NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Drafting Team Reference Manual

Version 3
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RELIABILITY | ACCOUNTABILITY


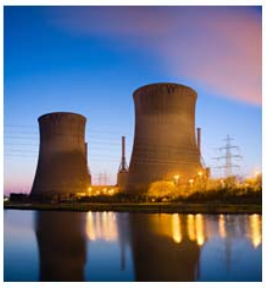

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Table of Contents

Introduction

Note: All documents referenced in this manual are located on the NERC Standards Resource web page unless otherwise noted.

Drafting teams (DT) are the foundation of the NERC standard development process. The **DT Reference Manual** is a tool that can be used by DTs to assist in drafting quality Reliability Standards. DT members are encouraged to refer to this document to assist in the development process.

This document does not supersede the **NERC Rules of Procedure (ROP)**[1] or any standard process or guidelines approved by the Federal Energy Regulatory Commission (FERC) or applicable regulatory authorities.

This document provides information on informal development, standard authorization requests, and the roles and responsibilities of standard and interpretation DTs, with guidance on how to implement Appendix 3A of the NERC Rules of Procedure and the **Standard Processes Manual (SPM)**[2]. The **DT Reference Manual** outlines the roles and responsibilities of DT members throughout the Reliability Standards development process.

The SPM contemplates several types of development teams who perform the standards-related activities including:

- **Standard Authorization Request (SAR) DT** — A SAR DT may be appointed by the Standards Committee (SC) to work with the SAR submitter. The SAR DT helps the requester achieve stakeholder consensus on whether a standard is needed to address a reliability-related need, and on the scope of the project to address the identified need. The role of the SAR DT will be to evaluate and respond to industry comments on the technical justification, background information, potential for industry consensus, and associated cost impact analysis information to determine the level of support and scope of a standard. The SAR and a recommendation by the SAR DT will be presented to the SC; the SC determines whether a standard development project should be pursued.
- **Standard Drafting Team (SDT)** — SDTs are formed to develop new or modified Reliability Standards or definitions. Responsibilities of the team include, but are not limited to:
    - Developing a project schedule and timeline. This may be in collaboration with the Project Management and Oversight (PMOS) Subcommittee.
    - Draft a Reliability Standard or definition within the scope of the SAR.
    - Develop an implementation plan to identify any factors for consideration when approving the proposed effective date or dates for the associated Reliability Standard(s) or definitions.
    - Develop a set of Violation Risk Factors (VRFs) and Violation Severity Levels (VSLs) that meet the latest criteria established by NERC and Applicable Governmental Authorities.
    - Collect informal stakeholder feedback on preliminary drafts of its documents, including the use of informal comment periods, webinars, industry meetings, workshops, or other mechanisms.
    - Consider the results of the quality review (QR), decide upon appropriate changes, and recommend to the SC whether the documents are ready for formal posting and balloting.

[1] The Rules of Procedure is located here: http://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx

[2] The Standard Processes Manual is located here: http://www.nerc.com/pa/Stand/Documents/Appendix_3A_StandardsProcessesManual.pdf

- Consider stakeholder comments that will improve the quality, clarity, or enforceability of that Reliability Standard and make appropriate revisions to the proposed Reliability Standard.

The DT is encouraged to consult the developmental history of the standards under revision on the **Archived Reliability Standards Under Development**[3] web page.

- **Interpretation Drafting Team (IDT)** — A team may be formed to develop an Interpretation as outlined in Section 7.0 of the SPM. An Interpretation may only clarify or interpret the Requirements of an approved Reliability Standard, including, if applicable, any attachment referenced in the Requirement being clarified. An approved Interpretation will be appended to the existing approved standard to which it applies until the Interpretation can be incorporated into a future revision of the Reliability Standard or the Interpretation is retired due to a future modification of the applicable Requirement. IDTs will respond to a request for interpretation following the guidance provided in **Guideline for Interpretation Drafting Teams**. In general, Interpretations may not change the standard, address a weakness or gap in the standard, address any element of a Reliability Standard other than a Requirement or an attachment referenced in a Requirement, or provide an opinion on whether a particular approach would achieve compliance with the standard.

  IDTs are encouraged to review past history of the standard's development by assessing the full record including, but not limited to, past comments and responses. Also, if a potential reliability issue or gap exists or is determined during the interpretation process, the team should document suggested revisions, develop a SAR to revise the standard accordingly, and submit the SAR to NERC staff.

Principles Supporting the NERC Standards Development Process

The work of DTs is guided by the most recent FERC-approved version of the NERC ***Standard Processes Manual*** with additional guidance from the following documents:

- **Standard Drafting Team Scope** which is applicable to both SAR and standard DTs
- **Roles and Responsibilities: Standards Drafting Team Activities**
- **Standards Development Process Participant Conduct Policy**

The following attributes serve as a foundation for development of high quality, technically sound, results-based standards.

Results-based Requirements

The body of reliability requirements collectively supports a defense-in-depth strategy supporting an Adequate Level of Reliability (ALR)[4] of the bulk power system (BPS). Each requirement of a Reliability Standard should identify what Functional Entities shall do and under what conditions, to achieve a specific reliability objective; but not how that objective is achieved. There are categories of requirements, each with a different approach for measurement, as specified in Section 2.4 of the SPM.

a) **Performance-based Requirements** define a specific reliability objective or outcome achieved by one or more entities that has a direct, observable effect on the reliability of the BPS, i.e. an effect that can be measured using power system data or trends. In its simplest form, a performance-based requirement has

[3] http://www.nerc.com/pa/Stand/Pages/Archived-Projects.aspx

[4] NERC filed its definition for "Adequate Level of Reliability" with the Commission on May 10, 2013. *Informational Filing on the Definition of "Adequate Level of Reliability , available at:* http://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/Informational_Filing_Definition_Adequate_Level_Reliability_20130510.pdf.

four components: *who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome.*

b) **Risk-based Requirements** define actions by one or more entities that reduce a stated risk to the reliability of the BPS and can be measured by evaluating a particular product or outcome resulting from the required actions. A risk-based reliability requirement should be framed as: *who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the BPS.*

c) **Capability-based Requirements** define capabilities needed by one or more entities to perform reliability functions that can be measured by demonstrating that the capability exists as required. A capability-based reliability requirement should be framed as: *who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the BPS.*

Adequate Level of Reliability (ALR)

The intent of the set of NERC Reliability Standards is to deliver an ALR. As defined by NERC, "ALR is the state that the design, planning, and operation of the Bulk Electric System (BES) will achieve when the listed Reliability Performance Objectives are met. Further, Reliability Assessment Objectives included in the definition must be evaluated to assess reliability risk in support of an adequate level of reliability."

