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 filings[1] 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").[3] 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

[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 ¶ 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[7] of the proposed VSLs.[8] **Exhibit B** includes explanations for the to the proposed VSL modifications, in accordance with the FERC VSL guidelines.[9] **Exhibit C** includes a clean and redline version of the revised VRFs, accompanied by explanations for revisions in accordance with FERC VRF guidelines.[10] Because there is no uniform

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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).

[6] Final 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 Guide1ine 1 Analysis was included in VSL Filing 1 at Exhibit D "Guideline 1 Report."

[10] *Order on VRFs*, 119 FERC ¶ 61,145 at P 18 (May 18, 2007).

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)

Exhibit A – Redline Proposed VSLs

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	~~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 ~~established~~did not establish and ~~maintained~~maintain a Frequency Bias Setting that was ~~less~~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.

(**) 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.

Exhibit A – Redline Proposed VSLs

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/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.	~~N/A~~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 ~~Balancing Authority failed to~~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 Actual Interchange.
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 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 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 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

Exhibit A – Redline Proposed VSLs

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 ~~30~~10 calendar days late in doing so.	the plan. OR The Transmission Operator provided the information to all entities but was more than ~~30~~10 and less than or equal to ~~60~~20 calendar days late in doing so.	the plan. OR The Transmission Operator provided the information to all entities but was more than ~~60~~20 and less than or equal to ~~90~~30 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 ~~90~~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 ~~did not~~failed to train ~~less than~~5% 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 not~~failed to train more than ~~10~~5% and ~~less than or equal~~up to ~~25~~10% of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider ~~did not~~failed to train more than ~~25~~10% and ~~less than or equal~~up to ~~50~~15% of the personnel required by Requirement R11 within a two calendar year period.	The Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider ~~did not~~failed 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

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			Operator's restoration plan within 24 hours but did make the notification within 48 hours.	Operator's restoration plan within ~~24~~48 hours but did make the notification within 72 hours.	Operator's restoration plan within ~~24~~72 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 Operator~~GOP with a Blackstart Resource ~~did not maintain testing~~performed 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 Operator~~GOP with a Blackstart Resource ~~did not maintain testing~~performed tests and maintained records ~~for two of the requirements for a Blackstart Resource. Or~~but did not supply the Blackstart Resource testing records as requested for ~~60~~61 days to ~~89~~90 calendar days after the request.	The ~~Generator Operator~~GOP with a Blackstart Resource performed tests but either did not maintain ~~testing~~ records ~~for three of the requirements for a Blackstart Resource. Or~~or 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 a~~perform 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 from~~participate in the Reliability

Exhibit A – Redline Proposed VSLs

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 and~~have a copy of the latest approved restoration plan of ~~each~~all Transmission ~~Operator~~Operators 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 in~~within 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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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Coordinator shall utilize its restoration plan strategies to facilitate System restoration.				acceptable operating limits. OR 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. OR If the resynchronization could not be completed as expected, the Reliability Coordinator did not utilize its restoration plan

Exhibit A – Redline Proposed VSLs

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						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: **R9.1.** The coordination role of the Reliability Coordinator. **R9.2.** Reestablishing the Interconnection.	N/A	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 ~~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.
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	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

Exhibit A – Redline Proposed VSLs

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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				backup functionality.

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		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

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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 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 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~~

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		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

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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.

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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~~).~~

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		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.				

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		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 that~~Coordinator's SOL Methodology includes a description for all but	The Reliability ~~Coordinator has a methodology for determining SOLs that~~Coordinator's SOL Methodology includes a description for all but	The Reliability ~~Coordinator has a methodology for determining SOLs that~~Coordinator's SOL Methodology includes a description for all but	The Reliability ~~Coordinator has a methodology for determining SOLs that~~Coordinator's SOL Methodology is missing a description

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		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. **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	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.

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		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 models any portion of the Reliability Coordinator's Reliability Coordinator Area.	~~One or both of the following :~~ The Reliability Coordinator ~~issued~~failed 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. OR For a change in methodology, the changed methodology was provided ~~up to~~	~~One of the two following :~~ The Reliability Coordinator ~~issued~~failed to issue its SOL Methodology and/or one or more changes to that methodology to ~~all but one~~two of the required entities ~~AND for a change~~specified in ~~methodology, the changed methodology was provided 30 calendar days or more, but less than 60 calendar days after the effectiveness of the change. OR~~ ~~The Reliability~~	~~One of the following :~~ The Reliability Coordinator ~~issued~~failed to issue its SOL Methodology and/or one or more changes to that methodology to ~~all but one~~three of the required entities ~~AND for a change~~specified 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~~	~~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. OR For a change in

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		R4.3. Each Transmission Operator that operates in the Reliability Coordinator Area.	~~30~~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.	~~Coordinator issued its SOL Methodology~~R4.1, 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 ~~up~~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 ~~30 calendar~~20 days after the effectiveness of the change.	~~SOL Methodology~~R4.1, 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 ~~30~~to one or more of required entities more than 20 calendar days ~~or more~~after the effectiveness of the change, but less than ~~60 calendar~~or equal to30 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 ~~90~~to 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 changed methodology was provided 30 calendar days or more,~~

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						~~but less than 60 calendar days after the effectiveness of the change.~~ ~~OR~~ ~~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 its~~responsible entity failed to provide Transfer Capabilities ~~but missed meeting one schedule by~~to 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 its~~responsible entity failed to provide Transfer Capabilities ~~but missed meeting~~to more than ~~two schedules~~10% up to (and including) 15% of the required entities.	The ~~Reliability Coordinator or Planning Authority has provided its~~responsible entity failed to provide Transfer Capabilities ~~but missed meeting all schedules within 30 calendar days~~to more than 15% of the ~~associated schedules~~required entities.

