

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# NERC Standard Processes Audit

December 7, 2020

**RELIABILITY | RESILIENCE | SECURITY**



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## Executive Summary

In support of the 2020 Internal Audit Plan, which was approved by the Enterprise-wide Risk Committee of NERC's Board of Trustees, the Internal Audit function (IA) function conducted an audit of the Reliability Standards development process to gain reasonable assurance of NERC's compliance with certain requirements set forth in the Rules of Procedures (ROP) (namely Section 300, Appendix 3A, 3B, and 3D).

The audit is performed in support of the provision in Section 405 of the ROP that contemplates monitoring, by the Compliance and Certification Committee (CCC) of NERC's compliance with its Reliability Standards development processes and procedures. The last review took place in 2017. In previous years, the audit was conducted by an independent audit firm. Based on the maturity of the Reliability Standards development process, and with the concurrence of the CCC, IA performed the audit using a risk-based approach.

This report provides observations and recommendations to further improve Reliability Standards development process efforts.

## Objectives and Scope

The objective of the audit was to assess the requirements set forth in the ROP Section 300. IA worked with the CCC observers to gain confidence that NERC adhered to the ROP in the development of Reliability Standards. The scope of the audit was the period from July 1, 2017 through June 30, 2020.

To satisfy the requirements within the ROP, in addition to focusing efforts on high-risk areas with the Reliability Standards processes, IA performed the following procedures between July 2020 and October 2020:

- Obtained relevant ROP "shall statements" from NERC staff and performed a risk-based assessment of "shall statements" and the statements' relevance to the audit objectives;
- Met with key process owners to gain an understanding of the Reliability Standards development policies, processes and procedures;
- Assessed whether NERC is performing its responsibilities as set forth in the ROP and whether the existing policies, processes or procedures support the requirements outlined in the NERC ROP with respect to Reliability Standards development;
- Assessed whether remediation efforts related to the 2017 independent review are designed appropriately and operating as intended; and
- Identified areas of non-compliance and process improvement opportunities, as needed.
- Prepared a draft report of observations and recommendations to cover the findings of the audit to discuss with management before issuing a final audit report.

This report summarizes the observations and recommendations on areas where NERC Standards generally conformed to the ROP. Additional activities and internal controls that could be implemented to enhance processes and execution were specified in the process improvement opportunities in the table beginning on page 5.

The audit report will be provided to members of NERC's senior leadership team and to the EWRC in full. Throughout the audit, NERC Standards department staff were both accommodating and responsive to requests from IA, and their diligence and professionalism is appreciated.

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## Observations and Recommendations

IA identified five observations, prioritized on a scale of high, medium, and low risk categories, based on IA's assessment of the finding's potential impact to NERC (*See Appendix A on page 11*). Other observations did not rise to a risk level that warranted inclusion in this report; however, they were included in a closing presentation given to NERC Standards management to facilitate the appropriate response, which may include corrective action by the business owners.

Details of observations and recommendations are shown in the table; below is a high-level description of key observations.

- There was an example during the audit period where timely communication did not take place between the Standards department and entities involved with a merger/acquisition, thereby affecting Segment representation in the Registered Ballot Body (RBB). In addition, there were no controls in place to help ensure the accuracy of the RBB, should an entity fail to notify Standards of changes to their voting structure.
- IT staff stated that the weighted segment voting is tested as part any major modification, update or enhancement, but neither IT staff nor Standard's staff were able to provide verification to IA that it was included in the Quality Assurance testing that took place during the audit period. Standards staff currently perform a manual cross-check of the results from the Standards Balloting and Commenting System (SBS) for each ballot using a spreadsheet prepopulated with the formula used during the SBS tool's inception for weighted Segments, but there is no formal documented process in place nor are the results maintained.
- Appendix 3D of the ROP states that NERC general counsel will review all applications for joining the RBB, and make determination of whether the self-selection satisfies at least one of the guidelines to belong to that Segment. NERC legal staff is performing the role, therefore, a change to the ROP should be updated to reflect the current procedure.
- The process for submitting Standard Authorization Requests (SARs) and Requests for Information (RFIs) is to use NERC's Helpdesk tool to capture RFIs and SARs from submission through disposition. There is inconsistency in messaging, as the webpages for both SARs and RFIs state that the requesting entity can submit either a SAR or RFI form to NERC Standards staff.
- The Guideline for Quality Review (QR) of NERC Reliability Standards Project Document was last updated in 2015 and does not reflect the current process.

