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NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

DRAFT ATTACHMENT 3

TO

FIVE-YEAR
ELECTRIC RELIABILITY ORGANIZATION
PERFORMANCE ASSESSMENT REPORT

NERC ASSESSMENT OF THE REGIONAL ENTITIES' DELEGATED FUNCTIONS

July 21, 2014

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I. Reliability Standards Development

Section 215(d) of the Federal Power Act (FPA), 16 U.S.C. §824o (d), requires NERC to develop mandatory and enforceable Reliability Standards that are subject to Federal Energy Regulatory Commission (FERC or Commission) review and approval. A Regional Entity may also develop a Reliability Standard for approval by NERC and by the Commission, to be effective in that Regional Entity only. The FPA and Commission regulations provide that the ERO shall rebuttably presume that a proposal from a Regional Entity organized on an interconnection-wide basis for a Reliability Standard or modification to a Reliability Standard to be applicable on an interconnection-wide basis is just, reasonable, and not unduly discriminatory or preferential, and in the public interest.[1] This presumption is also embodied in the Regional Delegation Agreements (RDAs), which delegate to each Regional Entity authority to propose regional Reliability Standards to NERC for approval.

In Order No. 672, the Commission stated that:

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

These parameters are embodied in the NERC Rules of Procedure (NERC ROP). Section 312.1 of the NERC ROP specifies that Regional Entities may propose regional Reliability Standards that set more stringent reliability requirements than the NERC Reliability Standard or cover matters not covered by an existing NERC Reliability Standard. Section 313.1 of the NERC ROP specifies that Regional Entities may develop Regional Criteria that are necessary to implement, augment, or comply with NERC Reliability Standards, but which are not Reliability Standards; or which address issues not within the scope of Reliability Standards.

Regional Reliability Standards must be approved by NERC and are then submitted by NERC to the Commission; they become enforceable as NERC Reliability Standards under §215 of the FPA in the U.S. once they are approved by the Commission. Therefore, regional Reliability Standards must meet the requirements set out by the Commission for approval of such standards, including having violation risk factors (VRFs) and violation severity levels (VSLs) that meet the criteria the Commission has set out in its various orders.

To evaluate each Regional Entity's performance during the assessment period, NERC focused on two parameters. First, NERC reviewed whether each Regional Entity has in place a

[1] FPA §215(d) (3), 15 U.S.C. §824o (d) (3), 18 C.F.R. §39.5(b).

[2] *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, at P 291, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006).

regional Reliability Standards Development Procedure (RSDP) that meets applicable requirements. This portion of the evaluation was straightforward because, as described in §I.A below, each Regional Entity is required to have in place, as part of its RDA, a NERC-approved and Commission-approved RSDP that satisfies a pre-established set of attributes. During the assessment period, some of the Regional Entities developed revisions to their RSDPs, which were approved by NERC and by the Commission. Second, NERC reviewed each Regional Entity's activity, if any, in developing proposed regional Reliability Standards during the assessment period. As described in §I.B below, with the exception of WECC, the Regional Entities have, in general, suspended regional Reliability Standards development activities in favor of devoting resources and stakeholder participation to the development of, and reliance on, NERC's continent-wide Reliability Standards. However, during the assessment period, NPCC, ReliabilityFirst, SERC and Texas RE, in addition to WECC, had regional Reliability Standards approved by the Commission. The Regional Entities will continue to develop regional Reliability Standards only to the extent that NERC Reliability Standards do not address a perceived gap in reliability specific to a particular region.

A. Regional Entity Standards Development Processes

Exhibit C to each RDA contains (i) the list of NERC's common attributes of an appropriate RSDP, and (ii) each Regional Entity's current RSDP. In reviewing and approving a Regional Entity's RSDP for inclusion in Exhibit C to the RDA, NERC reviews the RSDP against the common attributes to determine whether the RSDP meets the common attributes. During the assessment period, some of the Regional Entities' RSDPs were revised and approved by NERC and then by the Commission.[3]

The RSDPs include the process that each Regional Entity uses to develop regional Reliability Standards that are proposed to NERC for adoption, and, where applicable, regional variances if the Regional Entity is organized on an interconnection-wide basis. While the RSDPs are not identical, each one must, as noted, satisfy the common attributes that advance the development of regional Reliability Standards consistent with the objective of a uniform reliability program. Among other things, participation in the development of a regional Reliability Standard must be open to all organizations that are directly and materially affected by the bulk power system (BPS) located in the Regional Entity's footprint, with no constraints based on financial capability, technical expertise or membership in the organization. The RSDP must provide for an appropriate balance of interests and the process must be structured so that it may not be dominated by any two interest categories and no single interest category can defeat a matter. All entities with a direct and material interest in the BPS in the Regional Entity may participate in the development of regional Reliability Standards by expressing a position and support for that position. Participating entities then will have that position considered and have the right to appeal the final outcome. The RSDP must also allow for reasonable notice and opportunity for public comment, and include

[3] NERC maintains on its website each Regional Entities' RSDP which lists the date of the current version. *See* http://www.nerc.com/pa/Stand/Pages/RegionalStandardsDevelopment.aspx.

language that states that all actions material to the development of any regional Reliability Standards be transparent.[4]

Based on its review and approval of the Regional Entities' RSDPs for inclusion in the RDAs and the subsequent approval by the Commission, NERC believes that during the assessment period, all of the Regional Entities met the requirements applicable to the ERO in the development of regional Reliability Standards.[5] Specifically, the Regional Entities: (1) demonstrated the ability to develop Reliability Standards that provide for an adequate level of reliability of the BPS; (2) established rules that assure the independence of the users and owners and operators of the BPS, (3) took action to ensure balanced decision-making in applicable committees or subordinate organization structures; and (4) developed rules that provide for reasonable notice and opportunity for public comment, due process, openness, and balance of interests in developing Reliability Standards. During the assessment period, each Regional Entity fulfilled the obligation to provide an open, fair, balanced, and inclusive process for the development of regional Reliability Standards, as demonstrated by the approval of those processes by NERC and the Commission.

B. Review of Each Regional Entity's Standards Development Activities During the Assessment Period

NERC focuses on the development of its continent-wide Reliability Standards as consistent with the goal of a reliable BPS. The Regional Entities have developed relatively few regional Reliability Standards to address unique situations with specific or more stringent requirements in a particular interconnection or geographic region which the NERC continent-wide standards may not address. Since the Commission issued Order No. 693 in 2007, approving the initial set of NERC continent-wide Operations and Planning Reliability Standards, the Commission has approved a total of only seven regional Reliability Standards submitted by Regional Entities other than WECC.

The Regional Entities are concentrating their standards development resources on working with NERC and stakeholders to develop clear, reasonable, and technically sound continent-wide Reliability Standards in a timely and efficient manner, and to ensure that regional concerns are addressed in the continent-wide Reliability Standards. This approach also avoids duplicating NERC's efforts at the regional level. Barring the existence of a perceived region-specific gap in reliability not addressed by NERC Reliability Standards, the Regional Entities will refrain from developing further regional Reliability Standards.

To this end, the Regional Entities are actively encouraging awareness and participation by stakeholders in their respective areas in the NERC standards development process, by engaging in educational outreach efforts, and through participation in the NERC Standards Committee (NERC SC) and related subcommittees. The Regional Entities also have standards committees or similar groups at the regional level that analyze the draft ERO standards to determine their quality and

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[4] NERC maintains on its website a current overview of Regional Standards under development, with detailed information on the status of the proceeding.
See http://www.nerc.com/pa/Stand/Pages/RegionalReliabilityStandardsUnderDevelopment.aspx.

[5] FPA §215(c)(1) and (2); 16 U.S.C. §824o(c)(1)(2).

effectiveness and evaluate whether the reliability objective is adequate and cost effective, and to provide input on these topics in the NERC standards development process.

The following subsections provide a review of the activities of each Regional Entity in the development of regional Reliability Standards during the assessment period.

1. Florida Reliability Coordinating Council, Inc. (FRCC)

The most recent version of the FRCC RSDP was approved by the Commission on June 12, 2012 and is included as Appendix C to the FRCC RDA. FRCC currently has no FERC-approved regional Reliability Standards or regional variances. During the assessment period, FRCC placed two regional Reliability Standards development projects on hold awaiting the completion of NERC standards development projects, and terminated one project because NERC's continent-wide Reliability Standard was determined to be sufficient for FRCC's reliability needs. Additionally, FRCC's Registered Ballot Body and board of directors approved one project, which was held in abeyance while the adequacy of the NERC continent-wide Reliability Standard was evaluated, and will be withdrawn if it is determined to be sufficient for FRCC's needs. FRCC prefers the development of continent-wide Reliability Standards, but will follow its regional RSDP should a need arise for a more stringent standard or a standard to cover an area that NERC Reliability Standards do not.

2. Midwest Reliability Organization (MRO)

MRO supports the development of continent-wide Reliability Standards to maintain the reliable operations of the BPS, as opposed to regional Reliability Standards, particularly in the Eastern Interconnection. Therefore, MRO decided during the assessment period to forego the development of regional Reliability Standards. Nevertheless, MRO has a regional RSDP in effect. The most recent revised version of the MRO RSDP was approved by the Commission on June 12, 2013[6] and is included as Appendix C to the MRO RDA. The principal purposes of these amendments to the MRO RSDP include: (1) to provide greater alignment of MRO's standards develop procedures with the NERC *Standard Processes Manual*; (2) to incorporate a requirement for a review of the manual every five years; and (3) to provide various clarifications to the process development steps in the manual. MRO also has a stakeholder-based Standards Committee comprised of subject matter experts (SMEs) in the event there is a need for a regional Reliability Standard in the future.

3. Northeast Power Coordinating Council, Inc. (NPCC)

NPCC has developed a revised RSDP that provides a results-based, consensus building approach by which NPCC may develop regional Reliability Standards and Regional Variances proposals to the ERO for adoption, under delegated authority by the Commission and the Canadian Provincial regulatory and/or governmental authorities.

[6] *North American Electric Reliability Corporation*, Docket Nos. RR13-5-000 (June 12, 2013) (unpublished letter order).

During the assessment period, NPCC developed a disturbance monitoring regional Reliability Standard, PRC-002-NPCC-01, to ensure that adequate disturbance data are available to facilitate event analyses. This NPCC regional Reliability Standard addresses a specific recommendation from the August 14, 2003 Blackout final NERC report regarding the use of time-synchronized data recorders.[7] Substantively, this NPCC regional Reliability Standard outlines the basic requirements for the type, location and capability of equipment to be placed on the BPS to enable analysis of grid disturbances to be conducted effectively and efficiently. This regional Reliability Standard is intended to establish enforceable and uniform requirements for disturbance monitoring throughout the NPCC region. On October 20, 2011, the Commission issued an order approving regional Reliability Standard PRC-002-NPCC-01, the related VRFs and VSLs, implementation plan, and two associated regional definitions in the *Glossary of Terms Used in NERC Reliability Standards* (NERC Glossary).

NPCC also developed regional Reliability Standard PRC-006-NPCC-1, Automatic Underfrequency Load Shedding, during the assessment period. The purpose of PRC-006-NPCC-1 is to provide a regional Reliability Standard that ensures the development of an effective regional automatic underfrequency load shedding (UFLS) program in order to preserve the security and integrity of the BPS during declining system frequency events, in coordination with the NERC UFLS Reliability Standard characteristics. Further, this NPCC regional Reliability Standard creates a region-wide and fully coordinating single set of UFLS requirements that will serve as a last resort to preserve the BPS during a major system failure that may cause a system frequency collapse. On February 21, 2013, the Commission issued Order No. 775 approving regional Reliability Standard PRC-006-NPCC-1, the related VRFs and VSLs, implementation plan, and the effective dates proposed by NERC.[8]

4. ReliabilityFirst Corporation (ReliabilityFirst)

ReliabilityFirst has an approved RSDP in place as Exhibit C to its RDA. ReliabilityFirst no longer develops regional Reliability Standards, in order to avoid duplication with the NERC continent-wide Reliability Standards. However, ReliabilityFirst has proved its ability to develop regional Reliability Standards, as shown by its development of regional Reliability Standard BAL-502-RFC-02, Planning Resource Adequacy Analysis, Assessment and Documentation during the assessment period. The purpose of this standard and associated definitions is to establish common criteria based on the principle of "one day in ten years" loss of load expectation for the analysis, assessment, and documentation of resource adequacy for load in the ReliabilityFirst footprint and to establish requirements for planning coordinators in the ReliabilityFirst region regarding resource adequacy assessment, a subject matter not addressed in NERC's continent-wide Reliability Standards. The Commission approved regional Reliability Standard BAL-502-RFC-02 and related filings in an order issued on March 17, 2011, directing that the regional Reliability Standard and associated VSLs, VRFs, and definitions become effective on the date of that order.[9]

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[7] *See Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations* available at: http://www.nerc.com/pa/rrm/ea/Pages/Blackout-August-2003.aspx.

[8] *Regional Reliability Standard PRC-006-NPCC-1 – Automatic Underfrequency Load Shedding*, Order No. 775, 142 FERC ¶ 61,128 (2013).

[9] *North American Electric Reliability Corporation*, Final Rule, 134 FERC ¶ 61,212 (2011).

5. SERC Reliability Corporation (SERC)

The SERC RSDP, included in Exhibit C to the SERC RDA, defines the process for the development, revision, reaffirmation, and withdrawal of SERC regional Reliability Standards. The SERC RSDP requires any proposed SERC regional Reliability Standard to be more stringent than a continent-wide Reliability Standard, whether the regional Reliability Standard addresses matters that the continent-wide Reliability Standard does not or the regional Reliability Standard is necessitated by a physical difference in the BPS within the SERC region. SERC regional Reliability Standards are required to provide for as much uniformity as possible with continent-wide Reliability Standards.

SERC has one Commission-approved regional Reliability Standard, PRC-006-SERC-01, Automatic Underfrequency Load Shedding Requirements. The purpose of this standard and the associated VSLs and VRFs is to establish consistent and coordinated requirements for the design, implementation, and analysis of automatic UFLS schemes among all applicable entities within the SERC region so that distribution providers and transmission owners may effectively mitigate the consequences of an underfrequency event. The standard effectively mitigates the consequences of an underfrequency event while accommodating differences in system transmission and distribution topology among SERC planning coordinators. The Commission approved regional Reliability Standard PRC-006-SERC-01 in Order No. 772 issued on December 20, 2012.[10]

SERC currently is not developing any additional regional Reliability Standards because the continent-wide NERC Reliability Standards are presently adequate for the SERC region.

6. Southwest Power Pool Regional Entity (SPP RE)

SPP RE has a RSDP in place and included in Exhibit C to its RDA. During the assessment period, SPP RE developed a substantially revised RSDP. A principal objective of the revisions was to confirm the SPP RE RSDP more closely to the NERC *Standard Processes Manual*. The revised SPP RE was approved by NERC and filed with the Commission for approval in December 2013, and was approved by the Commission in an order issued January 31, 2014.[11]

SPP RE is not actively developing any Reliability Standards at this time. SPP RE supports development of continent-wide Reliability Standards at NERC. Any regional Reliability Standard developed by SPP RE will go beyond, add detail to, or cover matters not addressed in the NERC Reliability Standards.

During the assessment period, SPP RE developed proposed regional Reliability Standard PRC-006-SPP-1, Automatic Underfrequency Load Shedding Requirements. On November 7,

[10] *Regional Reliability Standard PRC-006-SERC-01—Automatic Underfrequency Load Shedding Requirements*, 141 FERC ¶ 61,243 (2012).

[11] *Revised Southwest Power Pool Regional Entity Standards Development Process Manual*, Docket No. RR14-1-000 (January 31, 2014) (unpublished letter order).

2012, the NERC Board of Trustees approved the proposed standard. The purpose of the proposed standard was to ensure the development and implementation of an effective automatic UFLS program for entities in the SPP RE region in order to preserve the security and integrity of the BPS during declining system frequency events. The regional Reliability Standard was designed to develop, coordinate and document requirements for automatic UFLS programs to arrest declining frequency and assist recovery of frequency following underfrequency events in the SPP RE region. On April 26, 2013, NERC submitted the proposed standard to the Commission for approval,[12] but on December 11, 2013, NERC submitted a Notice of Withdrawal of the petition because, due to the creation and pending approval of NERC Reliability Standard PRC-024-1, changes to PRC-006-SPP-01 could be needed to account for generator trip zones that may differ between proposed regional Reliability Standard PRC-006-SPP-01 and NERC Reliability Standard PRC-024-1.[13]

7. Texas Reliability Entity, Inc. (Texas RE)

Texas RE has a RSDP in effect and included in Exhibit C to its RDA, and has used its RSDP to develop Texas RE regional Reliability Standards.

Texas RE has developed one major regional Reliability Standard BAL-001-TRE-1, Primary Frequency Response in the ERCOT Region, and several minor regional standards (CIP-001-2a regional variance and IRO-006-TRE-1). The major regional Reliability Standard, BAL-001-TRE, was designed to maintain Interconnection steady-state frequency within defined limits in the ERCOT region; its purpose is to provide a regional Reliability Standard for the ERCOT Interconnection related to the maintenance of steady-state frequency within defined limits by balancing real power demand and supply in real-time. This proposed standard was developed to establish and maintain adequate frequency response in the ERCOT region by ensuring prompt and sufficient frequency response from resources to stabilize frequency during changes in the system generation-demand balance. Because there are physical differences present in the ERCOT system, a more stringent means of assuring frequency response performance was needed than that provided by the continent-wide NERC Reliability Standard. The Commission unconditionally approved the proposed standard by letter order on January 16, 2014 as well as the staggered implementation date requested by NERC and Texas RE.[14] (The Commission concurrently approved NERC Reliability Standard BAL-003-1, which addresses frequency response on a continent-wide basis.)

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[12] Available at: http://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/FINAL_Petition%20PRC-006-SPP-01_complete.pdf.

[13] *Notice of Withdrawal of the Joint Petition for Approval of Proposed Regional Reliability Standard PRC-006-SPP-01 (Underfrequency Load Shedding*), Docket No. RD13-9-000 (December 11, 2013), available at: http://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/Final_Notice_of_Withdrawal_of_PRC-006-SPP-01_20131211.pdf.

[14] *North American Electric Reliability Corporation*, Docket No. RD13-12-000 (January 16, 2014) (unpublished letter order).

8. Western Electricity Coordinating Council (WECC)

WECC uses the Commission-approved WECC RSDP to develop regional Reliability Standards along with Regional Criteria and Regional Business Practices. WECC develops Regional Criteria and Regional Business Practices to improve the functioning and efficiency of the Western Interconnection. This combination provides a forum for addressing system-wide issues and enables effective oversight to promote reliable operation of the Western Interconnection.[15]

As of the end of the assessment period, WECC had the following eight Commission-approved WECC regional Reliability Standards in effect.

- **FAC-501-WECC-1 (Transmission Maintenance)**

FAC-501-WECC-1 requires, for specified transmission paths, a highly detailed maintenance and inspection plan for all transmission and substation equipment components. This ensures that certain transmission owners of transmission paths identified by a table titled "Major WECC Transfer Paths in the Bulk Electric System [(BES)]" (including associated facilities) have a transmission maintenance and inspection plan (TMIP); and perform and document maintenance and inspection activities in accordance with the TMIP.[16]

- **VAR-002-WECC-1 (Automatic Voltage Regulators)**

NERC continent-wide Reliability Standard VAR-002-1a requires that generator operators operate a generator connected to the interconnected transmission system in automatic voltage control mode unless the operator has notified the transmission operator. WECC regional Reliability Standard VAR-002-WECC-1 adds an additional responsibility for compliance in the WECC region, requiring all synchronous generators within the WECC region to have their voltage regulators in service at all times, with exceptions only for specified circumstances.[17]

- **VAR-501-WECC-1 (Power System Stabilizer)**

NERC continent-wide standard VAR-002-1a requires that a generator operator notify its transmission operator when it removes power system stabilizers (PSS) from service but does not limit the amount of time for operating generators without PSS in service. WECC regional Reliability Standard VAR-501-WECC-1 is more stringent than the NERC Reliability Standard; it ensures that synchronous generators shall be kept in service in order to ensure that the generator

[15] While WECC currently maintains Regional Business Practices, all of these fit within the description of Regional Criteria contained in the NERC ROP Section 313 (Other Regional Criteria, Guides, Procedures, Agreements, Etc.). WECC is currently undertaking efforts to re-categorize its Regional Business Practices as Regional Criteria so that going forward WECC will no longer create or maintain items called Regional Business Practices.

[16] *Version One Regional Reliability Standards for Facilities Design, Connections, and Maintenance; Protection and Control; and Voltage and Reactive*, Order No. 751, 135 FERC ¶ 61,061 (2011).

[17] *Id*.

provides the proper damping to maintain system stability when generation and transmission outages occur, and an exception is provided only for very specific conditions and for a cumulative time limit per quarter.[18]

- **PRC-004-WECC-1 (Protection System and Remedial Action Scheme Misoperation)**

WECC regional Reliability Standards PRC-004-WECC-1 sets a specific timeframe for the analysis and mitigation of all transmission and generation protection system and remedial action scheme misoperations on major WECC Transfer Paths. This standard augments requirements for certain entities found under NERC continent-wide Reliability Standards PRC-003-1 and PRC-004-1.[19]

- **IRO-006-WECC-2 (Qualified Transfer Path Unscheduled Flow Relief)**

The purpose of WECC regional Reliability Standard IRO-006-WECC-2 is to provide a regional standard that specifies the mitigation of transmission overloads due to unscheduled flow on qualified transfer paths. The standard modifies IRO-006-WECC-1 to correct references, wording, and format issues that would update the standard and bring it into compliance with NERC's drafting conventions for Reliability Standards. On December 20, 2013, NERC and WECC submitted a joint petition to the Commission seeking approval of IRO-006-WECC-2 along with an associated implementation plan and new or revised definitions in the NERC Glossary. On May 13, 2014, FERC issued a letter order approving IRO-006-WECC-2.[20]

- **BAL-004-WECC-02 (Automatic Time Error Correction)**

During the assessment period, WECC revised its regional Reliability Standard BAL-004-WECC-01, Automatic Time Error Correction, resulting in BAL-004-WECC-02. The revision was developed in response to a directive from the Commission in Order No. 723 to modify regional Reliability Standard BAL-004-WECC-01 to clarify certain terms used therein.[21] The purpose of the revised regional Reliability Standard is to maintain Interconnection frequency and to ensure that time error corrections and primary inadvertent interchange playback are effectively conducted in a manner that does not adversely affect the reliability of the Interconnection. On August 20, 2013, NERC and WECC submitted a joint petition to the Commission seeking approval of BAL-004-WECC-02 along with an associated implementation plan, new definitions in the NERC

[18] *Id*.

[19] *Id*.

[20] *North American Electric Reliability Corporation*, Docket No. RD14-9-000 (May 13, 2014) (unpublished letter order).

[21] *Western Electricity Coordinating Council Regional Reliability Standard Regarding Automatic Time Error Correction*, Order No.723, 127 FERC ¶ 61,176 (2009).

Glossary, and a regional variance to BAL-001-1.[22] The Commission unconditionally approved the revised WECC regional Reliability Standard on October 16, 2013, and it became effective as of the date of the order.[23]

- **TOP-007-WECC-1** (System Operating Limits)

The primary purpose of WECC regional Reliability Standard TOP-007-WECC-1 is to implement the directives in Order No. 693 approving NERC Reliability Standard TOP-007-0, and related concerns, by ensuring that actual flows and associated scheduled flows on major WECC transfer paths do not exceed system operating limits for more than 30 minutes. The Commission approved TOP-007-WECC-1 in an order issued April 21, 2014.[24] In approving TOP-007-WECC-1, the Commission ordered WECC to address the concern regarding the need for WECC to develop a means to provide consistency and transparency when making revisions to the list of major transmission paths instead of the WECC transfer path table and to modify the associated VRFs and VSLs to adequately reflect the size and scope of the actual violation. Any future modifications will be handled through the established standards process.

- **BAL-002-WECC-2 (Contingence Reserve)**

On March 25, 2009, NERC submitted to the Commission for approval WECC regional Reliability Standard BAL-002-WECC-1, Contingency Reserves, but in 2010, the Commission issued Order No. 740 wherein it remanded this standard based on concerns that WECC had not provided adequate technical support to demonstrate that the requirements of the proposed regional Reliability Standard are sufficient to ensure the reliable operation of the BPS within WECC.[25] The purpose of proposed regional Reliability Standard BAL-002-WECC-2 is to provide a regional Reliability Standard that specifies the quantity and types of contingency reserve required to ensure reliability under normal and abnormal conditions. In response to the Commission's directives in Order No. 740, WECC developed modifications to proposed regional Reliability Standard BAL-002-WECC-1. On April 12, 2013, NERC filed a petition with the Commission to approve regional Reliability Standard BAL-002-WECC-2, Contingency Reserve, and associated VRFs and VSLs. On November 21, 2013, the Commission issued Order No. 789 approving WECC regional Reliability Standard BAL-002-WECC-2, the associated VRFs, VSLs, implementation plan, the effective date proposed by NERC and WECC, and the retirement of BAL-STD-002-0 and two WECC regional definitions from the NERC Glossary. In that order, the Commission directed NERC to submit an informational filing after the first two years of implementation of the regional

[22] Available at: http://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/Petition%20for%20BAL-004-WECC-02%20and%20BAL-001-1.pdf.

[23] *North American Electric Reliability Corporation*, Docket Nos. RR13-11-000 (October 16, 2013) (unpublished letter order).

[24] *Version One Regional Reliability Standard for Transmission Operations*, 135 FERC ¶ 61,062 (2011).

[25] *Version One Regional Reliability Standard for Resource and Demand Balancing*, Order No. 740, 133 FERC ¶ 61,063 (2010).

Reliability Standard that addresses the adequacy of contingency reserve in the Western Interconnection.[26]

[26] *Regional Reliability Standard BAL-002-WECC-2 – Contingency Reserve*, Order No. 789, 145 FERC ¶ 61,141 (2013).

II. Compliance Monitoring and Enforcement

The RDAs set forth the delegated authorities and responsibilities of the Regional Entities with respect to compliance monitoring and enforcement.[27] In Exhibit D to each RDA, each Regional Entity adopts the uniform NERC Compliance Monitoring and Enforcement Program (CMEP) in its entirety (Appendix 4C to the NERC ROP), adopts the uniform NERC CMEP with stated differences, or adopts a separate CMEP (however, the CMEP of a Regional Entity that has deviations from or is different than the uniform CMEP must comply with the requirements of the RDA and with Section 403 of the NERC ROP).

The RDA gives the Regional Entities delegated authorities and responsibilities to, among other things, maintain a program of proactive monitoring and enforcement of compliance with Reliability Standards in accordance with the CMEP and the annual NERC CMEP Implementation Plan (IP);[28] report to NERC any possible violations, alleged violations or confirmed violations of Reliability Standards and the dispositions thereof; maintain violations as nonpublic until the matter is filed with the Commission as a Notice of Penalty (NOP); conduct, in a confidential manner, compliance investigations of possible violations and alleged violations; and maintain a conflict of interest policy to ensure the integrity and independence of the Regional Entity's CMEP, including the integrity and independence of the persons or decision-making bodies making final determinations in compliance enforcement actions.

In addition, the RDAs give the Regional Entities responsibilities with respect to the registration of owners, operators and users of the BPS as entities responsible to comply with mandatory Reliability Standards; and with respect to the certification of certain registered entities to perform certain reliability functions.[29]

Section 4 of the RDAs obligates the Regional Entity to comply with, among other things the NERC ROP. Provisions of the ROP applicable to compliance monitoring and enforcement functions, include, in addition to the uniform CMEP, the following ROP sections and appendices: Section 400, Compliance Enforcement (Section 403 sets forth required attributes of Regional Entity CMEPs), Section 500, Organization Registration and Certification, Appendix 4B, *Sanction Guidelines*, Appendix 5A, *Organization Registration and Certification Manual*, Appendix 5B, *Statement of Compliance Registry Criteria*, and Appendix 5C, *Procedure for Requesting and Receiving an Exception from the Application of the NERC Definition of Bulk Electric System* (effective July 1, 2014).

In this §II, NERC describes and evaluates the Regional Entities' performance during the assessment period separately with respect to the three major components of their compliance monitoring and enforcement responsibilities: Organization Registration and Certification (ORC) (§II.A below), Compliance Monitoring (§II.B below), and Compliance Enforcement (§II.D below). In addition, Compliance Investigations are discussed separately in §II.C.

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[27] Generally, each Regional Entity's responsibilities with respect to compliance monitoring and enforcement are set forth in Section 6 of its RDA.

[28] Available at: http://www.nerc.com/pa/comp/Resources/Pages/default.aspx.

[29] These provisions are generally found in Section 7 of the RDAs.

A. Organization Registration and Certification

NERC is ultimately responsible for devising the criteria that determine which BPS users, owners and operators are subject to approved Reliability Standards, and for maintaining the NERC Compliance Registry of organizations subject to Reliability Standards. In carrying out these responsibilities, NERC relies on the Regional Entities to apply and implement registration and certification criteria as part of the ORC program. Pursuant to the RDAs and Section 500 and Appendices 5A (*Organization Registration and Certification Manual*) and 5B (*Statement of Compliance Registry Criteria*) of the NERC ROP, the Regional Entities are responsible for the following registration and certification tasks:

Registration

(i) Providing NERC with timely and accurate information relating to registrations and registered entities to enable NERC to maintain a registration database that is accurate and up-to-date;

(ii) Collecting data on and mapping BPS facilities and those facilities that have a material impact on the BPS within each Regional Entity's defined regional boundaries;[30]

(iii) Approving or disapproving entity registration applications;

(iv) Notifying NERC of each coordinated functional registration (CFR) and joint registration organization (JRO) that the Regional Entity accepts; and

(v) Maintaining a list of active CFRs and JROs.

Certification

(i) Verifying that all reliability coordinators, balancing authorities, and transmission operators (*i.e.*, the reliability entities required to be certified to perform their reliability functions) meet the registration requirements of ROP Section 501.1.4;

(ii) Reviewing entity certification applications for completeness and notifying NERC of applications;

(iii) Evaluating the competency of entities requiring certification to meet the NERC certification requirements;

(iv) Establishing certification procedures, including (A) evaluation processes, schedules, and deadlines; (B) expectations of the applicants and all entities participating in the process; and (C) requirements for certification team members;

[30] Each Regional Entity's boundaries are defined in Exhibit A to its RDA.

(v) Approving or denying certification team recommendations and notifying the entity and NERC of the decision; and

(vi) Providing leadership to the certification team throughout the certification process.

NERC and the Regional Entities are working towards two goals for registration. First, they recognize the need for consistency between and among Regional Entities and across the continent in the application of the criteria for registering entities. Second, any entity whose facilities or operations are reasonably deemed material to the reliability of the BPS will be registered, irrespective of other considerations.

During the assessment period, the NERC ORC program increased its efforts regarding consistency and transparency. The ORC program developed and posted on NERC's website eight registration and 38 certification templates to be used by the Regional Entities and industry. The ORC program worked with the Certification and Registration Working Group to develop a prototype common registration form (CRF). The CRF requires the provision of information related to entity relationships, and will thereby provide greater assurance that all entities that should be registered are in fact registered. Further, since consistent forms are now used by each Regional Entity, entities that need to register in multiple Regional Entities should find the registration process more streamlined.

During the assessment period, the ERO experienced an incremental increase in the number of registered entities. As of January 30, 2009, NERC and the Regional Entities had registered a total of 1,860 entities for a total of 4,482 reliability functions. As of May 1, 2014, NERC and the Regional Entities have registered 1,920 entities for 4,774 reliability functions. Further, a review of the registration activity by Regional Entity shows a significant number of registrations and deactivations in four Regional Entities (NPCC, ReliabilityFirst, Texas RE, and WECC) for the following three functions: (i) generator owners; (ii) generator operators; and (iii) purchasing-selling entities. This trend is in part attributed to corporate ownership changes. The registration and deactivation activity in the remaining Regional Entities (FRCC, MRO, SERC, and SPP RE) was minimal.

The JRO and CFR mechanisms are important components of the ORC program. These vehicles are used to define the responsibilities and accountability among entities separately registered for the same function. During the assessment period, revisions to NERC ROP Section 507 and the addition of Section 508, approved by the Commission on June 10, 2010, clarified the operations of both types of registration.[31] Specifically, revised ROP Section507 allows an entity to register as a JRO on behalf of one or more of its members or related entities for one or more functions for which such members or related entities would otherwise be required to register. The registering entity thereby accepts on behalf of such members or related entities all compliance responsibility for that function or those functions including all reporting requirements. NERC ROP Section 508 allows multiple entities to register using a CFR for one or more Reliability

[31] *North American Electric Reliability Corporation*, Docket No. RR10-8-000 (June 10, 2010) (unpublished delegated letter order).

Standard(s) or for one or more requirements or sub-requirements with particular Reliability Standard(s) applicable to a specific function. The CFR is the complete registration for each entity, with each entity taking full compliance responsibility for those Reliability Standards or requirements or sub-requirements applicable to the CFR.

Many of the registered entities that use NERC ROP Section 507 process are cooperatives, municipalities, and other publicly-owned or member-owned utilities. As of May 1, 2014, a total of 34 JROs are registered; however, NPCC, SPP RE, and WECC have not registered any JROs.[32] Since its initial implementation, use of the joint registration option has been fairly static, with few additional entities registering as JROs or changing their JRO status. Many registered entities have, however, taken advantage of the opportunity to coordinate their registered functions pursuant to NERC ROP Section 508. There are a total of 44 CFR agreements, with FRCC being the only Regional Entity in which there is not a coordinated registration. Some of these coordinated registration agreements cross Regional Entity boundaries.

As the above discussion indicates, the registration and certification processes have been fairly stable during the assessment period in terms of the numbers of entities registered and certified. However, NERC has identified several initiatives or opportunities for improvement in how the Regional Entities perform their registration and certification functions. The first initiative is in the area of multi-regional registered entities (MRREs). MRREs are entities that own or operate BES facilities in two or more Regional Entity footprints. MRREs pose a consistency challenge because they are subject to multiple compliance programs. To address this challenge, during the assessment period, several Regional Entities partnered to coordinate their compliance and enforcement efforts with respect to MRREs. In particular, they developed a "lead region" model in which the involved Regional Entities select one of them to lead the compliance and enforcement efforts for a given MRRE. The purpose of this MRRE initiative is to describe the coordinated CMEP processes that will be used by NERC and the Regional Entities for a subset of registered entities that are registered in multiple Regional Entities and volunteer for this program. The MRRE process provides the opportunity for these entities to request to be accountable to one Compliance Enforcement Authority (CEA). The coordinated MRRE process provides for increased efficiencies in compliance resource allocation for NERC, the Regional Entities, and the registered entities while, maintaining the reliability of the BPS.

A second area of opportunity for improvement is the efficiency with which a Regional Entity is able to process registration activation and deactivation requests. This initiative is part of the risk-based registration effort described in further detail in the Statement of Activities and Accomplishments.

[32] *See* the JRO member listing Excel spreadsheet available at: http://www.nerc.com/pa/comp/Pages/Registration-and-Certification.aspx.

B. Compliance Monitoring

1. NERC Oversight of Regional Entity Compliance Monitoring Activities

NERC's oversight of and involvement with the Regional Entities' compliance monitoring activities is ongoing and continuous. Although this document is a five-year assessment of the Regional Entities' performance of specified functions, including compliance monitoring, NERC's ongoing oversight of and involvement with the Regional Entities' compliance monitoring activities provides a significant component of the informational and observational basis for NERC's evaluation of the Regional Entities in this area. This §II.B.1 provides an overview of NERC's oversight activities for the Regional Entity compliance monitoring programs, which is one of the key information and observation sources for NERC's assessment of the Regional Entities' performance.

At the start of the assessment period, the Regional Entity audit program consisted of Agreed-Upon Procedures (AUP) developed by NERC in collaboration with an independent third-party. The AUP oversight program operated on a three-year audit cycle.

In 2010, NERC restructured its Regional Entity oversight program. Based on NERC's observations of the audits completed under the AUP oversight program, NERC determined that conducting an AUP audit once every three years did not provide the desired level of qualitative evaluation of effectiveness of the programs within and across the Regional Entities. As a result, NERC refocused the Regional Entity audit program to move to an on-going and simultaneous evaluation of performance-based objectives to gauge the effectiveness of the Regional Entities' CMEPs. NERC staff utilized the findings, exceptions and lessons learned from the initial AUP program engagements to develop processes and procedures for the restructured audit program. The restructured Regional Entity oversight program provides for continuous oversight of each Regional Entity in focused, discrete time intervals that allows NERC to provide immediate feedback to Regional Entity compliance staff. This feedback enables Regional Entity staff to improve the consistency of its compliance processes and their application in a timelier manner.

Under NERC's current oversight model, NERC Audit Assurance and Oversight (AAO) staff and the Regional Entities conduct compliance monitoring of registered entities primarily through regular and scheduled compliance audits and random spot checks. Each Regional Entity has a compliance monitoring program that includes all the compliance monitoring methods specified in the uniform NERC CMEP, Appendix 4C to the NERC ROP.[33] NERC is responsible for oversight and monitoring of the Regional Entities' compliance monitoring activities, which must be carried out in accordance with the NERC ROP and the terms of the RDAs. NERC uses the following tools (each of which is described in the subsections below), to carry out its oversight and monitoring of the Regional Entities' activities:

[33] The compliance monitoring methods are compliance audits, self-certification, spot checks, investigations, self-reports, periodic data submittals, and complaints. *See* CMEP Section 3.0 (Compliance Monitoring Processes). The Regional Entities review self-certifications for all registered entities at least once annually. Some Regional Entities also require monthly self-certifications for certain Reliability Standards and requirements. Periodic data submittals occur on an ongoing basis, with certain information due to the Region Entity on a monthly basis, and other data due on a quarterly basis.

(1) An annual review of Regional Entity CMEP IPs for approval and posting, as well as an annual review of each Regional Entity's CMEP for incorporation into the ERO's annual CMEP report;

(2) Annual assessments of compliance monitoring for selected Reliability Standards for consistency of approach through the Key Reliability Standard Spot Check (KRSSC) program;

(3) Oversight audits of selected registered entity compliance audits performed by Regional Entities, as well as periodic assessments of Regional Entity auditor capabilities;[34] and

(4) NERC training for Regional Entity CMEP personnel.

The oversight engagement of NERC AAO staff and Critical Infrastructure department (CID) staff, as well as NERC Training and Education program staff increased over the assessment period, with the exception of 2013, thereby providing an enhanced view of the Regional Entities' performance. These oversight activities are further discussed below.

a. Annual CMEP Implementation Plan

As part of NERC's annual oversight, each Regional Entity is required to develop and submit to NERC, for approval, an annual Regional Entity CMEP IP in accordance with Appendix 4C of the ROP. In its IP, each Regional Entity identifies which Reliability Standards and requirements it will actively monitor, evaluate, report, sanction and appeal during the period covered by the IP (both those Reliability Standards and requirements that NERC specifies shall be monitored, and any additional Reliability Standards and requirements the Regional Entity proposes to monitor). These IPs are submitted to NERC on the schedule established by NERC, generally on or about October 1 of the preceding year. NERC previously published the Regional Entity IPs, and its own IP, as separate documents; however, beginning with the 2014 IPs, NERC now combines its IP and the Regional Entity IPs into a single document.[35]

Each Regional Entity must also report annually to NERC regarding how the Regional Entity carried out its delegated compliance monitoring and enforcement authority in the previous year, the effectiveness of its CMEP, and changes it expects to make to correct any deficiencies identified. Each Regional Entity provides its annual report on a schedule established by NERC, generally on or about February 15 of the following year. The Regional Entities' annual reports, along with Regional Entity responses to an annual NERC CMEP survey, are used to prepare NERC's annual CMEP report.

