Consideration of Comments

Draft 1 of Version 0 Reliability Standards

Comment Period: July 9 to August 9, 2004

Introduction

The Version 0 Drafting Team received 83 comment forms in response to its July 9, 2004, posting of Draft 1 of the Version 0 reliability standards. The Drafting Team received several additional unstructured comments in the form of letters, markups of the draft standards and emails. All comments received by the Drafting Team during the comment period are posted for public viewing.

The Drafting Team met August 18-20 in Denver to consider the comments. NERC staff had transferred the comments into a tabular format and reordered the comments by subject so that the Drafting Team could discuss one issue or standard at a time.

The summary below explains the considerations the Drafting Team gave to comments received on questions asked by the Drafting Team in the comment form, as well as a few additional key issues raised by commenters. The numerical results from the questionnaire and the Drafting Team's response on specific standards are provided in a separate report Survey Response and Consideration of Specific Comments. Please note that report is in Microsoft EXCEL format, with the survey results on Sheet 1 and the consideration of specific comments on Sheet 2.

The Drafting Team is pleased with the number and thoughtfulness of the comments received. The team was able to make substantial improvements in the second draft of the Version 0 standards as a result of the constructive nature of the inputs. The Drafting Team has strived to be as responsive to the comments as possible in the second draft, while remaining within its charter of translating the existing reliability rules into a reliability standard format, using the context of the functional model.

Overall Support for the Version 0 Standards as a Work in Progress

Question 1 of the Draft 1 questionnaire asked:

Recognizing the Draft 1 Version 0 Standards as a preliminary work in progress that will continue to be refined by the Drafting Team in response to industry comments, if you were asked today to consider voting to approve (single block vote) the Version 0 Standards as presented, how do you think you would vote?

- 59 answered: Would approve the standards conditionally, assuming acceptable improvements are made in response to comments.
- 17 answered: Would not approve the standards.
- 2 abstained.
- 4 did not respond.
- 1 answered both affirmative and negative.

Consideration of Comments

The drafting team is encouraged by this favorable response on an initial draft that was pieced together very quickly over a six-week period. The Drafting Team cautions, however, that these and other numerical results presented in this report are not based on a weighted average vote. Also, some comment forms were submitted on a group basis with representatives from multiple entities and a few entities submitted more than one comment form. Therefore, the results should be viewed as a rough straw poll based simply on the number of comment forms and not as a predictor of the eventual vote on the standards.

The drafting team focused on comments provided by those who voted no to see if those issues could be resolved, and also focused on the issues listed under "show stoppers" in Question 2.

Question 2 of the Draft 1 questionnaire asked:

Are there any "show stoppers" in the approach or results to date that would prevent you from approving the standards? If so, what are they?

The most critical issues identified in the comments to questions 1 and 2 were:

Deficient Planning Standards – The single greatest concern expressed in response to questions 1 and 2 was the inclusion of some planning standards in Version 0 that had not been field tested and that were felt to be technically deficient in their current form. At least 22 commenters noted this issue as a potential "show stopper" for them in the approval of Version 0 standards. The drafting team agreed with this concern and in Draft 2 has withdrawn the following proposed standards and removed several suspect measures from other standards:

- 059 (was II.B – System Modeling Data – Generation Equipment)
- 062 (was II.E – Load Models for System Dynamics Studies)
- 064 (was I.D – Voltage Support and Reactive Power)
- 065 (was IIIC – Generator Control and Protection)
- 066 (was III.B. Transmission System Control Devices)
- 071 (was IVB – Automatic Restoration of Load)

Missing Compliance Elements – Some commenters expressed concern with approving Version 0 when the sections on Measures, Compliance Monitoring and Levels of Non-Compliance were designated as "Not Specified". The Drafting Team understands the concern with approving a standard that is partially complete. However, the Drafting Team is under strict instructions not to create new standards and not to add new compliance requirements where they do not already exist in NERC policy, standards or compliance templates. The Drafting Team has carried this position forward in Draft 2 and continues to show "Not Specified" in the standards for which there is no pre-existing compliance requirements information. This area should be a priority focus in future versions of the standards. To force in new compliance requirements within the abbreviated timetable of Version 0 would likely erode consensus rather than improve it. It should be understood, that the Version 0 standards are no less specific with regard to compliance elements than what is in effect today. It is necessary that any new compliance elements, or improvements to existing compliance elements, be considered more deliberately as separate requests to modify the standards after approval of Version 0.

Penalties and Sanctions – Several commenters were concerned that the standards would include penalties and sanctions. However, the scope of the Version 0 standards does not include specifying penalties and sanctions and the Drafting Team has intentionally omitted those from the standards.

Timetable for Compliance Implementation – Several commenters were concerned with having sufficient time for implementation of compliance monitoring and noted the lack in some areas of specific measures. The Drafting Team notes that since the existing reliability rules are being translated without modifying the requirements, the impact on compliance monitoring is expected to be minimal. A letter has been sent to the Compliance and Certification Committee requesting that they be prepared to adopt Version 0 standards into the 2005 compliance monitoring program in lieu of the existing compliance templates, and the Drafting Team will remind the CCC of this concern as expressed in the comments. Although many of the Version 0 standards do not have measures, the incorporation of the functional model and changing passive voice requirements to active voice provide a significant opportunity to clarify and sharpen accountability for compliance with the standards. The most challenging aspect of the implementation plan is the registration of entities that perform each reliability function. That is expected to be completed prior to adoption of Version 0 standards by the Board, allowing a smooth transition to the new standards.

Version 0 Standards Should Not Restrict More Stringent Regional Standards

The Drafting Team agrees with several commenters that Version 0 standards, like the existing NERC policies and standards, do not restrict regions from developing more stringent reliability standards through a regional consensus process. The Drafting Team proposes to state this concept in a preamble to the final draft of the Version 0 standards submitted for ballot.

Missing Operating Appendices – Several commenters were concerned that several operating policy appendices and other key sections of the policies were not included in the first draft. The Drafting Team agrees there were a few unintended omissions and has added in Draft 2 several attachments incorporating reliability requirements currently captured in appendices and additional language from several policies. The second posting includes a highlighted set of operating policies and appendices showing how each existing requirement was mapped into Version 0, or was eliminated due to redundancy.

