

Reliability Standard Audit Worksheet¹

FAC-015-1 – Coordination of Planning Assessments with the Reliability Coordinator’s SOL Methodology

This section to be completed by the Compliance Enforcement Authority.

Audit ID: Audit ID if available; or REG-NCRnnnnn-YYYYMMDD
Registered Entity: Registered name of entity being audited
NCR Number: NCRnnnnn
Compliance Enforcement Authority: Region or NERC performing audit
Compliance Assessment Date(s)²: Month DD, YYYY, to Month DD, YYYY
Compliance Monitoring Method: [On-site Audit | Off-site Audit | Spot Check]
Names of Auditors: Supplied by CEA

Applicability of Requirements

	BA	DP	GO	GOP	PA/PC	RC	RP	RSG	TO	TOP	TP	TSP
R1					X							
R2					X							
R3					X							
R4					X							
R5											X	
R6					X							

Legend:

Text with blue background:	Fixed text – do not edit
Text entry area with Green background:	Entity-supplied information
Text entry area with white background:	Auditor-supplied information

¹ NERC developed this Reliability Standard Audit Worksheet (RSAW) language in order to facilitate NERC’s and the Regional Entities’ assessment of a registered entity’s compliance with this Reliability Standard. The NERC RSAW language is written to specific versions of each NERC Reliability Standard. Entities using this RSAW should choose the version of the RSAW applicable to the Reliability Standard being assessed. While the information included in this RSAW provides some of the methodology that NERC has elected to use to assess compliance with the requirements of the Reliability Standard, this document should not be treated as a substitute for the Reliability Standard or viewed as additional Reliability Standard requirements. In all cases, the Regional Entity should rely on the language contained in the Reliability Standard itself, and not on the language contained in this RSAW, to determine compliance with the Reliability Standard. NERC’s Reliability Standards can be found on NERC’s website. Additionally, NERC Reliability Standards are updated frequently, and this RSAW may not necessarily be updated with the same frequency. Therefore, it is imperative that entities treat this RSAW as a reference document only, and not as a substitute or replacement for the Reliability Standard. It is the responsibility of the registered entity to verify its compliance with the latest approved version of the Reliability Standards, by the applicable governmental authority, relevant to its registration status.

The RSAW may provide a non-exclusive list, for informational purposes only, of examples of the types of evidence a registered entity may produce or may be asked to produce to demonstrate compliance with the Reliability Standard. A registered entity’s adherence to the examples contained within this RSAW does not necessarily constitute compliance with the applicable Reliability Standard, and NERC and the Regional Entity using this RSAW reserve the right to request additional evidence from the registered entity that is not included in this RSAW. This RSAW may include excerpts from FERC Orders and other regulatory references which are provided for ease of reference only, and this document does not necessarily include all applicable Order provisions. In the event of a discrepancy between FERC Orders, and the language included in this document, FERC Orders shall prevail.

² Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs.

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Findings

(This section to be completed by the Compliance Enforcement Authority)

Req.	Finding	Summary and Documentation	Functions Monitored
R1			
R2			
R3			
R4			
R5			
R6			

Req.	Areas of Concern

Req.	Recommendations

Req.	Positive Observations

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Subject Matter Experts

Identify the Subject Matter Expert(s) responsible for this Reliability Standard.

Registered Entity Response (Required; Insert additional rows if needed):

SME Name	Title	Organization	Requirement(s)

DRAFT

R1 Supporting Evidence and Documentation

- R1.** Each Planning Coordinator, when developing its steady-state modeling data requirements, shall implement a process to ensure that Facility Ratings used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than those established in accordance with its Reliability Coordinator’s SOL Methodology. If the Planning Coordinator uses less limiting Facility Ratings than the Facility Ratings established in accordance with its Reliability Coordinator’s SOL Methodology, the Planning Coordinator shall provide a technical justification to its Reliability Coordinator.
- M1.** Acceptable evidence may include, but is not limited to, dated electronic or hard copy documentation demonstrating the Planning Coordinator implemented its process in accordance with Requirement R1.

Registered Entity Response (Required):

Question: Does the entity use less limiting Facility Ratings than the Facility Ratings established in accordance with its Reliability Coordinator’s SOL Methodology? Yes No

If Yes, provide evidence the entity provided a technical justification to its Reliability Coordinator. If No, explain how the entity made this determination.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requestedⁱ:

Provide the following evidence, or other evidence to demonstrate compliance.
Evidence the entity, when developing its steady-state modeling data requirements, implemented a process to ensure that Facility Ratings used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than those established in accordance with its Reliability Coordinator’s SOL Methodology.
Reliability Coordinator’s SOL Methodology.

Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

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Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to FAC-015-1, R1

This section to be completed by the Compliance Enforcement Authority

	Verify the entity, when developing its steady-state modeling data requirements, implemented a process to ensure that Facility Ratings used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than those established in accordance with its Reliability Coordinator's SOL Methodology.
	Verify the entity provided a technical justification to its Reliability Coordinator if the entity uses less limiting Facility Ratings than the Facility Ratings established in accordance with its Reliability Coordinator's SOL Methodology.

Note to Auditor:

Auditor Notes:

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R2 Supporting Evidence and Documentation

- R2.** Each Planning Coordinator shall implement a process to ensure that System steady state voltage limits used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than the System Voltage Limits established in accordance with its Reliability Coordinator’s SOL Methodology. If the Planning Coordinator uses less limiting System steady-state voltage limits than the System Voltage Limits established in accordance with its Reliability Coordinator’s SOL Methodology, the Planning Coordinator shall provide a technical justification to its Reliability Coordinator.
- M2.** Acceptable evidence may include, but is not limited to, dated electronic or hard copy documentation demonstrating the Planning Coordinator implemented its process in accordance with Requirement R2.

Registered Entity Response (Required):

Question: Does the entity use less limiting System steady-state voltage limits than the System Voltage Limits established in accordance with its Reliability Coordinator’s SOL Methodology? Yes No

If Yes, provide evidence the entity provided a technical justification to its Reliability Coordinator. If No, explain how the entity made this determination.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested ¹:

Provide the following evidence, or other evidence to demonstrate compliance.
Evidence the entity implemented a process to ensure that System steady state voltage limits used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than the System Voltage Limits established in accordance with its Reliability Coordinator’s SOL Methodology.
Reliability Coordinator’s SOL Methodology

Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.					
File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

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Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to FAC-015-1, R2

This section to be completed by the Compliance Enforcement Authority

	Verify the entity implemented a process to ensure that System steady state voltage limits used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than the System Voltage Limits established in accordance with its Reliability Coordinator's SOL Methodology.
	Verify the entity provided a technical justification to its Reliability Coordinator if the entity uses less limiting System steady-state voltage limits than the System Voltage Limits established in accordance with its Reliability Coordinator's SOL Methodology.

Note to Auditor:

Auditor Notes:

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R3 Supporting Evidence and Documentation

R3. Each Planning Coordinator shall implement a process to ensure the stability performance criteria used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than the stability performance criteria established in its Reliability Coordinator’s SOL Methodology. If the Planning Coordinator uses less limiting stability performance criteria than the stability performance criteria specified in its Reliability Coordinator’s SOL Methodology, the Planning Coordinator shall provide a technical justification to its Reliability Coordinator.

M3. Acceptable evidence may include, but is not limited to, dated electronic or hard copy documentation demonstrating the Planning Coordinator implemented its process in accordance with Requirement R3.

Registered Entity Response (Required):

Question: Does the entity use less limiting stability performance criteria than the stability performance criteria specified in its Reliability Coordinator’s SOL Methodology? Yes No

If Yes, provide evidence the entity provided a technical justification to its Reliability Coordinator. If No, explain how the entity made this determination.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested ⁱ:

Provide the following evidence, or other evidence to demonstrate compliance.
Evidence the entity implemented a process to ensure the stability performance criteria used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than the stability performance criteria established in its Reliability Coordinator’s SOL Methodology.
Reliability Coordinator’s SOL Methodology

Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

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Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to FAC-015-1, R3