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		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 ~~Paths~~transmission paths identified in ~~the most current Table~~table 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.

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					~~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/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 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 any~~does not have coordination

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		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 ~~do~~are not ~~coordinate actions required in the adjacent Reliability Coordinator to mitigate SOL~~clear or ~~IROL violations in its own Reliability Coordinator area~~comprehensive.	~~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 of~~monitored Bulk Electric System elements ~~critical 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 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 ~~critical to assessing all IROLs and to system restoration, or~~ ~~2) the status, real 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

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					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 ~~demonstrate~~ensure 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 it~~did not continuously ~~monitored~~monitor its Reliability ~~Authority~~Coordinator Area. OR The Reliability Coordinator did not have provisions for backup facilities.

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				~~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 either 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.

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				analysis ~~timeframe but failed to coordinate pending generation and transmission maintenance outages in~~time frame or the next-day reliability analysis ~~timeframe~~time 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/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.
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/A~~The Reliability Coordinator failed to	The Reliability Coordinator failed to	~~N/A~~The Reliability Coordinator failed to	The Reliability Coordinator failed to

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		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.	notify 5% or less of the 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 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 commitments (ETC_F) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm: $ETC_F = NITS_F + GF_F + PTP_F + ROR_F + OS_F$ **Where:**	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25%	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, but not more than 35%	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, but not more than 45%	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.

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		$NITS_F$ 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. **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.	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.	

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		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: $ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$ **Where:** **$NITS_{NF}$** 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. **GF_{NF}** is the non-firm capacity reserved for Grandfathered Non-Firm Transmission Service and contracts for energy and/or	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 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.

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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: $ETC_F = NL_F + NITS_F + GF_F + PTP_F + ROR_F + OS_F$ **Where:** **NL_F** is the firm capacity set aside	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25%	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35%	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45%	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

Exhibit A – Redline Proposed VSLs

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. **$NITS_F$** 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	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.	

Exhibit A – Redline Proposed VSLs

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: $ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$ **Where:** **$NITS_{NF}$** is the non-firm capacity set aside for Network Integration Transmission Service serving Load (i.e., secondary service), to include losses, and load growth not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin. **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	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

Exhibit A – Redline Proposed VSLs

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: **R4.1.** Incorporate the NPIRs into their operating analyses of the electric system. **R4.2.** Operate the electric system to meet the NPIRs. **R4.3.** Inform the Nuclear Plant Generator Operator when the ability to assess the operation of the electric system affecting NPIRs is lost.	~~The applicable Transmission Entity failed to incorporate one or more applicable NPIRs into their operating analyses.~~N/A	~~The applicable Transmission Entity failed to incorporate any NPIRs into their operating analyses OR did not inform NPG operator when their ability of assess the operation of the electric system affecting the NPIRs was lost.~~The responsible entity did not comply with sub-requirement R4.3.	~~The applicable Transmission Entity failed to operate the system to meet the NPIRs~~The responsible entity did not comply with R4.1.	~~N/A~~The responsible entity did not comply with R4.2.
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

Exhibit A – Redline Proposed VSLs

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 deliver the training established in		~~updated its~~update 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 evaluating~~evaluate 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)

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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-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.	~~None~~N/A	The responsible entity ~~verified at least 90% but~~failed 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)	The responsible entity ~~verified at least 70% but less~~failed to verify more than ~~90~~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) ~~tasks (R2)~~ OR The responsible entity ~~failed to verify~~verified its ~~system operator's~~System Operator's capabilities to perform each new or modified task ~~within~~more than six months ~~of~~but fewer than twelve months	The responsible entity ~~verified less~~failed to verify more than ~~70~~10% 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)

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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. **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	~~None~~N/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 less~~applicable to its organization, affecting more than ~~90~~5% 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 less~~applicable to its organization, affecting more than ~~70% of~~10% its System Operators (R3) OR The responsible entity did not include simulation technology replicating the operational behavior of the BES in its emergency operations training. (R3.1)

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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/A~~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. OR Subject to standards of conduct and confidentiality agreements, the Transmission Operator notified its Reliability Coordinator and Balancing Authority of changes in	~~N/A~~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.	~~N/A~~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 rating (R16.2).	~~The~~ Subject to standards of conduct and confidentiality agreements, the Transmission Operator failed to notify ~~their~~its Reliability Coordinator and Balancing Authority of changes in ~~capabilities and characteristics, within the terms~~transmission facility status (R16.1) and ~~conditions of standards of conduct and confidentiality agreements.~~changes in transmission facility rating. (R16.2).

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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 to~~did not communicate the information described in the requirements R1 to R16 above to ~~their~~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 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.