General Deficiencies in the Draft – Several commenters noted they could not consider approving Version 0, even as a straw poll, until a number of deficiencies were corrected. The Drafting Team reviewed each specific comment received and made significant improvements in the second draft. A redline markup from the first posting to the second shows the improvements that were made.

Glossary of Terms Used in Standards – Several commenters noted the need for a glossary of terms. The Drafting Team has included a glossary in Draft 2 and will continue to refine the glossary to make sure it is complete and accurate.

Fidelity of the Translation

Question 3 of the Draft 1 questionnaire asked:

As a whole, do you agree that the content of the Draft 1 Version 0 Standards is a reasonable translation of existing NERC reliability rules that does not significantly change current reliability obligations?

- 61 respondents indicated yes.
- 21 respondents indicated no.

Consideration of Comments

Most agreed that the Drafting Team had made a reasonable initial translation of the operating policies, planning standards, and compliance templates. A few suggested that some existing requirements were missing and others suggested new requirements had appeared. Some confusion was introduced because there were some errors in Draft 1 with the references back to the operating policies. The Drafting Team has performed a more thorough comparison of Version 0 with the source documents in preparing Draft 2 and believes it has narrowed both gaps substantially. Several commenters were concerned with the assignment of functions to certain requirements. This issue is addressed later in Question 5.

Redundancy Across Standards and Organization of the Standards

Question 4 of the Draft 1 questionnaire asked:

There are numerous areas where the Drafting Team found it could easily eliminate redundancies in the requirements across various standards and improve the standards by better grouping the requirements into logical areas. However, the Drafting Team resisted making those changes in the first draft to ensure the industry would be able to more easily visualize the mapping from the existing documents to the Version 0 Standards. Should the Drafting Team minimize changes to eliminate redundancies and improve organization of the standards, or should the team make those improvements in Version 0?

- 48 respondents indicated the Drafting Team should minimize redundancies and better organize the standards.
- 30 respondents indicated making such changes would confuse the translation and should wait for a future version.

Consideration of Comments

While the Drafting Team agreed with the majority, it realized that a substantial reorganization of the standards and elimination of redundancies could not be completed in the few weeks before the next posting. This effort would also have opened up substantial room for new interpretations of the requirements – of two related requirements which was the better? The Drafting Team took the approach in Draft 2 not to substantively reorganize the standards and not to make a wholesale review to eliminate redundancies. Where redundancies were obvious – an exactly or nearly identical requirement in two places, one was eliminated. If more analysis or consensus-building was required, the requirements were left as is.

As a result some redundancies remain. For example, restoration planning and preparedness is covered in Standard 027 for operating authorities and in Standard 040 for Reliability Coordinators, with some overlap between them. Communications are addressed in Standards 019 and 034 and training is covered in 031 and 036. The Drafting Team envisions opportunity to address these redundancies in Version 1 at a more deliberate pace.

The Drafting Team is proposing a new numbering scheme in the Draft 2 posting that would put the standards in a more logical sequence, without changing the language within the standards.

Functional Model Designations

The Drafting Team asked several questions regarding the application of the functional model in Version 0 standards. The questions and the survey responses are indicated below:

Question 5 of the Draft 1 questionnaire asked:

As a whole, do you agree that the designation of functions in the functional model is acceptable?

- 61 indicated yes.
- 17 indicated no.

Question 6 of the Draft 1 questionnaire asked:

The operating policies make frequent reference to Operating Authorities as being the accountable entities. In adopting the functional model into the Version 0 standards, the Drafting Team had to make numerous extrapolations of the intent of the operating policies. For the most part, the requirements are addressed to Reliability Authorities, Balancing Authorities, and Transmission Operators. As needed, requirements specify Generator Operators, Transmission Service Providers, Load Serving Entities, and Purchasing-Selling Entities. The Drafting Team seeks comments on whether the references to Operating Authorities should include these other functions when appropriate, or should an assumption be made in Version 0 that the reliability obligations of these other functions are addressed in service agreements.

- 48 said include these other functions.
- 14 said do not.

Question 9 of the Draft 1 questionnaire asked:

The Drafting Team is recommending a partial implementation of the functional model by assuming all of the Reliability Coordinator requirements in current policy should be assigned to Reliability Authorities. The Drafting Team believes implementation is simplest if the existing Reliability Coordinators are registered as the Reliability Authorities. However, this approach is flexible to accommodate regions in which existing control areas are deemed to be Reliability Authorities. In these regions, the Reliability Authority may delegate tasks "upward" to a Reliability Coordinator organization, although the registered Reliability Authority would retain accountability for complying with all of the applicable standards. Do you agree with this approach?

- 55 said include these other functions.
- 11 said do not.

Question 10 of the Draft 1 questionnaire asked:

The Drafting Team recommends that the Interchange Authority function not be adopted in the Version 0 standards. To do so would require changes to tools and procedures, as well as reliability obligations. The Drafting Team recommends retaining the BA to BA scheduling method in current practice until new standards can be developed later for adopting the Interchange Authority function. Do you agree with this approach?

- 57 said include these other functions.
- 2 said do not.

Consideration of Comments

General – Once again, the Drafting Team is pleased with the generally favorable response to its work in assigning reliability requirements to the proper functions. The Drafting Team reviewed all of these function assignments again in the preparation of Draft 2.

Interchange Authority – The response was very clearly in agreement with regard to the Interchange Authority – it should not be included in Version 0 because it would require a major rewrite of some of the standards. That approach is retained in the second draft.

