Southwest Power Pool
Regional Standard Under Development: PRC-006-SPP-01 - Under Frequency Load Shedding

- **1st draft posted for comment. Comment period March 31 – April 30, 2009.**

- **Within 30 days of end of comment period, Drafting team will reconvene to decide:**
  - **Revise draft based on comments**
  - **Repost as drafted**

- **Standard Drafting Team must summarize all comments received and changes made as a result of those comments – post on website.**

- **Voting will be scheduled no sooner than 15 days of final draft posting and no later than 30 days.**

- **Voting will last 15 days.**

Southwest Power Pool Regional Entity Standards Development Process Manual

October 2, 2007

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I. Introduction

This manual defines the fair and open process for adoption, approval, revision, reaffirmation, and deletion of a regional reliability standard (Standard) by Southwest Power Pool, a regional entity (RE). Standards provide for the reliable regional and sub-regional planning and operation of the Bulk Power System (BPS), consistent with Good Utility Practice within an RE's geographical footprint.

Due process is the key to ensuring that Standards are developed in an environment that is equitable, accessible and responsive to the requirements of all interested and affected parties. An open and fair process ensures that all interested and affected parties have an opportunity to participate in a Standard's development.

Any entity (person, organization, company, government agency, individual, etc.) with a direct and material interest in the Bulk Power System has a right to participate by: a) expressing a position and its basis, b) having that position considered, c) voting on a proposed regional reliability standard through a segment weighted balanced process, and d) having the right to appeal.

II. Background

An RE may develop, through its own processes, separate Standards that go beyond, add detail to, or implement NERC reliability standards, or otherwise address issues that are not addressed in NERC reliability standards.

NERC reliability standards and the RE's Standards are all to be included within the RE's Compliance Program.

RE Standards are developed consistent with the following philosophies and according to the process defined in this manual:

- A fair and open process that provides an opportunity for all interested parties to participate;
- Avoid any impact on commerce that is not necessary for reliability;
- Provide a level of BPS reliability that is adequate to protect public health, safety, welfare, and national security and do not have a significant adverse impact on reliability; and
- A justifiable difference between regions or between sub-regions within the Regional geographic area.

The NERC Board of Trustees has adopted reliability principles and market interface principles to define the purpose, scope, and nature of reliability standards. These principles are fundamental to reliability and the market interface, and provide a constant beacon to guide the development of reliability standards. The NERC Board of Trustees may modify these principles from time to time, as necessary, to adapt its vision for reliability standards. Persons and committees that are responsible for the RE Standards process shall consider these NERC principles in the execution of those duties.

NERC reliability standards are based on certain reliability principles that define the foundation of reliability for the North American BPS. Each Standard shall enable or support one or more of the reliability principles, thereby ensuring that it serves a purpose in support of reliability of the North American BPS. Each Standard shall also be consistent with all of the reliability principles, thereby ensuring that no Standard undermines reliability through an unintended consequence.

While NERC reliability standards are intended to promote reliability, they must at the same time accommodate competitive electricity markets. Reliability is a necessity for electricity markets, and robust electricity markets can support reliability. Recognizing that BPS reliability and electricity markets are inseparable and mutually interdependent, all Standards shall be consistent with the market interface principles. Consideration of the market interface principles is intended to ensure that Standards are written such that they achieve their reliability objective without causing undue restrictions or adverse impacts on competitive electricity markets.

III. Regional Reliability Standard Definition, Characteristics, and Elements

A. Definition of a Regional Reliability Standard

A NERC reliability standard defines certain obligations or requirements of entities that operate, plan, and use the Bulk Power Systems of North America. The obligations or requirements must be material to reliability and measurable. Each obligation and requirement shall support one or more of the stated reliability principles and shall be consistent with all of the stated reliability and market interface principles in the NERC Standards Process Manual.

SPP RE may develop, through the process described in this manual, separate SPP Regional Reliability Standards (Standard) that go beyond, add detail to, or implement NERC reliability standards, or that cover matters not addressed in NERC continent-wide reliability standards. SPP Regional Reliability Standards may be developed and exist separately from NERC continent-wide reliability standards, or may be proposed as NERC reliability standards. Standards that exist separately from NERC reliability standards shall be more stringent than a NERC continent-wide reliability standard, including a regional difference that addresses matters that the NERC continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. These regional reliability standards, if approved by the RE Trustees, are forwarded to NERC for review and submittal to FERC for approval.

B. Definition of SPP Criteria

SPP Criteria are those requirements used by SPP members that are for purposes others than those specified for SPP Regional Reliability Standards (Standards). SPP Criteria are enforceable only under the terms and conditions of the SPP Membership Agreement. SPP Criteria may be developed in accordance with SPP Bylaws outside the process described within this manual since these criteria are not intended to be used by the SPP Regional Entity for compliance and enforcement under the authority delegated under the NERC – SPP Regional Delegation Agreement.

C. Characteristics of a Regional Reliability Standard

Standards define obligations or requirements for the operation and planning of interconnected systems and market interface practices that will be enforceable under the authority of the SPP RE. The format and process defined by this manual applies to all Standards.

