based on the BES company specific reliability related tasks. (R1.3)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
DED 005 1**	DO.	R1.2. 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.	None N/A	The responsible entity	The responsible entity	The responsible entity
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. 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.	THORE IN /A	rine responsible entity verified at least 90% butfailed to verify 5% or less than 100% of its System Operators' capabilities to perform each assigned task from its list of BES company-specific reliability-related tasks. (R2)	rhe responsible entity verified at least 70% but lessfailed to verify more than 905% up to (and including) 10% of its System Operators' capabilities to perform each assigned task from its list of BES company-specific reliability-related tasks. (R2) tasks (R2) OR The responsible entity failed to verifyverified its system operator's System Operator's capabilities to perform each new or modified task withinmore than six months ofbut fewer than twelve months	rhe responsible entity verified lessfailed to verify more than 7010% 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 failed to verify its System Operator's capabilities to perform each new or modified task within twelve months of making a modification to its BES company-specific reliability-related task list. (R2.1)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					after making a modification to its BES company—specific reliability-related task list. (R2.1)	
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.	NoneN/A	The responsible entity provided failed to provide at least 32 hours of emergency operations training to at least 90% but applicable to its organization, affecting 5% or less than 100% of their System Operators. (R3)	The responsible entity provided failed to provide at least 32 hours of emergency operations training to at least 70% but lessapplicable to its organization, affecting more than 905% and up to (and including) 10% of its System Operators. (R3)	The responsible entity provided failed to provide at least 32 hours of emergency operations training to lessapplicable to its organization, affecting more than 70% of 10% its System Operators (R3) OR
		R3.1. Each Reliability Coordinator, Balancing Authority and Transmission 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				The responsible entity did not include simulation technology replicating the operational behavior of the BES in its emergency operations training. (R3.1)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		emergency conditions.				
TOP-001-1a	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	N/A The Transmission Operator does not have the responsibility and clear decision-making authority to take whatever actions are needed to ensure reliability of its area.	The Transmission Operator has no evidence that clear decision making authority exists to assure reliability in its area or has failed to exercise this specific authority to alleviate operating emergencies.
TOP-002-2.1b	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 including but not limited to: R16.1. Changes in transmission facility status. R16.2. Changes in transmission facility rating.	N/ASubject to standards of conduct and confidentiality agreements, the Transmission Operator notified its Reliability Coordinator and Balancing Authority of changes in transmission facility status (R16.1), but there was an intentional time delay. OR Subject to standards of conduct and confidentiality agreements, the Transmission Operator notified its Reliability Coordinator and Balancing Authority of changes in	N/ASubject to standards of conduct and confidentiality agreements, the Transmission Operator notified its Reliability Coordinator and Balancing Authority of changes in transmission facility status (R16.1) and rating (R16.2), but there was an intentional time delay in both.	N/ASubject to standards of conduct and confidentiality agreements, the Transmission Operator failed to notify its Reliability Coordinator and Balancing Authority of changes in transmission facility status (R16.1). OR Subject to standards of conduct and confidentiality agreements, the Transmission Operator failed to notify its Reliability Coordinator and Balancing Authority of changes in transmission facility rating (R16.2).	The Subject to standards of conduct and confidentiality agreements, the Transmission Operator failed to notify theirits Reliability Coordinator and Balancing Authority of changes in capabilities and characteristics, within the termstransmission facility status (R16.1) and conditions of standards of conduct and confidentiality agreements.changes in transmission facility rating. (R16.2).

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			transmission facility rating (R16.2), but there was an intentional time delay.			
TOP-002-2.1b	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 failed todid not communicate the information described in the requirements R1 to R16 above to theirits Reliability Coordinator. OR The responsible entity intentionally delayed communication of the information described
						in the requirements R1 to R16 to its Reliability Coordinator.
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 3% 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 3% up to (and including) 6% 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 6% up to (and including) 9% 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 9% of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
TOP-006-2	R3	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.	N/A	N/A	The responsible entity failed to provide appropriate technical information concerning protective relays to all of its operating personnel.	The responsible entity failed to provide appropriate technical information concerning protective relays to any of its operating personnel.
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 minutes.comply with Requirement R2.
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.	N/A	N/A	N/AThe Reliability Coordinator evaluated actions taken to address an SOL or 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 SOL or IROL or SOL violation and, if the actions taken were not appropriate or sufficient, did not direct actions required to return the system to within limits.
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	The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for	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 50% or more but less than 75% three of the sub-components of requirement R1.3.	The responsible entity did not perform the transmission assessments annually. (R1.1)

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		all transmission facilities in service and with normal (pre-	the near-term period exists. (R 1.2)	the long-term period exists. (R1.2)	(R1.3.1 through R1.3.6, R1.3.8, or	OR
		contingency) operating procedures in effect, the Network can be operated to supply projected customer demands and projected	<u>OR</u>	<u>OR</u>	R1.3.9) OR	The responsible entity has failed to demonstrate a valid
		Firm (non-recallable reserved) Transmission Services at all Demand levels over the range of forecast system demands, under	The responsible entity is non-compliant with 25% or lessone of the sub-components, of	The responsible entity is non-compliant with more than 25% but less than 50% two of the	The responsible entity is non-compliant with	assessment for the near-term period and long-term planning period. (R1.2)
		the conditions defined in Category A of Table I. To be considered valid, the Planning Authority and Transmission Planner assessments	requirement R1.3. (R1.3.1 through R1.3.6, R1.3.8, or R1.3.9)	sub-components-of requirement R1.3. (R1.3.1 through	subcomponent R1.3.7 of R1.3.	<u>OR</u>
		shall: R1.1. Be made annually.	<u>K1.3.9)</u>	R1.3.6, R1.3.8, or R1.3.9)		The responsible entity is non-compliant with 75% four or more of the sub-components; of
		R1.2. Be conducted for near-term (years one through five) and				requirement R1.3. (R1.3.1 through 1.3.9)
		longer-term (years six through ten) planning horizons.				OR The responsible entity
		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				has failed to demonstrate that a corrective action plan exists in order to satisfy Category A
		following Category A of Table 1 (no contingencies). The specific elements selected (from each of the following categories) shall be acceptable to the associated				planning requirements. (R1.4)
		Regional Reliability Organization(s).				
		R1.3.1. Cover critical system				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		conditions and study years as deemed appropriate by the entity performing the study.				
		R1.3.2. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		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.				
		R1.3.4. Have established normal (pre-contingency) operating procedures in place.				
		R1.3.5. Have all projected firm transfers modeled.				
		R1.3.6. Be performed for selected demand levels over the range of forecast system demands.				
		R1.3.7. Demonstrate that system performance meets Table 1 for Category A (no contingencies).				
		R1.3.8. Include existing and planned facilities.				
		R1.3.9. Include Reactive Power resources to ensure that adequate				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		reactive resources are available to meet system performance.				
		R1.4. Address any planned upgrades needed to meet the performance requirements of Category A.				
TPL-002-0b	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 conditions as defined in Category B of Table I. To be valid, the Planning Authority and Transmission Planner assessments	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 25% or lessone of the sub-components-of requirement R1.3.	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 more than 25% but less than 50%two of the sub-components-of	The responsible entity is non-compliant with 50% or more but less than 75% three of the sub-components-of requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through R1.3.12) OR The responsible entity is non-compliant with subcomponent R1.3.7	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)
		shall: R1.1. Be made annually.	(R1.3.1 through R1.3.6 or R1.3.8 through R1.3.12)	requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through R1.3.12)	of R1.3.	OR The responsible entity
		R1.2. Be conducted for near-term (years one through five) and longer-term (years six through	OR The responsible entity	OR	The responsible entity has considered the NERC Category B	is non-compliant with 75% four or more of the sub-components of requirement R1.3.
		ten) planning horizons.	has considered the NERC Category B contingencies	The responsible entity has considered the NERC Category B	contingencies applicable to their system, but was	(R1.3.1 through 1.3.12).
		R1.3. Be supported by a current or past study and/or system simulation testing that addresses	applicable to their system, but was deficient with respect	contingencies applicable to their system, but was	deficient with respect to more than 10% up to (and including) 15% of	<u>OR</u>

Standard		Toposca TOES				
Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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).	to 5% or less of all applicable contingencies. (R1.5)	deficient with respect to more than 5% up to (and including) 10% of all applicable contingencies. (R1.5)	all applicable contingencies. (R1.5)	The responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category B planning requirements. (R1.4) OR
		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 system results shall be available as supporting information.				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)
		R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.				
		R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		R1.3.4. Be conducted beyond the five-year horizon only as needed				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		to address identified marginal conditions that may have longer lead-time solutions.				
		R1.3.5. Have all projected firm transfers modeled.				
		R1.3.6. Be performed and evaluated for selected demand levels over the range of forecast system Demands.				
		R1.1. Be made annually.				
		R1.2. Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.				
		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).				
		R1.3.1. Be performed and evaluated only for those Category B contingencies that would produce the more severe System				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.				
		R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.				
		R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		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.				
		R1.3.5. Have all projected firm transfers modeled.				
		R1.3.6. Be performed and evaluated for selected demand levels over the range of forecast system Demands.				
TPL-003-0a	R1	The Planning Authority and Transmission Planner shall each demonstrate through a valid	The responsible entity has failed to demonstrate a valid	The responsible entity has failed to demonstrate a valid	The responsible entity is non-compliant with 50% or more but less	The responsible entity did not perform the transmission

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		assessment that its portion of the	assessment for the	assessment for the	than 75% three of the	assessments annually.
		interconnected transmission	long-term period, but a	near-term period, but a	sub-components-of	(R1.1)
		systems is planned such that the	valid assessment for	valid assessment for	requirement R1.3.	
		network can be operated to supply	the near-term period	the long-term period	(R1.3.1 through R1.3.6	
		projected customer demands and	exists. (R 1.2)	exists. (R1.2)	or R1.3.8 through	<u>OR</u>
		projected Firm (non-recallable			R1.3.12)	
		reserved) Transmission Services,		OR		The responsible entity
		at all demand Levels over the	<u>OR</u>			has failed to
		range of forecast system demands,		The responsible entity	OR	demonstrate a valid
		under the contingency conditions	The responsible entity	is non-compliant with	<u> </u>	assessment for the
		as defined in Category C of Table	is non-compliant with	more than 25% but less		near-term period and
		I (attached). The controlled	25% or lessone of the	than 50% two of the	The responsible entity	long-term planning
		interruption of customer Demand,	sub-components-of	sub-components- of	is non-compliant with	period. (R1.2)
		the planned removal of generators,	requirement R1.3.	requirement R1.3.	subcomponent R1.3.7	<u>*************************************</u>
		or the Curtailment of firm (non-	(R1.3.1 through R1.3.6	(R1.3.1 through R1.3.6	of R1.3.	
		recallable reserved) power	or R1.3.8 through	or R1.3.8 through	<u> </u>	<u>OR</u>
		transfers may be necessary to	R1.3.12)	R1.3.12)		
		meet this standard. To be valid,			<u>OR</u>	The responsible entity
		the Planning Authority and				is non-compliant with
		Transmission Planner assessments	<u>OR</u>	<u>OR</u>	The responsible entity	75% four or more of
		shall:			has considered the	the sub-components-of
			The responsible entity	The responsible entity	NERC Category C	requirement R1.3.
		D11 D 1 11	has considered the	has considered the	contingencies	(R1.3.1 through
		R1.1. Be made annually.	NERC Category C	NERC Category C	applicable to their	1.3.12)
			contingencies	contingencies	system, but was	
		R1.2. Be conducted for near-term	applicable to their	applicable to their	deficient with respect	
		(years one through five) and	system, but was	system, but was	to more than 10% up to	<u>OR</u>
		longer-term (years six through	deficient with respect	deficient with respect	(and including) 15% of	
		ten) planning horizons.	to 5% or less of all	to more than 5% up to	all applicable	The responsible entity
			applicable	(and including) 10% of	contingencies. (R1.5)	has failed to
		D1 2 D	contingencies. (R1.5)	all applicable	<u> </u>	demonstrate that a
		R1.3. Be supported by a current or		contingencies. (R1.5)		corrective action plan
		past study and/or system		<u> </u>		exists in order to
		simulation testing that addresses				satisfy Category C
		each of the following categories,				planning requirements.
						(R1.4)
						OD
		specific cicinents selected (from				<u>UK</u>
		showing system performance following Category C of Table 1 (multiple contingencies). The specific elements selected (from				

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).				The responsible entity has considered the NERC Category C contingencies applicable to their
		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.				system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)
		R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.				
		R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		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.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R1.3.5. Have all projected firm transfers modeled.				
		R1.1. Be made annually.				
		R1.2. Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.				
		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). 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).				
		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.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.				
		R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		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.				
		R1.3.5. Have all projected firm transfers modeled.				
TPL-003-0a	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.	The responsible entity provided documented evidence of corrective action plans in order to satisfy Category C planning requirements, but failed to include an	The responsible entity has failed to provide documented evidence of corrective action plans in order to satisfy Category C planning requirements. (R2.1)
		R2.1. Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:		(R2.2)	implementation schedule-with in- service dates. (R2.1.1 and R2.1.2)	
		R2.1.1. Including a schedule for implementation.			OR The responsible entity provided documented	

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R2.1.2. Including a discussion of			evidence of corrective	
		expected required in-service dates			action plans in order to	
		of facilities.			satisfy Category C	
					planning requirements, but failed to include a	
		R2.1.3. Consider lead times			discussion of expected	
		necessary to implement plans.			required in-service	
					dates of facilities	
		R2.2. Review, in subsequent			(R2.1.2)	
		annual assessments, (where				
		sufficient lead time exists), the				
		continuing need for identified			<u>OR</u>	
		system facilities. Detailed implementation plans are not				
		needed.			The responsible entity	
		needed.			provided documented	
					evidence of corrective	
					action plans in order to	
					satisfy Category C	
					planning requirements,	
1					but failed to consider	
					necessary lead times to implement its	
					corrective action plan.	
					(R2.1.3)	
					, ,	

Exhibit A

Revised VSLs (Clean)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-003-0.1b	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: 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. 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	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. 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 characteristics, and frequency.	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.

^(*) One asterisk denotes Reliability Standards with VSL assignments on which FERC deferred ruling. NERC redlined the proposed changes against the original VSL assignments submitted to FERC for approval.

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^(**) Two asterisks denote Reliability Standards with VSL assignments on which FERC deferred ruling that were also included for revision in VSL Filing 2. In these cases, NERC still redlined the proposed changes against the original VSL assignments submitted to FERC for approval.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
BAL-005-0.2b	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 Authority Area.	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 sufficient instrumentation and data recording equipment to facilitate monitoring of control performance, generation response, and after-the-fact analysis of area performance. OR The responsible entity did not provide its operating personnel with real-time values for ACE, Interconnection frequency and Net
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.	Actual Interchange. 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.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			OR The Transmission Operator provided the information to all entities but was up to 10 calendar days late in doing so.	OR The Transmission Operator provided the information to all entities but was more than 10 and less than or equal to 20 calendar days late in doing so.	OR The Transmission Operator provided the information to all entities but was more than 20 and less than or equal to 30 calendar days late in doing so.	OR The Transmission Operator provided the information to all entities but was more than 30 calendar days late in doing so.
EOP-005-2**	R11	Each Transmission Operator, each applicable 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.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider failed to train 5% or less of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider failed to train more than 5% and up to 10% of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider failed to train more than 10% and up to 15% of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider failed to train more than 15% the personnel required by Requirement R11 within a two calendar year period.
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 known change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan within 24 hours but did make the	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a known change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan within 48 hours but did make the	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a known change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan within 72 hours but did make the	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a known change in Blackstart Resource capability affecting the ability to meet the Transmission Operator's restoration plan for more than 96

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			notification within 48 hours.	notification within 72 hours.	notification within 96 hours.	hours.
EOP-005-2** R	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 Blackstart Resource can perform as specified in the restoration plan.	The GOP with a Blackstart Resource performed tests and maintained records but the records did not include all of the items in R16.1. OR	The GOP with a Blackstart Resource performed tests and maintained records but did not supply the Blackstart Resource testing records as requested for 61 days to 90 calendar days after the request.	The GOP with a Blackstart Resource performed tests but either did not maintain records or did not supply the Blackstart Resource testing records as requested within 91 or more calendar days after the request.	The Generator Operator with a Blackstart Resource did not perform Blackstart Resource tests.
		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.	The Generator Operator did not supply the Blackstart Resource testing records as requested for 31 to 60 calendar days of the request.			
		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.				
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	The Generator Operator failed to participate in the Reliability Coordinator's restoration drills, exercises, or simulations as requested by the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Reliability Coordinator.
EOP-006-2**	R6	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.	N/A	N/A	The Reliability Coordinator did not have a copy of the latest approved restoration plan of all Transmission Operators in its Reliability Coordinator Area within its primary and backup control rooms prior to the implementation date.	The Reliability Coordinator did not have a copy of its latest restoration plan within its primary and backup control rooms prior to the implementation date.
EOP-006-2**	R7	Each Reliability Coordinator shall 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. If the restoration plan cannot be completed as expected the Reliability Coordinator shall utilize its restoration plan strategies to facilitate System restoration.	N/A	N/A	N/A	The Reliability Coordinator did not 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.
						OR When the restoration plan cannot be completed as expected, the Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Coordinator did not utilize its restoration plan strategies to facilitate System restoration.
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 authorize resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. OR If the resynchronization could not be completed
						as expected, the Reliability Coordinator did not utilize its restoration plan strategies to facilitate resynchronization.
EOP-006-2**	R9	Each Reliability 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:	N/A	N/A	The Reliability Coordinator included the annual System restoration training within its operations training program, but did not address both of the sub-requirements.	The Reliability Coordinator did not include the annual System restoration training within its operations training program.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R9.1. The coordination role of the Reliability Coordinator.				
		R9.2. Reestablishing the Interconnection.				
EOP-008-1*	R1	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include the following, at a minimum:	The responsible entity had a current Operating Plan for backup functionality but the plan was missing one of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality but the plan was missing two of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality but the plan was missing three of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality, but the plan was missing four or more of the requirement's six Parts (1.1 through 1.6) OR
		R1.1. The location and method of implementation for providing backup functionality for the time it takes to restore the primary control center functionality.				The responsible entity did not have a current Operating Plan for backup functionality.
		R1.2. A summary description of the elements required to support the backup functionality. These elements shall include, at a minimum:				
		R1.2.1. Tools and applications to ensure that System Operators have situational awareness of the BES.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R1.2.2. Data communications.				
		R1.2.3. Voice communications.				
		R1.2.4. Power source(s).				
		R1.2.5. Physical and cyber security.				
		R1.3. An Operating Process for keeping the backup functionality consistent with the primary control center.				
		R1.4. Operating Procedures, including decision authority, for use in determining when to implement the Operating Plan for backup functionality.				
		R1.5. A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to two hours.				
		R1.6. An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to fully implement backup functionality elements				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		1.2. The Operating Process shall include at a minimum:				
		R1.6.1. A list of all entities to notify when there is a change in operating locations.				
		R1.6.2. Actions to manage the risk to the BES during the transition from primary to backup functionality as well as during outages of the primary or backup functionality.				
		R1.6.3. Identification of the roles for personnel involved during the initiation and implementation of the Operating Plan for backup functionality.				
EOP-008-1*	R3	Each Reliability Coordinator shall have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) that provides the functionality required for maintaining compliance with all Reliability Standards that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during: • Planned outages of the	N/A	N/A	N/A	The Reliability Coordinator does not have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) that provides the functionality required for maintaining compliance with all Reliability Standards

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		primary or backup facilities of two weeks or less Unplanned outages of the primary or backup facilities				that depend on primary control center functionality
EOP-008-1*	R4	Each Balancing Authority and Transmission Operator shall have backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards that depend on a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during: Planned outages of the primary or backup functionality of two weeks or less Unplanned outages of the primary or backup functionality	N/A	N/A	N/A	The responsible entity does not have backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards that depend on a Balancing Authority and Transmission Operator's primary control center functionality respectively.
EOP-008-1*	R5	Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall annually review and approve its	The responsible entity did not update and approve its Operating Plan for backup	The responsible entity did not update and approve its Operating Plan for backup	The responsible entity did not update and approve its Operating Plan for backup	The responsible entity did not have evidence that its Operating Plan for backup