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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/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 ~~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-contingency) operating procedures in effect, the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services at all Demand levels over the range of forecast system demands, under the conditions defined in Category A of Table I. To be considered valid, the Planning Authority and Transmission Planner assessments shall: **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 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). **R1.3.1.** Cover critical system	the near-term period exists. (R 1.2) OR The responsible entity is non-compliant with ~~25% or less~~one of the sub-components~~.~~ of requirement R1.3. (R1.3.1 through R1.3.6, R1.3.8, or R1.3.9)	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 requirement R1.3. (R1.3.1 through R1.3.6, R1.3.8, or R1.3.9)	(R1.3.1 through R1.3.6, R1.3.8, or R1.3.9) OR The responsible entity is non-compliant with subcomponent R1.3.7 of R1.3.	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 ~~75%~~four or more of the sub-components~~.~~ of requirement R1.3. (R1.3.1 through 1.3.9) OR The responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category A planning requirements. (R1.4)

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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				

Exhibit A – Redline Proposed VSLs

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 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. **R1.3.** Be supported by a current or past study and/or system simulation testing that addresses	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 less~~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 B contingencies applicable to their system, but was deficient with respect	The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for the long-term period exists. (R1.2) OR The responsible entity is non-compliant with ~~more than 25% but less than 50%~~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 B contingencies applicable to their system, but was	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 of R1.3. OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 10% up to (and including) 15% of	The responsible entity did not perform the transmission assessments annually. (R1.1) OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2) OR The responsible entity is non-compliant with ~~75%~~four or more of the sub-components~~.~~ of requirement R1.3. (R1.3.1 through 1.3.12). OR

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Standard 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). **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. **R1.3.4.** Be conducted beyond the five-year horizon only as needed	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)

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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				

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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 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. **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	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 less~~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 contingencies. (R1.5)	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 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 contingencies. (R1.5)	~~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 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)	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 ~~75%~~four or more of the sub-components~~.~~ of requirement R1.3. (R1.3.1 through 1.3.12) OR The responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category C planning requirements. (R1.4) OR

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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). **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. **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.				The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)

Exhibit A – Redline Proposed VSLs

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.				

Exhibit A – Redline Proposed VSLs

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: **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 ~~with in service dates.~~ (R2.1.1 ~~and R2.1.2~~) 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)

Exhibit A – Redline Proposed VSLs

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. **R2.2.** Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.			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 (R2.1.2) OR The responsible entity 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 A

Revised VSLs (Clean)

Exhibit A – Clean Proposed VSLs

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.

(**) 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.

Exhibit A – Clean Proposed VSLs

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 Actual Interchange.
EOP-005-2**	R2	Each Transmission Operator shall provide the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide one of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide two of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide three of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	The Transmission Operator failed to provide four or more of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.

Exhibit A – Clean Proposed VSLs

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

Exhibit A – Clean Proposed VSLs

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**	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 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 Generator Operator did not supply the Blackstart Resource testing records as requested for 31 to 60 calendar days of the request.	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.
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

Exhibit A – Clean Proposed VSLs

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

Exhibit A – Clean Proposed VSLs

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.

Exhibit A – Clean Proposed VSLs

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: **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.	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 The responsible entity did not have a current Operating Plan for backup functionality.

Exhibit A – Clean Proposed VSLs

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 identified in Requirement R1, Part				

Exhibit A – Clean Proposed VSLs

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

Exhibit A – Clean Proposed VSLs

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

Exhibit A – Clean Proposed VSLs

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: **R7.1.** The transition time between the simulated loss of primary control center functionality and the time to fully implement the backup functionality.	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	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	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

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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.

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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				

Exhibit A – Clean Proposed VSLs

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				

Exhibit A – Clean Proposed VSLs

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: **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.	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.

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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

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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 models any portion of the Reliability Coordinator's Reliability Coordinator Area. **R4.3.** Each Transmission Operator that operates in the Reliability Coordinator Area.	entities specified in R4.1, R4.2, and R4.3. OR For a change in methodology, the 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.	entities specified in R4.1, R4.2, and R4.3. OR For a change in methodology, the 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.	entities specified in R4.1, R4.2, and R4.3. OR For a change in methodology, the 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.	required entities specified in R4.1, R4.2, and R4.3. OR For a change in methodology, the changed methodology was provided to one or more of the required entities more than30 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 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.

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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

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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,

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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

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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 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.

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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

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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: $ETC_F = NITS_F + GF_F + PTP_F + ROR_F + OS_F$ **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. **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.	with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	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, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	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, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in 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.

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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: $ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$ **Where:** **$NITS_{NF}$** is the non-firm capacity set aside for Network Integration Transmission Service (i.e., secondary service , including the	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 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.

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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. **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.	25MW, whichever is greater.	35MW, whichever is greater.	45MW, whichever is greater.	
MOD-029-1a*	R5	When calculating ETC for firm Existing Transmission Commitments (ETCF) for a	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider

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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: $ETC_F = NL_F + NITS_F + GF_F + PTP_F + ROR_F + OS_F$ **Where:** **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. **$NITS_F$** 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."	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

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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: $ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$ **Where:** **$NITS_{NF}$** is the non-firm capacity set aside for Network Integration Transmission Service serving Load (i.e., secondary service), to	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

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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. **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.	greater.	greater.	greater.	
NUC-001-2	R4	Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall: **R4.1.** Incorporate the NPIRs into their operating analyses of the electric system. **R4.2.** Operate the electric system	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.

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Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		to meet the NPIRs. **R4.3.** Inform the Nuclear Plant Generator Operator when the ability to assess the operation of the electric system affecting NPIRs is lost.				
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 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	N/A	The responsible entity failed to update 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 evaluate 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)	The responsible entity failed to design and develop learning objectives and training materials based on the BES company specific reliability related tasks. (R1.2)	The responsible entity failed to prepare a BES company-specific 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)

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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-related tasks, each Reliability Coordinator, Balancing Authority and Transmission Operator shall verify each of its System	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) OR	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 The responsible entity failed to verify its System Operator's

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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. **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	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 did not include simulation technology replicating the operational behavior of the BES in its emergency operations training. (R3.1)

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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. **R16.2.** Changes in transmission facility rating.	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. OR Subject to standards of conduct and confidentiality	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	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).