Reliability Coordinator/Reliability Authority – The Drafting Team proposed in Draft 1 to assign all Reliability Coordinator requirements in current operating policy to the Reliability Authority function, recognizing this is not a perfect fit with the model but is a step toward synchronizing the NERC standards with the functional model. Commenters supported this approach 55 to 11. Despite this favorable response, the Drafting Team was persuaded by arguments from minority commenters to undo this change because it could cause substantial confusion in the implementation of Version 0. The principal concerns are:

- The compliance program could be disrupted because in some regions, the Reliability Coordinator would register as a Reliability Authority and in other regions control areas would register as Reliability Authorities. By intermixing Reliability Coordinator and Reliability Authority requirements, these requirements could become enforceable at the regional level in some regions and at the control area level in others.
- Existing compliance documents for readiness audits and compliance monitoring of Reliability Coordinators are focused only on the Reliability Coordinator responsibilities as defined in Policy 9 and Regional Reliability Plans and the scope of these compliance activities could be affected if the Reliability Coordinators are assigned as Reliability Authorities in Version 0.
- The scope of some Reliability Coordinators would change because, by becoming a Reliability Authority, they could be seen as picking up additional Reliability Authority responsibilities in the functional model that they don't have today, such as approving transaction tags.
- There is a possibility in some regions that if Reliability Coordinators are designated as Reliability Authorities and some control areas also become Reliability Authorities that there could be overlapping footprints, which is in conflict with the principles of the functional model.
- With respect to duties, the Reliability Coordinator and Reliability Authority are not exactly interchangeable, as defined in current polices and the functional model.

With these concerns, the Drafting Team believes there will be less confusion in the functional registration and implementation of Version 0 if the requirements currently assigned to Reliability Coordinators, mainly in Operating Policy 9 but also sprinkled in a few other policies, remain with Reliability Coordinators. With this approach, there is greater flexibility for entities to register as Reliability Authorities without creating conflicting or overlapping responsibilities with the Reliability Coordinators. An entity who is a Reliability Coordinator today will be a Reliability Coordinator in Version 0, and can also be a Reliability Authority. In areas where the Reliability Coordinator is not also the Reliability Authority, another entity (e.g. and existing control area) could register as Reliability Authority.

The Drafting Team is seeking comment in Draft 2 on this approach of putting the Reliability Coordinator back into the standards. The Drafting Team also plans to forward a recommendation that NERC review the functional model to clarify the responsibilities of the Reliability Coordinator within the functional model and its relationship with the Reliability Authority.

With this approach, other policies that currently are addressed to control areas or operating authorities have been translated to be addressed to Balancing Authorities, Transmission Operators, and Reliability Authorities, depending on the situation described in each requirement. The Drafting Team is also seeking comments on its interpretation of these functions in Draft 2.

Including Other Functions – With regard to whether the Version 0 standards should include Generator Operators, Load Serving Entities, Distribution Providers, Transmission Service Providers, and Purchasing Selling Entities when appropriate, the response was favorable 48 to 14. The Drafting Team agrees with the majority, but is approaching this issue cautiously by including only references to these functions where it is necessary to make the standards accurate and complete. The Drafting Team has deliberately avoided creating any new requirements for these functions that are not already explicitly stated or obviously implied in existing policies, standards and compliance templates.

Functional Hierarchy – The Drafting Team was challenged in the first draft in incorporating the reporting and authority hierarchies of the functional model into the standards. The Drafting Team prepared graphic bubble diagrams to aid in clarifying the reporting requirements and authorities in Draft 2. The diagrams are provided with the Draft 2 materials. In a number of instances in preparing the second draft, the team found it easier to divide a requirement into multiple parts to distinguish the subtleties of relationships between, for example, the Generator Operator, Transmission Operator, Balancing Authority and Reliability Authority.

Business Practices

Question 7 of the Draft 1 questionnaire asked:

No potential business practice standards were identified in the Version 0 planning standards. In translation of the operating policies, areas were identified where business practices could potentially be developed. However, the Drafting Team felt that the reliability requirements and business practices are so intertwined that to separate them would require substantial revisions to the requirements that would exceed the mandate of "no changes to the reliability rules in Version 0." The Drafting Team identified the following areas in which it would recommend business practices be developed in Version 0:

- Operating Policy 1D (including Appendix 1D) — Time error correction procedures, except the ability of the Reliability Authority to halt a time error correction for reliability considerations.
- Operating Policy 1F — Inadvertent energy payback, except that inadvertent energy accounting remains a reliability requirement.
- Operating Policy 3 and Appendices 3A1, 3A2, 3A3, and 3A4 — Tagging procedures, E-Tag specifications and other sections of Operating Policy 3. Essential requirements to tag transactions and tag timing requirements remain reliability standards.

As a whole, do you agree that this allocation of potential business practice standards?

- 48 indicated yes.
- 12 indicated no.

Question 8 of the Draft 1 questionnaire asked:

The Drafting Team seeks inputs on any other policies, standards, or appendicies that should be considered as business practices in Version 0 and removed from the NERC standards. Please identify the policy, appendix, or planning standard by number and name and state your reason for recommending that material become a business practice standard in Version 0.

Consideration of Comments

General – The straw poll and comments were generally supportive of the Drafting Team approach in Draft 1 to identify business practices only if they could be easily extracted from the operating policies and appendices without requiring a major rewrite and without losing important reliability requirements. A minority expressed a view that none of the existing policies and standards should be assigned as business practices – they should all be transferred to Version 0 reliability standards and business practices should be addressed in future versions. In preparing Draft 2, the Drafting Team was mainly instructed by the August 16 action of the Joint Interface Committee, as described below.

Joint Interface Committee Action – The NAESB Business Practices Subcommittee (BPS) agreed with the Drafting Team that the above items listed in Question 7 are business practices for their proposed Version 0, but also recommended several additional items as business practices. Rather than disagree with the Drafting Team, the Business Practices Subcommittee recommended developing "shadow" business practices that would mirror the reliability requirements as a means of providing NAESB a launching point for development of Version 1 business practice standards. The Joint Interface Committee met on July 16 to review the recommendations of the Drafting Team and the Business Practices Subcommittee. Concerned with the potential duplication of standards, the Joint Interface Committee on July 16 requested NERC and NAESB to form a joint task group of committee executives to resolve the differences and return with a recommendation. On August 16, the Joint Interface Committee approved the joint recommendation of NERC and NAESB, assigning Version 0 reliability standards to NERC and business practices to NAESB with no overlap except with respect to the Transmission Loading Relief procedure. The recommendation approved by the Joint Interface Committee is provided on the Version 0 Draft 2 posting page. The Transmission Loading Relief procedure (attached to NERC standard 039) was assigned to both organizations as a joint standard in Version 0 and NERC and NAESB were requested to immediately initiate a project to develop a Version 1 congestion management procedure that divides the reliability requirements and business practices.