Reliability Principles

NERC Reliability Standards are based on reliability principles that define the foundation of reliability for the North American BPS. Each Reliability Standard should enable or support one or more of the reliability principles ensuring both that the standards support reliability of the North American BPS and avoid reducing reliability through an unintended consequence.

Market Principles

Recognizing that BPS reliability and electricity markets are inseparable and mutually interdependent, all Reliability Standards shall be written such that they achieve their reliability objective without causing undue restrictions or adverse impacts on competitive electricity markets.

Ten Benchmarks of an Excellent Reliability Standard

NERC Reliability Standards are developed to meet the ***Ten Benchmarks of an Excellent Reliability Standard***.

DT Member Roles

Standards Developer

The NERC Standards Developer is a NERC Standards staff member assigned to facilitate and assist DTs to ensure consistency and quality in the development of standard products. The Standards Developer keeps the project on track and informs the SC of progress.

DT Chair and Vice Chair

The DT chair and vice chair have the following additional responsibilities beyond that of DT members, to:

a) lead the DT in the effective dispatch of its standards development obligations;

b) facilitate DT discussions and outreach to attain industry consensus on proposed standard(s) that will achieve the project objectives;

c) coordinate with NERC staff in representing the DT before the SC reporting on team progress in implementing the scope of the project objective, the schedule for completion, and the need to address any regulatory directives;

d) coordinate, as necessary, with other DTs to ensure that there are no reliability gaps;

e) represent the DT in discussions with governmental authorities on the content of the standard(s) and how the proposed standard(s) address any applicable regulatory directives;

f) ensure project milestones are met and coordinate with the Project Management and Oversight Subcommittee; and

g) work with the NERC Standards Developer to support regulatory approval of the proposed standard(s), including assisting with providing technical input for:

   i. regulatory filings for approval of the proposed standard(s);

   ii. responses to a notice of proposed rule-making(s); and

   iii. request(s) for clarification or rehearing following the issuance of the rule or order addressing the proposed standard filed for approval.

DT Members

DTs, following NERC's standard development process and based on agreed upon milestones, are responsible for developing and providing to stakeholders for approval, excellent, technically correct (steady-state) standards that provide for an ALR. A DT may modify existing standards to address both specific regulatory authority directives and reliability issues not directed by regulatory authorities or develop new standards that may or may not be associated with regulatory directives. DT members may perform outreach to stakeholders throughout the development process to build consensus.

The DT shall develop a project schedule. The drafting team shall report progress to the PMOS (or PMOS liaison) and the SC, against the initial project schedule and any revised schedule as requested by the SC. Where project milestones cannot be completed on a timely basis, modifications to the project schedule must be presented to the SC for consideration along with proposed steps to minimize unplanned project delays.

Compliance, Legal, and Technical Support

Individuals with specific expertise may participate in the development process on an as needed basis to provide input in their areas of expertise. While not formal team members, they may participate in discussions.

Informal Development

This section describes activities outside the formal standard development process that assist the team. The informal development activities are meant to identify issues associated with the project and determine whether there is a solution that consensus could be built upon, thereby reducing the time needed during the formal standards development process outlined in the SPM. The informal development activity does not circumvent the formal standards development process. Rather, its use is meant solely to raise issues and build consensus outside of formal standards development.

Informal consensus building activities include, but are not restricted to the following tools to advance industry awareness and build support for the standard as opportunities to educate and inform stakeholders:

- Conducting
  - webinars
  - industry surveys
  - in-person workshops
  - in-person meetings open to the stakeholders
  - straw polls
- Publishing announcements
- Leveraging existing venues such as Compliance Workshops
- Leveraging existing and historical technical committee work
- Using any applicable NERC communication plans
- FERC outreach

Development Project Workflows

Figure 1 below shows the typical first steps of NERC's formal standards development process, the SAR development.

Figure 1 and the discussion on the following pages assume that stakeholders support the SAR and the SAR is progressing normally. If stakeholders support a SAR and there is a demonstrable need to move the SAR forward expeditiously, then the SC may allow concurrent work on the SAR and standard, with some of the steps outlined in the **SPM** occurring in parallel rather than sequentially.

In Figure 1 below, the SAR DT's activities are shown in the yellow boxes.