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operating Plan for backup functionality. R5.1. An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to any part of the Operating Plan described in Requirement R1.	functionality for more than 60 calendar days and less than or equal to 70 calendar days after a change to any part of the Operating Plan described in Requirement R1.	functionality for more than 70 calendar days and less than or equal to 80 calendar days after a change to any part of the Operating Plan described in Requirement R1.	functionality for more than 80 calendar days and less than or equal to 90 calendar days after a change to any part of the Operating Plan described in Requirement R1.	functionality was annually reviewed and approved. OR, The responsible entity did not update and approve its Operating Plan for backup functionality for more than 90 calendar days after a change to any part of the Operating Plan described in Requirement R1.
EOP-008-1*	R6	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards.	N/A	N/A	N/A	The responsible entity has primary and backup functionality that do depend on each other for the control center functionality required to maintain compliance with Reliability Standards.
EOP-008-1*	R7	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct and document results of an annual test of its Operating Plan that demonstrates:	The responsible entity conducted an annual test of its Operating Plan for backup functionality but it did not document the results.	The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test was for less than 1.5 continuous hours	The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test did not assess the transition time between	The responsible entity did not conduct an annual test of its Operating Plan for backup functionality.
		R7.1. The transition time between the simulated loss of primary control center functionality and the time to fully implement the backup functionality.	OR, The responsible entity	but more than or equal to 1 continuous hour.	the simulated loss of its primary control center and the time to fully implement the backup functionality	OR The responsible entity conducted an annual test of its Operating

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R7.2. The backup functionality for a minimum of two continuous hours.	conducted an annual test of its Operating Plan for backup functionality but the test was for less than two continuous hours but more than or equal to 1.5 continuous hours.		OR, The responsible entity conducted an annual test of its Operating Plan for backup functionality but the test was for less than 1 continuous hour but more than or equal to 0.5 continuous hours.	Plan for backup functionality but the test was for less than 0.5 continuous hours.
FAC-010-2.1	R2	The Planning Authority's SOL Methodology shall include a requirement that SOLs provide BES performance consistent with the following: 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. R2.2. Following the single Contingencies1identified in	The Planning Authority's SOL Methodology is missing one requirement as described in R2.1, R2.2, R2.3, R2.4, R2.5, or R2.6.	The Planning Authority's SOL Methodology is missing two requirements as described in R2.1, R2.2, R2.3, R2.4, R2.5, or R2.6.	The Planning Authority's SOL Methodology is missing three requirements as described in R2.1, R2.2, R2.3, R2.4, R2.5, or R2.6.	The Planning 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.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.				
		R2.2.1. Single line to ground or three-phase Fault (whichever is more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device.				
		R2.2.2. Loss of any generator, line, transformer, or shunt device without a Fault.				
		R2.2.3. Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.				
		R2.3. Starting with all Facilities in service, the system's response to a single Contingency, may include any of the following:				
		R2.3.1. Planned or controlled interruption of electric supply to radial customers or some local network customers connected to				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		or supplied by the Faulted Facility or by the affected area.				
		R2.3.2. System reconfiguration through manual or automatic control or protection actions.				
		R2.4. To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.				
		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.				
		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:				
		R2.6.1. Planned or controlled				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.				
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 four or more of the following: R3.1 through R3.7.
		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.)				
		R3.2. Selection of applicable Contingencies				
		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.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R3.3.1. This process shall address the need to modify these limits, to modify the list of limits, and to modify the list of associated multiple contingencies.				
		R3.4. Level of detail of system models used to determine SOLs.				
		R3.5. Allowed uses of Special Protection Systems or Remedial Action Plans.				
		R3.6. Anticipated transmission system configuration, generation dispatch and Load level				
		R3.7. Criteria for determining when violating a SOL qualifies as an Interconnection Reliability Operating Limit (IROL) and criteria for developing any associated IROL Tv.				
FAC-011-2	R3.6	Anticipated transmission system configuration, generation dispatch and Load level	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	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to one of the required	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to two of the required	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to three of the required	The Reliability Coordinator failed to issue its SOL Methodology and/or one or more changes to that methodology to four or more of the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		following:	entities specified in R4.1, R4.2, and R4.3.	entities specified in R4.1, R4.2, and R4.3.	entities specified in R4.1, R4.2, and R4.3.	required entities specified in R4.1, R4.2, and R4.3.
		R4.1. Each adjacent Reliability Coordinator and each Reliability Coordinator that indicated it has a	OR	OR	OR	OR
		reliability-related need for the methodology.	For a change in methodology, the	For a change in methodology, the	For a change in methodology, the	For a change in methodology, the
		R4.2. Each Planning Authority and Transmission Planner that models any portion of the Reliability Coordinator's Reliability Coordinator Area. R4.3. Each Transmission Operator that operates in the Reliability Coordinator Area.	changed methodology was 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 10 calendar days after the effectiveness of the change.	changed methodology was provided to one or more of the required entities more than 10 calendar days after the effectiveness of the change, but less than or equal to 20 days after the effectiveness of the change.	changed methodology was provided to one or more of required entities more than 20 calendar days after the effectiveness of the change, but less than or equal to30 days after the effectiveness of the change.	changed methodology was provided to one or more of the required entities more than 30 calendar days after the effectiveness of the change.
FAC-013-1	R2	The Reliability Coordinator and Planning Authority shall each provide its inter-regional and intra-regional Transfer Capabilities to those entities that have a reliability-related need for such Transfer Capabilities and make a written request that includes a schedule for delivery of such Transfer Capabilities as follows:	The responsible entity failed to provide Transfer Capabilities to up to (and including) 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.
		R2.1. The Reliability Coordinator shall provide its Transfer Capabilities to its associated Regional Reliability Organization(s), to its adjacent Reliability Coordinators, and to				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Operators, Transmission Service Providers and Planning Authorities that work in its Reliability Coordinator Area.				
		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				
FAC-501- WECC-1	R1	Transmission Owners shall have a TMIP detailing their inspection and maintenance requirements that apply to all transmission facilities necessary for System Operating Limits associated with each of the transmission paths identified in table titled "Major WECC Transfer Paths in the Bulk Electric System."	N/A	N/A	Transmission Owners had a TMIP, but it did not include inspection and maintenance requirements that apply to all transmission facilities necessary for System Operating Limits associated with each of the transmission paths identified in table titled "Major WECC Transfer Paths in the Bulk Electric System."	Transmission Owners do not have a TMIP.
FAC-501- WECC-1	R1.1	Transmission Owners shall annually review their TMIP and update as required.	N/A	N/A	N/A	Transmission Owners did not review their TMIP annually as required by R.1.1.
IRO-001-1.1	R3	The Reliability Coordinator shall have clear decision-making authority to act and to direct	N/A	N/A	N/A	The Reliability Coordinator does not have clear authority to

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.				act or direct actions to preserve transmission security and reliability of the Bulk Electric System. OR 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	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.	N/A	The Reliability Coordinator has coordination agreements with adjacent Reliability Coordinators, but the agreements are not clear or comprehensive.	N/A	The Reliability Coordinator does not have coordination agreements with adjacent Reliability Coordinators.
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.	N/A	N/A	The Reliability Coordinator monitored Bulk Electric System elements (generators, transmission lines, buses, transformers, breakers, etc.) that could result in SOL or	The Reliability Coordinator failed to monitor any Bulk Electric System elements (generators, transmission lines, buses, transformers,

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.			IROL violations within its Reliability Coordinator Area, but failed to monitor one or more of the following: Real power system flows, reactive power system flows, operating reserves, or Bulk Electric System elements that are, or could be, critical to SOLs and IROLs and system restoration requirements within its Reliability Coordinator Area.	breakers, etc.) that could result in SOL or IROL violations within its Reliability Coordinator Area
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 had provisions for backup facilities, but it failed to ensure that monitoring and derivations of SOL and IROL conditions continued when the main monitoring system was unavailable.	N/A	The Reliability Coordinator did not continuously monitor its Reliability Coordinator Area. OR The Reliability Coordinator did not have provisions for backup facilities.
IRO-005- 3.1a**	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	N/A	The Reliability Coordinator coordinated with Transmission Operators, Balancing Authorities, and Generator Operators,	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.		as needed, to develop action plans to mitigate potential or actual SOL, CPS, or DCS violations but failed to implement said plans. OR The Reliability Coordinator failed to coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in either the real time reliability analysis time frame or the next-day reliability analysis time frame.	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 analysis timeframes.	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.
IRO-006- WECC-1	R1	Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes.	N/A	N/A	N/A	There was one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a Step 4 or greater request greater than five minutes after receipt of notification from the Transmission Operator of a Qualified Transfer Path.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
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 IROL, the Reliability Coordinator shall share its results with those entities that are expected to take those actions.	N/A	N/A	N/A	The Reliability Coordinator failed to share the results of its analyses or assessments with any of the entities that were required to take action.
IRO-015-1	R1	The Reliability Coordinator shall follow its Operating Procedures, Processes, or Plans for making notifications and exchanging reliability-related information with other Reliability Coordinators. R1.1. The Reliability Coordinator shall make notifications to other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact other Reliability Coordinator Areas.	The Reliability Coordinator failed to notify 5% or less of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.	The Reliability Coordinator failed to notify more than 5% up to (and including) 10% of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.	The Reliability Coordinator failed to notify more than 10% up to (and including) 15% of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.	The Reliability Coordinator failed to notify more than 15% of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact 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.
MOD-028-1*	R8	When calculating Existing Transmission Commitments (ETCs) for firm commitments	For a specified period, the Transmission Service Provider calculated a firm ETC	For a specified period, the Transmission Service Provider calculated a firm ETC	For a specified period, the Transmission Service Provider calculated a firm ETC	For a specified period, the Transmission Service Provider

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		(ETC _F) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm:	with an absolute value different than that calculated in M10 for the same period, and the absolute value	with an absolute value different than that calculated in M10 for the same period, and the absolute value	with an absolute value different than that calculated in M10 for the same period, and the absolute value	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and
		$ETC_{F} = NITS_{F} + GF_{F} + PTP_{F} + ROR_{F} + OS_{F}$	difference was more than 15% of the value calculated in the measure or 15MW,	difference was more than 25% of the value calculated in the measure or 25MW,	difference was more than 35% of the value calculated in the measure or 35MW,	the absolute value difference was more than 45% of the value calculated in the
		Where: NITS _F is the firm capacity set aside for Network Integration Transmission Service (including the capacity used to serve bundled load within the Transmission Service Provider's area with external sources) on ATC Paths that serve as interfaces with other Balancing Authorities.	whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	measure or 45MW, whichever is greater.
		GF _F is the firm capacity set aside for Grandfathered Firm Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or safe harbor tariff on ATC Paths that serve as interfaces with other Balancing Authorities.				
		PTP _F is the firm capacity reserved for confirmed Point-to-Point Transmission Service.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		ROR _F is the capacity reserved for roll-over rights for Firm Transmission Service contracts granting Transmission Customers the right of first refusal to take or continue to take Transmission Service when the Transmission Customer's Transmission Service contract expires or is eligible for renewal.				
		OS _F is the firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using Firm Transmission Service, including another firm adjustments to reflect impacts from other ATC Paths of the Transmission Service Provider as specified in the ATCID.				
MOD-028-1*	R9	When calculating ETC for non-firm commitments (ETC _{NF}) 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 non-firm ETC with an absolute value different than that calculated in M11	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11
		$ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF}$ $+ OS_{NF}$ Where:	for the same period, and the absolute value difference was more than 15% of the value calculated in the	for the same period, and the absolute value difference was more than 25% of the value calculated in the	for the same period, and the absolute value difference was more than 35% of the value calculated in the	for the same period, and the absolute value difference was more than 45% of the value calculated in the
		NITS _{NF} is the non-firm capacity set aside for Network Integration Transmission Service (i.e., secondary service, including the	measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or	measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or	measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or	measure or 45MW, whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		capacity used to serve bundled load within the Transmission Service Provider's area with external sources) reserved on ATC Paths that serve as interfaces with other Balancing Authorities.	25MW, whichever is greater.	35MW, whichever is greater.	45MW, whichever is greater.	
		GF _{NF} is the non-firm capacity reserved for Grandfathered Non-Firm Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or safe harbor tariff on ATC Paths that serve as interfaces with other Balancing Authorities.				
		PTP _{NF} is non-firm capacity reserved for confirmed Point-to-Point Transmission Service.				
		OS _{NF} is the non-firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using Non-Firm Transmission Service, including any other firm adjustments to reflect impacts from other ATC Paths of the Transmission Service Provider as specified in the ATCID.				
MOD-029-1a*	R5	When calculating ETC for firm Existing Transmission Commitments (ETCF) for a	For a specified period, the Transmission Service Provider			

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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	calculated a firm ETC with an absolute value different than that calculated in M7 for	calculated a firm ETC with an absolute value different than that calculated in M7 for	calculated a firm ETC with an absolute value different than that calculated in M7 for
		$ETC_F = NL_F + NITS_F + GF_F + $ $PTP_F + ROR_F + OS_F$	the same period, and the absolute value difference was more than 15% of the value	the same period, and the absolute value difference was more than 25% of the value	the same period, and the absolute value difference was more than 35% of the value	the same period, and the absolute value difference was more than 45% of the value
		Where:	calculated in the measure or 15MW,	calculated in the measure or 25MW,	calculated in the measure or 35MW,	calculated in the measure or 45MW,
		NL _F is the firm capacity set aside to serve peak Native Load forecast commitments for the time period being calculated, to include losses, and Native Load growth, not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	whichever is greater.
		NITS _F is the firm capacity reserved for Network Integration Transmission Service serving Load, to include losses, and Load growth, not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.				
		GF _F is the firm capacity set aside for grandfathered Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or "safe harbor tariff."				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		PTP _F is the firm capacity reserved for confirmed Point-to-Point Transmission Service.				
		ROR _F is the firm capacity reserved for Roll-over rights for contracts granting Transmission Customers the right of first refusal to take or continue to take Transmission Service when the Transmission Customer's Transmission Service contract expires or is eligible for renewal.				
		OS _F is the firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using Firm Transmission Service as specified in the ATCID.				
MOD-029-1a*	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 a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8
		$\begin{split} ETC_{NF} &= NITS_{NF} + GF_{NF} + PTP_{NF} \\ &+ OS_{NF} \end{split}$ Where:	for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW,	for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW,	for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW,	for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW,
		NITS _{NF} is the non-firm capacity set aside for Network Integration Transmission Service serving Load (i.e., secondary service), to	whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is	whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is	whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is	whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		include losses, and load growth not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	greater.	greater.	greater.	
		GF _{NF} is the non-firm capacity set aside for grandfathered Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or "safe harbor tariff."				
		PTP _{NF} is non-firm capacity reserved for confirmed Point-to-Point Transmission Service.				
		OS _{NF} is the non-firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using non-firm transmission service as specified in the ATCID.				
NUC-001-2	R4	Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall:	N/A	The responsible entity did not comply with sub-requirement R4.3.	The responsible entity did not comply with R4.1.	The responsible entity did not comply with R4.2.
		R4.1. Incorporate the NPIRs into their operating analyses of the electric system.				
		R4.2. Operate the electric system				

R4.3. Inform the Nuclear Plant Generator Operator when the ability to assess the operation of	
the electric system affecting NPIRs is lost.	
Balancing Authority and Transmission Operator shall use a systematic approach to training to establish a training program for the BES company-specific reliability-related tasks by its System Operators and shall implement the program. Balancing Authority and Transmission Operator shall use a 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. Balancing Authority and BES company-specific reliability-related task list to identify new or modified tasks each calendar year. (R1.1.1) OR Cordinator, Balancing Authority Failed to update its BES company specific reliability related tasks (R1.2) Failed to update its BES company specific reliability related tasks (R1.2) OR The responsible entity failed to evaluate its	The responsible entity ailed to deliver raining based on the ES company specific eliability related tasks.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator, Balancing Authority and Transmission Operator shall design and develop learning objectives and training materials based on the task list created in R1.1.				
		R1.3. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall deliver the training established in R1.2.				
		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.				
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. R2.1. Within six months of a modification of the BES company-specific reliability-	N/A	The responsible entity failed to verify 5% or less 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 more than 5% up to (and including) 10% 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 more than 10% of its System Operators' capabilities to perform each assigned task from its list of BES company-specific reliability-related tasks. (R2) OR
		related tasks, each Reliability Coordinator, Balancing Authority and Transmission Operator shall verify each of its System			OR	The responsible entity failed to verify its System Operator's

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator's capabilities to perform the new or modified tasks.			The responsible entity verified its System Operator's capabilities to perform each new or modified task more than six months but fewer than twelve months after making a modification to its BES company-specific reliability-related task list. (R2.1)	capabilities to perform each new or modified task within twelve months of making a modification to its BES company-specific reliability-related task list. (R2.1)
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 failed to provide at least 32 hours of emergency operations training applicable to its organization, affecting 5% or less of their System Operators. (R3)	The responsible entity failed to provide at least 32 hours of emergency operations training applicable to its organization, affecting more than 5% and up to (and including) 10% of its System Operators. (R3)	The responsible entity failed to provide at least 32 hours of emergency operations training applicable to its organization, affecting more than 10% its System Operators (R3) OR The responsible entity
		R3.1. Each Reliability Coordinator, Balancing Authority and Transmission Operator that has operational authority or control over Facilities with established IROLs or has established operating guides or protection systems to mitigate				did not include simulation technology replicating the operational behavior of the BES in its emergency operations training. (R3.1)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.				
TOP-001-1a	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 does not have the responsibility and clear decision-making authority to take whatever actions are needed to ensure reliability of its area.	The Transmission Operator failed to exercise specific authority to alleviate operating emergencies.
TOP-002-2.1b	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 including but not limited to: R16.1. Changes in transmission facility status.	Subject to standards of conduct and confidentiality agreements, the Transmission Operator notified its Reliability Coordinator and Balancing Authority of changes in transmission facility status (R16.1), but there was an intentional time delay.	Subject to standards of conduct and confidentiality agreements, the Transmission Operator notified its Reliability Coordinator and Balancing Authority of changes in transmission facility status (R16.1) and rating (R16.2), but there was an intentional time delay in both.	Subject to standards of conduct and confidentiality agreements, the Transmission Operator failed to notify its Reliability Coordinator and Balancing Authority of changes in transmission facility status (R16.1). OR	Subject to standards of conduct and confidentiality agreements, the Transmission Operator failed to notify its Reliability Coordinator and Balancing Authority of changes in transmission facility status (R16.1) and changes in transmission facility rating. (R16.2).
		R16.2. Changes in transmission facility rating.	OR Subject to standards of conduct and confidentiality		Subject to standards of conduct and confidentiality agreements, the Transmission Operator failed to notify its	

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			agreements, the Transmission Operator notified its Reliability Coordinator and Balancing Authority of changes in transmission facility rating (R16.2), but there was an intentional time delay.		Reliability Coordinator and Balancing Authority of changes in transmission facility rating (R16.2).	
TOP-002-2.1b	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 Coordinator. OR The responsible entity
						intentionally delayed communication of the information described in the requirements R1 to R16 to its Reliability Coordinator.
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	The responsible entity failed to monitor 3% or less of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of	The responsible entity failed to monitor more than 3% up to (and including) 6% of applicable transmission line status, real and reactive power flows, voltage, load-tap-	The responsible entity failed to monitor more than 6% up to (and including) 9% of applicable transmission line status, real and reactive power flows, voltage, load-tap-	The responsible entity failed to monitor more than 9% of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		static reactive resources.	rotating and static reactive resources.	changer settings, and status of rotating and static reactive resources.	changer settings, and status of rotating and static reactive resources.	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.	N/A	N/A	The responsible entity failed to provide appropriate technical information concerning protective relays to all of its operating personnel.	The responsible entity failed to provide appropriate technical information concerning protective relays to any of its operating personnel.
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 comply with Requirement R2.
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.	N/A	N/A	The Reliability Coordinator evaluated actions taken to address an SOL or 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 SOL or IROL violation and did not direct actions required to return the system to within limits.
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	The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for	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)