A Standard shall have the following characteristics:

- **Material to Reliability -** A Standard shall be material to the reliability of bulk power systems of the RE's region. If the reliability of the bulk power systems could be compromised without a particular standard or by a failure to comply with that standard, then the standard is material to reliability.

- **Measurable** - A Standard shall establish technical or performance requirements that can be practically measured.

- **Relative to NERC Reliability Standards** - A Standard must go beyond, add detail to, or implement NERC reliability standards, or cover matters not addressed in NERC reliability standards.

D. Elements of a Regional Reliability Standard

An RE Standard shall consist of the elements identified in this section of this manual. These elements are intended to apply a systematic discipline in the development and revision of Standards. This discipline is necessary to achieve standards that are measurable, enforceable, and consistent. The format allows a clear statement of the purpose, requirements, measures, and penalties for non-compliance associated with each Standard. Supporting documents to aid in the implementation of a Standard may be referenced by the Standard but are not part of the Standard itself. All mandatory requirements of a Standard shall be within an element of the standard.

Performance Elements of a Regional Reliability Standard

Identification Number	A unique identification number assigned in accordance with an administrative classification system to facilitate tracking and reference RE documentation. Format for Regional Standard Request will be: RSR-000
Title	A brief, descriptive phrase identifying the topic of the Standard.
Effective Date and Status	The effective date of the Standard or, prior to adoption of the Standard by the RE through its own processes, the proposed effective date. The status of the standard will be indicated as active or by reference to one of the numbered steps in the standards process.
Purpose	The purpose of the Standard. The purpose shall explicitly state what outcome will be achieved or is expected by this Standard. The purpose is agreed to early in the process as a step toward obtaining approval to proceed with the development of the standard. The purpose should link the standard to the relevant principle(s).
Requirement(s)	Explicitly stated technical, performance, and preparedness requirements. Each requirement identifies the responsible entity and the action to be performed or outcome to be achieved. Each statement in the requirements section shall be a statement for which compliance is mandatory. Any additional comments or statements for which compliance is not mandatory such as background or explanatory information should be placed in a separate document and referenced. (See Supporting References).

Applicability	Clear identification of the functional classes of entities responsible for complying with the standard, noting any specific additions or exceptions. If not applicable to the entire SPP area, then a clear identification of the portion of the bulk power system to which the standard applies. Any limitation on the applicability of the standard based on electric facility requirements should be described.
Risk Factor(s)	The potential reliability significance of each requirement, designated as a High, Medium, or Lower Risk Factor in accordance with the criteria listed below: A High Risk Factor requirement (a) is one that, if violated, could directly cause or contribute to bulk power system instability, separation, or a cascading sequence of failures, or could place the bulk power system at an unacceptable risk of instability, separation, or cascading failures; or (b) is 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 power system instability, separation, or a cascading sequence of failures, or could place the bulk power system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition. A Medium Risk Factor requirement (a) is a requirement that, if violated, could directly affect the electrical state or the capability of the bulk power system, or the ability to effectively monitor and control the bulk power system, but is unlikely to lead to bulk power system instability, separation, or cascading failures; or (b) is a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly affect the electrical state or capability of the bulk power system, or the ability to effectively monitor, control, or restore the bulk power system, but is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk power system instability, separation, or cascading failures, nor to hinder restoration to a normal condition. A Lower Risk Factor requirement is administrative in nature and (a) is a requirement that, if violated, would not be expected to affect the electrical state or capability of the bulk power system, or the ability to effectively monitor and control the bulk power system; or (b) is 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 affect the electrical state or capability of the bulk power system, or the ability to effectively monitor, control, or restore the bulk power system.

Measure(s)	Each requirement shall be addressed by one or more measurements. Measurements will be used to assess performance and outcomes for the purpose of determining compliance with the requirements stated above. Each measurement identifies to whom the measurement applies and the expected level of performance or outcomes required to demonstrate compliance. Each measurement shall be tangible, practical, and as objective as is practical. Measures are proxies to assess required performance or outcomes. Achieving the measures should be a necessary and sufficient indicator that the requirement was met. Each measure shall clearly refer to the requirements(s) to which it applies.

Compliance Elements of a Regional Reliability Standard

Compliance Monitoring Process	The following compliance elements, which are part of the standard and are balloted with the standard are developed for each measure in a standard by the NERC compliance program in coordination with the standard drafting team: • The specific data or information required to measure performance or outcomes. • The entity responsible for providing the data or information for measuring performance or outcomes. • The process used to evaluate data or information for the purpose of assessing performance or outcomes. • The entity responsible for evaluating data or information to assess performance or outcomes. • The time period in which performance or outcomes is measured, evaluated, and then reset. • Measurement data retention requirements and assignment of responsibility for data archiving.
Violation Severity Levels	Defines the degree to which compliance with a requirement was not achieved. The violation severity levels, are part of the standard and are balloted with the standard, and developed by the NERC compliance program in coordination with the standard drafting team.