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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

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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)

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Standard 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-contingency) operating procedures in effect, the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services at all Demand levels over the range of forecast system demands, under the conditions defined in Category A of Table I. To be considered valid, the Planning Authority and Transmission Planner assessments shall: **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 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 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, R1.3.8, or R1.3.9)	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, R1.3.8, or R1.3.9)	R1.3.6, R1.3.8, or R1.3.9) OR The responsible entity is non-compliant with subcomponent R1.3.7 of R1.3.	OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2) OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3. (R1.3.1 through 1.3.9) OR The responsible entity has failed to demonstrate that a corrective action plan exists in order to satisfy Category A planning requirements. (R1.4)

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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				

Exhibit A – Clean Proposed VSLs

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-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 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. **R1.3.** Be supported by a current or past study and/or system	The responsible entity has failed to demonstrate a valid assessment for the long-term period, but a valid assessment for the near-term period exists. (R 1.2) OR The responsible entity is non-compliant with one of the sub-components of requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through R1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was	The responsible entity has failed to demonstrate a valid assessment for the near-term period, but a valid assessment for the long-term period exists. (R1.2) OR The responsible entity is non-compliant with two of the sub-components of requirement R1.3. (R1.3.1 through R1.3.6 or R1.3.8 through R1.3.12) OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was	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) OR The responsible entity is non-compliant with subcomponent R1.3.7 of R1.3. OR The responsible entity has considered the NERC Category B contingencies applicable to their system, but was deficient with respect to more than 10% up to (and including) 15% of	The responsible entity did not perform the transmission assessments annually. (R1.1) OR The responsible entity has failed to demonstrate a valid assessment for the near-term period and long-term planning period. (R1.2) OR The responsible entity is non-compliant with four or more of the sub-components of requirement R1.3. (R1.3.1 through 1.3.12). OR

Exhibit A – Clean Proposed VSLs

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		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. **R1.3.4.** Be conducted beyond the	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)

Exhibit A – Clean Proposed VSLs

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				

Exhibit A – Clean Proposed VSLs

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

Exhibit A – Clean Proposed VSLs

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. **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	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 contingencies. (R1.5)	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 contingencies. (R1.5)	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 demonstrate that a corrective action plan exists in order to satisfy Category C planning requirements. (R1.4)

Exhibit A – Clean Proposed VSLs

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 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.				OR The responsible entity has considered the NERC Category C contingencies applicable to their system, but was deficient with respect to more than 15% of all applicable contingencies. (R1.5)

Exhibit A – Clean Proposed VSLs

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				

Exhibit A – Clean Proposed VSLs

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)

Exhibit A – Clean Proposed VSLs

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. **R2.2.** Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.			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 (R2.1.2) OR The responsible entity 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

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
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 VSLs were modified to be consistent with Guidelines 1 and 3. Consistent with Guidelines filed with FERC on August 10, 2009, NERC incorporated the subrequirements into the main requirement VSL so that compliance is based on meeting criteria specified in components.	See Guideline 1 Analysis. Additionally, NERC reviewed the VSLs and determined that failure to calculate frequency bias should be at least a moderate VSL for consistency with previous VSL assignments and has modified the VSL assignments accordingly.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not 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 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	NERC Staff compared the revised VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. The original VSLs did not address the case in which an entity did not establish a Frequency Bias setting. The VSLs were modified to be consistent with 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.

(*) 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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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.	
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

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					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.	compliance can be determined objectively and with certainty.	requirement over a period of time.
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	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.	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	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	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

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		normal tasks.			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.	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.	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

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					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.	compliance can be determined objectively and with certainty.	requirement over a period of time.
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	In accordance with Guidelines 1 and 2, the VSLs were modified for clarity and consistency with other standards and VSLs and carry over for this standard.	See Guideline 1 Analysis. Additionally, NERC reviewed the VSLs and determined that there was no basis for the 30-day starting point for time delay and that such a delay could represent a lowering of the previous	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, relative or	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	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

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.		levels of non-compliance. The time increments have been modified accordingly.	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.	determined objectively and with certainty.	over a period of time.
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.	In accordance with Guideline 3, the VSL assignment was modified to better reflect the language of the requirement.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, as	In accordance with Guideline 3, the VSL assignment was modified to better reflect the language of the requirement. As revised, the VSLs do not redefine or undermine the reliability goal of the requirement. 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 violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					written, 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 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.	determined objectively and with certainty.	of time.
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	In accordance with Guideline 2, the VSLs were modified for clarity and consistency with other standards.	See Guideline 1 Analysis.	NERC compared the VSL assignments to the VSL assignments in the similar EOP-005-2, R5, which has a binary VSL assignment. While NERC believes that EOP-006-2, R6 offers an opportunity for	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	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

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		prior to the implementation date.			gradation (and thus a binary VSL is not appropriate), it does believe that the previously proposed calendar day intervals were inappropriate. The VSLs have been modified accordingly.	VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	cumulative number of violations of the same requirement over a period of time
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.	In accordance with Guideline 3, the VSLs were modified for consistency with the language in the requirement.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. 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	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 were modified to incorporate the final sentence of the requirement. As modified, 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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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-006-2**	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.	The VSLs were modified to be consistent with Guidelines 2 and 3.	See Guideline 1 Analysis.	The VSLs were modified to be consistent with FERC Guideline 2b. Additionally, NERC has reviewed the VSL text and has determined that, as originally written, the VSL could have been misinterpreted to require the Reliability Coordinator to authorize resynchronizing, while the intent of the requirement is	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, were modified to incorporate the final sentence of the requirement. As modified, the VSL assignments are consistent with the requirement	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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					to require the Reliability Coordinator to 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.	and the degree of compliance can be determined objectively and with certainty.	
EOP-006-	R9	Each Reliability	In accordance with	See Guideline	NERC has	The VSLs were	The VSL