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## **General Compliance with the ROP**

To evaluate the Standards department using a risk-based approach during the audit period of July 1, 2017 through June 30, 2020, Internal Audit interviewed NERC staff<sup>1</sup> and collected supporting evidence across the three-year period of review. Please refer to Appendix B for the list of NERC staff interviewed during this review and to Appendix C for the evidence collected during the review. During walkthroughs and testing, a number of areas were observed where NERC generally complies with the Reliability Standards development ROP requirements.

Throughout the review, NERC staff was accommodating and responsive to the requests of the independent auditor. NERC staff worked diligently to provide supplemental information requested by the independent auditor and answered questions in a timely manner.

## **Area of General Compliance with the ROP**

Based on the procedures performed within the scope of the audit, Internal Audit identified the following areas where NERC generally conforms to the requirements in the ROP.

1. NERC continues to align its Standards development resources with other NERC departments, including Legal and Compliance teams to improve the quality of and streamline the Reliability Standards development processes.
2. NERC established a systematic method for tracking FERC Directives, that includes keeping Standard's staff business owners informed.
3. NERC dedicated resources to monitor and track Standard Authorization Requests and Request for Interpretations using an existing NERC Helpdesk Ticket Submission System.
4. The items identified from the 2017 audit were effectively remediated and/or operating as intended.

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<sup>1</sup> Due to COVID-19, Internal Audit held meetings and staff interviews via Cisco WebEx meetings.

Area	Priority	Observations	Recommendations	Management Responses
<p><b>Ballot Process Internal Control Improvement Opportunity</b></p>	<p><b>Medium</b></p>	<p>The Registered Ballot Body (RBB) comprises all organizations, entities, and individuals that qualify for one of ten Segments, and are registered with NERC to participate in the voting to approve each new or proposed Reliability Standard, definition, Variance, and Interpretation.</p> <p>NERC legal reviews applications for joining the RBB, and on an annual basis, each participant shall self-select to belong to one of the Segments by attesting that there were no material changes that affect the entity’s current segment selection.</p> <p>To satisfy the criteria for Segment representation in the RBB, affiliated entities may only be represented once within any Segment (See Appendix 3D of the ROP, page 1).</p> <p>There was an example during the audit period where timely communication did not take place between the Standards department and entities involved with a merger/acquisition, thereby affecting Segment representation in the RBB.</p>	<p>IA recommends that the Standards Department improves its processes and internal controls around the RBB registration and ballot pool membership, to include controls related to merger/acquisitions.</p> <p>NERC should consider an ROP update to address this issue.</p> <p>IA recommends that NERC Standards regularly queries and researches public information for changes to registered entities that could affect the ballot body membership, in addition to the annual self-select process. While mergers/acquisitions are closely held and not always publicly available, it is deemed Standards’ responsibility to proactively perform further due diligence to ensure the accuracy of the RBB and ballot body membership.</p> <p>Once the Standards Department identifies RBB or ballot pool registration errors (e.g. does not meet Segment Qualification Guidelines), Standards staff should promptly communicate with the affected registered entities, and update the RBB and associated</p>	<p><b>Response:</b> NERC is proposing revisions to the Rules of Procedure to clarify actions necessary pursuant to an organizational change. In Section 305 and appendix 3D, the process that NERC is proposing will ensure entities have an affirmative obligation to notify NERC of any organizational change and ensure duplicates are removed before any votes are submitted or joining a new ballot pool.</p> <p>Standards commits to participate in a cross-functional effort, including Enforcement and Registration, to address the impact of industry organizational changes on NERC’s Section 215 activities, under the advice of NERC’s legal department. The results of the effort will include the appropriate outreach and training to industry.</p> <p><b>Response owners:</b> Howard Gugel (Standards) NERC Legal</p>

