

Justification for Proposed Violation Risk Factors and Violation Severity Levels in PRC-027-1 — Protection System Coordination for Performance During Faults

This document provides the drafting team's justification for assignment of violation risk factors (VRFs) and violation severity levels (VSLs) for each requirement in PRC-027-1 — Protection System Coordination for Performance During Faults.

Each primary requirement is assigned a VRF and a set of one or more VSLs. 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 ERO Sanction Guidelines.

The System Protection Coordination Standard Drafting Team applied the following NERC criteria and FERC Guidelines when proposing VRFs and VSLs for the requirements under this project:

NERC Criteria - 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. A planning requirement that is administrative in nature.

FERC Violation Risk Factor Guidelines**Guideline (1) — Consistency with the Conclusions of the Final Blackout Report**

The Commission seeks to ensure that Violation Risk Factors 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

The Commission expects a rational connection between the sub-Requirement Violation Risk Factor assignments and the main Requirement Violation Risk Factor assignment.

Guideline (3) — Consistency among Reliability Standards

The Commission expects the assignment of Violation Risk Factors 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 Violation Risk Factor 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.

The following discussion addresses how the SDT considered FERC's VRF Guidelines 2 through 5. The team did not address Guideline 1 directly because of an apparent conflict between Guidelines 1 and 4. Whereas Guideline 1 identifies a list of topics that encompass nearly all topics within NERC's reliability standards and implies that these requirements should be assigned a "High" VRF, Guideline 4 directs assignment of VRFs based on the impact of a specific requirement to the reliability of the system. The SDT believes that Guideline 4 is reflective of the intent of VRFs in the first instance and, therefore, concentrated its approach on the reliability impact of the requirements.

PRC-027-1 Protection System Coordination for Performance During Faults is a new Reliability Standard with the stated purpose: *"To coordinate Protection Systems for Interconnected Elements, such that the least number of power system Elements are isolated to clear Faults."* PRC-027-1 has ~~four~~ five (5) requirements that incorporate and clarify the reliability intent of Requirements R2 and R3 of PRC-001-2. The new standard addresses the aspects of coordination for new and changes to existing Protection Systems, as well as requiring an initial and periodic review of existing Protection Systems. The new requirements describe the steps necessary to achieve coordination. The coordination process requires entities to work individually and collaboratively, exchanging information and communicating in a timely manner, reviewing each others' Protection System settings and schemes, and resolving any identified coordination issues.

All ~~four~~ five requirements are assigned VRFs of Medium. The assignment of the Medium VRFs was made based on the premise that failure to perform these coordination activities by themselves would not directly cause or contribute to bulk power 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, and this is usually not the case when an applicable entity fails to 'coordinate' activities. While the SDT agrees that, under some circumstances, it is possible that a failure to perform the required activities may hinder the coordination process; however, the failure would not, by itself, result in instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the bulk power system regardless of the situation. Thus, this requirement meets NERC's criteria for a Medium VRF.

NERC Criteria - Violation Severity Levels

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.

Violation severity levels should be based on the guidelines shown in the table below:

Lower	Moderate	High	Severe
Missing a minor element (or a small percentage) of the required performance The performance or product measured has significant value as it almost meets the full intent of the requirement.	Missing at least one significant element (or a moderate percentage) of the required performance. The performance or product measured still has significant value in meeting the intent of the requirement.	Missing more than one significant element (or is missing a high percentage) of the required performance or is missing a single vital component. The performance or product has limited value in meeting the intent of the requirement.	Missing most or all of the significant elements (or a significant percentage) of the required performance. The performance measured does not meet the intent of the requirement or the product delivered cannot be used in meeting the intent of the requirement.

FERC Order on Violation Severity Levels

In its June 19, 2008 Order on Violation Severity Levels, FERC indicated it would use the following four guidelines for determining whether to approve 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

Guideline 2a: A violation of a “binary” type requirement must be a “Severe” VSL.