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[34] Due to ongoing restructuring and transitioning pursuant to the Reliability Assurance Initiative (RAI), these compliance activities ceased in early 2013, but are scheduled to resume in the fourth quarter of 2014.

[35] *See ERO Compliance Monitoring and Enforcement Program 2014 ERO CMEP Implementation Plan*, version 1.1, available at: http://www.nerc.com/pa/comp/Resources/ResourcesDL/2014_ERO_CMEP_IP_v1.1_%2804012014%20posting%29.pdf.

b. Key Reliability Standard Spot Check Program

The KRSSC program focuses on issues that have the highest potential to result in major impacts to the BPS. Through the KRSSC program, NERC compares and contrasts the procedures Regional Entities use when auditing a set of high-risk, high-impact or frequently violated Reliability Standards. The KRSSC focuses on the observation activities of the Regional Entity compliance audit team during pre-audit work and on-site audit work, as these are the primary audit observation procedures used in gathering and analyzing evidence. Through this program, NERC seeks to identify issues that Regional Entity audit teams experience when evaluating compliance with selected Reliability Standards, as well as areas in Regional Entity audit evaluations for which additional guidance may be needed to improve evaluation processes or to promote consistency in evaluations. The objective of the KRSSC program is not to identify a minimum acceptable auditing approach or to determine the best practices for determining compliance; rather, the emphasis is upon enhancing consistency and improving auditing approaches. The KRSSC process addresses a need, which was identified early in the assessment period, to increase opportunities to share best practices among Regional Entities.

For issues identified during KRSSCs, NERC provides Regional Entities with overall recommendations and guidance as needed regarding how to remediate issues and to enhance consistency across all the Regional Entities. Regional Entities also receive individualized information through confidential appendices. NERC audit staff holds teleconferences with each Regional Entity to discuss both Regional Entity-specific results and cross-Regional Entity results. NERC's proposed best practices are intended to apply to enhance elements of the Regional Entities' auditing practices and approaches. While NERC typically derives the KRSSC recommendations and best practices from review of the auditing practices for specific Reliability Standards, many of the audit practices and approaches identified have broader applicability to other Reliability Standards.

During the assessment period, NERC conducted three KRSSCs with the Regional Entities. The three KRSSCs focused on the following Reliability Standards: EOP-005-1, PRC-005-1, CIP-001, and EOP-004 (the latter two were evaluated jointly). For each KRSSC, two registered entity compliance audits from each Regional Entity were selected based upon the potential and actual risk posed to the BPS by the audited registered entities as well as the completion date of the audits. As part of its evaluation, NERC AAO staff examined the credentials, resource levels and audit implementation methods of the individual Regional Entities in conducting their compliance audits. NERC evaluated the Regional Entities separately during this process; however, in an effort to increase consistency, NERC communicated any departure from best practices to the individual Regional Entities.

c. Oversight Audits of Regional Entity Audits of Registered Entities

NERC conducts oversight audits of selected registered entity audits being performed by Regional Entities. The purpose of an oversight audit is to determine whether the Regional Entity conducted its compliance audit and related tasks in accordance with the requirements of the NERC ROP, the CMEP and the RDAs. NERC staff members observe a Regional Entity compliance audit of a registered entity on-site at the registered entity or at the relevant Regional Entity's office. A

Regional Entity audit of Operations and Planning Reliability Standards is observed by NERC AAO staff, while a Regional Entity audit of Critical Infrastructure Protection (CIP) Reliability Standards is observed by NERC CID staff. The Commission may also assign auditors to participate by observing the pre-audit activities and the on-site audit, although Commission participation is not specifically a component of the NERC oversight audit. Following the audit, NERC AAO staff identifies best practices and recommendations for the Regional Entity.

d. NERC Training Activities for Regional Entity Compliance Staff

Early in the assessment period, NERC and the Regional Entities identified training, education and communication as key initiatives for compliance monitoring. As a result, during the assessment period, training opportunities for Regional Entity CMEP staff (as well as for registered entities) have been increased.[36]

Training of CEA staff is a central component of NERC's compliance monitoring oversight of Regional Entities. NERC's training programs for compliance auditors are based upon the U.S. Government Accountability Office's Generally Accepted Government Auditing Standards (GAGAS) for performance audits. GAGAS is primarily used by auditors of government entities and entities that receive government grants and other funding. All of NERC's CEA training material is reviewed and updated based on changes to GAGAS, the CMEP, the NERC ROP, and internal procedures, as well as feedback from experience.

From 2009 to 2013, NERC conducted the following training sessions for ERO compliance auditors:

- 18 auditor workshops and webinars
- 11 Audit Team Leader training sessions
- 3 CIP training sessions
- 12 compliance investigation training sessions

In addition, NERC made a total of 25 presentations at Regional Entity compliance workshops, including 18 presentations in 2012. Examples of topics presented in the auditor workshops and webinars during this period included:

- Fundamentals of NERC Compliance Audits
- GAO Auditing Standards
- Audit Scoping
- Auditor Checklist and Handbook

[36] Regional Entity training activities provided for registered entities are described in §II.B.2.a below and in the individual Regional Entity assessments in §II.B.2.b below.

- Gathering Quality Evidence
- Sampling/Random Sampling Techniques
- Quality Audit Documentation
- Conducting Performance Audits
- Find, Fix, Track, and Report (FFT) Process
- Internal Controls
- CIP Reliability Standards
- Critical Asset Identification and CIP-002 Sufficiency Reviews
- CIP Compliance

2. NERC Evaluation of Regional Entity Compliance Monitoring Programs

Subsection 2.a below discusses, on a collective basis, the Regional Entities' training and education programs for registered entity personnel. Each Regional Entity maintains, for organizational, budgeting and accounting purposes, a Training, Education, and Operator Certification program separate from its Compliance Monitoring and Enforcement and Organization Registration and Certification program. For purposes of this assessment, the Regional Entities' training, education and outreach activities are being discussed and assessed as part of the evaluation of their compliance programs because these activities are heavily focused on compliance-related topics. Subsection 2.b then evaluates each Regional Entity's compliance monitoring program on an individual basis.

a. Regional Entity Training, Education and Outreach Programs for Registered Entity Personnel

The RDAs provide that the Regional Entity "may provide training and education to registered entities, as it deems necessary, in support of its performance of delegated functions and related activities under this Agreement."[37] Providing training for registered entities is critical to reliability for the following reasons:

(i) To ensure that registered entities understand what is required to comply with Reliability Standards, with a particular focus on the most frequently violated Reliability Standards;

(ii) To equip registered entities with the tools to identify risks to reliability; and

[37] This provision is generally found in Section 7(e) of the RDAs.

(iii) To help registered entities establish compliance programs that systematically detect, report, correct and prevent risks to reliability and therefore reduce violations.

The Regional Entities offer two types of training opportunities for registered entities. First, each Regional Entity conducts training and outreach initiatives with registered entities through its Training, Education, and Operator Certification program. Under this program, Regional Entities offer NERC-approved continuing education program courses and activities necessary to maintain one's status as a NERC-certified system operator. The target audience of the program is BPS operating personnel, including system operations personnel, operations support personnel (engineering and information technology), supervisors and managers, and training personnel. NERC's Personnel Certification and Continuing Education staff and Training and Education staff support the Regional Entities' efforts in this area. Second, Regional Entities conduct supplemental compliance and enforcement training for registered entities, typically through workshop events. For the supplemental compliance and enforcement training and outreach for registered entities, the Regional Entity has the discretion to choose the content, delivery method, and location of such training.

Feedback from registered entities regarding the Regional Entity training workshops has been very positive; and, participants have sought coverage of additional topics. To address requests from the industry for an increased level of compliance information as well as for enhanced CMEP transparency, many Regional Entities have committed more resources to training in order to engage in additional training, education and outreach activities. These increased activities have included additional workshops, newsletters to industry, and other direct communications. Much of the information covered by these increased outreach and communication activities takes the form of lessons learned.

b. Assessments of the Individual Regional Entities

As an overall evaluation, during the assessment period, the Regional Entities made meaningful progress in improving their compliance monitoring programs and their audit practices and procedures consistent with the requirements of the ROP (specifically, the CMEP, Appendix 4C) and the RDAs. Overall, the Regional Entities worked diligently to plan and complete their scheduled compliance audits during the assessment period. NERC's oversight of the Regional Entity compliance programs shows that the Regional Entities are meeting the baseline requirements of the ROP and the RDAs. NERC's oversight has also shown that there continue to be varying compliance monitoring practices across the ERO.

NERC has three main objectives for the continued evolution of the compliance monitoring program. First, the Regional Entities are revising their existing practices to better align with risk using generally accepted audit practices. Second, NERC and the Regional Entities have developed a standardized audit checklist to ensure consistent conduct of audits across the ERO. Third, NERC, in conjunction with the Regional Entities, have developed competency guidelines for compliance monitoring staff and developing training to accompany the competency guidelines. Moreover, through RAI which moves away from a one-size-fits-all approach for monitoring registered

entities to an compliance oversight approach that considers risk, the controls registered entities' have established around compliance with Reliability Standards, and the existing tools in the CMEP.

NERC AAO staff has collaborated with the Regional Entities to develop RAI pilot projects conducted by several Regional Entities. Some Regional Entities volunteered to establish pilot programs to test strategies regarding: (i) entity risk assessment; (ii) management controls (identification and testing methodology); (iii) audit scope linked to risk; and (iv) data gathering techniques (interviews, surveys, etc.) and the process for disseminating the pilot across the ERO. The participating Regional Entities then conducted the pilot programs with registered entities within their respective footprints. Each participating Regional Entity used varying techniques with the goal of establishing a repeatable risk assessment and internal control review process, tied to Reliability Standards that could be replicated by non-participating Regional Entities.

In the individual Regional Entity assessments that follow, NERC examines how the Regional Entities satisfied the baseline requirements of the ROP and RDAs in executing their compliance monitoring responsibilities during the assessment period. NERC's review encompassed two major areas: (i) department structure and staffing, and (ii) compliance monitoring tools and audit planning. With respect to the first area, NERC examined the structure of the Regional Entity CMEP departments, the adequacy and qualifications of staff resources, and the involvement of industry SMEs and Regional Entity members, as well as the existence of policies to maintain the independence and integrity of the compliance staff. In the second area, NERC examined the compliance monitoring tools available to assist the Regional Entities in audit planning and execution. Elements central to these audit planning and execution efforts are validation of data accuracy, confidentiality of audit information, and quality assurance of audit findings and audit reports. In addition, for each Regional Entity compliance monitoring program, NERC reviewed the Regional Entity's guidance and training offered to industry stakeholders and its participation to date in the RAI.

i. Data on Regional Entity Compliance Resources

The following two tables show the amounts of (i) budgeted direct expenses and (ii) budgeted direct full-time equivalent (FTE) staffing in each Regional Entity's CMEP in 2009 and 2013, as taken from their Business Plans and Budgets filed with the Commission. These figures are for the Regional Entity's entire Compliance Monitoring and Enforcement and Organization Registration and Certification program.[38] As the tables show, during the assessment period, each Regional Entity significantly increased its budgeted direct expenses and its budgeted FTE staffing for its CMEP.

Regional Entity	2009 Budget	2014 Budget	Percent Increase
FRCC	$1,991,643	$4,281,909	115.0%
MRO	$2,071,510	$3,864,192	86.5%

[38] MRO's 2014 budgeted expense does not include the expenses for its Organization Registration and Certification activities, which MRO conducted in and budgeted under its Reliability Standards program.

NPCC	$2,095,204	$5,080,485	142.5%
RFC	$5,099,328	$9,788,246	92.0%
SERC	$4,805,617	$7,389,556	53.8%
SPP RE	$1,283,653	$4,258,217	231.7%
Texas RE	$1,628,935	$5,991,654	267.8%
WECC	$6,165,303	$8,592,053	39.4%

Regional Entity	2009 FTE	2014 FTE	Percent Increase
FRCC	9.10	19.26	111.6%
MRO	10.00	21.26	112.6%
NPCC	9.00	16.00	77.8%
RFC	23.00	43.00	87.0%
SERC	21.50	42.50	97.7%
SPP RE	6.00	22.10	268.3%
Texas RE	14.15	40.00	182.7%
WECC	30.00	58.00	93.3%

ii. Florida Reliability Coordinating Council, Inc. (FRCC)

Department Structure / Staffing / Conflict of Interest Avoidance

During the assessment period, FRCC's Compliance department was split into two sections, a compliance monitoring group and an enforcement group. In October 2012, FRCC separated the reporting of these two groups to create more independence between monitoring and enforcement activities. The manager of compliance enforcement reports directly to the vice president and executive director of reliability standards and compliance while the manager of compliance audits reports to the director of compliance. In addition, in June 2014, FRCC created a third group, Risk Assessment and Mitigation. This group is focused on risk assessment, both before a compliance monitoring activity takes place, to help determine the scope of the monitoring oversight; and after a possible violation is discovered, to help to determine the risk posed by the violation so that the most efficient disposition can take place. The risk evaluation before a compliance monitoring activity takes place will include both inherent risk assessment and assessment of the registered entity's internal controls. Additionally, the Risk Assessment and Mitigation group is now the primary contact for registered entities with respect to the development, implementation and completion of mitigation plans. The manager of risk assessment and mitigation reports to the director of compliance.

While NERC does not specifically endorse a particular organizational structure for CMEP departments at the Regional Entity level, NERC supports department models that facilitate the prioritization of risk. All Regional Entities are currently evaluating the structure of their CMEP departments to similarly assess how best to organize around risk.

With the recent change just described, FRCC's compliance monitoring group consists of eight positions, while the Risk Assessment and Mitigation group consists of four positions. Many of FRCC's audit team members individually have over 15 years of industry experience. Five audit

team members were certified or hold active NERC certifications as system operators. Between 2011 and 2012, FRCC increased its staffing to add areas of expertise.

FRCC CIP auditors are required to at least have Certified Information Systems Security Professional (CISSP) certification or Certified Internal Security Auditor (CISA) certification and to demonstrate security background knowledge covering multiple domains including physical and network security. Each CIP auditor is required to maintain this certification by attending annual conferences and training seminars to achieve the required minimum of 20 continuing professional education hours annually. The FRCC manager of compliance audits is responsible for vetting the topics covered during these conferences and seminars.

The FRCC Compliance Monitoring group prepares its Operations and Planning auditors to be supplemental team members during CIP audit engagements by conducting training sessions for them to review NERC CIP Reliability Standards and evidence that can be used to demonstrate compliance with those Reliability Standards. The Operations and Planning auditors serve as supplemental team members for CIP audits on a rotational basis to increase their knowledge of CIP Reliability Standards.

FRCC tracks the on-going educational needs related to certifications for both CIP and Operations and Planning auditors. FRCC also develops an annual budget to support this training effort. FRCC began using the *Compliance Auditor Capabilities and Competency Guide* recently developed by the ERO Enterprise,[39] as well as building a matrix to plan for and ensure training and development opportunities for the range of skills needed in the auditor positions. The FRCC audit team members participate in various auditor training sessions and workshops. FRCC audit staff members are required to attend NERC-sponsored ERO training.

Although FRCC is not presently using SMEs from outside the organization for its CIP or Operations and Planning audit engagements, FRCC has developed a procedure should it need to use such experts in the future. This procedure is titled *Procedure for the Use of Industry Volunteer Subject Matter Experts* and is posted alongside the *Nomination Form for the Industry Volunteer Subject Matter Expert Pool* on FRCC's website. This procedure guides FRCC compliance staff on the use of industry volunteer SMEs.

FRCC has adopted policies and procedures to avoid conflicts of interest in its CMEP work. During the assessment period, FRCC implemented an Annual Employee Recital and Disclosures process. Each FRCC employee receives a copy of the FRCC *Conflict of Interest Policy* and signs the *Conflict of Interest Questionnaire, Disclosure Statement of Stock Ownership of FRCC Member Companies*, and *Non-Disclosure Acknowledgement*. FRCC maintains a document titled *FRCC Auditor Objectivity, Independence and Impairment* on its public web page. This document provides, among other things, that auditors must remain free from "personal impairments to independence" that might cause auditors to limit the scope of their audit or alter audit findings.

[39] *See ERO Enterprise Compliance Auditor Manual* available at: http://www.nerc.com/pa/comp/Pages/ERO-Enterprise-Compliance-Auditor-Manual.aspx.

Compliance Monitoring Tools and Procedures

FRCC utilizes a number of tools to execute its audits, several of which are highlighted in this section. FRCC uses an evidence index tool to catalogue evidence submitted throughout the audit process. FRCC references the evidence index numbers when referring to documentation during compliance audits and includes these references in its audit documentation. FRCC also developed its own tool for tracking additional evidence requests and for issuing follow-up data requests. These tools increase the efficiency of its audits by facilitating tracking. In addition to these tools, FRCC audit teams use several other standard auditor tools. For example, FRCC utilizes the RSAWs and the Regional Advanced Techniques Staff (RAT-STATS) sampling tool. AAO staff noted in 2012 that FRCC developed its own risk assessment document to use as an interim step until NERC and the Regional Entity working groups create a template for ERO-wide use.

FRCC maintains copies of its Compliance Audit Procedure, Spot Check Procedure, and Compliance Investigation Procedure on its public web page. The procedures are reviewed periodically and updated as necessary. FRCC's Compliance Tracking and Submittal system (CTS) is also central to its compliance monitoring efforts. The database provides multiple functionality for entities registered in FRCC including:

(1) The ability to input and maintain registered entity contact information;

(2) The ability to submit and update CIP Technical Feasibility Exceptions (TFEs);

(3) Tthe ability of FRCC compliance staff to review draft registered entity compliance responses, such as mitigation plans, prior to submittal by the registered entity;

(4) The ability to submit compliance-related documentation; and

(5) The ability to allow the review of historical compliance submittals.

FRCC Compliance staff use a related software system called Compliance Information Tracking System (CITS) to store information related to processing of violations and mitigation plans. CITS is also used for developing reports for management, development of metrics and for supplying data to the NERC associated database.

Quality Assurance

In addition, after each compliance audit or spot check, the FRCC team involved conducts a lessons learned session focused on quality and process improvement. Action plans are developed to address these lessons learned. To ensure completeness and consistency, the manager of compliance audits reviews all audit reports before they are finalized and shared with NERC and the registered entity. FRCC Compliance staff have developed a number of internal procedures based upon the procedures and requirements identified in the NERC ROP. These procedures are reviewed on an annual basis and updated as necessary. These procedures are followed to ensure that FRCC Compliance staff implement compliance and enforcement activities in accordance with the guidance established by NERC and FERC.

Guidance and Training for Industry Stakeholders

FRCC utilizes its compliance workshops as the primary mechanism for outreach to its registered entities. In 2013, FRCC hosted two general compliance workshops (with an Operations and Planning focus) and one CIP compliance workshop. During these workshops, multiple techniques are used to increase the effectiveness of addressing current topics including use of registered entities to provide presentations on "best practices." Registered entities are encouraged to discuss compliance-related topics with auditors during small group breakout sessions. FRCC also conducts webinars on various topics of interest to registered entities throughout the year. Previous webinars covered topics such as preparing for an audit, enforcement process, audit approaches for specific Reliability Standards, the transition to Version 5 of the CIP Reliability Standards, and the annual FRCC Implementation Plan. FRCC also maintains a Frequently Asked Questions section on its website. FRCC Compliance staff participates in regular Regional Entity Committee and Compliance Forum (RECCF) meetings to disseminate the latest information regarding its compliance program to industry stakeholders. In addition FRCC CIP auditors are regularly scheduled on the agenda of the regional member services CIP Subcommittee meetings that are held monthly to address CIP monitoring process and CIP audit approach issues.

Maintaining Confidentiality

There are strict confidentiality requirements[40] associated with the investigation of any complaints regarding such potential violations of Reliability Standards. FRCC follows the NERC CMEP to maintain the confidentiality of any complaint and maintains a link to NERC's complaint reporting page from its web page. FRCC ensures that its officers, directors, and employees with access to confidential data and information are under obligations of confidentiality pursuant to the *FRCC Confidentiality Policy*. Annually, all FRCC Compliance and Enforcement staff is trained on the *FRCC Confidentiality Policy*. FRCC has also implemented a secure vault system to receive electronic compliance evidence from Registered Entities. The vault system uses 256-bit Advanced Encryption Standard (AES) cipher encryption to deliver evidence to FRCC. Access to the vault is restricted to Compliance staff and supporting IT staff, and CIP evidence is limited to view only in the vault.

Participation in RAI

FRCC Compliance staff have been involved in several aspects of RAI. FRCC provided a participant on the ERO team that developed the Auditor Handbook and associated checklist. FRCC also provided personnel to aide in the training of auditors relative to the handbook and checklist at the ERO auditors workshop.

In January 2014, FRCC Enforcement staff began to triage and review all possible violations to determine the disposition method within 60 days on average. FRCC is participating in the piloting of an approach that allows selected registered entities to aggregate and submit periodically

[40] *See* ROP Section 402.8 (NERC Oversight of the Regional Entity Compliance Monitoring and Enforcement Programs — Confidentiality).

any possible minimum risk violations they may have for certain Reliability Standards and Requirements.

FRCC Compliance staff have been involved with the pilot integration team that is reviewing the results of Regional Entity pilots concerning inherent risk assessment and internal controls evaluation to determine the ERO approach to scoping more risk-based compliance monitoring.

iii. Midwest Reliability Organization (MRO)

Department Structure / Staffing / Conflict of Interest Avoidance

In 2009, MRO split its CMEP function into three distinct departments, each with its own assigned personnel: (i) Compliance; (ii) Risk Assessment and Mitigation; and (iii) Enforcement. MRO Compliance staff conduct audits and spot checks of compliance with Reliability Standards by registered entities. Since 2009, MRO has expanded its Compliance staff from five to eight auditors, split evenly between Operations and Planning and CIP, with most of the additions being CIP auditors. MRO seeks to achieve a balance of skills in its Compliance department, including technical expertise and audit experience. This balance is achieved through hiring of staff with needed skillsets and experience (i.e., system planning, protection systems, or cybersecurity) as well as through supplemental training. Training on core skills, such as ethics or audit practices, is offered generally, while specific skill gaps or training needs are identified on an individual basis. MRO currently has Operations and Planning auditors who are all certified as either NERC system operators or registered professional engineers. CIP audit staff generally hold certifications, such as CISSP and CISA that align with Department of Defense requirements.[41]

MRO Risk Assessment and Mitigation staff undertake an independent review of the facts and circumstances surrounding each violation discovered by Compliance staff. They determine whether sufficient evidence supports each possible violation. Risk Assessment and Mitigation staff also work with the registered entity to develop an effective and comprehensive mitigation plan in the event that a violation is confirmed.

Confirmed violations move to the Enforcement department staff, who review recommendations made by Risk Assessment and Mitigation staff, verify all relevant facts, and evaluate appropriate enforcement actions. The factual review conducted by Risk Assessment and Mitigation and Enforcement staff is intended to ensure a consistent, accurate application of the NERC Reliability Standards. Through this segregation of duties, MRO seeks to establish independence among those making the findings, those assessing risk, and those determining and negotiating penalties and sanctions.

MRO has adopted policies and procedures to avoid conflicts of interest in its CMEP work and to ensure the independence of its staff. Those policies and procedures provide that:

[41] *See* Department of Defense Directive 8570.1, "Information Assurance Training, Certification, and Workforce Management" (August 15, 2004) available at: http://www.dtic.mil/whs/directives/corres/dir.html.

(1) No MRO director or member of MRO committees may participate in any way in compliance violation investigations, compliance audits, reports, sanction determinations, or other matters within the CMEP.

(2) An MRO director or member of an MRO committee may engage in actions on behalf of his or her employer regarding a compliance monitoring and enforcement matter undertaken by MRO; however, that director or member of an MRO Committee must recuse himself or herself from any board or committee decisions, meetings, and actions related to that compliance monitoring and enforcement matter. Potential concerns about the participation of a MRO director or member of an MRO committee are brought to the attention of the president and chief executive officer who will seek an appropriate resolution of the matter with the advice and counsel of the independent directors.

Compliance Monitoring Tools and Procedures

MRO uses 32 primary tools to execute its audits, four of which are highlighted in this section. A key guidance source for MRO is GAGAS, which provides a framework for conducting quality audits. MRO's primary audit template tool for documenting audit procedures, testing, findings and reports is its *Audit and Spot Check Process and Procedures* dated May 2012. This document consists of 31 templates and serves as a detailed roadmap and reference tool for MRO's compliance team to use during Operations and Planning and CIP audits as well as spot checks. The audit team also uses an FSAW audit workbook which is an MRO-specific tracking tool built on the RSAW for documenting audit work.[42] This tool facilitates evidence requests with registered entities and compliance with Reliability Standards status tracking to ensure that an audit proceeds in a timely fashion. This tool was updated in 2013 prior to its incorporation into the ERO Enterprise Auditor Handbook.

MRO's web Compliance Database Management System (webCDMS) is also central to its compliance monitoring efforts. WebCDMS assists registered entities in documenting and submitting compliance information. The database enables multiple functionality including:

(1) Viewing Regional Entity and NERC requirements per a registered entity's function(s);

(2) Reviewing compliance information prior to submittal;

(3) Submitting compliance documentation;

(4) Generating compliance reports; and

(5) Tracking mitigation plans.

[42] FRCC and WECC also have tools that mirror this tool.

The webCDMS tool previously required each registered entity to use different logins and passwords. A recent enhancement to webCDMS provides the ability for a registered entity to logon and access webCDMS on behalf of multiple affiliated entities within a particular Regional Entity, using a single username, password, and webCARES digital certificate.

Quality Assurance

MRO relies on a number of tools to assist in its quality assurance efforts. Compliance staff perform peer reviews of audit documentation during audit fieldwork, in addition to reviews conducted by management and by non-Compliance personnel. Such reviews ensure the completeness of audit documentation and that any findings are consistent with the elements of a finding per GAGAS. In addition to audit documentation reviews, Compliance staff rely on "lessons learned" discussions and post-audit surveys of registered entities to help identify opportunities to improve compliance monitoring-related processes and to improve future interactions with registered entities. Finally, Compliance staff review audit findings with Risk Assessment and Mitigation staff to ensure consistent application of the NERC Reliability Standards among MRO staff and across registered entities in the MRO footprint. All lessons learned are shared internally and, if more broadly applicable outside of MRO, with personnel from NERC and other Regional Entities.

Guidance and Training for Industry Stakeholders

MRO supports industry in developing compliance guidance in the form of Application Guides. Application Guides offer non-binding, training guidance regarding how to meet the requirements of existing and emerging Reliability Standards. They can include the following:

(1) Presentation materials developed by MRO member organizations who volunteer SMEs to the NERC SC;

(2) FERC comments relating to a Reliability Standard;

(3) Documentation and evidence demonstrating compliance; and

(4) References and source documents related to laws, policies, directives, instructions, Reliability Standards and guidelines.

MRO tracks the impact of Application Guides through trend analysis of Reliability Standard violations.

MRO's website contains posted compliance guidance directed to industry stakeholders, including content about internal controls, best practices for internal compliance programs, and aids to assist in compliance for specific and more challenging Requirements. Instructional materials informing stakeholders as to what they can expect and what professional audit standards they should anticipate for their compliance audits is made available on this site. Guidance is also offered to registered entities in their audit notification packets from MRO. With regard to small entities, MRO routinely communicates to the representatives of the applicable trade associations that their members should contact MRO directly with any concerns, including regulatory burden.

MRO holds at least two one-day workshops per year addressing reliability, compliance, and enforcement. In 2013, MRO also held a model building workshop to provide direction and instruction for those who are directly involved in the preparation and submittal of model data. MRO's bi-monthly newsletters have a regular column titled "Tips and Lessons Learned" which covers a wide range of topics from how to use webCDMS more effectively to changes in the procedures for requesting and processing TFEs. Occasionally, "Tips and Lessons Learned" are authored by registered entities covering topics like the CIP Version 5 transition study. MRO conducted its first webinar in 2014 and as part of its review of training initiatives, MRO will be asking its stakeholders for input on the use of webinars. MRO is not participating in any initiative with other Regional Entities to decrease or consolidate the number of announcements published for industry; however, MRO reports that in response to its stakeholder surveys, registered entities have generally encouraged MRO to communicate more, not less.

Maintaining Confidentiality

There are strict confidentiality requirements[43] associated with the investigation of any complaints regarding possible violations. MRO follows the CMEP to maintain the confidentiality of any complainant and has a third-party hotline available to complainants to maintain anonymity. Complainants can contact MRO's chief compliance and ethics officer who does not do any CMEP work to maintain anonymity.

All data related to MRO's CMEP activities, particularly registered entity data that may be designated Critical Energy Infrastructure Information, are protected according to Section 1500 of the NERC ROP to ensure that confidentiality is maintained. Data is stored on a restricted network drive, to which access is granted on a need-to-know basis according to individuals' job responsibilities. Outside of the restricted drive, data may only be stored for limited periods of time on encrypted hard drives or IronKey-encrypted USB drives. When transferring data to or from registered entities, MRO makes use of a secure Enhanced File Transfer (EFT) server, which includes encryption both during transfer and while stored on the EFT server. The EFT server is also utilized for all data transfers involving NERC, FERC, or other Regional Entities.

Participation in RAI

As part of the RAI, NERC has assisted with ensuring consistency among audits conducted by the Regional Entities by developing a Compliance Auditor Manual and Checklist for the Electric Reliability Organization (Audit Manual). MRO has already taken steps to follow the protocols established in the Audit Manual. In particular, MRO has changed its protocol regarding independence of auditor staff to conform to "Government Auditing Standards."[44] MRO has also indicated that it will fully adopt the Audit Manual protocols.

[43] *See* NERC ROP Section 402.8 (NERC Oversight of the Regional Entity Compliance Monitoring and Enforcement Programs — Confidentiality).

[44] This publication is also known as the "Yellow Book."

iv. Northeast Power Coordinating Council, Inc. (NPCC)

Department Structure / Staffing / Conflict of Interest Avoidance

Activities performed pursuant to the CMEP are performed within the NPCC Compliance Monitoring and Enforcement and Organization Registration and Certification (CORC) program. In total, NPCC's CORC program area consists of 16 employee positions. The CORC program is divided into two subprograms: (i) an audits and investigations subprogram and (ii) a registration and enforcement subprogram. The audits and investigations subprogram conducts audits, spot checks, and compliance investigations. It is comprised of eight staff employees. The audits and investigation subprogram utilizes approximately a dozen independent consultants in addition to NPCC employees. During an audit, spot check, or compliance investigation, the audits and investigation team makes a determination of whether a registered entity has any possible violations of NERC Reliability Standards, and provides NPCC enforcement staff with a final report.

The registration and enforcement subprogram is comprised of eight staff employees. The registration and enforcement subprogram reviews the audit, spot check, or compliance investigation report, and makes an independent evaluation of the facts and circumstances surrounding each possible violation identified in the report. Registration and enforcement will determine whether sufficient evidence supports each possible violation and will work with the registered entity to develop an effective and comprehensive mitigation plan. Registration and enforcement will also evaluate the appropriate enforcement actions, including sanctions and/or penalties.

Many NPCC audit team members individually have over 30 years of industry experience. Two audit team members are NERC-certified system operators and two are registered professional engineers. As described above, NPCC also relies on independent SME consultants who have no other industry obligations or conflicts of interest to perform compliance monitoring activities and to support any increases in its workload.

NERC AAO staff recommends that NPCC consider having more audit staff become NERC-certified system operators. NPCC audit team members participate in various auditor training sessions and workshops. All NPCC auditors attend at least one of the two annual NERC ERO compliance workshops to keep apprised of current topics and NERC initiatives affecting compliance. NPCC itself conducts four in-house auditor training sessions each year. In addition, NPCC auditors augment their training with annual required or suggested NERC training.

With respect to monitoring compliance with the CIP Reliability Standards, NPCC recruits employees with network systems protection experience. Two NPCC auditors have CISSP certifications and one auditor has physical security protection experience. NPCC examines the training that these auditors will need for the upcoming year or other future time frame and assures that its CIP auditors (both employees and consultants) receive the appropriate supplemental training, in addition to the regular training described above.

NPCC has adopted policies and procedures to avoid conflicts of interest in its CMEP work and to maintain the independence of its compliance staff. Those policies and procedures provide that each NPCC director, officer, and employee shall: (i) avoid and refrain from involvement in

situations where there is an actual conflict of interest; (ii) disclose any actual or potential conflicts of interest that may arise; (iii) recuse himself or herself from participation in any action involving an actual or potential conflict of interest; and (iv) refrain from voting on any actions where there is an actual or potential conflict of interest.

Compliance Monitoring Tools and Procedures

NPCC utilizes a number of tools to execute its audits, several of which are highlighted in this section. NPCC instituted an improved process in order to facilitate its data reviews in both pre-audit and on-site phases. Its pre-audit process involves several rounds of questions and answers between NPCC and the registered entity relating to a subset of Reliability Standards within the audit scope. The NPCC auditor catalogs the data requests in an evidence tracking spreadsheet. Following this initial evidence review, NPCC provides the evidence tracking spreadsheets to the registered entity prior to on-site activities. During the on-site portion of the audit, the evidence tracking spreadsheets are used by the audit team to direct SME interviews and record additional questions and data requests determined throughout the interview process. NPCC also developed a change management process to ensure the integrity of evidence tracking spreadsheets. At the end of each day of the audit, the NPCC audit team reviews the updated evidence tracking spreadsheets with the registered entity in a debrief.

NPCC's Compliance Data Administration Application (CDAA) is central to its compliance monitoring efforts. All registered entities in NPCC are required to use the CDAA to submit self-certifications and self-reports. Information submitted into the CDAA is automatically placed into CITS. The CDAA database enables multiple functionality, including:

(1) Viewing Regional Entity and NERC requirements per a registered entity's function(s);

(2) Reviewing compliance information prior to submittal;

(3) Submitting compliance documentation;

(4) Generating compliance reports; and

(5) Tracking mitigation plans.

Quality Assurance

NPCC's audit processes are documented in its Compliance Procedures; these procedures are reviewed on a periodic basis. Following the conclusion of every on-site and off-site audit, NPCC asks registered entities to complete a feedback form. NPCC's audit group reviews comments in order to assess how to improve its processes. NPCC chooses to include detailed information and justification for all audit conclusions in the nonpublic audit reports, including "No Finding" and "Not Applicable." NPCC performs a quality check of draft reports prior to sending them to registered entities for comment. As a result, NPCC does not always meet the 60-day timeline for issuance of audit reports. Additionally, in 2013, NPCC began assigning a minimum of two auditors, in addition to the audit manager, to each off-site audit. This allows the auditors

to learn from each other and provides additional quality assurance. Prior to 2013, NPCC assigned a minimum of one auditor in addition to the audit manager, to each off-site audit.

Guidance and Training for Industry Stakeholders

Since 2009, NPCC has provided the same level of resources for its Training, Education, and Operator Certification program. NPCC dedicated .1 FTE to its Training, Education, and Operator Certification program in 2009. Last year, NPCC also dedicated .1 FTE to this program.[45] NPCC utilizes its semi-annual standards and compliance workshops as its main mechanism for outreach to its registered entities, and these activities are budgeted in those respective program areas. NPCC also conducts webinars open to all NPCC registered entities on an as-needed basis. It also posts question-and-answer documents on its website as appropriate. NPCC responds to individual requests from registered entities, but if an individual concern can be applied to all registered entities, NPCC will post a Compliance Guidance Statement or clarification to address that concern. NPCC hosts regular stakeholder-based Compliance Committee meetings to disseminate the latest information regarding the compliance program to industry stakeholders. Many of these regularly-scheduled meetings are hosted on web conferencing platform to enable broad and cost-effective participation. NPCC also developed an internal entity guide to assist registered entities in meeting quarterly reporting requirements pursuant to PRC-004 and NERC ALR4-1.

In 2013, NPCC implemented a Physical Security Outreach program. Under this program, NPCC physical security SMEs performed physical security assessments on a voluntary basis for registered entities that have requested such assistance. NPCC has developed a new Cyber Security Outreach program for 2014.

Maintaining Confidentiality

There are strict confidentiality requirements[46] associated with all CMEP activities. NPCC follows the CMEP and Section 1500 of the NERC ROP to maintain the confidentiality of all confidential CMEP-related activities. Additionally, NPCC staff involved in CMEP-related activities have signed confidentiality agreements.

Participation in RAI

As part of the RAI initiative described in NERC's Statement of Activities and Accomplishments, NPCC participated in efforts to develop the Audit Manual and Checklist for the ERO. NPCC also participated in the RSAW Working Group to ensure commonality on audit approaches to the NERC Reliability Standards. NPCC senior management participated in the RAI workgroups charged with developing a framework for Entity Risk Assessment and Internal Control Assessment. NPCC also participates in various Regional Entity compliance and enforcement groups to further consistency in compliance applications across the Regional Entities.

[45] 2009 Business Plan and Budget, Northeast Power Coordinating Council, Inc., June 24, 2008.

[46] *See* ROP Section 402.8 (NERC Oversight of the Regional Entity Compliance Monitoring and Enforcement Programs — Confidentiality).

v. ReliabilityFirst Corporation

Department Structure / Staffing / Conflict of Interest Avoidance

During the assessment period, three departments carried out ReliabilityFirst's CMEP functions: (i) Compliance Audits (handling audits and spot checks of compliance with Reliability Standards by registered entities);[47] (ii) Investigations and Compliance Services (handling compliance investigations, registration and certification, self-certifications and periodic data submittals, complaints, and industry training); and (iii) Enforcement (handling all aspects of enforcement actions, including fact and circumstance review, risk-harm assessment,[48] mitigation plan review and validation, and the negotiation and drafting of settlements and final disposition documents).

At the beginning of 2014, ReliabilityFirst reorganized its compliance structure in order to more clearly focus around risk and to support RAI. Presently, ReliabilityFirst's Compliance Monitoring group handles compliance audits, spot checks, investigations, and complaints, and is subdivided into two departments: (i) a CIP Compliance Monitoring department and (ii) an Operations and Planning Compliance Monitoring department. ReliabilityFirst created a new Reliability Assurance and Monitoring group, which is comprised of three departments: (i) Entity Development (which conducts assist visits, appraisals, certifications, and entity training); (ii) Risk Analysis & Mitigation (which conducts risk-harm assessments, handles mitigation activities, and conducts risk-based assessments, event analyses, and analytics); and (iii) Standards and Services (which is responsible for Reliability Standards, registration, self-certifications and data submittals). ReliabilityFirst's Enforcement group is now housed under Legal & Regulatory Affairs.

ReliabilityFirst's compliance department (consisting of the Compliance Monitoring and Reliability Assurance and Monitoring groups) consists of 33 positions. Many employees within those positions have at least 15 years of industry experience. Additionally, many of ReliabilityFirst's compliance staff are registered professional engineers, and many are NERC-certified system operators. ReliabilityFirst's CIP auditors have extensive experience in information technology and cybersecurity and hold various several security, audit, and IT certifications.

ReliabilityFirst requires regular training for its compliance staff. ReliabilityFirst's Compliance Audit Procedure has specific training requirements that its audit team members must complete prior to attending an audit. ReliabilityFirst audit team participants and ReliabilityFirst observers must complete all required NERC auditor training courses. All audit team leaders (ATLs) must complete the *Fundamentals of Auditing for NERC Compliance Team Leaders* and *Gathering Quality Evidence* modules. All other audit team participants must complete the

[47] Upon the implementation of the CIP Reliability Standards, Compliance Monitoring was subdivided into a CIP Compliance Audit department and an Operations and Planning Compliance Audit department.

