

Violation Risk Factor and Violation Severity Level Assignments

This document provides the drafting team’s justification for assignment of Violation Risk Factors (VRFs) and Violation Severity Levels (VSLs) for each requirement in TOP-001-2 — Coordination of Transmission Operations, TOP-002-3 — Operations Planning, and TOP-003-2 — Operational Reliability Data.

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.

Justification for Assignment of VRF in TOP-001-2, TOP-002-2, and TOP-003-2:

The SDT applied the following NERC criteria when proposing VRFs for the requirements in TOP-001-2:

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.

The SDT also considered consistency with the FERC Violation Risk Factor Guidelines for setting VRFs:¹

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:²

- 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

¹ North American Electric Reliability Corp., 119 FERC ¶ 61,145, order on reh’g and compliance filing, 120 FERC ¶ 61,145 (2007) (“VRF Rehearing Order”).

² Id. at footnote 15.

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.

There are thirteen requirements in TOP-001-2. None of the thirteen requirements were assigned a "Lower" VRF. Requirements R1, R2, R3, R4, R8, and R11 were assigned a "High" VRF while all of the other requirements were given a "Medium" VRF.

VRF for TOP-001-2, Requirement R1:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R2) in proposed IRO-001-2 that is assigned a High VRF. The requirements are viewed as similar since they both refer to complying with a Reliability Directive: IRO-001-2 for a Reliability Directive issued by a Reliability Coordinator and TOP-001-2 for a Reliability Directive issued by a Transmission Operator.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to comply with a Reliability Directive issued by a Transmission Operator could directly affect the electrical state or the capability of the bulk power system and could lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement is assigned a High VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R1 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-001-2, Requirement R2:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R3) in proposed IRO-001-2 that is assigned a High VRF. The requirements are viewed as similar since they both refer to the inability of complying with a Reliability Directive: IRO-001-2 for a Reliability Directive issued by a Reliability Coordinator and TOP-001-2 for a Reliability Directive issued by a Transmission Operator.

- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. Inability to comply with a Reliability Directive issued by a Transmission Operator could directly affect the electrical state or the capability of the bulk power system and could lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement is assigned a High VRF.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R2 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-001-2, Requirement R3:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R4) in proposed IRO-001-2 that is assigned a High VRF. The requirements are viewed as similar since they both refer to informing other reliability entities of known or expected conditions: IRO-001-2 for a Reliability Coordinator and TOP-001-2 for a Transmission Operator.
- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. Failure to notify other reliability entities of known or expected Emergency conditions could lead to bulk power system instability, separation or cascading failures. Thus, this requirement meets the criteria for a High VRF.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2 Requirement R3 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-001-2, Requirement R4:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R4 is a new requirement, so there are no comparable requirements in other standards with which to compare VRFs.
- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. Failure to render emergency assistance could lead to bulk power system instability, separation or cascading failures. Thus, this requirement meets the criteria for a High VRF.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R4 has only one objective, therefore only one VRF was assigned.

VRF for TOP-001-2, Requirement R5:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R1) in proposed IRO-014-2 that is assigned a Medium VRF. The

requirements are viewed as similar since they both refer to the coordination of activities with other reliability entities: TOP-001-2 for Transmission Operators and IRO-014-2 for Reliability Coordinators. The assignment of the Medium VRF was made based on the premise that failure to coordinate activities, by itself, would not directly cause or contribute to bulk power system instability, separation, or a cascading sequence of failures. For a requirement to be assigned a “High” VRF there should be the expectation that failure to meet the required performance “will” result in instability, separation, or cascading failures. This is not the case when an applicable entity fails to coordinate activities. While the SDT agrees that, under some circumstances, it is possible that a failure to coordinate activities may put the applicable entity in a position where it is not as prepared as it should be to address the potential situation, the failure to coordinate would not, by itself, result in instability, separation, or cascading failures. If the applicable entity failed to coordinate activities, it would still be expected to handle the situation if it occurred.

- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. Failure to coordinate activities could directly affect the electrical state or the capability of the bulk power system. However, violation of this requirement is unlikely to lead to bulk power system instability, separation, or cascading failures. The applicable entities are always responsible for maintaining the reliability of the bulk power system regardless of the situation. Thus, this requirement meets NERC’s criteria for a Medium VRF. Failure to coordinate activities will not, by itself, lead to instability, separation, or cascading failures.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R5 contains only one objective. Therefore only one VRF was assigned.