ATC/CBM Standards – Although the Drafting Team had not proposed any planning standards to become business practices in Draft 1, there were 8 commenters who suggested that Available Transfer Capability (ATC) and Capacity Benefit Margin (CBM) standards are more suitable as business practices than reliability standards. The Drafting Team agrees with this suggestion, but believes the question should be put to industry as a question in the posting of Draft 2. For now, the Drafting Team is predisposed to recommend ATC/CBM standards be assigned to NAESB, but has left these standards in Draft 2 pending comments in the second posting.

Planning Standards

Question 11 of the Draft 1 questionnaire asked:

During the posting of the Version 0 SAR, some commenters indicated that planning standards that had not been completely field-tested should not be included in Version 0. Phase III planning standards were field-tested but no changes were made to these standards following the field tests. The results of the Phase III field tests were mixed — several measures need only minor changes, and other measures need more significant changes. The compliance templates just approved by the NERC Board in April 2004 do include some of the Phase III planning standards. Any Phase III planning standard that was approved for full implementation by the board is assumed to be accepted by the industry, and is proposed for inclusion in Version 0. If the industry indicates there are measures that need additional work, these will be returned to the Planning Committee for additional work and re-submission through the new standards process. If a measure is removed, it will be "retired" when Version 0 is approved and can only be replaced by going through the new reliability standards process. At this point, all Phase III measures are included in the first draft of Version 0. Please indicate in the table below which Phase 3 measures you think should be kept or deleted from Version 0.

Question 12 of the Draft 1 questionnaire asked:

During the posting of the Version 0 SAR, some commenters indicated that Planning Standards that had not been field-tested should not be included in Version 0. None of the Phase IV Planning Standards were field-tested. If the industry indicates there are measures that need additional work, these will be returned to the Planning Committee for additional work and re-submission through the new standards process. At this point, all Phase IV Measures are included in the 1st draft of Version 0. Please indicate in the table below which Phase IV measures you think should be kept or deleted from Version 0.

Responses tabulated from the straw poll are shown below.

Version 0 Standard	**Existing Phase III Planning Standard**	**Existing measure**	**Keep**	**Delete**
57	I. System Adequacy & Security. F. Disturbance Monitoring	M2	39	14
		M3	40	13
		M4	39	15
65	III. System Protection & Control. C. Generation	M1	35	22
		M2	35	22
		M3	32	25
		M4	31	26
		M5	32	25
		M6	30	27
		M7	33	24
		M8	31	27
		M9	29	28
		M10	35	23
		M11	34	24
		M12	34	24
68	III. Sys Protection & Control E. Under Voltage Load Shed	M1	41	14
		M2	39	15
		M5	41	15
70	IV. System Restoration A. Sys Blackstart Cap.	M2	37	14
		M3	34	17
71	IV. System Protection B. Automatic Restoration of Load	M1	33	18
		M2	34	18
		M3	34	18
		M4	34	18
Version 0 Standard	**Existing Phase IV Planning Standard**			
57	I. System Adequacy & Security. F. Disturbance Monitoring	M5	23	30
59	II. System Modeling Data B. Generation Equipment	M1	28	28
		M2	29	28
		M3	29	28
		M4	27	30
		M5	25	32
		M6	25	32
61	II. System Modeling Data	M2	21	31

	D. Actual & Forecast Demands	M3	20	30
62	II. System Modeling Data E. Demand Characteristics (Dynamic)	M1	22	32
		M2	22	32
		M3	21	33
64	I. System Adequacy & Security D. Voltage Support and Reactive Power	M1	26	26
66	III. System Protection & Control B. Transmission Control Devices	M1	26	28
		M2	26	28
		M3	26	28

Consideration of Comments:

As seen in the table above, the results were mixed. 22 commenters, however, noted that including the standards above in Version 0 was a "show stopper" for their vote on Version 0.

The Drafting Team in Draft 2 has proposed the withdrawal of the above measures and standards from Version 0 and requests comment on this approach and specifically if any essential reliability requirements are dropped in the process.

Consideration of Additional Comments on Planning Standards:

Several commenters asked the Drafting Team to copy the existing planning standard 'S' statements into the Version 0 standards. Although the format of existing planning standards includes a high level 'standard' statement, there is no equivalent section in new reliability standards. The new reliability standards include a Title, Purpose, Requirements, Measures, and Compliance elements. The Drafting Team did make a good faith effort at converting the 'S' statements, but several didn't 'fit' into one of the available categories (Title, Purpose, Requirement, Measure) and some of the 'S' statements included 'implied requirements' that were not supported by the standard's associated measures, Items to be Measured or Levels of Non-compliance. Where an 'S' statement implied performance that was not substantiated with a 'Measure', an 'Item to be Measured' or the 'Levels of non-compliance', the Drafting Team omitted the 'S' statement's 'implied' requirement because adding 'new' requirements is outside the scope of this translation to Version 0.

The table below shows the Drafting Team's translation of each of the existing Planning Standard's 'S' statements. Note that the 'S' statements were written over a period of several years – and they don't all follow the same format. Some are written in passive language and don't identify what entity is responsible for the performance – other 'S' statements were written as more traditional 'Requirements' and did identify the entity responsible for the identified performance.

In the following table, the source text appears on the left – and the Version 0 translation appears in the column on the right. Following each 'S' statement and its translation is a brief summary of comments from the Drafting Team explaining any deviations from using the exact terminology found in the source 'S' statement. To simplify the review process, each 'S' statement has been subdivided and color-coded to simplify the process of comparing the source document with its translation. Each element color-coded in yellow from the left column has its associated translation colored in yellow in the right column.