Supporting Information Elements

Interpretations	Formally approved interpretations of the reliability standard. Interpretations are temporary, as the standard should be revised to incorporate the interpretation. Interpretations are developed and approved through a process described in the section Interpretations of Standards.
Implementation Plan	Each standard shall have an associated implementation plan describing the effective date of the standard or effective dates if there is a phased implementation. The implementation plan may also describe the implementation of the standard in the compliance program and other considerations in the initial use of the standard, such as necessary tools, training, etc. The implementation plan must be posted for at least one public comment period and is approved as part of the ballot of the standard.
Supporting References	This section references related documents that support reasons for, or otherwise provide additional information related to, the Standard. Examples include, but are not limited to: • Development history of the Standard and prior versions • Notes pertaining to implementation or compliance • Standard references • Standard supplements • Procedures • Practices • Training references • Technical references • White papers • Internet links to related information

IV. Roles in the Regional Reliability Standards Development Process

Any member of NERC, including any member of a regional reliability organization, regional entity, or group within NERC shall be allowed to request that a Standard be developed, modified, or withdrawn. Additionally, any entity (person, organization, company, government agency, individual, etc.) who is directly and materially affected by the reliability of the North American Bulk Power Systems shall be allowed to request a Standard be developed, modified, or withdrawn.

Originator - Any entity (person, organization, company, governmental agency, individual, etc.) that is directly and materially affected by the operation of an RE's BPS, is allowed to request a Standard be developed or an existing Standard be modified, or deleted.

Registered ballot body — The registered ballot body comprises all entities or individuals that qualify for one of the voting segments and are registered with SPP as a ballot participant in the voting of a proposed standard. Membership in SPP is not a requirement for registration. Registration in a ballot body must be done via the SPP website by close of business the day prior to the day voting begins on the standard. [Each standard action has its own registered ballot body.] The representation model of the registered ballot body is provided in Sec V. B. Regional Reliability Standards Development Process Steps, Step 5 – Open Voting.] The outcome of the vote of the registered ballot body is forwarded to the RE Trustees regardless of advisory voting outcomes at the MOPC or SPP Board level.

SPP Regional Entity Trustees (RE Trustees) – The SPP Regional Entity Trustees shall act on any proposed Standard that has gone through the process contained in this manual. Upon approval by the RE Trustees, the Standard will be submitted to NERC for approval under the ERO. RE Trustees are notified of all proposed regional reliability standards requests and receive progress reports from theRE Staff. They also receive notice of the outcome of votes by the ballot body and any recommendations and reports on proposed standards made by the SDT, MOPC and SPP Board.

Regional Entity Staff (RE Staff)- RE Staff shall support the RE Trustees in their oversight authority over the Standards Development Process and any other function or responsibility ascribed to them in the NERC- Southwest Power Pool, Inc. Delegation Agreement.

SPP Markets and Operations Policy Committee (MOPC) - The SPP Markets and Operations Policy Committee will assign Standards to a Standards Development Team for development or revision

SPP Board of Directors and Members Committee (BOD/MC) – The SPP Board of Directors in conjunction with the Members Committee provides advisory votes to the RE Trustees on reliability matters as they pertain to the RE. The BOD/MC votes on proposed regional standards or changes to regional standards for the sole purpose of providing an additional stakeholder forum for review, and valuable input to the RE Trustees decision on a regional standard based on the groups expertise on reliability, operations and market matters as well as its wide diverse representation of the SPP membership.

Compliance Director – The RE office responsible for the administration of the SPP Compliance Program. The duties of this office includes but are not limited to, providing inputs and comments during the standards development process to ensure the measures will be effective and can be practically implemented.

Standard Drafting Team (SDT) – Usually an existing SPP Working Group or Task Force that is comprised of technical experts. Any interested party may attend meetings, provide input and comments, and vote under provisions of the SPP Regional Standards Process Manual.

V. Regional Reliability Standards Development Process

A. Assumptions and Prerequisites

The process for developing and approving Standards is similar to procedures accredited by the American National Standards Institute (ANSI), like that employed by the North American Energy Standards Board (NAESB). The Standards development process has the following characteristics:

- **Inclusive** - Any entity (person, organization, company, governmental agency, individual, etc.) representing an organization with a direct and material interest has a right to participate by:
    a) Expressing an opinion and its basis,
    b) Having that position considered,
    c) Voting on a proposed regional reliability standard through a segment weighted balanced process, and
    d) Appealing any negative decision

- **Openness** - Participation is open to all organizations that are directly and materially affected by the RE's BPS reliability. There shall be no undue financial barriers to participation. Participation shall not be conditioned upon membership in the RE, and shall not be unreasonably restricted on the basis of technical qualifications or other such requirements. Meetings of SDT's are open to all interested parties and are noticed on the SPP website at least 15 days in advance. Since pre-existing SPP committees, working groups, or task forces may be assigned the responsibilities of a SDT, the agenda for meetings will note that an SDT activity is being undertaken to distinguish such activity from other non-SDT related agenda items. The openness provisions of this manual apply only and explicitly to the SDT activities. Meetings of subcommittees and working groups serving as a SDT shall follow the SPP Bylaws Sec 3.5 Meetings.

Balance - The RE Standards development process strives to have an appropriate balance of interests. The process prevents any two voting sectors from dominating voting outcomes and no single voting sectors from defeating a proposed reliability standard.

- Due Process – The SPP Regional Reliability Standards Development Process provides reasonable notice and opportunity for public comment. At the minimum, the procedure shall include public notice of the intent to develop a standard, a public comment period on the proposed standard, due consideration of those public comments, and a ballot of interested stakeholders.