Standard R Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		system is planned such that, with all transmission facilities in service and with normal (pre-	the near-term period exists. (R 1.2)	the long-term period exists. (R1.2)	R1.3.6, R1.3.8, or R1.3.9)	OR
		contingency) operating procedures in effect, the Network can be operated to supply projected	OR	OR	OR	The responsible entity has failed to
		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	The responsible entity is non-compliant with one of the sub-components of requirement R1.3. (R1.3.1 through R1.3.6, R1.3.8, or R1.3.9)	The responsible entity is non-compliant with two of the sub-components of requirement R1.3. (R1.3.1 through R1.3.6, R1.3.8, or R1.3.9)	The responsible entity is non-compliant with subcomponent R1.3.7 of R1.3.	demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2)
		Transmission Planner assessments shall:				The responsible entity is non-compliant with four or more of the
		R1.1. Be made annually. R1.2. Be conducted for near-term				sub-components of requirement R1.3. (R1.3.1 through 1.3.9)
		(years one through five) and longer-term (years six through ten) planning horizons.				OR
		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).				The responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category A planning requirements. (R1.4)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R1.3.1. Cover critical system conditions and study years as deemed appropriate by the entity performing the study.				
		R1.3.2. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		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.				
		R1.3.4. Have established normal (pre-contingency) operating procedures in place.				
		R1.3.5. Have all projected firm transfers modeled.				
		R1.3.6. Be performed for selected demand levels over the range of forecast system demands.				
		R1.3.7. Demonstrate that system performance meets Table 1 for Category A (no contingencies).				
		R1.3.8. Include existing and planned facilities.				
		R1.3.9. Include Reactive Power				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		resources to ensure that adequate reactive resources are available to meet system performance.				
		R1.4. Address any planned upgrades needed to meet the performance requirements of Category A.				
TPL-002-0b	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-	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)	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)	The responsible entity is non-compliant with three of the sub-components of requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through R1.3.12)	The responsible entity did not perform the transmission assessments annually. (R1.1) OR
		recallable reserved) Transmission Services, at all demand levels over	OR	OR	OR	The responsible entity has failed to demonstrate a valid
		the range of forecast system demands, under the contingency conditions as defined in Category B of Table I. To be valid, the Planning Authority and Transmission Planner assessments shall:	The responsible entity is non-compliant with one of the sub-components of requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through	The responsible entity is non-compliant with two of the sub-components of requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through	The responsible entity is non-compliant with subcomponent R1.3.7 of R1.3.	assessment for the near-term period and long-term planning period. (R1.2) OR
		R1.1. Be made annually.	R1.3.12)	R1.3.12)		The responsible entity
		R1.2. Be conducted for near-term (years one through five) and	OR	OR	The responsible entity has considered the NERC Category B	is non-compliant with four or more of the sub-components of
	longer-term (years six through ten) planning horizons.	The responsible entity has considered the NERC Category B	The responsible entity has considered the NERC Category B	contingencies applicable to their system, but was	requirement R1.3. (R1.3.1 through 1.3.12).	
	R1.3. Be supported by a current or past study and/or system	contingencies applicable to their system, but was	contingencies applicable to their system, but was	deficient with respect to more than 10% up to (and including) 15% of	OR	

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
Number	Number	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). 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 system results shall be available as supporting information. R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity. R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.	deficient with respect to 5% or less of all applicable contingencies. (R1.5)	deficient with respect to more than 5% up to (and including) 10% of all applicable contingencies. (R1.5)	all applicable contingencies. (R1.5)	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)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.				
		R1.3.5. Have all projected firm transfers modeled.				
		R1.3.6. Be performed and evaluated for selected demand levels over the range of forecast system Demands.				
		R1.1. Be made annually.				
		R1.2. Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.				
		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).				
		R1.3.1. Be performed and evaluated only for those Category B contingencies that would				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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.				
		R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.				
		R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		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.				
		R1.3.5. Have all projected firm transfers modeled.				
		R1.3.6. Be performed and evaluated for selected demand levels over the range of forecast system Demands.				
TPL-003-0a	R1	The Planning Authority and Transmission Planner shall each	The responsible entity has failed to	The responsible entity has failed to	The responsible entity is non-compliant with	The responsible entity did not perform the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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 assessments shall: R1.1. Be made annually. R1.2. Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.	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 R1.3.6 or R1.3.8 through R1.3.12) OR The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to 5% or less of all applicable	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 R1.3.6 or R1.3.8 through R1.3.12) 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% of all applicable	three of the sub- components of requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through R1.3.12) OR The responsible entity is non-compliant with subcomponent R1.3.7 of R1.3. 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)	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 has failed to
		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). The	contingencies. (R1.5)	contingencies. (R1.5)		demonstrate that a corrective action plan exists in order to satisfy Category C planning requirements. (R1.4)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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). R1.3.1. Be performed and evaluated only for those Category C contingencies that would				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
		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.				all applicable contingencies. (R1.5)
		R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.				
		R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.				
		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.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R1.3.5. Have all projected firm transfers modeled.				
		R1.1. Be made annually.				
		R1.2. Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.				
		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). 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).				
		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				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		information. R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity. R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses. 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. R1.3.5. Have all projected firm transfers modeled.				
TPL-003-0a	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: R2.1. Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon: R2.1.1. Including a schedule for implementation.	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. (R2.1.1) OR The responsible entity provided documented	The responsible entity has failed to provide documented evidence of corrective action plans in order to satisfy Category C planning requirements. (R2.1)

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		R2.1.2. Including a discussion of expected required in-service dates of facilities. R2.1.3. Consider lead times necessary to implement plans.			evidence of corrective action plans in order to satisfy Category C planning requirements, but failed to include a discussion of expected required in-service dates of facilities	
		R2.2. Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed			(R2.1.2) OR The responsible entity	
		implementation plans are not needed.			provided documented evidence of corrective action plans in order to satisfy Category C planning requirements,	
					but failed to consider necessary lead times to implement its corrective action plan. (R2.1.3)	

Exhibit B

Guideline 2b-4 VSL Explanations

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number	•	•	Comments	Comments	Comments	Comments
BAL-003-	R2	Each Balancing Authority	The VSLs were	See Guideline	The VSLs comply	NERC Staff	The VSL
0.1b		shall establish and	modified to be	1 Analysis.	with Guideline 2.	compared the	assignments
		maintain a Frequency Bias	consistent with	Additionally,	The requirement	revised VSLs to	comply with
		Setting that is as close as	Guidelines 1 and	NERC	has gradated VSLs;	the stated	Guideline 4,
		practical to, or greater	3. Consistent with	reviewed the	therefore,	requirement	because they
		than, the Balancing	Guidelines filed	VSLs and	Guideline 2a is not	language to ensure	are based on a
		Authority's Frequency	with FERC on	determined	applicable. The	the VSLs do not	single
		Response. Frequency	August 10, 2009,	that failure to	gradated VSLs	redefine or	violation of a
		Bias may be calculated	NERC	calculate	ensure uniformity	undermine the	Reliability
		several ways:	incorporated the	frequency bias	and consistency	requirement's	Standard and
			subrequirements	should be at	among all	reliability goal.	are not based
		R2.1. The Balancing	into the main	least a	approved	The original VSLs	on a
		Authority may use a fixed	requirement VSL	moderate VSL	Reliability	did not address the	cumulative
		Frequency Bias value	so that compliance	for consistency	Standards in the	case in which an	number of
		which is based on a fixed,	is based on	with previous	determination of	entity did not	violations of
		straight-line function of	meeting criteria	VSL	penalties. NERC	establish a	the same
		Tie Line deviation versus	specified in	assignments	has reviewed the	Frequency Bias	requirement
		Frequency Deviation. The	components.	and has	VSL text and has	setting. The VSLs	over a period
		Balancing Authority shall		modified the	determined that, as	were modified to	of time.
		determine the fixed value		VSL	written, the VSL	be consistent with	
		by observing and		assignments	text is clear,	the requirement. In	
		averaging the Frequency		accordingly.	specific and	accordance with	
		Response for several			objective and does	Guideline 3, the	
		Disturbances during on-			not contain general,	VSL assignments	
		peak hours.			relative or	are consistent with	
					subjective	the requirement	
		R2.2. The Balancing			language,	and the degree of	
		Authority may use a			satisfying	compliance can be	
		variable (linear or non-			Guideline 2b. The	determined	
		linear) bias value, which is			text is not subject	objectively and	
		based on a variable			to the possibility of	with certainty.	
		function of Tie Line			multiple		
		deviation to Frequency			interpretations of		
		Deviation. The Balancing			the VSLs and		
		Authority shall determine			provides the clarity		

^(*) One asterisk denotes Reliability Standards with VSL assignments on which FERC deferred ruling. NERC redlined the proposed changes against the original VSL assignments submitted to FERC for approval.

(**) Two asterisks denote Reliability Standards with VSL assignments on which FERC deferred ruling that were also included for revision in VSL Filing 2. In these cases, NERC still redlined the proposed changes against the original VSL assignments submitted to FERC for approval.

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Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		the variable frequency bias value by analyzing Frequency Response as it varies with factors such as load, generation, governor characteristics, and frequency.			needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority. Therefore, no changes to the VSLs were necessary for consistency with FERC Guideline 2.		
BAL-005- 0.2b	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 Authority Area.	In accordance with Guidelines 2 and 3, the VSLs were modified for clarity and consistency with other standards and VSLs and to better reflect the language in the requirement.	See Guideline 1 Analysis.	The previously binary VSL was gradated; therefore, Guideline 2a is no longer applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does	NERC compared the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments were modified to incorporate an element of the requirement that was not addressed in the previous VSL assignments. As modified, 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 violations of the same requirement over a period of time.

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
TAMBLE	TAMES TO SERVICE STATE OF THE			Comments	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 application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.	VSLs are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	Comments
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 VSLs were modified in accordance with Guidelines 1 and 2.	See Guideline 1 Analysis.	In accordance with Guideline 2, the VSL assignments were modified to increase by ten-day increments for consistency with other VSLs. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and	NERC compared the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the reliability goal of the requirement. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of	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

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					objective and does	compliance can be	requirement
					not contain general,	determined	over a period
					relative or	objectively and	of time.
					subjective language	with certainty.	
					satisfying		
					Guideline 2b.		
					Therefore, the text		
					is not subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
EOP-005-	R11	Each Transmission	In accordance with	See Guideline	The VSLs were	NERC compared	The VSL
2**		Operator, each applicable	Guideline 2, the	1 Analysis.	modified for clarity	the existing VSLs	assignments
		Transmission Owner, and	VSLs were		and consistency	to the stated	comply with
		each applicable	modified for		with other	requirement	Guideline 4,
		Distribution Provider shall	clarity and		standards and	language to ensure	because they
		provide a minimum of two	consistency with		VSLs.	the VSLs do not	are based on a
		hours of System	other standards		Additionally,	redefine or	single
		restoration training every	and VSLs and		NERC has	undermine the	violation of a
		two calendar years to their	carry over for this		reviewed the VSL	reliability goal of	Reliability
		field switching personnel	standard.		text and has	the requirement. In	Standard and
		identified as performing			determined that, as	accordance with	are not based
		unique tasks associated			written, the VSL	Guideline 3, the	on a
		with the Transmission			text is clear,	VSL assignments	cumulative
		Operator's restoration plan			specific and	are consistent with	number of
		that are outside of their			objective and does	the requirement	violations of

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
Number	Number	normal tasks.		Comments	not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement	and the degree of compliance can be determined objectively and with certainty.	the same requirement over a period of time.
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.	In accordance with Guideline 2, the VSLs were modified for clarity and consistency with other standards and VSLs and carry over for this standard.	See Guideline 1 Analysis.	Authority. The VSLs were modified for clarity and consistency with other standards and VSLs. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general,	NERC compared the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the reliability goal of the requirement. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of	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

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number	_		Comments	Comments	Comments	Comments
					relative or	compliance can be	requirement
					subjective language	determined	over a period
					satisfying	objectively and	of time.
					Guideline 2b.	with certainty.	
					Therefore, the text		
					is not subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
EOP-005-	R16	Each Generator Operator	In accordance with	See Guideline	The VSLs were	NERC compared	The VSL
2**		with a Blackstart Resource	Guidelines 1 and	1 Analysis.	modified for clarity	the existing VSLs	assignments
		shall perform Blackstart	2, the VSLs were	Additionally,	and consistency	to the stated	comply with
		Resource tests, and	modified for	NERC	with other	requirement	Guideline 4,
		maintain records of such	clarity and	reviewed the	standards and	language to ensure	because they
		testing, in accordance with	consistency with	VSLs and	VSLs.	the VSLs do not	are based on a
		the testing requirements	other standards	determined	Additionally,	redefine or	single
		set by the Transmission	and VSLs and	that there was	NERC has	undermine the	violation of a
		Operator to verify that the	carry over for this	no basis for	reviewed the VSL	reliability goal of	Reliability
		Blackstart Resource can	standard.	the 30-day	text and has	the requirement. In	Standard and
		perform as specified in the		starting point	determined that, as	accordance with	are not based
		restoration plan.		for time delay	written, the VSL	Guideline 3, the	on a
				and that such a	text is clear,	VSL assignments	cumulative
		R16.1. Testing records		delay could	specific and	are consistent with	number of
		shall include at a		represent a	objective and does	the requirement	violations of
		minimum: name of the		lowering of	not contain general,	and the degree of	the same
		Blackstart Resource, unit		the previous	relative or	compliance can be	requirement

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		tested, date of the test,		levels of non-	subjective language	determined	over a period
		duration of the test, time		compliance.	satisfying	objectively and	of time.
		required to start the unit,		The time	Guideline 2b.	with certainty.	
		an indication of any		increments	Therefore, the text	-	
		testing requirements not		have been	is not subject to the		
		met under Requirement		modified	possibility of		
		R9.		accordingly.	multiple		
					interpretations of		
		R16.2. Each Generator			the VSL(s) and		
		Operator shall provide the			provides the clarity		
		blackstart test results			needed to permit		
		within 30 calendar days			the consistent and		
		following a request from			objective		
		its Reliability Coordinator			application of the		
		or Transmission Operator.			VSL(s) in the		
		_			determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
EOP-005-	R18	Each Generator Operator	In accordance with	See Guideline	The VSLs comply	In accordance with	The VSL
2**		shall participate in the	Guideline 3, the	1 Analysis.	with Guideline 2.	Guideline 3, the	assignments
		Reliability Coordinator's	VSL assignment		The requirement	VSL assignment	comply with
		restoration drills,	was modified to		has a binary VSL	was modified to	Guideline 4,
		exercises, or simulations	better reflect the		assignment at the	better reflect the	because they
		as requested by the	language of the		Severe level. This	language of the	are based on a
		Reliability Coordinator.	requirement.		is consistent with	requirement. As	single
					other single VSL	revised, the VSLs	violation of a
					assignments, for	do not redefine or	Reliability
					binary	undermine the	Standard and
					requirements,	reliability goal of	are not based
					satisfying	the requirement.	on a
					Guideline 2a.	The VSL	cumulative
					Additionally,	assignments are	number of
					NERC has	consistent with the	violations of
					reviewed the VSL	requirement and	the same
					text and has	the degree of	requirement
					determined that, as	compliance can be	over a period

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					written, the VSL	determined	of time.
					text is clear,	objectively and	
					specific and	with certainty.	
					objective and does		
					not contain general,		
					relative or		
					subjective language		
					satisfying		
					Guideline 2b.		
					Therefore, the text		
					is not subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
EOP-006-	R6	Each Reliability	In accordance with	See Guideline	NERC compared	NERC compared	The VSL
2**	Ko	Coordinator shall have a	Guideline 2, the	1 Analysis.	the VSL	the existing VSLs	assignments
2		copy of its latest	VSLs were	1 Analysis.	assignments to the	to the stated	comply with
		restoration plan and copies	modified for		VSL assignments	requirement	Guideline 4,
		of the latest approved	clarity and		in the similar EOP-	language to ensure	because they
		restoration plan of each	consistency with		005-2, R5, which	the VSLs do not	are based on a
		Transmission Operator in	other standards.		has a binary VSL	redefine or	single
		its Reliability Coordinator	ouiei stanuarus.		assignment. While	undermine the	violation of a
		-			NERC believes		
		Area within its primary			that EOP-006-2,	reliability goal of	Reliability Standard and
		and backup control rooms so that it is available to all			R6 offers an	the requirement. In accordance with	
							are not based
		of its System Operators			opportunity for	Guideline 3, the	on a

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		prior to the			gradation (and thus	VSL assignments	cumulative
		implementation date.			a binary VSL is not	are consistent with	number of
					appropriate), it	the requirement	violations of
					does believe that	and the degree of	the same
					the previously	compliance can be	requirement
					proposed calendar	determined	over a period
					day intervals were	objectively and	of time
					inappropriate. The	with certainty.	
					VSLs have been		
					modified		
					accordingly.		
EOP-006-	R7	Each Reliability	In accordance with	See Guideline	The VSLs comply	NERC compared	The VSL
2**		Coordinator shall work	Guideline 3, the	1 Analysis.	with Guideline 2.	the existing VSLs	assignments
		with its affected Generator	VSLs were		The requirement	to the stated	comply with
		Operators, and	modified for		has a binary VSL	requirement	Guideline 4,
		Transmission Operators as	consistency with		assignment at the	language to ensure	because they
		well as neighboring	the language in the		Severe level. This	the VSLs do not	are based on a
		Reliability Coordinators to	requirement.		is consistent with	redefine or	single
		monitor restoration			other single VSL	undermine the	violation of a
		progress, coordinate			assignments, for	reliability goal of	Reliability
		restoration, and take			binary	the requirement. In	Standard and
		actions to restore the BES			requirements,	accordance with	are not based
		frequency within			satisfying	Guideline 3, the	on a
		acceptable operating			Guideline 2a.	VSL assignments	cumulative
		limits. If the restoration			Additionally,	were modified to	number of
		plan cannot be completed			NERC has	incorporate the	violations of
		as expected the Reliability			reviewed the VSL	final sentence of	the same
		Coordinator shall utilize			text and has	the requirement.	requirement
		its restoration plan			determined that, as	As modified, the	over a period
		strategies to facilitate			written, the VSL	VSL assignments	of time.
		System restoration.			text is clear,	are consistent with	
					specific and	the requirement	
					objective and does	and the degree of	
					not contain general,	compliance can be	
					relative or	determined	
					subjective	objectively and	
					language,	with certainty.	
					satisfying]	

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number		_	Comments	Comments	Comments	Comments
					Guideline 2b.		
					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 by the		
					Compliance		
					Enforcement		
					Authority.		
EOP-006-	R8	The Reliability	The VSLs were	See Guideline	The VSLs were	NERC compared	The VSL
2**		Coordinator shall	modified to be	1 Analysis.	modified to be	the existing VSLs	assignments
		coordinate or authorize	consistent with		consistent with	to the stated	comply with
		resynchronizing islanded	Guidelines 2 and		FERC Guideline	requirement	Guideline 4,
		areas that bridge	3.		2b. Additionally,	language to ensure	because they
		boundaries between			NERC has	the VSLs do not	are based on a
		Transmission Operators or			reviewed the VSL	redefine or	single
		Reliability Coordinators.			text and has	undermine the	violation of a
		If the resynchronization			determined that, as	reliability goal of	Reliability
		cannot be completed as			originally written,	the requirement. In	Standard and
		expected the Reliability			the VSL could	accordance with	are not based
		Coordinator shall utilize			have been	Guideline 3, were	on a
		its restoration plan			misinterpreted to	modified to	cumulative
		strategies to facilitate			require the	incorporate the	number of
		resynchronization.			Reliability	final sentence of	violations of
					Coordinator to	the requirement.	the same
					authorize	As modified, the	requirement
					resynchronizing,	VSL assignments	over a period
					while the intent of	are consistent with	of time.
					the requirement is	the requirement	

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					to require the	and the degree of	
					Reliability	compliance can be	
					Coordinator to	determined	
					determine when	objectively and	
					resynchronizing	with certainty.	
					should occur. The		
					VSL was modified		
					to correct this		
					potential		
					misinterpretation.		
					As modified, the		
					VSL text is clear,		
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective		
					language,		
					satisfying		
					Guideline 2b.		
					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 by the		
					Compliance		
					Enforcement		
					Authority.		
EOP-006-	R9	Each Reliability	In accordance with	See Guideline	NERC has	The VSLs were	The VSL

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
2**		Coordinator shall include	Guidelines 2 and	1 Analysis.	reviewed the VSL	modified to better	assignments
		within its operations	3, the VSLs were		text and has	reflect the	comply with
		training program, annual	modified for		determined that,	language and	Guideline 4,
		System restoration	clarity and		with the correction	intent of the	because they
		training for its System	consistency with		of typographical	requirement,	are based on a
		Operators to assure the	other standards		errors, stylistic	consistent with	single
		proper execution of its	and VSLs and the		edits or format	FERC Guideline	violation of a
		restoration plan. This	language in the		changes, the VSL	3. As revised, the	Reliability
		training program shall	requirement.		text is clear,	VSL assignments	Standard and
		address the following:			specific and	are consistent with	are not based
					objective and does	the requirement	on a
		R9.1. The coordination			not contain general,	and the degree of	cumulative
		role of the Reliability			relative or	compliance can be	number of
		Coordinator.			subjective	determined	violations of
					language,	objectively and	the same
		R9.2. Reestablishing the			satisfying	with certainty.	requirement
		Interconnection.			Guideline 2b.		over a period
					Therefore, the text		of time.
					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 by the		
					Compliance		
					Enforcement		
					Authority.		
EOP-008-1*	R1	Each Reliability	In accordance with	The most	In accordance with	The proposed	The VSLs are
		Coordinator, Balancing	Guideline 2, the	comparable	Guideline 2, the	VSLs use the same	based on a
		Authority, and	VSL assignments	VSLs for a	VSL assignments	terminology as	single
		Transmission Operator	have been	similar	have been modified	used in the	violation and