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
2**		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.	Guidelines 2 and 3, the VSLs were modified for clarity and consistency with other standards and VSLs and the language in the requirement.	1 Analysis.	reviewed the VSL text and has determined that, with the correction of typographical 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.	modified to better reflect the language and intent of the requirement, consistent with FERC Guideline 3. As revised, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	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.
EOP-008-1*	R1	Each Reliability Coordinator, Balancing Authority, and Transmission Operator	In accordance with Guideline 2, the VSL assignments have been	The most comparable VSLs for a similar	In accordance with Guideline 2, the VSL assignments have been modified	The proposed VSLs use the same terminology as used in the	The VSLs are based on a single violation and

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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	modified to eliminate an overlap between the High and Severe VSLs.	requirement are for the proposed EOP-005-2, Requirement R1. Those VSLs are based on missing one element for Lower, two for Moderate, and so forth, which is analogous to the VSL structure for EOP-008-1, Requirement R1. 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.	to eliminate an overlap between the High and Severe VSLs. As revised, the do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.	associated requirement, and are, therefore, consistent with the requirement.	not cumulative violations.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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					

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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 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	In accordance with Guidelines 2 and 4, the VSL assignments were modified to ensure consistent determination of penalties and to	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	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

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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	avoid possible double jeopardy in the application of penalties.		penalties. As revised, the 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.		jeopardy for a single violation. As revised, the VSLs are based on a single violation without regard to other violations.
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	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.	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	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

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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 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			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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
				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.			
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.	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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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 functionality for a minimum of two continuous hours.	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.
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	In accordance with Guidelines 2 and 3, the VSLs from the previous version of the standard were modified for clarity and consistency with other VSLs and standards and the language in the requirement. Consistent with	The proposed VSLs are consistent with, and improve upon, the original Levels of Non-Compliance established for version 1 of this standard. Therefore, actual compliance	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the	NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. The VSLs were slightly modified from the previous	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

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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 more severe), with Normal Clearing, on any Faulted generator, line, transformer, or shunt device. **R2.2.2.** Loss of any	Guidelines filed with FERC on August 10, 2009, NERC incorporated the subrequirements (and with them, the sub-subrequirements) into the main requirement VSL from the previous version of the standard so that compliance is based on meeting criteria specified in components.	should stay the same or improve.	determination of penalties. Thus, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, with the correction of typographical 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. 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	version of the standard for consistency with the language in the requirement. In accordance with Guideline3, the VSL assignments are now consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	violations of the same requirement over a period of time.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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			Enforcement Authority.		

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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					

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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 Coordinator's methodology for determining SOLs, shall include, as a minimum, a description of the following, along with any reliability margins applied for each: **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	In accordance with Guideline 3, the VSLs were modified to more closely match the language in the requirement. Consistent with Guidelines filed with FERC on August 10, 2009, incorporated the subrequirements into the main requirement VSL so that compliance is based on meeting criteria specified in components.	The proposed VSLs are consistent with, and improve upon, the original Levels of Non-Compliance established for version 1 of this standard. Therefore, actual compliance should stay the same or improve.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Thus, no changes to the VSLs were required. 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	After slight changes to more closely match the language in the requirement and correct a typo, NERC reviewed the existing requirement 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 assignment(s) 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.

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		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 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.			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.		
FAC-011-2	R3.6	Anticipated transmission system configuration, generation dispatch and Load level	Incorporated into VSLs for main requirement; this subrequirement	N/A	N/A	N/A	N/A

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			was included in the filing to change the blank VSLs to 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 models any portion of the Reliability Coordinator's Reliability Coordinator Area. **R4.3.** Each Transmission Operator that operates in the Reliability Coordinator Area.	The VSLs were modified to be consistent with Guidelines 2 and 3. Consistent with Guidelines filed with FERC on August 10, 2009, NERC incorporated the subrequirements into the main requirement VSL from the previous version of the standard so that compliance is based on meeting criteria specified in components.	The proposed VSLs are consistent with, and improve upon, the original Levels of Non-Compliance established for version 1 of this standard. Therefore, actual compliance should stay the same or improve.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Thus, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as previously written, the affected VSLs implied relationships between the entities to which changes were delivered and the lateness of such changes being	After slight changes to more closely match the language in the requirement and more appropriately gradate the time intervals in the assignments, NERC believes the existing requirement VSLs ensure the VSLs do not redefine or undermine the requirement's reliability goal. The VSLs were slightly modified from the previous version of the standard for consistency with the language in the requirement. In accordance with Guideline3, the VSL assignments are now consistent with the requirement and the degree of compliance can be determined	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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					delivered, resulting in VSLs that were 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.	objectively and with certainty.	
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	In accordance with Guidelines 2 and 3, the VSLs were modified for clarity and consistency with other standards and VSLs and the language in the Requirement.	See Guideline 1 Analysis.	The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the Determination of	NERC compared the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. With minor language changes	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

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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 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.			penalties. On that basis, no changes to the VSLs were required for consistency with FERC Guideline 2. Additionally, NERC has reviewed the VSL text and has determined that, with the correction of typographical 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	to more closely match the language in the requirement, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	number of violations of the same requirement over a period of time.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					penalties by the Compliance Enforcement Authority.		
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."	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