- Transparent – All actions material to the development of a SPP regional reliability standard shall be transparent. All standards development meetings shall be open and publicly noticed on the SPP website.

B. Regional Reliability Standards Development Process Steps

Note: The term "days" below refers to calendar days.

Step 1 – Request to Develop, Revise or Delete a Regional Reliability Standard

Any individual representing an organization (Originator) that is directly or materially impacted by the operation of the BPS within the geographical footprint of the RE may submit a request to the Markets and Operations Policy Committee (MOPC) for the development, modification, or deletion of an RE Standard. Any such request shall be submitted to the MOPC Chairman, or his/her designee, or by another process as otherwise posted on the SPP website. The request should be made using the SPP Regional Standard Request Form (RSR) in Appendix B.

The MOPC or a designee will work with the Originator to develop a description of the proposed Standard subject matter containing sufficient detail to clearly define the purpose, scope, impacted parties, and other relevant information related to the proposed Standard.

Step 2 – Notification to Regional Entity Trustees & Public Notice

The Chairman of the MOPC or his/her designee will forward the request to the RE Trustees. SPP staff will also post the request on the SPP website for public notice and may utilize any appropriate SPP email distribution lists within 30 days. The request is not to be judged as appropriate or useful at this stage.

The MOPC will assign the drafting and scoping responsibility to an appropriate SPP Working Group or Task Force. This group will become the Standards Drafting Team (SDT) for this particular Standard request. The assignment will include any necessary deadlines and due dates for the Standard.

Any documentation of the deliberations of the SDT concerning the Standard shall be made available in accordance with the SPP Bylaws requirements for meeting and organizational groups then in effect. Meetings of the SDT are open to any interested party. Meeting dates and actions on the regional reliability standard are publicly noticed on SPP's public Web site.

The SDT shall provide a report to the RE Trustees and the MOPC on a periodic basis (at least at every regularly scheduled meeting) noting the status of the Standard that has been assigned to it for consideration.

Step 3 – Scoping and Drafting

The SDT will draft the language of the Standard per the Standard description provided by the MOPC and the Originator. The SDT may recommend changes to the scope, purpose, need or other relevant aspects of the Standard through consultation with the MOPC.

The SDT develops a work plan for completing the Standard development work, including the establishment of milestones for completing critical elements of the work in sufficient detail to ensure that the SDT will meet the date objective in the assignment, or an alternative date. This plan will be provided to the RE Trustees and the MOPC.

The SDTmay meet in person or via electronic means as necessary; may establish sub-work teams (made up of members of the SDT) as necessary; and perform other activities to address the parameters of the Standard and the established milestone date(s).

The SDT should consider:

- The impact of the Standard on neighboring regions, and seek appropriate input from the neighboring regions if the Standard is determined to have such an impact.
- An implementation plan, including the nature, extent and duration of field-testing, if any.
- The need for any existing Standard to be deleted, in part or whole, or otherwise impacted by the implementation of the draft Standard.
- Technical reports, white papers and/or work papers that provide technical support for the draft Standard under consideration.
- Documenting the perceived reliability impact should the Standard be approved.

The SDT will regularly (at least at every regularly scheduled meeting) report to the RE Trustees and the MOPC on its progress in meeting a timely completion of the draft Standard. The SDT may request consideration of scope changes of the Standard at any point in the Standard development process.

The RE Trustees or the MOPC may, at any time direct the SDT move to Step 4 and post for comment the current work product, or to terminate the activity if there is no further need for the Standard. If the activity is terminated RE Staff will notify the Originator and the RE Trustees within 30 days.

If there are competing drafts all will be posted on the SPP website for comment. The MOPC may take this step at any time after a SDT has been commissioned to develop the Standard.

For Standards in progress, the MOPC must take action to move to Step 4. *Public Comments*, or to reject the proposal. If the MOPC votes to terminate the activity, the RE Trustees must be notified with supporting reasons provided to them. The proposed standard would then go directly to Step 11. (See Step 11. *RE Trustees Action*)

Step 4 – Post Draft for 30 Day Public Comments

RE Staff will post the draft Standard on the SPP website, along with any supporting documents, for a 30-day comment period. RE Staff shall also inform registered entities and other potentially interested stakeholders of the posting using available SPP communication resources, or by other means deemed appropriate. Comments may be submitted using the RSR Comment Form in Appendix B available on the SPP internet website.

Within 30 days of the conclusion of 30-day comment posting period the SDT shall convene and consider changes to the draft Standard, the implementation plan and/or supporting technical documents. The SDT may elect to return to Step 3. *Scoping and Drafting* to revise the draft Standard, and/or any supporting documentation. The SDT shall summarize the comments received and any changes made as a result. This summary will be and posted on the SPP website when completed.

Step 5 – Open Voting

The SDT shall direct the RE Staff to post the revised draft Standard and other relevant documents including, implementation plan, supporting technical documentation, and summary of comments.

RE Staff will schedule a vote by interested parties to commence no sooner than 15 days and no later than 30 days following the posting of the revised draft.