Conversion of Planning Standard 'S' Statements to Version 0

Planning Standard I.A. S1. The interconnected transmission systems shall be planned, designed, and constructed such	Version 0 Standard 051.1 R1-1 The Planning Authority and Transmission Planner shall each demonstrate through a valid

<table>
<tr><td>that with all transmission facilities in service and with normal (pre-contingency) operating procedures in effect, the network can deliver generator unit output to meet projected customer demands and projected firm (non-recallable reserved) transmission services, at all demand levels over the range of forecast system demands, under the conditions defined in Category A of Table I (attached).
Transmission system capability and configuration, reactive power resources, protection systems, and control devices shall be adequate to ensure the system performance prescribed in Table I.</td><td>assessment that its portion of the interconnected transmission system is planned such that, with all transmission facilities in service and with normal (pre-contingency) operating procedures in effect, the network can deliver generator unit output to meet projected customer demands and projected firm (non-recallable reserved) transmission services, at all demand levels over the range of forecast system demands, under the conditions defined in Category A of Table I.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The S1 statement in the source document is written in passive language that doesn't identify what entity or function is responsible for the standard. The functional model equivalents have been added and the statement has been revised to be in an 'active' voice, beginning with identification of the entity(ies) responsible for the requirement.

The second paragraph of the S1 statement duplicates the language in the first paragraph by re-stating some of the criteria from Table I Category A. This duplicative paragraph was not translated into Version 0. The phrase, '. . . designed and constructed . . ." was omitted from Version 0 because there are no requirements or measures for designing or construction what was planned. The Drafting Team will ask the industry for feedback on this omission with the second posting of Version 0.

The Drafting Team believes that all critical elements of the 'S' statement have been accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard I.A.
S2.	The interconnected transmission systems shall be planned, designed, and constructed such that the network can be operated to supply projected customer demands and projected firm (non-recallable reserved) transmission services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of Table I (attached).
Transmission system capability and configuration, reactive power resources, protection systems, and control devices shall be adequate to ensure the system performance prescribed in Table I. The transmission systems also shall be capable of accommodating planned bulk electric equipment outages and continuing to operate within thermal, voltage, and stability limits under the contingency conditions as defined in Category B of Table I (attached).</td><td>Version 0 Standard 051.2
R2-1 The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the network can be operated to supply projected customer demands and projected firm (non-recallable reserved) transmission services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of Table I.
(12th bullet of R2-1):
Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The S2 statement in the source document is written in passive language that doesn't identify what entity or</td></tr>
</table>

function is responsible for the standard. The functional model equivalents have been added and the statement has been revised to be in an 'active' voice, beginning with identification of the entity(ies) responsible for the requirement. The second paragraph of the S2 statement duplicates the language in the first paragraph by re-stating some of the criteria from Table I Category B. This duplicative paragraph was not translated into Version 0. The third paragraph of the S2 statement was either included in the 12th bullet of R2-1 or was duplicated in the Table 1 requirements. The phrase, '. . . designed and constructed . . ." was omitted from Version 0 because there are no requirements or measures for designing or construction what was planned. The Drafting Team will ask the industry for feedback on this omission with the second posting of Version 0. The Drafting Team believes that all critical elements of the 'S' statement have been accurately translated into Version 0.	
Planning Standard I.A. S3. The interconnected transmission systems shall be planned, designed, and constructed such that the network can be operated to supply projected customer demands and projected firm (non-recallable reserved) transmission services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category C of Table I (attached). The controlled interruption of customer demand, the planned removal of generators, or the curtailment of firm (non-recallable reserved) power transfers maybe necessary to meet this standard. Transmission system capability and configuration, reactive power resources, protection systems, and control devices shall be adequate to ensure the system performance prescribed in Table I. The transmission systems also shall be capable of accommodating planned bulk electric equipment outages and continuing to operate within thermal, voltage, and stability limits under the contingency conditions as defined in Category C of Table I (attached).	Version 0 Standard 051.3 R3-1. The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission systems is planned such that the network can be operated to supply projected customer demands and projected firm (non-recallable reserved) transmission services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category C of Table I (attached). The controlled interruption of customer demand, the planned removal of generators, or the curtailment of firm (non-recallable reserved) power transfers maybe necessary to meet this standard. (12th bullet of R3-1) Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed
Drafting Team Comments: The S3 statement in the source document is written in passive language that doesn't identify what entity or function is responsible for the standard. The functional model equivalents have been added and the statement has been revised to be in an 'active' voice, beginning with identification of the entity(ies) responsible for the requirement. The second paragraph of the S3 statement duplicates the language in the first paragraph by re-stating some of the criteria from Table I Category C. This duplicative paragraph was not translated into Version 0. The third paragraph of the S2 statement was either included in the 12th bullet of R3-1 or was duplicated in the Table 1 requirements. The phrase, '. . . designed and constructed . . ." was omitted from Version 0 because there are no	

requirements or measures for designing or construction what was planned. The Drafting Team will ask the industry for feedback on this omission with the second posting of Version 0. The Drafting Team believes that all critical elements of the 'S' statement have been accurately translated into Version 0.	
Planning Standard I.A. S4. The interconnected transmission systems shall be evaluated for the risks and consequences of a number of each of the extreme contingencies that are listed under Category D of Table I (attached).	Version 0 Standard 051.4 R4-1. The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is evaluated for the risks and consequences of a number of each of the extreme contingencies that are listed under Category D of Table I. The controlled interruption of customer demand, the planned removal of generators, or the curtailment of firm (non-recallable reserved) power transfers maybe necessary to meet this standard.
Drafting Team Comments: The S4 statement in the source document is written in passive language that doesn't identify what entity or function is responsible for the standard. The functional model equivalents have been added and the statement has been revised to be in an 'active' voice, beginning with identification of the entity(ies) responsible for the requirement. The Drafting Team believes that all critical elements of the 'S' statement have been accurately translated into Version 0.	
Planning Standard I.B. S1. The overall reliability (adequacy and security) of the Regions' interconnected bulk electric systems, both existing and as planned, shall comply with the NERC Planning Standards and each Region's respective Regional planning criteria.	Version 0 Standard 052 Purpose To ensure that each Regional Reliability Organization complies with planning criteria, for assessing the overall reliability (adequacy and security) of the interconnected bulk electric systems, both existing and as planned. Excerpt from 052.1 R1-1: The Regional Reliability Organization's Regional and interregional reliability assessments shall demonstrate that the performance of these systems is in compliance with NERC Reliability Standard 051 and respective Regional transmission and generation criteria.
Drafting Team Comments: All references to 'NERC Planning Standards have been omitted from Version 0 since these will be retired when Version 0 is implemented. The Requirements for Standard 052 include more details than are included in the Purpose, and clearly require evidence of adherence to planning criteria. The Drafting Team believes that all critical elements of the 'S' statement have been accurately translated	

