

# Violation Risk Factor and Violation Severity Level Justifications

## Project 2017-01 Modifications to BAL-003, Phase II

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 2017-01 Modifications to BAL-003, Phase II, Reliability Standard BAL-003-3. 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 BAL-003, Requirement R1**

The VRF did not change from the previously FERC-approved BAL-003-2 Reliability Standard.

#### **VSL Justification for BAL-003, Requirement R1**

The justification is provided on the following pages.

#### **VRF Justification for BAL-003, Requirement R2**

The VRF did not change from the previously FERC-approved BAL-003-2 Reliability Standard.

#### **VSL Justification for BAL-003, Requirement R2**

The VSL did not change from the previously FERC-approved BAL-003-2 Reliability Standard.

#### **VRF Justification for BAL-003, Requirement R3**

The VRF did not change from the previously FERC-approved BAL-003-2 Reliability Standard.

#### **VSL Justification for BAL-003, Requirement R3**

The VSL did not change from the previously FERC-approved BAL-003-2 Reliability Standard.

#### **VRF Justification for BAL-003, Requirement R4**

The VRF did not change from the previously FERC-approved BAL-003-2 Reliability Standard.

#### **VSL Justification for BAL-003, Requirement R4**

The VSL did not change from the previously FERC-approved BAL-003-2 Reliability Standard.

#### **VRF Justification for BAL-003, Requirement R5**

The justification is provided on the following pages.

#### **VSL Justification for BAL-003, Requirement R5**

The justification is provided on the following pages.

**VRF Justification for BAL-003, Requirement R6**

The justification is provided on the following pages.

**VSL Justification for BAL-003, Requirement R6**

The justification is provided on the following pages.

**VRF Justification for BAL-003, Requirement R7**

The justification is provided on the following pages.

**VSL Justification for BAL-003, Requirement R7**

The justification is provided on the following pages.

VSLs for BAL-003-3, Requirement R1			
Lower	Moderate	High	Severe
The Balancing Authority's, or Frequency Response Sharing Group's, Responsible Entity's FRM FRCM was less negative than its FRO by at most 100% by at most 15% or 15 MW/0.1 Hz, whichever one is the greater deviation from its FRO.	The Balancing Authority's, or Frequency Response Sharing Group's, Responsible Entity's FRM FRCM was less negative than 100% its FRO by more than 15% but by at most 30% or 30 MW/0.1 Hz, whichever is the greater deviation from its FRO.	The Balancing Authority's, or Frequency Response Sharing Group's, Responsible Entity's FRM FRCM was less negative than its FRO 100% by more than 30% but by at most 45% or 45 MW/0.1 Hz, whichever one is the greater deviation from its FRO.	The Balancing Authority's, or Frequency Response Sharing Group's, Responsible Entity's FRM FRCM was less negative than its FRO 100% by more than 45% or by more than 45 MW/0.1 Hz, whichever is the greater deviation from its FRO.

VSL Justifications for BAL-003-3, Requirement R1	
<b>FERC VSL G1</b> Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	The proposed VSL does not have the unintended consequence of lowering the level of compliance but only reflects the update to the requirement language.

**VSL Justifications for BAL-003-3, Requirement R1**

<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 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.</p>
<p><b>FERC VSL G3</b></p> <p>Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement</p>	<p>The proposed VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the 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>Each VSL is based on a single violation and not cumulative violations.</p>

**VSLs for BAL-003-3, Requirement R5**

Lower	Moderate	High	Severe
<p>The Balancing Authority developed and implemented an Operating Process to determine its Frequency Response requirements and plans to have Frequency Reserve equal to or greater than the Balancing Authority Frequency Response requirements but failed to maintain the Operating Process annually.</p>	<p>N/A</p>	<p><del>The Balancing Authority developed an Operating Process to determine its Frequency Response requirements and plans to have Frequency Reserve equal to or greater than the Balancing Authority's Frequency Response requirements but failed to implement the Operating Process.</del> <u>N/A</u></p>	<p><del>The Generator Operator did not operate with the Governor in service and did not meet any of the exemption criteria.</del></p> <p><u>OR</u></p> <p><del>Generator is operating in a control mode that overrides the Governor response. The Balancing Authority failed to develop an Operating Process to determine its Frequency Response requirements and plans to have Frequency Reserve equal to or greater than the Balancing Authority's Frequency Response requirements.</del></p>

**VSL Justifications for BAL-003-3, Requirement R5**

<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>The requirement is new. Therefore, the proposed VSLs do not have the unintended consequence of lowering the level of compliance.</p>
<p><b>FERC VSL G2</b> Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of</p>	<p>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.</p>



**VSL Justifications for BAL-003-3, Requirement R5**

<p>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><b>FERC VSL G3</b></p> <p>Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement</p>	<p>The proposed VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the 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>Each VSL is based on a single violation and not cumulative violations.</p>

**VRF Justifications for BAL-003-3, Requirement R5**

<p>Proposed VRF</p>	<p>High</p>
<p>NERC VRF Discussion</p>	<p><u>A Medium VRF is appropriate, since the failure to operate a Governor in service (and did not meet any of the exemption criteria) could directly affect the electrical state or the capability of the bulk electric system. However, violation of this requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures. A VRF of High is being proposed for this requirement. Failure of planning time frame of this requirement 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</u></p>