Members of the ballot body shall be allowed to vote over a period of 15 days. Voting will be through electronic means or other means provided by SPP.

SPP Segment Weighted Voting

Registration in a ballot body created for a specific proposed regional standard is required to vote. Registration for a proposed Standard is noticed on the SPP website and through a Standards email exploder for a period of 15 days prior to the start of the ballot (subscription to the Standards email exploder is open to any interested party through the SPP website). All interested parties who register with the ballot body may vote on the proposed new Standard, Standard revision or Standard deletion. An interested party may only register in one segment.

The five SPP voting segments for Regional Reliability Standards are:

1) Transmission
2) Generation
3) Marketer/Broker
4) Distribution/Load Serving Entity
5) End User and Public Interest

RE Staff will accept votes any time during the 15-day ballot period for the Standard. Votes will be counted by voting segment. Each voting segment will receive 20% of the vote. A weighted vote of 2/3 affirmative of those voting will pass a Standard for further consideration (Step 7). If the vote fails to achieve a 2/3 majority of those voting, the Standard will be returned to the SDT for consideration for future action (Step 3). The SDT may: revise the Standard; post the Standard again for comments; reballot the Standard; ask the RE Trustees to terminate the request; or any other action it deems appropriate.

The RE Trustees are notified of the outcome of the vote and any actions taken by the SDT as a result of the vote. The RE Trustees will determine any additional action to be taken. (See Step 11. *RE Trustees Action*)

Step 6 – Prepare Consensus Draft & Minority Report

When a Standard is approved, the SDT will prepare a consensus draft representing the version of the Standard to be presented to the MOPC and the BOD/MC before final action by the RE Trustees.

Minority Report and Appeals

- A minority report will be prepared if there are significant issues that cannot be resolved within the SDT during the drafting phase (Step 3) or from the public comments (Step 4).

- A minority report will include any appeals from interested parties that the SPP Standards Procedure Manual was violated in the development of the Standard.

- The minority report remains a part of the record of the Standard and is available to any interested party during any subsequent steps.

- The consensus draft and any minority reports are presented to the MOPC for its consideration and an advisory vote.

Step 7 – Post Draft Standard for Action on the MOPC Agenda

A recommended Standard is noticed for consideration on the MOPC agenda. The agenda materials are made available per the SPP Bylaws, Section 3.5.

If a Standard requires consideration by the MOPC prior to a regularly scheduled meeting, the RE Staff will notify the MOPC Chairman who will notice a special meeting in accordance with the SPP Bylaws.

Step 8 – MOPC Review

The MOPC will provide an advisory vote on the Standard under the governance provisions of the SPP Bylaws, Section 3.9 Voting.
If the MOPC opposes the Standard, the MOPC may request revision of the Standard or termination of further activity on the Standard. If the Standard is terminated, notice is provided (described in Step 9) to the RE Trustees for further action (Step 11).

If the MOPC concurs with the Standard, the Standard proceeds to the SPP Board of Directors and Members Committee for review (Step 9).

The RE Trustees are notified of the outcome of the MOPCreview.

Step 9 – SPP Board of Directors/Members Committee Review

A draft Standard submitted to the SPP Board of Directors/Members Committee (BOD/MC) for review must be publicly posted at least 10 days prior to consideration by the BOD/MC. The BOD/MC may consider the Standard at a regularly scheduled meeting, or as determined by the Chairman of the BOD/MC.

The BOD/MC shall be provided:

- The consensus draft Standard and any modification or deletion of other related existing Standard(s)
- Implementation Plan (including recommended field testing and effective dates)

- Technical Documentation supporting the draft Standard
- A summary of the registered ballot body vote and summary of the comments and responses that accompanied the votes including a Minority Report if applicable.
- The results of the MOPC advisory vote and any comments
- Any other information relevant to the Standard

The BOD/MC will:

- Provide an advisory vote to the RE Trustees on the Standard (Step 10); or
- Return the Standard to the MOPC with comments

In the case of a second return of aStandard, the proposed Standard is forwarded to the RE Trustees for action. (The proposed Standard would go directly to Step 11).

Step 10 –Presentation to RE Trustees

A draft Standard submitted to the RE Trustees for action must be publicly posted at least 10 days prior to consideration by the RE Trustees.

The RE Trustees shall be provided:

- The consensus draft Standard and any modification or deletion of other related existing Standard(s)
- Implementation Plan (including recommended field testing and effective dates)
- Technical Documentation supporting the draft Standard
- A summary of the registered ballot body vote and summary of the comments and responses that accompanied the vote including a Minority Report if applicable
- The results of the MOPC advisory vote and any comments
- The resulted of the BOD/MC advisory vote and any comments
- Any other information relevant to the Standard

Step 11 - RE Trustees Action

The RE Trusteeswill:

- Recommend NERC approve the Standard through the NERC process; or
- Remand the Standard to the SDT through the MOPC with comments and instructions; or
- Determine there is no need for the Standard and terminate any future activity.

The RE Trustees may consider the Standard at a regularly scheduled meeting, or as determined by the Chairman of the RE Trustees.