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
				previous WECC standard PRC-STD-005-1.	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. 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.	determined objectively and with certainty.	violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.
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	In accordance with Guideline 2, the VSL assignments were revised and made binary.	See Guideline 1 Analysis.	NERC staff reviewed the VSL assignments and determined that a binary VSL was more appropriate for the requirement, as	NERC compared the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the	The VSL assignments comply with Guideline 4, because they are based on a single violation of a

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.			either violation would represent a wholesale violation of the requirement. 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. 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.	requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.
IRO-001-1.1	R7	The Reliability Coordinator shall have clear, comprehensive coordination agreements	In accordance with Guidelines 2 and 3, the VSLs were modified for	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has gradated VSLs;	As written, the VSL language was too specific about the actions of the	The VSL assignments comply with Guideline 4,

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		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.	clarity and consistency with other standards and VSLs and for consistency with the language of the requirement.		therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Thus, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, with the correction of typographical 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	adjacent RC area and appeared to expand upon the language in the requirement. NERC revised the VSL assignments to better match the language in the requirement. As revised, the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are now consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of penalties by the Compliance Enforcement Authority.		
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.	In accordance with Guideline 2, the VSLs were modified to be consistent with Guideline 2b.	See Guideline 1 Analysis.	The VSLs were modified to be consistent with FERC Guideline 2b, ensuring that the distinction between the High and Severe VSLs is clear. Additionally, NERC has reviewed the VSL text and has determined that, as originally written, the VSL could have been misinterpreted to require the Reliability Coordinator to authorize resynchronizing, while the intent of the requirement is to require the Reliability Coordinator to	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 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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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-002-2**	R7	Each Reliability Coordinator shall continuously monitor its Reliability Coordinator	The VSLs were modified to be consistent with Guideline 3.	See Guideline 1 Analysis.	NERC has reviewed the VSL text and has determined that, as	The VSLs were modified to be consistent with FERC Guideline	The VSL assignments comply with Guideline 4,

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.			written, 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.	3. As revised, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	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.
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	In accordance with Guidelines 2 and 3, the VSLs were modified for clarity and consistency with other standards and VSLs and for consistency with the language of the requirement.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. Additionally, NERC has reviewed the VSL text and has determined that, with the correction of typographical errors, stylistic edits or format changes, the VSL	NERC revised the VSL assignments to ensure that all aspects of the requirement were accounted for. AS revised, 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 violation of a Reliability Standard and are not based on a

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.			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.	determined objectively and with certainty.	cumulative number of violations of the same requirement over a period of time.
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.	In accordance with Guideline 2, the VSL was modified to appropriately place the single assignment in the "Severe" category and to remove a reference to a Level of Non-Compliance.	The VSL assignment does not lower the Levels of Non-Compliance found in previous WECC standard IRO-006-STD-006-0.	In accordance with Guideline 2a, the binary VSL assignment was moved from Lower to Severe. In accordance with Guideline 2b, a reference to a Level of Non-Compliance was removed to ensure consistency with	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	The VSL assignment complies with Guideline 4, because it is based on a single violation of a Reliability Standard and is not based on a cumulative number of

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					other standards. As revised, 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.	are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	violations of the same requirement over a period of time.
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	In accordance with Guideline 2, the VSLs were modified to become binary and for clarity and consistency with other standards and VSLs.	This is a new standard. Accordingly, no historic performance has been established.	NERC determined that the requirement was more appropriately seen as a "pass or fail" requirement, thus the VSLs assignments were made binary. The VSLs were also modified for clarity	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	The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		Coordinator shall share its results with those entities that are expected to take those actions.			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. 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.	Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	on a cumulative number of violations of the same requirement over a period of time.
IRO-015-1	R1	The Reliability Coordinator shall follow its Operating Procedures,	In accordance with Guideline 2, the VSLs were	The VSLs included in this filing have	In accordance with Guideline 2a, because the portion	NERC compared the existing VSLs to the stated	The VSL assignments comply with

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.	modified to make the main requirement VSL assignment Severe and for clarity and consistency with other standards and VSLs. Consistent with Guidelines filed with FERC on August 10, 2009, NERC incorporated the subrequirements into the main requirement VSL so that compliance is based on meeting criteria specified in components.	been modified for clarity and consistency. However, the VSLs have not changed significantly over time. Although proposed for modification, the VSLs as modified do not signal a lower compliance threshold than previously existed. NERC believes that these VSLs do not have the effect of decreasing reliability below historic levels.	of the VSL that addresses the main requirement is binary, NERC determined that it would be more appropriately assigned as "Severe." Additionally, NERC has reviewed the VSL text and has determined that, with the correction of typographical 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. 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	requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
MOD-028-1*	R8	When calculating Existing Transmission Commitments (ETCs) for firm commitments (ETC_F) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm: $ETC_F = NITS_F + GF_F + PTP_F + ROR_F + OS_F$ **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. **GF_F** is the firm capacity set aside for Grandfathered Firm Transmission Service and	The VSL assignments comply with all FERC Guidelines.	This is a new standard. Accordingly, no historic performance has been established.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. 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	NERC reviewed the existing requirement 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 assignment(s) 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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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. **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			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.		