<table>
<tr><td colspan="2">into Version 0.</td></tr>
<tr><td>Planning Standard I.C.
S1. Facility connection requirements shall be documented, maintained, and published by voltage class, capacity, and other characteristics that are applicable to generation, transmission, and electricity end-user facilities which are connected to, or being planned to be connected to, the bulk interconnected transmission systems.</td><td>Version 0 Standard 053.1
R1-1 The Transmission Owner shall document, maintain, and publish facility connection requirements by voltage class, capacity and other characteristics applicable to:
Generation facilities,
Transmission facilities, and
End-user facilities
to ensure compliance with NERC Reliability Standards and applicable Regional, subregional, power pool, and individual transmission owner planning criteria and facility connection requirements.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The last phrase of the S1 statement was not translated into Version 0 because it adds no criteria to the requirement or measures. The only logical reason for using facility connection requirements is because an entity wants to connect to the system.

The Requirement R1-2 for Standard 053 include more details than shown above, including a list of 16 elements that must be addressed in the facility connection document. Within this list of 16 elements, are details including voltage class, capacity and ‘other characteristics’.

The Drafting Team believes that all critical elements of the ‘S’ statement have been accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard I.C.
S2. Generation, transmission, and electricity end-user facilities, and their modifications, shall be planned and integrated into the interconnected transmission systems in compliance with NERC Planning Standards, applicable Regional, subregional, power pool, and individual system planning criteria and facility connection requirements.
M2. Those entities responsible for the reliability of the interconnected transmission systems and those entities seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall coordinate and cooperate on their respective assessments to evaluate the reliability impact of the new facilities and their connections on the interconnected transmission systems and to ensure compliance with NERC Planning Standards and applicable Regional, subregional, power pool, and individual system planning criteria and facility connection requirements.</td><td>Version 0 Standard 053.2
The Generator Owner, Transmission Owner, Distribution Provider, or Load Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall coordinate and cooperate on their respective assessments to evaluate the reliability impact of the new facilities and their connections on the interconnected transmission systems. The assessment shall include: (The list of criteria)</td></tr>
<tr><td colspan="2">Drafting Team Comments:</td></tr>
</table>

Although the ‘S’ statement implies that there will be a requirement to integrate both new and modified facilities in accordance with the published criteria, none of the source document’s measures or levels of non-compliance include any requirements to ‘plan and integrate’, nor do they contain any measures or levels of non-compliance associated with ‘modifications’ to facility connections. There is only one item in the source document’s ‘Items to be Measured’ and it says, “Assessment of the reliability impacts of new facilities.” Since the existing Measures and Levels of Non-compliance don’t address the entire scope of the ‘S’ statement, copying the entire ‘S’ statement did not seem appropriate. The Drafting Team believes that all critical elements of the ‘S’ statement (that have been implemented by the industry), were accurately translated into Version 0.	
Planning Standard IE1 S1 Each Region shall develop a methodology for calculating Total Transfer Capability (TTC) and Available Transfer Capability (ATC) that shall comply with the above NERC definitions for TTC and ATC, the NERC Planning Standards, and applicable Regional criteria. Each Regional TTC and ATC methodology and the resulting TTC and ATC values shall be available to transmission users in the electricity market.	Version 0 Standard 054.1 R1-1 Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional Total Transfer Capability and Available Transfer Capability methodology. (Certain systems that are not required to post Available Transfer Capability values are exempt from this Standard.) The Regional Reliability Organization’s Total Transfer Capability and Available Transfer Capability methodology shall include each of the following nine items, and shall explain its use in determining Total Transfer Capability and Available Transfer Capability value: R1-2. The Regional Reliability Organization shall make the most recent version of the documentation of its Total Transfer Capability and Available Transfer Capability methodology available on a web site accessible by NERC, the Regional Reliability Organizations, and the transmission users in the electricity market.
Drafting Team Comments: Although the ‘S’ statement implies that there will be a requirement to make ‘. . . resulting TTC and ATC values. . . “ available to users, none of the measures or levels of non-compliance include this requirement. Since the existing Measures and Levels of Non-compliance don’t address the entire scope of the ‘S’ statement, copying the entire ‘S’ statement did not seem appropriate. The Drafting Team believes that all critical elements of the ‘S’ statement (that have been implemented by the industry), were accurately translated into Version 0.	
Planning Standard IE2 S1. Each Region shall develop a methodology for calculating Capacity Benefit Margin (CBM) that shall comply with the above NERC definition for CBM and applicable Regional criteria. Each Regional CBM methodology and the resulting CBM values shall be available to transmission users in the electricity market.	Version 0 Standard 055.1 Purpose: To promote the consistent and uniform application of transfer capability margin calculations among transmission system users, by developing methodologies for calculating Capacity Benefit Margin (CBM). This methodology shall comply with NERC definitions for Capacity Benefit Margin, the

<table>
<tr><td></td><td>NERC Reliability Standards, and applicable Regional criteria. Regional Capacity Benefit Margin methodologies and the resulting Capacity Benefit Margin values shall be available to all participants of the electricity market, in order to facilitate intra- and inter-Regional transactions.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The ‘S’ statement includes a reference to a definition that was embedded in the ‘Introduction’ to the source document, but new Reliability Standards don’t contain either an Introduction or a list of defined terms. (The definitions contained in the source document were transferred to the glossary for Reliability Standards.)

055.1-R1-1 assigns responsibility for developing the methodology to the Region.

The Drafting Team believes that all critical elements of the ‘S’ statement, were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IE2 S2
S2. Each Region shall develop a methodology for calculating Transmission Reliability Margin (TRM) that shall comply with the above NERC definition for TRM and applicable Regional criteria.
Each Regional TRM methodology and the resulting TRM values shall be available to transmission users in the electricity market.</td><td>Version 0 Standard 056.2
Purpose:
To promote the consistent application of transfer capability margin calculations among Transmission System Providers and Transmission Owners, by developing methodologies for calculating Transmission Reliability Margin. This methodology shall comply with NERC definitions for Transmission Reliability Margin, the NERC Reliability Standards, and applicable Regional criteria. Regional Transmission Reliability Margin methodologies and the resulting Transmission Reliability Margin values shall be available to all participants of the electricity market, in order to facilitate intra- and inter-regional transmission service.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The ‘S’ statement includes a reference to a definition that was embedded in the ‘Introduction’ to the source document, but new Reliability Standards don’t contain either an Introduction or a list of defined terms. (The definitions contained in the source document were transferred to the glossary for Reliability Standards.)

The Drafting Team believes that all critical elements of the ‘S’ statement, were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IF
S1. Requirements shall be established on a Regional basis for the installation of disturbance monitoring equipment (e.g. sequence-of-event, fault recording, and dynamic disturbance recording equipment) that is</td><td>Version 0 Standard 057.1
R1-1. The Regional Reliability Organization shall develop comprehensive requirements for the installation of disturbance monitoring equipment to ensure data is available to</td></tr>
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<tr><td>necessary to ensure data is available to determine system performance and the causes of system disturbances.</td><td>determine system performance and the causes of system disturbances. The comprehensive requirements shall include all of the following: Type of data recording capability (e.g., sequence-of-event, fault recording, dynamic disturbance recording).</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IIA
S1. Electric system data required for the analysis of the reliability of the interconnected transmission systems shall be developed and maintained</td><td>Version 0 Standard 058
Purpose: To establish consistent data requirements, reporting procedures, and system models to be used in the analysis of the reliability of the interconnected transmission systems.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The single S1 statement was used to identify the desired performance for six associated ‘measures.’ Each of the measures was translated into a new ‘requirement.’ The S1 statement was converted into a Purpose that contains not only all critical elements from the ‘S1’ statement, but additional words to identify the reason for the standard.

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IIC
S1. Electrical facilities used in the transmission and storage of electricity shall be rated in compliance with applicable Regional requirements.</td><td>Version 0 Standard 060
Purpose: To ensure that electrical facilities used in the transmission and storage of electricity are rated in compliance with applicable Regional Reliability Organization requirements.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The S1 statement was converted into a Purpose.

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IID
S1. Actual demands and net energy for load data shall be provided on an aggregated Regional, subregional, power pool, individual system, or load serving entity basis. Actual demand data on a dispersed substation basis shall be supplied when requested.

Forecast demands and net energy for load data shall be developed and maintained on an aggregated Regional, subregional, power pool, individual system, or load serving entity basis. Forecast demand data</td><td>Version 0 Standard 061.1
R1-1. The Planning Authority and Regional Reliability Organization shall have documentation identifying the scope and details of the actual and forecast (a) demand data, (b) net energy for load data, and (c) controllable demand-side management data to be reported for system modeling and reliability analyses.

The aggregated and dispersed data submittal requirements shall ensure that consistent data is</td></tr>
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<tr><td>shall also be developed on a dispersed substation basis.

M1. The entities responsible for the reliability of the interconnected transmission systems, in conjunction with the Regions, shall have documentation identifying the scope and details of the actual and forecast (a) demand data, (b) net energy for load data, and (c) controllable demand-side management data to be reported for system modeling and reliability analyses.

The aggregated and dispersed data submittal requirements shall ensure that consistent data is supplied for Standards IB, IIA, and IID.
The documentation of the scope and details of the data reporting requirements shall be available on request (five business days).</td><td>supplied for Reliability Standards 052, 058, and 061.

R1-2. The documentation of the scope and details of the data reporting requirements shall be available on request (five business days).</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The content of the S1 statement was repeated in more detail in the associated M1 statement and was not used directly in translation.

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IID
S2.Controllable demand-side management (interruptible demands and direct control load management) programs and data shall be identified and documented.
M10. Forecasts of interruptible demands and direct control load management data shall be provided annually for at least five years and up to ten years into the future, as requested, for summer and winter peak system conditions to NERC, the Regions, and those entities responsible for the reliability of the interconnected transmission systems as specified by the documentation in Standard II.D. S1-S2, M1.
M12. Forecasts shall clearly document how the demand and energy effects of demand-side management programs (such as conservation, time-of-use rates, interruptible demands, and direct control load management) are addressed.</td><td>Version 0 Standard 061.6 and 061.8
R6-1. The Load Serving Entity, Planning Authority and Resource Planner shall each provide annually its forecasts of interruptible demands and direct control load management data for at least five years and up to ten years into the future, as requested, for summer and winter peak system conditions to NERC, the Regions, and other entities (Load Serving Entity, Planning Authority and Resource Planner) as specified by the documentation in Reliability Standard 061.1-R1-1.

R8-1. The Load Serving Entity’s, Planning Authority’s and Resource Planner’s forecasts shall each clearly document how the demand and energy effects of demand-side management programs (such as conservation, time-of-use rates, interruptible demands, and direct control load management) are addressed.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The content of the S2 statement was repeated in more detail in the associated M6 and M12 statements and was not used directly in translation.</td></tr>
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<tr><td colspan="2">The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IIIA
S3. All transmission protection system misoperations shall be analyzed for cause and corrective action.
S4. Transmission protection system maintenance and testing programs shall be developed and implemented.</td><td>Version 0 Standard 063
Purpose: To ensure all transmission protection system misoperations are analyzed for cause and corrective action and maintenance and testing programs are developed and implemented.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The content of the S1 and S2 statements was converted into a ‘Purpose’ statement.