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		shall have a current	modified to	requirement	to eliminate an	associated	not cumulative
		Operating Plan describing	eliminate an	are for the	overlap between	requirement, and	violations.
		the manner in which it	overlap between	proposed	the High and	are, therefore,	
		continues to meet its	the High and	EOP-005-2,	Severe VSLs. As	consistent with the	
		functional obligations with	Severe VSLs.	Requirement	revised, the do not	requirement.	
		regard to the reliable		R1. Those	use any ambiguous		
		operations of the BES in		VSLs are	terminology,		
		the event that its primary		based on	thereby supporting		
		control center		missing one	uniformity and		
		functionality is lost. This		element for	consistency in the		
		Operating Plan for backup		Lower, two for	determination of		
		functionality shall include		Moderate, and	similar penalties		
		the following, at a		so forth, which	for similar		
		minimum:		is analogous to	violations.		
		D1 1 The least on and		the VSL	Guideline 2a is		
		R1.1 The location and		structure for	inapplicable.		
		method of implementation		EOP-008-1,			
		for providing backup functionality for the time		Requirement R1. Thus, the			
		it takes to restore the		VSLs in the			
		primary control center		proposed			
		functionality.		standard do			
		Tunctionanty.		not lower the			
		R1.2. A summary		level of			
		description of the		compliance			
		elements required to		currently			
		support the backup		required by			
		functionality. These		setting VSLs			
		elements shall include, at		that are less			
		a minimum:		punitive than			
				those already			
		R1.2.1. Tools and		proposed.			
		applications to ensure that		Proposed.			
		System Operators have					
		situational awareness of					
		the BES.					
		R1.2.2. Data					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		communications.					
		D1 2 2 W					
		R1.2.3. Voice communications.					
		communications.					
		R1.2.4. Power source(s).					
		itizi iti ower source(s).					
		R1.2.5. Physical and cyber					
		security.					
		R1.3. An Operating					
		Process for keeping the					
		backup functionality					
		consistent with the					
		primary control center.					
		R1.4. Operating					
		Procedures, including					
		decision authority, for use					
		in determining when to					
		implement the Operating					
		Plan for backup					
		functionality.					
		R1.5. A transition period					
		between the loss of					
		primary control center					
		functionality and the time					
		to fully implement the backup functionality that					
		is less than or equal to two					
		hours.					
		R1.6. An Operating					
		Process describing the					
		actions to be taken during					
		the transition period					
		between the loss of					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		primary control center					
		functionality and the time					
		to fully implement backup					
		functionality elements					
		identified in Requirement					
		R1, Part 1.2. The					
		Operating Process shall					
		include at a minimum:					
		R1.6.1. A list of all					
		entities to notify when					
		there is a change in					
		operating locations.					
		R1.6.2. Actions to manage					
		the risk to the BES during					
		the transition from					
		primary to backup					
		functionality as well as					
		during outages of the					
		primary or backup					
		functionality.					
		R1.6.3. Identification of					
		the roles for personnel					
		involved during the					
		initiation and					
		implementation of the					
		Operating Plan for backup					
		functionality.					
EOP-008-1*	R3	Each Reliability	In accordance with	The proposed	The previous	The VSLs use the	As previously
		Coordinator shall have a	Guidelines 2 and	requirement is	gradation of the	same terminology	written, the
		backup control center	4, the VSL	new and there	VSL assignments	as used in the	VSLs cited
		facility (provided through	assignments were	are no	was confusing and	associated	other
		its own dedicated backup	modified to ensure	comparable	would inhibit	requirement and	requirements
		facility or at another	consistent	VSLs.	uniform and	are, therefore,	and raised the
		entity's control center	determination of		consistent	consistent with the	possibility of
		staffed with certified	penalties and to		application of	requirement.	double

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Reliability Coordinator	avoid possible		penalties. As		jeopardy for a
		operators when control	double jeopardy in		revised, the VSLs		single
		has been transferred to the	the application of		do not use any		violation. As
		backup facility) that	penalties.		ambiguous		revised, the
		provides the functionality			terminology,		VSLs are
		required for maintaining			thereby supporting		based on a
		compliance with all			uniformity and		single
		Reliability Standards that			consistency in the		violation
		depend on primary control			determination of		without regard
		center functionality. To			similar penalties		to other
		avoid requiring a tertiary			for similar		violations.
		facility, a backup facility			violations.		
		is not required during:			Guideline 2a is		
		 Planned outages 			inapplicable.		
		of the primary or					
		backup facilities					
		of two weeks or					
		less					
		 Unplanned 					
		outages of the					
		primary or					
		backup facilities					
EOP-008-1*	R4	Each Balancing Authority	In accordance with	The proposed	The previous	The VSLs use the	As previously
		and Transmission	Guidelines 2 and	requirement is	gradation of the	same terminology	written, the
		Operator shall have	4, the VSL	new and there	VSL assignments	as used in the	VSLs cited
		backup functionality	assignments were	are no	was confusing and	associated	other
		(provided either through a	modified to ensure	comparable	would inhibit	requirement and	requirements
		facility or contracted	consistent	VSLs.	uniform and	are, therefore,	and raised the
		services staffed by	determination of		consistent	consistent with the	possibility of
		applicable certified	penalties and to		application of	requirement.	double
		operators when control	avoid possible		penalties. As		jeopardy for a
		has been transferred to the	double jeopardy in		revised, the		single
		backup functionality	the application of		proposed VSLs do		violation. As
		location) that includes	penalties.		not use any		revised, the
		monitoring, control,			ambiguous		VSLs are
		logging, and alarming			terminology,		based on a
		sufficient for maintaining			thereby supporting		single
		compliance with all			uniformity and		violation

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Reliability Standards that depend on a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality, backup functionality is not required during: • Planned outages of the primary or backup facilities of two weeks or less • Unplanned outages of the primary or backup facilities		Comments	consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.		without regard to other violations.
EOP-008-1*	R5	Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall annually review and approve its Operating Plan for backup functionality. R5.1 An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to any part of the Operating Plan described in Requirement R1.	In accordance with Guideline 3, the VSLs were modified to better reflect the language in the requirement.	The most comparable VSLs for a similar requirement are for the proposed EOP-005-2, Requirement R4. Those VSLs are based on late distribution of a plan which is analogous to the VSLs for EOP-008-1, Requirement R5. The VSLs	The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.	The VSLs were modified to remove a phrase that did not appear in the requirement. As revised, the VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.	The VSLs are based on a single violation and not cumulative violations.

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number	_		Comments	Comments	Comments	Comments
EOP-008-1*	R6	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards.	In accordance with Guidelines 2 and 4, the VSL assignments were modified to ensure consistent determination of penalties and to avoid possible double jeopardy in the application of penalties.	assignments are similar between the two standards. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed. The proposed requirement is new and there are no comparable VSLs.	The previous gradation of the VSL assignments was confusing and would inhibit uniform and consistent application of penalties. As revised, the proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar	The VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.	As previously written, the VSLs cited other requirements and raised the possibility of double jeopardy for a single violation. As revised, the VSLs are based on a single violation without regard to other violations.

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					violations. Guideline 2a is inapplicable.		
EOP-008-1*	R7	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct and document results of an annual test of its Operating Plan that demonstrates: R7.1 The transition time between the simulated loss of primary control center functionality and the time to fully implement the backup functionality. R7.2. The backup	The proposed VSL assignments are consistent with FERC Guidelines.	The proposed requirement is new and there are no comparable VSLs.	The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.	The VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.	The VSLs are based on a single violation and not cumulative violations.
		functionality for a minimum of two continuous hours.					
FAC-010-2.1	R2	The Planning Authority's SOL Methodology shall include a requirement that SOLs provide BES performance consistent with the following:	In accordance with Guidelines 2 and 3, the VSLs from the previous version of the standard were modified for	The proposed VSLs are consistent with, and improve upon, the original Levels of Non-	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The	NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not	The VSL assignments comply with Guideline 4, because they are based on a single
		R2.1. In the precontingency state and with all Facilities in service, the BES shall demonstrate transient, dynamic and voltage stability; all Facilities shall be within	clarity and consistency with other VSLs and standards and the language in the requirement. Consistent with	Compliance established for version 1 of this standard. Therefore, actual compliance	gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the	redefine or undermine the requirement's reliability goal. The VSLs were slightly modified from the previous	violation of a Reliability Standard and are not based on a cumulative number of

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		their Facility Ratings and	Guidelines filed	should stay the	determination of	version of the	violations of
		within their thermal,	with FERC on	same or	penalties. Thus, no	standard for	the same
		voltage and stability	August 10, 2009,	improve.	changes to the	consistency with	requirement
		limits. In the	NERC		VSLs were	the language in the	over a period
		determination of SOLs,	incorporated the		required.	requirement. In	of time.
		the BES condition used	subrequirements		Additionally,	accordance with	
		shall reflect expected	(and with them,		NERC has	Guideline3, the	
		system conditions and	the sub-		reviewed the VSL	VSL assignments	
		shall reflect changes to	subrequirements)		text and has	are now consistent	
		system topology such as	into the main		determined that,	with the	
		Facility outages.	requirement VSL		with the correction	requirement and	
			from the previous		of typographical	the degree of	
		R2.2. Following the single	version of the		errors, stylistic	compliance can be	
		Contingencies 1 identified	standard so that		edits or format	determined	
		in Requirement 2.2.1	compliance is		changes, the VSL	objectively and	
		through Requirement	based on meeting		text is clear,	with certainty.	
		2.2.3, the system shall	criteria specified		specific and		
		demonstrate transient,	in components.		objective and does		
		dynamic and voltage			not contain general,		
		stability; all Facilities			relative or		
		shall be operating within			subjective language		
		their Facility Ratings and			satisfying		
		within their thermal,			Guideline 2b.		
		voltage and stability			Thus, the text is not		
		limits; and Cascading or			subject to the		
		uncontrolled separation			possibility of		
		shall not occur.			multiple		
					interpretations of		
		R2.2.1. Single line to			the VSL and		
		ground or three-phase			provides the clarity		
		Fault (whichever is more			needed to permit		
		severe), with Normal			the consistent and		
		Clearing, on any Faulted			objective		
		generator, line,			application of the		
		transformer, or shunt			VSL in the		
		device.			determination of		
					penalties by the		
		R2.2.2. Loss of any			Compliance		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		generator, line,			Enforcement		
		transformer, or shunt			Authority.		
		device without a Fault.					
		R2.2.3. Single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.					
		R2.3. Starting with all					
		Facilities in service, the					
		system's response to a					
		single Contingency, may					
		include any of the					
		following:					
		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.					
		R2.3.2. System reconfiguration through manual or automatic control or protection actions.					
		R2.4. To prepare for the next Contingency, system adjustments may be made, including changes to					
1		generation, uses of the					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		transmission system, and					
		the transmission system					
		topology.					
		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.					
		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:					
		R2.6.1. Planned or					
		controlled interruption of					
		electric supply to					
		customers (load					
		shedding), the planned					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		removal from service of					
		certain generators, and/or					
		the curtailment of					
		contracted Firm (non-					
		recallable reserved)					
		electric power Transfers.					
FAC-011-2	R3	The Reliability	In accordance with	The proposed	The VSLs comply	After slight	The VSL
		Coordinator's	Guideline 3, the	VSLs are	with Guideline 2.	changes to more	assignments
		methodology for	VSLs were	consistent	The requirement	closely match the	comply with
		determining SOLs, shall	modified to more	with, and	has gradated VSLs;	language in the	Guideline 4,
		include, as a minimum, a	closely match the	improve upon,	therefore,	requirement and	because they
		description of the	language in the	the original	Guideline 2a is not	correct a typo,	are based on a
		following, along with any	requirement.	Levels of Non-	applicable. The	NERC reviewed	single
		reliability margins applied	Consistent with	Compliance	gradated VSLs	the existing	violation of a
		for each:	Guidelines filed	established for	ensure uniformity	requirement VSLs	Reliability
			with FERC on	version 1 of	and consistency	to the stated	Standard and
		R3.1. Study model (must	August 10, 2009,	this standard.	among all	requirement	are not based
		include at least the entire	incorporated the	Therefore,	approved	language to ensure	on a
		Reliability Coordinator	subrequirements	actual	Reliability	the VSLs do not	cumulative
		Area as well as the critical	into the main	compliance	Standards in the	redefine or	number of
		modeling details from	requirement VSL	should stay the	determination of	undermine the	violations of
		other Reliability	so that compliance	same or	penalties. Thus, no	requirement's	the same
		Coordinator Areas that	is based on	improve.	changes to the	reliability goal. In	requirement
		would impact the Facility	meeting criteria		VSLs were	accordance with	over a period
		or Facilities under study.)	specified in		required.	Guideline 3, the	of time.
			components.		Additionally,	VSL	
		R3.2. Selection of			NERC has	assignment(s) are	
		applicable Contingencies			reviewed the VSL	consistent with the	
					text and has	requirement and	
		R3.3. A process for			determined that, as	the degree of	
		determining which of the			written, the VSL	compliance can be	
		stability limits associated			text is clear,	determined	
		with the list of multiple			specific and	objectively and	
		contingencies (provided			objective and does	with certainty.	
		by the Planning Authority			not contain general,		
		in accordance with FAC-			relative or		
		014 Requirement 6) are			subjective language		
		applicable for use in the			satisfying		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		operating horizon given			Guideline 2b.		
		the actual or expected			Therefore, the text		
		system conditions.			is not subject to the		
					possibility of		
		R3.3.1. This process shall			multiple		
		address the need to modify			interpretations of		
		these limits, to modify the			the VSL(s) and		
		list of limits, and to			provides the clarity		
		modify the list of			needed to permit		
		associated multiple			the consistent and		
		contingencies.			objective		
					application of the		
		R3.4. Level of detail of			VSL(s) in the		
		system models used to			determination of		
		determine SOLs.			penalties by the		
					Compliance		
		R3.5. Allowed uses of			Enforcement		
		Special Protection			Authority.		
		Systems or Remedial					
		Action Plans.					
		R3.6. Anticipated					
		transmission system					
		configuration, generation					
		dispatch and Load level					
		R3.7. Criteria for					
		determining when					
		violating a SOL qualifies					
		as an Interconnection					
		Reliability Operating					
		Limit (IROL) and criteria					
		for developing any					
		associated IROL Tv.					
FAC-011-2	R3.6	Anticipated transmission	Incorporated into	N/A	N/A	N/A	N/A
		system configuration,	VSLs for main				
		generation dispatch and	requirement; this				
		Load level	subrequirement				

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
			was included in				
			the filing to				
			change the blank				
			VSLs to N/A.				
FAC-011-2	R4	The Reliability	The VSLs were	The proposed	The VSLs comply	After slight	The VSL
		Coordinator shall issue its	modified to be	VSLs are	with Guideline 2.	changes to more	assignments
		SOL Methodology and	consistent with	consistent	The requirement	closely match the	comply with
		any changes to that	Guidelines 2 and	with, and	has gradated VSLs;	language in the	Guideline 4,
		methodology, prior to the	3. Consistent with	improve upon,	therefore,	requirement and	because they
		effectiveness of the	Guidelines filed	the original	Guideline 2a is not	more appropriately	are based on a
		Methodology or of a	with FERC on	Levels of Non-	applicable. The	gradate the time	single
		change to the	August 10, 2009,	Compliance	gradated VSLs	intervals in the	violation of a
		Methodology,	NERC	established for	ensure uniformity	assignments,	Reliability
		to all of the following:	incorporated the	version 1 of	and consistency	NERC believes	Standard and
			subrequirements	this standard.	among all	the existing	are not based
		R4.1. Each adjacent	into the main	Therefore,	approved	requirement VSLs	on a
		Reliability Coordinator	requirement VSL	actual	Reliability	ensure the VSLs	cumulative
		and each Reliability	from the previous	compliance	Standards in the	do not redefine or	number of
		Coordinator that indicated	version of the	should stay the	determination of	undermine the	violations of
		it has a reliability-related	standard so that	same or	penalties. Thus, no	requirement's	the same
		need for the methodology.	compliance is	improve.	changes to the	reliability goal.	requirement
			based on meeting		VSLs were	The VSLs were	over a period
		R4.2. Each Planning	criteria specified		required.	slightly modified	of time.
		Authority and	in components.		Additionally,	from the previous	
		Transmission Planner that			NERC has	version of the	
		models any portion of the			reviewed the VSL	standard for	
		Reliability Coordinator's			text and has	consistency with	
		Reliability Coordinator			determined that, as	the language in the	
		Area.			previously written,	requirement. In	
					the affected VSLs	accordance with	
		R4.3. Each Transmission			implied	Guideline3, the	
		Operator that operates in			relationships	VSL assignments	
		the Reliability Coordinator			between the	are now consistent	
		Area.			entities to which	with the	
					changes were	requirement and	
					delivered and the	the degree of	
					lateness of such	compliance can be	
					changes being	determined	

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					delivered, resulting	objectively and	
					in VSLs that were	with certainty.	
					complex and	·	
					confusing. The		
					revised text		
					removes this		
					relationship and		
					makes the VSLs		
					clearer. Thus, the		
					text is not subject		
					to the possibility of		
					multiple		
					interpretations of		
					the VSL and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
FAC-013-1	R2	The Reliability	In accordance with	See Guideline	The requirement	NERC compared	The VSL
1710 013 1	INZ.	Coordinator and Planning	Guidelines 2 and	1 Analysis.	has gradated VSLs;	the existing	assignments
		Authority shall each	3, the VSLs were	1 7 mary 515.	therefore,	requirement VSLs	comply with
		provide its inter-regional	modified for		Guideline 2a is not	to the stated	Guideline 4,
		and intra-regional Transfer	clarity and		applicable. The	requirement	because they
		Capabilities to those	consistency with		gradated VSLs	language to ensure	are based on a
		entities that have a	other standards		ensure uniformity	the VSLs do not	single
		reliability-related need for	and VSLs and the		and consistency	redefine or	violation of a
		such Transfer Capabilities	language in the		among all	undermine the	Reliability
		and make a written request	Requirement.		approved	requirement's	Standard and
		that includes a schedule	Kequitement.		Reliability	reliability goal.	are not based
		for delivery of such			Standards in the	With minor	on a
		_					
		Transfer Capabilities as			Determination of	language changes	cumulative

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		follows:			penalties. On that	to more closely	number of
					basis, no changes	match the	violations of
		R2.1. The Reliability			to the VSLs were	language in the	the same
		Coordinator shall provide			required for	requirement, the	requirement
		its Transfer Capabilities to			consistency with	VSL assignments	over a period
		its associated Regional			FERC Guideline 2.	are consistent with	of time.
		Reliability			Additionally,	the requirement	
		Organization(s), to its			NERC has	and the degree of	
		adjacent Reliability			reviewed the VSL	compliance can be	
		Coordinators, and to the			text and has	determined	
		Transmission Operators,			determined that,	objectively and	
		Transmission Service			with the correction	with certainty.	
		Providers and Planning			of typographical		
		Authorities that work in its			errors, stylistic		
		Reliability Coordinator			edits or format		
		Area.			changes, the VSL		
					text is clear,		
		R2.2. The Planning			specific and		
		Authority shall provide its			objective and does		
		Transfer Capabilities to its			not contain general,		
		associated Reliability			relative or		
		Coordinator(s) and			Subjective		
		Regional Reliability			language,		
		Organization(s), and to the			satisfying		
		Transmission Planners and			Guideline 2b.		
		Transmission Service			Therefore, the text		
		Provider(s) that work in its			is not subject to the		
		Planning Authority Area.			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		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					penalties by the Compliance Enforcement Authority.		
FAC-501- WECC-1	RI	Transmission Owners shall have a TMIP detailing their inspection and maintenance requirements that apply to all transmission facilities necessary for System Operating Limits associated with each of the transmission paths identified in table titled "Major WECC Transfer Paths in the Bulk Electric System."	In accordance with Guidelines 2 and 3, the VSLs were modified to remove ambiguity and to account for all elements of the requirement.	PRC-STD- 005-1, the standard that FAC-501- WECC_1 replaced, utilized a sanction table instead of Levels of Non- Compliance or VSLs, so a comparison is not useful.	NERC determined that the attempt to gradate using the number of transfer paths was inappropriate and could not be uniformly applied to entities of different sizes. In accordance with Guideline 2, NERC revised the VSL assignments for clarity and uniform and consistent application. As revised, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b.	NERC determined that the previous VSL assignments were missing several elements 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.	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.
FAC-501- WECC-1	R1.1	Transmission Owners shall annually review their TMIP and update as required.	In accordance with Guideline 2a, the binary Lower VSL was moved to Severe.	The VSL assignment does not lower the Levels of Non-Compliance found in	The VSL assignment is binary and was changed to a Severe assignment in accordance with Guideline 2a.	In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be	The VSL assignments comply with Guideline 4, because they are based on a single