[48] To enhance its risk determination process in enforcement, ReliabilityFirst developed a risk-harm assessment process which, among other things, requests technical experts to answer a series of questions about the risk and harm posed by each violation using a common scale to ascertain a quantified risk assessment.

Fundamentals of Auditing for NERC Compliance Audit Team Members and *Gathering Quality Evidence* modules. Audit team members participate in various auditor training sessions and workshops. ReliabilityFirst sends its auditors to NERC-led trainings whenever they occur. ReliabilityFirst also holds its own staff training week during which it provides on-site training to all staff members, including auditors. For example, during the 2013 ReliabilityFirst training week, ReliabilityFirst's Operations and Planning auditors received training on protection systems, while its CIP auditors received training on various cybersecurity issues. All auditors received training on the evaluation and communication of risk and using risk-based criteria in informed decision-making.

ReliabilityFirst has adopted policies and procedures to avoid conflicts of interest in its CMEP work in order to maintain the independence of its compliance staff. All ReliabilityFirst employees, contractors, and directors are governed by the ReliabilityFirst *Conflict of Interest Policy*, the *ReliabilityFirst Code of Business Conduct and Ethics*, and Section 1500 of the NERC ROP. Its employees and contractors must sign and adhere to nondisclosure and confidentiality agreements and complete conflict of interest forms. ReliabilityFirst does not allow stakeholder participation in its compliance or enforcement activities. Further, ReliabilityFirst does not allow its industry sector directors to participate in settlement discussions with ReliabilityFirst on behalf of their Registered Entity.[49]

Compliance Monitoring Tools and Procedures

ReliabilityFirst utilizes a number of tools to execute its audits, several of which are highlighted in this section. During the assessment period, ReliabilityFirst implemented changes to its compliance monitoring processes and tools to ensure that they are consistent with NERC guidance, other Regional Entities, and GAGAS.

Most entities in the ReliabilityFirst footprint utilize an application called "Color-Code-It" to make evidence submittals which saves audit teams considerable review time and helps ensure a comprehensive and a focused audit or spot check. Use of this application also allows registered entities to organize and monitor their own compliance, maintain internal controls, and reduce the burden of compliance monitoring.

ReliabilityFirst uses a pre-audit review period to review evidence submittals, seek additional information, make compliance determinations, and develop a focused requirement listing to be addressed at the audit review. Audit reviews are typically scheduled two to three weeks prior to the audit. ReliabilityFirst believes that this improvement has provided the time to do a very comprehensive audit and maintain focus on items which need more attention or clarification.

During the assessment period, ReliabilityFirst began to develop and implement an audit management system during the assessment period. This system will allow ReliabilityFirst to manage audits, spot checks, and potentially other monitoring processes of an entity in one application. The software resembles a project management system and has been developed to follow the various steps of an audit checklist, such as planning, pre-audit review, production,

[49] *See* 2014 Joint Regional Entity Self-Assessment (JRESA) Appendix 2-C at 21.

reporting and metrics. This system provides auditors with a structured format to follow and help to ensure consistency and completeness in each audit that is performed.

ReliabilityFirst has developed and implemented a Risk-Based Assessment process. This process was initiated in June 2011. During the Risk-Based Assessment process, a designated cross-functional team[50] conducts a risk assessment of a registered entity and makes recommendations to help shape the scope and focus of the registered entity's upcoming compliance audits and/or spot checks. During the assessment, the team evaluates the potential impact of the registered entity on the BPS based upon various factors, including the registered entity's registration, size, location, technical characteristics (e.g., existence of special protection systems), organizational makeup, compliance history and culture, and trends and emerging risks in the industry. ReliabilityFirst implemented this process based on guidance from NERC. ReliabilityFirst will refine the Risk-Based Assessment process further throughout 2014 to develop a comparable, repeatable process that is aligned with efforts being undertaken under the RAI.

ReliabilityFirst's webCDMS system is central to its compliance monitoring efforts. ReliabilityFirst uses webCDMS as its information management tool to collect securely, track, and monitor compliance information from its registered entities. The database enables multiple functionality including:

(1) Linking Regional and NERC requirements to a registered entity's function(s);

(2) Allowing registered entities to review compliance information prior to submittal;

(3) Allowing registered entities to submit compliance documentation, including self-reports, self-certifications, and mitigation plans;

(4) Allowing ReliabilityFirst and registered entities to generate compliance reports; and

(5) Allowing ReliabilityFirst to track mitigation plans.

Quality Assurance

ReliabilityFirst's quality assurance processes are contained within its internal compliance procedures, which ReliabilityFirst reviews on a periodic basis. The ReliabilityFirst Audit Procedure requires ReliabilityFirst to follow a multi-layered quality review process for its draft audit reports, which includes peer reviews and management reviews. The ReliabilityFirst Audit Procedure also requires ReliabilityFirst to ask entities to provide feedback on the audit process and any other concerns they may have, using a feedback form. ReliabilityFirst then uses the feedback and concerns for quality assurance and continuous improvement.

Guidance and Training for Industry Stakeholders

[50] This cross functional team includes representatives from the ReliabilityFirst engineering, compliance audit, compliance enforcement, and reliability assurance departments.

Since 2009, ReliabilityFirst increased its training resources for its Training, Education, and Operator Certification program, which provides continuing education hours through the NERC Continuing Education program. ReliabilityFirst dedicated .05 FTE to its Training, Education, and Operator Certification program in 2009.[51] Last year, ReliabilityFirst increased training resources to 3.1 FTEs.[52]

ReliabilityFirst uses several different methods to communicate with and train its registered entities. ReliabilityFirst has implemented an "Assist Visit" program. Under this program, a registered entity may request a one-on-one or small group meeting where ReliabilityFirst provides guidance on compliance-related activities. Assist Visits can be in the form of a conference call, web meeting, or on-site visit, and topics can range from helping a registered entity become more familiar with general compliance-related material and activities to specific guidance on an area of concern. ReliabilityFirst has prepared and implemented an internal policy and procedure that requires it to internally document Assist Visit training activities to extrapolate and share generic lessons learned where appropriate. The policy and procedure ensures that ReliabilityFirst documents its Assist Visit training activities in a uniform manner, which will help it better distill Assist Visits into useful lessons learned to share with ReliabilityFirst stakeholders where appropriate.

ReliabilityFirst also provides a monthly newsletter to approximately 600 compliance contacts at its registered entities. This newsletter provides registered entities with news and information relating to reliability and compliance activities. In addition, ReliabilityFirst provides a monthly compliance update letter that provides the registered entities with any changes made to the compliance monitoring schedule and the due dates of compliance submittals. ReliabilityFirst's public website provides a number of compliance and technical materials to assist registered entities in their compliance program implementation.

ReliabilityFirst also hosts bi-annual compliance workshops and periodic webinars throughout the year to train registered entities on compliance processes, reliability initiatives, and the Reliability Standards. In addition, ReliabilityFirst holds a monthly conference call with web presentation capabilities for registered entities; this monthly call is an open forum for registered entities to voice concerns, ask questions, and receive information.

Confidentiality

ReliabilityFirst has a variety of security measures in place that are designed to protect confidential compliance information. All ReliabilityFirst laptops have encrypted hard drives, minimizing the risk of confidential information being disclosed in the event of a lost or stolen laptop. ReliabilityFirst requires employees to change the passwords on their laptops every 90 days, and requires work phones to be password protected. ReliabilityFirst's offices have physical security measures including badge readers and access badges for all employees. Visitors must be escorted by ReliabilityFirst employees in nonpublic areas of the offices.

[51] 2009 Business Plan and Budget, ReliabilityFirst Corporation, August 13, 2008.

[52] 2013 Business Plan and Budget, ReliabilityFirst Corporation, June 22, 2012.

ReliabilityFirst uses a confidential and secure extranet website to exchange documents with a registered entity during a compliance monitoring process or an enforcement action. To provide another layer of protection, ReliabilityFirst encrypts sensitive documents.

There are strict confidentiality requirements[53] associated with the investigation of any complaints regarding such potential violations of Reliability Standards. ReliabilityFirst follows the CMEP to maintain the confidentiality of any complainant and maintains a complaint reporting form on its web page.

Participation in RAI

ReliabilityFirst participated in the conceptualization, development, testing, and integration of several RAI programs. ReliabilityFirst led a series of pilot programs to test the evaluation of internal controls at registered entities using an appraisal process. As part of the RAI, ReliabilityFirst participated in efforts to develop the Audit Manual. ReliabilityFirst also participated in the RSAW Working Group to ensure commonality on audit approaches to the NERC Reliability Standards. In the enforcement area, ReliabilityFirst staff participated in the Aggregation of Minimal Risk Issues pilot program, maintaining the sole MRRE log. Additionally, ReliabilityFirst staff participated in the Enforcement Discretion pilot program and served on the *ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide* drafting teams. Further, ReliabilityFirst staff participated in the process to develop improvements for the compliance and enforcement oversight of MRREs. Finally, ReliabilityFirst participates in various Regional Entity compliance and enforcement groups to further consistency in compliance applications across the Regional Entities.

vi. SERC Reliability Corporation (SERC)

Department Structure / Staffing / Conflict of Interest Avoidance

SERC's CMEP function is split into two departments, (i) Compliance and (ii) Enforcement, each with its own assigned personnel. SERC Compliance staff utilize off-site and on-site audits, spot checks, and other compliance monitoring methods to assess registered entity compliance with NERC Reliability Standards. Compliance is also responsible for registering users, owners, and operators of the BPS and for certifications. Compliance staff prepare detailed reports on each audit and make recommendations to enforcement about possible violations of NERC Reliability Standards.

SERC Enforcement staff undertake an independent review of the facts and circumstances surrounding each possible violation discovered by Compliance staff or through the other discovery methods. If a sufficient basis exists, then Enforcement staff determine the complete scope of the violation and the actual and potential risk to the reliability of the BPS. The segregation of duties between Compliance and Enforcement staff establishes independence between those making the findings and those determining and negotiating penalties and sanctions.

[53] *See* NERC ROP Section 402.8 (NERC Oversight of the Regional Entity Compliance Monitoring and Enforcement Programs — Confidentiality).

In 2009, SERC had six Operations and Planning auditors and two CIP auditors. In 2014, SERC has seven Operations and Planning auditors and eight CIP auditors. SERC Operations and Planning audit team members possess the education, industry experience and technical expertise in planning and real-time operations necessary to conduct audits. Several of the Operations and Planning auditors are NERC-certified system operators and have professional engineering licenses for operations and planning. Many of the SERC CIP audit team members possess physical security or information security credentials, professional engineering licenses, and/or industry experience. For Operations and Planning audits, SERC audit teams work in two groups. One group reviews audit evidence for NERC operations Reliability Standards and the other group reviews evidence for planning Reliability Standards. For CIP audits, SERC audit teams also work in two groups. One group reviews evidence for physical security Reliability Standards and the other group reviews evidence for cybersecurity Reliability Standards. Each group has a lead moderator and a scribe.

SERC uses industry subject matter experts (ISMEs) from various registered entities that are members of SERC as participants in the audit team. The ISMEs help the audit team to review evidence, and provide insight into issues that the audit team may encounter throughout the audit process. While ISMEs are involved in every aspect of the audit, including interviews of the audited entity's SMEs, they are not voting members of the audit team. ISMEs bring knowledge of the latest changes that are occurring within industry and in the individual ISME's organization. ISMEs are required to sign nondisclosure agreements and complete a conflict of interest form. SERC reviews the conflict of interest forms before assigning ISMEs to audits. If a conflict exists or there is the appearance of a conflict, SERC will assign an ISME to an audit of a different registered entity.

SERC audit team members participate in various SERC internal auditor training sessions, consultant-provided auditor training sessions, NERC auditor training modules, NERC audit team lead training, and ERO auditor workshops. NERC uses training accountability databases to confirm the credentials of audit team members. SERC requires all audit team members to complete "Just-In-Time" training if the audit team member has not completed appropriate training in the last 90 days. The purpose of this training is to refresh fundamental concepts of auditing and thereby supplement that which is required by NERC. This additional training is an excellent method to re-enforce the importance of quality evidence and documentation during the audit process.

Cross-training is also an important feature of auditor training at SERC. Early in the assessment period, SERC utilized CIP auditors as scribes during Operations and Planning audits so that the CIP auditors would have an opportunity to learn the audit process and approach with Operations and Planning Reliability Standards. SERC auditors have also participated on audit teams in other Regional Entity footprints to cross-train and learn.

To determine the skill level required for auditors, SERC relies on feedback from existing audit staff, the input and experiences of NERC and the other Regional Entities, and changes in the Reliability Standards and industry. SERC anticipates training needs by looking at gaps that exist in the audit teams and focuses training on addressing those gaps. SERC considers the direction in which the ERO and other Regional Entities are moving towards and, if needed, adapts its training plans and desired skill sets to address those needs. SERC also considers new or revised Reliability Standards and the audit approaches associated with them, and provides training if necessary.

SERC also listens to what the auditors identify as useful training and development opportunities and allows them to pursue relevant opportunities to strengthen their skills.

SERC has a documented conflict of interest policy which applies to all SERC staff. The conflict of interest policy requires SERC staff to provide an annual update of any employment or director or officer relationships with SERC registered entities, financial interests in any businesses from the energy sector other than SERC, and any business relationships with energy sector businesses other than SERC by the SERC employee or members of the employee's immediate household. SERC personnel with a financial interest in a registered entity or any other current conflict are not allowed to review, discuss, or participate in compliance or enforcement activities.

Compliance Monitoring Tools and Procedures

SERC utilizes a number of tools to execute its audits, several of which are highlighted in this section. As an overarching procedure in completing and tracking the audit progress, SERC uses its Audit Event Tracking spreadsheet. In this spreadsheet, SERC details the actions required to successfully administer an audit and notes the completion of milestones. Registered entities use an internet-based portal for the transmission of audit information and the audit RSAWs and pre-audit questionnaires. During on-site audits and throughout the period leading up to the audit, SERC utilizes email notifications, worksheet summaries, and spreadsheet tables for tracking the review of evidence and for delivering updates to the registered entity and audit team members. SERC also uses established ERO auditor tools, including the RAT-STATS sampling tool and RSAWs. SERC also uses a pre-populated spreadsheet to document the review status for each requirement, including data requests and follow-up questions to be asked on-site. The SERC audit team uses a tool called an audit workbook. This workbook accounts for each of the Reliability Standards and associated requirements that composed the audit scope, any outstanding data requests, and a list of ongoing findings by the audit team.

Until 2013, SERC did not perform formal pre-audit reviews. The absence of a formal pre-audit review is an area of concern because formal pre-audit reviews and the opportunity to thoroughly review documentation would provide SERC with more time to investigate exceptions to audit procedures. It also helps to ensure that sufficient evidence is collected. In 2013, SERC began conducting pre-audit reviews of evidence submittals, which allowed audit teams to better prepare for audits and seek additional information as needed before arriving on-site. Audit reviews are typically scheduled two to three weeks prior to an audit. These efforts have allowed SERC to reduce its time on-site, thereby reducing the burden on the registered entity, and ensure that the on-site audit focuses less on preliminary data collection and more on reviewing higher risk issues and areas where additional clarification is needed.

While SERC has a comprehensive process for registered entity assessment and audit scoping, the associated documentation supporting this process was not thorough until recently - an auditing best practice per GAGAS. Adequate scoping helps justify the areas that pose potential risk to the BPS. Starting in mid-2013, SERC conducts an inherent risk assessment and internal controls review (if appropriate) of the registered entity to determine the audit scope and scale. This includes a review of registered entity compliance history, events and misoperations history, registered entity specific data, regional factors affecting reliability, legal or regulatory issues affecting compliance, and public information about the reliability impact of the registered entity.

Detailed audit scoping will enable SERC management to better supervise and assess audits. SERC is now actively working to build GAGAS audit principles into its audit process. SERC's sampling methodology could be improved by integrating NERC's *Sampling Methodology Guidelines and Criteria* in order to avoid inconsistency in identifying and quantifying population, sample sizes, sample selection and lack of documentation memorializing sampling procedures and to avoid incorrect conclusions.

Any recommendations material to an audit and reliability should be captured in the audit's closing presentation as well as in the final audit report for the benefit of the registered entity for tracking purposes. Failure to document a recommendation means improvements to the reliability of the BPS may be lost. Furthermore, a future audit team won't have awareness to inquire about any progress on the matter.

SERC tracks mitigation plans in CITS, a compliance information tracking system used by SERC, FRCC, and NPCC. CITS allows SERC to track mitigation plans submitted by registered entities, any revisions requested by SERC, and certifications of mitigation plan completion. SERC works with registered entities to answer questions about SERC's expectations for mitigation plans and encourages them to submit mitigation plans in a timely manner. SERC occasionally asks registered entities to submit revised mitigation plans when the proposed mitigation plan milestones would result in an extended period of noncompliance that would pose an additional risk to the reliability of the BPS.

SERC presently is unable to consolidate its compliance and reliability assessment portals because they are hosted on separate systems. SERC is exploring an enhancement to these portals that that will provide a registered entity with a summary of all forms (Compliance, Reliability Assessments, and Reliability Services) due for that entity. This will allow users to navigate between both portals to complete the required filings.

SERC develops an annual reporting schedule which identifies required periodic data submittals. Once the matrix is developed, SERC posts it to its website and Compliance Portal, and notifies its registered entities. The Compliance Portal automatically assigns the applicable periodic data submittals to each registered entity's portal site, based on the schedule, identifying the due dates. SERC monitors the submittal of each periodic data submittals using a reporting tool and issues a notification to the registered entity's designated contacts for any periodic data submittal that have not been submitted to SERC. The data received from the periodic data submittals are reviewed and any potential noncompliance issues are documented and reported to Enforcement.

Quality Assurance

SERC's internal process requires a management review within two weeks of an audit engagement, and prior to the audit exit briefing before a decision is made with respect to the registered entity's compliance with NERC Reliability Standards. The management review evaluates the significant judgments made by the audit team and the related conclusions reached in forming the overall conclusion on the engagement. SERC Enforcement staff reviews the audit team's findings of noncompliance and makes a final determination before notifying the registered entity and NERC of any possible violations.

SERC Compliance staff meet weekly and discuss lessons learned after each audit. If appropriate, a plan is developed for any areas that need changes or improvements internally. SERC also develops lessons learned as part of its outreach efforts and these are shared with registered entities. The Operations and Planning and CIP audit groups each have a point of contact for their respective areas who are made aware of any trends or important information that they feel should be communicated to SERC registered entities. A brief description and observations are written and posted quarterly on a dedicated area of the SERC website where registered entities can review it.

SERC has a document retention policy that requires audit documents be maintained for seven years. SERC has a document management system with a retention policy service that allows for the configuration of retention policies. The system also requires administrative permissions to delete documents, files, and folders.

Guidance and Training for Industry Stakeholders

Since 2009, SERC increased its training resources for its Training, Education, and Operator Certification program, which provides continuing education hours through the NERC Continuing Education program. SERC dedicated 1.4 FTE to its Training, Education, and Operator Certification program in 2009.[54] In 2013, SERC delivered its training program through 2.41 FTEs.[55]

A catalog of all SERC outreach and training has been posted to the home page of the SERC website. Three Compliance seminars are held annually with one focused exclusively on CIP topics. In addition, periodic Open Forum WebEx sessions are scheduled along with focused webinars on new and/or revised Reliability Standards and changes in regulatory policy such as the new BES Definition process. Specific training on SERC policy changes and enhancement to tools offered to registered entities is also conducted on an as-needed basis. The majority of outreach events are offered via WebEx, and recordings are posted to the SERC website. Select events also offer the opportunity to attend in person and/or earn continuing education hours.

The SERC Training, Education, and Operator Certification program provides education and training necessary to understand and operate the BPS. The target audience of the program is BPS operating personnel – including system operations personnel, operations support personnel (engineering and information technology), supervisors and managers, and training personnel. The program held four system operator conferences in 2013, a wide area restoration drill, and several standard-focused webinars and workshops. The program also supports SERC staff training and development as well as the administration of records necessary to maintain status as a NERC continuing education provider. The majority of outreach events are offered via WebEx, and recordings are posted to the SERC website. Select events also offer the opportunity to attend in person and/or earn continuing education hours.

[54] 2009 Business Plan and Budget, SERC Reliability Corporation, July 9, 2008.

[55] 2013 Business Plan and Budget, SERC Reliability Corporation, July 11, 2012.

SERC outreach has conducted small entity workshops specifically focusing on topics of interest to smaller registered entities. An informal group consisting of representatives from four small entities is consulted as to what topics are appropriate and of interest to them. The annual SERC Filing Due Dates document is posted to the SERC website in Excel format to make it easy for entities to sort by registered function in order to determine what compliance filings are due and when. An email address (serccomply@serc1.org) is available, and publicized in all outreach materials, for entities to contact SERC with any questions they may have.

Maintaining Confidentiality

SERC has a variety of security measures in place that are designed to protect confidential compliance information. All SERC laptops have encrypted hard drives, minimizing the risk of confidential information being disclosed in the event of a lost or stolen laptop. SERC requires employees to change the passwords on their laptops every 90 days. SERC requires work phones to be password protected and these phones can be remotely wiped. SERC's offices have physical security measures including badge readers, access badges for all employees, and video cameras at all entrances and exits. Visitors must be escorted by SERC employees in nonpublic areas of the offices.

In addition, SERC implemented a program in 2012 to handle confidential CIP information and other protected entity information. This Protected Entity Information (PEI) program was implemented in order to allow registered entities to provide SERC with CIP and other confidential information without SERC having to visit registered entities' sites. The PEI program protects this information using standards at least as strict as those in the CIP Reliability Standards. Access to PEI information is restricted to those SERC employees with a need to know who have taken cybersecurity awareness training within the past year and have passed SERC-initiated background checks within the previous seven years. In addition, SERC logs and controls physical access to the hardware used for the PEI program. SERC also logs and controls electronic access to the PEI information stored on that hardware, which is encrypted at rest.

Participation in RAI

A key focus of SERC's strategic plan for 2013-2015 is to develop, advocate, and support RAI. SERC has established a plan to implement audit function structural improvements to produce more effective, efficient audits that recognize BPS reliability risk. By incorporating risk principles in the planning and execution of compliance engagements, in conjunction with broader RAI outcomes, the focus of SERC and its registered entities will shift towards identification and mitigation of risks to reliability – preventing uncontrolled, unplanned cascading events. Scoping and timing of monitoring activities will move from a mechanical approach (fixed set of entities monitored for a pre-established set of Reliability Standards on a pre-defined frequency) to a risk-based approach customized around SERC-specific reliability issues and tailored to the specific registered entity. Through more extensive information analysis and dialogue with registered entities, SERC staff will seek to fully understand risk and the registered entity's management practices and controls employed to obtain reasonable assurance of the reliable operation of the BPS. Based on this more proactive review and assessment, SERC will adjust the scope and frequency of its compliance monitoring activities with respect to the specific registered entity.

Throughout 2013, SERC worked with an inter-regional team to develop the Auditor Handbook that describes a uniform process for implementing the Audit Checklist. In addition, SERC piloted a new approach to risk assessments and auditing practices that permits more focused attention and resources on those issues that present the greatest risk to the BPS. Currently, SERC is working with all eight Regional Entities to develop a common methodology to identify and assess risk in a manner consistent with GAGAS criteria.

vii. Southwest Power Pool Regional Entity (SPP RE)

Department Structure / Staffing / Conflict of Interest Avoidance

The SPP RE CMEP is administered by the SPP RE direct staff organized into three groups: (i) Compliance Monitoring - Operations and Planning; (ii) Compliance Monitoring - CIP; and (iii) Enforcement. The compliance groups are responsible for registering BPS owners, operators, and users, and monitoring and assessing registered entity compliance with the approved Reliability Standards. The Compliance groups make the initial determination of a registered entity's compliance or noncompliance by performing audits, spot checks, and reviews of self-identified violations. The SPP RE Enforcement group reviews the Compliance groups' findings of noncompliance, notifies registered entities and NERC of possible violations, reviews and verifies registered entity mitigation plans, determines proposed monetary penalties and non-monetary sanctions, and participates in settlement negotiations. To meet its RDA and ROP obligations and its goals, SPP RE has increased its compliance and enforcement staff and its budget.

All SPP RE auditors are required to attend various SPP RE internal auditor training sessions, consultant-provided auditor training sessions, NERC auditor training modules, NERC audit team lead training, and ERO auditor workshops. Out of the ten personnel assigned to the Compliance groups, one is a NERC-certified system operator, five are certified information system auditors, and four are registered professional engineers.

SPP RE requires all auditors participating in an audit to undergo a conflict of interest review to identify any potential conflicts of interest between an auditor and the registered entity. Similarly, SPP RE also created a *Contractor Conflict of Interest Audit Procedure* that establishes due diligence requirements for the review of contractor conflicts of interest, validates and documents requirements concerning gaps in contractor employment, and identifies contract consulting history.

Compliance Monitoring Tools and Procedures

SPP RE utilizes numerous tools to facilitate its audits, several of which are highlighted here. SPP RE's audit teams maintain an audit workbook to facilitate evidence request tracking. SPP RE also uses a compliance pre-audit survey, an audit opening and closing presentation template, an operator interview questions template, and a control center checklist template. For CIP audits, SPP RE has implemented the use of a Network Access Policy Tool (NetAPT), which helps auditors with the visualization of the registered entity's network architecture. SPP RE also utilizes a secure File Transfer Protocol server (EFT server) to facilitate the upload and continuous protection of audit evidence.

Quality Assurance

SPP RE's audit process requires all members of the audit team to participate in the review of evidence and SME interviews. The auditors collectively determine a registered entity's compliance with NERC Reliability Standards. All audit findings are reviewed and approved by SPP RE management. After the compliance group completes a preliminary screen of a potential noncompliance, it enters the potential noncompliance into SPP RE's webCDMS, and notifies the registered entity and NERC of the potential noncompliance. The Compliance group and the Enforcement group then convene a hand-off meeting to discuss the audit findings. If the Enforcement group determines that sufficient evidence exists to support a possible violation, then the Enforcement group sends the registered entity a notice of a possible violation. The Enforcement group conducts a thorough secondary review of all possible violations before final disposition of a registered entity's noncompliance.

Guidance and Training for Industry Stakeholders

The SPP RE Outreach staff works closely with the SPP Regional Transmission Organization (RTO) Outreach and Training staff to coordinate an array of training opportunities for all of the registered entities in the SPP RE footprint. In 2013, SPP RE and SPP RTO provided approximately 25,000 continuing education hours of training to over 1,800 participants. Additionally, training related to Reliability Standards and compliance activities was provided to over 700 participants on webinars, over 800 participants at workshops and over 1,200 participants on conference calls.[56] All SPP RE workshops and webinars are free and open to the public. SPP RE frequently provides speakers to industry groups such as the Registered Entity SME conferences, executive conferences, and numerous SPP RTO technical groups and committees.

SPP RE continues to add to its library of training videos,[57] publish e-newsletters, and organize lessons learned educational sessions. SPP RE has worked to refine its workshop logistics and presentations, and continues to update the SPP RE webpages with relevant compliance materials. SPP RE's CIP Compliance team made an effort in 2013 to ensure registered entities undergoing a CIP audit understood that, as permitted by GAGAS, the SPP RE audit teams perform outreach activities during the course of the audit. This practice is communicated in the initial audit notice to the registered entity. The ATL periodically communicates with the registered entity during the pre-audit stage to gauge the effectiveness of outreach activities. If the entity is receptive to the outreach, this practice is reiterated during the opening audit presentation.

Maintaining Confidentiality

The SPP RE audit team strictly follows SPP RE's policies and procedures for the custody of confidential audit material. To ensure that the confidentiality of registered entity audit

[56] *See 2013 Compliance Outreach Report* (December 3, 2013), which was discussion item 3H at the December 10, 2013 SPP RTO Board of Directors/Members Committee meeting, available at: http://www.spp.org/publications/BODAGD&BKGD121013.pdf.

[57] SPP RE's video library received the Bronze Quill Award of Merit from the International Associated of Business Communications, Arkansas Chapter (April 2014), available at: http://vimeopro.com/sppcompliance/re.

documents is maintained, SPP RE's uses a secure EFT server for storing the registered entity's data during the audit period. To provide yet another layer of protection, SPP RE stores all evidence documents in encrypted form.

Participation in RAI

SPP RE designated two SPP RE auditors as members of the Auditor Handbook development team. In addition, SPP RE designated one SPP RE auditor as a member of the Pilot Evaluation Committee, and two auditors participated as observers during the ReliabilityFirst entity risk assessment pilot for American Electric Power Service Corporation. SPP RE designated three auditors as members of the RSAW Task Force RAI project, where they assisted in the development of new RSAW templates and a Compliance Application Notice conversion process for the new RSAWs. As a member of the Enforcement Functional Group, SPP RE helped draft the *ERO Enterprise Mitigation Plan Guide* and provided input during the development of the NERC Aggregation and Compliance Exception Pilot programs. Internally, SPP RE has taken steps to facilitate the Compliance Exception process by adopting changes to its webCDMS and by implementing a triage process for the screening of incoming compliance issues to identify candidates for compliance exception. A SPP RE registered entity is also participating in the CIP Version 5 transition study to identify issues related to the transition from CIP Version 3 to CIP Version 5. SPP RE CIP Compliance staff is working closely with the registered entity to identify and document transition compliance issues. SPP RE has provided training on the RAI program during its workshops and continues to support RAI by conducting outreach as RAI unfolds.

viii. Texas Reliability Entity, Inc. (Texas RE)

Department Structure / Staffing / Conflict of Interest Avoidance

During the assessment period, Texas RE increased its compliance audit staff from 13 to 19 employees, and increased its registration and certification staff from one to two employees plus a supervising director. Audit teams typically consist of the ATL, a dedicated clerk, and team members auditing a subset of requirements included in the audit scope. Many audit team members have over 20 years of industry experience. In 2012, NERC determined that Texas RE needed to increase its CIP audit staffing levels to ensure its continued ability to perform compliance monitoring activities. Since then, Texas RE has increased its dedicated CIP audit staff from four to five employees and cross-trained several Operations and Planning auditors to assist with the workload.

Texas RE auditors participate in various Texas RE internal auditor training sessions, consultant-provided auditor training sessions, NERC auditor training modules, NERC audit team lead training, and ERO auditor workshops. Texas RE has published an audit procedure manual, which contains procedures for confidentiality, training, conflict of interest, and a procedure related to confirmation that the auditor has completed approved training. Texas RE employees must attend ethics and confidentiality training annually and sign agreements confirming that they will disclose any potential conflicts of interest and maintain the confidentiality of registered entity information. During Texas RE's audits, ATLs confirm that confidentiality and ethics agreements have been signed by all audit team members.

Compliance Monitoring Tools and Procedures

Texas RE utilizes a number of tools to execute its audits, several of which are highlighted in this section. Texas RE's compliance management tools, specifically its audit planning publications, audit procedures, audit agenda, and audit team expectations document, serve to organize the responsibilities of each audit team member, provide audit timelines, and include a comprehensive achievement matrix of audit milestones.

Texas RE audit teams utilize NERC's Actively Monitored List of Reliability Standards (AML) to identify requirements applicable to the audited entity and to scope audits. They use NERC's RSAWs and Texas RE's CMEP guidelines, which are sometimes used to expand the scope of an audit and include Regional Entity-specific reliability compliance requirements. They also employ a RAT-STAT statistical tool to select testing samples and create a workbook addressing each audited compliance requirement. Texas RE developed a CIP audit checklist used during the walk-though portions of a CIP audit to identify Critical Assets, Critical Cyber Assets, access points, and all other Cyber Assets within the Electronic Security Perimeter. Texas RE's CIP audit checklist tool ensures that all areas of audit concern are addressed. Additional examples of audit tools used during on-site audits and throughout the period leading up to an audit include email notifications, worksheet summaries, and spreadsheet tables for tracking evidence, and for delivering updates to the registered entity and to audit team members.

One of the notable improvements in the auditing process was Texas RE's implementation of webCDMS software in 2012, which allowed it to eliminate the manual tracking and reporting processes and synchronize document submission with NERC's database. Texas RE has also updated its audit desk procedures to ensure that auditors are using uniform processes to determine the scope of audits, notify entities of audits, document audit findings, and ensure that draft audit findings are reviewed by management before being sent to registered entities.

Quality Assurance

Texas RE's audits are led by the Texas RE ATLs, who coordinate audit activities and communicate issues pertinent to the performance of the team's work. These teams meet to review the progress of the audit and at the close of the day, the ATL meets with the entity to review audit progress and clarify the status of outstanding data requests and delivery expectations. All audit documentation is saved on a secure server and is subject to a formal document retention schedule. On the last day of the on-site portion of an audit, the audit team provides a summary briefing to the registered entity, describing any possible issues the team identified. The audit manager also reviews the draft audit findings before providing them to the registered entity for comment. At the conclusion of the audit, the audited entity is provided a questionnaire asking for comments on how the audit process could be improved. Questionnaires are reviewed by Texas RE management and lessons learned from the feedback are shared with audit staff.

Guidance and Training for Industry Stakeholders

Since 2009, Texas RE increased its training resources for its Training, Education, and Operator Certification program, which provides continuing education hours through the NERC Continuing Education program. Texas RE dedicated .6 FTE to its Training, Education, and

Operator Certification program in 2009.[58] Last year, Texas RE delivered its 2013 training program through 1.75 FTEs.[59] Texas RE has an external relations manager and a communications and external relations coordinator who coordinate scheduling of training and development of training materials; however, most training is conducted by auditors from Texas RE's Compliance department. In an effort to improve outreach and training for smaller registered entities with insufficient resources to participate in-person at compliance workshops, Texas RE offers webinar capabilities. On occasion, Texas RE conducts smaller, in-person training presentations for stakeholders unable to attend annual workshops, but that are experiencing compliance issues identified during audits.

Texas RE offers the following additional sources of guidance and training to industry members:

(1) A website with information about Texas RE and its activities, including links to CMEP information and enforcement information;

(2) A listserv for distribution of announcements;

(3) Monthly regional stakeholder CIP working group meetings which must be attended in person due to the sensitive nature of the shared information;

(4) "Talk with Texas RE" webinar meetings, which facilitate open discussions of reliability and compliance issues with stakeholders;

(5) A NERC Standards Review Subcommittee (NSRS, a subcommittee of the Texas RE RSC) teleconference meetings (approximately every two weeks) which serves as a forum for discussion of NERC Reliability Standards under development; and

(6) The *Texas REview* a monthly newsletter which includes topics related to NERC compliance (including reminders about compliance deadlines), enforcement, and lessons learned.

Maintaining Confidentiality

Texas RE requires all employees to attend ethics and confidentiality training annually and sign an agreement requiring them to keep registered entity information confidential. Texas RE also has procedures requiring its employees to keep all compliance information confidential. Texas RE has a hotline and website where anyone can file a complaint regarding a registered entity's compliance with NERC Reliability Standards, and the complainant may remain anonymous. In addition, Texas RE safeguards the confidentiality of registered entity data by using a secure compliance data portal (WebCDMS), using a secure FTP site for data submission, and

[58] 2010 Business Plan and Budget, Texas Regional Entity, Inc., June 15, 2009.

[59] 2013 Business Plan and Budget, Texas Regional Entity, Inc., June 27, 2012.

maintaining data server security through the use of firewalls, system monitoring and penetration testing. All Texas RE staff are also required to complete annual IT and physical security training.

Participation in RAI

Texas RE has been working with NERC and the other Regional Entities to implement RAI. In 2013, Texas RE worked with NERC and the other Regional Entities to develop the Auditor Checklist, and provided significant support toward the development of the Auditor Handbook. In 2014, Texas RE helped evaluate the effectiveness of the RAI pilot programs conducted in other Regional Entities. Texas RE is working to encourage collaboration, emphasize consistency and align proven processes. Texas RE co-hosted an RAI and Internal Controls workshop in February 2014, and a follow-up meeting with Texas RE in March 2014 to answer questions received during and after the workshop.

ix. Western Electricity Coordinating Council (WECC)

Department Structure / Staffing / Conflict of Interest Avoidance

FERC issued its final orders on February 12, 2014 approving the bifurcation of WECC. Bifurcation resulted in a more focused reliability assurance mission for WECC and Peak Reliability (Peak) (the new company formed to be the reliability coordinator for the Western Interconnection). WECC will continue as the Regional Entity for the Western Interconnection and focus on RAI activities as it assumes the role of compliance enforcement authority for Peak Reliability along with all other registered entities in WECC's footprint. That role includes monitoring and enforcing compliance with mandatory Reliability Standards, as well as having a leadership role in reliability planning and performance assessment of the BPS in the Western Interconnection.

Since January 2009, the Compliance staffing at WECC has increased from 31 to 53 employees, not counting contractors. Staffing increases have occurred throughout Compliance to satisfy the CMEP requirements associated with the increased number of registered entities and registered functions, which to date respectively total 510 and 1,353 respectively, up from the 466 and 1,248 reported in 2009. WECC's number of scheduled audits has almost doubled from 98 in 2009 to 171 in 2013.

WECC's Program Administration department was established in 2008 and restructured in 2012 to ensure the accurate, efficient, and timely exchange of compliance information between registered entities, WECC, and NERC. The department supervises the services and support used by the registered entities and WECC employees to interact with such systems as webCDMS and the WECC EFT server. Staff in this department are currently comprised of one manager and six employees.

Since 2009, the WECC Compliance department has put in place a rigorous training and development program. Like other Regional Entities, WECC struggled initially to fill both Operations and Planning and CIP auditor positions. A recruitment and development plan to recruit, graft and grow expertise included mentoring, cross-training and implementing development milestones programs. WECC also benefits from using industry SMEs as contractors for its audits. These contractors possess operations, planning, and power system knowledge as

well as skills and abilities that complement that of WECC's audit staff to fill gaps where specific deficiencies may exist. WECC partners these contractors with less experienced auditors at each audit to provide detailed and in-depth on-the-job training, and educational experiences regarding specific Reliability Standards and requirements. Additionally, all CIP auditors hold at least one relevant certification (e.g. CISA, CISSP).

Audit teams regularly participate in cross-training within their own team through constant rotation in ATL responsibility. In addition, auditors in teams of two are frequently assigned different Reliability Standards and requirements to audit, depending on an audit's scope. This approach provides varied and valuable training opportunities to increase auditor knowledge of and expertise on multiple Reliability Standards. Operations and Planning and CIP SMEs from both compliance and enforcement are assigned to participate with auditors on the audit team for at least two audits per year as part of the cross-training effort. This results in a greater understanding of the WECC audit approach by the Enforcement team SMEs, while providing much needed "bench strength" to the audit teams and their ability to satisfy audit staffing requirements. Both Operations and Planning and CIP audit team members in WECC have participated in various WECC internal auditor training sessions, consultant-provided auditor training sessions, NERC auditor training modules, NERC ATL training, and ERO auditor workshops.

WECC conducts conflict of interest checks for its auditors and contractors. WECC's compliance program coordinators (CPCs) are responsible for distributing and collecting these forms. These forms are reviewed by the audit managers and the managing director of compliance at the beginning of every year. In August 2013, WECC included the additional step of having the CPC and the ATL review these forms in connection with every audit, as part of WECC's preliminary audit preparation. This will add an extra layer of review to ensure that the conflict of interest forms are complete and accurate. WECC has also codified these existing and new processes in the CPC informal process manual as part of a basic checklist for audits.

