

Project 2007-11 Disturbance Monitoring

VRF and VSL Justifications

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-002-2 – Disturbance Monitoring and Reporting Requirements.

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 by the ERO Sanctions Guidelines.

The Disturbance Monitoring and Reporting Requirements Standard Drafting Team applied the following NERC criteria and FERC Guidelines when proposing VRFs and VSLs for the requirements under this project:

NERC Criteria – VRFs

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 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 of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations of a medium risk requirement is unlikely.



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 VRF 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.

- 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.

| VRF and VSL Justifications – PRC-002-2, R1 | |
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| Proposed VRF | Lower |
| NERC VRF Discussion | R1 is a requirement in a long-term 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 BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report R1 establishes the list of Sequence of Events Recordings and Fault Recordings that is consistent with FERC guideline G1, Recommendation 12 of the Blackout Report. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard The requirement has parts that are of equal importance; only one VRF was assigned so there is no conflict. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards This requirement calls for establishing a list of BES bus locations for Sequence of Events Recording and Fault Recording using the selection procedure in Attachment 1. The team could not identify other continent-wide reliability standards of the same nature. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs Failure to establish the list of BES bus locations for Sequence of Events Recording and Fault Recording could not directly affect the electrical state or capability of the BES, or the ability to effectively monitor and control the BES. Violation of the requirement will not lead to bulk electric system instability, separation, or cascading failures. The VRF for this requirement is "Lower" which is consistent with NERC guidelines for similar requirements. |
| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More thanOne ObligationR1 contains only one objective which is to establish a list of BES buslocations for Sequence of Events Recording and Fault Recording andto review the list every 5-calendar_calendar years. Since therequirement has only one objective, only one VRF was assigned. |

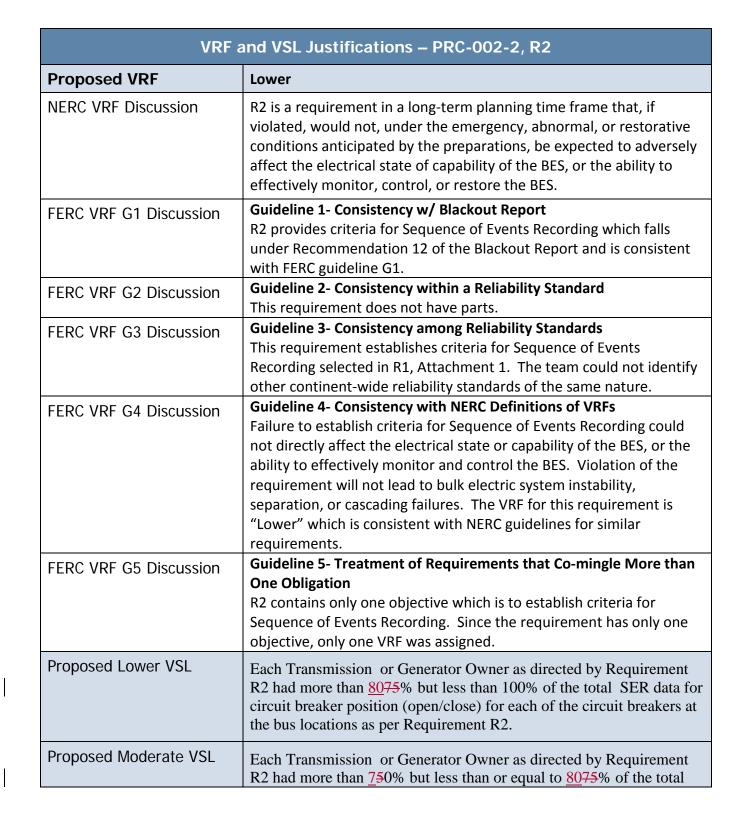


| VRF and VSL Justifications – PRC-002-2, R1 | |
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| Proposed Lower VSL | The Transmission Owner identified the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 for more than 80% but less than 100% of the required BES buses that they own. OR The Transmission Owner evaluatedassessed the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 but was late by 30-calendar_calendar days or less. OR The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying the other owners by 10-calendar_calendar days or less. |
| Proposed Moderate VSL | The Transmission Owner identified the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 for more than 70% but less than or equal to 80% of the required BES buses that they own. OR The Transmission Owner evaluatedassessed the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 but was late by greater than 30-calendar_calendar days and less than or equal to 60-calendar_ calendar days. OR The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying the other owners by greater than 10-calendar_calendar days but less than or equal to 20-calendar_calendar days. |
| Proposed High VSL | The Transmission Owner identified the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 for more than 60% but less than or equal to 70% of the required BES buses that they own. OR The Transmission Owner evaluatedassessed the BES buses as directed by Requirement R1, Part 1.1 or Part 1.3 but was late by greater than 60-calendar_calendar days and less than or equal to 90-calendar_calendar days. OR |



| VRF and VSL Justifications – PRC-002-2, R1 | |
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| | The Transmission Owner as directed by Requirement R1, Part 1.2 was late in notifying the other owners by greater than 20-calendar_calendar days but less than or equal to 30-calendar_calendar days. |
| Proposed Severe VSL | The Transmission Owner identified the BES buses as directed by Requirement R1 <u>, Part 1.1 or Part 1.3</u> for less than or equal to 60% of the required BES buses that they own. OR The Transmission Owner assessed evaluated the BES buses as directed by Requirement R1 <u>, Part 1.1 or Part 1.3</u> but was late by greater than 90-calendar_calendar days. OR The Transmission Owner as directed by Requirement R1 <u>, Part 1.2</u> was late in notifying one or more other owners by greater than 30-calendar_ calendar_days. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | PRC-002-2 differs from PRC-002-1 (not enforceable) and PRC-018-1 (enforceable and will be retired upon approval of PRC-002-2) in that PRC-002-2 deals with Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording in order to adequately capture data for events analysis; and not equipment as referenced in the PRC- 002-1 and PRC-018-1. Therefore, the VSL's cannot be compared between PRC-002-2 and PRC-018-1. The VSL's for this requirement meet or exceed the current 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 2a: The VSL assignment is for R1 is not binary. Guideline 2b: The propose VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. |

| VRF and VSL Justifications – PRC-002-2, R1 | |
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| Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language | |
| FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | The proposed VSL uses similar terminology to that 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 | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | Non CIP |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |

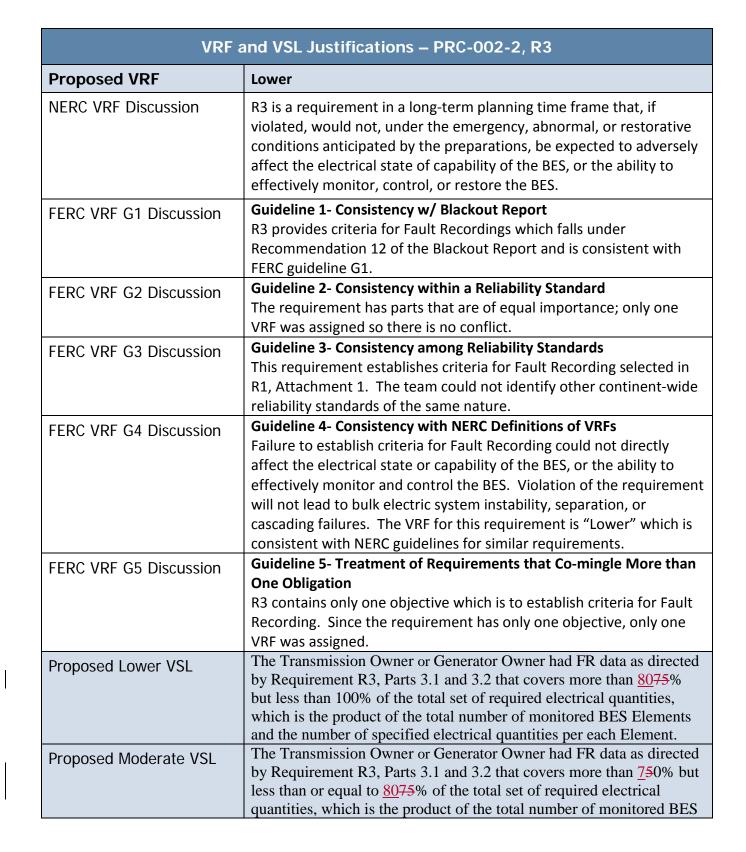




| VRF and VSL Justifications – PRC-002-2, R2 | |
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| | SER data for circuit breaker position (open/close) for each of the circuit breakers at the bus locations as per Requirement R2. |
| Proposed High VSL | Each Transmission or Generator Owner as directed by Requirement R2 had more than 610% but less than or equal to 750% of the total SER data for circuit breaker position (open/close) for each of the circuit breakers at the bus locations as per Requirement R2. |
| Proposed Severe VSL | Each Transmission or Generator Owner as directed by Requirement R2 for had from 0% but less than or equal to 510% of the total SER data for circuit breaker position (open/close) for each of the circuit breakers at the bus locations as per Requirement R2. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | PRC-002-2 differs from PRC-002-1 (not enforceable) and PRC-018-1 (enforceable and will be retired upon approval of PRC-002-2) in that PRC-002-2 deals with Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording in order to adequately capture data for events analysis; and not equipment as referenced in the PRC- 002-1 and PRC-018-1. Therefore, the VSL's cannot be compared between PRC-002-2 and PRC-018-1. The VSL's for this requirement meet or exceed the current level of compliance. |
| FERC VSL G2 | Guideline 2a: |
| Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties | The VSL assignment is for R2 is not binary. Guideline 2b: The propose VSL does not use any ambiguous terminology, thereby |
| Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent | supporting uniformity and consistency in the determination of similar penalties for similar violations. |
| Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language | |



| VRF and VSL Justifications – PRC-002-2, R2 | |
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| FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | The proposed VSL uses similar terminology to that 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 | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | Non CIP |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |



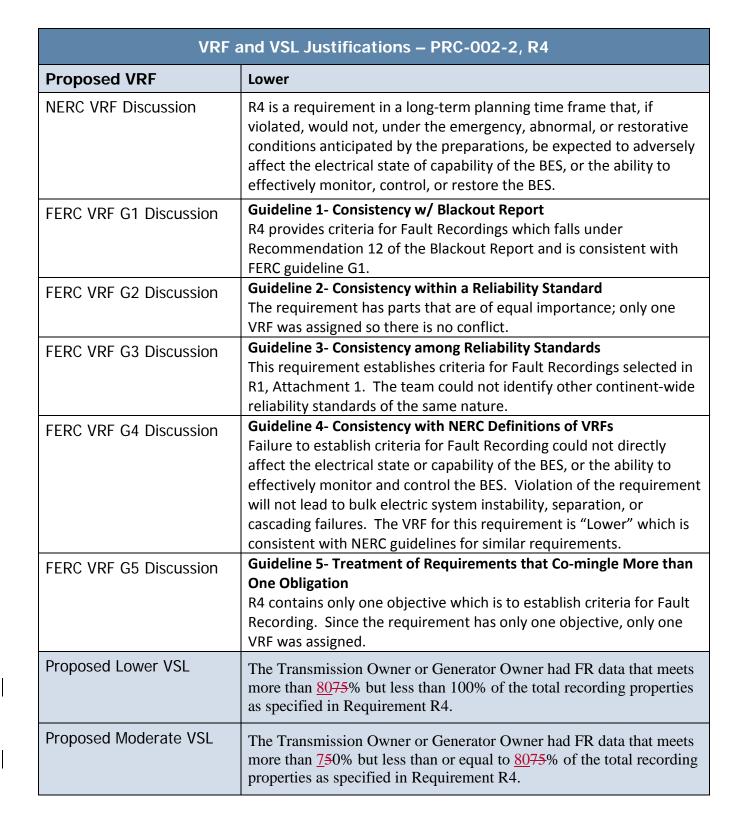


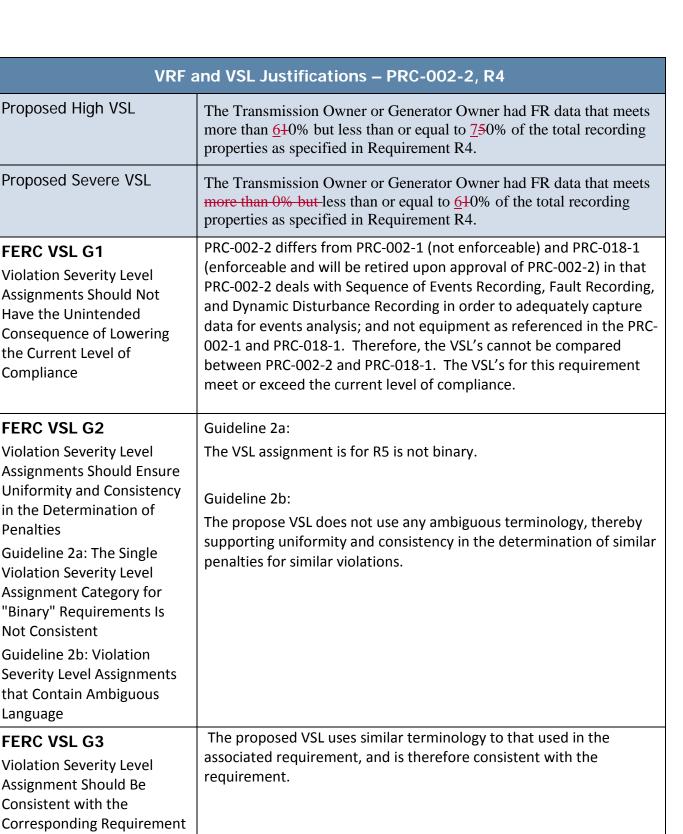
| VRF and VSL Justifications – PRC-002-2, R3 | |
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| | Elements and the number of specified electrical quantities per each Element. |
| Proposed High VSL | The Transmission Owner or Generator Owner had FR data as directed by Requirement R3, Parts 3.1 and 3.2 that covers more than 640% but less than or equal to 570% of the total set of required electrical quantities, which is the product of the total number of monitored BES Elements and the number of specified electrical quantities per each Element. |
| Proposed Severe VSL | The Transmission Owner or Generator Owner had FR data as directed by Requirement R3, Parts 3.1 and 3.2 that covers more than 0% but less than or equal to <u>6</u> 10% of the total set of required electrical quantities, which is the product of the total number of monitored BES Elements and the number of specified electrical quantities per each Element. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | PRC-002-2 differs from PRC-002-1 (not enforceable) and PRC-018-1 (enforceable and will be retired upon approval of PRC-002-2) in that PRC-002-2 deals with Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording in order to adequately capture data for events analysis; and not equipment as referenced in the PRC- 002-1 and PRC-018-1. Therefore, the VSL's cannot be compared between PRC-002-2 and PRC-018-1. The VSL's for this requirement meet or exceed the current 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: The VSL assignment is for R4 is not binary. Guideline 2b: The propose VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. |

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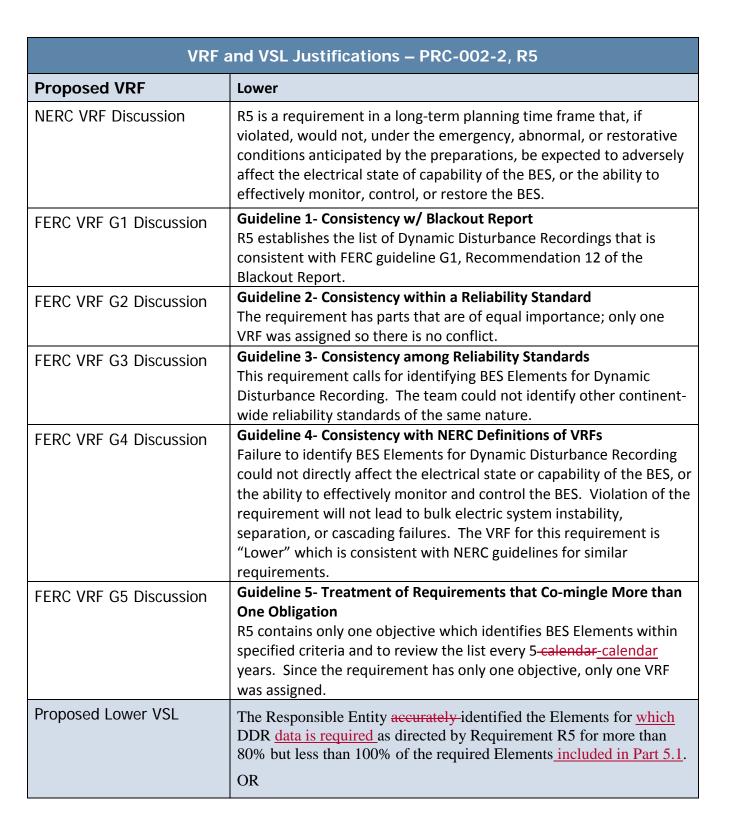


| VRF and VSL Justifications – PRC-002-2, R3 | |
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| FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | The proposed VSL uses similar terminology to that used in the associated requirement, and is 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 | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | Non CIP |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |





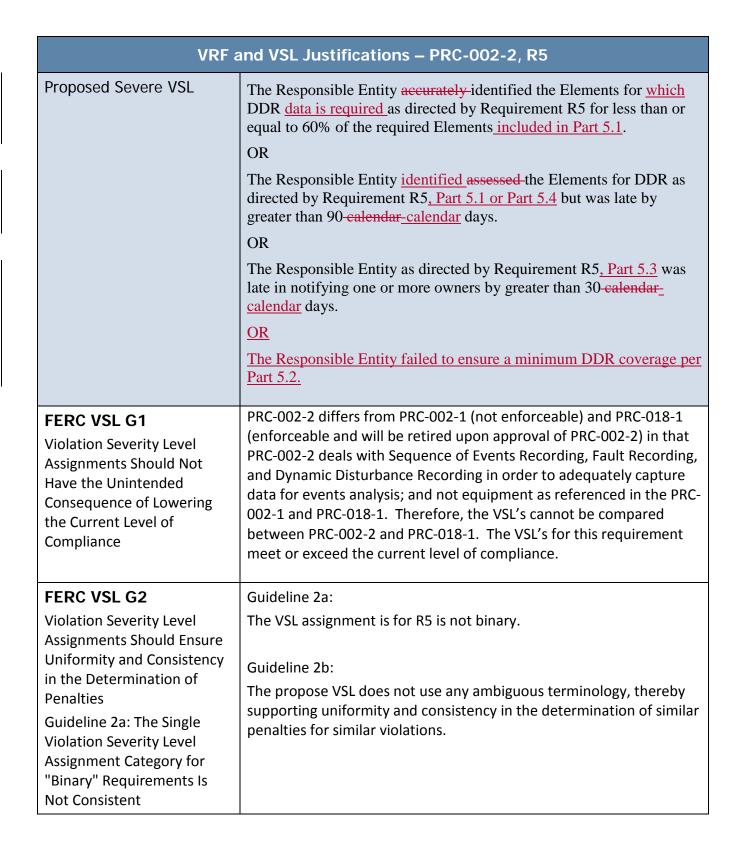
| VRF and VSL Justifications – PRC-002-2, R4 | |
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| FERC VSL G4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 | Non CIP |
| Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |





| VRF and VSL Justifications – PRC-002-2, R5 | |
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| | The Responsible Entity assessed-identified the Elements for DDR as directed by Requirement R5, Part 5.1 or Part 5.4 but was late by 30 calendar-calendar days or less. OR The Responsible Entity as directed by Requirement R5, Part 5.3 was late in notifying the owners by 10-calendar-calendar days or less. |
| Proposed Moderate VSL | The Responsible Entity accurately identified the Elements for which DDR <u>is required</u> as directed by Requirement R5 for more than 70% but less than or equal to 80% of the required Elements <u>included in Part</u> <u>5.1</u> . OR |
| | The Responsible Entity <u>identifiedassessed</u> the Elements for DDR as directed by Requirement R5, Part 5.1 or Part 5.4 but was late by greater than 30- <u>calendar-calendar</u> days and less than or equal to 60 <u>calendar-calendar</u> days. |
| | OR The Responsible Entity as directed by Requirement R5, Part 5.3 was late in notifying the owners by greater than 10-calendar-calendar days but less than or equal to 20-calendar-calendar days. |
| Proposed High VSL | The Responsible Entity accurately-identified the Elements for which DDR <u>data is requires</u> as directed by Requirement R5 for more than 60% but less than or equal to 70% of the required Elements <u>included</u> <u>in Part 5.1</u> . |
| | OR The Responsible Entity <u>identified assessed</u> the Elements for DDR as directed by Requirement R5 <u>, Part 5.1 or Part 5.4</u> but was late by greater than 60- <u>calendar_calendar</u> days and less than or equal to 90 <u>calendar_calendar</u> days. |
| | OR The Responsible Entity as directed by Requirement R5, Part 5.3 was late in notifying the owners by greater than 20 calendar-calendar days but less than or equal to 30 calendar-calendar days. |

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| VRF and VSL Justifications – PRC-002-2, R5 | |
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| Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language | |
| FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | The proposed VSL uses similar terminology to that 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 | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | Non CIP |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |

| VRF and VSL Justifications – PRC-002-2, R6 | |
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| Proposed VRF | Lower |
| NERC VRF Discussion | R6 is a requirement in a long-term 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 of capability of the BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report R6 provides criteria for Dynamic Disturbance Recordings which falls under Recommendation 12 of the Blackout Report and is consistent with FERC guideline G1. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard The requirement has parts that are of equal importance; only one VRF was assigned so there is no conflict. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards This requirement establishes criteria for Dynamic Disturbance Recording selected in R5. The team could not identify other continent-wide reliability standards of the same nature. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs Failure to establish criteria for Dynamic Disturbance Recording could not directly affect the electrical state or capability of the BES, or the ability to effectively monitor and control the BES. Violation of the requirement will not lead to bulk electric system instability, separation, or cascading failures. The VRF for this requirement is "Lower" which is consistent with NERC guidelines for similar requirements. |



| VRF and VSL Justifications – PRC-002-2, R6 | |
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| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation R6 contains only one objective which is to establish criteria for Dynamic Disturbance Recording. Since the requirement has only one objective, only one VRF was assigned. |
| Proposed Lower VSL | The Transmission Owner had DDR data as directed by Requirement R6, Parts 6.1 through 6.4 that covered more than 75% but less than 100% of the total required electrical quantities for all applicable BES Elements. |
| Proposed Moderate VSL | The Transmission Owner had DDR data as directed by Requirement R6, Parts 6.1 through 6.4 for more than 50% but less than or equal to 75% of the total required electrical quantities for all applicable BES Elements. |
| Proposed High VSL | The Transmission Owner had DDR data as directed by Requirement R6, Parts 6.1 through 6.4 for more than 0% but less than or equal to 50% of the total required electrical quantities for all applicable BES Elements. |
| Proposed Severe VSL | The Transmission Owner failed to have DDR data as directed by Requirement R6, Parts 6.1 through 6.4. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | PRC-002-2 differs from PRC-002-1 (not enforceable) and PRC-018-1 (enforceable and will be retired upon approval of PRC-002-2) in that PRC-002-2 deals with Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording in order to adequately capture data for events analysis; and not equipment as referenced in the PRC- 002-1 and PRC-018-1. Therefore, the VSL's cannot be compared between PRC-002-2 and PRC-018-1. The VSL's for this requirement meet or exceed the current level of compliance. |
| FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties | Guideline 2a: The VSL assignment is for R8 is not binary. Guideline 2b: The propose VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. |

| VRF and VSL Justifications – PRC-002-2, R6 | |
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| 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 | |
| FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | The proposed VSL uses similar terminology to that 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 | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | Non CIP |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |

| VRF and VSL Justifications – PRC-002-2, R7 | |
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| Proposed VRF | Lower |
| NERC VRF Discussion | R7 is a requirement in a long-term 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 of capability of the BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report R7 provides criteria for Dynamic Disturbance Recordings which falls under Recommendation 12 of the Blackout Report and is consistent with FERC guideline G1. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard The requirement has parts that are of equal importance; only one VRF was assigned so there is no conflict. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards This requirement establishes criteria for Dynamic Disturbance Recording selected in R6. The team could not identify other continent-wide reliability standards of the same nature. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs Failure to establish criteria for Dynamic Disturbance Recording could not directly affect the electrical state or capability of the BES, or the ability to effectively monitor and control the BES. Violation of the requirement will not lead to bulk electric system instability, separation, or cascading failures. The VRF for this requirement is "Lower" which is consistent with NERC guidelines for similar requirements. |