This section to be completed by the Compliance Enforcement Authority

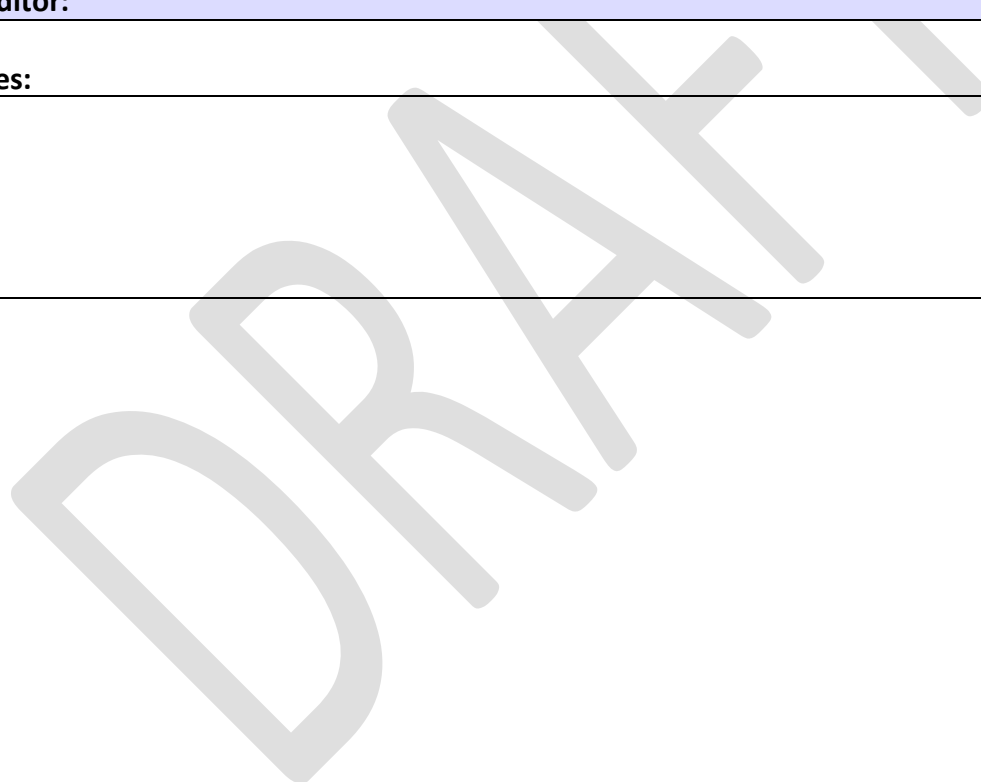
	Verify the entity implemented a process to ensure the stability performance criteria used in its Planning Assessment of the Near-Term Transmission Planning Horizon are equally limiting or more limiting than the stability performance criteria established in its Reliability Coordinator’s SOL Methodology.
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	Verify the entity provided a technical justification to its Reliability Coordinator if the entity uses less limiting stability performance criteria than the stability performance criteria specified in its Reliability Coordinator’s SOL Methodology.
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Note to Auditor:

Auditor Notes:

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R4 Supporting Evidence and Documentation

R4. Each Planning Coordinator shall provide the Facility Ratings, System steady-state voltage limits, and stability performance criteria for use in its Planning Assessment to its Transmission Planners and to requesting Planning Coordinator's.

M4. Acceptable evidence may include, but is not limited to, dated electronic or hard copy documentation demonstrating the Planning Coordinator provided its information in accordance with Requirement R4.

Registered Entity Response (Required):

Question: Has the entity received a request from a Planning Coordinator for Facility Ratings, System steady-state voltage limits, and stability performance criteria for use in its Planning Assessment? Yes No
If Yes, provide a list of requests received. If No, explain how the entity made this determination.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested ⁱ:

Provide the following evidence, or other evidence to demonstrate compliance.
Evidence the entity provided Facility Ratings, System steady-state voltage limits, and stability performance criteria for use in its Planning Assessment to its Transmission Planners and to requesting Planning Coordinators.

Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to FAC-015-1, R4

This section to be completed by the Compliance Enforcement Authority

	Verify the entity provided Facility Ratings, System steady-state voltage limits, and stability performance criteria for use in its Planning Assessment to its Transmission Planners and to requesting Planning Coordinators.
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Note to Auditor:

Auditor Notes:

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R5 Supporting Evidence and Documentation

- R5.** Each Transmission Planner shall use Facility Ratings, System steady-state voltage limits, and stability performance criteria in its Planning Assessment that are equally limiting or more limiting than the Facility Ratings, System steady-state voltage limits, and stability criteria provided by its Planning Coordinator.

- M5.** Acceptable evidence may include, but is not limited to, dated electronic or hard copy documentation demonstrating the Transmission Planner used the information provided by its Planning Coordinator in accordance with Requirement R5.

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested ⁱ:

Provide the following evidence, or other evidence to demonstrate compliance.
Evidence the entity used Facility Ratings, System steady-state voltage limits, and stability performance criteria in its Planning Assessment that are equally limiting or more limiting than the Facility Ratings, System steady-state voltage limits, and stability criteria provided by its Planning Coordinator.

Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to FAC-015-1, R5

This section to be completed by the Compliance Enforcement Authority

	Verify the entity used Facility Ratings, System steady-state voltage limits, and stability performance criteria in its Planning Assessment that are equally limiting or more limiting than the Facility Ratings, System steady-state voltage limits, and stability criteria provided by its Planning Coordinator.
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Note to Auditor:

Auditor Notes:

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R6 Supporting Evidence and Documentation

- R6.** Each Planning Coordinator shall communicate any instability, Cascading or uncontrolled separation identified in either its Planning Assessment of the Near-Term Transmission Planning Horizon or its Transfer Capability assessment to each impacted Reliability Coordinator and Transmission Operator. This communication shall include:
- 6.1.** The type of instability identified (e.g., voltage collapse, angular instability, transient voltage dip criteria violation);
 - 6.2.** The associated stability criteria used as part of determining the instability;
 - 6.3.** The associated Contingency(ies) which result(s) in the instability, Cascading or uncontrolled separation;
 - 6.4.** Any Remedial Action Scheme action, undervoltage load shedding (UVLS) action, underfrequency load shedding (UFLS) action, interruption of Firm Transmission Service, or Non-Consequential Load Loss required to address the instability, Cascading or uncontrolled separation; and
 - 6.5.** Any Corrective Action Plan associated with the instability, Cascading or uncontrolled separation.
- M6.** Acceptable evidence may include, but is not limited to, dated electronic or hard copy documentation demonstrating the Planning Coordinator communicated the information in accordance with Requirement R6.