Compliance Monitoring Tools and Procedures

WECC utilizes a number of tools to execute its audits, several of which are highlighted in this section. WECC performs audits in the timeframes anticipated by the CMEP. WECC's Operations and Planning audit teams rely primarily on RSAWs to record audit findings, interview notes, evidence and samples. While WECC did not initially follow GAGAS audit procedures to conduct audits, particularly in the areas of planning, scope, evidence, testing, sampling and documentation, WECC later adopted various professional resources such as the GAGAS, NERC auditor training guidance and other best practices. WECC leverages the NERC Auditor Handbook and Checklist in addition to the WECC CIP standard operating procedures for documented audit procedures.

The audit teams use a number of secure tools, leveraged by PGP encryption methodologies, to manage the administrative and logistical support for audits. The primary tool used by the audit team is an Audit Remote File server used to expedite the availability of electronic information to auditors during a remote audit. This tool works in conjunction with WECC's EFT server and the WECC internal Sharedrive. When an entity uploads audit evidence to the EFT server, a WECC employee is notified of the change and moves the files to the correct location within the WECC internal Sharedrive. The software then automatically synchronizes the files on WECC's internal

Sharedrive with the files on the Audit Remote File server. This system allows all users to access the exact same information from different connection points.

In 2013, WECC launched the Audit Tracking System (ATS) to help manage the tracking, and the timely completion and filing of audits. The software minimizes rework, helps prevent errors in documentation, and ensures that all related tasks are completed in a timely manner. There are four pieces to the new ATS: audit scheduling, audit metrics, audit library, and audit report task list. Another feature of the ATS is that metrics are now readily and easily available to managers through the system. The system uses an Audit Library to minimize document duplication by tracking the version history on each file and eliminating multiple copies of the same report. Finally the system incorporates an audit task list that reduces manual oversight by electronically tracking task assignments, completions, and notifications.

WECC has been able to greatly reduce the amount of human and budget resources required for compliance support activities. Actual expenditures in 2010 exceeded $1.9 million; in 2012 that number dropped to less than $1.1 million. Starting in 2012, WECC began to concentrate on operational efficiencies that could simplify the growing complexity of managing compliance data and transactions. The single greatest change in that process was upgrading the compliance transaction platform from the WECC Compliance Portal to webCDMS. The new system brought drastic reductions in the amount of time WECC employees spent on sending data requests, sending reminder notices to registered entities, summarizing compliance data, and transmitting compliance data to NERC.

WECC created an Audit Report Tool that provides readable access to critical data, drives visibility across audit team members and management, and improves the efficiency of the audit report processes. This project streamlines the audit schedule activities and audit report process for audit management, ATLs, and CPCs. The solution minimizes rework, helps prevent errors in documentation, and ensures that all related tasks are completed in a timely manner. This tool also enables management and audit team members to understand workload and prioritize items. Prior to the launch of this tool, significant time and effort was spent on manual oversight.

WECC also created the Compliance Standards Index (CSI). The CSI works by drawing on a number of data sources to place relevant information about Reliability Standards in a single view. The CSI queries NERC's Reliability Standards database which is the repository for the most current and updated information on Reliability Standards. The system then combines this data with related information such as a link to the WECC RSAW and the WECC AML. All together, the CSI allows users to get a more complete view of applicable Reliability Standards.

Quality Assurance

Audit findings are reviewed by the entire audit team, including the ATL, before a possible violation is identified. All possible violations are then reviewed by an enforcement SME for confirmation. All audit reports and findings are reviewed and approved by senior compliance management before being sent to the registered entity and NERC. Post audit feedback forms are completed by audited registered entities and reviewed by the ATL, the audit team and senior compliance management before being discussed in auditor staff meetings. Lessons learned are discussed on an informal basis in both the Operations and Planning and CIP audit team meetings.

CIP audit teams document lessons learned and store them on an internal secure WECC server for future auditor review and reference. Audit documents, including evidence, data and reports, are stored on a dedicated drive and SharePoint and archived according to the WECC formal data retention policy of five years.

Guidance and Training for Industry Stakeholders

Beginning in 2009, WECC has offered annual training sessions and workshops for operators, schedulers, and dispatchers. During the assessment period, WECC decreased its training resources for its Training, Education, and Operator Certification program, which provides continuing education hours through the NERC Continuing Education program. WECC dedicated 3.5 FTE to its Training, Education, and Operator Certification program in 2009.[60] Last year, WECC delivered its 2013 training program through 1.5 FTEs.[61]

WECC formalized a compliance outreach program in the fall of 2008 with the hiring of a designated individual to act as a liaison with the registered entities and to coordinate various compliance outreach activities. The director of compliance outreach reported directly to the WECC CEO at that time. This reporting structure assured the separation of Outreach and Compliance Audit and Enforcement. In January 2011, the scope of this position expanded to include outreach to other interested stakeholders. The current position is managing director of stakeholder outreach which reported to the vice president of communications and external affairs during the assessment period and now reports to the vice president and chief administrative officer. This individual is responsible for the coordination of all compliance outreach activities as well as ad hoc outreach for other WECC areas, as appropriate (e.g. BES Definitional Process).

Below are examples of WECC outreach to registered entities:

(1) WECC hosts three Compliance User Group (CUG)/Critical Infrastructure Protection User Group (CIPUG) meetings annually. These meetings, held over three days, allow time for industry-only Western Interconnection Forum (WICF) sessions. Attendance records (kept electronically since 2011) indicate that participation continues to increase yearly while satisfaction surveys show favorable responses. The CUG/CIPUG agendas cover a wide range of topics including management updates, regulatory actions, industry trends, new Reliability Standards, audit approaches and best user practices. Registration for 2011 through 2013 was 5,717.

(2) WECC hosts open webinars on the third Thursday of most months. These sessions are used to provide time-sensitive updates on topics and issues that arise between CUG meetings and reminders of upcoming events and deadlines. Participation is also very good in this Outreach program with 150 to 250 active ports for each webinar. WECC added real time video streaming capability in 2013.

[60] 2009 Business Plan and Budget, Western Electricity Coordinating Council, July 9, 2008.

[61] 2013 Business Plan and Budget, Western Electricity Coordinating Council, June 25, 2012.

(3) Starting in January 2011, enforcement SMEs started conducting outreach events to educate registered entities about best practices in submitting information to WECC, and mitigation and prevention of violations. Some of the specific outreach activities include:

i. Eight Steps for Prevention and Mitigation – The goal of this outreach presentation was to share best practices in creating effective mitigation plans. It provided registered entities eight important elements to consider while creating a mitigation plan for a violation.

ii. Detection and Future Prevention – The goal of this outreach program was to highlight the importance of determining the root cause and implementing strong detection and preventative measures to reduce the likelihood for future recurrence of violations and security issues.

iii. Reliability Standard Specific Outreach – Enforcement SMEs have conducted various events to discuss the audit approach, root cause analysis and effective mitigation solutions for most commonly violated Reliability Standards in the WECC region. Some of these Reliability Standards include: PRC-005; PER-002 and PER-003; PRC-023; VAR-002; and CIP-007.

(4) The WICF is run by and on behalf of entities subject to WECC and NERC compliance requirements. The purpose of WICF is to provide registered functional entities within the Western Interconnection a venue to share knowledge and lessons learned regarding compliance matters, and to collectively develop best practices.

(5) CIP 101 is a two-day class held generally in WECC's Salt Lake City, UT meeting space and is taught by WECC cybersecurity auditors. This class has been offered three times and has sold out each time. Agendas include comprehensive discussions of CIP Reliability Standards, audit approaches, best evidence and interactive work between participants and the WECC auditors.

(6) A "Compliance 101 Webinar" which is a 90-minute session offering an overview of the development of the mandatory compliance program and its major parts. WECC offers this webinar just before each CUG/CIPUG to aid those new to their compliance duties or who may just want refresher training.

(7) WECC hosts compliance systems (EFT/webCDMS) training and webinars providing registered entities with an opportunity to learn about the improvements to these electronic systems.

Confidentiality

WECC employs a number of security measures to protect confidential compliance information. WECC laptops with access to confidential information have encrypted hard drives, minimizing the risk of that information being disclosed in the event of a lost or stolen laptop. WECC requires employees to change the passwords on their laptops every 90 days. WECC's offices have physical security measures including badge readers, access badges for all employees,

and video cameras which cover the building entrances and exits. There is also an on-site security guard for the building during business hours. Visitors must be escorted by WECC employees in nonpublic areas of the offices. Additionally, WECC uses two secure portals/repositories for registered entity submittals: webCDMS and the EFT server.

Participation in RAI

As part of the RAI initiative described in NERC's Statement of Activities and Accomplishments, WECC volunteered for the new Auditor Handbook taskforce. WECC has also provided its internal training materials to NERC, at its request.

WECC completed its first RAI pilot in 2013 with limited scope and time. WECC provided recommendations to the entity to further consolidate its internal controls. Based on the results, WECC customized the self-certification requirements for the entity. WECC used the entity's feedback to improve its internal controls evaluation process. In May 2014, WECC completed its second RAI pilot. WECC highlighted best practices and recommendations to the entity. WECC audit team used the results of the controls evaluation to exclude certain requirements from entity's compliance audit. The entity was also selected for the Compliance Exception pilot. The entity provided helpful and positive feedback which WECC has used to improve the evaluation process. Currently, the third RAI pilot is in progress.

C. Compliance Investigations

The Compliance Investigations group provides quality assurance of the Regional Entities' compliance evaluations of industry compliance assessments from events that have occurred in their footprint. For transparency, NERC has published this process on the NERC website.[62] This process articulates NERC's technical investigations staff review and facilitates a compliance evaluation of BPS events as they relate to the entities involved in the event. It also outlines subsequent compliance responsibilities under the NERC Reliability Standards.

NERC's Compliance Investigations group works closely with Regional Entity compliance staff to review significant BPS disturbances. These reviews include evaluation of events from a compliance perspective, which includes a review of possible gaps in existing NERC Reliability Standards. During such events, registered entities are encouraged to conduct a compliance self-assessment and submit these assessments to the relevant Regional Entity for review. The registered entity is encouraged to self-report possible violations it identifies during this self-analysis. In its oversight role, NERC reviews and analyzes each compliance self-assessment to ensure consistency and to initiate lessons learned or compliance monitoring follow-up activities.

At the beginning of the assessment period, compliance investigations and event-driven compliance evaluations proved difficult to complete at the Regional Entity level, in part due to the need for more resources. NERC found that the Regional Entities had difficulty determining which BPS events required a more detailed review and in understanding what was required of them in compliance investigations. As further detailed in the Statement of Activities and Accomplishments, these issues were addressed through several initiatives including the creation

[62] [Provide website address for the compliance investigation process]

of the ERO Event Analysis program and NERC's development of a compliance investigations leaders training class for NERC and Regional Entity staff compliance investigators. The compliance investigations leaders training material is continuously reviewed and improved based on feedback from compliance investigation experiences and changes to GAGAS, CMEP, and the NERC ROP. As a result of these efforts, the Compliance Investigations group regularly processes over 30 events per year and works with the Events Analysis group to publish relevant NERC alerts.

In addition, the Compliance Investigations group handles all complaints reported to NERC regarding alleged violations of NERC's Reliability Standards. These matters are reported through the compliance hotline or by voice messaging. Between March 2009 and December 2012, NERC in collaboration with the Regional Entities, received, processed and closed all 70 complaints that were received by the ERO.

D. Compliance Enforcement

1. Performance of the ERO Enterprise

a. Overview

During the assessment period, the Regional Entities made remarkable progress in establishing mature, effective enforcement programs consistent with their obligations under the RDA and the NERC ROP. The RDAs delegate authority over enforcement of compliance with Reliability Standards. The RDAs provide that NERC shall review the Regional Entities' CMEP as often as NERC deems necessary to ensure that: (1) the Regional Entity's program meets all applicable legal requirements; (2) the actual practices of the Regional Entity reflect the requirements; and (3) the program promotes consistent interpretations across North America of Reliability Standards and comparable levels of sanctions and penalties for violations of Reliability Standards constituting comparable levels of threat to the reliability of the BPS.[63] The NERC ROP require the Regional Entities to make initial determinations of compliance or noncompliance and recommend penalties where authorized,[64] apply penalties and sanctions that bear a reasonable relation to the seriousness of a violation and that follow the directives, principles, and processes set forth in NERC's *Sanction Guidelines*,[65] regularly report on the status of the review and assessment of violations of Reliability Standards as well as associated mitigation plan information,[66] and obtain sufficient resources to meet its delegated obligations, including maintaining sufficient staffing.[67] NERC, as part of its oversight role, regularly reviews Regional

[63] Section 6 of each RDA contains the provisions relating to delegation of compliance monitoring and enforcement authority.

[64] NERC ROP Section 402 (NERC Oversight of the Regional Entity Compliance Monitoring and Enforcement Programs).

[65] NERC ROP Section 401 (Scope of the NERC Compliance Monitoring and Enforcement Program); *Sanction Guidelines* are Appendix 4B to the ROP.

[66] *See* NERC CMEP, NERC ROP Appendix 4C, at Section 6.0 (Mitigation of Violations of Reliability Standards).

[67] NERC ROP Section 403 (Required Attributes of Regional Entity Compliance Monitoring and Enforcement Programs).

Entity enforcement activities to ensure that these obligations are being satisfied and to drive the implementation of best practices in enforcement activities throughout the ERO Enterprise. NERC's oversight activities provide an ongoing view of the Regional Entities' effectiveness in executing their compliance enforcement responsibilities.

At the time of the Three-Year ERO Performance Assessment Report (mid-2009), the NERC Reliability Standards had been mandatory and enforceable for just over two years. Early on in the implementation of the uniform CMEP, the Regional Entities successfully identified some 2,000 violations from the over 2,700 reported possible violations.[68] Additionally, the Regional Entities addressed a large number of self-reported Reliability Standard violations[69] from the period before the Reliability Standards became mandatory and enforceable.[70] NERC recognized in the Three-Year Performance Assessment the success of the Regional Entities in the cataloging, processing, and tracking of each violation and the completion of the associated mitigation plans. NERC also recognized that substantial work remained to be done to complete the transition to a more mature enforcement program. In the Three-Year Performance Assessment, NERC noted several areas of improvement for the Regional Entities, including increasing the speed of processing violations (and associated mitigation plans) and improving upon the thoroughness and accuracy of the information provided to support each Notice of Confirmed Violation (NOCV) or settlement agreement submitted to NERC for review.[71]

During the current assessment period,[72] NERC and the Regional Entities worked to develop more mature enforcement processes for the ERO Enterprise. NERC and the Regional Entities collaboratively implemented streamlined enforcement processing mechanisms, such as the Spreadsheet Notice of Penalty (SNOP) and FFT enforcement mechanism.[73] NERC and the Regional Entities also worked together to design and build a system for the collection, management, and exchange of compliance-related information between NERC and the Regional Entities. The Regional Entities implemented compliance data systems that interface with NERC's Compliance Reporting, Analysis, and Tracking System (CRATS). These complementary systems are the webCDMS, which is used by MRO, ReliabilityFirst, SPP RE, Texas RE, and WECC, and the Compliance Issues Tracking System (CITS), which is used by FRCC, NPCC, and SERC. These systems enable enforcement processing efficiencies and facilitate consistent tracking of violation status across the ERO Enterprise. These systems are continuously evaluated and improved.

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[68] Three-Year Performance Assessment Attachment 3 at 10-11.

[69] Unless otherwise indicated, "violation" refers to any report of noncompliance submitted to a Regional Entity, regardless of its status as a possible, alleged, or confirmed violation or whether the noncompliance was or will be processed as a "remediated issue" through the Find, Fix, Track and Report (FFT) track.

[70] Three-Year Performance Assessment Attachment 3 at 12.

[71] Three Year Assessment Attachment 3 at 11-12.

[72] For purposes of evaluating the Regional Entities' activities, NERC has used a five-year period of January 1, 2009 to December 31, 2013.

[73] *See* Main Document at [X] [reference related discussion in NERC statement of activities and accomplishments].

For several years, NERC has closely tracked various aspects regarding the overall performance of the ERO Enterprise as it relates to enforcement activities. Beginning in 2013, NERC and the Regional Entities developed and implemented a series of metrics to track and evaluate the performance of the ERO Enterprise and of each Regional Entity. These metrics allow NERC to analyze trends and identify areas where further improvements may be achieved. To facilitate consistent application of these metrics, NERC and the Regional Entities agreed to a set of business rules to govern submission of data to the complementary compliance data systems. For 2014 and beyond, NERC and the Regional Entities have agreed to use some of these metrics to measure achievement of the goals of the *ERO Enterprise Strategic Plan*.[74] Although these metrics were not in place during the entire assessment period, they provide insight into the current status of enforcement processing in the ERO Enterprise, and therefore are used in this evaluation.

NERC recognizes the substantial progress each Regional Entity has made in addressing the enforcement-related issues raised in the Three-Year Performance Assessment. NERC also recognizes the progress each Regional Entity has made in improving consistency and transparency in enforcement-related processes. However, and as explained more fully below, NERC has identified the need for additional improvements with respect to enforcement processing and the Regional Entities' implementation of certain aspects of the CMEP.

This assessment of the enforcement activities of the Regional Entities begins with a discussion of the collective accomplishments of the ERO Enterprise with respect to enforcement processing and a discussion of general recommendations for areas of improvement. Topics that will be covered include ensuring the timely processing and mitigation of older violations, ensuring the quality of data in the compliance data tracking systems, ensuring the quality of submitted information in settlement agreements and NOCV, and NERC's oversight of the performance of the Regional Entities with respect to certain areas of the CMEP. The analysis of the collective accomplishments of the Regional Entities in enforcement is followed by in-depth analysis of the performance of each Regional Entity in executing its compliance enforcement responsibilities.

b. Improvements in Enforcement Processing, 2009-2013

In 2009, at the time of the Three-Year Performance Assessment, the Regional Entities had collectively accumulated what was described as a substantial backlog of cases. Of the total 1,926 violations identified by the Regional Entities, only 475 violations had been filed with NERC for its review and for Board of Trustees Compliance Committee (BOTCC) approval as of May 31, 2009. Roughly 75 percent of all violations that had been identified remained to be processed by Regional Entity staff.[75]

During the current assessment period, the Regional Entities have made substantial progress in reducing the number of open violations, despite substantial increases in the numbers of new violations during the assessment period.

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[74] *See ERO Enterprise Strategic Plan 2014-2017*, available at: http://www.nerc.com/gov/Annual%20Reports/ERO%20Enterprise%20Strategic%20Plan%202014-2017%20and%20Performance%20Metrics.pdf.

[75] Three-Year Performance Assessment Attachment 3 at 11.

i. The Composition of the ERO Enterprise Caseload

As shown by the table below, 10,163 violations were reported to NERC by the Regional Entities during the current assessment period. The Regional Entities reported a significant increase in the number of violations from 2010 through 2012, in large part due to the implementation and enforcement of the CIP Reliability Standards:

Figure X. Violations for all Regional Entities 2009-2013 by Year Reported to NERC
U.S. Violations Only[76]

Regional Entity	2009	2010	2011	2012	2013	Grand Total
FRCC[77]	188	109	141	69	61	568
MRO	60	103	196	166	139	664
NPCC	43	99	130	213	66	551
RFC	123	469	565	505	240	1902
SERC	187	312	309	300	285	1393
SPP RE	132	254	291	173	191	1041
TRE	14	51	430	197	169	861
WECC	571	550	807	818	437	3183
Grand Total	**1318**	**1947**	**2869**	**2441**	**1588**	**10163**

The drop in violations from 2012 to 2013 is attributable to a number of factors.[78] Since the Reliability Standards became mandatory and enforceable, most registered entities have completed at least one full audit cycle and in some instances more than one audit cycle. A number of registered entities have responded to their past Compliance Audits by improving their

[76] This table reflects all U.S. violations that were submitted via the complementary compliance data systems to NERC's centralized database (CRATS) in 2009, 2010, 2011, 2012, and 2013. This table includes all violations, whether they were later dismissed or held due to a court, regulator, or appeal. For some violations, the year the violation was discovered and the year the violation was first reported to NERC's centralized database are different. For example, a violation first discovered during an audit in late 2012 may not have been reported to NERC's centralized database until early 2013. Therefore, the total number of violations for a particular Regional Entity or a particular year may vary depending on whether violations are reported by discovery year or by year submitted to NERC's centralized database. To clarify, these differences, where they appear, are attributable to a difference in presentation and reporting rather than an underlying difference in the number of overall violations. For consistency throughout this analysis, the year the violation was first reported to NERC's centralized database is used in this Five-Year Performance Assessment unless otherwise specified.

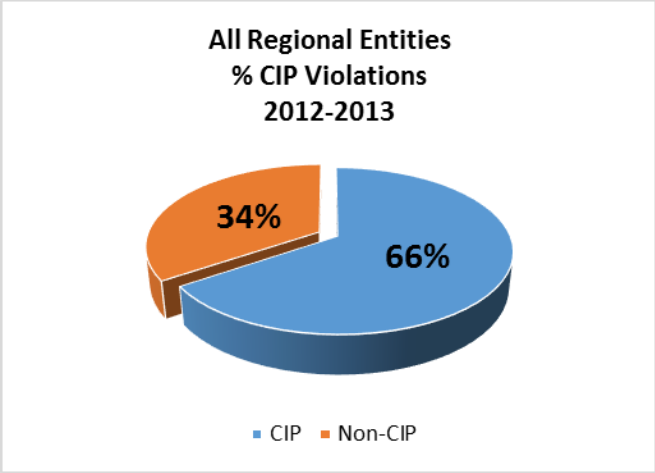
[77] In the JRESA, FRCC reported violations by the year the violations were discovered, rather than the year the violations were submitted to NERC's centralized database. *See* JRESA at 41. As noted above, the differences between the numbers reported by NERC in the table above and the numbers reported by FRCC in the JRESA are attributable to the difference in presentation, rather than an underlying difference in the number of overall violations.

[78] This drop in violations appears whether the number of violations is presented by discovery year or by year reported to NERC's centralized database. When calculated by year of discovery, there was a 12% decline in violations from 2011 to 2012, and a 30% decline in violations from 2012 to 2013.

management practices, thus decreasing the likelihood of the Regional Entity discovering new violations in recent Compliance Audits. In addition, the Regional Entities have conducted significant and varied outreach activities. These efforts have included operations and planning workshops, CIP workshops, and training to enhance their registered entities' understanding of the Reliability Standards. Registered entities with better knowledge of the Reliability Standards have improved their compliance cultures, and therefore were less likely to have violated Reliability Standards. The drop in violations is also attributable to an enhancement in the preliminary screening processes as of December 2012. Specifically, this enhancement reduced the likelihood that new potential noncompliance issues were duplicates of issues already being processed.

However, despite the decrease in the overall number of potential noncompliance issues identified, the composition of the ERO Enterprise caseload remained fairly consistent from 2012 to 2013. Since 2010, violations of the CIP Reliability Standards have comprised the majority of violations in each year, with the overall proportion of CIP violations increasing somewhat year over year. CIP violations comprised 66% of the total violations submitted to NERC's centralized database from January 1, 2012 through December 31, 2013.

Figure X. Type of Violations Reported to NERC by All Regional Entities, 2012-2013



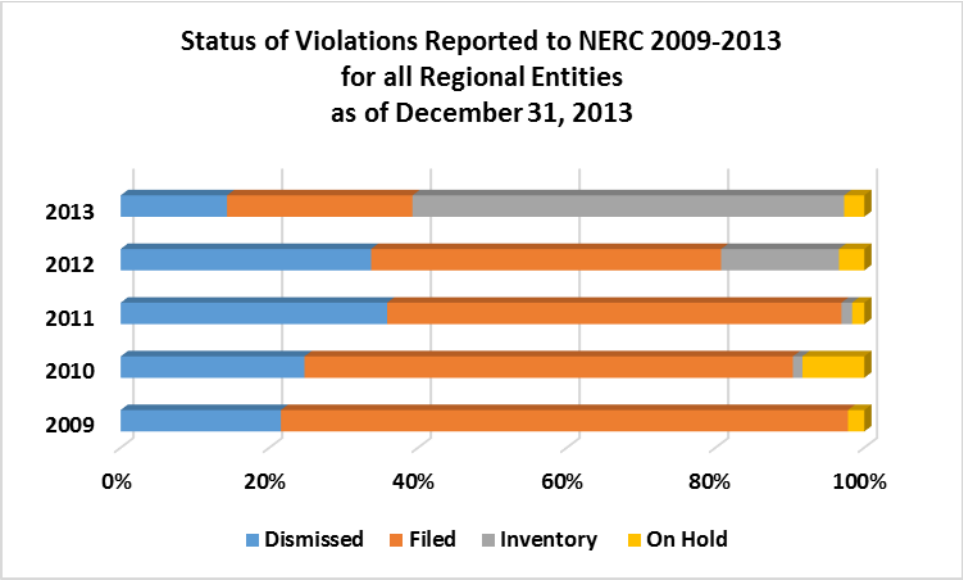
The top five most violated Reliability Standards were CIP-004, CIP-005, CIP-006, CIP-007, and PRC-005. The most violated Reliability Standards were generally consistent across the Regional Entities.

Despite the influx of CIP violations during the assessment period, the Regional Entities actively worked to reduce the number of open violations in their caseloads. As of December 31, 2013, the Regional Entities had processed 100% of the violations available to be processed[79] that were reported to NERC in 2009; nearly 99% of the violations available to be processed that were reported to NERC in 2010 and 2011; and 84% of the violations that were reported to NERC in

[79] NERC recognizes that the Regional Entities are not able to process certain violations because the violations are being held by or due to an appeal, a court, or a regulator. NERC refers to these violations as being "on hold." In evaluating the performance of the Regional Entities with respect to violation processing, NERC excludes any "on hold" violations.

2012. Violations reported to NERC in 2012 and 2013 comprised over 95% of the total 1,375 violations available for processing as of December 31, 2013.

Figure X. Status of Violations Reported to NERC 2009-2013 for all Regional Entities.



As of December 31, 2013, the majority of violations in the ERO Enterprise inventory (67%) consisted of violations reported to NERC in 2013.[80] In addition, during 2013, the Regional Entities processed approximately 39% of the new violations reported to NERC in 2013. By reducing the number of older violations, the Regional Entities are moving toward a caseload consisting primarily of newer violations. The efforts of the Regional Entities to process older violations in their inventories, which has resulted in the reduction in caseload, are described more fully in §D.1.b.iii below, Efforts to Reduce Older Caseload.

ii. The Caseload Index

As noted above, NERC and the Regional Entities developed a series of enforcement processing metrics to aid in monitoring and improving the efficiency of enforcement processing throughout the ERO Enterprise. The Caseload Index is one of these metrics. It is used to facilitate planning, coordination, and collaboration between NERC and the Regional Entities.

The Caseload Index is a snapshot of current enforcement processing rates. It measures the amount of time, in months, that it will take the ERO Enterprise (or an individual Regional Entity) to eliminate the existing inventory, assuming no new violations are received. This calculation is based on the processing rate of the previous 12 months. For example, if the Caseload Index is calculated on December 31, 2013, the time to process existing inventory will be based on the processing rate from January 2013 to December 2013. A lower Caseload Index indicates that the ERO Enterprise will need fewer months to clear out its existing inventory of violations available

[80] The violations in "inventory" refers to identified violations that have not completed processing and are not "on hold."

to be processed, based on the processing rate of the previous 12 months. A higher Caseload Index indicates that the ERO Enterprise (or individual Regional Entity) would need more months to clear out its existing inventory. The Caseload Index may fluctuate from month to month as violations are received and processed, but is helpful for evaluating performance over time.

NERC first began monitoring the Caseload Index in 2011 and has targeted achieving a lower average ERO Enterprise Caseload Index in each successive year. As of July 1, 2011, the average ERO Enterprise Caseload Index was 35 months. NERC set a goal to achieve an average ERO Enterprise Caseload Index of 24 months by the end of the year. By the end of 2011, the average ERO Enterprise Caseload Index was 24 months, meeting the goal and marking a substantial improvement from just six months prior.

In 2012, the calculation of the Caseload Index was refined to account for matters processed through dismissal. The average ERO Enterprise Caseload Index as of December 31, 2012 was 13.3 months.[81] For 2013, NERC sought to achieve an average ERO Enterprise Caseload Index of under 10 months. Throughout 2013, the Caseload Index decreased fairly steadily to approximately 6.5 months at the end of the year.

The overall decrease in the ERO Enterprise average Caseload Index since 2011 reflects the substantial work by NERC and the Regional Entities to implement processing efficiencies and reduce the number of older open violations. These efforts are described more fully in the next section.

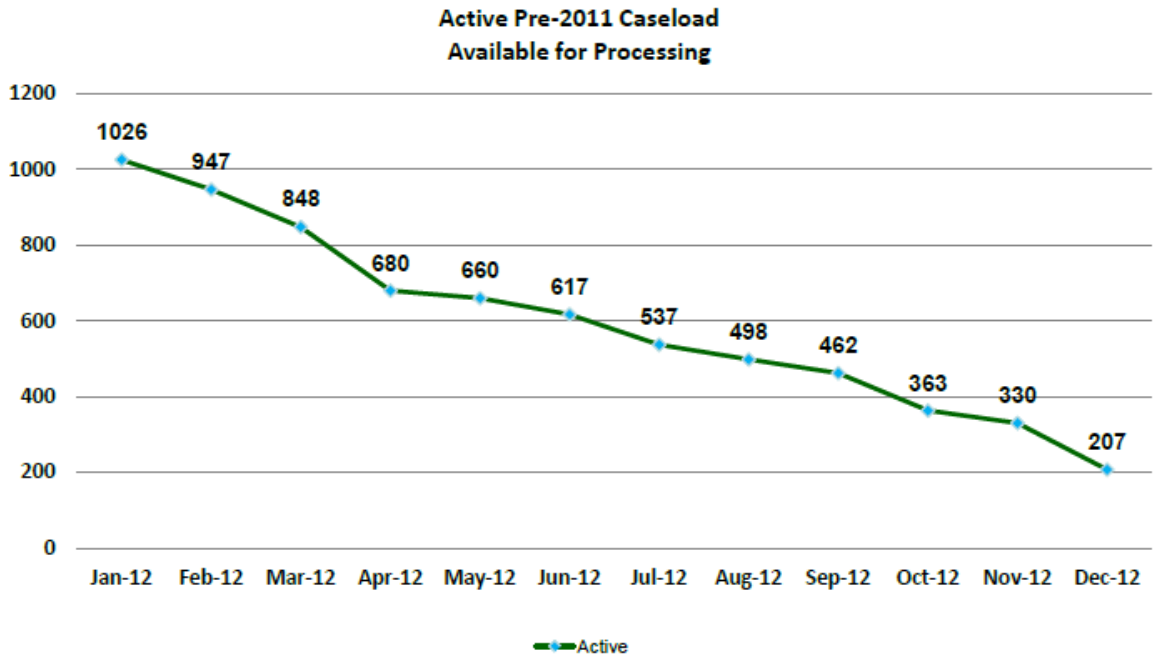
iii. Efforts to Reduce Older Caseload

In the Three-Year Performance Assessment, NERC noted that the Regional Entities needed to make substantial improvements in the processing of violations. NERC noted that the Regional Entities needed to reduce what NERC termed a "backlog" of aging violations. During the current assessment period, the Regional Entities made substantial progress in this regard. Whereas the Regional Entities had processed only about 25% of then-existing violations at the time of the Three-Year Performance Assessment in 2009, the Regional Entities have collectively processed more than 86% of violations reported to NERC from 2009 to 2013. The efforts of the Regional Entities to reduce the number of aging violations have been commendable. These efforts reflect the growth and maturity of enforcement staff across the ERO Enterprise and demonstrate the willingness of the Regional Entities to participate in the development and execution of common goals under NERC leadership and oversight.

In 2012, 2013, and 2014, NERC established corporate goals to reduce the number of older violations remaining to be processed. Working with NERC, the Regional Entities invested significant time and resources in processing the older violations. As a result, the ERO Enterprise reduced the number of open, older violations substantially. For example, during 2012, NERC and the Regional Entities successfully worked to reduce the number of open violations dating from before 2011 (excluding on-hold violations) by 80%, as shown below:

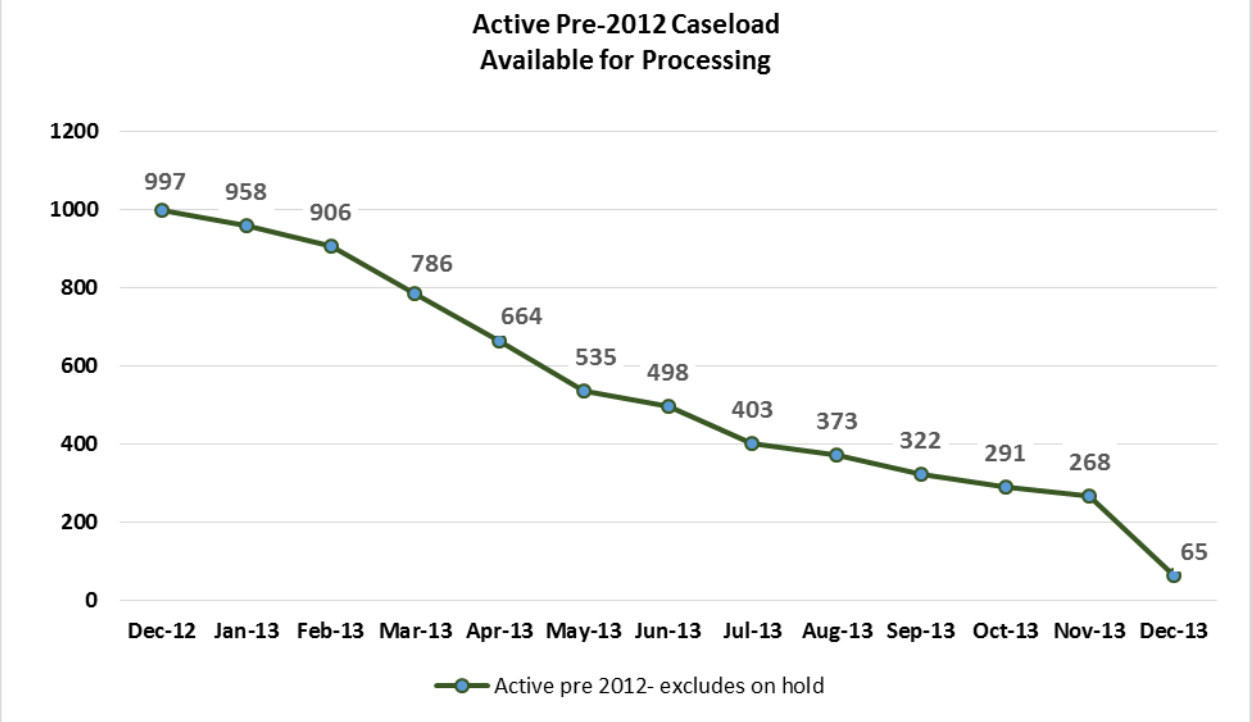
[81] For 2012, NERC established a corporate goal of 12 months for the ERO Enterprise average, with the threshold set at 19 months.

Figure X. ERO Enterprise Caseload Consisting of Violations Discovered Before 2011 (excluding on hold violations), by Month in 2012.



During 2013, the Regional Entities built on the successes of 2012. By December 31, 2013, NERC and the Regional Entities reduced the number of pre-2012 violations (excluding on hold violations) by 93%, as demonstrated below:

Figure X. ERO Enterprise Caseload Consisting of Violations Discovered Before 2012 (excluding on hold violations), by Month in 2013.



Only 65 violations discovered before 2012 remained to be processed as of December 31, 2013, representing less than one percent of total violations discovered from 2007 through 2011 and less than five percent of the violations available to be processed as of December 31, 2013. By working to reduce the number of aging violations while improving the processing speed of newer violations, NERC and the Regional Entities have reduced the average violation age from 11.86 months in 2012 to 11.2 months in 2013 – an improvement of nearly six percent.

In 2014, NERC and the Regional Entities are continuing to work together to reduce the number of violations in inventory that are older than 24 months. These efforts will ensure that Regional Entities are prioritizing and resolving older violations appropriately. Combined with efforts to decrease processing times through the use of streamlined enforcement mechanisms and enforcement processing process refinements, the Regional Entities will reduce overall processing times and provide finality sooner to registered entities.

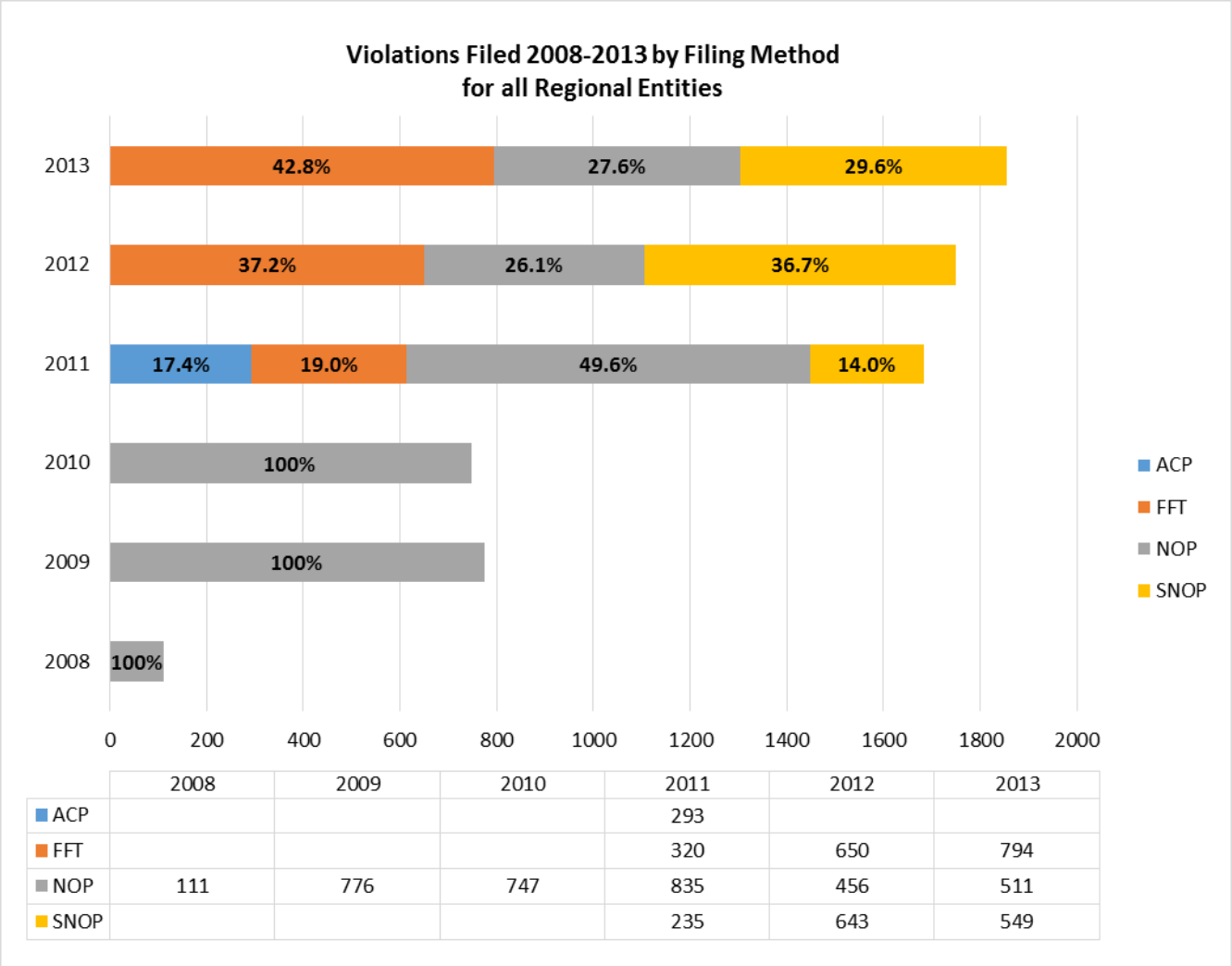
iv. Implementation of Streamlined Enforcement Processing Mechanisms

During the five-year assessment period, the Regional Entities worked with NERC to develop, refine, and implement process improvements to ensure the timely processing of new violations while also allowing for the reduction of older violations. Most notable among these process improvements was the development of streamlined enforcement processing mechanisms

that simplify the process of filing violations with the Commission. These mechanisms include the SNOP and the FFT program.[82]

At the time of the Three-Year Performance Assessment, NERC and the Regional Entities used the NOP mechanism to process all violations. Using only the NOP format, 1,634 violations were filed with the Commission from 2008 through 2010. In 2011, following the implementation of the Administrative Citation Process (ACP) and the FFT and SNOP processes, the Regional Entities collectively filed 1,683 violations – more than the previous three years combined.

Figure X. Violations Filed per Year by Filing Method, 2008-2013



	2008	2009	2010	2011	2012	2013
ACP				293		
FFT				320	650	794
NOP	111	776	747	835	456	511
SNOP				235	643	549

In 2012, the Regional Entities continued the implementation of the FFT and SNOP processes, which, along with the NOP, are the three enforcement processing mechanisms in use today. During the assessment period, the ERO Enterprise caseload consisted primarily of

[82] The ACP was an alternative enforcement processing mechanism used to process a number of lower risk violations in 2011. The format was similar to the SNOP format currently being used.

violations posing a lower risk to the reliability of the BPS. The FFT and SNOP processes proved to be especially useful for processing these lower-risk violations.

In 2012, the number of violations processed by means of SNOP or FFT increased after the Regional Entities developed knowledge and experience with the new mechanisms. These methods accounted for over than 70% of the total filed violations in 2012 and 2013. NERC and the Regional Entities continued to use the NOP format for violations that posed a serious and substantial risk to reliability, required the completion of substantial above-and-beyond mitigating activities,[83] or presented other facts and circumstances requiring a detailed presentation. Going forward, NERC expects the proportion and use of the filing mechanisms to evolve as the ERO Enterprise implements the process refinements being developed under the Reliability Assurance Initiative (RAI).

In 2013, NERC and the Regional Entities worked together to expand the FFT program by implementing the latest round of FFT enhancements, which were approved by the Commission in an order issued June 20, 2013.[84] These enhancements will also reduce the amount of time required to process issues through the FFT program. As a result of these enhancements, FFT treatment is now available for a limited pool of possible violations posing a moderate risk to the reliability of the BPS (in addition to possible violations posing a minimal risk). In addition, certain unmitigated possible violations may be processed through the FFT program, so long as mitigation is completed within 90 days from the date the FFT is posted.

To streamline processing of FFTs, Regional Entities now submit their FFTs for public posting on NERC's website at the end of each month. This replaces the prior requirement that NERC submit monthly informational filings to the Commission. NERC maintains its enforcement oversight by reviewing a representative sample of FFTs during the 60-day window following the public posting as well as through an annual spot check. NERC's spot checks ensure that issues selected for FFT treatment are appropriate for the program; that the issues are explained sufficiently in the posted documents; that the FFT program is implemented consistently across the regions, and that information about FFT issues is presented consistently across regions.

In addition to feedback provided through the spot check process, NERC provides ongoing training and guidance to the Regional Entities. Risk assessments play a large role in the FFT process and will be important to the success of the risk-based enforcement processes being implemented under RAI. In recognition of the importance of risk assessments, NERC provides ongoing training to the Regional Entities on how to evaluate the risk posed by an issue and how to document the results of the risk assessment in a clear and consistent manner. NERC also developed FFT templates to ensure that information regarding FFT issues, such as issue descriptions, mitigating activities, and other relevant information, is presented in a consistent manner across all Regional Entities. In addition, NERC, working with the Regional Entities,

[83] As described in the evaluations of the individual Regional Entities, "above-and-beyond" activities refers to activities that a registered entity agrees to undertake as part of the resolution of an instance of noncompliance, in addition to completing a mitigation plan or other mitigating activities and/or paying a monetary penalty.

[84] *North American Electric Reliability Corporation, Order on Compliance Filing*, 143 FERC ¶ 61,253 (2013).

developed and posted an *ERO Self-Report User Guide*.[85] The *ERO Self-Report User Guide* provides registered entities with helpful guidance on assessing risk and communicating relevant information to the Regional Entities.

Additional information regarding the FFT process and NERC's oversight of it is provided below.

v. Implementation of Compliance Data Systems

As noted above, the Regional Entities have implemented compliance data systems to collect and track violation data. These systems interface with NERC's centralized database. At the Regional Entity level, these systems have enabled substantial enforcement processing efficiencies. At the NERC level, these systems have enhanced NERC's ability to identify compliance and enforcement trends and compile accurate metrics.

To ensure the quality, integrity, and completeness of the data that is submitted to NERC's centralized database, NERC and the Regional Entities worked together to create a series of business rules. NERC commends the Regional Entities for the resources and effort they have expended in developing these business rules and the associated systems. However, improvements remain to be made in ensuring that data submitted to NERC's centralized database meets the parameters of the business rules. NERC will continue to work with the Regional Entities to address these areas.

vi. Quality of Submitted Information

In the Three-Year Performance Assessment, NERC noted that Regional Entities needed to improve the thoroughness and accuracy of the information provided to NERC staff for review to meet NERC expectations and the requirements of Commission orders.[86] Since the filing of the Three-Year Performance Assessment in 2009, NERC and the Regional Entities have taken concrete steps to improve the quality, clarity, and consistency of enforcement-related documentation. NERC considers these efforts to have been successful.

NERC developed a series of enforcement processing templates to assist the Regional Entities in ensuring that all required information is presented in a consistent and easily-understood format. Generally, the Regional Entities provide information in the requested format, using the templates, with the record documents that are necessary for filing.[87] The implementation of the various templates has improved the quality of submitted information since the Three-Year Performance Assessment.

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[85] Drafts of the *ERO Self-Report User Guide* and the companion *ERO Enterprise Mitigation Plan Guide* documents were posted for public comment in January 2014. The final user guides are posted on the RAI page on the NERC website. available at: http://www.nerc.com/pa/comp/Pages/Reliability-Assurance-Initiative.aspx.

[86] Three-Year Performance Assessment Attachment 3 at 12.

[87] NERC has advised the Regional Entities to submit all necessary documentation at the time the NOCV or settlement agreement is submitted to NERC for review and BOTCC approval, where possible.

However, through its regular review of submitted information, NERC has identified opportunities for further improvement. In particular, descriptions of the facts of each violation, assessments of the risk posed by each violation, and descriptions of factors contributing toward the imposition of a certain dollar penalty are not always clear or complete when violations are submitted to NERC for review in settlement agreements or NOCV. Specifically, Regional Entities should explain fully what factors were considered aggravating, which factors were considered mitigating, and when previous violations of the same or similar Reliability Standards were or were not considered aggravating (and why). Careful and complete drafting will facilitate greater transparency of Regional Entity decision-making, an area noted for improvement by the commenters.[88] In addition, careful and complete drafting will avoid protracted follow-up periods and processing delays.

Through NERC's outreach efforts and other process improvements and guidance being implemented under RAI, NERC expects that the quality and clarity of risk assessment, violation description information, and other information relevant to enforcement processes will continue to improve. For example, NERC and the Regional Entities have developed two documents to enhance communication between registered entities and the Regional Entities and to facilitate the shift toward a risk-based enforcement approach. The first document, the *ERO Self-Report User Guide*, provides registered entities with additional insight into the information NERC and the Regional Entities need to provide efficient and timely resolution of instances of potential noncompliance. The second document, the *ERO Enterprise Mitigation Plan Guide*, provides guidance on the information that should be considered when developing a mitigation plan and the elements and analysis that should be included. Although targeted specifically to registered entities, the user guides also provide guidance and insight to Regional Entity auditors, new enforcement staff, and other stakeholders.[89]

c. Improving Reliability Across the ERO Enterprise

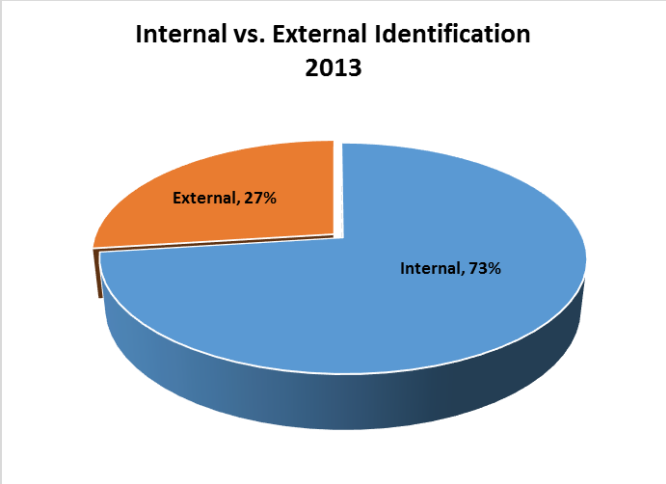
i. Encouraging Internal Discovery of Violations

Regional Entity enforcement programs play an important role in improving the reliability of the BPS. Early self-identification, self-reporting, and mitigation of noncompliance are important steps in improving electric reliability. By deploying incentives to encourage the self-discovery and timely self-reporting of violations, the Regional Entities have encouraged registered entities to take proactive steps to self-identify their noncompliance and thereby promote a more reliable BPS.

[88] Cite to comments.

[89] *See ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide*, available at: http://www.nerc.com/pa/comp/Pages/Reliability-Assurance-Initiative.aspx.

Figure X. Percentage of Violations by Method of Identification, 2013



In 2013, internally-discovered (*i.e.*, self-reported) violations comprised the majority of violations identified across the ERO Enterprise.

NERC recognizes that the percentage of self-identified violations necessarily depends on the number of violations identified by the Regional Entities through other compliance monitoring methods (i.e. spot checks and compliance audits). As NERC and the Regional Entities work together to implement efficiency and consistency-enhancing improvements under the compliance components of RAI, NERC expects to gain additional insight into audit finding and self-reporting trends across the Regional Entities. NERC expects that, as the ERO Enterprise gains experience in evaluating the internal controls and management practices of registered entities, it will develop a better understanding of what factors drive internal self-identification of violations. This insight will allow NERC and the Regional Entities to refine self-reporting incentives appropriately.

ii. Ensuring the Timely Mitigation of Violations

NERC monitors all items with ongoing mitigating activities regardless of where the violations are in the enforcement process and expects mitigating activities to be completed in a timely manner.[90] Throughout the assessment period, the Regional Entities worked to ensure that violations, including older violations that have not yet been processed, are mitigated and no longer pose a risk to reliability.

[90] As defined in the NERC ROP, Appendix 2, "mitigating activities" means actions taken by a registered entity to correct and prevent recurrence of a noncompliance, whether or not the actions are embodied in a mitigation plan.

Figure X. Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation for the ERO Enterprise as of December 31, 2013[91]

Year of Discovery	% Completed	% in Progress
2013	36.0%	64.0%
2012	79.6%	20.4%
2011	92.4%	7.6%
2010	96.4%	3.6%
2009	100.0%	0.0%
2008	99.6%	0.4%
2007	100.0%	0.0%
Grand Total	**84.6%**	**15.4%**

However, as the above chart demonstrates, a small number of older violations remain for which mitigating activities have not been completed. For these violations, mitigating activities may have been started, but not yet completed. Further, some of the older violations with open mitigation relate to registered entities for which violations cannot be processed as a result of a pending court dispute.

In 2014, NERC will continue to focus on the completion of mitigating activities and track this closely. NERC will measure the success of each Regional Entity and the ERO Enterprise as a whole in ensuring that violations are mitigated and no longer pose a threat to reliability.

iii. Promoting Reliability through Enforcement Philosophy and Practices

The Regional Entities have encouraged registered entities to proffer "above-and-beyond" mitigating activities in lieu of, or as an offset to, the full monetary penalties assessed pursuant to the NERC *Sanction Guidelines*. By encouraging registered entities to invest in improvements beyond those necessary to ensure compliance with violated Reliability Standards, this enforcement approach improves reliability and reduces the likelihood of future noncompliance. Examples of such above-and-beyond activities are provided in the individual Regional Entity assessments below.

d. NERC'S Ongoing Monitoring of Specific Regional Entity Processes Under the CMEP

NERC Enforcement staff uses its oversight role to ensure that the Regional Entities are implementing the CMEP effectively, to provide constructive feedback where appropriate, to identify trends, and to drive the implementation of best practices. Over time, as enforcement

[91] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation for all Regional Entities and NERC acting as the Compliance Enforcement Authority as of December 31, 2013. This table excludes dismissed violations and non-U.S. violations.

processes and organizations evolved and matured, NERC's oversight role has evolved and matured. As the Regional Entities have demonstrated the adequacy and maturity of their enforcement-related processes and procedures, NERC has adjusted its oversight activities. For example, whereas NERC formerly reviewed all FFTs before filing with the Commission, NERC now reviews only a representative sample of FFTs that have been posted to NERC's website.[92] In addition, following a 2013 spot check of Regional Entity dismissal procedures, NERC no longer requires preapproval of letters of dismissal for externally-discovered violations (except for violations arising from compliance investigations).

NERC continually looks for ways to exercise its oversight role to drive improvement in Regional Entity processes and its own oversight processes. The results of several of NERC's oversight activities are presented below and in the individual Regional Entity sections of this evaluation.

During the assessment period, NERC conducted spot checks of different aspects of the Regional Entities' implementation of the CMEP. As examples of the types of spot checks performed by NERC, NERC reviewed Regional Entity dismissal procedures in 2013. This spot check provided valuable insight into the reasons why self-reported violations are dismissed.[93] The spot check also gave NERC the opportunity to examine Regional Entity dismissal procedures and documentation in depth. Based on its analysis of the spot check results, NERC concluded that the Regional Entities are preparing letters of dismissals that generally communicate the reasons for dismissal to the registered entities. NERC prepared several letter of dismissal templates to assist Regional Entities in ensuring that the letters of dismissal contain all required information on a consistent basis.

NERC engages in various activities to ensure consistency and exercise oversight over the FFT process. Public and nonpublic versions of the FFTs are submitted by the Regional Entities to NERC, in the NERC provided template, for posting on a monthly basis. NERC staff reviews moderate risk issues for suitability for FFT filing. If NERC staff determines that the moderate risk issues are not appropriate for FFT filing, staff will discuss concerns with Regional Entity staff. NERC, concurrently with the Commission, reviews a representative sample of FFTs during the 60-day window following the posting of the FFT on NERC's website. NERC also includes moderate-risk FFTs and FFTs with ongoing mitigation as part of its review. Following its review

[92] As noted above, NERC's oversight of the FFT program consists of a review during the 60-day window following the monthly FFT posting as well as an annual spot check.

[93] NERC concluded that 67% of dismissals from its randomly-selected sample were attributable to an expansion of scope or a duplication of already-existing violations. In 22% of dismissals, the registered entity submitted additional information supporting compliance after the initial determination of possible violation was made. Approximately 11% of the dismissals were attributable to changes in the applicable Reliability Standard and requirement, transfer to another CEA, or administrative reasons.

NERC expects the number of dismissals to decrease as a result of the implementation of enhancements to the preliminary screen process in December 2012 (this process requires Regional Entities to review new noncompliance and determine whether it is a duplicate of a violation already being processed) and the issuance of the *ERO Self-Report User Guide*.

of the FFT samples, NERC coordinates any questions or concerns it may have with FERC staff, which conducts an independent sampling and review during the same 60-day period.

In addition to sampling during this 60-day review period, NERC also conducts a separate sampling of the FFTs to gather information related to NERC's annual filing with the Commission. In late 2012, NERC initiated a review of the Regional Entities' FFT programs, the results of which were detailed in NERC's March 15, 2013 compliance filing and report.[94]

During the first quarter of 2014, NERC Enforcement staff performed another review of the Regional Entities' FFT programs, the results of which were detailed in NERC's June 20, 2014 compliance filing and report.[95] In summary, NERC found that the quality of the FFTs submitted by the Regional Entities for posting has continued to improve from the FFTs submitted to NERC for review in prior years. NERC also found that the Regional Entities are appropriately selecting issues for FFT treatment. However, NERC identified additional areas for improvement to promote accuracy and consistency in implementation of the FFT program, as described in detail in that filing.

In addition to its periodic spot checks, NERC performs regular oversight of certain Regional Entity enforcement processes. For example, NERC reviews all SNOP violations and NOP violations before filing these violations with the Commission, and it provides feedback to the Regional Entities as appropriate. As part of this review, NERC reviews all proposed penalties for appropriateness and consistency with monetary penalties assessed for violations of the same Reliability Standard and Requirement occurring under similar facts and circumstances in accordance with the principles contained in the NERC *Sanction Guidelines.*

e. Conclusion

The Regional Entities have made substantial progress during the five-year assessment period in improving the efficiency and timeliness of enforcement processing. Going forward, each of the Regional Entities should focus on continuing to prioritize older violations for completion of processing, ensuring that all violations are mitigated in a timely manner, and ensuring the quality of data and information that is submitted to NERC in the compliance data information systems and in settlement agreements and NOCV. Further, each of the Regional Entities should implement the process improvements recommended by NERC through its oversight activities.

[94] *Compliance Filing and Report on the Compliance Enforcement Initiative and Proposed Enhancements to the Fix, Fix, Track and Report (FFT) Program*, Docket No. RC11-6-004 (Mar. 15, 2013).

[95] Cite after the 2014 FFT report is filed.

2. Evaluation of Florida Reliability Coordinating Council, Inc. (FRCC)

a. Overview

Florida Reliability Coordinating Council, Inc. (FRCC) is the FERC-approved Regional Entity for the territory covering the majority of the state of Florida in the Eastern Interconnection.

In the Three-Year Performance Assessment, NERC concluded that FRCC needed to improve its timeliness in enforcement processing in several respects.[96] In response, during the assessment period, FRCC has taken several steps to address the concerns identified by NERC. FRCC reported that it added personnel to its enforcement staff and developed a number of processes to support and facilitate the processing of violations. FRCC has also developed checklists, flowcharts, caseload goals, and automated database reporting tools.[97]

During the assessment period, FRCC has increased the number of FTE staff dedicated to enforcement from 0 FTEs in 2009 to 4 FTEs as of December 31, 2013. Based on FRCC's processing speed and efficiency as measured at the end of the assessment period, NERC views FRCC's enforcement staffing to be sufficient to process the number of violations that it receives.

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FRCC ended the assessment period with a Caseload Index that was consistent with the ERO Enterprise Caseload Index. FRCC processed all violations discovered before 2012, in furtherance of an ERO Enterprise goal. FRCC's caseload tends to consist of more-recent violations, and FRCC has made progress in ensuring the completion of mitigation for older violations. Finally, NERC has reviewed FRCC's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, FRCC generally implements those processes in a satisfactory manner.

In addition, FRCC staff have actively participated in the development of RAI. FRCC staff have participated in the Aggregation of Minimal Risk Issues and Enforcement Discretion pilot programs and served on the *ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide* drafting teams. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

As explained more fully below, based on FRCC's Caseload Index, FRCC's successful processing of its older violations (as facilitated by its effective implementation of streamlined enforcement processing mechanisms), and the results of NERC's oversight activities, NERC concludes that FRCC has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. NERC will continue to work with FRCC to ensure that violations are mitigated promptly, with an added emphasis on ensuring the completion of mitigation for older violations.

[96] Three-Year Performance Assessment Attachment 3 at 16.

[97] 2014 JRESA Appendix 2B at 1-2.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of FRCC's Caseload

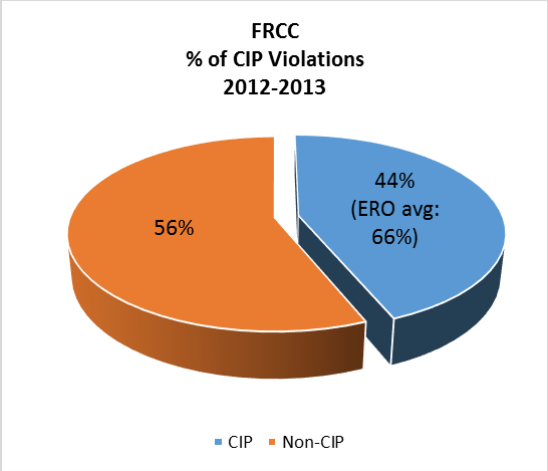
During the assessment period, FRCC reported 568 violations to NERC.

Figure X. Violations for Florida Reliability Coordinating Council, Inc. 2009-2013 by Year Reported to NERC[98]

Year Reported to NERC	Violations Reported
2009	188
2010	109
2011	141
2012	69
2013	61
Total	**568**

As shown in the table above, FRCC reported a relatively high number of violations in 2009, with a significant drop occurring after 2011. In 2011, over 70% of total violations were of the CIP Reliability Standards. In the years 2012 and 2013, violations of CIP Reliability Standards represented 44% of total violations; this is a substantially lower percentage than the ERO Enterprise average.

Figure X. Type of Violations Reported to NERC by FRCC, 2012-2013



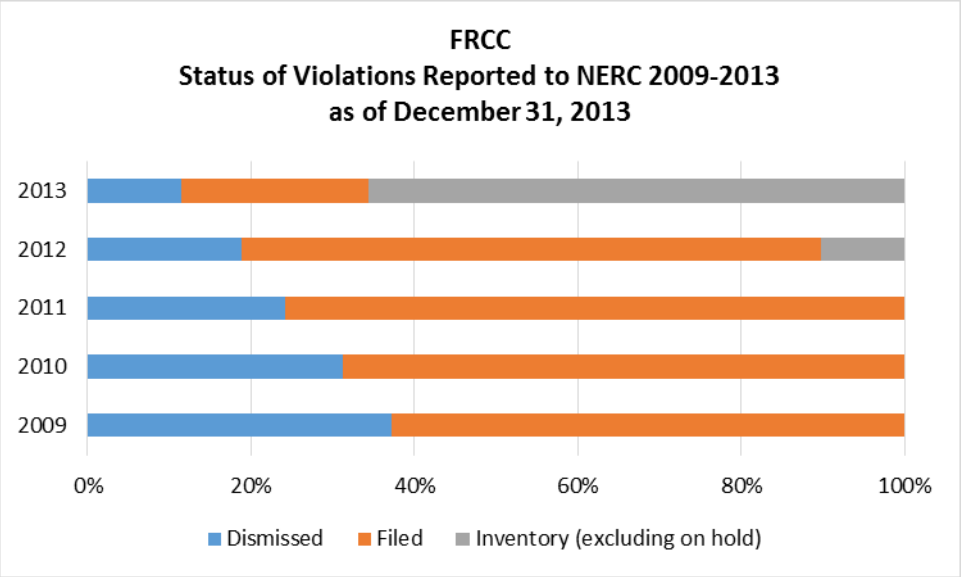
FRCC believes that the lower-than-average ratio of CIP violations in 2012 and 2013 may be due to two factors. During 2011, FRCC performed Spot Checks on all registered entities within

[98] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

the FRCC region that had Critical Cyber Assets. As a result, FRCC had a high ratio of CIP violations for that year (approximately 75%). In addition, FRCC believes that it has a lower percentage of registered entities with Critical Cyber Assets than other Regional Entities.

Of the total violations reported to NERC by FRCC during the assessment period, 47 violations, or approximately 8%, remained to be processed as of December 31, 2013 (excluding on-hold violations). As shown in the table below, FRCC has processed all violations reported to NERC in 2009, 2010, and 2011. FRCC processed 90% of violations reported to NERC in 2012.

Figure X. Status of Violations Reported to NERC 2009-2013 for FRCC



FRCC processed 34% of violations reported to NERC in 2013. This was somewhat lower than the ERO 2013 processing rate of 39%. However, violations reported to NERC in 2013 represent approximately 85% of the violations available for processing in FRCC's caseload, which compares favorably to the overall ERO Enterprise average of 67%. FRCC appears to be moving toward a caseload consisting primarily of newer violations.

ii. Caseload Index

The Caseload Index for FRCC is 7.3 months as of December 31, 2013. This is consistent with the ERO Enterprise Caseload Index of approximately 6.5 months.

Based on its achievements in processing its caseload to date and its Caseload Index, it appears that FRCC's efforts to strengthen and streamline its enforcement processes during the assessment period have been effective.

iii. Efforts to Reduce Older Caseload

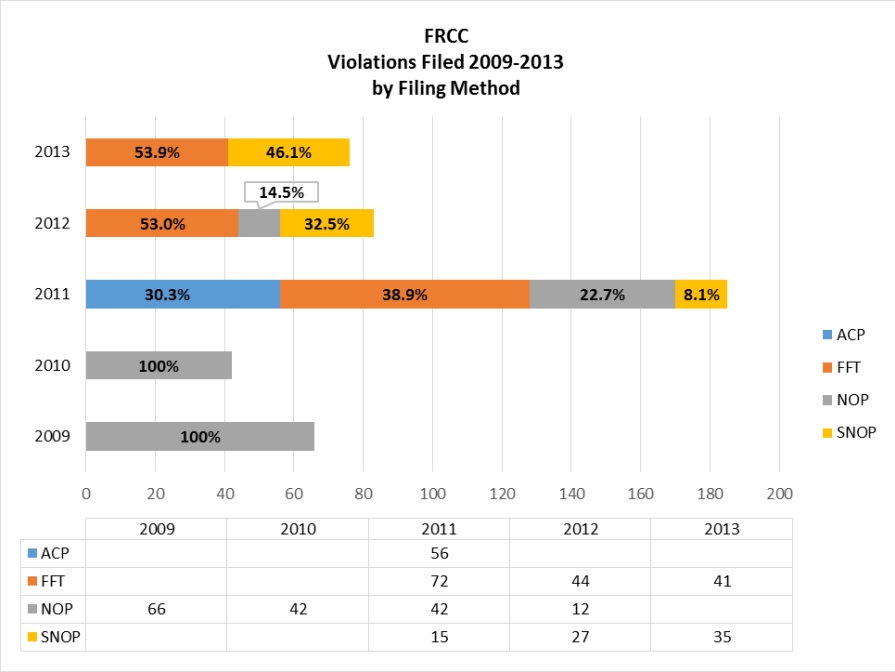
In 2013, FRCC processed all remaining cases in its pre-2012 caseload. NERC commends FRCC for its responsiveness and efforts to achieve this important ERO Enterprise goal.

Based on the current composition of its inventory of violations available to be processed and its successful efforts in processing its older violations, FRCC is especially well-positioned to achieve the goal of ensuring that violations are processed before reaching 24 months in age.

iv. Implementation of Streamlined Enforcement Processing Mechanisms

FRCC effectively used streamlined processing mechanisms to process a substantial portion of its caseload during the assessment period. In 2011, following the implementation of these mechanisms, FRCC filed 185 violations – more than the previous two years combined.

Figure X. Violations Filed per Year by Filing Method for FRCC, 2009-2013



	2009	2010	2011	2012	2013
ACP			56		
FFT			72	44	41
NOP	66	42	42	12	
SNOP			15	27	35

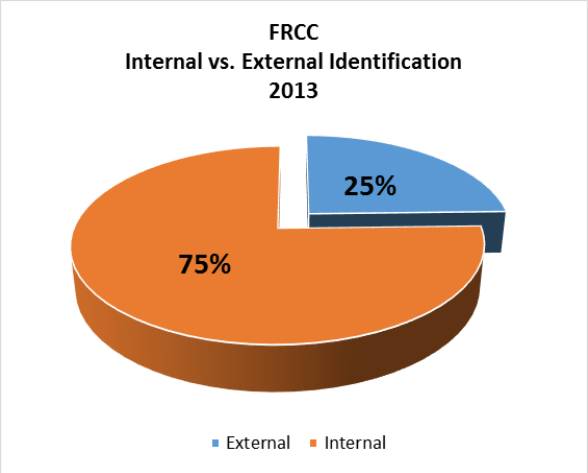
By 2013, FRCC filed all of its violations using either SNOP or FFT. NERC expects that FRCC will continue to reserve the NOP format for violations that require NOP treatment and will take advantage of further process refinements available under RAI. Additional information regarding FRCC's application of FFT is presented later in this assessment.

c. Improving Reliability

i. Encouraging Internal Discovery of Violations

In 2013, violations discovered by registered entities through internal mechanisms comprised 75% of total violations in the FRCC region.

Figure X. Percentage of Violations by Method of Identification for FRCC in 2013



This is consistent with the ERO Enterprise average of 73%.

ii. Ensuring the Timely Mitigation of Violations

FRCC reported that it takes several steps to encourage the prompt submission of mitigation plans or mitigating activities. First, FRCC encourages registered entities to submit the mitigating activities that are planned or which have been completed as part of the registered entity's submission of a self-report or self-certification. FRCC also encourages registered entities to submit mitigation plans early, before the issuance of a Notice of Alleged Violation. Second, FRCC enforcement staff contacts each registered entity to encourage the submission of a mitigation plan approximately ten days after the issuance of a Notice of Possible Violation. FRCC also encourages registered entities to submit draft mitigation plans for review by FRCC staff before formal submission. In evaluating the sufficiency of a registered entity's proposed mitigation, FRCC carefully considers the time it will take to mitigate the violation and the steps taken to prevent reoccurrence of violations. In 2013, FRCC reported that it continued to see some improvement in the timeliness and quality of mitigating activities and mitigation plans submitted by most registered entities, and that most registered entities within its region were willing to work with FRCC staff to create mitigation plans that would be acceptable to FRCC earlier in the mitigation process.

As demonstrated in the table below, FRCC has made substantial progress in ensuring that violations from 2007 through 2010 have been mitigated. However, approximately four violations from 2011 had open mitigation plans at the end of the assessment period. FRCC reported that in those cases, the registered entities had mitigated the violations and completed all milestones required of their mitigation plans; however, they had not yet certified the completion of their mitigation plans and supplied evidence for FRCC to verify completion.

Figure X. FRCC: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[99]

Year of Discovery	% of Violations with Completed Mitigation Plans or Activities	% of Violations with Mitigation in Progress
2013	25.0%	75.0%
2012	89.3%	10.7%
2011	96.0%	4.0%
2010	100.0%	0.0%
2009	100.0%	0.0%
2008	100.0%	0.0%
2007	100.0%	0.0%
Grand Total	**89.6%**	**10.4%**

In addition, approximately three-quarters of violations discovered in 2013 had open mitigation plans by the end of the year. FRCC reported that in many of these newer cases, the violation had been mitigated, but the registered entity did not yet certify completion or submit completion evidence to FRCC for verification. NERC will continue to work with FRCC to ensure that mitigation of violations is completed in a timely manner.

iii. Promoting Reliability through Enforcement Philosophy and Practices

FRCC's enforcement philosophy consists of the following components. FRCC provides training and communication to registered entities to help them understand and be more compliant with the Reliability Standards. FRCC strives for efficiency in disposition processing and fairness throughout the enforcement process, and it commits to maintain open communication with registered entities.

In its settlement processes, FRCC has worked with registered entities, where appropriate, to accept the completion of certain activities above-and-beyond those required to ensure compliance with one or more Reliability Standards in lieu of the full monetary penalties permitted by the NERC *Sanction Guidelines*. FRCC reported that it typically performs a thorough review and critique of a registered entity's internal compliance program as part of settlement discussions, and that registered entities within its region have frequently committed to initiating actions within their organizations to improve their compliance programs. Registered entities in the FRCC region have committed to: (i) implementing software applications; (ii) creating, improving, or disseminating programs relating to internal controls; (iii) creating compliance job positions; (iv) developing and delivering presentations for FRCC compliance workshops; and (v) hiring contractors to evaluate and make recommendations for the development of a sustainability plan

[99] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations.

and training regarding internal control processes. These efforts allow registered entities to allocate their resources to those projects that can increase overall reliability and reduce the likelihood of future noncompliance. NERC encourages FRCC to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. FRCC'S Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity is executing its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to FRCC.

FRCC has adopted the NERC CMEP as the basis for providing fair and impartial procedures for enforcement. With respect to assessing penalties, FRCC follows NERC guidance.[100] FRCC reviews a registered entity's internal compliance program and its impact on the violations being processed. FRCC includes consideration of the internal controls that a registered entity may have in place as a part of this review. NERC reviews all penalties submitted by FRCC for appropriateness and consistency with monetary penalties assessed by FRCC and by other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that FRCC assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check in 2013, NERC determined that FRCC dismisses violations for appropriate reasons and generally includes the required information when issuing Letters of Dismissal. NERC identified opportunities where FRCC could improve its Letters of Dismissal and communicated those opportunities to FRCC. By implementing the recommended improvements, FRCC can improve the quality of its compliance guidance to registered entities.

As part of its ongoing FFT review processes, NERC reviewed a sample of FFT issues filed or posted by FRCC during the assessment period to examine FRCC's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. Following its review, NERC concluded that FRCC's process documents provide clear and concise guidance for FFT processing and drafting and follow the NERC ROP. Further, NERC concluded that FRCC consistently applies the processes set forth in its process documents, and that FRCC applied FFT treatment and evaluated risk in a consistent manner. NERC noted several ways that FRCC could improve its FFT documentation and promote additional insight into its practices.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that FRCC has performed as an effective Regional Entity with respect to enforcement activities during the

[100] 2014 JRESA, Appendix 2-C at 11.

assessment period. FRCC should adopt the recommendations for improvement provided as part of NERC's oversight activities.

3. Evaluation of Midwest Reliability Organization (MRO)

a. Overview

Midwest Reliability Organization (MRO) is the FERC-approved Regional Entity for the north central region of North America within the Eastern Interconnection. MRO's footprint spans the states of North Dakota, Minnesota, and Nebraska, the majority of the territory in the states of South Dakota, Iowa, and Wisconsin, portions of Michigan and Montana, and the Canadian provinces of Saskatchewan and Manitoba.

In the Three-Year Performance Assessment, NERC concluded that MRO was an effective Regional Entity as demonstrated by several metrics.[101] At the time NERC noted that MRO needed to improve on providing accurate statements of fact for each violation, assessing penalties according to the facts of each situation as required by FERC orders, and ensuring consistency in its practices with NERC practice and the practice of other Regional Entities.[102]

Consistent with the trends across the ERO Enterprise, the quality of information submitted by MRO for NERC review has improved during the assessment period. Further, MRO believes that its three-step process that segregates duties among its Compliance Monitoring, Risk Assessment and Mitigation, and Enforcement teams, which it established in 2009, provides a "high level of assurance that determinations are accurate, fair and non-discriminatory."[103]

During the assessment period, MRO has increased the number of FTE staff dedicated to enforcement from 2.46 FTEs in 2009 to 4 FTEs as of December 31, 2013. In addition, MRO's Risk Assessment and Mitigation staff consisted of 1 FTE in 2009, and as of December 31, 2013 it consists of 6.25 FTEs (two of which being open positions). MRO's current draft 2015 Business Plan and Budget anticipates an additional 1.25 FTEs in these two groups. Based on MRO's processing speed and efficiency as measured at the end of the assessment period, NERC views MRO's historic staffing to be insufficient to process the number of violations that it receives in accordance with the performance objectives of the ERO Enterprise. However, MRO has taken steps to increase its staffing throughout the assessment period and beyond into 2014 and 2015.

NERC recognizes the progress MRO has made in enforcement processing during the assessment period. NERC also recognizes that MRO often takes the lead in settlement negotiations to resolve violations from MRREs, and that MRO has demonstrated a commitment to use the enforcement process to promote the reliability of the BPS. Further, NERC has reviewed MRO's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, MRO generally implements those processes in a satisfactory manner. However, MRO ended the assessment period with a Caseload Index that was much higher than the

[101] Three-Year Performance Assessment Attachment 3 at 18.

[102] Three-Year Performance Assessment Attachment 3 at 18.

[103] 2014 JRESA, Appendix 2-B at 2-3.

ERO Enterprise Caseload Index. NERC and MRO believe that, with the additional staff MRO expects to add, MRO's processing times (including its Caseload Index) will improve.

In addition, MRO made substantial strides in reducing the portion of its caseload consisting of violations dating to before 2012. While MRO still has older violations in its inventory that must be processed and mitigated, NERC is working with MRO to accomplish the ERO Enterprise goal of having no cases older than 24 months in inventory at the end of 2014.

NERC recognizes the substantial contributions MRO staff have made in the development of RAI and the related enforcement pilot programs. MRO has taken a leadership role in the conceptualization, development, and testing of several programs, and a member of MRO's staff led the multi-region working group on enforcement activities. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

In light of all of the relevant factors, which are explained more fully below, NERC concludes that MRO has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. However, substantial improvement remains to be made with respect to MRO's enforcement processing time as measured by the Caseload Index metric.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of MRO's Caseload

During the assessment period, MRO reported 664 violations[104] to NERC.

Figure X. Violations for Midwest Reliability Organization 2009-2013 by Year Reported to NERC[105]

Year Reported to NERC	Violations Reported
2009	60
2010	103
2011	196
2012	166
2013	139
Total	**664**

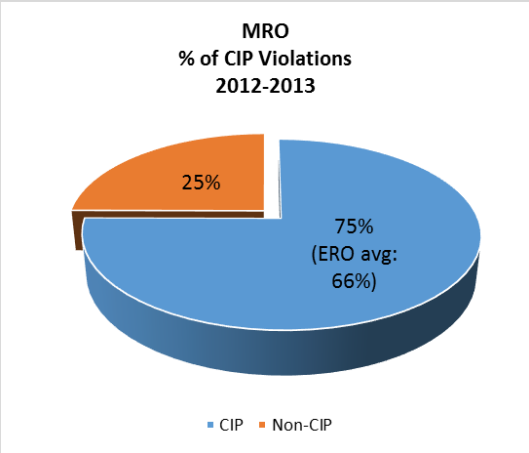
As noted in the table above, the highest number of violations reported to NERC by MRO was in 2011, with the number decreasing by 29% in 2013. Most of the violations in 2011 were of the CIP Reliability Standards. In the years 2012 and 2013, violations of CIP Reliability Standards

[104] This table reflects U.S. violations only. When including Canadian violations, MRO received 693 violations for evaluation and processing from 2009 through 2013.

[105] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

represented 75% of total violations; this is a higher percentage than the ERO Enterprise average of 66%.

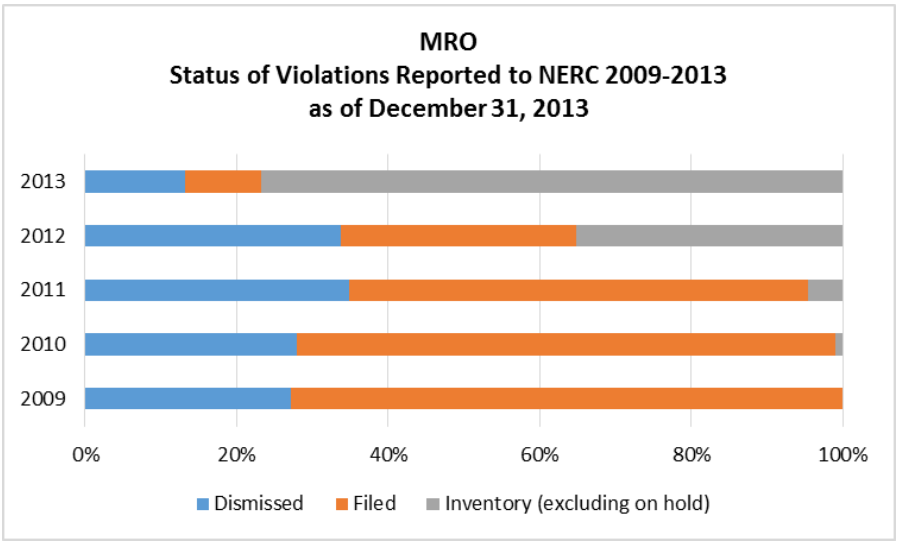
Figure X. Type of Violations Reported to NERC by MRO, 2012-2013



The discovery method of the CIP violations was fairly evenly split between external and internal methods of identification.

Of the total violations reported to NERC during the assessment period, approximately 159 violations, or 24%, remained to be processed as of December 31, 2013. As demonstrated in the table below, MRO has processed all violations that it reported to NERC in 2009. MRO has processed approximately 99% of violations reported to NERC in 2010, 95% of violations reported to NERC in 2011, and 65% of violations reported to NERC in 2012.

Figure X. Status of Violations Reported to NERC 2009-2013 for MRO



MRO processed approximately 23% of violations reported to NERC in 2013. This is lower than the ERO 2013 processing rate of 39%. Further, the percentage of MRO's caseload consisting

of violations reported to NERC in 2013, approximately 62.3%, is slightly lower than the overall ERO Enterprise average of 67%.

ii. Caseload Index

The Caseload Index for MRO was 14.3 months as of December 31, 2013, compared to the ERO Enterprise Caseload Index of approximately 6.5 months.

MRO believes that its Caseload Index is higher than the ERO Enterprise average due to several factors. MRO states that it places a premium on gaining a comprehensive understanding of the violation and developing mitigation plans that reduce the risk of recurrence, which can be time consuming and increase MRO's Caseload Index. MRO reported a number of violations of CIP-005 and CIP-007, which often require longer processing times due to the need to ensure that the risk is understood and is being comprehensively addressed. Additionally, MRO's risk assessment staff is heavily involved in RAI development efforts.

In light of MRO's Caseload Index and as reflected in the characteristics of its caseload (i.e., MRO's caseload consists of a greater portion of older violations than other Regional Entities), NERC encourages MRO to implement measures so that it is better equipped to process violations as it receives them. MRO currently has two open positions in its Risk Assessment and Mitigation group which, when filled, will help MRO improve its Caseload Index. In addition, MRO created the position of CMEP process principal. This position is responsible for quality assurance and oversight of MRO's business practices related to compliance monitoring and enforcement, including internal transitions among the compliance, risk assessment and mitigation, and enforcement groups. MRO believes it will achieve greater efficiency, enhance communication, and ensure repeatability of its CMEP-related activities through this position. MRO also believes that the increase in staffing will allow it to improve processing times while maintaining its dedication to gaining a complete understanding of violations in its region and examining the best ways to prevent reoccurrence. NERC will work with MRO to evaluate the effectiveness of this and other measures taken to improve efficiency in MRO's enforcement processes.

iii. Efforts to Reduce Older Caseload

In 2013, MRO reduced the portion of its caseload consisting of violations dating to before 2012 by 89%. NERC commends MRO for its responsiveness and efforts to achieve this important ERO Enterprise goal. MRO states that its remaining inventory consisted of particularly complex violations, and that it is committed to having all 2012 and older cases resolved by the end of 2014.

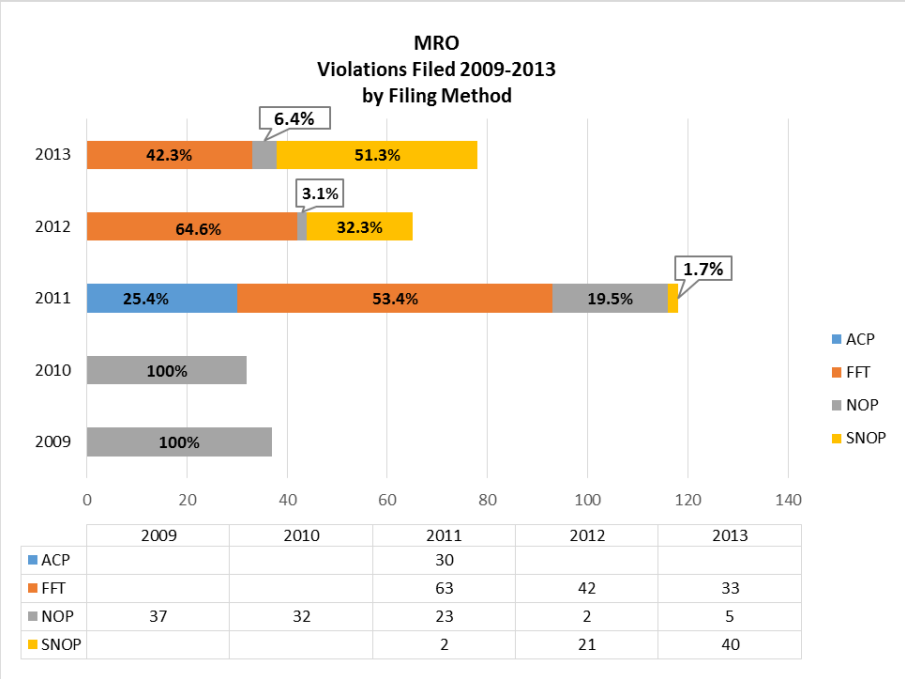
NERC will work with MRO to ensure that these and other older violations are resolved as soon as is practicable in light of the facts of each violation.

iv. Implementation of Streamlined Enforcement Processing Mechanisms

MRO effectively used streamlined enforcement processing mechanisms to process a substantial portion of its caseload during the assessment period. In 2011, following the

implementation of the streamlined enforcement processing mechanisms, MRO filed 118 violations – more than the previous two years combined.

Figure X. Violations Filed per Year by Filing Method for MRO, 2009-2013



	2009	2010	2011	2012	2013
ACP			30		
FFT			63	42	33
NOP	37	32	23	2	5
SNOP			2	21	40

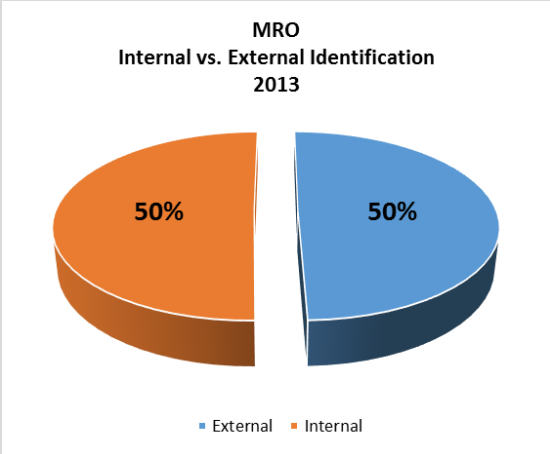
MRO has used the streamlined processing mechanisms to file over 88% of violations since 2011. MRO is using the FFT process to resolve violations posing a minimal risk to the BPS, and it seeks to use the enforcement mechanisms in a manner that promotes consistency. NERC expects that MRO will continue to reserve the NOP format for violations that require it and take advantage of further process refinements available under RAI. Additional information regarding MRO's implementation of FFT is presented later in this assessment.

c. Improving Reliability

i. Encouraging Internal Discovery of Violations

In 2013, violations discovered by registered entities through internal mechanisms comprised approximately 50% of total violations in the MRO region. This is lower than the ERO Enterprise average of 73%. Stated differently, during the assessment period, MRO discovered a higher percentage of violations through external methods (i.e., Compliance Audit and Spot Check) than other Regional Entities.

Figure X. Percentage of Violations by Method of Identification for MRO in 2013



As noted above, NERC and the Regional Entities are working to understand the regional variations in the percentages of noncompliance discovered through self-discovery and audits across the ERO Enterprise. Understanding these differences, and how they may relate to registered entity internal controls and management practices, will allow NERC and the Regional Entities to continue to provide the right incentives for discovering and self-reporting noncompliance.

ii. Ensuring the Timely Mitigation of Violations

MRO reported that, upon validation of a violation, MRO mitigation staff conduct a thorough review of the present circumstances at the registered entity to ensure better, more effective corrective actions for prevention. MRO mitigation staff collaborate with the registered entities to develop a thorough, comprehensive, and effective mitigation plan that includes documentation and implementation of controls that are used to monitor performance and correct deficiencies to help prevent recurrence of noncompliance. MRO's position is while it recognizes that prompt submission or early completion of mitigation plans may be desirable, its overarching goal of preventing recurring issues is of greater concern. MRO uses the webCDMS platform to automate processes for the review, approval, tracking, and certification of mitigation plans, and it participates in efforts across the ERO Enterprise to develop metrics to encourage timely processing of mitigation plans.

As demonstrated in the table below, MRO has made substantial progress in ensuring that older violations have completed mitigation, with 100% of violations discovered from 2007 through 2010 having completed mitigation.

Figure X. MRO: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[106]

Year of Discovery	% Completed	% in Progress
2013	14.7%	85.3%
2012	58.5%	41.5%
2011	79.5%	20.5%
2010	100.0%	0.0%
2009	100.0%	0.0%
2008	100.0%	0.0%
2007	100.0%	0.0%
Grand Total	**70.4%**	**29.6%**

NERC is working closely with MRO to understand the nature of the violations with open mitigation and ensure that violations are mitigated in a timely manner. Specifically, NERC will work with MRO to understand why just over half of 2012 violations have completed mitigation and less than 15% of 2013 violations have completed mitigation.[107] NERC encourages MRO to continue to seek solutions that will promote reliability and work to ensure that mitigation is completed in a timely manner.

iii. Promoting Reliability through Enforcement Philosophy and Practices

MRO's enforcement philosophy is to ensure that enforcement determinations match its essential purpose: to improve reliability and address risks to reliability. MRO reserves settlements for more complicated matters and encourages investments in systems and people as an offset for proposed penalties. An important tenet of MRO's enforcement philosophy is to use technical experts with the requisite knowledge and experience to assess actual risk posed by individual violations. MRO's enforcement philosophy considers highly effective reliability organizations to be those that prevent uncontrolled cascading outages through disciplined management practices and are accountable for their performance. As a result, registered entities in the MRO region accept responsibility (or "admit") in 90% of all violations.[108]

Similar to the other Regional Entities, MRO worked with registered entities, where appropriate, to accept the completion of certain activities ("remedies") above-and-beyond those required to ensure compliance with one or more Reliability Standards, in lieu of the full monetary

[106] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations and non-U.S. violations.

[107] Although a number of violations from 2011 have open mitigation, most of these violations involve the same registered entity.

[108] JRESA, Appendix 2-C at 13. MRO's Regulatory Philosophy (April 30, 2014) is available at: http://www.midwestreliability.org/01_about_mro/Public%20Awareness/2014/MRO_Regulatory_Philosophy_043014.pdf.

penalties permitted by the NERC *Sanction Guidelines*. MRO states that, during the assessment period, it sought to include above-and-beyond commitments whenever possible. These efforts allow registered entities to allocate their resources to those projects that can increase overall reliability and reduce the likelihood of future noncompliance.

As an example of the type of above-and-beyond commitments made by registered entities in the MRO region, one registered entity committed to the hiring of additional compliance personnel, installation of new alarming systems, replacement of electromechanical relays and communication equipment with microprocessor relays and mirrored bit over fiber communications, and the provision of additional training for entity staff. Another registered entity committed to the following activities: (1) sharing its experience and lessons learned related to compliance with PRC-005-1 with at least three industry peer groups such as the North American Generator Forum and the Mid Continent Compliance Forum; (2) securing NERC Compliance training from an outside consultant for at least six individuals from its Nuclear Business Unit; (3) coordinating with and benchmarking the adoption of NERC compliance efforts at two nuclear facilities owned and operated by two different entities (one within the MRO region and one outside the MRO region); and (4) replacing certain solid state relays with microprocessor relays. In another instance, the registered entity accelerated its replacement schedule for aging assets to include replacement of four additional electro-mechanical relay panels with completely digital, self-diagnostic relays, among other above-and-beyond actions over a three year period. NERC encourages MRO to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. MRO'S Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity is executing its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to MRO.

With respect to the appropriateness of monetary penalties, MRO undertook several efforts during the assessment period to ensure consistency of remedies within its region. MRO also participated in various initiatives to increase interaction with other Regional Entities, such as through the various Regional Entity working groups. MRO does not review or track all monetary penalties proposed by other Regional Entities. However, MRO reviews penalty determinations for similar violations in the MRO region and other Regional Entities and, as appropriate, discusses proposed penalties with other Regional Entities and NERC. NERC reviews all penalties submitted by MRO for appropriateness and consistency with monetary penalties assessed by MRO and by other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that MRO assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check, NERC determined that MRO dismisses violations for appropriate reasons and generally includes the required information when issuing Letters of Dismissal. NERC

identified opportunities where MRO could improve its Letters of Dismissal, and communicated those opportunities to MRO. By implementing the recommended improvements, MRO can improve the quality of its compliance guidance to registered entities.

As part of its ongoing FFT review processes, NERC reviewed a sample of MRO FFT issues filed or posted during the assessment period to examine MRO's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. NERC concluded that MRO's process documents for FFT processing are clear, easy-to-follow, and facilitate consistent application. Further, NERC noted that MRO uses a checklist to ensure that it follows its process by tracking all of the steps that must be taken. NERC concluded that MRO generally assessed the risk posed by an issue in light of all relevant facts and ensured that mitigating activities addressed both mitigation of the issue and prevention of reoccurrence. NERC noted several ways that MRO could improve its FFT documentation and provide additional insight into its practices.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that MRO has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. In addition, NERC commends MRO for its substantial efforts in the development of RAI. MRO should adopt the recommendations for improvement noted above. In particular, based on MRO's performance in several enforcement processing metrics, MRO should work to identify and implement solutions so that it is better equipped to ensure that violations are processed as quickly as is practicable consistent with the circumstances of each violation. MRO should also adopt the other recommendations for improvement provided as part of NERC's oversight activities.

4. Evaluation of Northeast Power Coordinating Council, Inc. (NPCC)

a. Overview

Northeast Power Coordinating Council, Inc. (NPCC) is the FERC-approved Regional Entity for the northeastern North American region in the Eastern Interconnection. NPCC's footprint includes the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont, as well as the Canadian provinces of New Brunswick, Nova Scotia, Ontario, and Quebec.

In the Three-Year Performance Assessment, NERC concluded that NPCC was a relatively effective Regional Entity in that it processed and completed identified violations in a timely manner. However, NERC indicated its concern that NPCC may not be identifying all violations that are occurring.[109]

NPCC believes that, during the assessment period, it has built a very cost-effective compliance program through the use of independent contractors. NPCC's level of alleged

[109] Three-Year Performance Assessment Attachment 3 at 19-20.

violations per registered reliability function remains low, but in line with other Regional Entities. NPCC believes its low level of violations per registered reliability function is a product of its thorough outreach and communication with registered entities in its region.[110]

During the assessment period, NPCC has increased the number of FTE staff dedicated to enforcement from 2 in 2009 to 4 as of December 31, 2013. Based on NPCC's processing speed and efficiency as measured at the end of the assessment period, NERC views NPCC's enforcement staffing to be sufficient to process the number of violations that it receives.

NPCC ended the assessment period with a Caseload Index that was somewhat better than the ERO Enterprise Caseload Index. NPCC processed all violations that were discovered before 2012, in furtherance of an ERO Enterprise goal. NPCC's caseload now consists of more-recent violations, and NPCC has made progress in ensuring that older violations are mitigated. Finally, NERC has reviewed NPCC's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, NPCC generally implements those processes in a satisfactory manner.

In addition, NPCC staff have actively participated in the development of RAI. Specifically, NPCC staff have participated in the Aggregation of Minimal Risk Issues and Enforcement Discretion pilot programs and served on the *ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide* drafting teams. NPCC also participated in several compliance-based programs. In addition, NPCC staff have participated in the process to develop improvements for the compliance and enforcement oversight of MRREs. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

As explained more fully below, based on NPCC's Caseload Index, NPCC's successful processing of its older violations (as facilitated by its effective implementation of streamlined enforcement processing mechanisms), and the results of NERC's oversight activities, NERC concludes that NPCC has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. Going forward, NERC will work with NPCC to ensure that violations are mitigated promptly.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of NPCC's Caseload

During the assessment period, NPCC reported 551 violations to NERC.[111]

[110] 2014 JRESA, Appendix 2-B at 3.

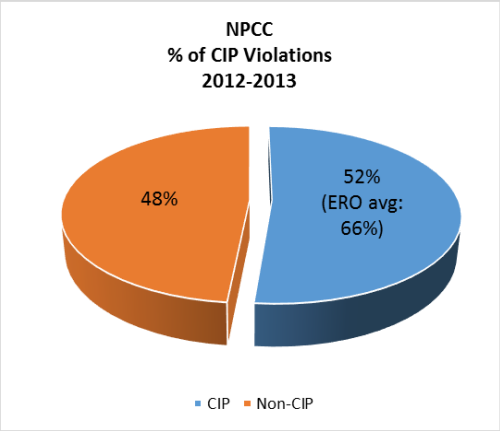
[111] This table reflects U.S. violations only. When including Canadian violations, NPCC reported 670 violations from 2009 through 2013.

Figure X. Violations for Northeast Power Coordinating Council, Inc. 2009-2013 by Year Reported to NERC[112]

Year Reported to NERC	Violations Reported
2009	43
2010	99
2011	130
2012	213
2013	66
Total	**551**

As noted in the table above, NPCC reported the highest number of violations in 2012, with a substantial decline in 2013. In the years 2012 and 2013, violations of CIP Reliability Standards represented 52% of total violations; this is a lower percentage than the ERO Enterprise average of 66%.

Figure X. Type of Violations Reported to NERC by NPCC, 2012-2013

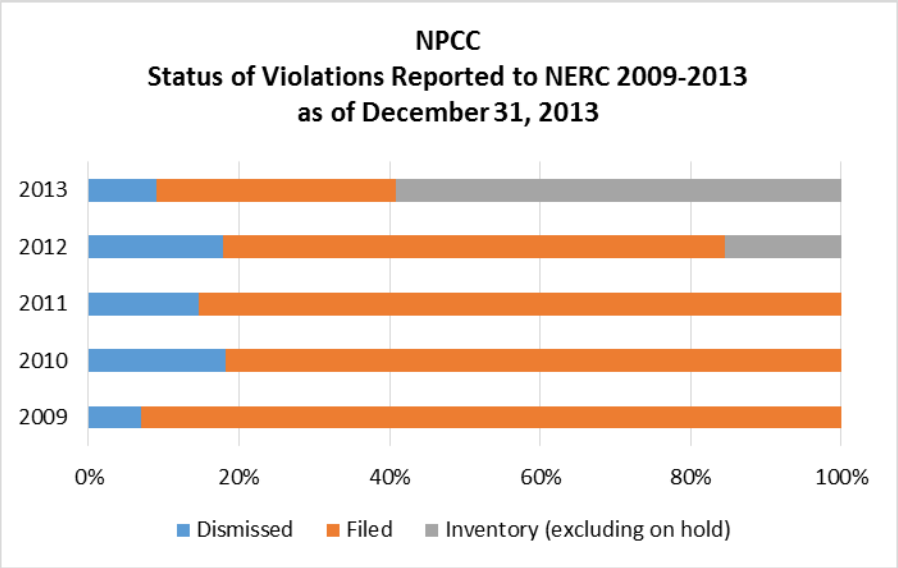


Over the assessment period, CIP violations made up 54.6% of total violations in NPCC, compared to the ERO Enterprise average of 59.4%. Approximately 70% of the CIP violations were self-identified. NERC will work with NPCC to understand what factors may have caused NPCC to have a lower percentage of CIP violations than other Regional Entities from 2012-2013.

Of the total violations reported to NERC during the assessment period, approximately 72 violations, or 13%, remained to be processed as of December 31, 2013 (excluding violations that are held by appeal, a court, or a regulator). As demonstrated in the table below, NPCC has processed all violations that were reported to NERC in 2009, 2010, and 2011. NPCC has processed approximately 85% of violations reported to NERC in 2012.

[112] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

Figure X. Status of Violations Reported to NERC 2009-2013 for NPCC



NPCC processed approximately 41% of violations that it reported to NERC in 2013. This is consistent with the ERO 2013 processing rate of 39%. Approximately 54% of the violations available for processing in NPCC's inventory consist of violations reported to NERC in 2013. This is lower than the overall ERO Enterprise average of 67%.

ii. Caseload Index

The Caseload Index for NPCC is 6.7 months as of December 31, 2013. This is consistent with the ERO Enterprise Caseload Index of approximately 6.5 months.

In light of NPCC's Caseload Index and as reflected in the general characteristics of its caseload (i.e., NPCC's caseload consists entirely of violations reported to NERC in 2012 and 2013), NPCC continued to process violations in a timely manner during the assessment period.

iii. Efforts to Reduce Older Caseload

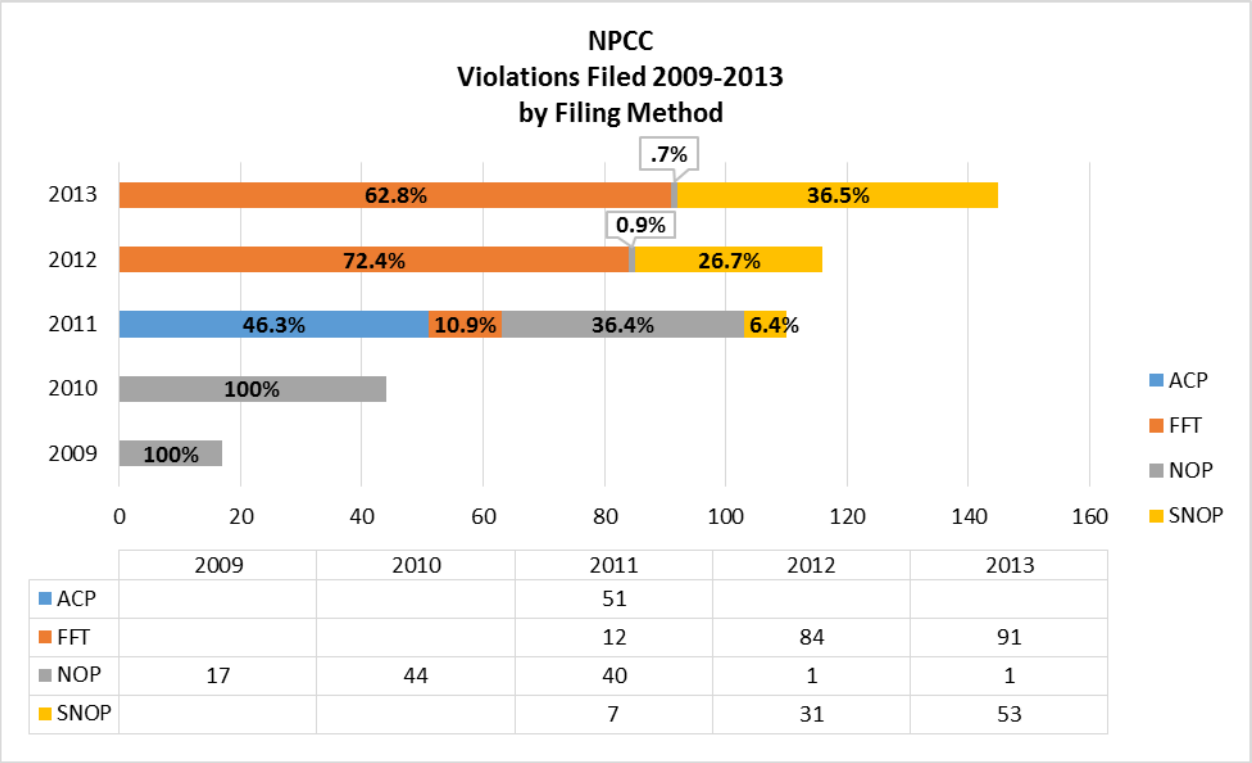
In 2013, NPCC completed processing of all pre-2012 violations. NERC commends NPCC for its responsiveness and efforts to achieve this important ERO Enterprise goal. Based on the current composition of its inventory of violations available to be processed, NPCC is well-positioned to achieve the goal of ensuring that violations are processed before reaching 24 months in age.

iv. Implementation of Streamlined Enforcement Processing Mechanisms

NPCC effectively used streamlined processing mechanisms to process a substantial portion of its caseload during the assessment period. In 2011, following the implementation of the

streamlined enforcement processing mechanisms, NPCC filed 110 violations – more than the previous two years combined.

Figure X. Violations Filed per Year by Filing Method for NPCC, 2009-2013



	2009	2010	2011	2012	2013
ACP			51		
FFT			12	84	91
NOP	17	44	40	1	1
SNOP			7	31	53

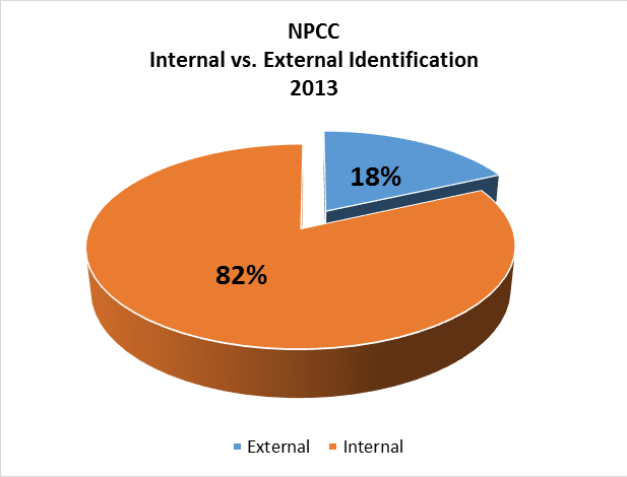
By 2012, NPCC filed nearly all of its violations using either SNOP or FFT. NPCC reported that it discusses the application of FFT and SNOP with other Regional Entity representatives to ensure consistency. NERC expects that NPCC will continue to reserve the NOP format for violations that require it and to take advantage of further process refinements available under RAI. Additional information regarding NPCC's application of FFT is presented later in this assessment.

c. Improving Reliability

i. Encouraging Internal Discovery of Violations

In 2013, violations discovered by registered entities through internal mechanisms comprised 82% of total violations in the NPCC region. This is somewhat higher than the ERO Enterprise average of 73%.

Figure X. Percentage of Violations by Method of Identification for NPCC in 2013



ii. Ensuring the Timely Mitigation of Violations

NPCC has enhanced its self-report form to include data fields that allow registered entities to supply details of mitigation plans or mitigating activities when submitting a self-report. NPCC believes that use of these new data fields has resulted in earlier implementation of mitigation, thereby promoting improved reliability. NPCC works closely with each registered entity to process mitigation plans in a timely manner.

As demonstrated in the table below, NPCC has made substantial progress in ensuring that pre-2012 violations have been mitigated.

Figure X. NPCC: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[113]

Year of Discovery	% Completed	% in Progress
2013	37.5%	62.5%
2012	86.3%	13.7%
2011	100.0%	0.0%
2010	100.0%	0.0%
2009	100.0%	0.0%
2008	100.0%	0.0%
2007	100.0%	0.0%
Grand Total	**89.0%**	**11.0%**

[113] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations and non-U.S. violations.

Approximately 22 violations from 2012 remain to be mitigated, along with 62.5% of violations from 2013. NERC is working closely with NPCC to ensure that violations are mitigated in a timely manner.

iii. Promoting Reliability through Enforcement Philosophy and Practices

NPCC's enforcement philosophy is to develop relationships with the registered entities in its region to: (1) educate them on the aspects of the CMEP and its implementation; (2) inform them of the changes to the Enforcement process during biannual workshops; and (3) promote RAI.

In its settlement processes, NPCC has worked with registered entities, where appropriate, to accept the completion of certain activities above-and-beyond those required to ensure compliance with one or more Reliability Standards in lieu of the full monetary penalties permitted by the NERC *Sanction Guidelines*. These efforts allow registered entities to allocate their resources to those projects that can increase overall reliability and reduce the likelihood of future noncompliance.

As an example of above-and-beyond activities, one registered entity within the NPCC region committed to establish an enterprise-wide compliance program, with resources dedicated to implementing that program. Another registered entity committed to implement software systems (rather than manual record-keeping) to track protection system devices and their associated maintenance intervals. On one occasion, a registered entity committed to implement Light Detection and Ranging (LiDAR)-based Power Line Systems as a supplemental tool to identify site conditions. NERC encourages NPCC to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. NPCC'S Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity is executing its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to NPCC.

NPCC reported that, in addition to using the NERC *Sanction Guidelines* as a guide for assessing monetary penalties, NPCC reviews the monthly enforcement filings. Specifically, NPCC compares the penalties that other Regional Entities assess for violations of Reliability Standards and Requirements and contacts other Regional Entities to discuss penalties where appropriate. NERC reviews all penalties submitted by NPCC for appropriateness and consistency with monetary penalties assessed by NPCC and other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that NPCC assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check, NERC determined that NPCC generally dismisses violations for appropriate reasons, and generally includes the required information when issuing letters of dismissal. NERC identified opportunities for NPCC to improve its letters of dismissal and communicated those opportunities to NPCC. By implementing the recommended improvements, NPCC can improve the quality and clarity of its compliance guidance to registered entities.

As part of its ongoing FFT review processes, NERC reviewed a sample of NPCC FFT issues filed or posted during the assessment period to examine NPCC's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. Following its review, NERC concluded that NPCC maintains process documents governing the application of the FFT process. NERC noted that NPCC ensures that mitigating activity is completed. NPCC's issue descriptions are generally adequate to describe the issue. NERC noted several ways that NPCC could improve its FFT postings and related documentation to promote additional insight into its practices.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that NPCC has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. NPCC should adopt the recommendations for improvement provided as part of NERC's oversight activities.

5. Evaluation of ReliabilityFirst Corporation (ReliabilityFirst)

a. Overview

ReliabilityFirst is the FERC-approved Regional Entity for portions of the mid-Atlantic and east central areas of the United States within the Eastern Interconnection. ReliabilityFirst's footprint includes all or portions of the states of New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, Ohio, Michigan, Kentucky, Tennessee, Indiana, Illinois, Wisconsin, and the District of Columbia.

In the Three-Year Performance Assessment, NERC concluded that, consistent with the overall findings for the ERO Enterprise, ReliabilityFirst needed to improve its efficiency with respect to conducting enforcement activities.[114] ReliabilityFirst has taken several steps to increase its efficiency with respect to conducting enforcement activities during the assessment period, including setting internal violation processing goals that are tied to corporate goals and training enforcement staff on how to become more efficient in their fact-gathering efforts. In 2013, ReliabilityFirst implemented a practice of consolidating multiple violations of the same standard with similar facts into a single docket number and consolidating multiple docket numbers with similar violations into a single settlement agreement or FFT. ReliabilityFirst believes this practice furthers its approach to resolving violations, an approach which it described as "holistic."

[114] Three-Year Performance Assessment Attachment 3 at 21-22. NERC also noted that an independent audit of ReliabilityFirst's compliance program found no material deficiencies.

ReliabilityFirst has also focused its efforts on those violations that pose the greatest risk to reliability and expedited its processing of lesser-risk violations through the FFT process.[115]

During the assessment period, ReliabilityFirst increased the number of FTE staff dedicated to enforcement from 8 in 2009 to 12 as of December 31, 2013.

NERC recognizes the progress ReliabilityFirst has made in enforcement processing during the assessment period. ReliabilityFirst made significant progress in reducing the number of open violations, despite substantial increases in new violations during the assessment period. Moreover, during the assessment period, ReliabilityFirst worked with and resolved a number of complex matters concerning registered entities with significant BPS operations. When resolving each of these complex matters, ReliabilityFirst encouraged registered entities to implement actions above and beyond baseline compliance to improve the reliability and security of the BPS. Examples of these above-and-beyond actions are presented below.

NERC also recognizes that ReliabilityFirst often takes the lead in settlement negotiations to resolve violations from MRREs. ReliabilityFirst has routinely demonstrated a commitment to use the enforcement process to promote the reliability of the BPS. Further, NERC has reviewed ReliabilityFirst's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, ReliabilityFirst generally implements those processes in a satisfactory manner. However, ReliabilityFirst ended the assessment period with a higher-than-average Caseload Index. In addition, while ReliabilityFirst made substantial strides in reducing the portion of its caseload consisting of violations dating to before 2012, ReliabilityFirst had a number of older violations in its inventory that needed to be mitigated and processed by the end of the assessment period. As is discussed in more detail below, ReliabilityFirst is working closely with the registered entities to complete mitigation and processing of these older violations.

NERC recognizes the contributions ReliabilityFirst staff have made in the development of RAI and the related enforcement pilot programs. ReliabilityFirst has taken a leadership role in the conceptualization, development, testing, and integration of several programs, and a member of ReliabilityFirst's staff led the multi-region working group on enforcement activities during the assessment period. ReliabilityFirst staff participated in the Enforcement Discretion pilot program and served on the *ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide* drafting teams. ReliabilityFirst staff have also participated in the process to develop improvements for the compliance and enforcement oversight of MRREs. ReliabilityFirst also maintained the sole MRRE log during the Aggregation of Minimal Risk Issues pilot program. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

In light of all the relevant factors, which are explained more fully below, NERC concludes that ReliabilityFirst has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. However, ReliabilityFirst should consider exploring and implementing solutions that will assist ReliabilityFirst in processing the substantial number of violations that it receives on a yearly basis while meeting the performance objectives of the ERO Enterprise.

[115] 2014 JRESA, Appendix 2-B at 6.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of ReliabilityFirst's Caseload

During the assessment period, ReliabilityFirst reported 1,902 violations to NERC, the second highest number among the Regional Entities.

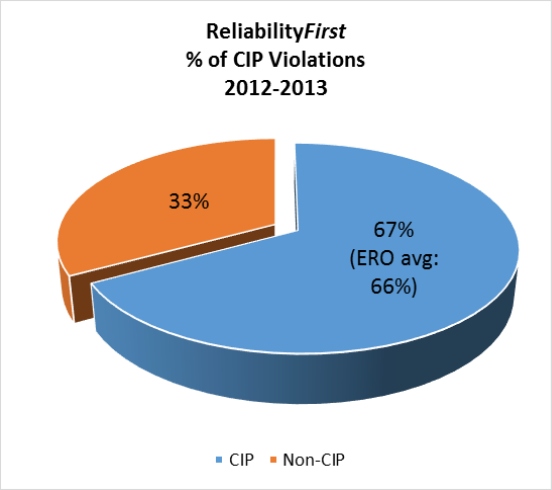
Figure X. Violations for ReliabilityFirst Corporation 2009-2013 by Year Reported to NERC[116]

Year Reported to NERC	Violations Reported
2009	123
2010	469
2011	565
2012	505
2013	240
Total	**1902**

As shown in the table above, ReliabilityFirst reported the highest number of violations in 2011, with a gradual decrease in 2012 and a substantial decrease in 2013. Approximately two-thirds of the violations in 2011 were of the CIP Reliability Standards. In the years 2012 and 2013, violations of CIP Reliability Standards represented 67% of total violations; this percentage is consistent with the ERO Enterprise average of 66%.

[116] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

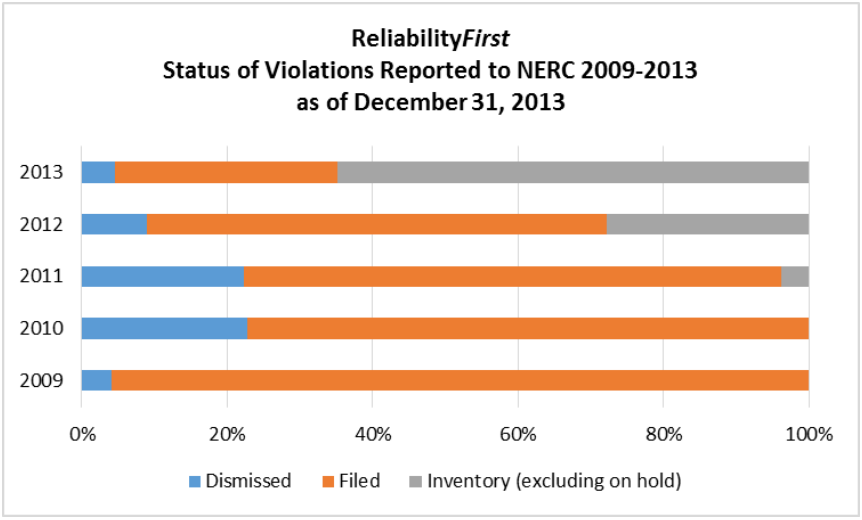
Figure X. Type of Violations Reported to NERC by ReliabilityFirst, 2012-2013



Approximately 76% of the CIP violations were discovered through internal means.

Of the total violations reported to NERC during the assessment period, approximately 316 violations, or approximately 17%, remained to be processed as of December 31, 2013 (excluding violations that are held by appeal, a court, or a regulator). As demonstrated in the table below, Reliability*First* has processed all violations that were reported to NERC in 2009 and 2010 (excluding on hold violations). Reliability*First* has processed approximately 96% of violations reported to NERC in 2011 (excluding on hold violations), and approximately 72% of violations reported to NERC in 2012.

Figure X. Status of Violations Reported to NERC 2009-2013 for ReliabilityFirst



ReliabilityFirst processed approximately 35% of violations reported to NERC in 2013 (excluding on hold violations). This is slightly lower than the ERO 2013 processing rate of 39%.

Further, the percentage of ReliabilityFirst's caseload consisting of violations reported to NERC in 2013 (approximately 49%), is substantially lower than the overall ERO Enterprise average of 67%.

ii. Caseload Index

The Caseload Index for ReliabilityFirst was 9.8 months as of December 31, 2013. Although this is higher than the ERO Enterprise Caseload Index of approximately 6.5 months, NERC notes that ReliabilityFirst's performance was above average for the majority of the assessment period. NERC also recognizes that ReliabilityFirst is working to address the current set of cases that is responsible for the higher-than-average Caseload Index at the end of the assessment period.

iii. Efforts to Reduce Older Caseload

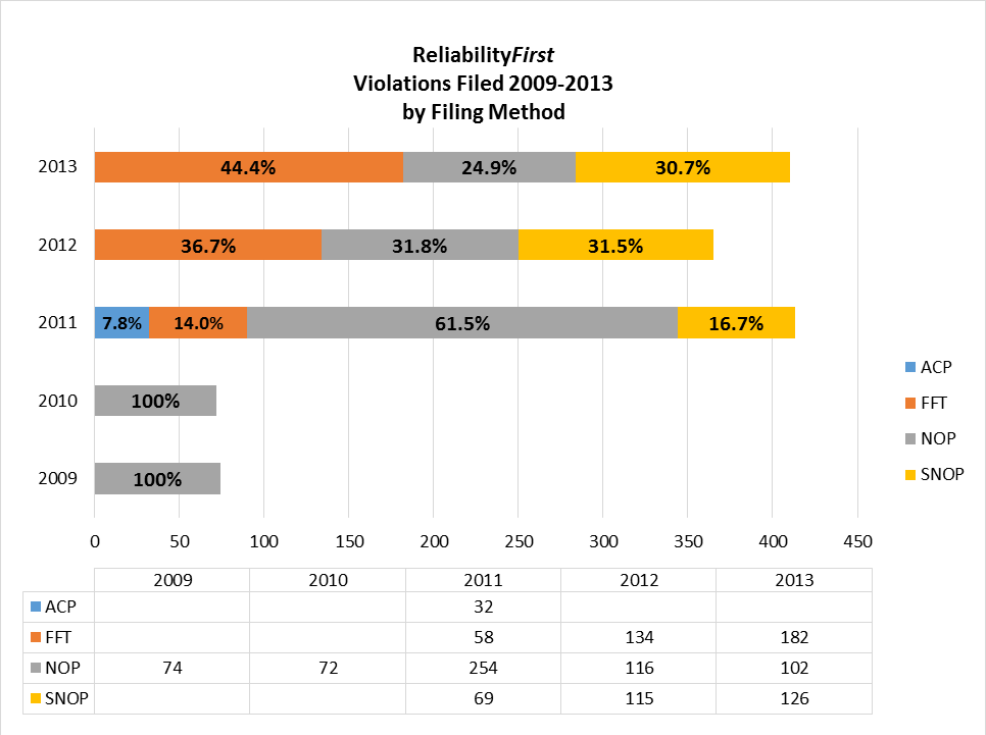
In 2013, ReliabilityFirst reduced the portion of its caseload consisting of violations dating to before 2012 by 88%. NERC commends Reliability*First* for its responsiveness and efforts to achieve this important ERO Enterprise goal. ReliabilityFirst reported that its remaining inventory consisted of particularly broad and complex violations that are part of large settlement agreements in the process of being negotiated. ReliabilityFirst also reported that it has been closely monitoring and working with the registered entities to ensure effective and holistic mitigation for these older, more complex violations.

NERC will continue to work with ReliabilityFirst to prioritize the processing of these violations and other older violations so that ReliabilityFirst may achieve the goal of ensuring that violations are processed before reaching 24 months in age.

iv. Implementation of Streamlined Enforcement Processing Mechanisms

ReliabilityFirst effectively used streamlined enforcement processing mechanisms to process a substantial portion of its caseload during the assessment period. In 2011, following the implementation of the streamlined enforcement processing mechanisms, ReliabilityFirst filed 413 violations – more than two-and-a-half times the total of the previous two years combined.

Figure X. Violations Filed per Year by Filing Method for ReliabilityFirst, 2009-2013



	2009	2010	2011	2012	2013
ACP			32		
FFT			58	134	182
NOP	74	72	254	116	102
SNOP			69	115	126

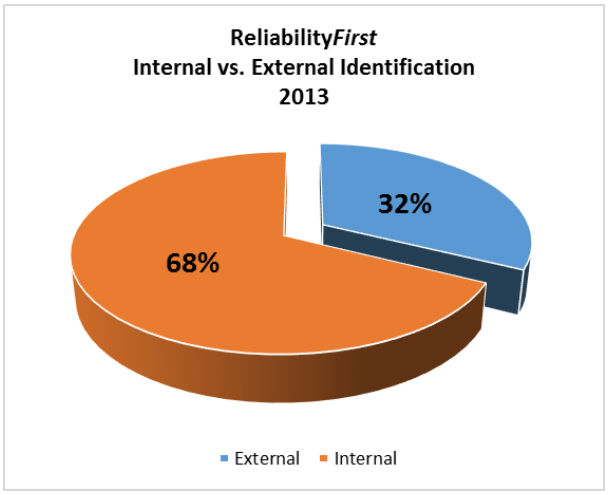
ReliabilityFirst uses the FFT process for minimal or moderate risk violations where it seeks to encourage certain entity behavior (or conversely, where there is there is an absence of behavior that ReliabilityFirst wishes to discourage). ReliabilityFirst prepares NOPs where there are important mitigating actions, above-and-beyond commitments, or reliability concerns that may not be adequately presented in the SNOP format. ReliabilityFirst also confers with other Regional Entities through an enforcement activities working group to ensure that each of the Regional Entities develops consistent documentation for the FFT process and makes consistent risk determinations when deciding whether to grant FFT or SNOP treatment for a violation. NERC expects that ReliabilityFirst will continue to take advantage of further process refinements available under RAI. Additional information regarding ReliabilityFirst's implementation of FFT is presented later in this assessment.

c. Improving Reliability

i. Encouraging Internal Discovery of Violations

In 2013, violations discovered by registered entities through internal mechanisms comprised 68% of total violations in the ReliabilityFirst region. This is slightly lower than the ERO Enterprise average of 73%.

Figure X. Percentage of Violations by Method of Identification for ReliabilityFirst in 2013



ii. Ensuring the Timely Mitigation of Violations

ReliabilityFirst reported that it encourages the prompt submission of mitigation plans in its Notices of Possible Violation, in Compliance Audit exit briefings, and as part of its enforcement process. ReliabilityFirst considers the prompt submission of mitigation plans when making its penalty determinations and the prompt identification of mitigating activities in its determination of FFT eligibility. ReliabilityFirst has processes in place for the review, acceptance, and verification of mitigation plans, and it has tracking systems in place to help ensure that mitigation plans are submitted, reviewed, and accepted in a timely manner. ReliabilityFirst does not require formal mitigation plans for some minimal and moderate risk violations, but rather requires submission of a formal mitigation plan based on the risk posed by each violation. ReliabilityFirst sends notifications to registered entities when necessary to ensure that they submit mitigation plans promptly and meet associated deadlines. Acceptance and verification of mitigation plans passes through a multi-layer review and approval process. During this process, ReliabilityFirst works closely with the applicable registered entity to ensure that the proposed mitigating activities address the underlying cause of the violation, the time to complete the mitigating activities is reasonable, and effective steps are taken to prevent reoccurrence of violations.

NERC is working closely with ReliabilityFirst to ensure that violations are mitigated in a timely manner. As demonstrated in the table below, ReliabilityFirst has made notable progress in ensuring that older violations have been mitigated, with 100% of violations discovered from 2007-2009, 98.1% of violations discovered in 2010, and 89.1% of violations discovered in 2011 having completed mitigation.

Figure X. ReliabilityFirst: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[117]

Year of Discovery	% Completed	% in Progress
2013	24.5%	75.5%
2012	68.3%	31.7%
2011	89.1%	10.9%
2010	98.1%	1.9%
2009	100.0%	0.0%
2008	100.0%	0.0%
2007	100.0%	0.0%
Grand Total	**79.6%**	**20.4%**

ReliabilityFirst reported that it is working closely with registered entities to ensure the completion of effective mitigating activities for these violations. NERC will continue to work closely with ReliabilityFirst to ensure that violations are mitigated in a timely manner.

iii. Promoting Reliability through Enforcement Philosophy and Practices

ReliabilityFirst has taken a proactive approach to developing a detailed enforcement philosophy. ReliabilityFirst's enforcement philosophy consists of several overarching themes governing enforcement and a series of philosophies governing particular aspects of the enforcement process. ReliabilityFirst's philosophy is to not see the enforcement process as adversarial, but rather as an opportunity to work collaboratively with registered entities to craft forward-thinking resolutions designed to enhance reliability. ReliabilityFirst's philosophy is to use the enforcement process as a tool to shape and encourage desired registered entity behavior, and to only assess monetary penalties where the penalty is appropriate to encourage or discourage behavior and where the justification is supported by sound, consistent, and risk-based reasoning. ReliabilityFirst encourages the development of strong internal controls and other steps taken to improve compliance.

In its settlement processes, ReliabilityFirst has worked with registered entities, where appropriate, to accept the completion of certain activities above-and-beyond those required to ensure compliance with one or more Reliability Standards in lieu of the full monetary penalties permitted by the NERC *Sanction Guidelines*. These efforts allow registered entities to allocate their resources to those projects that can increase overall reliability and reduce the likelihood of future noncompliance.

ReliabilityFirst has worked with registered entities to include commitments in their mitigation plans going beyond those actions necessary to mitigate the underlying violations.

[117] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations.

Several notable examples are presented here. One registered entity committed to an aggressive timeline for the completion of mitigating actions, including completing certain activities faster than required by NERC guidance. To resolve a violation involving facility ratings, one registered entity committed to perform a broad review and verification of system components, to implement a new ratings software application, and to use LiDAR-based Power Line Systems – Computer Aided Design and Drafting (PLS-CADD) modeling as a supplemental tool to identify site conditions that may indicate potential ratings issues. One registered entity committed to perform an ongoing risk analysis of its cybersecurity policies and procedures using a Failure Modes Effects Analysis tool (a continuous improvement tool to improve the quality of process outputs by identifying and removing the cause of defects and errors and minimizing variability in processes). Another registered entity committed to conduct an evaluation of the U.S. Department of Energy Electricity Subsector Cybersecurity Capability Maturity Model (ES-C2M2) and create and implement an action plan with the goal of increasing the entity's maturity indicator level in domains related to the CIP Reliability Standards. ReliabilityFirst has also imposed the non-monetary sanction of conducting an unscheduled audit before the conclusion of the next six-year scheduled audit to ensure that a registered entity's implementation of a new compliance program improved and better positioned the registered entity's compliance posture prospectively. NERC encourages ReliabilityFirst to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. ReliabilityFirst's Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity is executing its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to ReliabilityFirst.

With respect to assessing monetary penalties, ReliabilityFirst reported that it has implemented a multi-step internal process for making penalty determinations. First, an assigned case manager makes all penalty recommendations (subject to senior executive review and approval) for his or her assigned registered entities, including the application of the adjustment factors set forth in the NERC *Sanction Guidelines*. Second, ReliabilityFirst has implemented what it calls the "Risk-Harm" process, whereby technical experts answer a series of questions about the risk and harm posed by each violation using a common scale which results in a quantified risk assessment for each violation. Third, ReliabilityFirst analyzes the risk assessment produced from the Risk-Harm process and checks to ensure that the penalty is consistent with the risk posed by the violation. Fourth, ReliabilityFirst looks at previously assessed penalties for comparable violations in the ReliabilityFirst region and in other regions, to ensure the internal and external consistency of its penalties. Finally, ReliabilityFirst requires senior management approval for each settlement agreement or Notice of Alleged Violation and Penalty, to ensure that the penalty is consistent with the risk posed by the violations at issue and is consistent with the enforcement philosophy it wishes to convey to other entities in the region. NERC reviews all penalties submitted by ReliabilityFirst for appropriateness and consistency with monetary penalties assessed

by ReliabilityFirst and other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that ReliabilityFirst assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check, NERC determined that ReliabilityFirst dismisses violations for appropriate reasons and generally includes the required information when issuing letters of dismissal. NERC identified opportunities for ReliabilityFirst to improve its letters of dismissal and communicated those opportunities to ReliabilityFirst. By implementing the recommended improvements, ReliabilityFirst can improve the quality of its compliance guidance to registered entities.

As part of its ongoing FFT review processes, NERC reviewed a sample of ReliabilityFirst FFT issues filed or posted during the assessment period to examine ReliabilityFirst's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. Following its review, NERC concluded that ReliabilityFirst has clear FFT processes that follow the directives, principles, and processes of the NERC ROP, the CMEP, and the directives issued by the Commission regarding FFTs. NERC found that ReliabilityFirst applies its processes consistently. NERC noted several ways that ReliabilityFirst could improve its FFT postings and related documentation to promote additional insight into its practices.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that ReliabilityFirst has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. ReliabilityFirst should adopt the recommendations for improvement noted above and the recommendations provided as part of NERC's oversight activities. In particular, based on ReliabilityFirst's recent performance in several enforcement processing metrics, ReliabilityFirst is encouraged to continue to identify and implement solutions so that it is better equipped to ensure that violations are processed as quickly as practicable consistent with the circumstances of each violation.

6. Evaluation of SERC Reliability Corporation (SERC)

a. Overview

SERC Reliability Corporation (SERC) is the FERC-approved Regional Entity for the southeastern United States region within the Eastern Interconnection. SERC's footprint includes the states of Alabama, Georgia, Mississippi, Missouri, North Carolina, South Carolina, and Tennessee, and portions of the states of Arkansas, Florida, Illinois, Iowa, Kentucky, Louisiana, Oklahoma, Texas, and Virginia.

In the Three-Year Performance Assessment, NERC concluded that SERC was an effective Regional Entity.[118] Consistent with the overall findings for the ERO, NERC noted a need to

[118] Three-Year Performance Assessment Attachment 3 at 26.

improve the efficiency of enforcement processes. During the assessment period, SERC made a number of organizational and process improvements to streamline its enforcement process and elevate enforcement within the SERC organizational structure.[119] In particular, SERC has expanded its CIP capabilities based on the increase of CIP violations reported to the region.

During the assessment period, SERC has increased the number of FTE staff dedicated to enforcement from 4.25 FTE in 2009 to 7 FTE as of December 31, 2013. Based on SERC's recent improvements in its processing speed and efficiency (as measured at the end of the assessment period), NERC views SERC's enforcement staffing to be sufficient to process the number of violations that it receives.

SERC ended the assessment period with a Caseload Index that was notably better than the ERO Enterprise Caseload Index. SERC processed a substantial number of violations discovered before 2012 in furtherance of an ERO Enterprise goal and in so doing, improved its performance and shifted the composition of its caseload to newer violations. NERC has reviewed SERC's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, SERC generally implements these processes in a satisfactory manner.

In addition, SERC staff have actively participated in the development of RAI. SERC staff have participated in the Aggregation of Minimal Risk Issues and Enforcement Discretion pilot programs, and have provided input and feedback during the *ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide* development processes. In addition, SERC staff have participated in the process to develop improvements for the compliance and enforcement oversight of MRREs. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

As explained more fully below, NERC concludes that SERC has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. However, work remains to be done to ensure that violations are mitigated in a timely manner. Going forward, NERC will work with SERC to ensure that violations are mitigated promptly, with an added emphasis on ensuring the completion of mitigation for older violations.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of SERC's Caseload

During the assessment period, SERC reported 1,393 violations to NERC.

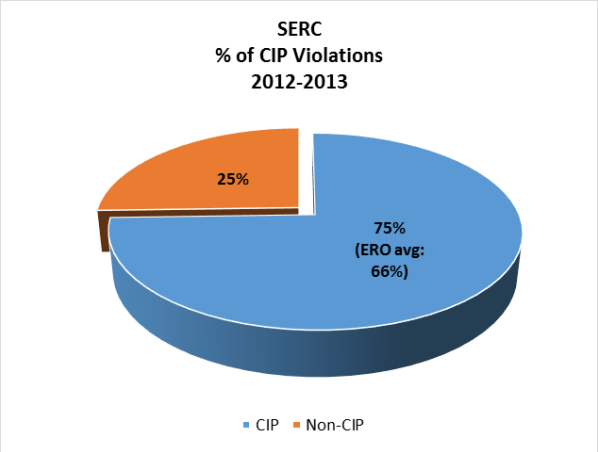
[119] 2014 JRESA, Appendix 2-B at 5.

Figure X. Violations for SERC Reliability Corporation 2009-2013 by Year Reported to NERC[120]

Year Reported to NERC	Violations Reported
2009	187
2010	312
2011	309
2012	300
2013	285
Total	**1393**

As shown in the table above, SERC reported a fairly steady number of violations from 2010-2013. In the years 2012 and 2013, violations of CIP Reliability Standards represented a higher percentage (75%) of total violations in the SERC region than the ERO Enterprise as a whole.

Figure X. Type of Violations Reported to NERC by SERC, 2012-2013



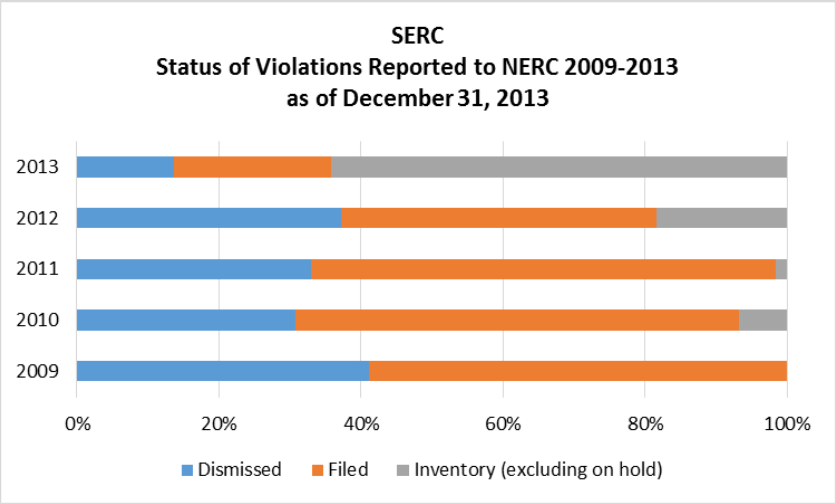
Over two-thirds of CIP violations received from SERC in 2012 and 2013 were self-identified. SERC's recent expansion of its CIP capabilities should assist SERC in ensuring the timely evaluation and processing of the CIP violations it has received as well as the CIP violations it is likely to receive in the future.

Of the total violations reported by SERC to NERC during the assessment period, approximately 264 violations, or 19%, remained to be processed as of December 31, 2013 (excluding violations that are held by appeal, a court, or a regulator). As demonstrated in the table below, SERC has processed all violations reported to NERC in 2009, 93% of violations reported

[120] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

to NERC in 2010, 98% of violations reported to NERC in 2011, and 82% of violations reported to NERC in 2012 (excluding on hold violations).

Figure X. Status of Violations Reported to NERC 2009-2013 for SERC



SERC processed approximately 36% of violations it reported to NERC in 2013. This is slightly lower than the ERO 2013 processing rate of 39%. However, violations reported to NERC in 2013 represent approximately 69% of the violations available for processing in SERC's caseload, which is consistent with the overall ERO Enterprise average of 67%.

ii. Caseload Index

The Caseload Index for SERC is 5.1 months as of December 31, 2013. This is better than the ERO Enterprise Caseload Index of approximately 6.5 months and represents a significant improvement in SERC's performance from earlier in the assessment period.

Through 2013, SERC improved its pace of enforcement processing in a dedicated effort to process its older violations. SERC reduced the average age of violations in its inventory by approximately three months from the end of the first quarter of 2013 to the end of 2013. SERC's processing efforts are reflected in the Caseload Index and the other informational measures described in this assessment.

iii. Efforts to Reduce Older Caseload

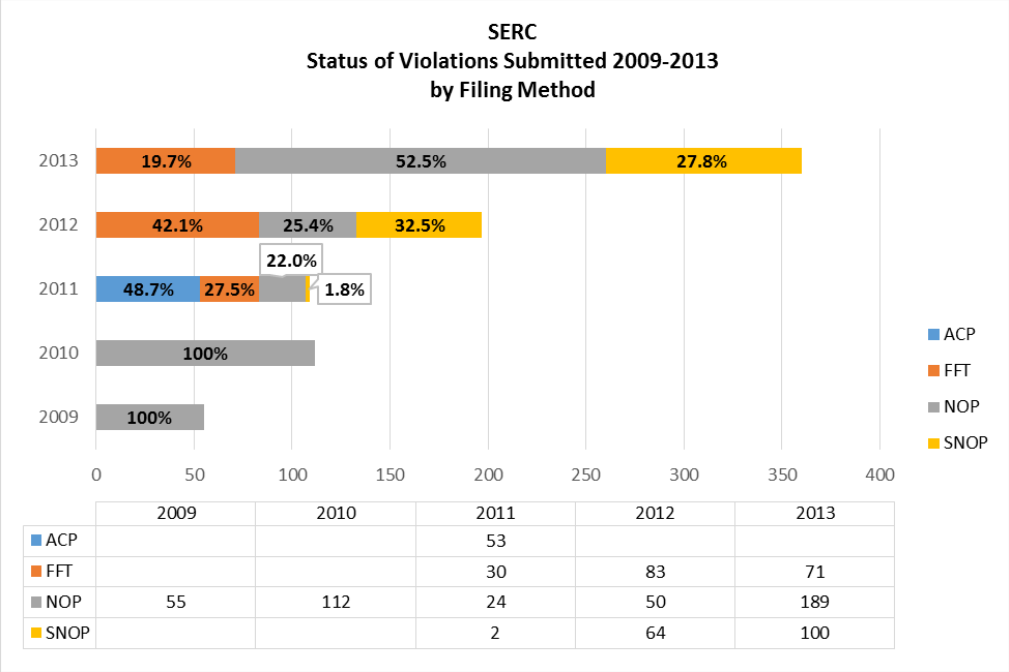
In 2013, SERC reduced its pre-2012 caseload by 92%. Over 90% of these pre-2012 violations were of the CIP Reliability Standards. NERC commends SERC for its responsiveness and efforts to achieve this important ERO Enterprise goal. SERC's remaining pre-2012 violations were in the settlement process or scheduled for processing in early 2014. NERC will work with SERC to ensure that these older violations are resolved and that future accumulations of older violations in the SERC region does not occur.

Based on the current composition of its inventory of violations available to be processed and its recent success in processing its older violations, SERC is positioned to achieve the ERO Enterprise goal of ensuring that violations are processed before reaching 24 months in age.

iv. Implementation of Streamlined Enforcement Processing Mechanisms

SERC believes that its processing of violations has improved because of increased resources and improved tools such as FFT and the SNOP filing mechanisms.[121] As demonstrated in the table below, SERC effectively used streamlined enforcement processing mechanisms to process a substantial portion of its caseload during the assessment period. In 2010, SERC filed an exceptionally high number of violations using the NOP format; in subsequent years, it used the streamlined enforcement processing mechanisms to file 50% or more of violations. In 2013, SERC had a higher percentage of violations processed as an NOP than most Regional Entities, based in large part on SERC's efforts to reduce the number of older, higher-risk CIP violations in its inventory.

Figure X. Violations Filed per Year by Filing Method for SERC, 2009-2013



	2009	2010	2011	2012	2013
ACP			53		
FFT			30	83	71
NOP	55	112	24	50	189
SNOP			2	64	100

SERC generally uses the FFT process for minimal risk issues, the SNOP process for minimal and moderate risk issues and medium-scale compliance failures, and the NOP process for serious risk issues or large-scale compliance failures. SERC reviews previously-filed violations by SERC and other Regional Entities as part of its process for determining the appropriate enforcement processing mechanism. NERC expects that SERC will continue to reserve the NOP format for violations that require it and take advantage of further process refinements available

[121] 2014 JRESA, Appendix 2-C at 24.

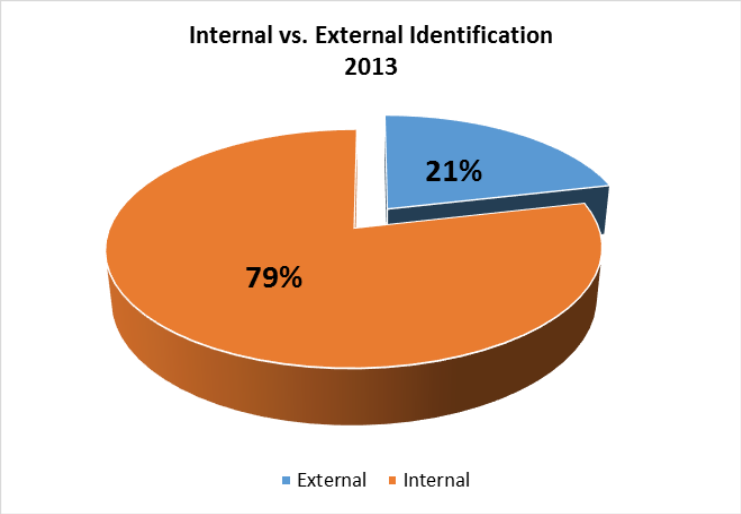
under RAI. Additional information regarding SERC's implementation of FFT is presented later in this assessment.

c. Improving Reliability

i. Encouraging Internal Discovery of Violations

In 2013, violations discovered by registered entities through internal mechanisms comprised 79% of total violations in the SERC region. This is somewhat higher than the ERO Enterprise average of 73%.

Figure X. Percentage of Violations by Method of Identification for SERC in 2013



ii. Ensuring the Timely Mitigation of Violations

SERC reported that it has taken several steps to encourage the timely mitigation of violations. First, SERC encourages and discusses the benefits of prompt submission of mitigation plans during its compliance seminars, open forum web conferences, and its compliance program updates to its board of directors. SERC requires a registered entity, when submitting a self-report form, to provide the status of its mitigating activities, detailed information on mitigating activities that are in progress or are completed, and the registered entity's efforts to prevent reoccurrence. To ensure timely follow-up and completion of mitigation plans, SERC has dedicated a staff member to mitigation processing for operations and planning violations, and several staff members share responsibility for CIP mitigation processing. SERC believes that the efforts of its enforcement staff to discover the complete scope of each violation are likely to result in the creation of mitigation plans that fully address each violation and reduce the likelihood of reoccurrence. SERC tracks mitigation plan information and documents in its compliance information tracking system, including mitigation plans submitted by entities, mitigating activities submitted through self-reports or other means, any revisions requested by SERC, and certifications of mitigation plan completion. If a registered entity does not include mitigating activities in its self-report form, SERC enforcement staff will contact the registered entity to ensure that mitigating

activities are occurring. SERC may accept the mitigating activities and details to prevent reoccurrence, through the self-report form, as an informal mitigation plan. The review and acceptance process is similar for both mitigating activities and a formal mitigation plan. In the case of mitigating activities, SERC does not send a formal notification of its review to the registered entity, but SERC reviews and confirms completion SERC reported that it works with registered entities to answer questions about SERC's expectations for mitigation plans, and that it has occasionally requested that a registered entity revise a mitigation plan when proposed milestones would result in an extended period of noncompliance posing an additional risk to the BPS.

Many of the mitigation plans in the SERC region from 2010 and 2011 that are still in progress are for issues where SERC has combined more recent instances of noncompliance into the older enforcement action. In many of those cases, the registered entities have completed mitigating activities for the older occurrences but are still completing the mitigating activities for the newer occurrences.

Figure X. SERC: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[122]

Year of Discovery	% Completed	% in Progress
2013	27.8%	72.2%
2012	75.9%	24.1%
2011	81.7%	18.3%
2010	83.8%	16.2%
2009	100.0%	0.0%
2008	96.9%	3.1%
2007	100.0%	0.0%
Grand Total	**74.6%**	**25.4%**

As shown in the table above, as of December 31, 2013, SERC had a small number of 2008 violations for which mitigating activities had not been completed. These violations involve a single registered entity, and the violations are currently on hold due to a pending court case involving a similarly-situated registered entity. SERC reported that the pending court case has impacted its ability to verify the timely completion of mitigation for these violations. .

NERC will continue to work with SERC to ensure that newer violations are mitigated in a timely manner.

[122] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations.

iii. Promoting Reliability through Enforcement Philosophy and Practices

SERC's enforcement philosophy is to manage all enforcement activities in an unbiased, fair, transparent, and consistent manner, affording registered entities appropriate due process. SERC strives to manage all enforcement actions in such a way to ensure consistent application of penalties for violations of Reliability Standards. SERC's view of the enforcement process is that it should be used to assist registered entities in assessing, understanding, and managing risk to the BPS and deploying innovative solutions to not only restore compliance, but also mitigate risk, increase reliability, and prevent reoccurrence. SERC believes that it is important to leverage relationships with registered entities and other Regional Entities to promote effective collaboration, cooperation, and communication around significant risks to the reliability of the BPS to produce outcomes that effectively manage risk.

In its settlement processes, SERC has worked with registered entities, where appropriate, to accept the completion of certain activities above-and-beyond those required to ensure compliance with one or more Reliability Standards in lieu of the full monetary penalties permitted by the NERC *Sanction Guidelines*. These efforts allow registered entities to allocate their resources to those projects that can increase overall reliability and reduce the likelihood of future noncompliance.

As examples of above-and-beyond activities, SERC has accepted the following commitments as formal conditions of settlement. To address a series of CIP violations, a registered entity committed to centralize physical monitoring activities by implementing a new access control and video monitoring system and establishing a central security monitoring station.[123] To settle another series of CIP violations, a registered entity committed to conduct an evaluation of the U.S. Department of Energy Electricity Subsector Cybersecurity Capability Maturity Model (ES-C2M2) and share the evaluation with SERC; create and implement an action plan with the goal of increasing the entity's maturity indicator level in domains related to the CIP Reliability Standards; provide SERC with quarterly updates regarding its progress in implementing the action plan; and provide SERC with notification and evidence upon completion of activities.[124] NERC encourages SERC to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. SERC's Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity is executing its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to SERC.

[123] *Unidentified registered entity*, NP14-18-000 (Dec. 30, 2013).

[124] *See Unidentified registered entity*, NP14-21-000 (Dec. 31, 2013).

With respect to the assessment of monetary penalties, SERC reviews previously-filed violations by SERC and other Regional Entities as part of its process to determine appropriate monetary penalties for violations. SERC seeks to apply a uniform process for determining monetary penalties that ensures that they are both (i) appropriate in light of the scope of, and risk posed by, the violations, and (ii) reasonable in light of monetary penalties levied by SERC and other Regional Entities for similar violations. NERC reviews all penalties submitted by SERC for appropriateness and consistency with monetary penalties assessed by SERC and other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that SERC assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check, NERC determined that SERC dismisses violations for appropriate reasons and generally includes the required information when issuing letters of dismissal. NERC identified opportunities for SERC to improve its letters of dismissal and communicated those opportunities to SERC. By implementing the recommended improvements, SERC improve the quality of its compliance guidance to registered entities.

As part of its ongoing FFT review processes, NERC reviewed a sample of SERC FFT issues filed or posted during the assessment period to examine SERC's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. Following its review, NERC concluded that SERC's documented FFT process was adequate and that SERC follows its process. NERC noted that SERC generally provides all relevant information in its issue description, ensures the completion of mitigating activities, and considers violation history appropriately. NERC noted several ways that SERC could improve its FFT postings and related documentation.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that SERC has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. SERC should adopt the recommendations for improvement provided as part of NERC's oversight activities.

7. Evaluation of Southwest Power Pool Regional Entity (SPP RE)

a. Overview

The Southwest Power Pool Regional Entity, Inc. (SPP RE) is the FERC-approved Regional Entity for the central southern United States within the Eastern Interconnection. SPP RE's footprint includes all or parts of the states of Arkansas, Kansas, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, and Texas. SPP RE is an independent and functionally separate division of Southwest Power Pool, Inc. one of nine Independent System Operators/RTOs in North America.

In the Three-Year Performance Assessment, NERC expressed concerns about SPP RE's ability to process violations to completion in a timely manner.[125] During the current assessment period, SPP RE developed and streamlined enforcement procedures and increased enforcement staff in an effort to reduce processing times.[126] SPP RE now also has internal performance metrics in place to encourage the processing of violations as quickly as possible.

During the assessment period, SPP RE increased the number of FTE staff dedicated to enforcement from one FTE in 2009 to ten FTEs and one part-time employee as of December 31, 2013. Based on SPP RE's processing speed and efficiency as measured at the end of the assessment period, NERC views SPP RE's enforcement staffing to be sufficient to process the number of violations that it receives in accordance with ERO Enterprise performance objectives.

SPP RE closed the assessment period with a Caseload Index consistent with the ERO Enterprise average. SPP RE also made remarkable progress in meeting older caseload reduction goals for 2012 and 2013. Finally, NERC has reviewed SPP RE's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, SPP RE generally implements those processes in a satisfactory manner.

SPP RE staff have actively participated in the development of RAI. SPP RE staff participated in several NERC working groups that are developing, testing, and implementing the Aggregation of Minimal Risk Issues and Enforcement Discretion pilot programs. SPP RE staff took a leadership role in the development of the *ERO Enterprise Mitigation Plan Guide*. In addition, SPP RE staff also participated in various RAI projects and programs falling under the compliance function. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

In light of all of the relevant factors, which are explained more fully below, NERC concludes that SPP RE has performed as an effective Regional Entity during the assessment period with respect to enforcement activities. NERC will continue to work with SPP RE to ensure that violations are processed and mitigated promptly, with an emphasis on ensuring the completion of mitigation for older violations.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of SPP RE's Caseload

During the assessment period, SPP RE reported 1,041 violations to NERC.

[125] Three-Year Performance Assessment Attachment 3 at 24.

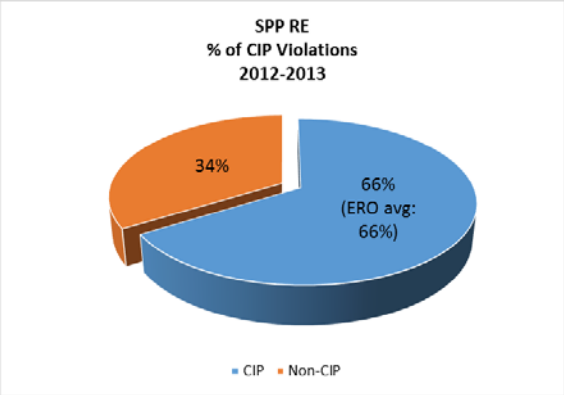
[126] 2014 JRESA, Appendix 2-B at 5.

Figure X. Violations for Southwest Power Pool Regional Entity 2009-2013 by Year Reported to NERC[127]

Year Reported to NERC	Violations Reported
2009	132
2010	254
2011	291
2012	173
2013	191
Total	**1041**

As shown in the table above, SPP RE reported its highest number of violations in 2010 and 2011. CIP violations were the majority of those violations. In the years 2012 and 2013, violations of CIP Reliability Standards comprised 66% of total violations. This is consistent with the ERO Enterprise average.

Figure X. Type of Violations Reported to NERC by SPP RE, 2012-2013

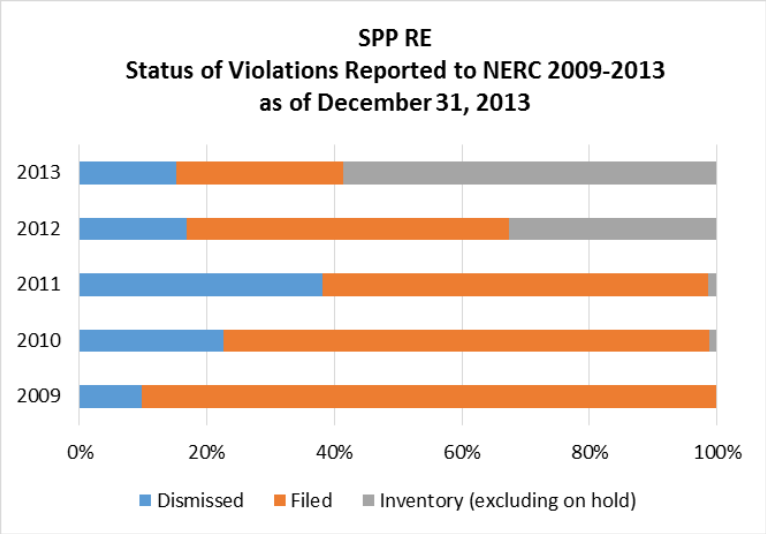


Approximately 56% of CIP violations were discovered through internal mechanisms.

Of the total violations reported by SPP RE to NERC during the assessment period, approximately 175 violations, or about 17%, remained to be processed as of December 31, 2013 (excluding on-hold violations). As demonstrated in the table below, as of December 31, 2013, SPP RE had processed all violations that were reported to NERC in 2009; 98.8% of violations reported to NERC in 2010; 98.6% of violations reported to NERC in 2011; and 67.4% of violations reported to NERC in 2012 (excluding on hold violations).

[127] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

Figure X. Status of Violations Reported to NERC 2009-2013 for SPP RE



SPP RE processed approximately 41% of violations reported to NERC in 2013. This is consistent with the ERO 2013 processing rate of 39%. The percentage of SPP RE's caseload consisting of violations reported to NERC in 2013 (64%) is also consistent with the overall ERO Enterprise average of 67%.

ii. Caseload Index

The Caseload Index for SPP RE is 8.3 months as of December 31, 2013. This is slightly higher than the ERO Enterprise Caseload Index of approximately 6.5 months, but nevertheless lower than the 2013 ERO Enterprise average goal of 10 months.

In light of SPP RE's Caseload Index and as reflected in the characteristics of its caseload (i.e., the percentage of SPP RE's caseload consisting of older violations is consistent with the ERO average), it appears that SPP RE's efforts to streamline its enforcement processes and increase its enforcement staffing during the assessment period have been effective.

iii. Efforts to Reduce Older Caseload

In 2013, SPP RE reduced its pre-2012 caseload by 96%.[128] NERC commends SPP RE for its responsiveness and efforts to achieve this important ERO Enterprise goal. SPP RE states that several factors specific to the remaining violations caused delays in processing, but SPP RE expects to resolve those issues in 2014.

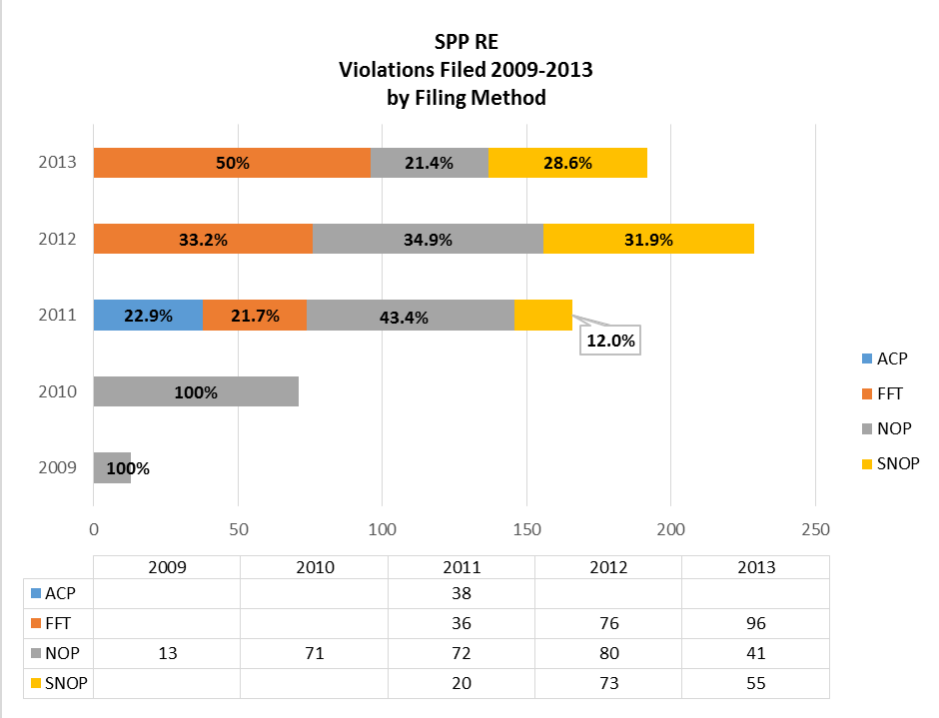
[128] All but four pre-2012 violations were processed before the end of 2013. Of the four violations, two were MRRE violations for which another Regional Entity took lead responsibility. One violation was being held pending an interpretation of the associated Reliability Standard.

Based on the current composition of its inventory of violations available to be processed and its largely successful efforts in processing its older violations, SPP RE is positioned to achieve the goal of ensuring that violations are processed before reaching 24 months in age.

iv. Implementation of Streamlined Enforcement Processing Mechanisms

From 2007 through 2010, SPP RE filed a total of 89 violations. In 2011, SPP RE filed a total of 166 violations, almost double the total number of violations from the previous three years combined. SPP RE credits its success in improving its violation processing rate to several factors. SPP RE developed internal enforcement procedures, streamlined its enforcement processes, and dedicated resources to increasing both the number and maturity of its enforcement staff. For example, SPP RE decreased the time it spends drafting CMEP required and related documents by utilizing its compliance database to automate the issuance of a number of documents. In addition, SPP RE effectively implemented alternative enforcement processing mechanisms, including using FFT to process its lower-risk violations, as demonstrated in the table below.

Figure X. Violations Filed per Year by Filing Method for SPP RE, 2009-2013



	2009	2010	2011	2012	2013
ACP			38		
FFT			36	76	96
NOP	13	71	72	80	41
SNOP			20	73	55

SPP RE filed the majority of violations using FFT or SNOP in 2012 and 2013. In 2013, the percentage of FFTs relative to SNOPs increased notably. SPP RE generally limits the use of the FFT process to minimal risk issues, and it uses the SNOP process for those violations that do not represent a serious or substantial risk to the BPS and do not qualify for FFT disposition. Every FFT and SNOP is reviewed by the SPP RE sanction review team to ensure consistency and uniform application. Going forward, NERC encourages SPP RE to continue its review processes and consider increasing the use of FFT for moderate risk issues that qualify for FFT.