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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: $ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$ **Where:** **$NITS_{NF}$** 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. **GF_{NF}** is the non-firm capacity reserved for Grandfathered Non-Firm Transmission Service and contracts for energy	The VSL assignments comply with all FERC Guidelines.	This is a new standard. Accordingly, no historic performance has been established.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. 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	NERC reviewed the existing requirement 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 assignment(s) 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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.			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.		
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:	The VSL assignments comply with all FERC Guidelines.	This is a new standard. Accordingly, no historic performance has been established.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity	NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the	The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		$ETC_F = NL_F + NITS_F + GF_F + PTP_F + ROR_F + OS_F$ **Where:** **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. **$NITS_F$** 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			and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. 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. 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	requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	Standard and are not based on a cumulative number of violations of the same requirement over a period of time.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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 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.			penalties by the Compliance Enforcement Authority.		
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:	The VSL assignments comply with all FERC Guidelines.	This is a new standard. Accordingly, no historic performance has been established.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency	NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's	The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		$ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$ **Where:** **$NITS_{NF}$** is the non-firm capacity set aside for Network Integration Transmission Service serving Load (i.e., secondary service), to include losses, and load growth not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin. **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),			among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. 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. 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	reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	are not based on a cumulative number of violations of the same requirement over a period of time.

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

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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-005-1**	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	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 of the	This is a new standard. Accordingly, no historic performance has been established.	The VSLs were modified for clarity and consistency with other standards and VSLs. Additionally, NERC has reviewed the VSL text and has	NERC revised the VSLs to better incorporate R1.4. As revised, the assignments are consistent with the requirement and the degree of compliance can be determined	The VSL Assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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	requirement.		determined that, as 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.	objectively and with certainty.	are not based on a cumulative number of violations of the same requirement over a period of time.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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.					
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. **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	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 of the requirement.	This is a new standard. Accordingly, no historic performance has been established.	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, relative or subjective language satisfying Guideline 2b.	NERC revised the VSLs to better 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.	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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		System Operator's capabilities to perform the new or modified tasks.			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.		
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. **3.1** Each Reliability	No changes.	This is a new standard. Accordingly, no historic performance has been established.	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. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit	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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.			the consistent and Objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
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.	In accordance with Guidelines 2 and 3, the VSLs were modified for clarity and consistency with other standards and VSLs and to more closely match the language in the requirement.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The prior assignment of a binary VSL was revised to provide a level of gradation. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the	In accordance with Guideline 3, the NERC has revised the VSL assignments as noted in the redline text to be more consistent with the language of the requirement. As revised, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and	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

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					determination of 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 Authority.	with certainty.	of time.
TOP-002-2.1b	R16	Subject to standards of conduct and confidentiality agreements, Transmission	In accordance with Guideline 3, NERC revised the VSL assignments	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has gradated VSLs;	NERC revised the VSL assignments to better reflect the language in the	The VSL Assignments comply with Guideline 4,

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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.	to better reflect the language in the requirement and to account for additional gradation afforded by the requirement language. Consistent with Guidelines filed with FERC on August 10, 2009, incorporated the subrequirements into the main requirement VSL so that compliance is based on meeting criteria specified in components.		therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSL language were required for consistency with FERC Guideline 2. 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	requirement and to account for additional gradation afforded by the requirement language. As revised, the assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	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.

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Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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-002-2.1b	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.	The VSL was modified to be consistent with Guideline 3.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments for binary requirements, satisfying Guideline 2a. 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,	In accordance with Guideline 3, the NERC has revised the VSL assignments as noted in the redline text to be more consistent with the language of the requirement. Per stakeholder feedback, the Severe VSL was modified to reflect the components listed in the requirement. It was necessary to highlight that an entity could violate the requirement either by not communicating information or by intentionally	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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					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.	delaying communication of that information. As revised, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	
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.	In accordance with Guideline 1, the percentage distribution was modified to ensure that the level of non-compliance was not lowered. In accordance with Guideline 2, the VSLs were modified for clarity and consistency with other standards and VSLs.	See Guideline 1 Analysis. Additionally, the percentage distribution was modified to ensure that the level of non-compliance was not lowered from the previous version. Because entities monitor thousands of elements, the	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, 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	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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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 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.	In accordance with Guideline 3, NERC modified the Severe VSL assignment to remove the second part of the assignment, which did not apply to R3.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The VSL is binary and the single VSL is assigned as Severe in accordance with Guideline 2a. 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	NERC modified the Severe VSL assignment to remove the second part of the assignment, which did not apply to R3. As revised, 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	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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					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 the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.	determined objectively and with certainty.	
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.	In accordance with Guidelines 2 and 3, 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 with other standards and VSLs. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. A prior use of a binary VSL was removed to provide levels of gradation. The gradated VSLs ensure uniformity and consistency among all approved	In accordance with Guideline 3, the VSLs were modified to incorporate the SOL references into the same VSL assignments as the IROL references. From the standpoint of the requirement, these elements are equal and are more appropriately assigned the same level of non-compliance within the contact of the standard. As	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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
					Reliability Standards in the determination of penalties. 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. 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	revised, the VSL assignments are consistency with the requirement and the degree of compliance can be determined objectively and with certainty.	
TPL-001-0.1	R1	The Planning Authority and Transmission Planner shall each demonstrate	The VSLs were modified to be consistent with	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement	In accordance with Guideline 3, NERC has revised	The VSL Assignments comply with

