

# Violation Risk Factor and Violation Severity Level Justifications

## Project 2021-02 Modifications to VAR-002-4.1

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 2021-02 Modifications to VAR-002-4.1. 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 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.

**VRF Justification for VAR-002-5, Requirement R1**

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

**VSL Justification for VAR-002-5, Requirement R1**

The justification is provided in the following pages.

**VRF Justification for VAR-002-5, Requirement R2**

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

**VSL Justification for VAR-002-5, Requirement R2**

The justification is provided in the following pages.

**VRF Justification for VAR-002-5, Requirement R3**

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

**VSL Justification for VAR-002-5, Requirement R3**

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

**VRF Justification for VAR-002-5, Requirement R4**

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

**VSL Justification for VAR-002-5, Requirement R4**

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

**VRF Justification for VAR-002-5, Requirement R5**

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

**VSL Justification for VAR-002-5, Requirement R5**

The justification is provided in the following pages.

**VRF Justification for VAR-002-5, Requirement R6**

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

**VSL Justification for VAR-002-5, Requirement R6**

The justification is provided in the following pages.

VSLs for VAR-002-5, Requirement R1			
Lower	Moderate	High	Severe
N/A	N/A	N/A	Unless exempted, the Generator Operator did not operate each generator and dispersed power producing resource connected to the interconnected Transmission System in the automatic voltage control mode or in a different control mode as instructed by the Transmission Operator, and failed to provide the required notifications to Transmission Operator as identified in Requirement R1.

**VSL Justifications for VAR-002-5 Requirement R1**

<p><b>FERC VSL G1</b>          Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>	<p>Consistent with NERC’s VSL Guideline, this VSL acknowledges the criticality of this requirement and whether or not a system voltage schedule was created. The assignment does not have the unintended consequence of lowering the current level of compliance.</p>
<p><b>FERC VSL G2</b>          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</p>	<p>The proposed VSL is written to ensure uniformity and consistency in the determination of penalties.</p> <p>Guideline 2a: The proposed VSL is binary, and therefore, a single severe VSL is necessary.</p> <p>Guideline 2b: The proposed VSL does not use ambiguous terms, supporting uniformity and consistency in the determination of similar penalties for similar violations.</p>
<p><b>FERC VSL G3</b>          Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement</p>	<p>The proposed VSL is consistent with the corresponding requirement. The proposed VSL reflects revisions to the underlying requirement language.</p>
<p><b>FERC VSL G4</b>          Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>	<p>The proposed VSL is not based on a cumulative number of violations.</p>

**VSLs for VAR-002-5, Requirement R2**

Lower	Moderate	High	Severe
N/A	N/A	<p>The Generator Operator did maintain voltage or Reactive Power as instructed by the Transmission Operator.</p> <p>AND</p> <p>The Generator Operator did make the necessary notifications required by the Transmission Operator.</p> <p>BUT</p> <p>The Generator Operator did not have a conversion methodology when it monitored voltage at a location different from the schedule provided by the Transmission Operator.</p>	<p>The Generator Operator did not maintain the voltage or Reactive Power schedule as instructed by the Transmission Operator and did not make the necessary notifications required by the Transmission Operator.</p> <p>AND</p> <p>The Generator Operator did make the necessary notifications required by the Transmission Operator.</p> <p>OR</p> <p>The Generator Operator did not have an operating AVR or volt/VAR controller(s) did not use an alternative method for controlling voltage or provide notification to the Transmission Operator if no alternative method of control was available.</p> <p>OR</p>