Registered Entity Response (Required):

Question: Has the entity identified instability, Cascading or uncontrolled separation in either its Planning Assessment of the Near-Term Transmission Planning Horizon or its Transfer Capability assessment?

Yes No

If Yes, provide a list of instances of instability, Cascading or uncontrolled separation identified in either the Planning Assessment of the Near-Term Transmission Planning Horizon or the Transfer Capability assessment. If No, explain how the entity made this determination.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested¹:

Provide the following evidence, or other evidence to demonstrate compliance.
Evidence the entity communicated any instability, Cascading or uncontrolled separation identified in either its Planning Assessment of the Near-Term Transmission Planning Horizon or its Transfer Capability assessment to each impacted Reliability Coordinator and Transmission Operator.
Evidence communication to each impacted Reliability Coordinator and Transmission Operator included each item specified in Parts 6.1 – 6.5.

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The entity's most recent Planning Assessment of the Near-Term Transmission Planning Horizon.
The entity's most recent Transfer Capability assessment.

Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to FAC-015-1, R6

This section to be completed by the Compliance Enforcement Authority

	For each instance of instability, Cascading or uncontrolled separation identified in either the entity's Planning Assessment of the Near-Term Transmission Planning Horizon or the entity's Transfer Capability assessment, verify the entity communicated the instability, Cascading or uncontrolled separation to each impacted Reliability Coordinator and Transmission Operator.
	For all, or a sample of, communication from the entity to impacted Reliability Coordinators and Transmission Operators, verify the communication included:
	(6.1) The type of instability identified (e.g., voltage collapse, angular instability, transient voltage dip criteria violation);
	(6.2) The associated stability criteria used as part of determining the instability;
	(6.3) The associated Contingency(ies) which result(s) in the instability, Cascading or uncontrolled separation;
	(6.4) Any Remedial Action Scheme action, undervoltage load shedding (UVLS) action, underfrequency load shedding (UFLS) action, interruption of Firm Transmission Service, or Non-Consequential Load Loss required to address the instability, Cascading or uncontrolled separation; and
	(6.5) Any Corrective Action Plan associated with the instability, Cascading or uncontrolled separation.
	Note to Auditor: Planning Coordinators are required to prepare a Planning Assessment of the Near-Term Transmission Planning Horizon in TPL-001-4 R2, and conduct a Transfer Capability assessment in FAC-013 R2.

Auditor Notes:

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Additional Information:

Reliability Standard

The RSAW developer should provide the following information without hyperlinks. Update the information below as appropriate.

The full text of STD-OXX-N may be found on the NERC Web Site (www.nerc.com) under “Program Areas & Departments”, “Reliability Standards.”

In addition to the Reliability Standard, there is an applicable Implementation Plan available on the NERC Web Site.

In addition to the Reliability Standard, there is background information available on the NERC Web Site.

Capitalized terms in the Reliability Standard refer to terms in the NERC Glossary, which may be found on the NERC Web Site.

Sampling Methodology [If developer deems reference applicable]

Sampling is essential for auditing compliance with NERC Reliability Standards since it is not always possible or practical to test 100% of either the equipment, documentation, or both, associated with the full suite of enforceable standards. The Sampling Methodology Guidelines and Criteria (see NERC website), or sample guidelines, provided by the Electric Reliability Organization help to establish a minimum sample set for monitoring and enforcement uses in audits of NERC Reliability Standards.

Regulatory Language [Developer to ensure RSAW has been provided to NERC Legal for links to appropriate Regulatory Language – See example below]

E.g. FERC Order No. 742 paragraph 34: “Based on NERC’s.....”

E.g. FERC Order No. 742 Paragraph 55, Commission Determination: “We affirm NERC’s.....”

Selected Glossary Terms [If developer deems applicable]

The following Glossary terms are provided for convenience only. Please refer to the NERC web site for the current enforceable terms.

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Revision History for RSAW

Version	Date	Reviewers	Revision Description
1	10/10/2017	NERC Compliance Assurance, RSAW Task Force	New Document

ⁱ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity's discretion.

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