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number	_		Comments	Comments	Comments	Comments
				previous	Additionally,	determined	violation of a
				WECC	NERC has	objectively and	Reliability
				standard PRC-	reviewed the VSL	with certainty.	Standard and
				STD-005-1.	text and has		are not based
					determined that, as		on a
					written, the VSL		cumulative
					text is clear,		number of
					specific and		violations of
					objective and does		the same
					not contain general,		requirement
					relative or		over a period
					subjective		of time.
					language,		
					satisfying		
					Guideline 2b.		
					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		
					penalties by the		
					Compliance		
					Enforcement		
				~ ~	Authority.		
IRO-001-1.1	R3	The Reliability	In accordance with	See Guideline	NERC staff	NERC compared	The VSL
		Coordinator shall have	Guideline 2, the	1 Analysis.	reviewed the VSL	the existing VSLs	assignments
		clear decision-making	VSL assignments		assignments and	to the stated	comply with
		authority to act and to	were revised and		determined that a	requirement	Guideline 4,
		direct actions to be taken	made binary.		binary VSL was	language to ensure	because they
		by Transmission			more appropriate	the VSLs do not	are based on a
		Operators, Balancing			for the	redefine or	single
		Authorities, Generator			requirement, as	undermine the	violation of a

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Operators, Transmission			either violation	requirement's	Reliability
		Service Providers, Load-			would represent a	reliability goal. In	Standard and
		Serving Entities, and			wholesale violation	accordance with	are not based
		Purchasing-Selling			of the requirement.	Guideline 3, the	on a
		Entities within its			Additionally,	VSL assignments	cumulative
		Reliability Coordinator			NERC has	are consistent with	number of
		Area to preserve the			reviewed the VSL	the requirement	violations of
		integrity and reliability of			text and has	and the degree of	the same
		the Bulk Electric System.			determined that, as	compliance can be	requirement
		These actions shall be			written, the VSL	determined	over a period
		taken without delay, but			text is clear,	objectively and	of time.
		no longer than 30 minutes.			specific and	with certainty.	
					objective and does	-	
					not contain general,		
					relative or		
					subjective		
					language,		
					satisfying		
					Guideline 2b.		
					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		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
IRO-001-1.1	R7	The Reliability	In accordance with	See Guideline	The VSLs comply	As written, the	The VSL
		Coordinator shall have	Guidelines 2 and	1 Analysis.	with Guideline 2.	VSL language was	assignments
		clear, comprehensive	3, the VSLs were		The requirement	too specific about	comply with
		coordination agreements	modified for		has gradated VSLs;	the actions of the	Guideline 4,

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		with adjacent Reliability	clarity and		therefore,	adjacent RC area	because they
		Coordinators to ensure	consistency with		Guideline 2a is not	and appeared to	are based on a
		that System Operating	other standards		applicable. The	expand upon the	single
		Limit or Interconnection	and VSLs and for		gradated VSLs	language in the	violation of a
		Reliability Operating	consistency with		ensure uniformity	requirement.	Reliability
		Limit violation mitigation	the language of the		and consistency	NERC revised the	Standard and
		requiring actions in	requirement.		among all	VSL assignments	are not based
		adjacent Reliability			approved	to better match the	on a
		Coordinator Areas are			Reliability	language in the	cumulative
		coordinated.			Standards in the	requirement. As	number of
					determination of	revised, the VSLs	violations of
					penalties. Thus, no	do not redefine or	the same
					changes to the	undermine the	requirement
					VSLs were	requirement's	over a period
					required.	reliability goal. In	of time.
					Additionally,	accordance with	
					NERC has	Guideline 3, the	
					reviewed the VSL	VSL assignments	
					text and has	are now consistent	
					determined that,	with the	
					with the correction	requirement and	
					of typographical	the degree of	
					errors, stylistic	compliance can be	
					edits or format	determined	
					changes, the VSL	objectively and	
					text is clear,	with certainty.	
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective		
					language,		
					satisfying		
					Guideline 2b.		
					Therefore, the text		
					is not subject to the		
					possibility of		
					multiple		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					interpretations of		
					the VSLs and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
IRO-002-	R5	Each Reliability	In accordance with	See Guideline	The VSLs were	NERC compared	The VSL
2**		Coordinator shall monitor	Guideline 2, the	1 Analysis.	modified to be	the existing VSLs	assignments
		Bulk Electric System	VSLs were		consistent with	to the stated	comply with
		elements (generators,	modified to be		FERC Guideline	requirement	Guideline 4,
		transmission lines, buses,	consistent with		2b, ensuring that	language to ensure	because they
		transformers, breakers,	Guideline 2b.		the distinction	the VSLs do not	are based on a
		etc.) that could result in			between the High	redefine or	single
		SOL or IROL violations			and Severe VSLs is	undermine the	violation of a
		within its Reliability			clear. Additionally,	requirement's	Reliability
		Coordinator Area. Each			NERC has	reliability goal. In	Standard and
		Reliability Coordinator			reviewed the VSL	accordance with	are not based
		shall monitor both real and			text and has	Guideline 3, the	on a
		reactive power system			determined that, as	VSL assignments	cumulative
		flows, and operating			originally written,	are consistent with	number of
		reserves, and the status of			the VSL could	the requirement	violations of
		Bulk Electric System			have been	and the degree of	the same
		elements that are or could			misinterpreted to	compliance can be	requirement
		be critical to SOLs and			require the	determined	over a period
		IROLs and system			Reliability	objectively and	of time.
		restoration requirements			Coordinator to authorize	with certainty.	
		within its Reliability Coordinator Area.					
		Coordinator Area.			resynchronizing, while the intent of		
					the requirement is		
					to require the		
					Reliability		
					Coordinator to		
				L	Coordinator to		1

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					determine when		
					resynchronizing		
					should occur. The		
					VSL was modified		
					to correct this		
					potential		
					misinterpretation.		
					As modified, the		
					VSL text is clear,		
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective		
					language,		
					satisfying		
					Guideline 2b.		
					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 by the		
					Compliance		
					Enforcement		
					Authority.		
IRO-002-	R7	Each Reliability	The VSLs were	See Guideline	NERC has	The VSLs were	The VSL
2**		Coordinator shall	modified to be	1 Analysis.	reviewed the VSL	modified to be	assignments
		continuously monitor its	consistent with		text and has	consistent with	comply with
		Reliability Coordinator	Guideline 3.		determined that, as	FERC Guideline	Guideline 4,

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Area. Each Reliability			written, the VSL	3. As revised, the	because they
		Coordinator shall have			text is clear,	VSL assignments	are based on a
		provisions for backup			specific and	are consistent with	single
		facilities that shall be			objective and does	the requirement	violation of a
		exercised if the main			not contain general,	and the degree of	Reliability
		monitoring system is			relative or	compliance can be	Standard and
		unavailable. Each			subjective language	determined	are not based
		Reliability Coordinator			satisfying	objectively and	on a
		shall ensure SOL and			Guideline 2b.	with certainty.	cumulative
		IROL monitoring and			Therefore, the text		number of
		derivations continue if the			is not subject to the		violations of
		main monitoring system is			possibility of		the same
		unavailable.			multiple		requirement
					interpretations of		over a period
					the VSLs and		of time.
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSLs in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
IRO-005-	R6	The Reliability	In accordance with	See Guideline	The VSLs comply	NERC revised the	The VSL
3.1a**		Coordinator shall	Guidelines 2 and	1 Analysis.	with Guideline 2.	VSL assignments	assignments
		coordinate with	3, the VSLs were		Additionally,	to ensure that all	comply with
		Transmission Operators,	modified for		NERC has	aspects of the	Guideline 4,
		Balancing Authorities, and	clarity and		reviewed the VSL	requirement were	because they
		Generator Operators as	consistency with		text and has	accounted for. AS	are based on a
		needed to develop and	other standards		determined that,	revised, the VSL	single
		implement action plans to	and VSLs and for		with the correction	assignments are	violation of a
		mitigate potential or actual	consistency with		of typographical	consistent with the	Reliability
		SOL, CPS, or DCS	the language of the		errors, stylistic	requirement and	Standard and
		violations. The Reliability	requirement.		edits or format	the degree of	are not based
		Coordinator shall			changes, the VSL	compliance can be	on a

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		coordinate pending			text is clear,	determined	cumulative
		generation and			specific and	objectively and	number of
		transmission maintenance			objective and does	with certainty.	violations of
		outages with Transmission			not contain general,		the same
		Operators, Balancing			relative or		requirement
		Authorities, and Generator			subjective language		over a period
		Operators as needed in			satisfying		of time.
		both the real time and			Guideline 2b.		
		next-day reliability			Thus, the text is not		
		analysis timeframes.			subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
IRO-006-	R1	Upon receiving a request	In accordance with	The VSL	In accordance with	NERC compared	The VSL
WECC-1	IX1	of Step 4 or greater (see	Guideline 2, the	assignment	Guideline 2a, the	the existing VSLs	assignment
WEEE I		Attachment 1-IRO-006-	VSL was modified	does not lower	binary VSL	to the stated	complies with
		WECC-1) from the	to appropriately	the Levels of	assignment was	requirement	Guideline 4,
		Transmission Operator of	place the single	Non-	moved from Lower	language to ensure	because it is
		a Qualified Transfer Path,	assignment in the	Compliance	to Severe. In	the VSLs do not	based on a
		the Reliability Coordinator	"Severe" category	found in	accordance with	redefine or	single
		shall approve (actively or	and to remove a	previous	Guideline 2b, a	undermine the	violation of a
		passively) or deny that	reference to a	WECC	reference to a	reliability goal of	Reliability
		request within five	Level of Non-	standard IRO-	Level of Non-	the requirement. In	Standard and
		minutes.	Compliance.	006-STD-006-	Compliance was	accordance with	is not based on
		minutes.	Compnance.	0. 000-S1D-000-	removed to ensure	Guideline 3, the	a cumulative
				0.			
					consistency with	VSL assignments	number of

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					other standards. As	are consistent with	violations of
					revised, the VSL	the requirement	the same
					text is clear,	and the degree of	requirement
					specific and	compliance can be	over a period
					objective and does	determined	of time.
					not contain general,	objectively and	
					relative or	with certainty.	
					subjective language		
					satisfying		
					Guideline 2b.		
					Thus, the text is not		
					subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
IRO-008-	R3	When a Reliability	In accordance with	This is a new	NERC determined	NERC compared	The VSL
1**		Coordinator determines	Guideline 2, the	standard.	that the	the existing VSLs	assignments
		that the results of an	VSLs were	Accordingly,	requirement was	to the stated	comply with
		Operational Planning	modified to	no historic	more appropriately	requirement	Guideline 4,
		Analysis or Real-Time	become binary and	performance	seen as a "pass or	language to ensure	because they
		Assessment indicates the	for clarity and	has been	fail" requirement,	the VSLs do not	are based on a
		need for specific	consistency with	established.	thus the VSLs	redefine or	single
		operational actions to	other standards		assignments were	undermine the	violation of a
		prevent or mitigate an	and VSLs.		made binary. The	reliability goal of	Reliability
		instance of exceeding an			VSLs were also	the requirement. In	Standard and
		IROL, the Reliability			modified for clarity	accordance with	are not based

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Coordinator shall share its			and consistency	Guideline 3, the	on a
		results with those entities			with other	VSL assignments	cumulative
		that are expected to take			standards and	are consistent with	number of
		those actions.			VSLs.	the requirement	violations of
					Additionally,	and the degree of	the same
					NERC has	compliance can be	requirement
					reviewed the VSL	determined	over a period
					text and has	objectively and	of time.
					determined that, as	with certainty.	
					written, the VSL		
					text is clear,		
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective language		
					satisfying		
					Guideline 2b.		
					Thus, the text is not		
					subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
IRO-015-1	R1	The Reliability	In accordance with	The VSLs	In accordance with	NERC compared	The VSL
-		Coordinator shall follow	Guideline 2, the	included in	Guideline 2a,	the existing VSLs	assignments
		its Operating Procedures,	VSLs were	this filing have	because the portion	to the stated	comply with

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Processes, or Plans for	modified to make	been modified	of the VSL that	requirement	Guideline 4,
		making notifications and	the main	for clarity and	addresses the main	language to ensure	because they
		exchanging reliability-	requirement VSL	consistency.	requirement is	the VSLs do not	are based on a
		related information with	assignment Severe	However, the	binary, NERC	redefine or	single
		other Reliability	and for clarity and	VSLs have not	determined that it	undermine the	violation of a
		Coordinators.	consistency with	changed	would be more	requirement's	Reliability
			other standards	significantly	appropriately	reliability goal. In	Standard and
		R1.1 The Reliability	and VSLs.	over time.	assigned as	accordance with	are not based
		Coordinator shall make	Consistent with	Although	"Severe."	Guideline 3, the	on a
		notifications to other	Guidelines filed	proposed for	Additionally,	VSL assignments	cumulative
		Reliability Coordinators	with FERC on	modification,	NERC has	are consistent with	number of
		of conditions in its	August 10, 2009,	the VSLs as	reviewed the VSL	the requirement	violations of
		Reliability Coordinator	NERC	modified do	text and has	and the degree of	the same
		Area that may impact	incorporated the	not signal a	determined that,	compliance can be	requirement
		other Reliability	subrequirements	lower	with the correction	determined	over a period
		Coordinator Areas.	into the main	compliance	of typographical	objectively and	of time.
			requirement VSL	threshold than	errors, stylistic	with certainty.	
			so that compliance	previously	edits or format		
			is based on	existed. NERC	changes, the VSL		
			meeting criteria	believes that	text is clear,		
			specified in	these VSLs do	specific and		
			components.	not have the	objective and does		
				effect of	not contain general,		
				decreasing	relative or		
				reliability	subjective language		
				below historic	satisfying		
				levels.	Guideline 2b.		
					Thus, the text is not		
					subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
MOD-028-	R8	When calculating Existing	The VSL	This is a new	The VSLs comply	NERC reviewed	The VSL
1*		Transmission	assignments	standard.	with Guideline 2.	the existing	assignments
		Commitments (ETCs) for	comply with all	Accordingly,	The requirement	requirement VSLs	comply with
		firm commitments (ETC _F)	FERC Guidelines.	no historic	has gradated VSLs;	to the stated	Guideline 4,
		for all time periods for an		performance	therefore,	requirement	because they
		ATC Path the		has been	Guideline 2a is not	language to ensure	are based on a
		Transmission Service		established.	applicable. The	the VSLs do not	single
		Provider shall use the			gradated VSLs	redefine or	violation of a
		following algorithm:			ensure uniformity	undermine the	Reliability
					and consistency	requirement's	Standard and
		$ETC_F = NITS_F + GF_F +$			among all	reliability goal. In	are not based
		$PTP_F + ROR_F + OS_F$			approved	accordance with	on a
					Reliability	Guideline 3, the	cumulative
		Where:			Standards in the	VSL	number of
					determination of	assignment(s) are	violations of
		$NITS_F$ is the firm capacity			penalties.	consistent with the	the same
		set aside for Network			Therefore, no	requirement and	requirement
		Integration Transmission			changes to the	the degree of	over a period
		Service (including the			VSLs were	compliance can be	of time.
		capacity used to serve			required.	determined	
		bundled load within the			Additionally,	objectively and	
		Transmission Service			NERC has	with certainty.	
		Provider's area with			reviewed the VSL		
		external sources) on ATC			text and has		
		Paths that serve as			determined that, as		
		interfaces with other			written, the VSL		
		Balancing Authorities.			text is clear,		
					specific and		
		GF _F is the firm capacity			objective and does		
		set aside for			not contain general,		
		Grandfathered Firm			relative or		
		Transmission Service and			subjective language		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		contracts for energy			satisfying		
		and/or Transmission			Guideline 2b.		
		Service, where executed			Thus, the text is not		
		prior to the effective date			subject to the		
		of a Transmission Service			possibility of		
		Provider's Open Access			multiple		
		Transmission Tariff or			interpretations of		
		safe harbor tariff on ATC			the VSL(s) and		
		Paths that serve as			provides the clarity		
		interfaces with other			needed to permit		
		Balancing Authorities.			the consistent and		
					objective		
		PTP _F is the firm capacity			application of the		
		reserved for confirmed			VSL(s) in the		
		Point-to-Point			determination of		
		Transmission Service.			penalties by the		
					Compliance		
		ROR _F is the capacity			Enforcement		
		reserved for roll-over			Authority.		
		rights for Firm					
		Transmission Service					
		contracts granting					
		Transmission Customers					
		the right of first refusal to					
		take or continue to take					
		Transmission Service					
		when the Transmission					
		Customer's Transmission					
		Service contract expires or					
		is eligible for renewal.					
		$\mathbf{OS_F}$ is the firm capacity					
		reserved for any other					
		service(s), contract(s), or					
		agreement(s) not specified					
		above using Firm					
		Transmission Service,					
		including another firm					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		adjustments to reflect					
		impacts from other ATC					
		Paths of the Transmission					
		Service Provider as					
		specified in the ATCID.					
MOD-028-	R9	When calculating ETC for	The VSL	This is a new	The VSLs comply	NERC reviewed	The VSL
1*		non-firm commitments	assignments	standard.	with Guideline 2.	the existing	assignments
		(ETC _{NF}) for all time	comply with all	Accordingly,	The requirement	requirement VSLs	comply with
		periods for an ATC Path	FERC Guidelines.	no historic	has gradated VSLs;	to the stated	Guideline 4,
		the Transmission Service		performance	therefore,	requirement	because they
		Provider shall use the		has been	Guideline 2a is not	language to ensure	are based on a
		following algorithm:		established.	applicable. The	the VSLs do not	single
					gradated VSLs	redefine or	violation of a
		$ETC_{NF} = NITS_{NF} + GF_{NF} +$			ensure uniformity	undermine the	Reliability
		$PTP_{NF} + OS_{NF}$			and consistency	requirement's	Standard and
		111			among all	reliability goal. In	are not based
		Where:			approved	accordance with	on a
					Reliability	Guideline 3, the	cumulative
		$NITS_{NF}$ is the non-firm			Standards in the	VSL	number of
		capacity set aside for			determination of	assignment(s) are	violations of
		Network Integration			penalties.	consistent with the	the same
		Transmission Service (i.e.,			Therefore, no	requirement and	requirement
		secondary service,			changes to the	the degree of	over a period
		including the capacity			VSLs were	compliance can be	of time.
		used to serve bundled load			required.	determined	
		within the Transmission			Additionally,	objectively and	
		Service Provider's area			NERC has	with certainty.	
		with external sources)			reviewed the VSL	•	
		reserved on ATC Paths			text and has		
		that serve as interfaces			determined that, as		
		with other Balancing			written, the VSL		
		Authorities.			text is clear,		
					specific and		
		$\mathbf{GF}_{\mathbf{NF}}$ is the non-firm			objective and does		
		capacity reserved for			not contain general,		
		Grandfathered Non-Firm			relative or		
		Transmission Service and			subjective language		
		contracts for energy			satisfying		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		and/or Transmission			Guideline 2b.		
		Service, where executed			Thus, the text is not		
		prior to the effective date			subject to the		
		of a Transmission Service			possibility of		
		Provider's Open Access			multiple		
		Transmission Tariff or			interpretations of		
		safe harbor tariff on ATC			the VSL(s) and		
		Paths that serve as			provides the clarity		
		interfaces with other			needed to permit		
		Balancing Authorities.			the consistent and		
					objective		
		PTP _{NF} is non-firm			application of the		
		capacity reserved for			VSL(s) in the		
		confirmed Point-to-Point			determination of		
		Transmission Service.			penalties by the		
					Compliance		
		$\mathbf{OS}_{\mathbf{NF}}$ is the non-firm			Enforcement		
		capacity reserved for any			Authority.		
		other service(s),					
		contract(s), or					
		agreement(s) not specified					
		above using Non-Firm					
		Transmission Service,					
		including any other firm					
		adjustments to reflect					
		impacts from other ATC					
		Paths of the Transmission					
		Service Provider as					
		specified in the ATCID.					
MOD-029-	R5	When calculating ETC for	The VSL	This is a new	The VSLs comply	NERC reviewed	The VSL
1a*		firm Existing	assignments	standard.	with Guideline 2.	the existing	assignments
		Transmission	comply with all	Accordingly,	The requirement	requirement VSLs	comply with
		Commitments (ETCF) for	FERC Guidelines.	no historic	has gradated VSLs;	to the stated	Guideline 4,
		a specified period for an		performance	therefore,	requirement	because they
		ATC Path, the		has been	Guideline 2a is not	language to ensure	are based on a
		Transmission Service		established.	applicable. The	the VSLs do not	single
		Provider shall use the			gradated VSLs	redefine or	violation of a
		algorithm below:			ensure uniformity	undermine the	Reliability