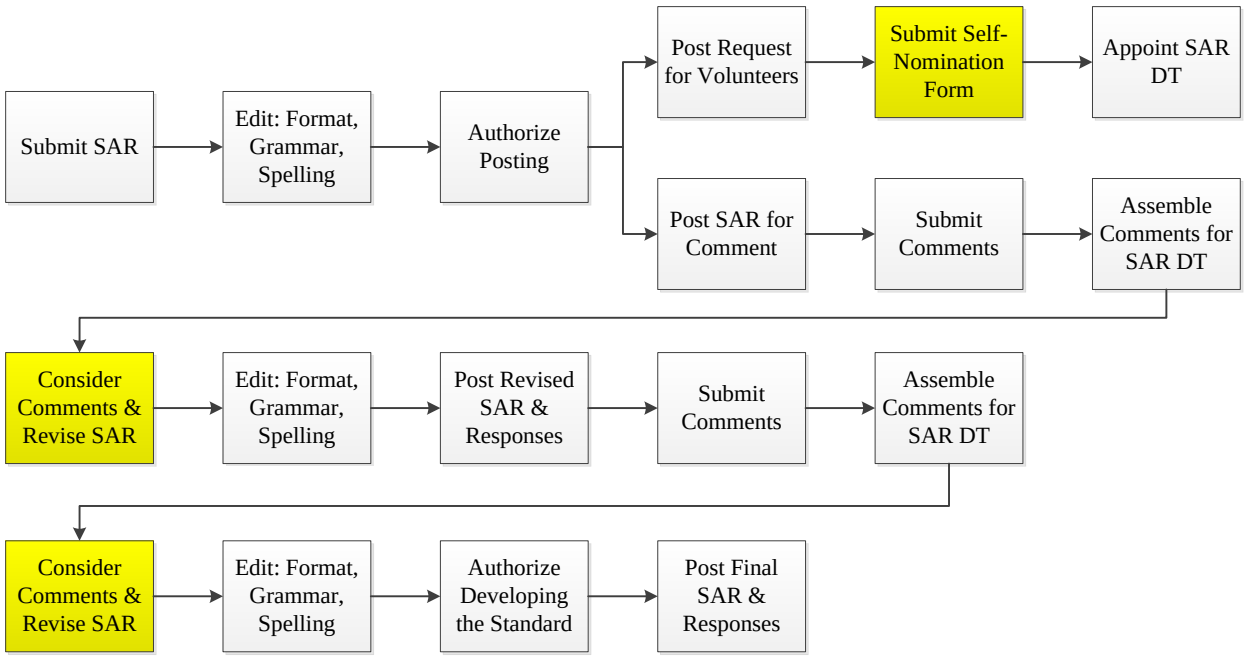

Figure 1: SAR Development (See Sections 4.1 and 4.2 in the SPM for detailed information)

Figure 2 illustrates the typical steps in the standards development process beginning with solicitation of DT nominations.

Figure 2 and the associated discussion on the following pages is a simplified representation of a standard that is progressing normally and with minimal comment/ballot periods. The DT focuses its work on drafting a standard and then considering comments submitted by stakeholders and revising the standard until there is enough stakeholder consensus to achieve approval of the standard or project. To obtain consensus and approval, additional comment/ballot periods can be completed, as necessary.

In Figure 2 below, the DT's activities are shown in the yellow boxes.

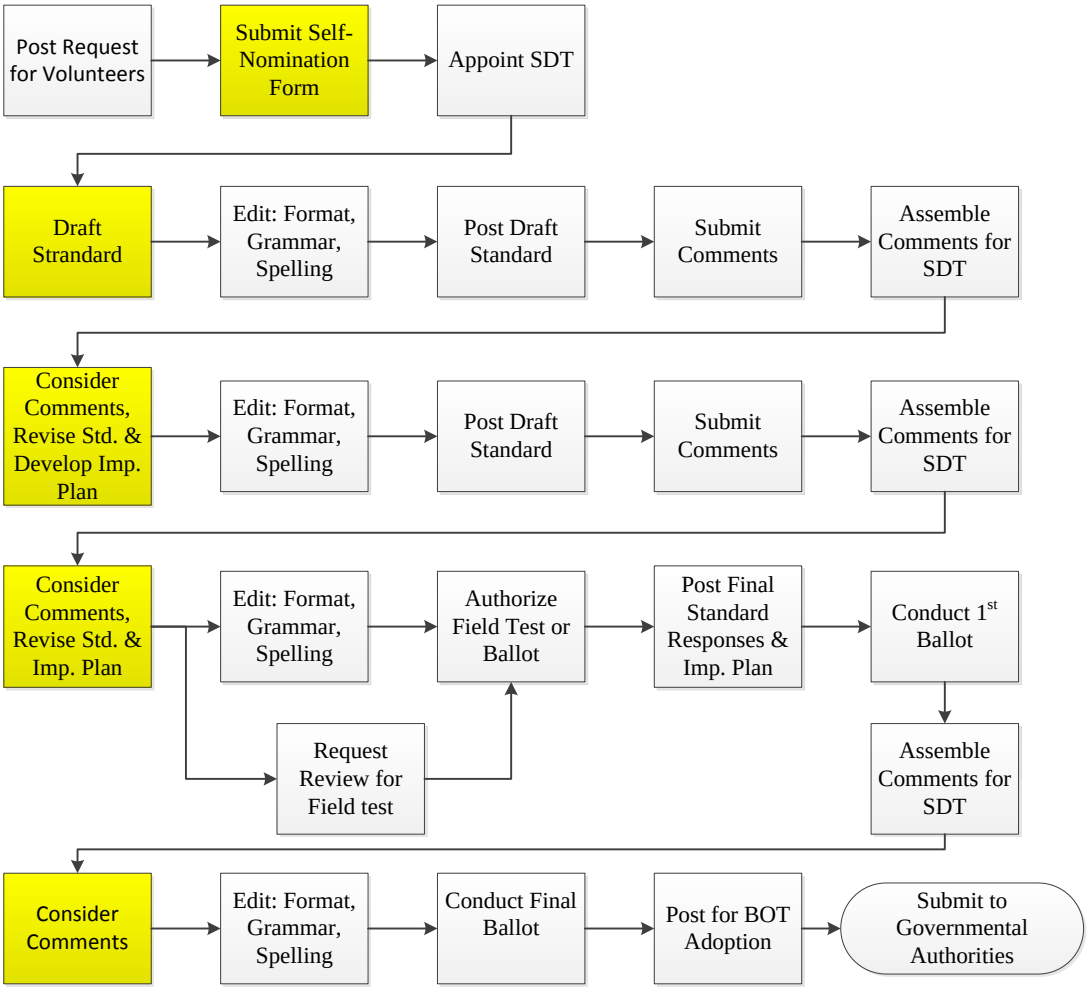

Figure 2: From SAR to Standard (See sections 4.3-4.7 of the SPM for further details)

At the first meeting of the DT, the Standards Developer or another NERC Standards staff member will provide a brief orientation and training session on the standards. The Standards Developer will communicate information regarding SDT training modules to all drafting team members. The goals of the orientation are to:

