

Violation Risk Factor and Violation Severity Level Justifications

Project 2021-04 Modifications to PRC-002-3

This document provides the standard drafting team's (SDT's) justification for assignment of violation risk factors (VRFs) and violation severity levels (VSLs) for each requirement in [Project Number and Name or Standard Number]. Each requirement is assigned a VRF and a VSL. These elements support the determination of an initial value range for the Base Penalty Amount regarding violations of requirements in FERC-approved Reliability Standards, as defined in the Electric Reliability Organizations (ERO) Sanction Guidelines. The SDT applied the following NERC criteria and FERC Guidelines when developing the VRFs and VSLs for the requirements.

NERC Criteria for Violation Risk Factors

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to Bulk Electric System instability, separation, or a cascading sequence of failures, or could place the Bulk Electric System at an unacceptable risk of instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to Bulk Electric System instability, separation, or a cascading sequence of failures; or could place the Bulk Electric System instability, separation, or a cascading sequence of failures, or could place the Bulk Electric System at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, 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. However, violation of a medium risk requirement is unlikely to lead to Bulk Electric System instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor, control, or restore the Bulk Electric System. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to Bulk Electric System instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that is administrative in nature and a requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor and control the Bulk Electric System; or, a requirement that is administrative in nature and a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor, control, or restore the Bulk Electric System.

FERC Guidelines for Violation Risk Factors

Guideline (1) – Consistency with the Conclusions of the Final Blackout Report

FERC seeks to ensure that VRFs assigned to Requirements of Reliability Standards in these identified areas appropriately reflect their historical critical impact on the reliability of the Bulk-Power System. In the VSL Order, FERC listed critical areas (from the Final Blackout Report) where violations could severely affect the reliability of the Bulk-Power System:

- Emergency operations
- Vegetation management
- Operator personnel training
- Protection systems and their coordination
- Operating tools and backup facilities
- Reactive power and voltage control
- System modeling and data exchange
- Communication protocol and facilities
- Requirements to determine equipment ratings
- Synchronized data recorders
- Clearer criteria for operationally critical facilities
- Appropriate use of transmission loading relief.

Guideline (2) - Consistency within a Reliability Standard

FERC expects a rational connection between the sub-Requirement VRF assignments and the main Requirement VRF assignment.

Guideline (3) – Consistency among Reliability Standards

FERC expects the assignment of VRFs corresponding to Requirements that address similar reliability goals in different Reliability Standards would be treated comparably.

Guideline (4) – Consistency with NERC's Definition of the Violation Risk Factor Level

Guideline (4) was developed to evaluate whether the assignment of a particular VRF level conforms to NERC's definition of that risk level.

Guideline (5) – Treatment of Requirements that Co-mingle More Than One Obligation

Where a single Requirement co-mingles a higher risk reliability objective and a lesser risk reliability objective, the VRF assignment for such Requirements must not be watered down to reflect the lower risk level associated with the less important objective of the Reliability Standard.

NERC Criteria for Violation Severity Levels

VSLs define the degree to which compliance with a requirement was not achieved. Each requirement must have at least one VSL. While it is preferable to have four VSLs for each requirement, some requirements do not have multiple "degrees" of noncompliant performance and may have only one, two, or three VSLs.

VSLs should be based on NERC's overarching criteria shown in the table below:

Lower VSL	Moderate VSL	High VSL	Severe VSL
The performance or product measured almost meets the full intent of the requirement.	The performance or product measured meets the majority of the intent of the requirement.	The performance or product measured does not meet the majority of the intent of the requirement, but does meet some of the intent.	The performance or product measured does not substantively meet the intent of the requirement.

FERC Order of Violation Severity Levels

The FERC VSL guidelines are presented below, followed by an analysis of whether the VSLs proposed for each requirement in the standard meet the FERC Guidelines for assessing VSLs:

Guideline (1) – Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance

Compare the VSLs to any prior levels of non-compliance and avoid significant changes that may encourage a lower level of compliance than was required when levels of non-compliance were used.

Guideline (2) – Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties

A violation of a "binary" type requirement must be a "Severe" VSL.

Do not use ambiguous terms such as "minor" and "significant" to describe noncompliant performance.

Guideline (3) – Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement

VSLs should not expand on what is required in the requirement.



Guideline (4) – Violation Severity Level Assignment Should Be Based on a Single Violation, Not on a Cumulative Number of Violations

Unless otherwise stated in the requirement, each instance of non-compliance with a requirement is a separate violation. Section 4 of the Sanction Guidelines states that assessing penalties on a per violation per day basis is the "default" for penalty calculations.