Guideline 2b: 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 and VSL Justifications

VRF Justifications – PRC-027-1, R1	
Proposed VRF	Medium
NERC VRF Discussion 	Failure to perform a Protection System Coordination Study for each Interconnect ed ing Element to verify that Protection Systems components operate in the desired intended sequence during Faults 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. This requirement meets NERC’s criterion for a Medium VRF.
FERC VRF G1 Discussion	Guideline 1- Consistency w/ Blackout Report: N/A
FERC VRF G2 Discussion 	Guideline 2- Consistency within a Reliability Standard: Each requirement in PRC-027-1 is assigned a Medium VRF. Requirement R1 is similar in scope to Requirements R2, R3, <u>R4</u> and R4 <u>R5</u> , as each requirement details the process steps necessary to achieve coordination.
FERC VRF G3 Discussion 	Guideline 3- Consistency among Reliability Standards: PRC-027-1, Requirement R1 directs that Protection System Coordination Studies are performed for every Interconnect ed ing Element to verify coordination of existing Protection Systems. This requirement is similar to Requirement R1 of FAC-002-1, which also requires studies be performed and is assigned a Medium VRF.
FERC VRF G4 Discussion 	Guideline 4- Consistency with NERC Definitions of VRFs: Failure to perform a Protection System Coordination Study for each Interconnected Facility Interconnecting Element to verify that Protection Systems components operate in the desired intended sequence during Faults 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. Therefore, this Violation Risk Factor level conforms to NERC’s definition of a Medium VRF.
FERC VRF G5 Discussion 	Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation: PRC-027-1, Requirement R1 addresses a single objective and has a single VRF, does not co-mingle reliability objectives.

Proposed VSLs for PRC-027-1, R1

Lower	Moderate	High	Severe
<p>The responsible entity performed a Protection System Coordination Study on an Interconnecting Element as required in Requirement R1, Part 1.1.1, but was late by less than or equal to 30 calendar days.</p>	<p>The responsible entity performed a Protection System Coordination Study on an Interconnecting Element as required in Requirement R1, Part 1.1.1, but was late by more than 30 calendar days but less than or equal to 60 calendar days.</p>	<p>The responsible entity performed a Protection System Coordination Study on an Interconnecting Element as required in Requirement R1, Part 1.1.1, but was late by more than 60 calendar days but less than or equal to 90 calendar days.</p>	<p>The responsible entity performed a Protection System Coordination Study on an Interconnecting Element as required in Requirement R1, Part 1.1.1, but was late by more than 90 calendar days.</p>
<p>OR</p>	<p>OR</p>	<p>OR</p>	<p>OR</p>
<p>The responsible entity performed a Protection System Coordination Study at an interconnecting bus as required in Requirement R1, Parts 1.1.2, 1.1.3, and 1.1.4 or technically justified why a study was not required, but was late by less than or equal to 30 calendar days.</p>	<p>The responsible entity performed a Protection System Coordination Study at an interconnecting bus as required in Requirement R1, Parts 1.1.2, 1.1.3, and 1.1.4 or technically justified why a study was not required, but was late by more than 30 calendar days but less than or equal to 45 calendar days.</p>	<p>The responsible entity performed a Protection System Coordination Study at an interconnecting bus as required in Requirement R1, Parts 1.1.2, 1.1.3, and 1.1.4 or technically justified why a study was not required, but was late by more than 45 calendar days but less than or equal to 60 calendar days.</p>	<p>The responsible entity performed a Protection System Coordination Study at an interconnecting bus as required in Requirement R1, Parts 1.1.2, 1.1.3, and 1.1.4 or technically justified why a study was not required but was late by more than 60 calendar days.</p>
<p>OR</p>	<p>OR</p>	<p>OR</p>	<p>OR</p>
<p>The responsible entity provided a summary of the results of each Protection System Coordination Study results or a technical justification in accordance with Requirement R1, Part 1.2, but was late by less than or equal to</p>	<p>The responsible entity provided a summary of the results of each Protection System Coordination Study results or a technical justification in accordance with Requirement R1, Part 1.2, but was late by more than 10 calendar days but less than or</p>	<p>The responsible entity provided a summary of the results of each Protection System Coordination Study results or a technical justification in accordance with Requirement R1, Part 1.2, but was late by more than 20 calendar days but less than or</p>	<p>The responsible entity provided a summary of the results of each Protection System Coordination Study results or a technical justification in accordance with Requirement R1, Part 1.2, but was late by more than 30 calendar</p>

Proposed VSLs for PRC-027-1, R1			
Lower	Moderate	High	Severe
10 calendar days.	equal to 20 calendar days.	equal to 30 calendar days.	<p>days.</p> <p>OR</p> <p>The responsible entity failed to perform a Protection System Coordination Study on an Interconnected Element in accordance with Requirement R1, Parts 1.1.1, 1.1.2, <u>1.1.3</u>, or 1.1.34.</p> <p>OR</p> <p>The responsible entity failed to technically justify why a study was not required in accordance with Requirement R1, Parts 1.1.2, <u>1.1.3</u>, or 1.1.34.</p> <p>OR</p> <p>The responsible entity failed to provide <u>a summary of the results of each</u> Protection System Coordination Study results or a technical justification in accordance with Requirement R1, Part 1.2.</p>

VSL Justifications – PRC-027-1, R1

NERC VSL Guidelines	Meets NERC’s VSL Guidelines—There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.
FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	This is a new Requirement; consequently, there is no prior level of compliance.
FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	Guideline 2a: N/A Guideline 2b: The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.
FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	The proposed VSL uses the same terminology as used in the associated requirement, and is therefore consistent with the requirement.
FERC VSL G4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations	The VSL is based on a single violation and not cumulative violations.

VRF Justifications – PRC-027-1, R2	
Proposed VRF	Medium
NERC VRF Discussion	Failure to periodically justify why Fault current does not affect the Protection System coordination; or perform a short circuit study, to calculate the percent change in Fault current values used as inputs for updating Protection System Coordination Study(s), and to provide each <u>the other</u> owner(s) of the Protection System(s) associated with the Interconnect ing Element of requisite changes in(s) updated Fault currents <u>current values</u> , if necessary, 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System regardless of the situation. This requirement meets NERC’s criterion for a Medium VRF.
FERC VRF G1 Discussion	Guideline 1- Consistency w/ Blackout Report: N/A
FERC VRF G2 Discussion	Guideline 2- Consistency within a Reliability Standard: Each requirement in PRC-027-1 is assigned a Medium VRF. Requirement R2 is similar in scope to Requirements R1, R3, R4 and R4,R5 as each requirement details the process steps necessary to achieve coordination.
FERC VRF G3 Discussion	Guideline 3- Consistency among Reliability Standards: PRC-027-1, Requirement R2 facilitates a periodic review of technical justifications or Fault currents, and notification of owner(s) of the Protection System(s) associated with the Interconnect ing Element(s). This requirement is similar to Requirement R6 of BAL-005-0.2b in that it also requires the comparison of calculated data and possible notification of other entities; and is assigned a Medium VRF.
FERC VRF G4 Discussion	Guideline 4- Consistency with NERC Definitions of VRFs: Failure to periodically justify why Fault current does not affect Protection System Coordination; or perform a short circuit study, to calculate the percent change in Fault current values used as inputs for updating Protection System Coordination Study(s), and to provide each <u>the other</u> owner(s) of the Protection System(s) associated with the Interconnect ing Element of requisite deviations in(s) updated Fault currents <u>current values</u> , if necessary, 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. Therefore, this Violation Risk Factor level conforms to <u>This requirement meets</u> NERC’s definition of <u>criterion for</u> a Medium VRF.
FERC VRF G5 Discussion	Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation:

	PRC-027-1, Requirement R2 addresses a single objective and has a single VRF. <u>does not co-mingle reliability objectives.</u>
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Proposed VSLs for PRC-027-1, R2

Lower	Moderate	High	Severe
<p>For an Interconnected Element on its System, the Transmission Owner technically justified why Fault current does not affect the Protection System coordination, as required in Requirement R2, but was late by less than or equal to 30 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner performed a short circuit study, as required in Requirement R2, Part 2.1, but was late by less than or equal to 30 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner provided the owner(s) of the Facility</p>	<p>For an Interconnected Element on its System, the Transmission Owner technically justified why Fault current does not affect the Protection System coordination, as required in Requirement R2, but was late by more than 30 calendar days but less than or equal to 60 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner performed a short circuit study as required in Requirement R2, Part 2.1, but was late by more than 30 calendar days but less than or equal to 60 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner provided the owner(s) of the Facility associated with the</p>	<p>For an Interconnected Element on its System, the Transmission Owner technically justified why Fault current does not affect the Protection System coordination, as required in Requirement R2, but was late by more than 60 calendar days but less than or equal to 90 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner performed a short circuit study as required in Requirement R2, Part 2.1, but was late by more than 60 calendar days but less than or equal to 90 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner provided the owner(s) of the Facility associated with the</p>	<p>For an Interconnected Element on its System, the Transmission Owner technically justified why Fault current does not affect the Protection System coordination, as required in Requirement R2, but was late by more than 90 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner performed a short circuit study as required in Requirement R2, Part 2.1, but was late by more than 90 calendar days.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner failed to perform a short circuit study, as required in Requirement R2, Part 2.1.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner failed to calculate the percent change between the Fault currents, according to the equation designated in Requirement R2, Part 2.2.</p> <p style="text-align: center;">OR</p> <p>The Transmission Owner provided the owner(s) of the Facility associated with the Interconnected Element, the changes in Fault currents, as required in Requirement R2, Part</p>

Proposed VSLs for PRC-027-1, R2			
Lower	Moderate	High	Severe
associated with the Interconnected Element, the changes in Fault currents, as required in Requirement R2, Part 2.2.1, but was late by less than or equal to 10 calendar days.	Interconnected Element, the changes in Fault currents, as required in Requirement R2, Part 2.2.1, but was late by more than 10 calendar days but less than or equal to 20 calendar days.	Interconnected Element, the changes in Fault currents, as required in Requirement R2, Part 2.2.1, but was late by more than 20 calendar days but less than or equal to 30 calendar days.	2.2.1, but was late by more than 30 calendar days. OR The Transmission Owner failed to provide the owner(s) of the Facility associated with the Interconnected Element, the updated Fault current values, as required in Requirement R2, Part 2.2.1.
VSL Justifications – PRC-027-1, R2			
NERC VSL Guidelines		Meets NERC’s VSL Guidelines—There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.	
FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance		This is a new Requirement; consequently, there is no prior level of compliance.	
FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language		Guideline 2a: N/A Guideline 2b: The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	
FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement		The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	
FERC VSL G4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations		The VSL is based on a single violation and not cumulative violations.	

VRF Justifications – PRC-027-1, R3	
Proposed VRF	Medium
NERC VRF Discussion	Failure to communicate proposed changes <u>change(s) or addition(s)</u> that modify the conditions used in the coordination of Protection Systems <u>System(s)</u> associated with an Interconnect ed <u>ing</u> Element or provide requested information needed to conduct a Protection System Coordination Study 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. This requirement meets NERC’s criterion for a Medium VRF.
FERC VRF G1 Discussion	Guideline 1- Consistency w/ Blackout Report: N/A
FERC VRF G2 Discussion	Guideline 2- Consistency within a Reliability Standard: Each requirement in PRC-027-1 is assigned a Medium VRF. Requirement R3 is similar in scope to Requirements R1, R2, <u>R4</u> and <u>R4R5</u> as each requirement details the process steps necessary to achieve coordination.
FERC VRF G3 Discussion	Guideline 3- Consistency among Reliability Standards: PRC-027-1, Requirement R3 facilitates the provision of pertinent information regarding proposed changes that could impact the coordination of Protection Systems associated with an Interconnect ed <u>ing</u> Element, or information needed to do a Protection System Coordination Study. This requirement is similar to Requirement R2R8 of FAC- 009-1008-3 in that it also requires the provision of reliability data to other pertinent functional entities, and is assigned a Medium VRF.
FERC VRF G4 Discussion	Guideline 4- Consistency with NERC Definitions of VRFs: Failure to communicate proposed changes <u>change(s) or addition(s)</u> that modify the conditions used in the coordination of Protection Systems <u>System(s)</u> associated with an Interconnect ed <u>ing</u> Element or provide requested information needed to conduct a Protection System Coordination Study 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. Therefore, this Violation Risk Factor level conforms to This requirement meets NERC’s definition of criterion for a Medium VRF.
FERC VRF G5 Discussion	Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation: PRC-027-1, Requirement R3 addresses a single objective and has a single VRF. does not co-mingle reliability objectives.

Proposed VSLs for PRC-027-1, R3

Lower	Moderate	High	Severe
<p>The responsible entity provided the requested information required in Requirement R3, Part 3.2, but was late by less than or equal to 10 calendar days.</p> <p style="text-align: center;">OR</p> <p>The responsible entity provided the information required in Requirement R3, Part 3.3, but was late by less than or equal to 10 calendar days.</p>	<p>The responsible entity provided the requested information required in Requirement R3, Part 3.2, but was late by more than 10 calendar days but less than or equal to 20 calendar days.</p> <p style="text-align: center;">OR</p> <p>The responsible entity provided the information required in Requirement R3, Part 3.3, but was late by more than 10 calendar days but less than or equal to 20 calendar days.</p>	<p>The responsible entity provided the requested information required in Requirement R3, Part 3.2, but was late by more than 20 calendar days but less than or equal to 30 calendar days.</p> <p style="text-align: center;">OR</p> <p>The responsible entity provided the information required in Requirement R3, Part 3.3, but was late by more than 20 calendar days but less than or equal to 30 calendar days.</p>	<p>The responsible entity failed to provide the owner(s) of the Facility associated with the Interconnected eding Element, details for any proposed change(s) or addition(s) identified in Requirement R3, Part 3.1.</p> <p style="text-align: center;">OR</p> <p>The responsible entity provided the requested information required in Requirement R3, Part 3.2, but was late by more than 30 calendar days.</p> <p style="text-align: center;">OR</p> <p>The responsible entity provided the information required in Requirement R3, Part 3.3, but was late by more than 30 calendar days.</p> <p style="text-align: center;">OR</p> <p>The responsible entity failed to provide the information required in Requirement R3, Part 3.3.</p>

VSL Justifications – PRC-027-1, R3	
NERC VSL Guidelines	Meets NERC’s VSL Guidelines—There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.
FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	This is a new Requirement; consequently, there is no prior level of compliance.
FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	Guideline 2a: N/A Guideline 2b: The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.
FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.
FERC VSL G4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations	The VSL is based on a single violation and not cumulative violations.

VRF Justifications – PRC-027-1, R4

Proposed VRF	Medium
NERC VRF Discussion	Failure to communicate <u>review a summary of the results of a PSCS or a technical justification</u> and cooperate with <u>respond to</u> the other owners <u>owner(s)</u> of the Protection System(s) to resolve coordination issues associated with an Interconnected <u>the Interconnecting</u> Element(s) <u>in a timely manner</u> 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. This requirement meets NERC’s criterion for a Medium VRF.
FERC VRF G1 Discussion	Guideline 1- Consistency w/ Blackout Report: N/A
FERC VRF G2 Discussion	Guideline 2- Consistency within a Reliability Standard: Each requirement in PRC-027-1 is assigned a Medium VRF. Requirement R4 is similar in scope to Requirements R1, R2, <u>R3</u> and R3 <u>R5</u> as each requirement details the process steps necessary to achieve coordination.
FERC VRF G3 Discussion	Guideline 3- Consistency among Reliability Standards: PRC-027-1, Requirement R4 mandates responsible entities affirm acceptance on <u>review a</u> Protection System <u>Coordination Study results summary</u> or <u>a technical justification to determine if there are any issue(s) associated with any proposed changes</u> change(s) to the pertinent Protection System(s) prior to implementation. , and <u>communicate those findings to the sender</u> . This requirement is similar to Requirement R2 <u>R1</u> of PRC-023 <u>FAC-002</u> -1 in that it also requires agreement be obtained <u>coordination and cooperation of assessments</u> , and is assigned a Medium VRF.
FERC VRF G4 Discussion	Guideline 4- Consistency with NERC Definitions of VRFs: Failure to communicate <u>review a summary of the results of a PSCS or a technical justification</u> and cooperate with <u>respond to</u> the other owners <u>owner(s)</u> of the Protection System(s) to resolve coordination issues associated with an Interconnected <u>the Interconnecting</u> Element(s) <u>in a timely manner</u> 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. This requirement meets NERC’s criterion for a Medium VRF.
FERC VRF G5 Discussion	Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation: PRC-027-1, Requirement R4 addresses a single objective and has a single

VRF Justifications – PRC-027-1, R4

	VRF does not co-mingle reliability objectives.
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Proposed VSLs for PRC-027-1, R4

Lower	Moderate	High	Severe
<p>The responsible entity responded in more than 90 calendar days but less than or equal to 100 calendar days following the receipt of the summary results of the Protection System Coordination Study <u>summary of the results or technical justification</u>, as required in Requirement R4, Part 4.1.</p>	<p>The responsible entity responded in more than 100 calendar days but less than or equal to 110 calendar days following the receipt of the summary results of the Protection System Coordination Study <u>summary of the results or technical justification</u>, as required in Requirement R4, Part 4.1.</p>	<p>The responsible entity responded in more than 110 calendar days but less than or equal to 120 calendar days following the receipt of the summary results of the Protection System Coordination Study <u>summary of the results or technical justification</u>, as required in Requirement R4, Part 4.1.</p>	<p>The responsible entity responded in more than 120 calendar days following the receipt of the summary results of the Protection System Coordination Study <u>summary of the results or technical justification</u>, as required in Requirement R4, Part 4.1.</p> <p style="text-align: center;">OR</p> <p>The responsible entity failed to review the summary results of the Protection System Coordination Study <u>summary of the results, or the technical justification</u> provided to them in accordance with Requirement R4, Part 4.1.</p> <p style="text-align: center;">OR</p> <p>The responsible entity failed to respond to the other owners <u>owner(s)</u> in accordance with Requirement R4, Part 4.1.</p> <p style="text-align: center;">OR</p> <p>The responsible entity failed to affirm that the other owner(s) of each Facility associated with the affected Interconnected Element accepted the Protection System(s) changes</p>

Proposed VSLs for PRC-027-1, R4			
Lower	Moderate	High	Severe
			including the resolution of any identified coordination issues, prior to implementation of those changes, as required in Requirement R4, Part 4.2.

VSL Justifications – PRC-027-1, R4

<p>NERC VSL Guidelines</p>	<p>Meets NERC’s VSL Guidelines—There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.</p>
<p>FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>	<p>This is a new Requirement; consequently, there is no prior level of compliance.</p>
<p>FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</p>	<p>Guideline 2a: N/A Guideline 2b: The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.</p>
<p>FERC VSL G3 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>
<p>FERC VSL G4 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>

<u>VRF Justifications – PRC-027-1, R5</u>	
<u>Proposed VRF</u>	<u>Medium</u>
<u>NERC VRF Discussion</u>	<u>Failure to address any identified coordination issue(s) prior to implementing any proposed change(s) or addition(s) to the Protection System(s) associated with the Interconnecting Element(s) 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. This requirement meets NERC’s criterion for a Medium VRF.</u>
<u>FERC VRF G1 Discussion</u>	<u>Guideline 1- Consistency w/ Blackout Report: N/A</u>
<u>FERC VRF G2 Discussion</u>	<u>Guideline 2- Consistency within a Reliability Standard: Each requirement in PRC-027-1 is assigned a Medium VRF. Requirement R5 is similar in scope to Requirements R1, R2, R3 and R4 as each requirement details the process steps necessary to achieve coordination.</u>
<u>FERC VRF G3 Discussion</u>	<u>Guideline 3- Consistency among Reliability Standards: PRC-027-1, Requirement R5 mandates responsible entities address any identified coordination issue(s) prior to implementation. This requirement is similar to Requirement R3 of PRC-023-2 in that it also requires agreement be obtained, and is assigned a Medium VRF.</u>
<u>FERC VRF G4 Discussion</u>	<u>Guideline 4- Consistency with NERC Definitions of VRFs: Failure to address any identified coordination issue(s) prior to implementing any proposed change(s) or addition(s) to the Protection System(s) associated with the Interconnecting Element(s) 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, it is unlikely to lead to Bulk Electric System instability, separation, or Cascading failures. The applicable entities are always responsible for maintaining the reliability of the Bulk Electric System, regardless of the situation. This requirement meets NERC’s criterion for a Medium VRF.</u>
<u>FERC VRF G5 Discussion</u>	<u>Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation: PRC-027-1, Requirement R5 addresses a single objective and has a single VRF.</u>

<u>Proposed VSLs for PRC-027-1, R5</u>				
	<u>Lower</u>	<u>Moderate</u>	<u>High</u>	<u>Severe</u>
				<p><u>The responsible entity failed to address any identified coordination issue(s), prior to implementing any proposed change(s) or addition(s) to the Protection System(s) associated with the Interconnecting Element(s) in accordance with Requirement R5.</u></p>

VSL Justifications – PRC-027-1, R5

<p><u>NERC VSL Guidelines</u></p>	<p><u>Meets NERC’s VSL Guidelines for a Severe VSL— This is a binary or “pass-fail” requirement. The responsible entity either ‘addressed’ or ‘did not address’ an identified coordination issues prior to implementing any proposed change(s) or addition(s) to the Protection System(s) associated with the Interconnecting Element.</u></p>
<p><u>FERC VSL G1</u> <u>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</u></p>	<p><u>This is a new Requirement; consequently, there is no prior level of compliance.</u></p>
<p><u>FERC VSL G2</u> <u>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties</u> <u>Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent</u> <u>Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</u></p>	<p><u>Guideline 2a:</u> <u>The single proposed VSL is a binary VSL (pass-fail). The responsible entity either ‘addressed’ or ‘did not address’ an identified coordination issues prior to implementing any proposed change(s) or addition(s) to the Protection System(s) associated with the Interconnecting Element.</u></p> <p><u>Guideline 2b:</u> <u>The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.</u></p>
<p><u>FERC VSL G3</u> <u>Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement</u></p>	<p><u>The proposed VSL uses the same terminology as used in the associated requirement, and is therefore consistent with the requirement.</u></p>
<p><u>FERC VSL G4</u> <u>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</u></p>	<p><u>The VSL is based on a single violation and not cumulative violations.</u></p>