If a Standard is forwarded to the RE Trustees for action as a result of an opposing MOPC vote (Step 8), or if automatically forwarded to them as a result of two or more returns by the MOPC

or SPP Board (Step 9), the RE Trustees will take definitive action, including initiating the process from Step 3, Scoping and Drafting. The RE Trustees may not submit a Standard to NERC for approval without a positive outcome from open and balanced voting in Step 5.

Advisory votes of the MOPC and the BOD/MC do not impact the RE Trustees' authority to submit a Standard to NERC.

Step 12 – Submit to NERC for Approval as Regional Standard

RE Staff will notify interested parties of submission of Standard to NERC by the RE Trustees through the normal and customary communication procedures and processes then in effect.

The RE Staff will publicly notice any further steps necessary to have a Standard reviewed and/or approved through the NERC or any successor organization standards process.

C. Filing of Regional Reliability Standards with Regulatory Agencies

The development of Standards must be administered in coordination with the NERC Standards Development Procedure. At the discretion of the NERC Board of Trustees, adopted Standards may be filed with applicable regulatory agencies in the United States, Canada, and Mexico. Regional Reliability Standards once approved by FERC, are made part of the NERC standards and shall be enforced accordingly.

Appendix A

I. Maintenance of the Regional Reliability Standards Development Process Manual

Any interested party may propose changes to this Manual. Such Process Manual change requests will follow all the steps of the Regional Reliability Standards Process outlined in Section V., Part B of this Manual.

II. Appeals

Persons who have directly and materially affected interests and who have been or will be adversely affected by any substantive or procedural action or inaction related to the development, approval, revision, reaffirmation, or withdrawal of a Standard shall have the right to appeal. This appeals process applies only to the Standards process as defined in this procedure.

The burden of proof to show adverse effect shall be on the appellant. Appeals shall be made within 30 days of the date of the action purported to cause the adverse effect, except appeals for inaction, which may be made at any time. In all cases, the request for appeal must be made prior to the next step in the process.

The appeal will be addressed by the RE Trustees. The appeal is included in a Minority Report of the Standard which remains a part of the record for the Standard throughout the SPP Regional Standards Procedure.

The final decisions of any appeal shall be documented in writing and made public.

A complaint will be noted in a Minority Report including the substantive or procedural action or inaction associated with a reliability standard or the standards process. The complaint should describe the actual or potential adverse impact to the appellant. The RE Trustees will provide a written response to the complaint. The appellants response to the RE Trustees determination will be included in the Minority Report.

The RE Trustees shall provide a response to any remaining open complaints.

Appendix B: SPP Regional Standard Request Form

RSR Number		**RSR Title**	
SPP Regional Standard Name (include Section No., Title, and existing Standard Version if any)			
Requested Resolution Date (if applicable)			
Description			
Reliability Need or Purpose – Try to identify if known: Technical requirements, reliability risk factor, measurements (refer to SPP Standards Process Manual for descriptions).			
Tariff Implications or Changes (Yes or No; If yes include a summary of impact and/or specific changes)			
Criteria Implications or Changes (Yes or No; If yes include a summary of impact and/or specific changes)			
NERC Standard Implications (Yes or No, and summary of impact)			

Sponsor	
Name	
E-mail Address	
Company	
Company Address	
Phone Number	
Fax Number	

Proposed Regional Standard Language

Appendix C: SPP Regional Standard Request Comment Form

RSR Number		**RSR Title**	

Date	

Submitter's Information	
Name	
E-mail Address	
Company	
Company Address	
Phone Number	
Fax Number	

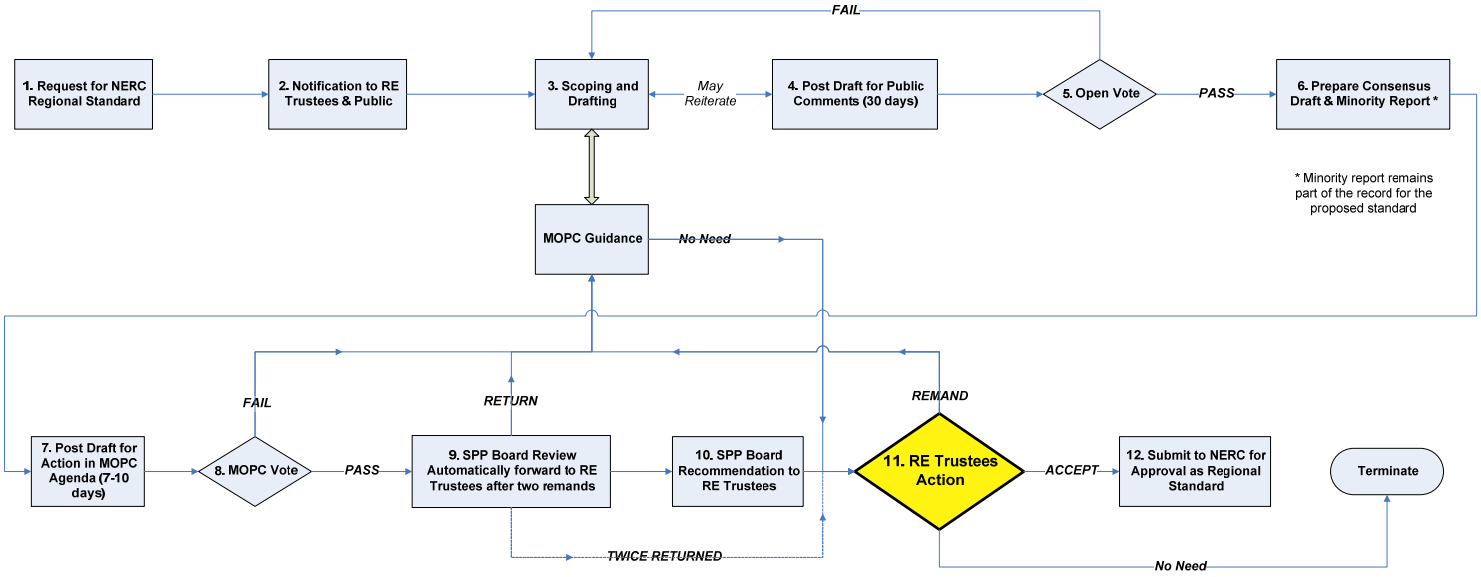
Comment Form Instructions (please delete before submitting comments):