- Ensure the team understands NERC policies and procedures applicable to DTs, including NERC's Antitrust Compliance Guidelines.
- Ensure that all team members understand the roles and responsibilities of all involved by reviewing the **Roles and Responsibilities: Standards DT Activities** and **Standards Development Process - Participant Conduct Policy.**
- Review the SAR to ensure that everyone on the team understands the scope of the proposed standard and any FERC Orders/directives that may apply to this proposed new or revised Reliability Standard. Develop a consensus of the DT as to how to respond to stakeholder comments with the intent of revising work products to reflect the consensus view of stakeholders.
- Review and understand how quality review for the DT's work will be undertaken as required under Section 4.6 of the SPM, i.e. what will be reviewed prior to the posting for ballot. The QR will evaluate whether the documents are within the scope of the associated SAR, whether the Reliability Standard is clear and enforceable as written, and whether the Reliability Standard meets the criteria specified in NERC's **Ten Benchmarks of an Excellent Reliability Standard** and criteria for governmental approval of Reliability Standards.
- Develop a project schedule and list of activities for completing standards drafting activities in accordance with SC expectations or Reliability Standards Development Plan (RSDP) requirements.
- Provide the project schedule to the SC or its designee for review and approval.
- Discuss the organization structure of NERC and its committees.
- Understand the function and role of the PMOS liaison assigned to the DT.
- Review the current cost effectiveness process and understand how it relates to the project.

Stakeholder Comments

NERC staff will provide DTs with a report containing all of the comments submitted during the comment period. The report consists of the following information:

Table of Commenters

The Table of Commenters is a list of stakeholders who complete comment forms. It is organized to show the industry segments represented by each commenter.

Standards Balloting System (SBS) Comment Report

Drafting team members will receive a comment report containing all comments received from responses to the individual questions and the interactive comments including thumbs up/thumbs down selections. It is the drafting team member's responsibility to review all comments received.

Comments and Responses

The format of the Consideration of Comments report includes each submitter's name, company, segment, answer(s) to question(s), comments submitted in response to the associated question, and the appeals process statement. As comments are reviewed, the DT develops responses as discussed in Section 4.12 of the SPM. The comments and responses are assembled in the Consideration of Comments report and posted on the associated project page.

Evaluation of Comments as an Indication of Potential Ballot Results

Because industry stakeholders are not required to comment, a DT may not receive the full range of concerns in the submitted comments that represent the entire body of stakeholder opinions. DTs are encouraged to evaluate whether the set of comments is representative of the industry or a subset of the industry and to consider the sources of the comments when determining what revisions may be necessary to gain industry support for the standard. From the comment form, the DT can determine if the comments represent: 1) an individual in a single industry segment; 2) an individual representing several industry segments; 3) an individual representing a group in a region or industry segment; 4) a group representing several entities; 5) a group on behalf of a single entity; 6) a group representing a region; and 7) a group from a technical committee with members across regions and industry segments.

One way of interpreting the comments is to determine how many ballots are represented by each comment and consider the following:

- A single commenter from an entity that is registered to vote in one industry segment may be considered to represent a single potential ballot.
- A single commenter from an entity that is registered to vote in three industry segments may be considered to represent three potential ballots.
- Six commenters from an entity that is registered to vote in one industry segment may be considered to represent a single potential ballot.
- Six commenters, each from different entities with each of these entities registered to vote in one industry segment, may be considered to represent six potential ballots or, if in multiple industry segments, may result in an even greater number of ballot positions.

Obligation to Respond to Comments

Proposed new or modified Reliability Standards require a formal comment period. The intent of the formal comment period is to solicit feedback on the final draft of the Reliability Standard and associated documents.

A drafting team must respond in writing to every stakeholder written comment submitted in response to a ballot prior to conducting a Final Ballot. These responses may be provided in summary form, but all comments and objections must be responded to by the drafting team. All comments received and all responses shall be publicly posted.

If a stakeholder or balloter proposes a significant revision to a Reliability Standard during a formal comment period or concurrent ballot that will improve the quality, clarity, or enforceability of that Reliability Standard, then the drafting team may choose to make such revisions and post the Revised Reliability Standard for another formal comment period and ballot. Prior to posting a revised Reliability Standard for an additional comment period, the DT must communicate to stakeholders that significant revisions to the Reliability Standard are necessary. This communication should note that the DT is not required to respond in writing to comments from the previous ballot.

There is no formal comment period concurrent with the Final Ballot, and no obligation for the drafting team to respond to any comments submitted during the Final Ballot. There is no requirement for a drafting team to respond in writing to comments submitted through an informal comment period.

Assessing Technical Merit of Comments

When reviewing the comments, the DT should first determine whether the comment has technical merit, and then determine whether the suggestion is likely to receive widespread support from the stakeholder community, with the understanding that 100 percent agreement is likely unachievable.

In some cases, but not all, a DT may feel that additional comment periods are necessary to reach industry consensus.

Any relevant cost evaluation document is meant to identify potential egregious costs associated with a new standard. If a cost evaluation was conducted, results should be used only in the context of providing further information along with the SAR and should be provided to the SC.

Practical Tips for Addressing Comments

One approach to completing the Consideration of Comments report is for the DT to review all the comments submitted in response to a particular question and then have a discussion. Some DTs find it useful to craft responses together, developing a draft response to each unique comment during the meeting. Other DTs prefer to divide the comments among team members allowing the assigned team member to prepare an initial draft response for team discussion at its meeting. In either case, review and discussion should support the DT's efforts to reach a stakeholder consensus.

Additional DT Guidance

Submission of Final Work Product for Approval

When the balloting process indicates sufficient industry consensus, the DT provides a recommendation to the SC that may include the following:

- For a SAR: a statement indicating the SAR DT believes there is stakeholder consensus on the following: a reliability-related need for the proposed standard action and the appropriate scope of the requirements;
- For a Reliability Standard or Definition: a summary listing of the work of the DT to achieve stakeholder consensus including:
  1. dates each draft of the standard product was posted for comment;
  2. link to the associated Standards Development web page; and
  3. link to redline version of the final standard product to show changes from the last version of the standard product posted for comment;
- An analysis of the diversity of stakeholder participation in the comment periods;
- Identification of any strong minority views that were not satisfied during the revisions made to the standard product and pertinent cost impact information that may have been collected during the comment period(s).