Area	Priority	Observations	Recommendations	Management Responses
		<p>There were no controls in place to ensure the accuracy of the RBB, should an entity fail to notify Standards of changes to their voting structure.</p> <p>It is likely that structural changes to registered entities organizations impact not only the Standard's Department, but also Registration and Certification, NERC Membership, and Compliance and Enforcement to name a few. Therefore, a coordinated effort across NERC departments impacted is needed to address the issue.</p>	<p>ballot pools as appropriate. If a ballot is open, changes should be made prior to posting final results.</p> <p>IA recommends that NERC departments that could be impacted by an organization's structural changes, in a collaborative effort, address how best to manage registration updates, to include outreach and training to industry.</p>	<p><b>Targeted completion date:</b> Q3 2021</p>
<p><b>Internal Control Improvement Opportunity</b></p>	<p><b>Low</b></p>	<p>The Standards Department uses its customized Standards Balloting and Commenting System (SBS) tool to capture and track ballots to approve Reliability Standards. Approval of Reliability Standards requires a two-thirds majority of the weighted Segment votes as affirmative, therefore, reliance on accuracy of the weighted Segment formula within the SBS tool is paramount.</p> <p>IA requested the dates, change control tickets, and Quality Assurance testing (QAT) results for the SBS tool during the audit period.</p>	<p>NERC IT should ensure that the weighted segment voting is validated during SBS QAT and that records of the testing are maintained. In addition, IT staff should work with Standards staff business owners to ensure that the weighted segment voting is tested as part of User Acceptance Testing.</p> <p>IA recommends that the weighted segment formulas be tested at least annually.</p> <p>IA recommends that Standards documents and formalizes a process</p>	<p><b>Response:</b> NERC IT will complete the Quality Assurance (QA) process document to ensure that updates that have an impact on voting have a quality check performed to verify the accuracy of the weighted ballot votes. The quality check documentation and results will be posted on InfoHub.</p> <p>Standards will escalate this issue to the PMO to make a</p>

Area	Priority	Observations	Recommendations	Management Responses
		<p>IT stated that the weighted segment voting is tested as part of any major modification, update or enhancement, which took place November 2018, but IT staff was not able to provide the associated change control ticket or the QAT results for the update. Therefore, IA could not validate the existence nor the effectiveness of the control activity without evidence of performance.</p> <p>Standards staff currently performs a manual cross-check of the results from the SBS for each ballot using a spreadsheet prepopulated with the formula used during the SBS tool's inception for weighted Segments. IA requested process documentation and/or verification of the test results, but Standards was not able to provide, as there is no formal documented process in place. The process documentation will ensure the control is executed consistently and properly evidenced.</p> <p>IA performed sample tests using the same formula spreadsheet provided by Standards staff and concluded that the results were consistent with the output from the SBS ballot</p>	<p>around the weighted Segment cross-check performed, by creating a procedural document, evidencing the process, and maintaining the results.</p>	<p>request that for all updates to the SBS, a quality check is conducted to verify the accuracy of the weighted ballot votes.</p> <p>Standards staff will document the process around the weighted Segment cross-check by creating a procedural document, evidencing the process, and maintaining the results.</p> <p><b>Response owner:</b> Howard Gugel (Standards) Marvin Santerfeit (IT)</p> <p><b>Targeted completion date:</b> IT Quality Assurance document: 3-31-2021</p> <p>Standards process documentation: Q3 2021</p>

Area	Priority	Observations	Recommendations	Management Responses
		<p>results. In addition, Standards staff stated that the results have matched the output from the SBS with no inconsistencies.</p> <p>As a manual process, internal controls could be improved with assurance that the weighted segment voting section of the SBS tool is validated by IT and Standards personnel during all major system modifications, and at a minimum on an annual basis, to include maintaining documentation of the testing.</p> <p>Process documentation and/or evidenced control activities are fundamental to reducing risk. Without proper validation of the weighted segment formulas during QAT and UAT testing within the SBS tool there is a risk around the accuracy of the balloting results.</p>		
<b>Improvement to Process Documentation</b>	<b>Low</b>	<p>Appendix 3D of the ROP states that NERC general counsel will review all applications for joining the Registered Ballot Body (RBB), and determine whether the self-selection satisfies at least one of the</p>	<p>IA recommends that Standards staff update the language in Appendix 3D of the ROP to reflect that a designee of General Counsel will review all applications for joining the Registered Ballot Body, and make determinations of whether the self-</p>	<p><b>Response:</b> NERC will propose this edit to the Rules of Procedure.</p> <p><b>Response owner:</b> Howard Gugel</p>