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		through a valid assessment that its portion of the interconnected transmission system is planned such that, with all transmission facilities in service and with normal (pre-contingency) operating procedures in effect, the Network can be operated to supply projected customer demands and projected Firm (non- recallable reserved) Transmission Services at all Demand levels over the range of forecast system demands, under the conditions defined in Category A of Table I. To be considered valid, the Planning Authority and Transmission Planner assessments shall: **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	Guideline 3. Consistent with Guidelines filed with FERC on August 10, 2009, NERC incorporated the subrequirements into the main requirement VSL so that compliance is based on meeting criteria specified in components.		has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required for consistency with FERC Guideline 2. Additionally, the 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. Therefore, the text is not subject to the possibility of multiple	the VSL assignments as noted in the redline text. In particular, NERC determined that a violation of R1.3.7 was more significant than a violation of the other subrequirements, and R1.3.7 was separated out. As revised, and incorporated into the roll-up VSLs, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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). **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.			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 B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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). **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. **R1.4.** 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	The VSLs were modified to be consistent with Guideline 3. Consistent with Guidelines filed with FERC on August 10, 2009, NERC incorporated the subrequirements	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all	In accordance with Guideline 3, NERC has revised the VSL assignments as noted in the redline text. In particular, NERC determined that a violation of R1.3.7 was more	The VSL Assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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 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. **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	into the main requirement VSL so that compliance is based on meeting criteria specified in components.		approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required for consistency with FERC Guideline 2. Additionally, the 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. 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	significant than a violation of the other subrequirements, and R1.3.7 was separated out. As revised, and incorporated into the roll-up VSLs, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	on a cumulative number of violations of the same requirement over a period of time.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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. **R1.3.4.** Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time			determination of penalties by the Compliance Enforcement Authority.		

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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. **R1.3.7.** Demonstrate that system performance meets Category B 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					

Exhibit B – VSL Guideline Explanations

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

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		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. **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			consistency with FERC Guideline 2. Additionally, the 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. 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.	the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.	

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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. **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.					

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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					

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 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 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. **R2.1.2.** Including a discussion of expected required in-service dates of facilities. **R2.1.3.** Consider lead times necessary to implement plans.	The VSLs were modified to be consistent with Guideline 3. Consistent with Guidelines filed with FERC on August 10, 2009, NERC incorporated the subrequirements into the main requirement VSL so that compliance is based on meeting criteria specified in components.	See Guideline 1 Analysis.	The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required for consistency with FERC Guideline 2. Additionally, the NERC has reviewed the VSL text and has determined that, with the correction of typographical errors, stylistic	NERC modified the VSL assignments to account for subrequirements R2.1.1, R2.1.2, and R2.1.3. 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.

Exhibit B – VSL Guideline Explanations

Standard Number	Requirement Number	Text of Requirement	Explanation	Guideline 1 Comments	Guideline 2 Comments	Guideline 3 Comments	Guideline 4 Comments
		R2.2. Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.			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.		

Exhibit C

Revised VRFs (Redline)

Exhibit C – Redlined Proposed VRFs and Guideline Explanation

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.	~~Lower~~Medium	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: **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	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.

		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: R**1.2.1.** 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	Medium	*Guideline 2 (Consistency within a Reliability Standard):* The requirement has no sub-requirements 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 implementation of the Operating Plan for backup functionality.		*Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective):* EOP-008-1, Requirement R1 contains only one objective, therefore only one VRF was assigned.
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 sub-requirements so only one VRF was assigned. Therefore, there is no conflict.

Exhibit C – Redlined Proposed VRFs and Guideline Explanation

		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 Co-mingle 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	~~Medium~~High	*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 sub-requirements 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

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				lead directly to instability, separation, or Cascading. This meets NERC's definition for a High VRF. *Guideline 5 (Treatment of Requirements that Co-mingle 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	~~Medium~~High	*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 sub-requirements 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 Co-mingle 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~~Medium	*Guideline 2 (Consistency within a Reliability Standard):* The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.

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		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 Co-mingle 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 sub-requirements 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

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				cascading failures. *Guideline 5 (Treatment of Requirements that Co-mingle 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 sub-requirements 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 Co-mingle More Than One Objective):* EOP-008-1, Requirement R7 contains only one objective, therefore only one VRF was assigned.

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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.	~~Medium~~High	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.	~~Medium~~High	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

		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.		there is no conflict. *FERC's Guideline 3:* Consistency among Reliability Standards. IRO-004-1 Requirement R5 includes actions similar to those required in IRO-008-1, Requirement R3. The VRF for IRO-004-1, Requirement R5 is "High." The drafting team recognizes that the VRF for IRO-008-1 Requirement R3 is lower than the VRF for the similar requirement IRO-004-1 which is assigned a High VRF; however, the IRO drafting team and stakeholders support the Medium VRF based on NERC's criteria for VSLs. IRO-008-1 Requirement R3 requires the Reliability Coordinator to share the results of its analyses with entities that are expected to take actions to prevent or mitigate instances of exceeding an IROL. The assignment of the "Medium" VRF was made based on the premise that failure to share this information, by itself, would not directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures. For a requirement to be assigned a "High" VRF, there should be the expectation that failure to meet the required performance "will" result in instability, separation, or cascading failures. This is not the case when a Reliability Coordinator fails to share the results of its analyses. While the drafting team agrees that if the Reliability Coordinator fails to share the results of its analyses, this failure will put other entities in a position where they are not as prepared as they should be to address instances of preventing or exceeding IROLs. However, even if the Reliability Coordinator failed to share this information in advance, the Reliability Coordinator is still required, under IRO-009-1, Requirements R1 through R4 to have action plans for preventing and mitigating instances of exceeding 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

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				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-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

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				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

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		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	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 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	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.

		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)

Exhibit C – Clean Proposed VRFs

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

Exhibit C – Clean Proposed VRFs

		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. **R9.2.** Reestablishing the Interconnection.	Medium
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: R**1.2.1.** 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	Medium

Exhibit C – Clean Proposed VRFs

		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

Exhibit C – Clean Proposed VRFs

		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. **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.	Medium
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: **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
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

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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.	Medium
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
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
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.	Medium
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.	Medium

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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 **R3.2.** Identifying expected import path(s) or source region(s).	Medium
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 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

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		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