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					and consistency	requirement's	Standard and
		$ETC_F = NL_F + NITS_F +$			among all	reliability goal. In	are not based
		$GF_F + PTP_F + ROR_F +$			approved	accordance with	on a
		OS_F			Reliability	Guideline 3, the	cumulative
					Standards in the	VSL	number of
		Where:			determination of	assignment(s) are	violations of
					penalties.	consistent with the	the same
		NL _F is the firm capacity			Therefore, no	requirement and	requirement
		set aside to serve peak			changes to the	the degree of	over a period
		Native Load forecast			VSLs were	compliance can be	of time.
		commitments for the time			required.	determined	
		period being calculated, to			Additionally,	objectively and	
		include losses, and Native			NERC has	with certainty.	
		Load growth, not			reviewed the VSL	,	
		otherwise included in			text and has		
		Transmission Reliability			determined that, as		
		Margin or Capacity			written, the VSL		
		Benefit Margin.			text is clear,		
					specific and		
		$NITS_F$ is the firm capacity			objective and does		
		reserved for Network			not contain general,		
		Integration Transmission			relative or		
		Service serving Load, to			subjective language		
		include losses, and Load			satisfying		
		growth, not otherwise			Guideline 2b.		
		included in Transmission			Thus, the text is not		
		Reliability Margin or			subject to the		
		Capacity Benefit Margin.			possibility of		
					multiple		
		$\mathbf{GF_F}$ is the firm capacity			interpretations of		
		set aside for grandfathered			the VSL(s) and		
		Transmission Service and			provides the clarity		
		contracts for energy			needed to permit		
		and/or Transmission			the consistent and		
		Service, where executed			objective		
		prior to the effective date			application of the		
		of a Transmission Service			VSL(s) in the		
		Provider's Open Access			determination of		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Transmission Tariff or			penalties by the		
		"safe harbor tariff."			Compliance		
					Enforcement		
		PTP _F is the firm capacity			Authority.		
		reserved for confirmed					
		Point-to-Point					
		Transmission Service.					
		Transmission Service.					
		$\mathbf{ROR}_{\mathbf{F}}$ is the firm capacity					
		reserved for Roll-over					
		rights for contracts					
		granting Transmission					
		Customers the right of					
		first refusal to take or					
		continue to take					
		Transmission Service					
		when the Transmission					
		Customer's Transmission					
		Service contract expires or					
		is eligible for renewal.					
		$\mathbf{OS_F}$ is the firm capacity					
		reserved for any other					
		service(s), contract(s), or					
		agreement(s) not specified					
		above using Firm					
		Transmission Service as					
		specified in the ATCID.					
MOD-029-	R6	When calculating ETC for	The VSL	This is a new	The VSLs comply	NERC reviewed	The VSL
1a*		non-firm Existing	assignments	standard.	with Guideline 2.	the existing	assignments
		Transmission	comply with all	Accordingly,	The requirement	requirement VSLs	comply with
		Commitments (ETCNF)	FERC Guidelines.	no historic	has gradated VSLs;	to the stated	Guideline 4,
		for all time horizons for an		performance	therefore,	requirement	because they
		ATC Path the		has been	Guideline 2a is not	language to ensure	are based on a
		Transmission Service		established.	applicable. The	the VSLs do not	single
		Provider shall use the			gradated VSLs	redefine or	violation of a
		following algorithm:			ensure uniformity	undermine the	Reliability
					and consistency	requirement's	Standard and

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		$ETC_{NF} = NITS_{NF} + GF_{NF} +$			among all	reliability goal. In	are not based
		$PTP_{NF} + OS_{NF}$			approved	accordance with	on a
					Reliability	Guideline 3, the	cumulative
		Where:			Standards in the	VSL	number of
					determination of	assignment(s) are	violations of
		$NITS_{NF}$ is the non-firm			penalties.	consistent with the	the same
		capacity set aside for			Therefore, no	requirement and	requirement
		Network Integration			changes to the	the degree of	over a period
		Transmission Service			VSLs were	compliance can be	of time.
		serving Load (i.e.,			required.	determined	
		secondary service), to			Additionally,	objectively and	
		include losses, and load			NERC has	with certainty.	
		growth not otherwise			reviewed the VSL		
		included in Transmission			text and has		
		Reliability Margin or			determined that, as		
		Capacity Benefit Margin.			written, the VSL		
					text is clear,		
		$\mathbf{GF}_{\mathbf{NF}}$ is the non-firm			specific and		
		capacity set aside for			objective and does		
		grandfathered			not contain general,		
		Transmission Service and			relative or		
		contracts for energy			subjective language		
		and/or Transmission			satisfying		
		Service, where executed			Guideline 2b.		
		prior to the effective date			Thus, the text is not		
		of a Transmission Service			subject to the		
		Provider's Open Access			possibility of		
		Transmission Tariff or			multiple		
		"safe harbor tariff."			interpretations of		
					the VSL(s) and		
		PTP _{NF} is non-firm			provides the clarity		
		capacity reserved for			needed to permit		
		confirmed Point-to-Point			the consistent and		
		Transmission Service.			objective		
					application of the		
		$\mathbf{OS_{NF}}$ is the non-firm			VSL(s) in the		
		capacity reserved for any			determination of		
		other service(s),			penalties by the		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		contract(s), or			Compliance		
		agreement(s) not specified			Enforcement		
		above using non-firm			Authority.		
		transmission service as					
		specified in the ATCID.					
NUC-001-2	R4	Per the Agreements	In accordance with	See Guideline	Per stakeholder	In accordance with	The VSL
		developed in accordance	Guideline 3, the	1 Analysis.	feedback, the VSLs	Guideline 3,	assignments
		with this standard, the	VSLs were		were revised to	NERC has revised	comply with
		applicable Transmission	modified for		incorporate	the VSL	Guideline 4,
		Entities shall:	consistency with		additional VSL	assignments	because they
			the language of the		gradation. A	because the VSL	are based on a
		R4.1. Incorporate the	requirement and		Moderate VSL was	assignments either	single
		NPIRs into their operating	subrequirements.		added. The	redefined or	violation of a
		analyses of the electric			requirement has	undermined the	Reliability
		system.			gradated VSLs;	requirement. The	Standard and
		744			therefore,	wording in	are not based
		R4.2. Operate the electric			Guideline 2a is not	original VSLs	on a
		system to meet the NPIRs.			applicable. The	were not	cumulative
		DA2 I C A N 1			gradated VSLs	consistent with the	number of
		R4.3. Inform the Nuclear			ensure uniformity	R4 primary or	violations of
		Plant Generator Operator			and consistency	subrequirements.	the same
		when the ability to assess			among all	As revised, the	requirement
		the operation			approved	VSL assignments are consistent with	over a period of time.
		of the electric system affecting NPIRs is lost.			Reliability Standards in the	the requirement	of time.
		affecting NFTKs is lost.			determination of	and the	
					penalties. Thus, no	subrequirements	
					changes to the	and the degree of	
					VSLs were	compliance can be	
					required to comply	determined	
					with Guideline 2a.	objectively and	
					Additionally,	with certainty.	
					NERC has	"Till cortainty.	
					reviewed the VSL		
					text and has		
					determined that,		
					with the correction		
					of typographical		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					errors, stylistic		
					edits or format		
					changes, the VSL		
					text is clear,		
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective language		
					satisfying		
					Guideline 2b.		
					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 by the		
					Compliance		
					Enforcement		
					Authority.		
PER-005-	R1	Each Reliability	In accordance with	This is a new	The VSLs were	NERC revised the	The VSL
1**	Ki	Coordinator, Balancing	Guidelines 2 and	standard.	modified for clarity	VSLs to better	Assignments
1		Authority and	3, the VSLs were	Accordingly,	and consistency	incorporate R1.4.	comply with
		Transmission Operator	modified for	no historic	with other	As revised, the	Guideline 4,
		shall use a systematic	clarity and	performance	standards and	assignments are	because they
		approach to training to	consistency with	has been	VSLs.	consistent with the	are based on a
		establish a training	other standards	established.	Additionally,	requirement and	single
		program for the BES	and VSLs and to	established.	NERC has	the degree of	violation of a
		company-specific	better reflect the		reviewed the VSL	compliance can be	Reliability
		1 7 1					•
		reliability-related tasks	language of the		text and has	determined	Standard and

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		performed by its System	requirement.		determined that, as	objectively and	are not based
		Operators and shall			written, the VSL	with certainty.	on a
		implement the program.			text is clear,		cumulative
					specific and		number of
		R1.1. Each Reliability			objective and does		violations of
		Coordinator, Balancing			not contain general,		the same
		Authority and			relative or		requirement
		Transmission Operator			subjective language		over a period
		shall create a list of BES			satisfying		of time.
		company-specific			Guideline 2b.		
		reliability-related tasks			Thus, the text is not		
		performed by its System			subject to the		
		Operators.			possibility of		
					multiple		
		R1.1.1. Each Reliability			interpretations of		
		Coordinator, Balancing			the VSL(s) and		
		Authority and			provides the clarity		
		Transmission Operator			needed to permit		
		shall update its list of BES			the consistent and		
		company-specific			objective		
		reliability-related tasks			application of the		
		performed by its System			VSL(s) in the		
		Operators each calendar			determination of		
		year to identify new or			penalties by the		
		modified tasks for			Compliance		
		inclusion in training.			Enforcement		
		D1 2 Early D 17 (1977)			Authority.		
		R1.2. Each Reliability					
		Coordinator, Balancing					
		Authority and					
		Transmission Operator					
		shall design and develop					
		learning objectives and					
		training materials based					
		on the task list created in					
		R1.1.					
		R1.3. Each Reliability					
		KI.J. Each Kenaumty	1			l	I

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Coordinator, Balancing Authority and Transmission Operator shall deliver the training established in R1.2. 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. Each Reliability Coordinator, Balancing Authority and	In accordance with Guidelines 2 and 3, the VSLs were	This is a new standard. Accordingly,	The VSLs were modified for clarity and consistency	NERC revised the VSLs to better incorporate R2.1.	The VSL Assignments comply with
		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. 2.1 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	3, the VSLs were modified for clarity and consistency with other standards and VSLs and to better reflect the language of the requirement.	Accordingly, no historic performance has been established.	and consistency with other standards and VSLs. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b.	incorporate R2.1. As revised, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	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	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		System Operator's			Thus, the text is not		
		capabilities to perform the			subject to the		
		new or modified tasks.			possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
PER-005-	R3	At least every 12 months	No changes.	This is a new	NERC has	NERC compared	The VSL
1**		each Reliability		standard.	reviewed the VSL	the existing VSLs	Assignments
		Coordinator, Balancing		Accordingly,	text and has	to the stated	comply with
		Authority and		no historic	determined that, as	requirement	Guideline 4,
		Transmission		performance	written, the VSL	language to ensure	because they
		Operator shall provide		has been	text is clear,	the VSLs do not	are based on a
		each of its System		established.	specific and	redefine or	single
		Operators with at least 32			objective and does	undermine the	violation of a
		hours of emergency			not contain general,	reliability goal of	Reliability
		operations training			relative or	the requirement. In	Standard and
		applicable to its			subjective language	accordance with	are not based
		organization that reflects			satisfying	Guideline 3, the	on a
		emergency operations			Guideline 2b.	VSL assignments	cumulative
		topics, which includes			Thus, the text is not	are consistent with	number of
		system restoration using			subject to the	the requirement	violations of
		drills, exercises or other			possibility of	and the degree of	the same
		training required to			multiple	compliance can be	requirement
		maintain qualified			interpretations of	determined	over a period
		personnel.			the VSL(s) and	objectively and	of time.
					provides the clarity	with certainty.	
		3.1 Each Reliability			needed to permit		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Coordinator, Balancing			the consistent and		
		Authority and			Objective		
		Transmission Operator			application of the		
		that has operational			VSL(s) in the		
		authority or control over			determination of		
		Facilities with established			penalties by the		
		IROLs or has established			Compliance		
		operating guides or			Enforcement		
		protection systems to			Authority.		
		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.					
TOP-001-1a	R1	Each Transmission	In accordance with	See Guideline	The VSLs comply	In accordance with	The VSL
		Operator shall have the	Guidelines 2 and	1 Analysis.	with Guideline 2.	Guideline 3, the	Assignments
		responsibility and clear	3, the VSLs were		The requirement	NERC has revised	comply with
		decision-making authority	modified for		has gradated VSLs;	the VSL	Guideline 4,
		to take whatever actions	clarity and		therefore,	assignments as	because they
		are needed to ensure the	consistency with		Guideline 2a is not	noted in the	are based on a
		reliability of its area and	other standards		applicable. The	redline text to be	single
		shall exercise specific	and VSLs and to		prior assignment of	more consistent	violation of a
		authority to alleviate	more closely		a binary VSL was	with the language	Reliability
		operating emergencies.	match the		revised to provide a	of the requirement.	Standard and
			language in the		level of gradation.	As revised, the	are not based
			requirement.		The gradated VSLs	VSL assignments	on a
					ensure uniformity	are consistent with	cumulative
					and consistency	the requirement	number of
					among all	and the degree of	violations of
					approved	compliance can be	the same
1					Reliability	determined	requirement
					Standards in the	objectively and	over a period

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					determination of	with certainty.	of time.
					penalties.		
					Additionally, the		
					NERC has		
					reviewed the VSL		
					text and has		
					determined that, as		
					revised, the VSL		
					text is clear,		
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective		
					language,		
					satisfying		
					Guideline 2b.		
					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 by the		
					Compliance		
					Enforcement		
EOD 002	D16		T 1 1.1	0 0 111	Authority.	NEDC : 1.1	TEL TAGE
TOP-002-	R16	Subject to standards of	In accordance with	See Guideline	The VSLs comply	NERC revised the	The VSL
2.1b		conduct and	Guideline 3,	1 Analysis.	with Guideline 2.	VSL assignments	Assignments
		confidentiality	NERC revised the		The requirement	to better reflect the	comply with
		agreements, Transmission	VSL assignments		has gradated VSLs;	language in the	Guideline 4,

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Operators shall, without	to better reflect the		therefore,	requirement and to	because they
		any intentional time delay,	language in the		Guideline 2a is not	account for	are based on a
		notify their Reliability	requirement and to		applicable. The	additional	single
		Coordinator and	account for		gradated VSLs	gradation afforded	violation of a
		Balancing Authority of	additional		ensure uniformity	by the requirement	Reliability
		changes in capabilities and	gradation afforded		and consistency	language. As	Standard and
		characteristics including	by the requirement		among all	revised, the	are not based
		but not limited to:	language.		approved	assignments are	on a
			Consistent with		Reliability	consistent with the	cumulative
		R16.1. Changes in	Guidelines filed		Standards in the	requirement and	number of
		transmission facility	with FERC on		determination of	the degree of	violations of
		status.	August 10, 2009,		penalties.	compliance can be	the same
			incorporated the		Therefore, no	determined	requirement
		R16.2. Changes in	subrequirements		changes to the VSL	objectively and	over a period
		transmission facility	into the main		language were	with certainty.	of time.
		rating.	requirement VSL		required for		
			so that compliance		consistency with		
			is based on		FERC Guideline 2.		
			meeting criteria		Additionally, the		
			specified in		NERC has		
			components.		reviewed the VSL		
					text and has		
					determined that, as		
					revised, the VSL		
					text is clear,		
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective		
					language,		
					satisfying		
					Guideline 2b.		
					Therefore, the text		
					is not subject to the		
					possibility of		
					multiple		
					interpretations of		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					the VSLs and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSLs in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority.		
TOP-002-	R17	Balancing Authorities and	The VSL was	See Guideline	The VSLs comply	In accordance with	The VSL
2.1b		Transmission Operators	modified to be	1 Analysis.	with Guideline 2.	Guideline 3, the	Assignments
		shall, without any	consistent with		The requirement	NERC has revised	comply with
		intentional time delay,	Guideline 3.		has a binary VSL	the VSL	Guideline 4,
		communicate the			assignment at the	assignments as	because they
		information described in			Severe level. This	noted in the	are based on a
		the requirements R1 to			is consistent with	redline text to be	single
		R16 above to their			other single VSL	more consistent	violation of a
		Reliability Coordinator.			assignments for	with the language	Reliability
					binary	of the requirement.	Standard and
					requirements,	Per stakeholder	are not based
					satisfying	feedback, the	on a
					Guideline 2a.	Severe VSL was	cumulative
					Additionally, the	modified to reflect	number of
					NERC has	the components	violations of
					reviewed the VSL	listed in the	the same
					text and has	requirement. It	requirement
					determined that, as	was necessary to	over a period
					revised, the VSL	highlight that an	of time.
					text is clear,	entity could	
					specific and	violate the	
					objective and does	requirement either	
					not contain general,	by not	
					relative or	communicating	
					subjective	information or by	
					language,	intentionally	

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					satisfying	delaying	
					Guideline 2b.	communication of	
					Therefore, the text	that information.	
					is not subject to the	As revised, the	
					possibility of	VSL assignments	
					multiple	are consistent with	
					interpretations of	the requirement	
					the VSLs and	and the degree of	
					provides the clarity	compliance can be	
					needed to permit	determined	
					the consistent and	objectively and	
					objective	with certainty.	
					application of the		
					VSLs in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
TOD 006 2	D2	E. J. D. P. L. L. P.	T	C C . 1.1.	Authority.	NEDC1	TDL . MOI
TOP-006-2	R2	Each Reliability Coordinator, Transmission	In accordance with	See Guideline	The VSLs were	NERC compared	The VSL
			Guideline 1, the	1 Analysis.	modified for clarity and consistency	the existing VSLs to the stated	Assignments
		Operator, and Balancing	percentage distribution was	Additionally,	with other		comply with Guideline 4,
		Authority shall monitor applicable transmission	modified to ensure	the percentage distribution	standards and	requirement language to ensure	because they
		line status, real and	that the level of	was modified	VSLs.	the VSLs do not	are based on a
		reactive power flows,	non-compliance	to ensure that	Additionally,	redefine or	single
		voltage, load-tap-changer	was not lowered.	the level of	NERC has	undermine the	violation of a
		settings, and status of	In accordance with	non-	reviewed the VSL	reliability goal of	Reliability
		rotating and static reactive	Guideline 2, the	compliance	text and has	the requirement. In	Standard and
		resources.	VSLs were	was not	determined that, as	accordance with	are not based
		resources.	modified for	lowered from	written, the VSL	Guideline 3, the	on a
			clarity and	the previous	text is clear,	VSL assignments	cumulative
			consistency with	version.	specific and	are consistent with	number of
			other standards	Because	objective and does	the requirement	violations of
			and VSLs.	entities	not contain general,	and the degree of	the same
				monitor	relative or	compliance can be	requirement
				thousands of	subjective language	determined	over a period
				elements, the	satisfying	objectively and	of time.