PRC-002-4 VRF Justification for PRC-002-4, Requirement R1

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSLs for PRC-002-4, Requirement R1			
Lower	Moderate	High	Severe
The Transmission Owner identified the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 for more than 80 percent, but less than 100 percent of the required BES buses that they own.	The Transmission Owner identified the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 for more than 70 percent, but less than 80 percent of the required BES buses that they own.	The Transmission Owner identified the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 for more than 60 percent, but less than 70 percent of the required BES buses that they own.	The Transmission Owner identified the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 for less than or equal to 60 percent of the required BES buses that they own.
OR	OR	OR	OR
The Transmission Owner evaluated the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3, but was late by 30 calendar days or less. OR	The Transmission Owner evaluated the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3, but was late by greater than 30 calendar days and less than or equal to 60 calendar days.	The Transmission Owner evaluated the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3, but was late by greater than 60 calendar days and less than or equal to 90 calendar days.	The Transmission Owner evaluated the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3, but was late by greater than 90 calendar days. OR
The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying the other owners that their BES Elements require SER or FR data by 10 calendar days or less. OR	OR The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying the other owners that their BES Elements require SER or FR data by greater than 10 calendar days, but less than or equal to 20 calendar days.	OR The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying the other owners that their BES Elements require SER or FR data by greater than 20 calendar days, but less than or equal to 30 calendar days.	The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying one or more other owners that their BES Elements require SER or FR data by greater than 30 calendar days.



The Transmission Owner as		
directed by Requirement R1, Part		
1.2 did not notify the other owners		
that their BES Elements do not		
require SER or FR data within 90		
calendar days.		

VSL Justifications for PRC-002-4, Requirement R1		
FERC VSL G1	The proposed VSLs do not have the unintended consequence of lowering the level of compliance.	
Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	The SDT clarified the currently approved VSLs by adding language regarding the late notification (e.g. The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying the other owners that their BES Elements require SER or FR data by 10 calendar days or less).	
	Consistent with the proposed revisions to the associated requirement, the SDT also added languge to the Lower VSL to address the instance where the Transmission Owner as directed by Requirement R1, Part 1.2 did not notify the other owners that their BES Elements do not require SER or FR data within 90 calendar days.	
FERC VSL G2	The proposed VSLs are not binary and do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	
Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties		
<u>Guideline 2a</u> : The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent		
<u>Guideline 2b</u> : Violation Severity Level Assignments that Contain Ambiguous Language		
FERC VSL G3	The proposed VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.	
Violation Severity Level Assignment		



VSL Justifications for PRC-002-4, Requirement R1		
Should Be Consistent with the Corresponding Requirement		
FERC VSL G4	Each VSL is based on a single violation and not cumulative violations.	
Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations		

VRF Justification for PRC-002-4, Requirement R2

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R2

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R3

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R3

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R4

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R4

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R5

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.





VSL Justifications for PRC-002-4, Requirement R5		
FERC VSL G1	The proposed VSLs do not have the unintended consequence of lowering the level of compliance.	
Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	The SDT clarified the currently approved VSLs by adding language regarding the late notification (e.g. The Reliability Coordinator as directed by Requirement R5, Part 5.3 was late in notifying the owners that their BES Elements require DDR data by 10 calendar days or less).	
	Consistent with the proposed revisions to the associated requirement, the SDT also added languge to the Lower VSL to address the instance where the Reliability Coordinator as directed by Requirement R5, Part 5.3 did not notify the owners that their BES Elements do not require DDR data within 90 calendar days.	
FERC VSL G2	The proposed VSLs are not binary and do not use any ambiguous terminology, thereby supporting uniformity	
Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties	and consistency in the determination of similar penalties for similar violations.	
<u>Guideline 2a</u> : The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent		
<u>Guideline 2b</u> : Violation Severity Level Assignments that Contain Ambiguous Language		
FERC VSL G3	The proposed VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.	
Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement		
FERC VSL G4	Each VSL is based on a single violation and not cumulative violations.	
Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative		



	VSL Justifications for PRC-002-4, Requirement R5
Number of Violations	

VRF Justification for PRC-002-4, Requirement R6

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R6

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R7

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R7

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R8

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R8

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R9

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R9

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R10

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R10

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R11



The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R11

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VRF Justification for PRC-002-4, Requirement R12

The VRF did not change from the previously FERC approved PRC-002-3 Reliability Standard.