VRF for TOP-001-2, Requirement R6:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R7 has been assigned a Medium VRF and is the replacement (and a copy of) for approved TOP-003-1, Requirement R3, which was assigned a Medium VRF.
- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. Failure to coordinate outages could directly affect the electrical state or the capability of the bulk power system. However, violation of this requirement is unlikely to lead to bulk power system instability, separation, or cascading failures. The applicable entities are always responsible for maintaining the reliability of the bulk power system regardless of the situation. Thus, this requirement meets NERC’s criteria for a Medium VRF. Failure to coordinate outages will not, by itself, lead to instability, separation, or cascading failures.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2 Requirement R7 contains only one objective. Therefore only one VRF was assigned to the requirement.

VRF for TOP-001-2, Requirement R7:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.

- FERC's Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R8 is a new requirement, so there are no comparable requirements with which to compare VRFs.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. TOP-001-2, Requirement R8 mandates that entities operate within each identified IROL and its associated IROL T_v. By definition, if an entity fails to do so, bulk power system instability, separation, or cascading failures are likely to occur. Therefore, this requirement was assigned a High VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R8 addresses a single objective and has a single VRF.

VRF for TOP-001-2, Requirement R8:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R9 is a new requirement, so there are no comparable requirements with which to compare VRFs.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. TOP-001-2, Requirement R9 is a notification requirement. If the Transmission Operator failed to notify the Reliability Coordinator of a specific System Operating Limit (SOL) that supports local area reliability, the Transmission Operator is still obligated to operate to alleviate the SOL through the proposed TOP-001-2, Requirement R8. Therefore, the simple act of failing to notify the Reliability Coordinator, while it may impair the Reliability Coordinator's understanding, does not, in itself, lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement was assigned a Medium VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R9 addresses a single objective and has a single VRF.

VRF for TOP-001-2, Requirement R9:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R10 is a new requirement that was assigned a Medium VRF. When evaluating the VRF to be assigned to this requirement, the SDT took into account that this requirement is an informational item, not the actual action to alleviate the problem. The action is covered in proposed TOP-001-2, Requirement R8 which has a High VRF. If the Transmission Operator failed to notify the Reliability Coordinator of actions to alleviate a specific SOL that supports local area reliability, the Transmission Operator is still obligated to operate to alleviate the SOL through the proposed TOP-001-2, Requirement R8. Therefore, the simple act of failing to notify the Reliability Coordinator, while it may impair the Reliability Coordinator's understanding, does not, in itself, lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement was assigned a Medium VRF.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. TOP-001-2, Requirement R10 mandates that entities notify their Reliability Coordinator of actions taken to alleviate a problem. The action has already been taken as per proposed TOP-001-2, Requirement R8 and this requirement is a simple notification requirement for informational

purposes only. Therefore, bulk power system instability, separation, or cascading failures are not likely to occur due to a failure to notify the Reliability Coordinator. Therefore, this requirement was assigned a Medium VRF.

- FERC's Guideline 5 - Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R10 addresses a single objective and has a single VRF.

VRF for TOP-001-2, Requirement R10:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R11 is a new requirement, so there are no comparable requirements with which to compare VRFs. However, it is similar to approved TOP-008-1, Requirement R1 which has a High VRF. Therefore, there is consistency among Reliability Standards.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. TOP-001-2, Requirement R11 mandates that entities operate within each identified IROL and its associated IROL T_v or SOL identified in Requirement R8. By definition, if an entity fails to do so, bulk power system instability, separation, or cascading failures are likely to occur. Therefore, this requirement was assigned a High VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R11 addresses a single objective and has a single VRF.

VRF for TOP-001-2, Requirement R11:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R11 is a new requirement, so there are no comparable requirements with which to compare VRFs. However, it is similar to approved IRO-002-1, Requirement R8 which has a High VRF. Therefore, there is consistency among Reliability Standards.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. TOP-001-2, Requirement R11 mandates that a Transmission Operator shall monitor the conditions and Facilities within its Transmission Operator Area. By definition, if an entity fails to do so, bulk power system instability, separation, or cascading failures are more likely to occur. Therefore, this requirement was assigned a High VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R11 addresses a single objective and has a single VRF.

VRF for TOP-001-2, Requirement R12:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R12 is a new requirement, so there are no comparable requirements with which to compare

VRFs. However, it is similar to approved IRO-001-1, Requirement R8 which has a High VRF. Therefore, there is consistency among Reliability Standards.

- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. TOP-001-2, Requirement R11 mandates that a Transmission Operator shall monitor the conditions and Facilities external its Transmission Operator Area subject to certain constraints. By definition, if an entity fails to do so, bulk power system instability, separation, or cascading failures are more likely to occur. Therefore, this requirement was assigned a High VRF.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R12 addresses a single objective and has a single VRF.

VRF for TOP-001-2, Requirement R13:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. TOP-001-2, Requirement R13 is a new requirement, so there are no comparable requirements with which to compare VRFs. However, it is similar to approved IRO-002-1, Requirement R9 which has a Medium VRF. Therefore, there is consistency among Reliability Standards.
- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. TOP-001-2, Requirement R13 mandates that entities have control over planned outages of their monitoring and analysis capabilities. By definition, if an entity fails to do so, bulk power system instability, separation, or cascading failures are unlikely to occur. Therefore, this requirement was assigned a Medium VRF.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-001-2, Requirement R13 addresses a single objective and has a single VRF.

There are three requirements in TOP-002-3. None of the three requirements were assigned a “Lower” VRF. Requirement R2 was assigned a “High” VRF while Requirements R1 & R3 were given a “Medium” VRF.

VRF for TOP-002-3, Requirement R1:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R1) in proposed IRO-008-1 that is also assigned a Medium VRF. The requirements are viewed as similar since they both refer to preparing an Operational Planning Analysis: IRO-008-1 for a Reliability Coordinator and TOP-002-3 for a Transmission Operator.
- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. This is an advanced planning requirement. So, while not having an Operational Planning Analysis could hinder the Transmission Operator, in and of itself, it does not directly affect the electrical state or the capability of the bulk power system and would not directly lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement is assigned a Medium VRF.

- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-002-3, Requirement R1 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-002-3, Requirement R2:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. TOP-002-3, Requirement R2 is a new requirement, so there are no comparable requirements with which to compare VRFs.
- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. Failure to preclude operating in violation of limits could directly affect the electrical state or the capability of the bulk power system and could lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement is assigned a High VRF.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-002-3, Requirement R2 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-002-3, Requirement R3:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. TOP-002-3, Requirement R3 is a new requirement, so there are no comparable requirements with which to compare VRFs.
- FERC’s Guideline 4 — Consistency with NERC’s Definition of a VRF. Failure to notify other reliability entities of their roles in mitigating potential problems does not, in and of itself, lead to bulk power system instability, separation or cascading failures. This is an advance planning requirement, not Real-time. The Transmission Operator still retains the operating requirements to preclude operating in exceedances of established limits. Thus, this requirement meets the criteria for a Medium VRF.
- FERC’s Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-002-3 Requirement R3 contains only one objective, therefore only one VRF was assigned.

There are five requirements in TOP-003-2. Three of the five requirements were assigned a “Lower” VRF - Requirements R1, R2, and R3. Requirements R4 and R5 were assigned a “Medium” VRF.

VRF for TOP-003-2, Requirement R1:

- FERC’s Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- FERC’s Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R1) in proposed IRO-010-1 that is also assigned a Low VRF. The

requirements are viewed as similar since they both refer to data specifications: IRO-010-1 for a Reliability Coordinator and TOP-003-2 for a Transmission Operator.

- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to compile a data specification does not relieve a Transmission Operator from its responsibility to reliably operate the bulk power system so this requirement, in and of itself, does not directly affect the electrical state or the capability of the bulk power system and will not lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement is assigned a Low VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-003-2, Requirement R1 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-003-2, Requirement R2:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R2) in proposed IRO-010-1 that is assigned a Low VRF. The requirements are viewed as similar since they both refer to the distribution of the data specification: IRO-010-1 for a Reliability Coordinator and TOP-003-2 for a Transmission Operator.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to distribute the data specification does not relieve a Transmission Operator from its responsibility to reliably operate the bulk power system so this requirement, in and of itself, does not directly affect the electrical state or the capability of the bulk power system and will not lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement is assigned a Low VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-003-2, Requirement R2 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-003-2, Requirement R3:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R2) in proposed IRO-010-1 that is assigned a Low VRF. The requirements are viewed as similar since they both refer to the distribution of the data specification: IRO-010-1 for a Reliability Coordinator and TOP-003-2 for a Balancing Authority.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to distribute the data specification does not relieve a Balancing Authority from its responsibility to reliably operate the bulk power system so this requirement, in and of itself, does not directly affect the electrical state or the capability of the bulk power system and will not lead to bulk power system instability, separation, or cascading failures. Therefore, this requirement is assigned a Low VRF.

- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-003-2 Requirement R3 contains only one objective, therefore only one VRF was assigned.

VRF for TOP-003-2, Requirement R4:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R3) in proposed IRO-010-1 that is assigned a Medium VRF. The requirements are viewed as similar since they both refer to the provision of data: IRO-010-1 for a Reliability Coordinator and TOP-003-2 for a Transmission Operator and Balancing Authority.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to provide the data requested does not, in and of itself, directly affect the electrical state or the capability of the bulk power system and will not lead to bulk power system instability, separation, or cascading failures. However, it greatly increases the likelihood of such problems and therefore, this requirement is assigned a Medium VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-003-2, Requirement R4 has only one objective, therefore only one VRF was assigned.

VRF for TOP-003-2, Requirement R5:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The requirement has no sub-requirements; only one VRF was assigned so there is no conflict.
- FERC's Guideline 3 — Consistency among Reliability Standards. There is a similar requirement (Requirement R3) in proposed IRO-010-1 that is assigned a Medium VRF. The requirements are viewed as similar since they both refer to the provision of data: IRO-010-1 for a Reliability Coordinator and TOP-003-2 for a Transmission Operator and Balancing Authority.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to provide the data requested does not, in and of itself, directly affect the electrical state or the capability of the bulk power system and will not lead to bulk power system instability, separation, or cascading failures. However, it greatly increases the likelihood of such problems and therefore, this requirement is assigned a Medium VRF.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-003-2, Requirement R5 contains only one objective. Therefore only one VRF was assigned.

Justification for Assignment of VSLs for TOP-001-2, TOP-002-2, TOP-003-2:

In developing the VSLs for the TOP standard, the SDT anticipated the evidence that would be reviewed during an audit, and developed its VSLs based on the noncompliance an auditor may find during a typical audit. The SDT based its assignment of VSLs on the following NERC criteria:

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

FERC’s VSL guidelines are presented below, followed by an analysis of whether the VSLs proposed for each requirement in TOP-xxx-x meet the FERC Guidelines for assessing VSLs:

Guideline 1: Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance

Compare the VSLs to any prior levels of non-compliance and avoid significant changes that may encourage a lower level of compliance than was required when levels of non-compliance were used.

Guideline 2: Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties

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

Do not use ambiguous terms such as “minor” and “significant” to describe noncompliant performance.

Guideline 3: Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement

VSLs should not expand on what is required in the requirement.

Guideline 4: Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations

. . . unless otherwise stated in the requirement, each instance of non-compliance with a requirement is a separate violation. Section 4 of the Sanction Guidelines states that assessing penalties on a per violation per day basis is the “default” for penalty calculations.

VSLs for TOP-001-2 Requirement R1:

R#	Compliance with NERC's VSL Guidelines	Guideline 1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	Guideline 2 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 3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	Guideline 4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations
R1.	Meets NERC's VSL guidelines – Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The most comparable VSL for a similar requirement is for the proposed IRO-001-2, Requirement R2. That VSL is also based on a single violation and is binary. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-001-2 Requirement R2:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R2.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The most comparable VSL for a similar requirement is for the proposed IRO-001-2, Requirement R3. That VSL is also based on a single violation and is binary. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-001-2 Requirement R3:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R3.	Meets NERC's VSL guidelines – There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental	The most comparable VSL for a similar requirement is for the proposed IRO-001-2, Requirement R4. Those VSLs are also based on failure to notify reliability entities in a graduated scale from Lower to	The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSLs use the same terminology as used in the associated requirement, and are, therefore, consistent with the requirement.	The VSLs are based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
	violations.	Severe. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.			

VSLs for TOP-001-2 Requirement R4:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R4.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is new and there are no comparable VSLs.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-001-2 Requirement R5:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R5.	Meets NERC's VSL guidelines - There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.	The most comparable VSLs for a similar requirement are for the proposed IRO-014-2, Requirement R1. Those VSLs are also based on a graduated scale from Lower to Severe. The VSLs assignments are similar between the two standards. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSLs use the same terminology as used in the associated requirement, and are, therefore, consistent with the requirement.	The VSLs are based on a single violation and not cumulative violations.

VSLs for TOP-001-2 Requirement R6:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R6.	Meets NERC's VSL guidelines - There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.	The proposed requirement is similar to approved TOP-003-1, Requirement R3. The VSL for that requirement is binary. When assigning the VSL for the new requirement, the SDT felt that it was possible to provide a gradual increasing scale	The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSLs use the same terminology as used in the associated requirement, and are, therefore, consistent with the requirement.	The VSLs are based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
		for the VSL and assigned the VSLs appropriately.			