Comments are to be submitted electronically and are due by close of business of the comment due date. Please follow this file naming convention:
###PRR <Company Name> Comments<date>.doc.

Comments

Revised Regional Standard Language

Appendix D: SPP Standards Development Procedure



Regional Reliability Standard: **PRC-006-SPP-01**

Title: **SPP Automatic Underfrequency Load Shedding Program**

A. Introduction

1. **Title:** Southwest Power Pool (SPP) Automatic Underfrequency Load Shedding Program

2. **Number:** PRC-006-SPP-01

3. **Purpose:** Provide an adequate level of reliability for the Bulk Electric System by implementing a Regional Underfrequency Load Shedding (UFLS) program in accordance with NERC UFLS Continent Wide Reliability Standard.

4. **Applicability:**

4.1 Transmission Owners

4.2 Distribution Providers

4.2.1. Any supplier of end-use Load not registered as a Distribution Provider may be required to register as a Distribution Provider if the Planning Coordinators or Transmission Planner determines that shedding this load is crucial to the reliability of the Bulk Electric System.

4.3 Load-Serving Entities with a peak integrated hourly load greater than 25 MW

4.4 Generator Owners of generators with an individual nameplate rating or plants, including Wind Generating Stations, with an aggregate nameplate rating of 10 MVA or greater.

4.4.1. Generator Owners not meeting the above criteria may be required to register as a Generator Owner if the Planning Coordinators or Transmission Planner determines the generating unit(s) is crucial to the reliability of Bulk Electric System.

4.5 Planning Coordinator

4.6 Transmission Planner

5. **Effective Date:** TBD

B. Requirements

R1. Each Distribution Provider, Load-Serving Entity, and Transmission Owner with end-use Load customer(s) connected to their facilities shall implement an automatic UFLS program or shall participate with one or more Distribution Providers, Load-Serving Entities, and Transmission Owners with end-use Load customer(s) connected to their facilities to collectively implement by mutual agreement a single automatic UFLS program. Entities that participate with other Distribution Providers, Load-Serving Entities, or Transmission Owners by mutual agreement shall designate and report to the Planning Coordinator a single entity responsible for compliance reporting purposes. The automatic UFLS program shall include the following requirements:

R1.1. Have the capability of automatically shedding at least 30 percent of forecasted peak native load for the current year.

R1.2. Automatic UFLS program shall be initiated in three steps as indicated in the table below.

(1) UFLS Step	(2) Frequency (hertz)	(3) Minimum Accumulated Load Relief as Percentage of Forecasted Peak Native Load (%)	(4) Maximum Accumulated Load Relief as Percentage of Forecasted Peak Native Load (%)
1	59.3	10	15
2	59.0	20	25
3	58.7	30	45

R1.3. The Distribution Provider, Load-Serving Entity, or Transmission Owner shall annually certify by April 1st of each year with the SPP region the amount of load as a percentage of forecasted peak native load it expects to automatically shed for each step identified in R1.2 for the current year.

R1.4. The intentional relay time delay for UFLS shall not be greater than 30 cycles.

R1.5. Undervoltage inhibit shall be set as low as practical, but shall not be greater than 85 percent of nominal voltage.

R1.6. Islanding schemes shall only operate after all 3 steps of UFLS have been exhausted and the frequency continues to fall below 58.5Hz.

R2. Each Generator Owner shall verify their generating unit(s) will not trip during low frequency conditions above levels as listed in R1. Should this not be practical due to the operating characteristics of certain units, the Generator Owner may become compliant by arranging for Load shedding to be installed by mutual agreement with Distribution Providers, Load-Serving Entities, or Transmission Owners with end-use Load customer(s) connected to their facilities, in addition to that required Load shedding as listed in R1.

R2.1. This additional Load shedding shall be equal to or greater than the generator MW dispatch, instituted at the same frequency and time as the generator would be expected to trip. For non-dispatch generators, this additional Load shedding shall be equal to or greater than the amount of generation interrupted by UFLS.

R2.2. If the generator is located within a credible island, arrangement for additional Load shedding shall be within the credible island.