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
				higher percentages could have led to almost every violation being classified as a Lower VSL.	Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.	with certainty.	
TOP-006-2	R3	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.	In accordance with Guideline 2, the VSLs were modified for clarity and consistency with other standards and VSLs.	See Guideline 1 Analysis.	The VSLs were modified for clarity and consistency. The previous gradation was too subjective, as it would be difficult to objectively determine a percentage of "appropriate technical information." As revised, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying	NERC compared the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the reliability goal of the requirement. 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	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					Guideline 2b.		
					Thus, the text is not		
					subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority		
TOP-007-0	R3	A Transmission Operator	In accordance with	See Guideline	The VSLs comply	NERC modified	The VSL
		shall take all appropriate	Guideline 3,	1 Analysis.	with Guideline 2.	the Severe VSL	Assignments
		actions up to and	NERC modified		The VSL is binary	assignment to	comply with
		including shedding firm	the Severe VSL		and the single VSL	remove the second	Guideline 4,
		load, or directing the	assignment to		is assigned as	part of the	because they
		shedding of firm load, in	remove the second		Severe in	assignment, which	are based on a
		order to comply with	part of the		accordance with	did not apply to	single
		Requirement R 2.	assignment, which		Guideline 2a.	R3. As revised, the	violation of a
			did not apply to		Additionally,	VSLs do not	Reliability
			R3.		NERC has	redefine or	Standard and
					reviewed the VSL	undermine the	are not based
					text and has	reliability goal of	on a
					determined that, as	the requirement. In	cumulative
					written, the VSL	accordance with	number of
					text is clear,	Guideline 3, the	violations of
					specific and	VSL assignments	the same
					objective and does	are consistent with	requirement
					not contain general,	the requirement	over a period
					relative or	and the degree of	of time.
					subjective language	compliance can be	

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number	_		Comments	Comments	Comments	Comments
					satisfying	determined	
					Guideline 2b.	objectively and	
					Thus, the text is not	with certainty.	
					subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance Enforcement		
					Authority.		
TOP-007-0	R4	The Reliability	In accordance with	See Guideline	The VSLs were	In accordance with	The VSL
10F-007-0	K4	Coordinator shall evaluate	Guidelines 2 and	1 Analysis.	modified for clarity	Guideline 3, the	Assignments
		actions taken to address an	3, the VSLs were	1 Allalysis.	and consistency	VSLs were	comply with
		IROL or SOL violation	modified for		with other	modified to	Guideline 4,
		and, if the actions taken	clarity and		standards and	incorporate the	because they
		are not appropriate or	consistency with		VSLs. The	SOL references	are based on a
		sufficient, direct actions	other standards		requirement has	into the same VSL	single
		required to return the	and VSLs.		gradated VSLs;	assignments as the	violation of a
		system to within limits.	and VSEs.		therefore,	IROL references.	Reliability
		system to within innes.			Guideline 2a is not	From the	Standard and
					applicable. A prior	standpoint of the	are not based
					use of a binary	requirement, these	on a
					VSL was removed	elements are equal	cumulative
					to provide levels of	and are more	number of
					gradation. The	appropriately	violations of
					gradated VSLs	assigned the same	the same
					ensure uniformity	level of non-	requirement
					and consistency	compliance within	over a period
					among all	the contact of the	of time.
					approved	standard. As	

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					Reliability	revised, the VSL	
					Standards in the	assignments are	
					determination of	consistency with	
					penalties.	the requirement	
					Additionally,	and the degree of	
					NERC has	compliance can be	
					reviewed the VSL	determined	
					text and has	objectively and	
					determined that, as	with certainty.	
					written, the VSL		
					text is clear,		
					specific and		
					objective and does		
					not contain general,		
					relative or		
					subjective language		
					satisfying		
					Guideline 2b.		
					Thus, the text is not		
					subject to the		
					possibility of		
					multiple		
					interpretations of		
					the VSL(s) and		
					provides the clarity		
					needed to permit		
					the consistent and		
					objective		
					application of the		
					VSL(s) in the		
					determination of		
					penalties by the		
					Compliance		
					Enforcement		
					Authority		
TPL-001-0.1	R1	The Planning Authority	The VSLs were	See Guideline	The VSLs comply	In accordance with	The VSL
112 001 0.1		and Transmission Planner	modified to be	1 Analysis.	with Guideline 2.	Guideline 3,	Assignments
		shall each demonstrate	consistent with	1 1 111111 7 515.	The requirement	NERC has revised	comply with

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		through a valid assessment	Guideline 3.		has gradated VSLs;	the VSL	Guideline 4,
		that its portion of the	Consistent with		therefore,	assignments as	because they
		interconnected	Guidelines filed		Guideline 2a is not	noted in the	are based on a
		transmission system is	with FERC on		applicable. The	redline text. In	single
		planned such that, with all	August 10, 2009,		gradated VSLs	particular, NERC	violation of a
		transmission facilities in	NERC		ensure uniformity	determined that a	Reliability
		service and with normal	incorporated the		and consistency	violation of R1.3.7	Standard and
		(pre-contingency)	subrequirements		among all	was more	are not based
		operating procedures in	into the main		approved	significant than a	on a
		effect, the Network can be	requirement VSL		Reliability	violation of the	cumulative
		operated to supply	so that compliance		Standards in the	other	number of
		projected customer	is based on		determination of	subrequirements,	violations of
		demands and projected	meeting criteria		penalties.	and R1.3.7 was	the same
		Firm (non- recallable	specified in		Therefore, no	separated out. As	requirement
		reserved) Transmission	components.		changes to the	revised, and	over a period
		Services at all Demand			VSLs were	incorporated into	of time.
		levels over the range of			required for	the roll-up VSLs,	
		forecast system demands,			consistency with	the VSL	
		under the conditions			FERC Guideline 2.	assignments are	
		defined in Category A of			Additionally, the	consistent with the	
		Table I. To be considered			NERC has	requirement and	
		valid, the Planning			reviewed the VSL	the degree of	
		Authority and			text and has	compliance can be	
		Transmission Planner			determined that, as	determined	
		assessments shall:			written, the VSL	objectively and	
		5445			text is clear,	with certainty.	
		R1.1. Be made annually.			specific and		
		D14 D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			objective and does		
		R1.2. Be conducted for			not contain general,		
		near-term (years one			relative or		
		through five) and longer-			subjective		
		term (years six through			language,		
		ten) planning horizons.			satisfying		
		D1 2 Da manus et al 1			Guideline 2b.		
		R1.3. Be supported by a			Therefore, the text		
		current or past study			is not subject to the		
		and/or system simulation			possibility of		
		testing that addresses each			multiple		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		of the following			interpretations of		
		categories, showing			the VSLs and		
		system performance			provides the clarity		
		following Category A of Table 1 (no			needed to permit the consistent and		
		contingencies). The			objective		
		specific elements selected			application of the		
		(from each of the			VSLs in the		
		following categories) shall			determination of		
		be acceptable to the			penalties by the		
		associated Regional			Compliance		
		Reliability			Enforcement		
		Organization(s).			Authority.		
		R1.3.1. Cover critical					
		system conditions and					
		study years as deemed					
		appropriate by the entity					
		performing the study.					
		R1.3.2. Be conducted					
		annually unless changes to					
		system conditions do not					
		warrant such analyses.					
		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.					
		R1.3.4. Have established					
		normal (pre-contingency)					
		operating procedures in					
		place.					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		R1.3.5. Have all projected					
		firm transfers modeled.					
		R1.3.6. Be performed for					
		selected demand levels					
		over the range of forecast					
		system demands.					
		R1.3.7. Demonstrate that					
		system performance meets					
		Table 1 for Category A					
		(no contingencies).					
		D1 2 9 Include existing					
		R1.3.8. Include existing and planned facilities.					
		and planned facilities.					
		R1.3.9. Include Reactive					
		Power resources to ensure					
		that adequate reactive					
		resources are available to					
		meet system performance.					
		R1.4. Address any					
		planned upgrades needed					
		to meet the performance					
		requirements of Category					
		A.					
TPL-002-0b	R1	The Planning Authority	The VSLs were	See Guideline	The VSLs comply	In accordance with	The VSL
		and Transmission Planner	modified to be	1 Analysis.	with Guideline 2.	Guideline 3,	Assignments
		shall each demonstrate	consistent with		The requirement	NERC has revised	comply with
		through a valid assessment	Guideline 3.		has gradated VSLs;	the VSL	Guideline 4,
		that its portion of the	Consistent with		therefore,	assignments as	because they
		interconnected	Guidelines filed		Guideline 2a is not	noted in the	are based on a
		transmission system is	with FERC on		applicable. The	redline text. In	single
		planned such that the	August 10, 2009,		gradated VSLs	particular, NERC	violation of a
		Network can be operated	NERC		ensure uniformity	determined that a	Reliability
		to supply projected	incorporated the		and consistency	violation of R1.3.7	Standard and
		customer demands and	subrequirements		among all	was more	are not based

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		projected Firm (non-	into the main		approved	significant than a	on a
		recallable reserved)	requirement VSL		Reliability	violation of the	cumulative
		Transmission Services, at	so that compliance		Standards in the	other	number of
		all demand levels over the	is based on		determination of	subrequirements,	violations of
		range of forecast system	meeting criteria		penalties.	and R1.3.7 was	the same
		demands, under the	specified in		Therefore, no	separated out. As	requirement
		contingency conditions as	components.		changes to the	revised, and	over a period
		defined in Category B of			VSLs were	incorporated into	of time.
		Table I. To be valid, the			required for	the roll-up VSLs,	
		Planning Authority and			consistency with	the VSL	
		Transmission Planner			FERC Guideline 2.	assignments are	
		assessments shall:			Additionally, the	consistent with the	
					NERC has	requirement and	
		R1.1. Be made annually.			reviewed the VSL	the degree of	
					text and has	compliance can be	
		R1.2. Be conducted for			determined that, as	determined	
		near-term (years one			written, the VSL	objectively and	
		through five) and longer-			text is clear,	with certainty.	
		term (years six through			specific and		
		ten) planning horizons.			objective and does		
					not contain general,		
		R1.3. Be supported by a			relative or		
		current or past study			subjective		
		and/or system simulation			language,		
		testing that addresses each			satisfying		
		of the following			Guideline 2b.		
		categories,, showing			Therefore, the text		
		system performance			is not subject to the		
		following Category B of			possibility of		
		Table 1 (single			multiple		
		contingencies). The			interpretations of		
		specific elements selected			the VSLs and		
		(from each of the			provides the clarity		
		following categories) for			needed to permit		
		inclusion in these studies			the consistent and		
		and simulations shall be			objective		
		acceptable to the			application of the		
		associated Regional			VSLs in the		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Reliability			determination of		
		Organization(s).			penalties by the		
					Compliance		
		R1.3.1. Be performed and			Enforcement		
		evaluated only for those			Authority.		
		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					
		system results shall be					
		available as supporting					
		information.					
		R1.3.2. Cover critical					
		system conditions and					
		study years as deemed					
		appropriate by the					
		responsible entity.					
		R1.3.3. Be conducted					
		annually unless changes to					
		system conditions do not					
		warrant such analyses.					
		R1.3.4. Be conducted					
		beyond the five-year					
		horizon only as needed to					
		address identified					
		marginal conditions that					
		may have longer lead-time					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		solutions.					
		D125 H H :					
		R1.3.5. Have all projected					
		firm transfers modeled.					
		R1.3.6. Be performed and					
		evaluated for selected					
		demand levels over the					
		range of forecast system					
		Demands.					
		R1.3.7. Demonstrate that					
		system performance meets					
		Category B contingencies.					
		R1.3.8. Include existing					
		and planned facilities.					
		and prantice rustrees.					
		R1.3.9. Include Reactive					
		Power resources to ensure					
		that adequate reactive					
		resources are available to					
		meet system performance.					
		R1.3.10. Include the					
		effects of existing and					
		planned protection					
		systems, including any					
		backup or redundant					
		systems.					
		R1.3.11. Include the					
		effects of existing and					
		planned control devices.					
		D1 2 12 T 1 . 1					
		R1.3.12. Include the					
		planned (including					
		maintenance) outage of					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number	_		Comments	Comments	Comments	Comments
		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					
		B of Table I.					
		R1.5. Consider all					
		contingencies applicable					
		to Category B.					
TPL-003-0a	R1	The Planning Authority	The VSLs were	See Guideline	The VSLs comply	In accordance with	The VSL
		and Transmission Planner	modified to be	1 Analysis.	with Guideline 2.	Guideline 3,	Assignments
		shall each demonstrate	consistent with		The requirement	NERC has revised	comply with
		through a valid assessment	Guideline 3.		has gradated VSLs;	the VSL	Guideline 4,
		that its portion of the	Consistent with		therefore,	assignments as	because they
		interconnected	Guidelines filed		Guideline 2a is not	noted in the	are based on a
		transmission systems is	with FERC on		applicable. The	redline text. In	single
		planned such that the	August 10, 2009,		gradated VSLs	particular, NERC	violation of a
		network can be operated	NERC		ensure uniformity	determined that a	Reliability
		to supply projected	incorporated the		and consistency	violation of R1.3.7	Standard and
		customer demands and	subrequirements		among all	was more	are not based
		projected Firm (non-	into the main		approved	significant than a	on a
		recallable reserved)	requirement VSL		Reliability	violation of the	cumulative
		Transmission Services, at	so that compliance		Standards in the	other	number of
		all demand Levels over	is based on		determination of	subrequirements, and R1.3.7 was	violations of
		the range of forecast	meeting criteria		penalties.		the same
		system demands, under	specified in		Therefore, no	separated out. As	requirement
		the contingency conditions as defined in Category C	components.		changes to the VSLs were	revised, and incorporated into	over a period of time.
						_	or ume.
		of Table I (attached). The			required for	the roll-up VSLs,	

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		controlled interruption of			consistency with	the VSL	
		customer Demand, the			FERC Guideline 2.	assignments are	
		planned removal of			Additionally, the	consistent with the	
		generators, or the			NERC has	requirement and	
		Curtailment of firm (non-			reviewed the VSL	the degree of	
		recallable reserved) power			text and has	compliance can be	
		transfers may be necessary			determined that, as	determined	
		to meet this standard. To			written, the VSL	objectively and	
		be valid, the Planning			text is clear,	with certainty.	
		Authority and			specific and		
Ì		Transmission Planner			objective and does		
		assessments shall:			not contain general,		
					relative or		
		R1.1. Be made annually.			subjective		
					language,		
		R1.2. Be conducted for			satisfying		
		near-term (years one			Guideline 2b.		
		through five) and longer-			Therefore, the text		
		term (years six through			is not subject to the		
		ten) planning horizons.			possibility of		
					multiple		
		R1.3. Be supported by a			interpretations of		
		current or past study			the VSLs and		
		and/or system simulation			provides the clarity		
		testing that addresses each			needed to permit		
		of the following			the consistent and		
		categories, showing			objective		
		system performance			application of the		
		following Category C of			VSLs in the		
		Table 1 (multiple			determination of		
		contingencies). The			penalties by the		
		specific elements selected			Compliance		
		(from each of the			Enforcement		
		following categories) for			Authority.		
		inclusion in these studies					
		and simulations shall be					
		acceptable to the					
		associated Regional					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		Reliability					
		Organization(s).					
		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.					
		R1.3.2. Cover critical					
		system conditions and					
		study years as deemed					
		appropriate by the					
		responsible entity.					
		positive charge					
		R1.3.3. Be conducted					
		annually unless changes to					
		system conditions do not					
		warrant such analyses.					
		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.					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		R1.3.5. Have all projected firm transfers modeled.					
		R1.3.6. Be performed and evaluated for selected demand levels over the range of forecast system demands.					
		R1.3.7. Demonstrate that System performance meets Table 1 for Category C contingencies.					
		R1.3.8. Include existing and planned facilities.					
		R1.3.9. Include Reactive Power resources to ensure that adequate reactive resources are available to meet System performance.					
		R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.					
		R1.3.11. Include the effects of existing and planned control devices.					
		R1.3.12. Include the planned (including maintenance) outage of					

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
		any bulk electric					
		equipment (including					
		protection systems or their					
		components) at those					
		Demand levels for which					
		planned (including					
		maintenance) outages are					
		performed.					
TPL-003-0a	R2	When system simulations	The VSLs were	See Guideline	The VSLs comply	NERC modified	The VSL
		indicate an inability of the	modified to be	1 Analysis.	with Guideline 2.	the VSL	Assignments
		systems to respond as	consistent with		The requirement	assignments to	comply with
		prescribed in Reliability	Guideline 3.		has gradated VSLs;	account for	Guideline 4,
		Standard TPL-003-0_R1,	Consistent with		therefore,	subrequirements	because they
		the Planning Authority	Guidelines filed		Guideline 2a is not	R2.1.1, R2.1.2,	are based on a
		and Transmission Planner	with FERC on		applicable. The	and R2.1.3. As	single
		shall each:	August 10, 2009,		gradated VSLs	revised, the VSL	violation of a
		R2.1. Provide a written	NERC		ensure uniformity	assignments are consistent with the	Reliability Standard and
		summary of its plans to	incorporated the subrequirements		and consistency among all	requirement and	are not based
		achieve the required	into the main		approved	the degree of	on a
		system performance as	requirement VSL		Reliability	compliance can be	cumulative
		described above	so that compliance		Standards in the	determined	number of
		throughout the planning	is based on		determination of	objectively and	violations of
		horizon:	meeting criteria		penalties.	with certainty.	the same
			specified in		Therefore, no	with certainty.	requirement
		D2 1 1 1 1 1	components.		changes to the		over a period
		R2.1.1. Including a			VSLs were		of time.
		schedule for			required for		
		implementation.			consistency with		
					FERC Guideline		
		R2.1.2. Including a			2. Additionally, the		
		discussion of expected			NERC has		
		required in-service dates			reviewed the VSL		
		of facilities.			text and has		
					determined that,		
		R2.1.3. Consider lead			with the correction		
		times necessary to			of typographical		
		implement plans.			errors, stylistic		

Standard	Requirement	Text of Requirement	Explanation	Guideline 1	Guideline 2	Guideline 3	Guideline 4
Number	Number			Comments	Comments	Comments	Comments
					edits, or format		
		R2.2. Review, in			changes, the VSL		
		subsequent annual			text is clear,		
		assessments, (where			specific and		
		sufficient lead time			objective and does		
		exists), the continuing			not contain general,		
		need for identified system			relative or		
		facilities. Detailed			subjective		
		implementation plans are			language,		
		not needed.			satisfying		
					Guideline 2b.		
					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 by the		
					Compliance		
					Enforcement		
					Authority.		

Exhibit C

Revised VRFs (Redline)

Standard Number	Requirement Number	Text of Requirement	VRF Assignment	Guideline Explanation
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.	<u>LowerMedium</u>	A Medium VRF was assigned to Requirement R2. Providing entities with a description of changes to the restoration plan is more than administrative and deals with alerting entities to changes in the actions they might be required to take. If an entity was not alerted to a change in its responsibilities and did not take appropriate action during restoration, that could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. Thus, the VRF is appropriately assigned as Medium.
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.	Lower	A Lower VRF was assigned to Requirement R5, which is administrative in nature. Unlike EOP-005-2 R2, this requirement is simply about the possession of a document. A Transmission Operator's ability to implement its plan is covered in R7 and thus is separate from the administrative requirement of having a copy of the plan.
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:	Medium	A Medium VRF was assigned to R10 and other requirements that deal with the "infrastructure" that supports the requirements that received a High VRF. In contrast to those High VRF requirements, failure to provide training, while important, would not directly lead to instability.
		R10.1. System restoration plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.		
		R10.2. Restoration priorities.R10.3. Building of cranking paths.		
		R10.4. Synchronizing (re-energized		

		sections of the System).		
EOP-005-2	R11	Each Transmission Operator, each applicable 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.	Medium	A Medium VRF was assigned to R11 and other requirements that deal with the "infrastructure" that supports the requirements that received a High VRF. In contrast to those High VRF requirements, failure to provide training, while important, would not directly lead to instability.
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 of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following: R17.1. System restoration plan including coordination with the Transmission Operator. R17.2. The procedures documented in Requirement R14.	Medium	A Medium VRF was assigned to R17 and other requirements that deal with the "infrastructure" that supports the requirements that received a High VRF. In contrast to those High VRF requirements, failure to provide training, while important, would not directly lead to instability.
EOP-006-2	R6	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.	Lower	A Lower VRF was given to Requirement R2 because these requirements it is primarily administrative in nature. This requirement is simply about the possession of a document. A Reliability Coordinator's ability to implement its plan is covered in R7 and thus is separate from the administrative requirement of having a copy of the plan.
EOP-006-2	R9	Each Reliability 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	Medium	A Medium VRF was assigned to Requirement R9 because failure to provide training, while important, would not directly lead to instability.

		following:		
		R9.1. The coordination role of the Reliability Coordinator.		
		R9.2. Reestablishing the Interconnection.		
EOP-008-1	R1	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include the following, at a minimum: R1.1 The location and method of implementation for providing backup functionality for the time it takes to restore the primary control center functionality. R1.2. A summary description of the elements required to support the backup functionality. These elements shall include, at a minimum: R1.2.1. Tools and applications to ensure that System Operators have situational awareness of the BES. R1.2.2. Data communications. R1.2.3. Voice communications. R1.2.4. Power source(s). R1.2.5. Physical and cyber security.	Medium	Guideline 2 (Consistency within a Reliability Standard): The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict. Guideline 3 (Consistency among Reliability Standards): EOP-008-1, R1 is similar to EOP-005-2, R1, but the requirements cannot be viewed as exactly the same from a VRF standpoint. EOP-005-2, R1 deals with the restoration plan for the primary control center. EOP-008-1, R1 deals with the backup facility. The capability of the backup facility is not a primary measure for reliable operations, and not having an Operating Plan for the backup facility could not cause or directly contribute to instability, separation, or Cascading. Failing to have a backup facility that provides the same functionality as the primary facility, covered in EOP-008-1 R3 and R4, could cause or directly contribute to instability, separation, or Cascading, and NERC is appropriately proposing that those VRFs be assigned as High. For these reasons, the VRF assignment for R1 should be Medium. Guideline 4 (Consistency with NERC's Definition of a VRF): Failure to have an Operating Plan for backup functionality could directly affect the electrical state or the capability of the BES, and could affect the applicable entity's ability to effectively monitor and control the BES. However, violation of this requirement will not, by itself, lead to instability, separation, or cascading failures.

		backup functionality consistent with the primary control center. R1.4. Operating Procedures, including decision authority, for use in determining when to implement the Operating Plan for backup functionality. R1.5. A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to two hours. R1.6. An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to fully implement backup functionality elements identified in Requirement R1, Part 1.2. The Operating Process shall include at a minimum: R1.6.1. A list of all entities to notify when there is a change in operating locations. R1.6.2. Actions to manage the risk to the BES during the transition from primary to backup functionality as well as during outages of the primary or backup functionality. R1.6.3. Identification of the roles for personnel involved during the initiation and		Guideline 5 (Treatment of Requirements that Comingle More Than One Objective): EOP-008-1, Requirement R1 contains only one objective, therefore only one VRF was assigned.
		implementation of the Operating Plan for backup functionality.		
EOP-008-1	R2	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a copy of its current Operating Plan for backup functionality available at its	Lower	Guideline 2 (Consistency within a Reliability Standard): The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict.

		primary control center and at the location		
		providing backup functionality.		Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R2 is a new requirement, so there are no comparable requirements with which to compare VRFs.
				Guideline 4 (Consistency with NERC's Definition of a VRF): This requirement is purely administrative and could not, in and of itself, affect the capability of the BES. It is simply about the possession of a document; the actual functionality of the backup facility is addressed in R3 and R4. It is an administrative requirement and thus meets NERC's criteria for a Lower VRF.
				Guideline 5 (Treatment of Requirements that Comingle More Than One Objective): EOP-008-1, Requirement R2 contains only one objective, therefore only one VRF was assigned.
EOP-008-1	R3	Each Reliability Coordinator shall have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) that provides the functionality required for maintaining compliance with all Reliability Standards that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during: • Planned outages of the primary or backup facilities of two weeks or less • Unplanned outages of the primary or backup facilities	MediumHigh	Guideline 1 (Consistency with Conclusions of Final Blackout Report): Requirement R3 deals with the failure to have a backup control center, leading to a reduced level of preparedness, which ties to directly the blackout report and should be a High VRF. Guideline 2 (Consistency within a Reliability Standard): The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict. Guideline 3 (Consistency among Reliability Standards): In contrast to other requirements in this standard, which support the functionality of the backup facility, this requirement addresses that functionality directly and is appropriately assigned a High VRF. Guideline 4 (Consistency with NERC's Definition
				of a VRF): A reduced level of preparedness could

				lead directly to instability, separation, or Cascading. This meets NERC's definition for a High VRF. Guideline 5 (Treatment of Requirements that Comingle More Than One Objective): EOP-008-1, Requirement R3 contains only one objective, therefore only one VRF was assigned.
EOP-008-1	R4	Each Balancing Authority and Transmission Operator shall have backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards that depend on a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during: • Planned outages of the primary or backup facilities of two weeks or less • Unplanned outages of the primary or backup facilities	MediumHigh	Guideline 1 (Consistency with Conclusions of Final Blackout Report): Requirement R4 deals with the failure to have a fully functional backup control center, leading to a reduced level of preparedness, which ties to directly the blackout report and should be a High VRF. Guideline 2 (Consistency within a Reliability Standard): The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict. Guideline 3 (Consistency among Reliability Standards): In contrast to other requirements in this standard, which support the functionality of the backup facility, this requirement addresses that functionality directly and is appropriately assigned a High VRF. Guideline 4 (Consistency with NERC's Definition of a VRF): A reduced level of preparedness could lead directly to instability, separation, or Cascading. This meets NERC's definition for a High VRF. Guideline 5 (Treatment of Requirements that Comingle More Than One Objective): EOP-008-1, Requirement R4 contains only one objective, therefore only one VRF was assigned.
EOP-008-1	R5	Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall annually review and approve its Operating Plan for backup functionality.	Lower <u>Medium</u>	Guideline 2 (Consistency within a Reliability Standard): The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict.