Area	Priority	Observations	Recommendations	Management Responses
		<p>guidelines to belong to that Segment.</p> <p>Standards confirmed that NERC legal staff performs the vetting of new RBB member requests on behalf of the General Counsel, as well as determinations during the annual attestation process.</p> <p>Update the ROP to reflect the current process.</p>	<p>selection satisfies at least one of the guidelines to belong to that Segment.</p>	<p><b>Targeted completion date:</b> Q3 2021</p>
<p><b>Improvements to Process Documentation</b></p>	<p><b>Low</b></p>	<p>The 2017 Standard Processes audit recommended a mechanism to submit Standard Authorization Requests (SARs) and Requests for Information (RFIs) using a workflow tool. NERC Standard’s department updated process includes submitting SAR and RFI forms via NERC’s Helpdesk ticket tool to track requests from submission through disposition.</p> <p>IA found that the submitted forms include a link to the Helpdesk tool, however, the language on the SAR and RFI webpage states that the requesting entity can submit either a SAR or RFI form directly to NERC Standards staff.</p>	<p>In order to avoid confusion in the process and/or unaccounted SARs or RFIs, the language on the SAR and RFI webpages should be updated to reflect the correct path for submittals.</p>	<p><b>Response:</b> The webpage will be revised to clarify the process for SARs and RFIs in order to allow for better tracking of unaccounted SARs and RFIs.</p> <p><b>Response owner:</b> Howard Gugel</p> <p><b>Targeted completion date:</b> Q1 2021</p>

Area	Priority	Observations	Recommendations	Management Responses
<b>Documentation and Communication Enhancement</b>	<b>Low</b>	<p>The Guideline for Quality Review (QR) of NERC Reliability Standards Project Document was last updated in 2015. Standards no longer submits a QR form to the Standards Committee and NERC Board of Trustees, instead the Standards Committee is provided the dates that the QR took place along with the QR team members. January 17, 2018, the Standards Committee (SC) approved retiring the Guideline for Quality Review form.</p> <p>SC leadership commented that additional visibility into the QR results that are provided to SC members as part of the process would be beneficial. Standards management may want to reach out to SC leadership on this topic.</p>	<p>Standards should update the Quality Review process document to reflect current practices and communication protocols, and review other department process documentation to ensure they are all current.</p>	<p><b>Response:</b> Standards staff will internally update the Quality Review process document and review other process documents to verify accuracy.</p> <p><b>Response owner:</b> Howard Gugel</p> <p><b>Targeted completion date:</b> Q3 2021</p>

cc: Sonia Mendonca, Senior Vice President, General Counsel and Corporate Secretary  
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Mechelle Thomas, Vice President and Chief Compliance Officer  
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## APPENDIX A: Review Observation Priority

Priority	Impact and Likelihood Criteria <i>(Vulnerability in one or more of the following)</i>
<b>High</b>	<ul style="list-style-type: none"><li>• May result in the extremely costly loss of some assets or resources</li><li>• May significantly violate, harm or impede the ERO's mission, reputation, operations, financial reporting or interests</li><li>• May involve non-compliance with laws, regulations, policies and procedures</li></ul>
<b>Medium</b>	<ul style="list-style-type: none"><li>• May result in the costly loss of some assets or resources</li><li>• May noticeably affect ERO's mission, reputation, operations, financial reporting or interests</li></ul>
<b>Low</b>	<ul style="list-style-type: none"><li>• May result in minimum loss of some assets or resources</li><li>• May slightly affect ERO's mission, reputation, operations, financial reporting or interests</li></ul>

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## APPENDIX B: NERC Staff Interviewed

Between July 14, 2020 and October 1, Internal Audit held WebEx meetings with the following NERC staff. Please refer to the chart below for the staff interviewed.