VSL Justification for PRC-002-4, Requirement R12

The VSL did not change from the previously FERC approved PRC-002-3 Reliability Standard.



VRF Justifications for PRC-002-4, Requirement R13		
Proposed VRF	Lower	
NERC VRF Discussion	A VRF of Lower is appropriate due to this Requirement is administrative in nature and a requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor and control the Bulk Electric System; or a requirement that is administrative in nature and a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor, control, or restore the Bulk Electric System. Therefore, it is consistent with the definition of a Lower VRF.	
FERC VRF G1 Discussion	This VRF is consistent with the identified areas from the FERC list of critical areas in the Final Blackout Report.	
Guideline 1- Consistency with Blackout Report		
FERC VRF G2 Discussion	The VRF for Requirement R13 is consistent with those of other requirements to have DDR, SER, or FR data in the	
Guideline 2- Consistency within a Reliability Standard	proposed Reliability Standard.	
FERC VRF G3 Discussion	This VRF is consistent with other VRFs that address similar reliability goals in different Reliability Standards.	
Guideline 3- Consistency among Reliability Standards		
FERC VRF G4 Discussion	This VRF is consistent with the definition of a lower VRF requirement per the criteria filed with FERC as part of ERO's Sanctions Guidelines.	
Guideline 4- Consistency with NERC Definitions of VRFs		
FERC VRF G5 Discussion	This requirement does not mingle a higher risk reliability objective and a lesser risk reliability objective. Therefore, the VRF reflects the risk of the whole requirement.	
Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation	the VRF reflects the risk of the whole requirement.	

VSLs for PRC-002-4, Requirement R13			
Lower	Moderate	High	Severe
The Transmission Owner or Generator Owner had SER data for more than 75 percent, but less than 100 percent of the BES buses identified during the re-evaluation per Requirement R1, Part 1.3.	Transmission Owner or Generator Owner had SER data for more than 50 percent, but less than 75 percent of the BES buses identified during the re-evaluation per Requirement R1, Part 1.3.	The Transmission Owner or Generator Owner had SER data for more than 25 percent, but less than 50 percent of the BES buses identified during the re-evaluation per Requirement R1, Part 1.3.	The Transmission Owner or Generator Owner had SER data for less than or equal to 25 percent of the BES buses identified during the re-evaluation per Requirement R1, Part 1.3.
OR	OR	OR	OR
The Transmission Owner or Generator Owner had FR data for more than 75 percent, but less than 100 percent of the BES buses identified during the re-evaluation per Requirement R1, Part 1.3. OR The Transmission Owner or Generator Owner had DDR data for more than 75 percent, but less than 100 percent of the BES Elements identified during the re- evaluation per Requirement R5, Part 5.4.	The Transmission Owner or Generator Owner had FR data for more than 50 percent, but less than or equal to 75 percent of the BES buses identified during the re- evaluation per Requirement R1, Part 1.3. OR The Transmission Owner or Generator Owner had DDR data for more than 50 percent, but less than or equal to 75 percent of the BES Elements identified during the re-evaluation per Requirement R5, Part 5.4.	The Transmission Owner or Generator Owner had FR data for more than 25 percent, but less than or equal to 50 percent of the BES buses identified during the re- evaluation per Requirement R1, Part 1.3. OR The Transmission Owner or Generator Owner had DDR data for more than 25 percent, but less than or equal to 50 percent of the BES Elements identified during the re-evaluation per Requirement R5, Part 5.4.	The Transmission Owner or Generator Owner had FR data for less than or equal to 25 percent of the BES buses identified during the re-evaluation per Requirement R1, Part 1.3. OR The Transmission Owner or Generator Owner had DDR data for less than or equal to 25 percent of the BES Elements identified during the re-evaluation per Requirement R5, Part 5.4

VSL Justifications for PRC-002-4, Requirement R13		
FERC VSL G1	The requirement is new. Therefore, the proposed VSLs do not have the unintended consequence of lowering the level of compliance.	
Violation Severity Level Assignments		
Should Not Have the Unintended		
Consequence of Lowering the		



VSL Justifications for PRC-002-4, Requirement R13		
Current Level of Compliance		
FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties	The proposed VSLs are not binary and do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	
<u>Guideline 2a</u> : The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent		
<u>Guideline 2b</u> : Violation Severity Level Assignments that Contain Ambiguous Language		
FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	The proposed VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.	
FERC VSL G4	Each VSL is based on a single violation and not cumulative violations.	
Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations		