

## **Project 2007-02 – Operating Personnel Communications Protocol**

### **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 COM-002-4 Operating Personnel Communications Protocols.

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 Operations Personnel Communications Protocol 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.

VRF for COM-002-4:

There are five requirements in COM-002-4, draft 1. Requirements R1 and R2 are assigned a "Low" VRF. R1 now reads: *"Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall have documented communications protocols. The protocols shall, at a minimum:."* R2 now reads: *"Each Distribution Provider and Generator Operator shall have documented communications protocols. The protocols shall, at a minimum:."* Requirements R3 and R4 are assigned a "High" VRF. R3 now reads: *" Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement the documented communications protocols developed in Requirement R1."* R4 now reads: *" Each Distribution Provider and Generator Operator shall implement the documented communications protocols developed in Requirement R2."* These Requirements warrant VRFs of "High" because failure to use the communications protocols during an emergency 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. Requirement R5 is assigned a "Low" VRF. R5 now reads: *" R5. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement a method to evaluate the communications protocols developed in Requirement R1 that:."*

## **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<br>The performance or product | Missing at least one significant element (or a moderate percentage) of the required performance. | Missing more than one significant element (or is missing a high percentage) of the required performance or is missing a single vital | Missing most or all of the significant elements (or a significant percentage) of the required performance.<br>The performance measured does not meet |

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| measured has significant value as it almost meets the full intent of the requirement. | The performance or product measured still has significant value in meeting the intent of the requirement. | component.<br>The performance or product has limited value in meeting the intent of the requirement. | 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.

The drafting team will complete the following table, providing of analysis and justification for each VRF and VSL, for each requirement.

| VRF and VSL Justifications – COM-002-4, R1 |  |
|--|--|
| Proposed VRF                               | Low  |
| 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 bulk electric system The VRF for this requirement is “Low,” which is consistent with NERC guidelines. |
| FERC VRF G1 Discussion                     | <b>Guideline 1- Consistency w/ Blackout Report:</b><br>R1 establishes communications protocols, which is consistent with FERC guideline G1.  |
| FERC VRF G2 Discussion                     | <b>Guideline 2- Consistency within a Reliability Standard :</b><br>The requirement has sub-requirements that are of equal importance and similarly address communication protocols; only one VRF was assigned so there is no conflict.   |
| FERC VRF G3 Discussion                     | <b>Guideline 3- Consistency among Reliability Standards:</b><br>This requirement calls for the development of documented communications protocols by entities that will both issue and receive “Operating Instructions” that reduce the possibility of miscommunication which  |

| VRF and VSL Justifications – COM-002-4, R1   |   |   |   |
|--|---|---|---|
|  | could eventually lead to action or inaction harmful to the reliability of the bulk electric system.   |   |   |
| FERC VRF G4 Discussion   | <p><b>Guideline 4- Consistency with NERC Definitions of VRFs:</b><br/>                     Failure to utilize communication protocols properly 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 the requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures. The VRF for this requirement is “ Low,” which is consistent with NERC guidelines for similar requirements.</p> |   |   |
| FERC VRF G5 Discussion   | <p><b>Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation:</b><br/>                     COM-002-4 Requirement R1 contains only one objective which is to document clear, formal and universally applied communication protocols that reduce the possibility of miscommunication which could lead to action or inaction harmful to the reliability of the bulk electric system. Since the requirement has only one objective, only one VRF was assigned.</p>  |   |   |
| Proposed VSL   |   |   |   |
| Lower  | Moderate  | High  | Severe  |
| The responsible entity did not specify the instances that require time identification when issuing an oral or written Operating Instruction and the format for that time identification, as required in Requirement R1, Part 1.7 | The responsible entity did not require the issuer and receiver of an oral or written Operating Instruction to use the English language, unless agreed to otherwise, as required in Requirement R1, Part 1.2. An alternate language may be used for internal operations.   | The responsible entity did not include Requirement R1, Part 1.5 in its documented communication protocols<br><br>OR<br><br>The responsible entity did not include Requirement R1, Part 1.6 in its documented communications | The responsible entity did not include Requirement R1, Part 1.1 in its documented communications protocols<br><br>OR<br><br>The responsible entity did not include Requirement R1, Part 1.3 in its documented |



**VRF and VSL Justifications – COM-002-4, R1**

|  |  |                   |   |
|--|--|-------------------|---|
| <p>OR</p> <p>The responsible entity did not specify the nomenclature for Transmission interface Elements and Transmission interface Facilities when issuing an oral or written Operating Instruction, as required in Requirement R1, Part 1.8</p> <p>OR</p> <p>The responsible entity did not specify the instances where alpha-numeric clarifiers are required when issuing an oral Operating Instruction and the format for those clarifiers, as required in Requirement R1, Part 1.9.</p> |  | <p>protocols.</p> | <p>communications protocols</p> <p>OR</p> <p>The responsible entity did not include Requirement R1, Part 1.4 in its documented communications protocols</p> <p>OR</p> <p>The responsible entity did not develop any documented communications protocols as required in Requirement R1</p> |
|--|--|-------------------|---|

**VRF and VSL Justifications – COM-002-4, R1**

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|--|--|
| <p><b>FERC VSL G1</b><br/>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>  | <p>Based on the VSL Guidance, the SDT developed four VSLs based on misapplication or absence of common communication protocols, with varied VSLs based on the severity of the potential risk to the bulk electric system if the protocols were not used. If no communication protocols were addressed at all then the VSL is Severe.</p> |
| <p><b>FERC VSL G2</b><br/>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties<br/>Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent<br/>Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</p> | <p>Guideline 2a:<br/>The VSL assignment for R1 is not binary.</p> <p>Guideline 2b:<br/>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><b>FERC VSL G3</b><br/>Violation Severity Level Assignment Should Be Consistent with the</p>  | <p>The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement. In addition, the VSLs are consistent with Requirement R1.</p>   |

| VRF and VSL Justifications – COM-002-4, R1  |  |
|---|--|
| Corresponding Requirement   |  |
| <p><b>FERC VSL G4</b><br/>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>   | The VSL is based on a single violation and not cumulative violations |
| <p><b>FERC VSL G5</b><br/>Requirements where a single lapse in protection can compromise computer network security, i.e., the ‘weakest link’ characteristic, should apply binary VSLs</p> | Non CIP  |
| <p><b>FERC VSL G6</b><br/>VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence</p>           | Non CIP  |

| VRF and VSL Justifications – COM-002-4, R2 |   |
|--|---|
| Proposed VRF                               | Low   |
| NERC VRF Discussion                        | R2 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 bulk electric system The VRF for this requirement is “Low,” which is consistent with NERC guidelines.  |
| FERC VRF G1 Discussion                     | <b>Guideline 1- Consistency w/ Blackout Report:</b><br>R2 establishes communication protocols, which is consistent with FERC guideline G1.  |
| FERC VRF G2 Discussion                     | <b>Guideline 2- Consistency within a Reliability Standard :</b><br>The requirement has sub-requirements that are of equal importance and similarly address communication protocols; only one VRF was assigned so there is no conflict.  |
| FERC VRF G3 Discussion                     | <b>Guideline 3- Consistency among Reliability Standards:</b><br>This requirement calls for the development of documented communication protocols by entities that will only receive “Operating Instructions” that reduce the possibility of miscommunication which could eventually lead to action or inaction harmful to the reliability of the bulk electric system.  |
| FERC VRF G4 Discussion                     | <b>Guideline 4- Consistency with NERC Definitions of VRFs:</b><br>Failure to utilize communication protocols properly 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 the requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures. The VRF for this requirement is “Low,” which is consistent with NERC guidelines for similar requirements. |
| FERC VRF G5 Discussion                     | <b>Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation:</b><br>COM-002-4 Requirement R2 contains only one objective which is to document clear, formal and universally applied communication protocols that reduce the possibility of miscommunication which could lead to action or inaction harmful to the reliability of the bulk electric system. Since the requirement has  |

| VRF and VSL Justifications – COM-002-4, R2 |  |  |  |
|--|--|--|--|
|  |  | only one objective, only one VRF was assigned.   |  |
| Proposed VSL                               |  |  |  |
| Lower                                      | Moderate   | High   | Severe   |
| N/A  | The responsible entity did not require the receiver of an oral or written Operating Instruction to use the English language, unless agreed to otherwise, as required in Requirement R2, Part 2.1. An alternate language may be used for internal operations. | The responsible entity did not include Requirement R2, Part 2.3 in its documented communication protocols. | The responsible entity did not include Requirement R2, Part 2.2 in its documented communications protocols<br><br>OR<br>The responsible entity did not develop any documented communications protocols as required in Requirement R2 |

**VRF and VSL Justifications – COM-002-4, R2**

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|--|---|
| <p><b>FERC VSL G1</b><br/>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>  | <p>Based on the VSL Guidance, the SDT developed three VSLs based on misapplication or absence of common communication protocols, with varied VSLs based on the severity of the potential risk to the bulk electric system if the protocols were not used. If no communication protocols were addressed at all then the VSL is Severe.</p> |
| <p><b>FERC VSL G2</b><br/>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties<br/>Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent<br/>Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</p> | <p>Guideline 2a:<br/>The VSL assignment for R2 is not binary.</p> <p>Guideline 2b:<br/>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><b>FERC VSL G3</b><br/>Violation Severity Level Assignment Should Be Consistent with the</p>  | <p>The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement. In addition, the VSLs are consistent with Requirement R1.</p>  |

| VRF and VSL Justifications – COM-002-4, R2  |  |
|---|--|
| Corresponding Requirement   |  |
| <p><b>FERC VSL G4</b><br/>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>   | The VSL is based on a single violation and not cumulative violations |
| <p><b>FERC VSL G5</b><br/>Requirements where a single lapse in protection can compromise computer network security, i.e., the ‘weakest link’ characteristic, should apply binary VSLs</p> | Non CIP  |
| <p><b>FERC VSL G6</b><br/>VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence</p>           | Non CIP  |

| VRF and VSL Justifications – COM 002-4, R3 |  |
|--|--|
| Proposed VRF                               | High   |
| NERC VRF Discussion                        | R3 is a requirement in a Real-time Operations time frame 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 due to failure to use the communications protocols during an emergency. The VRF for this requirement is “High,” which is consistent with NERC guidelines.   |
| FERC VRF G1 Discussion                     | <b>Guideline 1- Consistency w/ Blackout Report:</b><br>R2 falls under Recommendation 26 of the Blackout Report. The VRF for this requirement is “High,” which is consistent with FERC guideline G1.  |
| FERC VRF G2 Discussion                     | <b>Guideline 2- Consistency within a Reliability Standard :</b><br>The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.   |
| FERC VRF G3 Discussion                     | <b>Guideline 3- Consistency among Reliability Standards:</b><br>This requirement calls for implementation of communication protocols developed in Requirement R1 to reduce the possibility of miscommunication which could eventually lead to action or inaction harmful to the reliability of the bulk electric system.   |
| FERC VRF G4 Discussion                     | <b>Guideline 4- Consistency with NERC Definitions of VRFs:</b><br>R3 is a requirement in a Real Time- time frame 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 due to failure to use the communications protocols during an emergency. The VRF for this requirement is “High,” which is consistent with NERC guidelines. |
| FERC VRF G5 Discussion                     | <b>Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation:</b><br>COM-002-4 Requirement R3 contains only one objective which is to implement clear, formal and universally applied communication protocols that reduce the possibility of miscommunication which could lead to action or inaction harmful to the reliability of the bulk electric system. Since the requirement has  |



| VRF and VSL Justifications – COM 002-4, R3     |          |   |   |
|--|----------|---|---|
| only one objective, only one VRF was assigned. |          |   |   |
| Proposed VSL                                   |          |   |   |
| Lower  | Moderate | High  | Severe  |
| N/A  | N/A      | The responsible entity demonstrates a consistent pattern of not using the documented communications protocols developed in Requirement R1 for Operating Instructions that are not Reliability Directives. | The responsible entity did not use the documented communications protocols developed in Requirement R1 when issuing or receiving a Reliability Directive. |

**VRF and VSL Justifications – COM 002-4, R3**

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|--|---|
| <b>VRF and VSL Justifications – COM 002-4, R3</b>  |   |
| <p><b>FERC VSL G1</b><br/>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>  | <p>Based on the VSL Guidance, the SDT developed two VSLs to establish the severity of an entity not implementing their communications protocols. If an entity demonstrates a consistent pattern of not using their protocols over time for Operating Instructions that are not Reliability Directives, then they are deemed to not have implemented their communications protocols at a “high” level. If an entity does not use their protocols when issuing or receiving a Reliability Directive, then they are deemed to not have implemented their communications protocols at a “severe” level.</p> |
| <p><b>FERC VSL G2</b><br/>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties<br/>Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent<br/>Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</p> | <p>Guideline 2a:<br/>The VSL assignment for R3 is not binary.</p> <p>Guideline 2b:<br/>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><b>FERC VSL G3</b><br/>Violation Severity Level Assignment Should Be Consistent with the</p>  | <p>The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement</p>   |

## VRF and VSL Justifications – COM 002-4, R3

| VRF and VSL Justifications – COM 002-4, R3  |  |
|---|--|
| Corresponding Requirement   |  |
| <p><b>FERC VSL G4</b><br/>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>   | The VSL is based on a single violation and not cumulative violations |
| <p><b>FERC VSL G5</b><br/>Requirements where a single lapse in protection can compromise computer network security, i.e., the ‘weakest link’ characteristic, should apply binary VSLs</p> | Non CIP  |
| <p><b>FERC VSL G6</b><br/>VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence</p>           | Non CIP  |

| VRF and VSL Justifications – COM 002-4, R4 |   |
|--|---|
| <b>Proposed VRF</b>                        | High  |
| NERC VRF Discussion                        | R4 is a requirement in a Real-time Operations time frame 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 due to failure to use the communications protocols during an emergency. The VRF for this requirement is “High,” which is consistent with NERC guidelines.  |
| FERC VRF G1 Discussion                     | <b>Guideline 1- Consistency w/ Blackout Report:</b><br>R4 falls under Recommendation 26 of the Blackout Report. The VRF for this requirement is “High,” which is consistent with FERC guideline G1.   |
| FERC VRF G2 Discussion                     | <b>Guideline 2- Consistency within a Reliability Standard :</b><br>The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.  |
| FERC VRF G3 Discussion                     | <b>Guideline 3- Consistency among Reliability Standards:</b><br>This requirement calls for implementation of communication protocols developed in Requirement R2 to reduce the possibility of miscommunication which could eventually lead to action or inaction harmful to the reliability of the bulk electric system.  |
| FERC VRF G4 Discussion                     | <b>Guideline 4- Consistency with NERC Definitions of VRFs:</b><br>R4 is a requirement in a Real-time Operations time frame 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 due to failure to use the communications protocols during an emergency. The VRF for this requirement is “High” which is consistent with NERC guidelines. |
| FERC VRF G5 Discussion                     | <b>Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation:</b><br>COM-002-4 Requirement R4 contains only one objective which is to implement clear, formal and universally applied communication protocols that reduce the possibility of miscommunication which could lead to action or inaction harmful to the reliability of the bulk electric system. Since the requirement has   |

| VRF and VSL Justifications – COM 002-4, R4     |          |   |  |
|--|----------|---|--|
| only one objective, only one VRF was assigned. |          |   |  |
| Proposed VSL                                   |          |   |  |
| Lower  | Moderate | High  | Severe   |
| N/A  | N/A      | The responsible entity demonstrates a consistent pattern of not using the documented communications protocols developed in Requirement R2 for Operating Instructions that are not Reliability Directives. | The responsible entity did not use the documented communications protocols developed in Requirement R2 when receiving a Reliability Directive. |

**VRF and VSL Justifications – COM 002-4, R4**

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| <p><b>FERC VSL G1</b><br/>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>  | <p>Based on the VSL Guidance, the SDT developed two VSLs to establish the severity of an entity not implementing their communications protocols. If an entity demonstrates a consistent pattern of not using their protocols over time for Operating Instructions that are not Reliability Directives, then they are deemed to not have implemented their communications protocols at a “high” level. If an entity does not use their protocols when receiving a Reliability Directive, then they are deemed to not have implemented their communications protocols at a “severe” level.</p> |
| <p><b>FERC VSL G2</b><br/>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties<br/>Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent<br/>Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</p> | <p>Guideline 2a:<br/>The VSL assignment for R4 is not binary.</p> <p>Guideline 2b:<br/>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><b>FERC VSL G3</b><br/>Violation Severity Level Assignment Should Be Consistent with the</p>  | <p>The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement</p>  |

| VRF and VSL Justifications – COM 002-4, R4  |  |
|---|--|
| Corresponding Requirement   |  |
| <p><b>FERC VSL G4</b><br/>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>   | The VSL is based on a single violation and not cumulative violations |
| <p><b>FERC VSL G5</b><br/>Requirements where a single lapse in protection can compromise computer network security, i.e., the ‘weakest link’ characteristic, should apply binary VSLs</p> | Non CIP  |
| <p><b>FERC VSL G6</b><br/>VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence</p>           | Non CIP  |

| VRF and VSL Justifications – COM 002-4, R5 |  |
|--|--|
| Proposed VRF                               | Low  |
| NERC VRF Discussion                        | R5 is a requirement in an Operations 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 The VRF for this requirement is “Low,” which is consistent with NERC guidelines.   |
| FERC VRF G1 Discussion                     | <b>Guideline 1- Consistency w/ Blackout Report:</b><br>R5 establishes a method to evaluate communication protocols, which is consistent with FERC guideline G1.  |
| FERC VRF G2 Discussion                     | <b>Guideline 2- Consistency within a Reliability Standard :</b><br>The requirement has sub-requirements that are of equal importance and similarly address communication protocols; only one VRF was assigned so there is no conflict.   |
| FERC VRF G3 Discussion                     | <b>Guideline 3- Consistency among Reliability Standards:</b><br>This requirement establishes a method to evaluate communication protocols developed in Requirement R1 to reduce the possibility of miscommunication which could eventually lead to action or inaction harmful to the reliability of the bulk electric system, which is not inconsistent with any other Reliability Standards.                                      |
| FERC VRF G4 Discussion                     | <b>Guideline 4- Consistency with NERC Definitions of VRFs:</b><br>R5 is a requirement in an Operations 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 The VRF for this requirement is “Low,” which is consistent with NERC guidelines. |
| FERC VRF G5 Discussion                     | <b>Guideline 5- Treatment of Requirements that Co-mingle More than One Obligation:</b><br>COM-002-4 Requirement R5 contains only one objective which is to establish a method to evaluate communication protocols developed in Requirement R1 to reduce the possibility of miscommunication which could lead to action or inaction harmful to the reliability of the bulk electric system. Since the                               |



| VRF and VSL Justifications – COM 002-4, R5 |          |  |   |
|--|----------|--|---|
|  |          | requirement has only one objective, only one VRF was assigned. |   |
| Proposed VSL                               |          |  |   |
| Lower                                      | Moderate | High   | Severe  |
| N/A  | N/A      | N/A  | The responsible entity did not implement a method for evaluating its communications protocols as specified in Requirement R5. |

**VRF and VSL Justifications – COM 002-4, R5**

|  |   |
|--|---|
| <p><b>FERC VSL G1</b><br/>Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance</p>  | <p>Based on the VSL Guidance, the SDT developed one VSL based on the failure to establish a method to evaluate the communication protocols developed in Requirement R1. Therefore the VSL is Severe.</p>  |
| <p><b>FERC VSL G2</b><br/>Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties<br/>Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent<br/>Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language</p> | <p>Guideline 2a:<br/>The VSL assignment for R5 is binary.</p> <p>Guideline 2b:<br/>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><b>FERC VSL G3</b><br/>Violation Severity Level Assignment Should Be Consistent with the</p>  | <p>The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement</p>   |

## VRF and VSL Justifications – COM 002-4, R5

| VRF and VSL Justifications – COM 002-4, R5  |  |
|---|--|
| Corresponding Requirement   |  |
| <p><b>FERC VSL G4</b><br/>Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations</p>   | The VSL is based on a single violation and not cumulative violations |
| <p><b>FERC VSL G5</b><br/>Requirements where a single lapse in protection can compromise computer network security, i.e., the ‘weakest link’ characteristic, should apply binary VSLs</p> | Non CIP  |
| <p><b>FERC VSL G6</b><br/>VSLs for cyber security requirements containing interdependent tasks of documentation and implementation should account for their interdependence</p>           | Non CIP  |