Quality Review

Quality reviews are conducted during standard development and are required by Section 4.6 of the SPM prior to the initial ballot and formal comment period. The DT Chair may, at any time, ask the NERC Standards Developer to initiate the necessary requests for a QR[5] and it may be conducted depending on available resources. The QR will evaluate whether the documents are within the scope of the associated SAR, whether the Reliability Standard is clear and enforceable as written, and whether the Reliability Standard meets the criteria specified in NERC's **Ten Benchmarks of an Excellent Reliability Standard** and criteria for governmental approval of Reliability Standards. The DT may consider the results of the QR, decide upon appropriate changes, and recommend to the SC whether the documents are ready for formal posting and balloting.

FERC Directives

FERC may occasionally issue a directive to the Electric Reliability Organization (ERO)to address specific issues or concerns. Even if some stakeholders indicate they don't support the directive, the ERO has an obligation to address the directive. A complete discussion on addressing FERC and other governmental authorities' directives can be found at **Roles and Responsibilities: Standards Drafting Team Activities**.

A DT may either make the conforming modification proposed by FERC or propose an alternative method of achieving the same reliability objective to address the Order that is equally efficient and effective. The DT can ask stakeholders for feedback. Comments provided by stakeholders can be cited as justification for an alternate equally efficient and effective approach to addressing the reliability issue identified by FERC, but cannot constitute the sole basis for the approach.

DT Reviews Directives with FERC Staff

FERC may assign one or more staff to work as an observer with each DT and to communicate FERC staff views and concerns to the team. Each team may seek FERC staff input regarding whether the work of the DT addresses the intent of any FERC directives.

If FERC staff offers advice on issues outside the scope of the directives, the DT should consider this advice in the same manner that it considers advice from any other source. A full description of FERC staff involvement in DT activities, and in consideration of the advice of FERC staff can be found in the **Roles and Responsibilities: Standards Drafting Team Activities**.

DT Develops Proposed New or Revised Defined Term(s) (if necessary)

Section 5.0 of the SPM addresses the process for developing a definition of terms used in one or more NERC Reliability Standards. The following considerations should be made when considering proposals for new or revised definitions:

- Some NERC Regional Entities have defined terms that have been approved for use in Regional Reliability Standards, and where the drafting team agrees with a term already defined by a Regional Entity, the same definition should be adopted if needed to support a NERC Reliability Standard.
- If a term is used in a Reliability Standard according to its common meaning (as found in a collegiate dictionary), the term shall not be proposed for addition to the Glossary of Terms.
- If a term has already been defined (in the NERC Glossary of Terms), any proposal to modify or delete that term shall consider all uses of the definition in approved Reliability Standards, with a goal of determining whether the proposed modification is acceptable, and whether the proposed modification would change the scope or intent of any approved Reliability Standards.

[5] The *Reliability Standard Quality Review Form* is located on the Standards Resources web page.

- When practical, where North American Energy Standards Board has a definition for a term, the drafting team shall use the same definition to support a NERC Reliability Standard.

Each new or revised defined term must be balloted in the same manner as a Reliability Standard.

DT Develops a Supplemental SAR (if needed)

If stakeholder comments indicate the existing scope of the approved SAR should be expanded, the DT may consider, and if necessary, submit a request to expand the scope of the SAR to the SC. If approved for posting, the DT can continue to work on the proposed standard while it collects stakeholder's support on the expanded scope of the project. Consideration should be made to avoid concurrent drafts of a proposed standard by consolidating the drafting to a single project incorporating any subsequent related SARs.

DT Develops an Implementation Plan

Each DT must develop an implementation plan that informs responsible entities of the actions (compliance obligations) required once the standard becomes effective.

Section 4.4.3 of the SPM provides that implementation plans shall at a minimum include the following:

- The proposed effective date (the date entities shall be compliant) for the Requirements.
- Identification of any new or modified definitions that are proposed for approval with the associated Reliability Standard.
- Whether there are any prerequisite actions that need to be accomplished before entities are held responsible for compliance with one or more of the Requirements.
- Whether approval of the proposed Reliability Standard will necessitate any conforming changes to any already approved Reliability Standards – and identification of those Reliability Standards and Requirements.
- The Functional Entities that will be required to comply with one or more Requirements in the proposed Reliability Standard.

A single implementation plan may be used for more than one Reliability Standard. The Implementation Plan is posted with the associated Reliability Standard or Standards during the formal comment period and is balloted with the associated Reliability Standard or Standards.

Supporting Document(s) (if necessary)

Section 11 of the SPM describes the types of supporting documents that may be developed to enhance stakeholder understanding and implementation of a Reliability Standard but do not themselves contain mandatory Requirements subject to compliance review. Please refer to section 11 for additional information regarding development and posting of such documents.

Parts of the Results-Based Standard

This section describes the parts of the results-based NERC Reliability Standard.

Section A – Introduction

Section A of the standard includes introductory information as shown in the example of a typical standard provided in Figure 3 below.

A. Introduction

1. Title: **Reliability Coordinator Actions to Operate Within IROLs**

2. Number: IRO-009-2

3. Purpose: To prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection by ensuring prompt action to prevent or mitigate instances of exceeding Interconnection Reliability Operating Limits (IROLs).

4. Applicability:

4.1 Functional Entities:

4.1.1 Reliability Coordinator.

5. Effective Date: See the Implementation Plan for IRO-009-2.

Figure 3: Example Introduction Section of Standard

Title: The title should be a brief descriptive phrase that identifies, in a clear and concise manner, the subject addressed by the standard. The title should answer the following questions:

- What reliability-related topic does the title address?
- How should the topic be described, limited, or specified?

The title should not start with the word "to," include the word "standard," or be excessively wordy or vague. Standard titles should not be complete sentences.