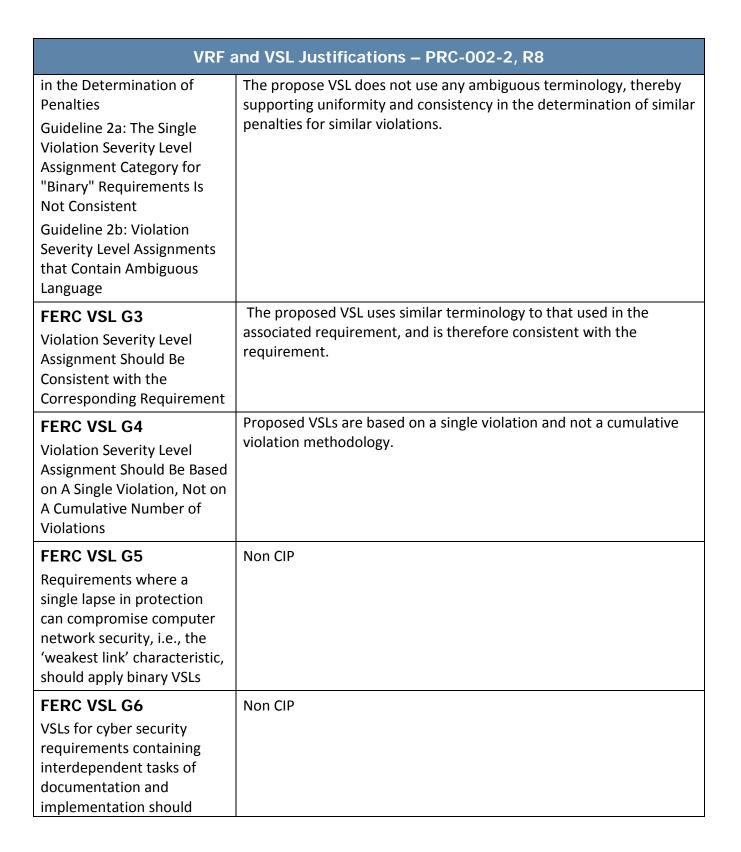
| VRF and VSL Justifications – PRC-002-2, R7 | |
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| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation R7 contains only one objective which is to establish criteria for Dynamic Disturbance Recording. Since the requirement has only one objective, only one VRF was assigned. |
| Proposed Lower VSL | The Generator Owner had DDR data as directed by Requirement R7, Parts 7.1 through 7.4 that covers more than <u>8075</u> % but less than 100% of the total required electrical quantities for all applicable BES Elements. |
| Proposed Moderate VSL | The Generator Owner had DDR data as directed by Requirement R7, Parts 7.1 through 7.4 for more than <u>7</u> 50% but less than or equal to <u>8075</u> % of the total required electrical quantities for all applicable BES Elements. |
| Proposed High VSL | The Generator Owner had DDR data as directed by Requirement R7, Parts 7.1 through 7.4 for more than 60% but less than or equal to 750% of the total required electrical quantities for all applicable BES Elements. |
| Proposed Severe VSL | The Generator Owner failed to have DDR data as directed by Requirement R7, Parts 7.1 through 7.4. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | PRC-002-2 differs from PRC-002-1 (not enforceable) and PRC-018-1 (enforceable and will be retired upon approval of PRC-002-2) in that PRC-002-2 deals with Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording in order to adequately capture data for events analysis; and not equipment as referenced in the PRC- 002-1 and PRC-018-1. Therefore, the VSL's cannot be compared between PRC-002-2 and PRC-018-1. The VSL's for this requirement meet or exceed the current level of compliance. |
| FERC VSL G2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties | Guideline 2a: The VSL assignment is for R7 is not binary. Guideline 2b: The propose VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. |

| VRF and VSL Justifications – PRC-002-2, R7 | |
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| 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 | |
| FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | The proposed VSL uses similar terminology to that 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 | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | Non CIP |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |

| VRF and VSL Justifications – PRC-002-2, R8 | |
|--|--|
| Proposed VRF | Lower |
| NERC VRF Discussion | R8 is a requirement in a long-term 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 of capability of the BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report |
| | R8 provides criteria for Dynamic Disturbance Recordings which falls under Recommendation 12 of the Blackout Report and is consistent with FERC guideline G1. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard |
| | The requirement has parts that are of equal importance; only one VRF was assigned so there is no conflict. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards |
| | This requirement establishes the need for continuous data recording and storage for Dynamic Disturbance Recordings established in R6. The team could not identify other continent-wide reliability standards |
| | of the same nature. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs Failure to establish continuous data recording and storage for Dynamic Disturbance Recordings established in R5 could not directly affect the electrical state or capability of the BES, or the ability to effectively monitor and control the BES. Violation of the requirement will not lead to bulk electric system instability, separation, or cascading failures. The VRF for this requirement is "Lower" which is consistent with NERC guidelines for similar requirements. |



| VRF and VSL Justifications – PRC-002-2, R8 | |
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| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation R8 contains only one objective to establish continuous data recording and storage for Dynamic Disturbance Recordings established in R6. Since the requirement has only one objective, only one VRF was assigned. |
| Proposed Lower VSL | The Transmission Owner or Generator Owner had continuous or non- continuous DDR data, as directed in Requirement R8, for more than <u>8075</u> % but less than 100% of the Elements they own as determined in Requirement R5. |
| Proposed Moderate VSL | The Transmission Owner or Generator Owner had continuous or non- continuous DDR data, as directed in Requirement R8, for more than $\frac{750}{50}$ but less than or equal to $\frac{8075}{5}$ of the Elements they own as determined in Requirement R5. |
| Proposed High VSL | The Transmission Owner or Generator Owner had continuous or non- continuous DDR data, as directed in Requirement R8, for more than $\underline{60\%}$ but less than or equal to $\underline{750\%}$ of the Elements they own as determined in Requirement R5. |
| Proposed Severe VSL | The Transmission Owner or Generator Owner failed to have continuous or non-continuous DDR data, as directed in Requirement R8, for the Elements they own as determined in Requirement R5. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | PRC-002-2 differs from PRC-002-1 (not enforceable) and PRC-018-1 (enforceable and will be retired upon approval of PRC-002-2) in that PRC-002-2 deals with Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording in order to adequately capture data for events analysis; and not equipment as referenced in the PRC- 002-1 and PRC-018-1. Therefore, the VSL's cannot be compared between PRC-002-2 and PRC-018-1. The VSL's for this requirement meet or exceed the current level of compliance. |
| FERC VSL G2 | Guideline 2a: |
| Violation Severity Level Assignments Should Ensure | The VSL assignment is for R8 is not binary. |
| Uniformity and Consistency | Guideline 2b: |



| VRF and VSL Justifications – PRC-002-2, R8 | |
|--|--|
| account for their interdependence | |
| Interdependence | |

| VRF and VSL Justifications – PRC-002-2, R9 | |
|--|---|
| Proposed VRF | Lower |
| NERC VRF Discussion | R9 is a requirement in a long-term 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 of capability of the BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report |
| | R9 provides criteria for Dynamic Disturbance Recordings which falls under Recommendation 12 of the Blackout Report and is consistent with FERC guideline G1. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard |
| | The requirement has parts that are of equal importance; only one |
| | VRF was assigned so there is no conflict. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards |
| | This requirement established technical specifications for Dynamic |
| | Disturbance Recording selected in R6. The team could not identify |
| | other continent-wide reliability standards of the same nature. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs |
| | Failure to establish technical specifications for Dynamic Disturbance |
| | Recording selected in R6 could not directly affect the electrical state |
| | or capability of the BES, or the ability to effectively monitor and |
| | control the BES. Violation of the requirement will not lead to bulk |
| | electric system instability, separation, or cascading failures. The VRF |
| | for this requirement is "Lower" which is consistent with NERC |
| | guidelines for similar requirements. |



| VRF and VSL Justifications – PRC-002-2, R9 | |
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| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation R9 contains only one objective which is to establish technical specifications for Dynamic Disturbance Recording selected in R6. Since the requirement has only one objective, only one VRF was assigned. |
| Proposed Lower VSL | The Transmission Owner or Generator Owner had DDR data that meets more than 8075% but less than 100% of the total recording properties as specified in Requirement R9. |
| Proposed Moderate VSL | The Transmission Owner or Generator Owner had DDR data that meets more than $\frac{750\%}{50\%}$ but less than or equal to $\frac{8075\%}{50\%}$ of the total recording properties as specified in Requirement R9. |
| Proposed High VSL | The Transmission Owner or Generator Owner had DDR data that meets more than 610% but less than or equal to 750% of the total recording properties as specified in Requirement R9. |
| Proposed Severe VSL | The Transmission Owner or Generator Owner had DDR data that meets more than 1% but less than or equal to 610% of the total recording properties as specified in Requirement R9. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | PRC-002-2 differs from PRC-002-1 (not enforceable) and PRC-018-1 (enforceable and will be retired upon approval of PRC-002-2) in that PRC-002-2 deals with Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording in order to adequately capture data for events analysis; and not equipment as referenced in the PRC- 002-1 and PRC-018-1. Therefore, the VSL's cannot be compared between PRC-002-2 and PRC-018-1. The VSL's for this requirement meet or exceed the current level of compliance. |
| FERC VSL G2 | Guideline 2a: |
| Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level | The VSL assignment is for R9 is not binary. Guideline 2b: The propose VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. |

| VRF and VSL Justifications – PRC-002-2, R9 | |
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| Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language | |
| FERC VSL G3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | Guideline 3- Consistency among Reliability Standards This requirement established technical specifications for Dynamic Disturbance Recording selected in R5. The team could not identify other continent-wide reliability standards of the same nature. |
| FERC VSL G4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations | Proposed VSLs are based on a single violation and not a cumulative violation methodology. |
| FERC VSL G5 Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | Non CIP |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |

| VRF and VSL Justifications – PRC-002-2, R10 | |
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| Proposed VRF | Lower |
| NERC VRF Discussion | R10 is a requirement in a long-term 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 of capability of the BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report R10 requires time synchronization of Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data which falls under Recommendation 12 of the Blackout Report and is consistent with FERC guideline G1. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard This requirement does not have parts. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards This requirement calls for time synchronization for Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data for locations established in R1 and R5. The team could not identify other continent-wide reliability standards of the same nature. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs Failures to time synchronize Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data could not directly affect the electrical state or capability of the BES, or the ability to effectively monitor and control the BES. Violation of the requirement will not lead to bulk electric system instability, separation, or cascading failures. The VRF for this requirement is "Lower" which is consistent with NERC guidelines for similar requirements. |
| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation |



| VRF and VSL Justifications – PRC-002-2, R10 | |
|---|--|
| | R10 contains only one objective which is to time synchronize Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data. Since the requirement has only one objective, only one VRF was assigned. |
| Proposed Lower VSL | The Transmission Owner or Generator Owner had time synchronization <u>per Requirement R10, Parts 10.1 and 10.2</u> for SER, FR, and DDR data for more than 90% but less than 100% of the bus locations as per Requirements R1 and Elements as per Requirement R5 as directed by Requirement R10. |
| Proposed Moderate VSL | The Transmission Owner or Generator Owner had time synchronization <u>per Requirement R10, Parts 10.1 and 10.2</u> for SER, FR, and DDR data for more than 80% but less than or equal to 90% of the bus locations as per Requirements R1 and Elements as per Requirement R5 as directed by Requirement R10. |
| Proposed High VSL | The Transmission Owner or Generator Owner had time synchronization <u>per Requirement R10, Parts 10.1 and 10.2</u> for SER, FR, and DDR data for more than 70% but less than or equal to 80% of the bus locations as per Requirements R1 and Elements as per Requirement R5 as directed by Requirement R10. |
| Proposed Severe VSL | The Transmission Owner or Generator Owner failed to have time synchronization <u>per Requirement R10</u> , <u>Parts 10.1 and 10.2</u> for SER, FR, and DDR data for less than or equal to 70% of the bus locations as per Requirements R1 and Elements as per Requirement R5 as directed by Requirement R10. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | The proposed VSL's provide a broader compliance range than the associated VSL's in PRC-018-1. The VSL's for this requirement meet or exceed the current level of compliance. |
| FERC VSL G2 | Guideline 2a: |
| | The VSL assignment is for R10 is not binary. |

| VRF and VSL Justifications – PRC-002-2, R10 | |
|--|--|
| Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties | Guideline 2b: The propose VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. |
| 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 | |
| FERC VSL G3 | The proposed VSL uses similar terminology to that used in the |
| Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement | associated requirement, and is therefore consistent with the requirement. |
| FERC VSL G4 | Proposed VSLs are based on a single violation and not a cumulative |
| Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations | violation methodology. |
| FERC VSL G5 | Non CIP |
| Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | |
| FERC VSL G6 | Non CIP |
| VSLs for cyber security requirements containing | |

| VRF and VSL Justifications – PRC-002-2, R10 | |
|---|--|
| interdependent tasks of | |
| documentation and | |
| implementation should | |
| account for their | |
| interdependence | |

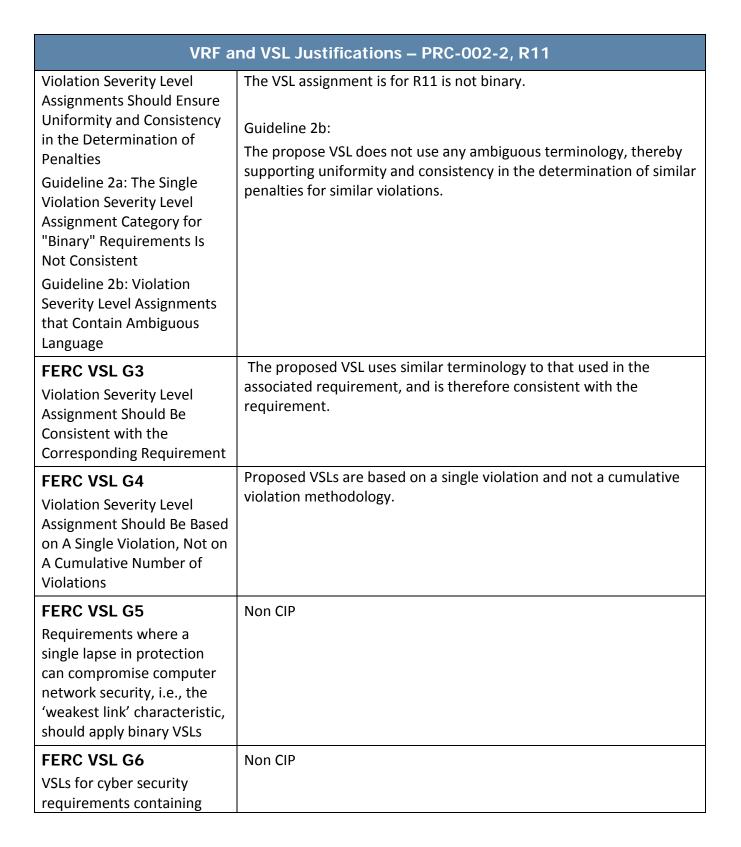
| VRF and VSL Justifications – PRC-002-2, R11 | |
|---|---|
| Proposed VRF | Lower |
| NERC VRF Discussion | R11 is administrative in nature and a requirement in a long-term planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state of capability of the BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report R11 provides criteria around timelines for providing the data and the data format. This is consistent with FERC guideline G1. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard The requirement has parts that are of equal importance; only one VRF was assigned so there is no conflict. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards This requirement sets the criteria on providing Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data for locations selected in R1 and Elements established in R5. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs Failure to provide Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data for locations selected in R1 and Elements established in R5 could not directly affect the electrical state or capability of the BES, or the ability to effectively monitor and control the BES. Violation of the requirement will not lead to bulk electric system instability, separation, or cascading failures. The VRF |



| VRF and VSL Justifications – PRC-002-2, R11 | |
|---|---|
| | for this requirement is "Lower" which is consistent with NERC guidelines for similar requirements. |
| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation R11 contains only one objective which is to provide Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data within the specified criteria. Since the requirement has only one objective, only one VRF was assigned. |
| Proposed Lower VSL | The Transmission Owner or Generator Owner as directed by Requirement R11, Part 11.1 provided the requested data more than 30 ealendar_calendar days but less than 40-calendar_calendar days from after the request unless an extension was granted by the requesting authority. OR The Transmission Owner or Generator Owner as directed by Requirement R11, Part 113.2 provided more than 90% but less than |
| | 100% of the requested data. OR |
| | The Transmission Owner or Generator Owner as directed by Requirement R11, Parts 11.3 through 11.5 provided more than 90% but less than 100% in the proper data format. |
| Proposed Moderate VSL | The Transmission Owner or Generator Owner as directed by Requirement R11, Part 11.1 provided the requested data more than 40 calendar_calendar days but less than or equal to 50-calendar_calendar days <u>afterfrom</u> the request <u>unless an extension was granted by the</u> requesting authority. |
| | OR |
| | The Transmission Owner or Generator Owner as directed by Requirement R11 , Part 11.2 provided more than 80% but less than or equal to 90% of the requested data. |
| | OR |
| | The Transmission Owner or Generator Owner as directed by Requirement R11, Parts 11.3 through 11.5 provided more than 80% but less than or equal to 90% in the proper data format. |



| VRF and VSL Justifications – PRC-002-2, R11 | |
|---|--|
| Proposed High VSL | The Transmission Owner or Generator Owner as directed by Requirement R11, Part 11.1 provided the requested data more than 50 calendar_calendar days but less than or equal to 60-calendar_calendar days afterfrom the request unless an extension was granted by the requesting authority. OR The Transmission Owner or Generator Owner as directed by Requirement R11, Part 11.2 provided more than 70% but less than or equal to 80% of the requested data. OR The Transmission Owner or Generator Owner as directed by Requirement R11, Parts 11.3 through 11.5 provided more than 70% but less than or equal to 80% in the proper data format. |
| Proposed Severe VSL | The Transmission Owner or Generator Owner as directed by Requirement R11, Part 11.1 failed to provide the requested data more than 60-calendar_calendar days from after the request. OR The Transmission Owner or Generator Owner as directed by Requirement R11, Part 11.2 failed to provide less than or equal to 70% of the requested data. OR The Transmission Owner or Generator Owner as directed by Requirement R11, Parts 11.3 through 11.5 provided less than or equal to 70% in the proper data format. |
| FERC VSL G1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance | The proposed VSL's provide a broader compliance range than the associated VSL's in PRC-018-1. The VSL's for this requirement meet or exceed the current level of compliance. |
| FERC VSL G2 | Guideline 2a: |

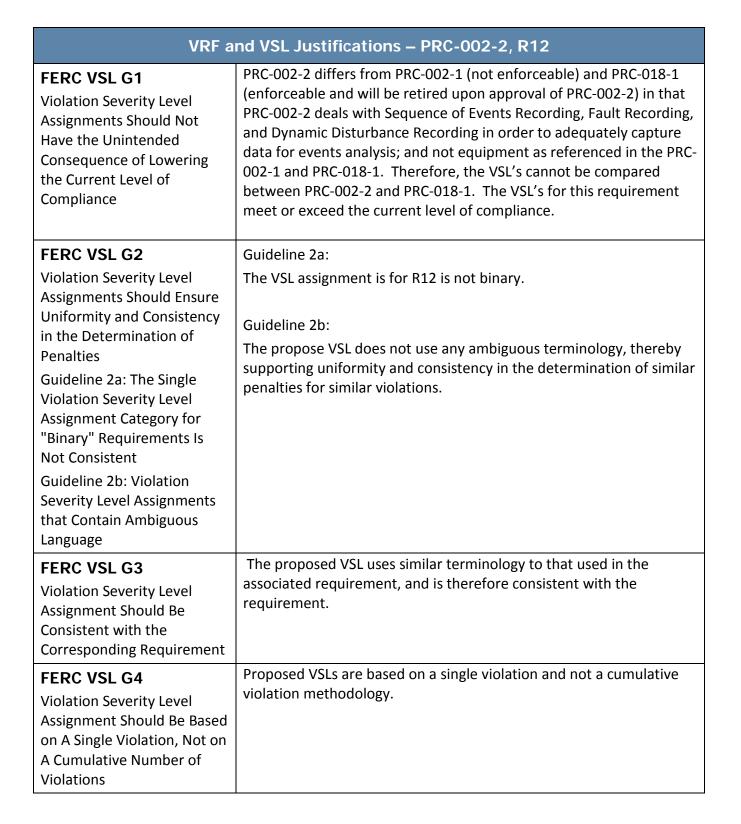


| VRF and VSL Justifications – PRC-002-2, R11 | |
|---|--|
| interdependent tasks of | |
| documentation and | |
| implementation should | |
| account for their | |
| interdependence | |

| VRF and VSL Justifications – PRC-002-2, R12 | |
|---|--|
| Proposed VRF | Lower |
| NERC VRF Discussion | R12 is a requirement in a long-term 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 of capability of the BES, or the ability to effectively monitor, control, or restore the BES. |
| FERC VRF G1 Discussion | Guideline 1- Consistency w/ Blackout Report R12 provides criteria around the availability of Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data. |
| FERC VRF G2 Discussion | Guideline 2- Consistency within a Reliability Standard This requirement does not have parts. |
| FERC VRF G3 Discussion | Guideline 3- Consistency among Reliability Standards This requirement sets the criteria around the availability of Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data. |
| FERC VRF G4 Discussion | Guideline 4- Consistency with NERC Definitions of VRFs Failure to follow the criteria around the availability of Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data could not directly affect the electrical state or capability of the BES, or the ability to effectively monitor and control the BES. Violation of the requirement will not lead to bulk electric system instability, separation, or cascading failures. The VRF for this |



| VRF and VSL Justifications – PRC-002-2, R12 | |
|---|---|
| | requirement is "Lower" which is consistent with NERC guidelines for similar requirements. |
| FERC VRF G5 Discussion | Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation R12 contains only one objective which is to establish criteria around the availability of Sequence of Events Recording, Fault Recording, and Dynamic Disturbance Recording data. Since the requirement has only one objective, only one VRF was assigned. |
| Proposed Lower VSL | The Transmission Owner or Generator Owner as directed by Requirement R12 reported a failure and provided a Corrective Action Plan to the Regional Entity more than 90- <u>calendar-calendar</u> days but less than 100- <u>calendar-calendar</u> days after discovery of the failure. |
| Proposed Moderate VSL | The Transmission Owner or Generator Owner as directed by Requirement R12 reported a failure and provided a Corrective Action Plan to the Regional Entity more than 100- <u>calendar</u> days but less than or equal to 110- <u>calendar_calendar</u> days after discovery of the failure. |
| Proposed High VSL | The Transmission Owner or Generator Owner as directed by Requirement R12 reported a failure and provided a Corrective Action Plan to the Regional Entity more than 110- <u>calendar</u> -calendar days but less than or equal to 120- <u>calendar</u> -calendar days after discovery of the failure. |
| | OR The Transmission Owner or Generator Owner as directed by Requirement R12 submitted a CAP to the Regional Entity but failed to implement it. |
| Proposed Severe VSL | The Transmission Owner or Generator Owner as directed by Requirement R12 failed to report a failure and provide a Corrective Action Plan to the Regional Entity more than 120-calendar_calendar days after discovery of the failure. |
| | Transmission Owner or Generator Owner as directed by Requirement R12 failed to restore the recording capability and failed to submit a CAP to the Regional Entity. |



| VRF and VSL Justifications – PRC-002-2, R12 | |
|--|---------|
| FERC VSL G5 | Non CIP |
| Requirements where a single lapse in protection can compromise computer network security, i.e., the 'weakest link' characteristic, should apply binary VSLs | |
| FERC VSL G6 VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence | Non CIP |