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IIID
S1 A Regional UFLS program shall be planned and implemented in coordination with other UFLS programs, if any, within the Region and, where appropriate, with neighboring Regions. The Regional UFLS program shall be coordinated with generation control and protection systems, undervoltage and other load shedding programs, Regional load restoration programs, and transmission protection and control systems.
M1. Each Region shall develop, coordinate, and document a Regional UFLS program, which shall include the following:
~~1.~~Requirements for coordination of UFLS programs within the subregions, Region, and, where appropriate, among Regions.
~~2.~~Design details shall include, but are not limited to:
~~a.~~size of coordinated load shedding blocks (% of connected load)
~~b.~~corresponding frequency set points
~~c.~~intentional and total tripping time delays
~~d.~~related generation protection
~~e.~~tie tripping schemes
~~f.~~islanding schemes
~~g.~~automatic load restoration schemes
any other schemes that are part of or impact the UFLS programs</td><td>Version 0 Standard 067
R1-1. Each Regional Reliability Organization shall develop, coordinate, and document an underfrequency load shedding Program, which shall include the following:
Requirements for coordination of underfrequency load shedding programs within the subregions, Regional Reliability Organization, and, where appropriate, among Regional Reliability Organizations.
Design details shall include, but are not limited to:
Frequency set points
Size of corresponding load shedding blocks (% of connected loads)
intentional and total tripping time delays
generation protection
tie tripping schemes
islanding schemes
automatic load restoration schemes
any other schemes that are part of or impact the underfrequency load shedding programs</td></tr>
<tr><td colspan="2">Drafting Team Comments:

Although the S1 statement requires that the UFLS program be coordinated with, “. . .generation control and protection systems, undervoltage and other load shedding programs, Regional load restoration programs, and transmission protection and control systems.” the measures and levels of non-compliance</td></tr>
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<tr><td colspan="2">do not specifically use these terms. The Drafting Team defaulted to using the more exact language included in M1.

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IIIE

S1. Automatic undervoltage load shedding (UVLS) programs shall be planned and implemented in coordination with other UVLS programs in the Region and, where appropriate, with neighboring Regions.
S2. All UVLS programs shall be coordinated with generation control and protection systems, underfrequency load shedding programs, Regional load restoration programs, and transmission protection and control programs.</td><td>Version 0 Standard 068
R3-1. The Load-serving Entity, Transmission Owners, Transmission Operator, and Distribution Provider that owns or operates undervoltage load shedding programs shall periodically (at least every five years or as required by changes in system conditions) conduct and document a technical assessment of the effectiveness of their undervoltage load shedding programs. This assessment shall be conducted with the associated Transmission Planner(s) and Planning Authority(ies).

This technical assessment shall include, but is not limited to:
Coordination of the undervoltage load shedding programs with other protection and control systems in the Region and with other Regional Reliability Organizations, as appropriate.
Simulations that demonstrate that the undervoltage load shedding programs performance is consistent with Standard 51.
A review of the voltage set points and timing.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The S1 and S2 statements are both identifying similar criteria – that the UVLS be coordinated with other programs and with other Regions. Both these criteria are addressed in the details of the technical assessment required under R3-1.

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IIIF
S1. An SPS shall be designed so that a single SPS component failure, when the SPS was intended to operate, does not prevent the interconnected transmission system from meeting the performance requirements defined under Categories A, B, or C of Table 1 of the I.A Standards on Transmission Systems.
S2. The inadvertent operation of an SPS shall meet the same performance requirement (Category A, B, or C of Table I of the I.A Standard on Transmission Systems) as that required of the contingency for which</td><td>Version 0 Standard 069.1
R1-1. Each Regional Reliability Organization with a Transmission Owner, Generator Owner, or Distribution Providers(s) that uses or is planning to use a Special Protection System shall have a documented Regional Reliability Organization review procedure to ensure the Special Protection System complies with Regional Reliability Organization criteria and NERC Reliability Standards. The Regional Reliability Organization review procedure shall include:
Description of the process for submitting a</td></tr>
</table>

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<tr><td>it was designed, and shall not exceed Category C.
S3. SPS installations shall be coordinated with other protection and control systems.
S4. All SPS misoperations shall be analyzed for cause and corrective action.
S5 Special protection system maintenance and testing programs shall be developed and implemented.</td><td>proposed Special Protection System for Regional Reliability Organization review.
Requirements to provide data that describes design, operation, and modeling of a Special Protection System.
Requirements to demonstrate that the Special Protection System shall be designed so that a single Special Protection System component failure, when the Special Protection System was intended to operate, does not prevent the interconnected transmission system from meeting the performance requirements defined in sections 1,2 and 3 of Reliability Standard 051.
Requirements to demonstrate that the inadvertent operation of a Special Protection System shall meet the same performance requirement (Section 1,2, and 3 of Reliability Standard 051) as that required of the contingency for which it was designed, and not exceed Section 3 (Reliability Standard 051)
Requirements to demonstrate the proposed Special Protection System will coordinate with other protection and control systems and applicable Regional Reliability Organization emergency procedures.
Regional Reliability Organization definition of misoperation.
Requirements for analysis and documentation of corrective action plans for all Special Protection System misoperations.
Identification of the Regional Reliability Organization group responsible for the Regional Reliability Organization’s review procedure and the process for Regional Reliability Organization approval of the procedure.
Determination, as appropriate, of maintenance and testing requirements.</td></tr>
<tr><td colspan="2">Drafting Team Comments:

The Drafting Team believes that all critical elements of the ‘S’ statement were accurately translated into Version 0.</td></tr>
<tr><td>Planning Standard IVA

S1. A coordinated system blackstart capability plan shall be established, maintained, and verified through analysis indicating how system blackstart generating units will perform their intended functions as required in system restoration plans. Such blackstart capability plans shall include coordination within and among Regions as appropriate.</td><td>Version 0 Standard 070.1 and 070.4
R1-1. Each Regional Reliability Organization shall establish and maintain a system blackstart capability plan, as part of an overall coordinated regional system restoration plan. The overall regional system restoration plan shall include requirements for verification through analysis how system blackstart generating units shall perform their intended functions and shall be</td></tr>
</table>

S2. Each blackstart generating unit shall be tested to verify that it can be started and operated without being connected to the system.	sufficient to meet system restoration plan expectations. The Regional Reliability Organization shall coordinate with and among other Regional Reliability Organizations as appropriate in the development of its blackstart capability plan(s). R4-1. The Generator Operator of each blackstart generating unit shall test the startup and operation of each system blackstart generating unit identified in the blackstart capability plan as required in the regional Blackstart Plan (Reliability Standard 070.1-R1-1). Testing records shall include the dates of the tests, the duration of the tests, and an indication of whether the tests met regional Blackstart Plan requirements.

Consideration of Specific Comments on Version 0 Standards

Drafting Team responses to comments on specific standards are provided in the accompanying EXCEL spreadsheet. Please note, there are two worksheets in the file, the first providing the survey responses to general questions and the second providing specific comments and the Drafting Team's considerations to those comments.