**VRF Justifications for BAL-003-3, Requirement R5**

<b>Proposed VRF</b>	High
	<del>could hinder restoration to a normal condition.</del>
<b>FERC VRF G1 Discussion</b> Guideline 1- Consistency with Blackout Report	N/A
<b>FERC VRF G2 Discussion</b> Guideline 2- Consistency within a Reliability Standard	This requirement has only a main VRF and no different sub-requirement VRFs.
<b>FERC VRF G3 Discussion</b> Guideline 3- Consistency among Reliability Standards	<del>The VRF of Medium for Requirement R5 is consistent with the NERC VRF definition. A VRF of High for Requirement R5, which addresses planning for the availability and maintenance of Frequency Response Obligation, is consistent with Reliability Standard BAL-002-3, Requirement R2, which mandates that an entity must have an Operating Process as part of its Operating Plan.</del>
<b>FERC VRF G4 Discussion</b> Guideline 4- Consistency with NERC Definitions of VRFs	The VRF of <del>High-Medium</del> for <del>Requirement R5</del> <del>this requirement</del> is consistent with the NERC VRF definition.
<b>FERC VRF G5 Discussion</b> Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation	This requirement does not co-mingle a higher risk reliability objective with a lesser risk reliability objective.

**VSLs for BAL-003-3, Requirement R6**

Lower	Moderate	High	Severe
N/A	N/A	N/A	The Generator Operator did not

			operate with the frequency responsive controls in service and did not make the required notification within 30 minutes of the discovery of a status change of the frequency responsive controls.
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**VSL Justifications for BAL-003-3, 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 requirement is new. Therefore, the proposed VSL does not have the unintended consequence of lowering the 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 Severity Level Assignment Category for "Binary" Requirements Is Not Consistent</u></p> <p><u>Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</u></p>	<p>The proposed VSL is binary and appropriately is "Severe." The VSL does not use any ambiguous terminology, thereby 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 uses the same terminology as used in the associated requirement and is, therefore, consistent with the requirement.</p>

**VSL Justifications for BAL-003-3, Requirement R6**

<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 VSL is based on a single violation and not cumulative violations.</p>
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**VRF Justifications for BAL-003-3, Requirement R6**

Proposed VRF	Medium
<p>NERC VRF Discussion</p>	<p>A VRF of Medium is being proposed for this requirement. Failure to implement this requirement 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, this failure is unlikely to lead to bulk electric system instability, separation, or cascading failures.</p>
<p><b>FERC VRF G1 Discussion</b> Guideline 1 – Consistency with Blackout Report</p>	<p>N/A</p>
<p><b>FERC VRF G2 Discussion</b> Guideline 2 – Consistency within a Reliability Standard</p>	<p>This requirement has only a main VRF and no different sub-requirement VRFs.</p>
<p><b>FERC VRF G3 Discussion</b> Guideline 3 – Consistency among Reliability Standards</p>	<p>A VRF of Medium for Requirement R6, which addresses Real-time operations requiring the generators to be operated with the Governor in-service unless the Balancing Authority has been notified that the Governor is out of service, is consistent with Reliability Standard VAR-002-4.1, Requirement R1.</p>
<p><b>FERC VRF G4 Discussion</b> Guideline 4 – Consistency with NERC Definitions of VRFs</p>	<p>The VRF of Medium for this requirement is consistent with the NERC VRF definition.</p>

**VRF Justifications for BAL-003-3, Requirement R6**

Proposed VRF	Medium
<p><del>FERC VRF G5 Discussion</del>  <del>Guideline 5 – Treatment of Requirements that Co-mingle More than One Obligation</del></p>	<p><del>This requirement does not co-mingle a higher risk reliability objective with a lesser risk reliability objective.</del></p>

**VSLs for BAL-003-3, Requirement R7**

Lower	Moderate	High	Severe
N/A	N/A	The Generator Owner operated its Governor with droop and/or deadband with settings outside those specified and did not notify the Balancing Authority.	The Generator Owner does not have documented Governor settings.

**VSL Justifications for BAL-003-3, Requirement R7**

<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 requirement is new. Therefore, the proposed VSLs do not have the unintended consequence of lowering the 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 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.</p>
<p><b>FERC-VSL-G3</b></p>	<p>The proposed VSLs use the same terminology as used in the associated requirement and are, therefore,</p>

**VSL Justifications for BAL-003-3, Requirement R7**

Violation-Severity Level Assignment Should Be Consistent with the Corresponding Requirement	consistent with the requirement.
<b>FERC-VSL-G4</b> Violation-Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations	Each VSL is based on a single violation and not cumulative violations.

**VRF Justifications for BAL-003-3, Requirement R7**

Proposed VRF	Medium
NERC VRF Discussion	A VRF of Medium is being proposed for this requirement. Failure of planning in a time frame could, 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.
<b>FERC VRF G1 Discussion</b> Guideline 1-Consistency with Blackout Report	N/A
<b>FERC VRF G2 Discussion</b> Guideline 2-Consistency within a Reliability Standard	This requirement has only a main VRF and no different sub-requirement VRFs.
<b>FERC VRF G3 Discussion</b> Guideline 3-Consistency among	A VRF of Medium for Requirement R7, which addresses minimum settings for the Governor droop and deadband or notification if the settings are not within these minimum settings, is consistent with Reliability Standard BAL-001-

**VRF Justifications for BAL-003-3, Requirement R7**

Proposed VRF	Medium
<del>Reliability Standards</del>	<del>TRE-2, Requirement R7.</del>
<del><b>FERC VRF G4 Discussion</b> Guideline 4- Consistency with NERC Definitions of VRFs</del>	<del>The VRF of Medium for this requirement is consistent with the NERC VRF definition.</del>
<del><b>FERC VRF G5 Discussion</b> Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation</del>	<del>This requirement does not co-mingle a higher risk reliability objective with a lesser risk reliability objective.</del>