VSLs for TOP-001-2 Requirement R7:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R7.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is new and there are no comparable VSLs.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-001-2 Requirement R8:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R8.	Meets NERC's VSL guidelines.	The proposed requirement is new and there are no comparable VSLs.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with	The VSL is based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

			violations.	the requirement.	
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VSLs for TOP-001-2 Requirement R9:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R9.	Meets NERC's VSL guidelines.	The proposed requirement is new and there are no comparable VSLs.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-001-2 Requirement R10:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R10.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance	The proposed requirement is new and there are no comparable VSLs but it is similar to approved TOP-008-1, Requirement R1. That VSL is binary as is the one proposed for this new requirement. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

		already proposed.			
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VSLs for TOP-001-2 Requirement R11:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R11.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is new and there are no comparable VSLs but it is similar to approved IRO-002-1, Requirement R8. That is a multiple part requirement but the VSL for the part dealing with monitoring is binary as is the one proposed for this new requirement. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-001-2 Requirement R12:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R12.	Meets NERC's VSL guidelines -	The proposed requirement is new and	The proposed VSL does not use any ambiguous terminology,	The proposed VSL uses the same terminology as used	The VSL is based on a single violation and

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

	Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance	there are no comparable VSLs but it is similar to approved IRO-002-1, Requirement R8. That is a multiple part requirement but the VSL for the part dealing with monitoring is binary as is the one proposed for this new requirement. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	in the associated requirement, and is, therefore, consistent with the requirement.	not cumulative violations.
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VSLs for TOP-001-2 Requirement R13:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R13.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is new and there are no comparable VSLs but it is similar to approved IRO-002-1, Requirement R9. That VSL is incremental. However, the SDT felt that this requirement, while similar but not exactly the same, warranted a binary VSL. Thus, the VSL in the	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

		proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.			
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VSLs for TOP-002-3 Requirement R1:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R1.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	There is a similar requirement in proposed IRO-008-1, Requirement R1. That VSL is not binary as is the one proposed for this requirement. It proposes a graduated situation based on a number of days missing from the analysis. In looking at the VSL for this requirement, the SDT decided that it was an all or nothing situation – one either did the proper analysis or it didn't. Therefore, it decided that the VSL for this requirement should be binary. Thus, the VSL in the proposed standard does not lower the level of compliance currently	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

		required by setting VSLs that are less punitive than those already proposed.			
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VSLs for TOP-002-3 Requirement R2:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R2.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance	The proposed requirement is new and there are no comparable VSLs. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-002-3 Requirement R3:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R3.	Meets NERC's VSL guidelines - There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental	The proposed requirement is new and there are no comparable VSLs. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

	violations.	those already proposed.			
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VSLs for TOP-003-2 Requirement R1:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R1.	Meets NERC's VSL guidelines - There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.	The proposed requirement is similar to proposed IRO-010-1, Requirement R1. The proposed VSLs are similar in that they build on a graduated scale based on missing parts of the requirement. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-003-2 Requirement R2:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R2.	Meets NERC's VSL guidelines - There is an incremental aspect to the	The proposed requirement is similar to proposed IRP-010-1, Requirement R2. The proposed VSLs both build	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with	The VSL is based on a single violation and not cumulative violations.

Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

	violation and the VSLs follow the guidelines for incremental violations.	on 5% increments towards the Severe level. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	violations.	the requirement.	
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VSLs for TOP-003-2 Requirement R3:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R3.	Meets NERC's VSL guidelines - There is an incremental aspect to the violation and the VSLs follow the guidelines for incremental violations.	The proposed requirement is similar to proposed IRO-010-1, Requirement R2. The proposed VSLs both build on 5% increments towards the Severe level. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-003-2 Requirement R4:

R#	Compliance with NERC's VSL	Guideline 1	Guideline 2	Guideline 3	Guideline 4
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Justification for Assignment of VRFs and VSL for TOP-001 through TOP-003

	Guidelines				
R4.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is similar to proposed IRO-010-1, Requirement R3. The proposed VSLs both build on 5% increments towards the Severe level. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

VSLs for TOP-003-2 Requirement R5:

R#	Compliance with NERC's VSL Guidelines	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R5.	Meets NERC's VSL guidelines - Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is similar to proposed IRO-010-1, Requirement R3. The proposed VSLs both build on 5% increments towards the Severe level. Thus, the VSL in the proposed standard does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