			The Generator Operator did not modify voltage when directed, and did not provide any explanation.
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<b>VSL Justifications for VAR-002-5 Requirement R2</b>	
<p><b>FERC VSL G1</b></p> <p>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>	<p>The VSL assignments do not have the unintended consequence of lowering the current level of compliance.</p>
<p><b>FERC VSL G2</b></p> <p>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties</p> <p><u>Guideline 2a</u>: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent</p> <p><u>Guideline 2b</u>: Violation Severity Level Assignments that Contain Ambiguous Language</p>	<p>The proposed VSL is written to ensure uniformity and consistency in the determination of penalties.</p> <p>Guideline 2a: The proposed VSL is not binary.</p> <p>Guideline 2b: The proposed VSL does not use ambiguous terms, supporting uniformity and consistency in the determination of similar penalties for similar violations.</p>
<p><b>FERC VSL G3</b></p> <p>Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement</p>	<p>The proposed VSL is worded consistently with the corresponding requirement.</p>
<p><b>FERC VSL G4</b></p> <p>Violation Severity Level Assignment Should Be Based on A Single</p>	<p>The proposed VSL is not based on a cumulative number of violations.</p>

**VSL Justifications for VAR-002-5 Requirement R2**

Violation, Not on A Cumulative Number of Violations	
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**VSLs for VAR-002-5, Requirement R5**

Lower	Moderate	High	Severe
N/A	N/A	The Generator Owner for each applicable Facility failed to provide its associated Transmission Operator and Transmission Planner one of the types of data specified in Requirement R5 Parts 5.1.1, 5.1.2, and 5.1.3.	The Generator Owner for each applicable Facility failed to provide to its associated Transmission Operator and Transmission Planner two or more of the types of data specified in Requirement R5 Parts 5.1.1, 5.1.2, and 5.1.3.

**VSL Justifications for VAR-002-5 Requirement R5**

<b>FERC VSL G1</b> Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	The VSL assignment does not have the unintended consequence of lowering the current level of compliance.
<b>FERC VSL G2</b> 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	The proposed VSL is written to ensure uniformity and consistency in the determination of penalties.  Guideline 2a: The proposed VSL is binary because the requirement focuses on whether tap changes were made.  Guideline 2b: The proposed VSL does not use ambiguous terms, supporting uniformity and consistency in the determination of similar penalties for similar violations.

**VSL Justifications for VAR-002-5 Requirement R5**

<p>Consistent</p> <p><u>Guideline 2b</u>: Violation Severity Level Assignments that Contain Ambiguous Language</p>	
<p><b>FERC VSL G3</b></p> <p>Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement</p>	<p>The proposed VSL is worded consistently with the corresponding requirement.</p>
<p><b>FERC VSL G4</b></p> <p>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>	<p>The proposed VSL is not based on a cumulative number of violations.</p>

**VSLs for VAR-002-5, Requirement R6**

Lower	Moderate	High	Severe
N/A	N/A	N/A	<p>The Generator Owner for each applicable Facility did not ensure the tap changes were made according to the Transmission Operator’s specifications.</p> <p>OR</p> <p>The Generator Owner for each applicable Facility failed to perform the tap changes, and the Generator Owner for each applicable Facility did not provide technical justification for why it could not comply with the Transmission Operator specifications.</p>

**VSL Justifications for VAR-002-5 Requirement R6**

<p><b>FERC VSL G1</b></p> <p>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>	<p>The VSL assignment does not have the unintended consequence of lowering the current level of compliance.</p>
<p><b>FERC VSL G2</b></p> <p>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties</p> <p><u>Guideline 2a: The Single Violation</u></p>	<p>The proposed VSL is written to ensure uniformity and consistency in the determination of penalties.</p> <p>Guideline 2a: The proposed VSL is binary because the requirement focuses on whether tap changes were made.</p> <p>Guideline 2b: The proposed VSL does not use ambiguous terms, supporting uniformity and consistency in the determination of similar penalties for similar violations.</p>

**VSL Justifications for VAR-002-5 Requirement R6**

<p>Severity Level Assignment Category for "Binary" Requirements Is Not Consistent</p> <p><u>Guideline 2b</u>: Violation Severity Level Assignments that Contain Ambiguous Language</p>	
<p><b>FERC VSL G3</b></p> <p>Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement</p>	<p>The proposed VSL is worded consistently with the corresponding requirement.</p>
<p><b>FERC VSL G4</b></p> <p>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>	<p>The proposed VSL is not based on a cumulative number of violations.</p>