R3. Each Distribution Provider, Load-Serving Entity, Transmission Owner and Generator Owner listed in Applicability Section shall maintain and submit the following UFLS data to the Planning Coordinator every 5 years or within (30) calendar days upon request from the Planning Coordinator:

R3.1. Number of UFLS relays installed.

R3.2. Facility Location of installed UFLS relays.

R3.3. Identification of breaker, circuit switcher, or device tripped by the UFLS relays.

R3.4. Trip frequency for each installed relay.

R3.5. Total Time Delay of each UFLS relay scheme, including the relay delay, intentional and unintentional.

R3.6. Forecasted peak native load and total amount of forecasted peak native load shed by each trip frequency.

R3.7. Under-frequency trip set points and time delays of generating units.

R3.8. Tie line tripping schemes.

R3.9. Islanding schemes and the frequency at which they operate.

R4. Each Transmission Owner, Distribution Provider, and Generator Owner shall analyze and document underfrequency events that occur below the initiating set point of their UFLS program. Documentation shall include relay operational data and any associated event analyzing data from such devices as fault, disturbance, or long term trend recorders associated with the UFLS event. Documentation of the analysis shall be provided to the Planning Coordinator and NERC on request. Responsible entities shall provide the requested data within (30) calendar days. Upon review of documentation, a formal presentation to the Planning Coordinator may be required.

Entities that participate with other Distribution Providers, Load-Serving Entities, or Transmission Owners by mutual agreement shall designate and report to the Planning Coordinator a single entity responsible for documentation of the UFLS event.

The documentation shall include:

R4.1. Overall summary of UFLS event

R4.2. Pre-disturbance system condition

R4.2.1. Electrical overview of system

R4.2.2. System constraints

R4.2.3. System status of generators, transmission lines, and major equipment

R4.3. Initiating UFLS event(s)

R4.3.1. Root cause(s) of the event

R4.3.2. Contributing factors

R4.3.3. Additional factors and events during UFLS not contributing to event

R4.4. Detailed sequence of events to include data requested in R3 and any other significant information.

R4.5. Corrective Actions and Implementation Status

R4.5.1. Including equipment description, discussion, conclusion and recommendations

R4.5.2. Incomplete corrective actions shall be reported to the Planning Coordinator quarterly.

R5. The Planning Coordinator shall maintain a database with information of the UFLS program.

R5.1. The Planning Coordinator shall update and maintain the UFLS equipment database. This database shall include all information identified in R3 which responsible entities or their designated representatives are required to submit to the Planning Coordinator every 5 years or as requested by the Planning Coordinator.

R5.2. The Planning Coordinator shall periodically conduct and document a technical assessment of the effectiveness of the design and compliance to the latest approved NERC Continent-Wide Standard PRC-006-01. These assessments shall be completed at least every 5 years or as required by significant changes in system conditions.

R6. The Planning Coordinator shall determine appropriate islands to study as a design basis for UFLS. These islands shall be chosen from system studies, actual system operations, or other islands as deemed appropriate by the Transmission Planner. Identified islands will be assessed to determine if any additional UFLS capability should be installed and how it should be designed and implemented.

R7. Transmission Owner, Distribution Provider, LSE or Generator Owners identified in areas of credible island shall participate in the engineering assessment and mitigation that specifically address Generation/Load imbalances in the area of credible islanding. UFLS capability should cover potential generation/load imbalances.

Upon determination of a new credible island the Transmission Owners, Distribution Providers, Generator Owners or Reliability Entity (identified in R1) shall have three years to install UFLS to cover potential generation/load imbalances.

R8. The Planning Coordinator shall function as a requesting agent and clearing house for the collection of data following an UFLS event as stated in Requirement 4.

C. Measures

The following documentation will be used to determine compliance with the above requirements:

M1. Each Distribution Provider, Load Serving Entity, and Transmission Owner with end-use Load customer(s) connected to their facilities shall maintain documentation that its UFLS scheme meets the performance requirements in R1.

M2. Each Generator Owner shall have documentation that it complies with the characteristics of R2 or has made arrangements for additional Load shedding, if appropriate, as required in R2.

M3. Each Distribution Provider, Load Serving Entity, Transmission Owner and Generator Owner shall have evidence that the information as required in R3 was supplied to the Planning Coordinator.

M4. Each Transmission Owner, Distribution Provider, and Generator Owner shall have evidence that the analysis required in R4 was completed and supplied to the Planning Coordinator, if requested.

M5. Each Planning Coordinator shall have evidence it established and maintained an UFLS database as required in R5.

M6. Each Planning Coordinator shall have documentation that it complies with the requirements of R6.

M7. Each Transmission Owner, Distribution Provider, LSE or Generator Owner identified in areas of credible island shall have evidence that it participates in the engineering assessment as required in R7.

M8. Each Planning Coordinator shall have evidence of the data that was collected as required by R8.

D. Compliance

1. Compliance Monitoring

   1.1 Compliance Monitoring Responsibility
   Compliance Monitor: Southwest Power Pool

   1.2 Compliance Monitoring Period and Reset
   On request (within 30 calendar days)

   1.3 Data Retention
   Five years

   1.4 Additional Compliance Information
   None

2. Violation Severity Levels (TBD)

E. Implementation Plan

TBD

F. Revision History

TBD