Number: The standard number for a new standard is assigned by NERC staff. The numbering convention has three parts:

1. A three-letter acronym denoting the general topical area of the standard
2. The standard number within that topical area, beginning with 1 and increasing sequentially
3. The version of that standard

If a standard is being proposed for revision, the standard is given a new 'version number. If a new standard is developed, the new standard is given the next unused number in the topical sequence. A detailed explanation is available in the **NERC Standards Numbering System.**

A sample standard number is: PRC-012-1.

Purpose: A clear statement that describes how the standard contributes to the reliability of the BPS. The purpose of a specific standard will not necessarily be the same as the purpose on a SAR as some SARs have a purpose statement that addresses modification of a set of standards.

Applicability: NERC's Reliability Standards apply to users, owners, and operators of the facilities that make up the BPS. The applicability section of a standard should use entities found in the ***Statement of Compliance Registry Criteria*** (codified as **Appendix 5B of the NERC Rules of Procedure**) which is the FERC-approved vehicle by which NERC and the Regional Entities identify the entities responsible for compliance with NERC and Regional Reliability Standards. The criteria are based on the facilities an entity owns or operates and represent a FERC-approved and jointly accepted policy decision among NERC and industry stakeholder groups on how to apply both NERC's continent-wide and Regional Reliability Standards. The NERC Functional Model can be used to assist the DT in determining applicable entities. In a small number of cases, when a number of requirements are being developed that will apply to a large number of functional entities, the DT may work with NERC staff to define a term that is used within a particular standard or group of standards to refer to that group of functional entities collectively.

In some cases, the DT will identify the need to limit the applicability of one or more requirements in a standard to a subset of entities or facilities so that the applicability aligns with the reliability risk. In most cases, these limitations should be identified in the applicability section of the standard, rather than embedded in the requirements. For example, a standard may limit applicability to certain facilities based on electric characteristics, such as transmission facilities energized at 200 kilovolts or greater. If no functional entity limitations are identified, the default is that the standard applies to all identified listed functional entities – so that if the applicability identifies, "Transmission Operators", then the standard applies to all Transmission Operators that have registered in NERC's Compliance Registry.

Effective Date: The effective date section in the standard refers to an associated implementation plan. The implementation plan sets forth the date or pre-conditions for determining when each Requirement becomes effective in each jurisdiction.

Section B – Requirements and Measures

Section B of the standard includes requirements and associated measures, violation risk factors (See Section C), and time horizons as shown in Figure 4, below.

B. Requirements and Measures

R1. Each Responsible Entity shall have an event reporting Operating Plan in accordance with EOP-004-2 Attachment 1 that includes the protocol(s) for reporting to the Electric Reliability Organization and other organizations (e.g., the Regional Entity, company personnel, the Responsible Entity's Reliability Coordinator, law enforcement, or governmental authority). [Violation Risk Factor**:** Lower] [Time Horizon**:** Operations Planning]

M1. Each Responsible Entity will have a dated event reporting Operating Plan that includes, but is not limited to the protocol(s) and each organization identified to receive an event report for event types specified in EOP-004-2 Attachment 1 and in accordance with the entity responsible for reporting.

Figure 4: Example Requirements Section of Standard

Requirements: An explicit statement that identifies the Functional Entity responsible, the action or outcome that must be achieved, any conditions achieving the action or outcome, and the reliability-related benefit of the action or outcome. Each Requirement shall be a statement for which compliance is mandatory. Some requirements may have "parts." (Parts were previously called sub-requirements, but in response to FERC orders that would have required separate VRFs and VSLs for each sub-requirement, the approach was changed and any component of a requirement is called a part. Parts of a requirement are numbered by using the number of the requirement, followed by a decimal number (e.g., Requirement R4 could have parts 4.1, 4.2, and 4.3).

Each requirement should:

- Include the name of the responsible functional entity or entities.
- Include the word 'shall.'
- Be written in
  - 'Active' voice rather than the 'passive' voice.
  - Concise, clear, measurable language. (Requirements that are not measurable or are subject to multiple interpretations are unacceptable.)
- Avoid use of ambiguous adjectives such as 'sufficient' or 'adequate' as these cannot be measured objectively. When a range of acceptable performance is acceptable, the range needs to be qualified and bounded by measurable conditions/parameters.
- Achieve one objective. If a requirement achieves two objectives, such as developing a document and distributing that document, then each objective should be addressed in its own requirement.
- Contribute to one or more reliability principles and the specific objective of the standard. All parts of a requirement must contribute to the objective of the main requirement. If there is only one part that contributes to the objective of the main requirement, there should only be one main requirement and no parts.

- Avoid more than one level of parts as it may reduce clarity.

Where practical, requirements should use language that is already familiar to the end users of NERC's standards. To that end, a list of 'verbs' already used in NERC standards can be referred to in **Attachment A**.

In general, the language of a requirement should follow the format of:

[Entity X] shall perform [specific action] by [a specific time or frequency].
Consider adding some time frame for measuring the required performance, as FERC has determined that unless the requirement includes a time period, each incidence of noncompliant performance must be assessed as a separate act of noncompliance, subject to an individual penalty or sanction. In addition, if performance results can be practically measured quantitatively, metrics should be provided within the requirement.

Measures: Each requirement must have at least one measure. A single measure can be used for more than one requirement. A Measure provides identification of the evidence or types of evidence that may demonstrate compliance with the associated requirement.

Section C – Compliance

Section C of the standard includes the compliance information as shown in Figure 5 below.

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority:

"Compliance Enforcement Authority" means NERC or the Regional Entity, or any entity as otherwise designated by an Applicable Governmental Authority, in their respective roles of monitoring and/or enforcing compliance with mandatory and enforceable Reliability Standards in their respective jurisdictions.

1.2. Evidence Retention:

The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full-time period since the last audit.

The applicable entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

- The [applicable entity(ies)] shall keep data or evidence of Requirement X for X calendar days/months/years. **(Add requirements as appropriate for this standard. This section is only for those requirements that do not have the default data retention.)**

1.3. Compliance Monitoring and Enforcement Program:

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" refers to the identification of the processes that will be used to evaluate data or information for the purpose of assessing performance or outcomes with the associated Reliability Standard.

Figure 5: Compliance Monitoring Process

Violation Severity Levels (VSLs): VSLs are included in section C of the standard in a table format. The VSLs provide guidance on the way that NERC will enforce the Requirements of the proposed Reliability Standard. To assist the DT in the development of VSLs, refer to the ***Violation Severity Level Guidelines***. These guidelines outline the criteria and attributes for developing VSLs.

Violation Risk Factors (VRFs): Each requirement must also have a Violation Risk Factor associated with it. The risk factor is one of several elements used to determine an appropriate sanction when the associated requirement is violated. The VRF assesses the impact to reliability of violating a specific requirement and shall be categorized as a high, medium or low risk. The criteria for categorizing a VRF, which has been filed with FERC as part of the ERO's **Sanction Guidelines** (codified as Appendix 4B of the NERC Rules of Procedure), along with the five guidelines that FERC uses to determine whether to approve the VRFs submitted for approval[6] are documented in **VRFs**.

[6] In its *May 18, 2007 Order on Violation Risk Factors*, FERC identified five "guidelines" it uses to determine whether to approve the VRFs submitted for approval.

If a requirement has parts, and some of the parts are much more critical to reliability than others, then the DT should consider subdividing the requirement into separate requirements and assigning a VRF to each of the individual requirements.

Time Horizons: Each standard requirement must also have an associated time horizon to differentiate requirements that involve shorter and narrower time frames (e.g., real-time operations) from those that involve longer and broader time frames (e.g., long-term planning).

Section D – Regional Variances

Most standards can be written so that they apply on a continent-wide basis without the need for a variance. FERC accepts that a variance may be needed under the following conditions (Order No. 672[7]):

> *As a general matter, we will accept the following two types of regional differences, provided they are otherwise just, reasonable, not unduly discriminatory or preferential and in the public interest, as required under the statute:*
>
> *(1) a regional difference that is more stringent than the continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not; and*
>
> *(2) a Regional Reliability Standard that is necessitated by a physical difference in the Bulk-Power System.*

Regional variances are generally identified during the SAR stage, but may be identified later in the process. They are specified and requested by the Region that wants the variance. While both the DT and Regions must ask stakeholders if they see a need for a regional variance, the DTs do not have primary responsibility for writing these variances — writing a variance is the primary responsibility of the entity that requests the variance, or their designee. If a DT receives a variance as it is developing a standard, the team will post the variance for comment along with the proposed standard, and will ask stakeholders if they support the variance.

If stakeholders do not support the variance as proposed, the entity that wants the variance may modify the variance and post it again for another comment period, or the entity may withdraw its request for the variance. The entity requesting the variance is responsible for working with the DT to respond to each comment submitted in response to the proposed variance.

Section E – Associated Documents

This section should include a link to the Implementation Plan and other important associated documents.

Section F – References

The DT may need to develop a form or other document to support the implementation of a standard. Use this section for attachments or other documents that are referenced in the standard as part of the requirements. These should appear at the end of the standard and before the Supplemental Material. If there are none, delete this section.

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[7] Order No. 672, *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards*, FERC Stats. & Regs. ¶ 31,204, at P 291.

Version History

Update the version history of the standard as appropriate. All version history content should be carried over to the subsequent version.

The 'Action' column should include the project number followed by the action completed. The 'Change Tracking' column should include: New, Errata, Revisions, Addition, Interpretation, etc.

Supplemental Material

Documents that should appear in this section are as follows: Application Guidelines, Guidelines and Technical Basis, Training Material, Reference Material, and/or other Supplemental Material. The header should remain "Supplemental Material."

Rationale

During development of this standard, text boxes are embedded to explain the rationale for various parts of the standard. Upon NERC Board of Trustees adoption, the text from the rationale text boxes are moved to the end of the standard under a 'Rationale' header and the boxes are removed from the standard.

Attachment A — Verbs Used in Reliability Standards

When developing a new or revised standard, DTs should try to use terms that have already been defined or terms that are already used in other Reliability Standards to achieve a high degree of consistency between standards. To that end, the Standards staff, working with key DT members, put together the following list of verbs and their associated definitions. These verbs are all used in requirements in existing Reliability Standards. This verb list and its definitions are not in the **Glossary of Terms** used **in NERC Reliability Standards** but these verbs and their definitions should serve as a reference for DTs who are trying to minimize the introduction of new terms into Reliability Standards.

Verb List Definitions

Acquire — To obtain something new, such as a trait, ability or characteristic; to get as one's own; to locate and hold.

Activate — To make active; to start development of

Address — To communicate directly, spoken, written or otherwise; to direct one's attention to

Adhere — To give support or bind oneself to observance

Agree — To concur in, as an opinion; to settle on by comment consent

Alert — To give warning or notice, or to call to a state of readiness; to make clearly aware of

Analyze — To review elements and critically examine

Apply — To make use or put to use

Appoint — To fix a place or time; to place in office or post

Approve — To give one's consent to

Arrange — To put in a proper order, sequence, or relationship; to prepare for; to bring about an agreement or understanding

Assemble — To put together all relevant pieces

Assess — To make a determination, evaluation, or estimate; to critic and judge

Begin — To do or initiate the first part of an action or process

Calculate — To make a mathematical computation; to solve or probe the meaning of; to design or adapt for a purpose

Calibrate — To determine, rectify or mark the graduations of; to standardize by determining the deviation from the standard; to adjust precisely for a particular function

Check — To test, compare or examine to determine if something is as it should be

Collect — To gather information from multiple sources

Communicate — To receive or distribute, to convey or make known information via personal, written or electronic methods

Comply — To execute, conform, adapt, or complete

Compute — To determine, often mathematically, an answer or sum

Conduct — To act as a leader, supervisor or to director as leader the performance or action

Confirm — To prove the truth, validity or authenticity of something

Consider — To give intelligent thought to a situation

Contact — To reach someone through a communication device (telephone, radio, etc.)