		R5.1. An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to any part of the Operating Plan described in Requirement R1.		Guideline 3 (Consistency among Reliability Standards): This requirement has a subrequirement that is similar to the subrequirement in EOP-005-2, R4, which is assigned a Medium VRF. Guideline 4 (Consistency with NERC's Definition of a VRF): Annually reviewing and approving the Operating Plan is about more than the possession of a piece of paper; it's about updating the Operating Plan any time a change in required action might be necessary. Thus, the requirement is more than simply administrative and is appropriately assigned a Medium. Guideline 5 (Treatment of Requirements that Comingle More Than One Objective): EOP-008-1, Requirement R5 contains only one objective, therefore only one VRF was assigned.
EOP-008-1	R6	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards.	Medium	Guideline 2 (Consistency within a Reliability Standard): The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict. Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R6 is a new requirement, so there are no comparable requirements with which to compare VRFs. Guideline 4 (Consistency with NERC's Definition of a VRF): EOP-008-1, Requirement R6 addresses the situation applicable entities primary and backup capabilities can't depend on each other. A violation of this requirement is assigned a Medium VRF because, if the applicable entity did have a dependence between their primary and backup capabilities it is not clear that this could directly lead, without any other violations of any other requirements, to instability, separation, or

				cascading failures.
				Guideline 5 (Treatment of Requirements that Comingle More Than One Objective): EOP-008-1, Requirement R6 contains only one objective, therefore only one VRF was assigned.
EOP-008-1	R7	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct and document results of an annual test of its Operating Plan that demonstrates: R7.1. The transition time between the simulated loss of primary control center functionality and the time to fully implement the backup functionality. R7.2. The backup functionality for a minimum of two continuous hours.	Medium	Guideline 2 (Consistency within a Reliability Standard): The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict. Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R7 is a new requirement, so there are no comparable requirements with which to compare VRFs. Guideline 4 (Consistency with NERC's Definition of a VRF): EOP-008-1, Requirement R7 mandates testing of an applicable entity's Operating Plan for backup capability. A violation of this requirement is assigned a Medium' VRF because, if the applicable entity did not test their Operating Plan for backup capability it is not clear that this could directly lead, without any other violations of any other requirements, to instability, separation, or cascading failures. Testing cannot show indisputable proof of performance; rather, it shows proof or capability and concept. No amount of testing can prove that the entity will meet performance on the day in question, as too many variables are subject to change. Testing just reduces the probability of problems. Thus, the VRF should remain Medium, as it can't directly cause instability, separation, or Cascading. Guideline 5 (Treatment of Requirements that Comingle More Than One Objective): EOP-008-1, Requirement R7 contains only one objective, therefore only one VRF was assigned.

IRO-006-WECC-1	R1	Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes.	MediumHigh	Per Guideline 3, for consistency with the continent-wide and Eastern Interconnection versions of the standards, this VRF should be High.
IRO-006-WECC-1	R2	The Balancing Authorities shall approve curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement.	MediumHigh	Per Guideline 3, for consistency with the continent-wide and Eastern Interconnection versions of the standards, this VRF should be High.
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.	Medium High	FERC's Guideline 2: Consistency within a Reliability Standard. The requirement has no subrequirements so only one VRF was assigned. Therefore, there is no conflict. FERC's Guideline 3: Because IRO-004-2 R1 requires next-day assessments to be treated in the same manner as Real-time operating events, it is appropriate to assign the same VRFs for IRO-008-1 R1 and IRO-008-1 R2 (High). FERC's Guideline 4: Consistency with NERC's IRO-004-2, R1 requires next-day assessments to be treated in the same manner as Real-time operating events. Failure to act in either time frame could directly affect the electrical state or the capability of the bulk electric system, and could affect the Reliability Coordinator's ability to effectively monitor and control the bulk electric system. FERC's Guideline 5: Treatment of Requirements that Co-mingle More Than One Objective. IRO-008-1 Requirement R1 contains only one objective, therefore only one VRF was assigned.
IRO-008-1	R3	When a Reliability Coordinator determines that the results of an Operational Planning Analysis or Real-Time Assessment	Medium	FERC's Guideline 2: Consistency within a Reliability Standard. The requirement has no subrequirements; only one VRF was assigned so

	uideline 3: Consistency among
	uideline 3: Consistency among
Coordinator shall share its results with those Reliability	mucine 3. Consistency among
Cooldinator shall share its results with those	Standards. IRO-004-1 Requirement R5
entities that are expected to take those includes act	ctions similar to those required in IRO-
	juirement R3. The VRF for IRO-004-1,
Requirement	ent R5 is "High." The drafting team
	that the VRF for IRO-008-1
	ent R3 is lower than the VRF for the
similar requ	uirement IRO-004-1 which is assigned
a High VRJ	F; however, the IRO drafting team and
	rs support the Medium VRF based on
	riteria for VSLs. IRO-008-1
Requirement	ent R3 requires the Reliability
	or to share the results of its analyses
with entitie	es that are expected to take actions to
	mitigate instances of exceeding an
IROL. The	assignment of the "Medium" VRF
was made t	based on the premise that failure to
share this in	nformation, by itself, would not
directly cau	use or contribute to bulk electric
system inst	tability, separation, or a cascading
sequence of	of failures. For a requirement to be
	"High" VRF, there should be the
expectation	n that failure to meet the required
	ce "will" result in instability,
	or cascading failures. This is not the
	a Reliability Coordinator fails to share
	of its analyses. While the drafting team
	if the Reliability Coordinator fails to
	esults of its analyses, this failure will
	ntities in a position where they are not
	d as they should be to address instances
	ng or exceeding IROLs. However,
	Reliability Coordinator failed to share
	ation in advance, the Reliability
	or is still required, under IRO-009-1,
	ents R1 through R4 to have action plans
	ting and mitigating instances of
exceeding I	IROLs and for implementing action

plans to prevent or mitigate exceeding each IROL within IROL Tv. If IRO-009-1, Requirements R1 through R4 are met, then the failure to meet IRO-008-1, Requirement R3 should not result in instability, separation, or cascading failures. The NERC Uniform Compliance Monitoring and **Enforcement Program and the Sanctions** Guidelines give the Compliance Enforcement Authority the right to provide a higher sanction for failure to meet multiple requirements – and if the Reliability Coordinator failed to share the results of its analyses and also failed to direct actions to prevent or mitigate exceeding an IROL within its IROL Tv, the expectation is that the sanction for noncompliance would be higher than for the failure to share the results of analyses with no other violations. FERC's Guideline 4: Consistency with NERC's Definition of a VRF. Failure to share the results of its analyses or assessments will impact the situational awareness of the operating entities involved, and thus could affect the Transmission Operator's or Balancing Authority's ability to effective monitor and control the BES, however violation of this requirement is unlikely to lead to BES instability, separation or cascading failures. Because the Reliability Coordinator is required to have and implement action plans to mitigate and prevent instances of exceeding each identified IROL (IRO-009-1 Requirements R1 and R2) and the Reliability Coordinator is required to either implement an action plan or direct actions (IRO-009-1 Requirements R3 and R4), the impact of not sharing the analyses and assessments should not result in instability, separation, or cascading failures. Thus, this requirement meets the criteria for a Medium VRF. FERC's Guideline 5: Treatment of Requirements

				that Co-mingle More Than One Objective. IRO- 008-1, Requirement R3 contains only one objective, therefore only one VRF was assigned.
IRO-009-1	R1	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) that can be implemented in time to prevent exceeding those IROLs.	Medium	FERC's Guideline 2: Consistency within a Reliability Standard. The requirements have no subrequirements; only one VRF was assigned to each requirement so there is no conflict. FERC's Guideline 3: Consistency among Reliability Standards. IRO-004-1, Requirement R3 was similar to IRO-009-1, Requirements R1 and R2, but that standard has been retired. FERC's Guideline 4: The failure to have an action plan identified in advance, by itself, will not result in instability, separation, or cascading failures. If the Reliability Coordinator does not take any action to prevent or to mitigate exceeding an IROL, then this is a violation of IRO-009 Requirement R3 or R4 and these are assigned High VRFs.
				FERC's Guideline 5: Treatment of Requirements that Co-mingle More Than One Objective. IRO-009-1, Requirements R1 and R2 each contain only one objective, therefore only one VRF was assigned to each of these requirements.
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.	Medium	FERC's Guideline 2: Consistency within a Reliability Standard. The requirements have no subrequirements; only one VRF was assigned to each requirement so there is no conflict. FERC's Guideline 3: Consistency among Reliability Standards. IRO-004-1, Requirement R3 was similar to IRO-009-1, Requirements R1 and R2, but that standard has been retired. FERC's Guideline 4: Consistency with NERC's Definition of a VRF. The failure to have an action plan identified in advance, by itself, will not

				failures. If the Reliability Coordinator does not take any action to prevent or to mitigate exceeding an IROL, then this is a violation of IRO-009 Requirement R3 or R4 and these are assigned High VRFs. FERC's Guideline 5: Treatment of Requirements that Co-mingle More Than One Objective. IRO-009-1, Requirements R1 and R2 each contain only one objective, therefore only one VRF was assigned to each of these requirements.
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: 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. R1.2. Mutually agreeable format. 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). R1.4. Process for data provision when automated Real-Time system operating data is unavailable.	Lower Medium	FERC's Guideline 2: Consistency within a Reliability Standard. The requirement and its subrequirements in Requirement R1 have a single reliability objective, therefore only one VRF was assigned. Requirement R2 has no subrequirements and is assigned a single VRF. FERC's Guideline 3: Consistency among Reliability Standards. IRO-008, IRO-009, and IRO-010 are similar but not directly comparable: The first two deal with the performance of assessments and action plans and are assigned Medium or High VRFs, while the third deals with documented specifications. Still, IRO-010-1a R1 is not purely administrative and is appropriately assigned a Medium VRF. FERC's Guideline 4: Consistency with NERC's Definition of a VRF. IRO-010-1a deals with documentation, but it is about more than possession of a document and instead addresses the importance of having a process for collecting data and information. While the distinction is slight, NERC sees this as more than administrative and thus has assigned the requirement a Medium VRF. FERC's Guideline 5: Treatment of Requirements

				that Co-mingle More Than One Objective. IRO- 010-1a Requirements R1 and R2 each address a single objective and each has a single VRF.
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.	Lower Medium	FERC's Guideline 2: Consistency within a Reliability Standard. The requirement and its subrequirements in Requirement R1 have a single reliability objective, therefore only one VRF was assigned. Requirement R2 has no subrequirements and is assigned a single VRF. FERC's Guideline 3: Consistency among Reliability Standards. IRO-008, IRO-009, and IRO-010 are similar but not directly comparable:
				The first two deal with the performance of assessments and action plans and are assigned Medium or High VRFs, while the third deals with documented specifications. Still, IRO-010-1a R2 is not purely administrative and is appropriately assigned a Medium VRF.
				FERC's Guideline 4: Consistency with NERC's Definition of a VRF. IRO-010-1a R2 deals with documentation, but it is about more than possession of a document and instead addresses the importance of having a process for collecting data and information. While the distinction is slight, NERC sees this as more than administrative and thus has assigned the requirement a Medium VRF.
				FERC's Guideline 5: Treatment of Requirements that Co-mingle More Than One Objective. IRO-010-1a Requirements R1 and R2 each address a single objective and each has a single VRF.
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:	Lower Medium	MOD-004-1 R3 is similar to MOD-004-1 R1, which is assigned a Medium VRF. If "The procedure for a Load-Serving Entity or Balancing Authority to use Transmission capacity set aside as CBM" (R1.3) is a Medium, then R3, which establishes how the LSE is to determine its CBM

		 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 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 R3.2. Identifying expected import path(s) or source region(s). 		need, should also be Medium based on Guideline 2.
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: R4.1. Using one or more of the following to determine the GCIR: • 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	Lower Medium	MOD-004-1 R4 is similar to MOD-004-1 R1, which is assigned a Medium VRF. If "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" (R1.1) is a Medium, then R4, which establishes how the Resource Planner is to determine its CBM need, should also be Medium based on Guideline 2.

		Organizations, or regional entities		
		R4.2. Identifying expected import path(s) or source region(s).		
PER-005-1	R1	source region(s). Each Reliability Coordinator, Balancing Authority and Transmission Operator shall use a 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. 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. 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. R1.2. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall design and develop learning objectives and training materials based on	Medium	While implementation is sometimes assigned a High VRF, in this case it is difficult to argue that – even under emergency, abnormal, or restoration conditions – a failure to use a systematic approach to training and establish a training program for System Operators will directly lead to instability, separation, or Cascading.
		the task list created in R1.1. R1.3. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall deliver the training established in R1.2.		
		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.		
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. R3.1. Each Reliability Coordinator, Balancing Authority and Transmission 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.	Medium	There are some similarities between this requirement and PER-002-0 R4, but PER-002-0 R4 deals with concentrated training and drills specifically for "positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System" or "positions directly responsible for complying with NERC standards." This is different from general training required for all System Operators, and it is a reach to argue that not executing the general training every 12 months will lead to instability, separation, or Cascading, whereas that argument does seem fair in PER-002-0 R4 given the importance of the positions in question. A Medium VRF assignment is appropriate.

Exhibit C

Revised VRFs (Clean)

Standard Number	Requirement Number	Text of Requirement	VRF Assignment
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.	Medium
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.	Lower
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: R10.1. System restoration plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan. R10.2. Restoration priorities. R10.3. Building of cranking paths. R10.4. Synchronizing (re-energized sections of the System).	Medium
EOP-005-2	R11	Each Transmission Operator, each applicable 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.	Medium
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 of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following: R17.1. System restoration plan including coordination with the Transmission Operator. R17.2. The procedures documented in Requirement R14.	Medium
EOP-006-2	R6	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	Lower

		control rooms so that it is available to all of its System Operators prior to the implementation date.	
EOP-006-2	R9	Each Reliability 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: R9.1. The coordination role of the Reliability Coordinator.	Medium
EOP-008-1	RI	R9.2. Reestablishing the Interconnection. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include the following, at a minimum:	Medium
		R1.1 The location and method of implementation for providing backup functionality for the time it takes to restore the primary control center functionality.	
		R1.2. A summary description of the elements required to support the backup functionality. These elements shall include, at a minimum:	
		R1.2.1. Tools and applications to ensure that System Operators have situational awareness of the BES.	
		R1.2.2. Data communications.	
		R1.2.3. Voice communications.	
		R1.2.4. Power source(s).	
		R1.2.5. Physical and cyber security.	
		R1.3. An Operating Process for keeping the backup functionality consistent with the primary control center.	
		R1.4. Operating Procedures, including decision authority, for use in determining when to implement the Operating Plan for backup	

		functionality.	
		R1.5. A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to two hours.	
		R1.6. An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to fully implement backup functionality elements identified in Requirement R1, Part 1.2. The Operating Process shall include at a minimum:	
		R1.6.1. A list of all entities to notify when there is a change in operating locations.	
		R1.6.2. Actions to manage the risk to the BES during the transition from primary to backup functionality as well as during outages of the primary or backup functionality.	
		R1.6.3. Identification of the roles for personnel involved during the initiation and implementation of the Operating Plan for backup functionality.	
EOP-008-1	R2	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a copy of its current Operating Plan for backup functionality available at its primary control center and at the location providing backup functionality.	Lower
EOP-008-1	R3	Each Reliability Coordinator shall have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) that provides the functionality required for maintaining compliance with all Reliability Standards that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during: • Planned outages of the primary or backup facilities of two weeks or less • Unplanned outages of the primary or backup facilities	High
EOP-008-1	R4	Each Balancing Authority and Transmission Operator shall have backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) that includes monitoring, control,	High

		logging, and alarming sufficient for maintaining compliance with all Reliability Standards that depend on a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:	
		 Planned outages of the primary or backup facilities of two weeks or less 	
		 Unplanned outages of the primary or backup facilities 	
EOP-008-1	R5	Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall annually review and approve its Operating Plan for backup functionality.	Medium
		R5.1. An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to any part of the Operating Plan described in Requirement R1.	
EOP-008-1	R6	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards.	Medium
EOP-008-1	R7	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct and document results of an annual test of its Operating Plan that demonstrates:	Medium
		R7.1. The transition time between the simulated loss of primary control center functionality and the time to fully implement the backup functionality.	
		R7.2. The backup functionality for a minimum of two continuous hours.	
IRO-006-WECC-1	R1	Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes.	High
IRO-006-WECC-1	R2	The Balancing Authorities shall approve curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement.	High
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.	High

IRO-008-1	R3	When a Reliability Coordinator determines that the results of an	Medium
110 000 1		Operational Planning Analysis or Real-Time Assessment indicates the	
		need for specific operational actions to prevent or mitigate an instance of	
		exceeding an IROL, the Reliability Coordinator shall share its results with	
		those entities that are expected to take those actions.	
IRO-009-1	R1	For each IROL (in its Reliability Coordinator Area) that the Reliability	Medium
		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) that can be	
		implemented in time to prevent exceeding those IROLs.	
IRO-009-1	R2	For each IROL (in its Reliability Coordinator Area) that the Reliability	Medium
		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.	
IRO-010-1a	R1	The Reliability Coordinator shall have a documented specification for data	Medium
		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:	
		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.	
		1 11111 1 11110 1 11110 1 11110 1	
		R1.2. Mutually agreeable format.	
		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).	
		R1.4. Process for data provision when automated Real-Time system	
		operating data is unavailable.	
IRO-010-1a	R2	The Reliability Coordinator shall distribute its data specification to entities	Medium
IKO-010-1a	IX2	that have Facilities monitored by the Reliability Coordinator and to	Wicdiuiii
		entities that provide Facility status to the Reliability Coordinator.	
		1 chilies that provide Facility status to the Kenability Coolumator.	

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: 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 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	Medium
MOD-004-1	R4	 R3.2. Identifying expected import path(s) or source region(s). 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: R4.1. Using one or more of the following to determine the GCIR: 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 R4.2. Identifying expected import path(s) or source region(s). 	Medium
PER-005-1	R1	Each Reliability Coordinator, Balancing Authority and Transmission Operator shall use a 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. 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. R1.1.1. Each Reliability Coordinator, Balancing Authority and	Medium

		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. R1.2. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall design and develop learning objectives and training materials based on the task list created in R1.1. R1.3. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall deliver the training established in R1.2. 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.	
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. R3.1. Each Reliability Coordinator, Balancing Authority and Transmission 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.	Medium