NERC Staff Interviewed	
Staff	Title
Laura Anderson	Standards Developer
Todd Bennett	Vice Chair, Standards Committee
Amy Casuscelli	Chair, Standards Committee
Aviance Clay	Manager, Quality Assurance and Solutions Support
Howard Gugel	Vice President, Engineering and Standards
Marisa Hecht	Counsel
Travis Heyward	Senior IT Specialist
Soo Jin Kim	Senior Manager of Standards Development
Chris Larson	Senior Standards Developer
Jordan Mallory	Senior Standards Developer
Scott Barfield McGinnis	Principal Technical Advisor of Risk Issue Management
Al McMeekin	Senior Technical Advisor
Wendy Muller	Standards Developer Specialist
Alison Oswald	Senior Standards Developer
Lauren Perotti	Senior Counsel

## APPENDIX C: Catalog of NERC Documents Reviewed

Data Requests Catalog		
Process	ROP §	Document Name
Accreditation	316	<ul style="list-style-type: none"> <li>• NERC’s filing request for reaccreditation, July 2019</li> <li>• Verification that NERC maintained ANSI accreditation during audit period</li> </ul>
Annual Reliability Standards Development Plan	310	<ul style="list-style-type: none"> <li>• Reliability Standards Development Plans during the audit period; noted board approvals</li> </ul>
Reliability Standards Development	All	<ul style="list-style-type: none"> <li>• Population of FERC directives during the audit period</li> <li>• NERC Internal Directives Tracker</li> <li>• Drafting Team Nomination Form</li> <li>• Standard Drafting Team Nominee Selection Criteria (SC Guideline)</li> <li>• Drafting Team Scoping document</li> <li>• Drafting Team Training Modules provided (Mod 1 and Mod 2)</li> <li>• Tracking spreadsheet for SARs and RFIs</li> <li>• SAR and RFI rejection letters during the audit period</li> <li>• Helpdesk footprint tickets for sampling of SARs /RFIs</li> <li>• Process document for submittal and tracking of SARs and RFIs</li> <li>• Reviewed webpages for SARs and RFIs and Helpdesk submission form</li> <li>• Review of sampling of SARs and RFIs to see if the process was adhered to; SC actions were reviewed</li> <li>• Sampled projects selected and reviewed</li> </ul>
Appendix 3A – Standard Processes Manual	All	<ul style="list-style-type: none"> <li>• Population of deviations, exceptions and waivers to Standard Processes.</li> <li>• Population of variances during the audit period.</li> <li>• Population of Appeals received during the audit period.</li> <li>• Quality Review Form used during the audit period.</li> <li>• Quality Reviews for Standard projects sampling reviewed; SC actions reviewed; SC approval to retire Quality Review form</li> <li>• Quality Review webpage reviewed; QR Checklist and Volunteer Application reviewed</li> <li>• Population of Reliability Standards, Interpretations, or Definitions withdrawn during the audit period</li> <li>• Standard Processes Manual</li> <li>• Evidence that Compliance staff worked with Standards during Standards Development process</li> <li>• Population of any Reliability Standards developed related to a confidential issue.</li> <li>• Verification board was notified of Waiver; meeting agenda package</li> </ul>

Appendix 3B – Procedures for Election of Members of the Standards Committee	All	<ul style="list-style-type: none"> <li>• Population of all special elections during the audit period to include board notification for each special election</li> <li>• Board Meeting Checklist reviewed</li> <li>• Special election process document reviewed</li> <li>• Reviewed special election announcements and confirmed notification timelines met process requirements</li> <li>• Verification that SC members were RBB members at the time of the nomination; IA reviewed</li> <li>• Achieving Ballot quorum process document</li> <li>• Election Procedure for members of NERC Standards Committee</li> </ul>
Appendix 3D – Registered Ballot Body Criteria	All	<ul style="list-style-type: none"> <li>• SBS tutorials (Quick Reference, Training)</li> <li>• SBS manual voting process</li> <li>• Ballot Calculations Spreadsheet; Performed sample testing using formula</li> <li>• Change control tickets for SBS during audit period</li> <li>• User Acceptance Testing results for November 2018 SBS update</li> <li>• Quality Assurance testing results November 2018</li> <li>• Standards process document for cross-check of weighted Segment voting; Standards test results for ballot checks for weighted Segments</li> <li>• New Voter and Replacement Voter Requests during audit period</li> <li>• Attestation – self-select email announcements during audit period</li> <li>• Attestation process for RBB voter self-selection process</li> <li>• Examples of vetting approvals for RBB membership</li> <li>• Sampling of ballot results</li> <li>• Population of unvetted ballot body members during audit period</li> </ul>