Control — To exercise restraining or directing influence over

Cooperate — To work together or among others; to act in compliance; to associate with other(s) for mutual benefit

Coordinate — To mediate the exchange of data between at least two people

Correct — To alter or adjust so as to meet some standard or required condition

Cover — To treat or include information with; to guard, protect, prevent observation or knowledge of

Create — To produce or bring into existence

Curtail — To cause an action to stop

Define — To mark the limits of with clarity and authority; to specify instruction and interpretation

Demonstrate — To point out, show clearly the existence of; illustrate or explain

Describe — To give an account or represent in words, figure, model or picture

Destroy — To ruin the structure, condition or existence

Detect — To discover or determine the existence, fact or presence

Determine — To analyze

Develop — To set forth or make clear by degrees or in detail; to work out the possibilities

Direct — To use an authoritative voice to tell another individual to perform an action

Disable — To make incapable or ineffective; to deprive a right, qualification, capacity

Disconnect — To sever or terminate a connection of or between

Discuss — To investigate or talk about using reason or argument; to present in detail for consideration or examination

Disperse — To cause to break up or become spread widely, to distribute

Display — To exhibit or make evident for viewing

Disseminate — To spread broadly

Distribute — To divide among several or many; to give out or deliver

Document — To make a printed record of something

Enable — To make possible or able by providing means or opportunity; to give legal power, capacity or sanction

Ensure — To make sure, certain or safe

Enter — To depress keys on a keyboard so as to have information sent to a computer system

Establish — To institute permanently by enactment or agreement; to make firm, stable

Evaluate — To appraise the worth of; to determine or fix the value, significance, condition or worth of

Exchange — To part with, give or transfer while receiving something as an equivalent; to part with for a substitute; to give and receive reciprocally

Execute — To put into effect; to carry out what is required

Exercise — To perform a function or carrying out the terms of an agreement; regular or repeated use or practice in order to develop, improve or display specific capabilities or skills

Explain — To make known, plain, or understandable; to give a reason for a cause

Flag — To signal, mark or identify

Focus — To direct toward a particular point or purpose

Follow — To go, proceed, or come after; to be or act in accordance with; to pursue in an effort; to seek or attain

Give — To administer, guide or direct; to execute or deliver; to offer or furnish; to perform

Have — To hold, maintain or possess something or a privilege; to stand in a certain relationship to

Hold — To have possession or ownership; to have as a privilege or position of responsibility

Identify — To recognize, establish the identity of, ascertain the origin, nature, or definitive characteristics of

Implement — To carry out or fulfill

Include — To make a part of a whole, group, or class

Increase — To make greater, larger in size, amount, number or intensity

Indicate — To point out, state or express briefly, to serve as a sign

Inform — To provide information or make aware

Initiate — To cause or facilitate the start of

Install — To establish in an indicated place, to set prepare, or position for use

Issue — To distribute, put forth, or make available

Keep — To take notice of by appropriate conduct; to retain possession of; to store

Know — To have direct cognition of; to have experience; to be acquainted or familiar with

Limit — To restrict, curtail or reduce in quantity or extent

List — To make a list of, itemize

Maintain — To control to specified limits

Make — To cause to exist or happen; to institute or establish; to put together from components

Manage — To handle, direct, control or conduct with a degree of skill, to

Meet — To conform with or fulfill

Modify — To make an adjustment

Monitor — To actively scan various information sources

Notify — To inform someone of some activity

Offset — To serve as a counterbalance

Open — To perform actions that will cause a device to physically separate from the electric system

Operate — To cause to function or work

Participate — To take part or share in something

Pay — (Attention) — To give, offer

Perform — To carry out an action

Place — To put in a particular position; to direct to a desired spot

Plan — To arrange or formulate information for a specific intention

Post — To publish, announce or advertise

Prepare — To make ready in advance

Protect — To cover or shield from exposure, injury, damage or destruction

Provide — To furnish or supply, make available

Publish — To prepare and issue printed information for public distribution or access

Record — To enter

Re-evaluate — To revise or renew

Reference — To supply or cite a source or make a notation

Release — To relinquish control over a piece of equipment

Render — To cause to be or become

Repeat — To perform one or more actions another time

Report — To give a formal or informal account

Request — To ask permission from someone of higher authority

Require — To impose a compulsion or command, to demand as necessary

Resolve — To deal with successfully, to clear up, to reach a firm decision about

Respect — To consider worthy of high regard, to have reference to; to refrain from interfering with

Respond — To provide a reply to some request for information

Restore — To return equipment to a specified state

Resynchronize — To re-establish synchronicity

Retain — To keep possession of, to hold secure or intact

Return — To go back or come back to a practice or condition or specified measure

Review — To look at available data

Sample — To test or example by a sample

Serve — To meet requirements, to work, prepare, provide

Share — To participate in, use or experience jointly or in turns

Shed — To repel without allowing penetration

Sign — To place a signature on a document

Specify — To state explicitly or in detail

Staff — To provide a staff of workers or assistants

Stipulate - To specify or make conditions or requirements for an agreement

Submit — To yield authority; to present or put forward an opinion, information, or idea

Take — To possess and hold

Terminate — To end

Test — To use a procedure to measure or determine something

Track — To follow, pursue, or plot a moving path

Train — To instruct, drill or shape by discipline or precept

Update — To bring up to date

Use — To put into service, employ; to practice

Utilize — To find or make a practical use for

Verify — To prove to be correct by investigation or comparison with a standard or reference

Wait — To curtail actions until some criteria is reached

Work — To physically or mentally make effort or activity toward production or accomplishment

Version History

Version	Date	Change Tracking
1	October 29, 2013	New Revision to SDT Guidelines – changed to DT Reference Manual. Updated entire content.
2	January 7, 2014	Corrected Errata to SC Reviewed version 1.
2.1	May 19, 2014	Updated by Standards Information Staff to Coordinate with ***NERC Drafting Team Resources*** posting.
3	September 14, 2016	Periodic review by Standards Committee Process Subcommittee and associated changes incorporated.