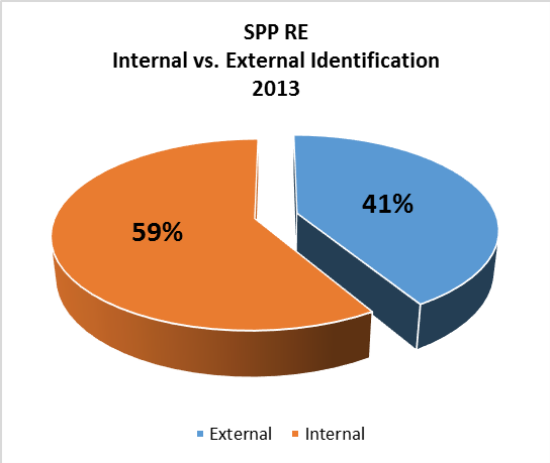
c. Improving Reliability

i. Encouraging Internal Discovery of Violations

SPP RE regularly encourages the value of self-reporting, and it gives presentations on how to self-report effectively during its regional workshops. Additionally, SPP RE discusses the value of self-reporting when it gives penalty determination presentations at workshops.

In 2013, violations discovered by registered entities through internal mechanisms comprised 59% of total violations in the SPP RE region. This is lower than the ERO Enterprise average of 73%. Stated differently, during the assessment period, SPP RE discovered a higher percentage of violations through external methods (i.e., Compliance Audit and Spot Check) than other Regional Entities.

Figure X. Percentage of Violations by Method of Identification for SPP RE in 2013



As noted above, NERC and the Regional Entities are working to understand the regional variations in the percentages of noncompliance discovered through self-discovery and audits across the ERO Enterprise. Understanding these differences, and how they may relate to registered entity internal controls and management practices, will allow NERC and the Regional Entities to provide the right incentives for discovering and self-reporting noncompliance.

ii. Ensuring the Timely Mitigation of Violations

SPP RE reports that it has undertaken a number of efforts to encourage the timely mitigation of violations. It has implemented internal metrics to: (1) encourage enforcement staff to solicit mitigation plans as soon as possible for higher-risk violations; (2) measure whether mitigation plans are accepted or rejected within 30 days of submission; and (3) measure whether mitigation plan completion evidence is reviewed by SPP RE staff within 30 days of when the registered entity's certification of mitigation plan completion and associated evidence are submitted. SPP RE tracks mitigation plan information in its webCDMS. SPP RE has put

standardized processes in place for the review and approval of registered entity mitigation plans, and the associated forms become part of the violation case record.

SPP RE requires registered entities to complete mitigation plans for all compliance issues identified for FFT treatment, and it requires each registered entity desiring to remain in settlement negotiations to submit an acceptable mitigation plan. SPP RE typically requires mitigation plans to be completed before it will execute a settlement agreement and file it with NERC. [129]

SPP RE has strengthened its active monitoring of mitigation plans by increasing its communication with registered entities since 2010. SPP RE issues email reminder notices to registered entities as due dates approach. SPP RE staff has continued to communicate and give presentations to registered entities regarding best practices for submitting and managing information associated with self-reports, self-certifications, and mitigation plans.

As demonstrated in the table below, SPP RE has made substantial progress in ensuring that older violations have been mitigated, with 100% of violations discovered from 2007-2009 having completed mitigation.

Figure X. SPP RE: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[130]

Year of Discovery	% Completed	% in Progress
2013	43.6%	56.4%
2012	77.8%	22.2%
2011	96.7%	3.3%
2010	96.0%	4.0%
2009	100.0%	0.0%
2008	100.0%	0.0%
2007	100.0%	0.0%
Grand Total	**84.0%**	**16.0%**

NERC is working closely with SPP RE to understand the nature of the violations with open mitigation, particularly the older violations. NERC is also working with SPP RE to ensure that violations are mitigated in a timely manner.

[129] SPP RE does not yet accept completion of mitigating activities in lieu of a formal mitigation plan; however, SPP RE reported that will accept mitigating activities as soon as appropriate changes are made to the webCDMS system.

[130] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations.

iii. Promoting Reliability through Enforcement Philosophy and Practices

SPP RE reported that it has been its experience that most registered entities desire to be as reliable and as compliant as possible, and that avoiding or minimizing penalties and sanctions is only a secondary motivation. SPP RE reported that it has undertaken a number of efforts to improve the efficiency of its enforcement processes and encourage the prompt mitigation of violations. For instance, SPP RE has supplied registered entities with online training videos covering topics such as evidence submission, mitigation processing, and self-reporting. SPP RE was recently awarded the Bronze Quill Award of Merit from the International Association of Business Communicators, Arkansas Chapter for the quality of its video library. SPP RE developed a flow diagram that is used for small group discussions at regional workshops. The diagram facilitates conversation about the enforcement process with registered entities and provides a visual aid for how violations and mitigation plans move through the enforcement process. SPP RE has also conducted on-site visits with several registered entities to discuss internal compliance program improvements following negative audit findings.

SPP RE's enforcement group tracks various metrics on a monthly basis, including: (1) the expediting of high risk violations; (2) caseload processing time: (3) mitigation plan acceptance review time; (4) mitigation plan completion review time; (5) processing of pre-2013 violations; (6) incoming compliance issue triage time; and (7) case record review and close-out time. To facilitate transparency, SPP RE posts a monthly metrics tracking dashboard covering these areas on its web page.[131]

The FFT process has enabled SPP RE to improve its processing efficiency substantially. As a result, SPP RE reported that it has been able to devote a substantial portion of the efforts of its personnel toward evaluating and processing higher-risk violations.

In its settlement processes, SPP RE has worked with registered entities, where appropriate, to accept the completion of certain activities above-and-beyond those required to ensure compliance with one or more Reliability Standards in lieu of the full monetary penalties permitted by the NERC *Sanction Guidelines*. For example, SPP RE has considered a registered entity's initiatives to audit and improve its internal compliance program to be a mitigating factor in SPP RE's penalty determination. NERC encourages SPP RE to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. SPP RE's Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity is executing its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to SPP RE.

[131] *See* http://www.spp.org/section.asp?group=2754&pageID=27.

With respect to the assessment of monetary penalties, SPP RE requires its case managers to follow the penalty guidance established by NERC and the Commission. Each violation and its associated penalty must be approved by the SPP RE sanction review team. When presenting a violation and proposed penalty to the sanction review team, an SPP RE case manager will provide the basis for the proposed penalty and a comparison to similar violations and the penalties assigned to those violations. The SPP RE sanction review team will then review the violation and proposed penalty to determine whether the proposed penalty is justified, reasonable, and consistent with penalties assessed for similar violations by SPP RE and by other Regional Entities. NERC reviews all penalties submitted by SPP RE for appropriateness and consistency with monetary penalties assessed by SPP RE and other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that SPP RE assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check, NERC determined that SPP RE dismisses violations for appropriate reasons and generally includes the required information when issuing letters of dismissal. NERC identified opportunities where SPP RE could improve its letters of dismissal and communicated those opportunities to SPP RE. SPP RE has already implemented at least one of the recommended improvements. These improvements will ensure SPP RE has access to the information it needs to process each violation properly. Such efforts will also assist NERC in its oversight role and allow the Commission to evaluate the efficiency and effectiveness of the dismissal process.

As part of its ongoing FFT review processes, NERC reviewed a sample of SPP RE FFT issues filed or posted during the assessment period to examine SPP RE's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. NERC noted that SPP RE developed a checklist which delineates the steps that need to be taken by each SPP RE staff member and indicates that the final document will be attached to the record for tracking purposes. If completed on a regular basis, this checklist could provide valuable insight into SPP RE's determination of FFT treatment and facilitate future review by NERC and the Commission. NERC recommended several areas in which SPP RE could improve its FFT postings and related documentation.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that SPP RE has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. SPP RE should adopt the recommendations for improvement provided as part of NERC's oversight activities.

8. Evaluation of Texas Reliability Entity, Inc. (Texas RE)

a. Overview

Texas Reliability Entity, Inc. (Texas RE) is the FERC-approved Regional Entity for the Electric Reliability Council of Texas (ERCOT) region in the Texas Interconnection. At the time

of the Three-Year Performance Assessment, Texas Regional Entity, an independent division of ERCOT, performed compliance monitoring and enforcement activities for the ERCOT region. Texas RE was formed on January 1, 2010 to become the successor Regional Entity for the ERCOT region. Effective July 1, 2010, NERC delegated to Texas RE the authority and responsibility for the continuation of all compliance monitoring and enforcement activities that it had previously delegated to Texas Regional Entity.

In the Three-Year Performance Assessment, NERC concluded that Texas Regional Entity was an effective Regional Entity, and it praised Texas Regional Entity's processing efficiency and focus on identifying higher-risk violations that result from failure to comply with Reliability Standards.[132] At the time, NERC noted questions regarding the contrast between the high percentage of "failure to perform" violations and the low number of violations recommended for a zero-dollar penalty. Texas RE reported that it recommended zero-dollar penalties in 2007 and 2008 for most cases as the Reliability Standards were new, and registered entities were still learning how to comply with them. Texas RE reported that it began recommending more monetary penalties for "failure to perform" violations in 2010 in an effort to deter noncompliance. As the streamlined enforcement mechanisms were developed and implemented, Texas RE began using these mechanisms to process violations posing a low risk to reliability and that had been mitigated.[133] Texas RE also made organizational changes related to its enforcement processes in late 2013 to provide for a clear delineation between processing tasks; Texas RE believes that these changes have resulted in efficiency gains and decreased processing time.

During the assessment period, Texas RE increased the number of FTE staff dedicated to enforcement from 3 in 2009 to 11 as of December 31, 2013. Based on Texas RE's processing speed and efficiency as measured at the end of the assessment period, NERC views Texas RE's enforcement staffing to be sufficient to process the number of violations that it receives.

Texas RE ended the assessment period with a Caseload Index that was the lowest among all Regional Entities. Texas RE processed all violations discovered before 2012 in furtherance of an ERO Enterprise goal. Texas RE's caseload tends to consist of more-recent violations, and generally Texas RE has made progress in ensuring that older violations have completed mitigation. Finally, NERC has reviewed Texas RE's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, Texas RE generally implements those processes in a satisfactory manner.

In addition, Texas RE staff have actively participated in the development of RAI. Many Texas RE employees worked on various aspects of RAI in collaboration with NERC and the other regions. Texas RE staff participated in the Aggregation of Minimal Risk Issues and Enforcement Discretion pilot programs and served on the *ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide* drafting teams. Texas RE staff also participated in several compliance-related programs under RAI. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

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[132] Three-Year Performance Assessment Attachment 3 at 26.

[133] 2014 JRESA, Appendix 2-B at 6.

As explained more fully below, based on Texas RE's performance in several enforcement processing metrics and the results of NERC's oversight activities, NERC concludes that Texas RE has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. NERC will continue to work with Texas RE to ensure that violations are mitigated promptly.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of Texas RE's Caseload

During the assessment period, Texas RE reported 861 violations to NERC.

Figure X. Violations for Texas Reliability Entity, Inc. 2009-2013 by Year Reported to NERC[134]

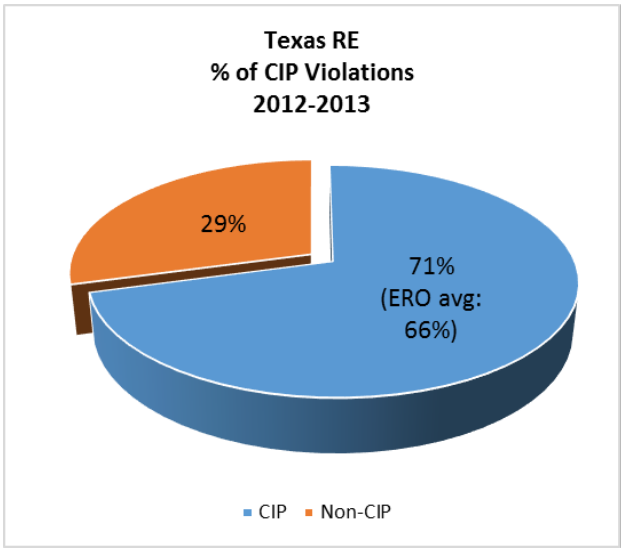
Year of Submission	Violations Reported
2009	14
2010	51
2011	430
2012	197
2013	169
Total	**861**

As shown in the table above, Texas RE experienced a spike in violations in 2011. About 25% of the violations reported to NERC in 2011 were discovered in 2009 and 2010.[135] The violations reported to NERC in 2011 were split almost evenly between CIP and non-CIP violations and internal and external methods of discovery. In the years 2012 and 2013, violations of CIP Reliability Standards represented a higher percentage of total violations in the Texas RE region than the ERO Enterprise as a whole.

[134] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

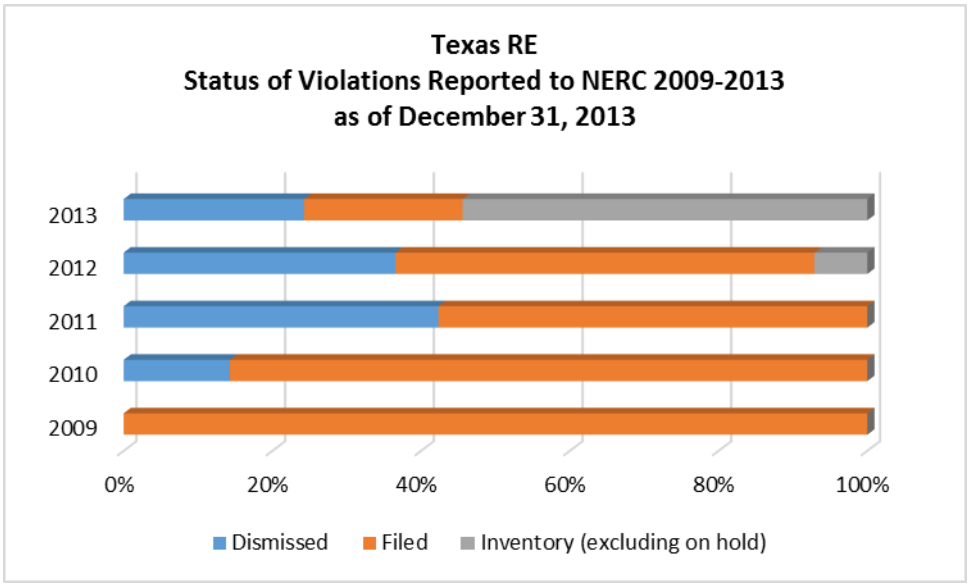
[135] When adjusted for year of discovery, the yearly variation in the number of violations is far smaller from 2010 through 2011. For example, 38 violations were discovered in 2009; 157 violations in 2010; and 298 violations in 2011.

Figure X. Type of Violations Reported to NERC by Texas RE, 2012-2013



Of the total violations reported to NERC during the assessment period, 106 violations, or approximately 12%, remained to be processed as of December 31, 2013 (excluding violations that are held by appeal, a court, or a regulator). As demonstrated in the table below, Texas RE has processed all violations reported to NERC in 2009, 2010, and 2011 (excluding on hold violations). Texas RE processed approximately 93% of violations reported to NERC in 2012.

Figure X. Status of Violations Reported to NERC 2009-2013 for Texas RE



Texas RE processed approximately 46% of violations reported to NERC in 2013, which is better than the ERO Enterprise average 2013 processing rate of 39%. Approximately 87% of the violations available for processing in Texas RE's inventory consist of violations reported to NERC

in 2013. This greatly exceeds the overall ERO Enterprise average of 67%. Texas RE appears to be moving toward a caseload consisting primarily of newer violations.

ii. Caseload Index

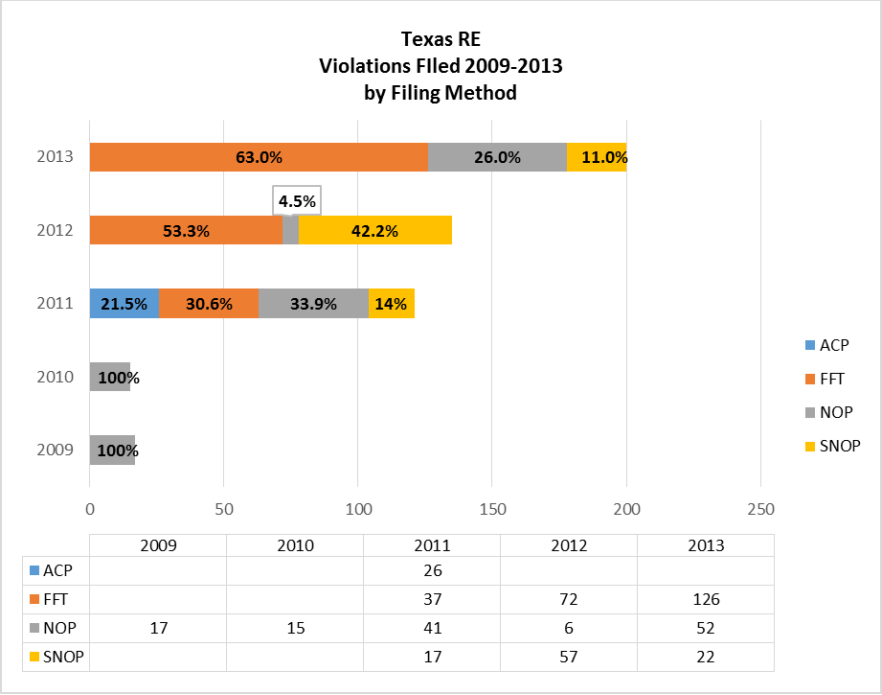
The Caseload Index for Texas RE is 3.8 months as of December 31, 2013. This is the lowest of all Regional Entities and notably better than the ERO Enterprise Caseload Index of approximately 6.5 months.

Based on the current composition of its inventory of violations available to be processed and its success in achieving the timely processing of violations to date, Texas RE is well-positioned to achieve the goal of ensuring that violations are processed before reaching 24 months in age.

iii. Implementation of Streamlined Enforcement Processing Mechanisms

A number of factors are responsible for Texas RE's successes in processing its caseload. As demonstrated in the table below, Texas RE effectively used alternative processing mechanisms to process a substantial portion of its caseload during the assessment period. In 2011, following the implementation of the streamlined enforcement processing mechanisms, Texas RE filed 121 violations – almost quadruple the number of violations filed in the previous two years combined.

Figure X. Violations Filed per Year by Filing Method for Texas RE, 2009-2013



	2009	2010	2011	2012	2013
ACP			26		
FFT			37	72	126
NOP	17	15	41	6	52
SNOP			17	57	22

Texas RE reviews posted FFT and SNOP filings before determining the disposition method it will use for a particular violation, and it coordinates all FFT and SNOP-related issues with NERC. These methods help ensure the consistent application of FFTs and SNOPs across the

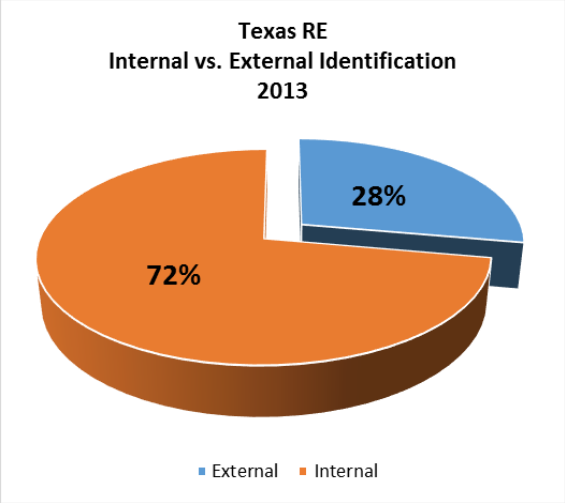
Regional Entities. In 2011 and in every year since, Texas RE filed the majority of its violations using the streamlined enforcement processing mechanisms, including using FFT to file lower-risk violations of the CIP Reliability Standards. NERC expects that Texas RE will continue to reserve the NOP format for violations that require it and take advantage of further process refinements available under RAI. Additional information regarding Texas RE's application of FFT is presented later in this assessment.

c. Improving Reliability

i. Encouraging the Internal Discovery of Violations

In 2013, violations discovered by registered entities through internal mechanisms comprised 72% of total violations in the Texas RE region. This is consistent with the ERO Enterprise average of 73%.

Figure X. Percentage of Violations by Method of Identification for Texas RE in 2013



ii. Ensuring the Timely Mitigation of Violations

During the assessment period, Texas RE reported that it implemented a number of measures to ensure the timely mitigation of violations. Texas RE stressed the importance of prompt mitigation in workshops and other communications with registered entities and encouraged early completion of mitigation. Texas RE modified its self-report form to require a description of mitigating activities, preventative measures, and a date of mitigation. As a result of this modification, Texas RE began receiving more information regarding mitigation earlier in the enforcement process. Texas RE has also strengthened processes and documentation standards for the review, approval, tracking, and certification of mitigation plans. When reviewing a mitigation plan, Texas RE determines if the completion date is reasonable, considering the nature of the violation. Texas RE has requested that mitigation plans be revised because Texas RE determined that the completion date was unreasonable. Texas RE tracks the mitigation plan or mitigation activities completion date and has informed registered entities that violations cannot be closed until the mitigation is complete. Texas RE also tracks mitigation plan milestones in webCDMS

and provides notifications to registered entities for upcoming milestones. In an effort to hold registered entities accountable, Texas RE will only discuss settlement and suspend deadlines if the entity submits a mitigation plan, or Texas RE has verified that the entity has mitigated the violation.

As demonstrated in the table below, Texas RE has made substantial progress in ensuring that older violations have completed mitigation. Only three violations from 2010 through 2011 remained to be mitigated at the end of the assessment period.

Figure X. Texas RE: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[136]

Year of Discovery	% Completed	% in Progress
2013	28.1%	71.9%
2012	91.2%	8.8%
2011	99.4%	0.6%
2010	98.1%	1.9%
2009	100.0%	0.0%
2008	100.0%	0.0%
2007	100.0%	0.0%
Grand Total	**82.5%**	**17.5%**

NERC will continue to work closely with Texas RE to ensure the completion of mitigating activities.

iii. Promoting Reliability through Enforcement Philosophy and Practices

Texas RE's enforcement philosophy is to abide by the requirements of the NERC ROP, reserve the enforcement process for those violations posing a serious or substantial risk to the reliability of the BPS, and encourage the development of strong internal compliance programs and internal controls. As part of encouraging strong internal controls, Texas RE encourages registered entities to address the results of internal controls by self-reporting and mitigating violations promptly. Texas RE may consider the method of discovery, presence of internal compliance programs, and the prompt mitigation of violations among the factors in determining how to dispose of a violation (i.e., FFT, SNOP, or NOP) and in assessing potential penalties.

In its settlement processes, Texas RE has worked with registered entities, where appropriate, to accept the completion of certain activities above-and-beyond those required to ensure compliance with one or more Reliability Standards in lieu of the full monetary penalties permitted by the NERC *Sanction Guidelines*. These efforts allow registered entities to allocate

[136] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations.

their resources to those projects that can increase overall reliability and reduce the likelihood of future noncompliance.

As examples of above-and-beyond activities, registered entities in the Texas RE region have committed to hire additional compliance staff, install new software to track maintenance and testing intervals, contribute to future compliance efforts (such as making an entity's SME available for a compliance workshop), develop additional training for staff, perform additional technical modifications beyond those required to achieve compliance, and upgrade physical security measures. NERC encourages Texas RE to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. Texas RE'S Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity executes its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to Texas RE.

Texas RE calculates penalties using the NERC *Sanction Guidelines* and reviews its determinations in relation to similar penalties assessed by Texas RE and by other Regional Entities. NERC reviews all penalties submitted by Texas RE for appropriateness and consistency with monetary penalties assessed by Texas RE and other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that Texas RE assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check, NERC determined that Texas RE dismisses violations for appropriate reasons and generally includes the required information when issuing letters of dismissal. NERC identified opportunities for Texas RE to improve its letters of dismissal and communicated those opportunities to Texas RE. By implementing the recommended improvements, Texas RE can improve the quality of its compliance guidance to registered entities.

As part of its ongoing FFT review processes, NERC reviewed a sample of Texas RE FFT issues filed or posted during the assessment period to examine Texas RE's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. Following its review, NERC concluded that Texas RE maintains adequate documentation and written procedures for its FFT process. NERC noted that Texas RE developed a process checklist which could prove to be a useful tool for FFT processing, provided the checklist is completed on a consistent basis. NERC further concluded that Texas RE generally provides an adequate description of the issue in its FFT postings. NERC noted several ways that Texas RE could improve its FFT postings and related documentation.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that Texas RE has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. Texas RE should adopt the recommendations for improvement provided as part of NERC's oversight activities.

9. Evaluation of Western Electricity Coordinating Council (WECC)

a. Overview

Western Electricity Coordinating Council (WECC) is the FERC-approved Regional Entity for the portions of the Western United States and Canada in the Western Interconnection. WECC's footprint extends from the provinces of Alberta and British Columbia in Canada to the northern portion of Baja California, Mexico. WECC's service territory includes all or portions of 14 states in the western United States. Geographically, WECC's territory is the largest of all the Regional Entities.

In the Three-Year Performance Assessment, NERC concluded that WECC was one of the less effective Regional Entities in carrying out its compliance obligations, but noted that WECC was starting to make significant strides in reducing the portion of violations described as its "backlog" in the first half of 2009. NERC encouraged WECC to create a stronger separation of its compliance encouragement efforts from its enforcement activities and to maintain its focus on processing violations to completion.[137]

During the assessment period, WECC has taken several steps to address the concerns identified by NERC in the Three-Year Performance Assessment. WECC reported that it has enhanced, streamlined, and documented all of its enforcement processes with the assistance of dedicated enforcement SMEs. Further, WECC has implemented the alternative enforcement processing mechanisms. WECC calculated its processing time (from intake through submittal to NERC) to be less than five months, on average. WECC also has enhanced its compliance encouragement activities while maintaining separation from its enforcement activities.[138]

During the assessment period, WECC increased the number of FTE staff dedicated to enforcement processing from 6 in 2009 to 8 as of December 31, 2013.[139] Based on WECC's processing speed and efficiency as measured at the end of the assessment period, NERC views WECC's enforcement processing staffing to be sufficient to process the number of violations that it receives.

WECC ended the assessment period with a better-than-average Caseload Index. In addition, WECC made substantial progress in processing the especially large number of violations

[137] Three-Year Performance Assessment Attachment 3 at 26.

[138] 2014 JRESA Appendix 2B at 6-7.

[139] WECC has additional staff dedicated to reviewing violations from a technical perspective and reviewing and approving mitigation plans.

that it received during the assessment period, including processing almost all of its older caseload. NERC notes that WECC has a few older violations that still need to be mitigated and processed. In addition, NERC has reviewed WECC's enforcement-related processes as part of its oversight role and found that, while areas for improvement remain, WECC generally implements those processes in a satisfactory manner.

NERC recognizes the contributions WECC staff have made in the development of RAI. WECC staff participated in the Enforcement Discretion pilot program and served in leadership roles on the *ERO Self-Report User Guide* and *ERO Enterprise Mitigation Plan Guide* drafting teams. This participation is vital as the ERO Enterprise shifts toward a risk-based model of compliance and enforcement.

In light of all of the relevant factors, which are explained more fully below, NERC concludes that WECC has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. NERC will continue to work with WECC to ensure that violations are mitigated and processed promptly.

b. Evaluation of Caseload Processing Efficiency

i. The Composition of WECC's Caseload

During the assessment period, WECC reported 3,183 violations[140] to NERC.

Figure X. Violations for Western Electricity Coordinating Council 2009-2013 by Year Reported to NERC[141]

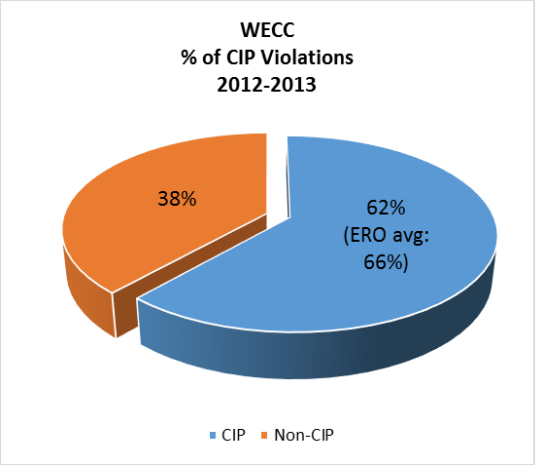
Year Reported to NERC	Violations Reported
2009	571
2010	550
2011	807
2012	818
2013	437
Total	**3,183**

As shown in the table above, WECC reported the most violations to NERC in 2011 and 2012. CIP violations comprised more than half of total violations in 2011 through 2012. In the years 2012 and 2013, violations of CIP Reliability Standards represented a slightly lower percentage of total violations in the WECC region (62%) than the ERO Enterprise as a whole.

[140] This table reflects U.S. violations only.

[141] For an explanation of the methodology used to calculate the data in this table and throughout this §II.D, *see supra* n. 76.

Figure X. Type of Violations Reported to NERC by WECC, 2012-2013

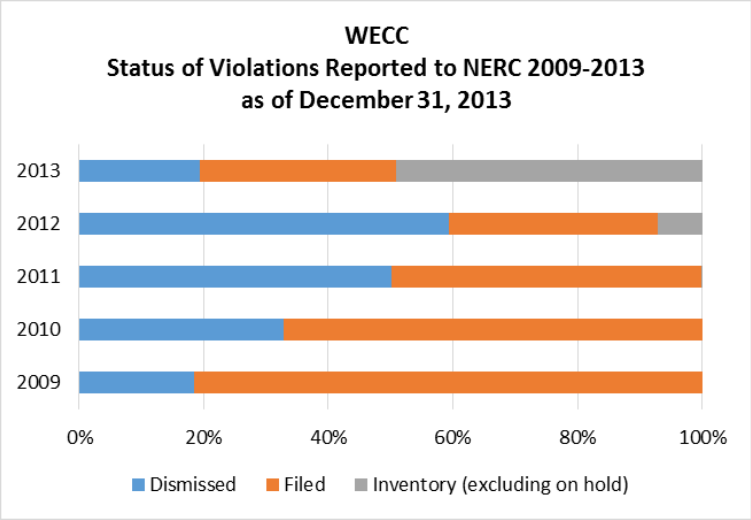


More than 85% of the total number of CIP violations reported by WECC to NERC in 2012 and 2013 were identified through internal means; nearly half of these CIP violations were later dismissed.[142]

Of the total violations reported by WECC to NERC during the assessment period, approximately 254 violations, or approximately 9%, remained to be processed as of December 31, 2013 (excluding violations that are held by appeal, a court, or a regulator). As demonstrated in the table below, WECC has processed 100% of violations reported to NERC in 2009 and 2010 and 99.9% of violations reported to NERC in 2011 (excluding on hold violations). WECC has processed approximately 93% of violations reported to NERC in 2012.

[142] WECC had a larger number of dismissals than other Regional Entities during the assessment period as a result of duplicate self-reporting. In early 2012, WECC had a number of violations where an entity submitted both a self-report and a self-certification. Since that time, WECC implemented a process to check for duplicate violations. In addition, the NERC ROP were amended to add several enhancements to the preliminary screen process; part of this process requires Regional Entities to confirm that new violations are not duplicates of violations already in process.

Figure X. Status of Violations Reported to NERC 2009-2013 for WECC



WECC processed nearly 51% of violations reported to NERC in 2013. This is notably higher than the ERO 2013 processing rate of 39%. Approximately 78% of the violations available for processing in the WECC region consist of violations reported to NERC in 2013. This is notably better the overall ERO Enterprise average of 67%. WECC appears to be moving toward a caseload consisting primarily of newer violations.

ii. Caseload Index

The Caseload Index for WECC is 5.7 months as of December 31, 2013. This compares favorably to the ERO Enterprise Caseload Index of approximately 6.5 months.

Based on its achievements in processing its caseload to date and its Caseload Index, it appears that WECC's efforts to enhance and streamline its enforcement processes have been effective.

iii. Efforts to Reduce Older Caseload

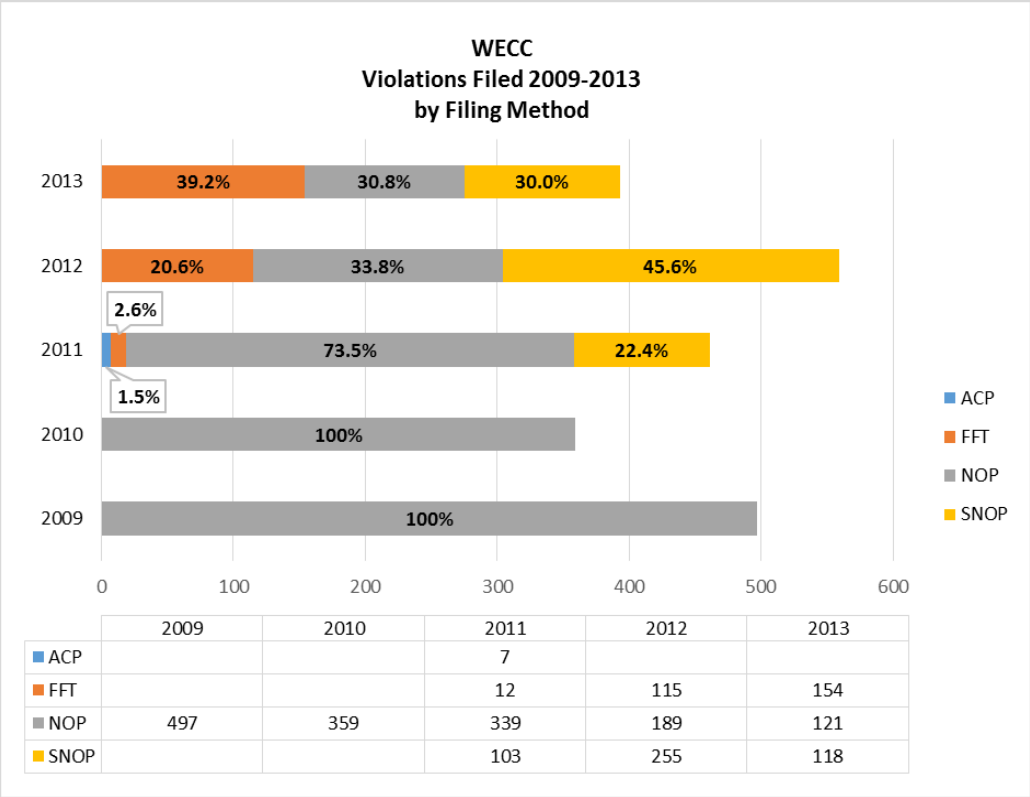
In 2013, WECC processed 98% of remaining cases in its pre-2012 caseload. NERC commends WECC for its responsiveness and efforts to achieve this important ERO Enterprise goal.

Based on the current composition of its inventory of violations to be processed and its successful effort in processing its older violations, WECC is well-positioned to achieve the goal of ensuring that violations are processed before reaching 24 months in age.

iv. Implementation of Streamlined Enforcement Processing Mechanisms

A number of factors are responsible for WECC's successes in processing its caseload. As demonstrated in the table below, WECC effectively used streamlined processing mechanisms to process a substantial portion of its caseload during the assessment period. WECC did not implement streamlined processing mechanisms as quickly as some other Regional Entities, but by 2012, WECC was using the streamlined processing mechanisms to file nearly two-thirds of its violations.

Figure X. Violations Filed per Year by Filing Method for WECC, 2009-2013



	2009	2010	2011	2012	2013
ACP			7		
FFT			12	115	154
NOP	497	359	339	189	121
SNOP			103	255	118

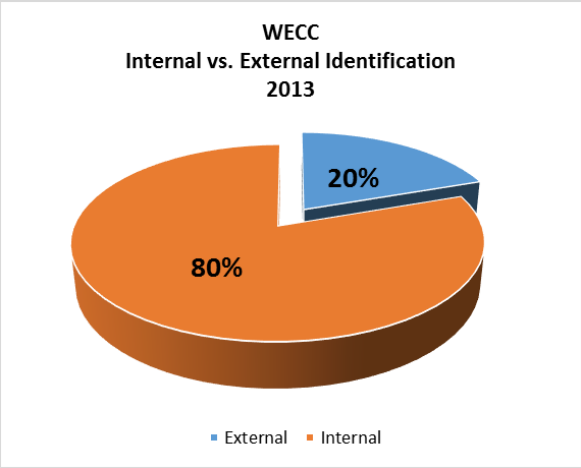
WECC has enhanced, streamlined, and documented all of its enforcement processes; WECC believes that these efforts will help ensure effective and consistent use of the enforcement processing mechanisms (including FFT and SNOP). NERC encourages WECC to continue its utilization of alternative enforcement processing mechanisms. Going forward, NERC expects that WECC will continue to use the NOP format for violations that require it and take advantage of further process refinements under RAI. Additional information regarding WECC's implementation of FFT is presented later in this assessment.

c. Improving Reliability

i. Encouraging Internal Discovery of Violations

In 2013, self-identified violations comprised 80% of total violations in the WECC region. This is somewhat higher than the ERO Enterprise average of 73%.

Figure X. Percentage of Violations by Method of Identification for WECC in 2013



ii. Ensuring the Timely Mitigation of Violations

During the assessment period, WECC increased relevant staffing, enhanced relevant processes and procedures, and strengthened metrics to help ensure timely mitigation plan and completed mitigation plan processing. These actions were taken to address certain concerns regarding WECC's mitigation plan processing that were identified in a 2010 FERC audit report.[143] Specifically, WECC created two SME teams, one to review mitigation plans associated with violations of the CIP Reliability Standards, and the other to review mitigation plans associated with operations and planning Reliability Standards. WECC also implemented several internal process improvements, including establishing a priority review process for mitigation plans associated with violations posing a high risk to reliability or otherwise requiring prompt attention. WECC now tracks its mitigation plan review efficiency through the use of an internally-developed metric.

WECC has strengthened its active monitoring of mitigation plans by increasing its communication with registered entities. These increased efforts began in 2013. WECC now issues email reminder notices to registered entities as due dates approach. WECC staff also continue to communicate with and give presentations to registered entities regarding best practices for submitting and managing information associated with self-reports, self-certifications, and mitigation plans. WECC now accepts mitigating activities in lieu of a formal mitigation plan for a limited number of cases.

[143] *See Order Approving Audit Report, Determining Issue of Separation of Functions, and Directing Compliance and Other Corrective Actions*, 132 FERC ¶ 61,149 (Aug. 10, 2010) at Appendix A.

As demonstrated in the table below, WECC has made substantial progress in ensuring that violations from 2007-2009 have been mitigated. Only about 11 violations from 2010 and 2011 remained to be mitigated by the end of the assessment period.

Figure X. WECC: Status of Mitigating Activity for Violations Discovered from 2007-2013 and Requiring Mitigation as of December 31, 2013[144]

Year of Discovery	% Completed	% in Progress
2013	56.6%	43.4%
2012	92.0%	8.0%
2011	98.5%	1.5%
2010	98.7%	1.3%
2009	100.0%	0.0%
2008	100.0%	0.0%
2007	100.0%	0.0%
Grand Total	**93.2%**	**6.8%**

WECC has made progress in ensuring that newer violations have been mitigated, with over half of violations discovered in 2013 having completed mitigation by the end of the year. NERC will continue to work with WECC to ensure that all violations are mitigated in a timely manner.

iii. Promoting Reliability through Enforcement Philosophy and Practices

WECC's enforcement philosophy is to use the enforcement process as a tool to influence and encourage desired behavior by registered entities. To that end, WECC enforcement has adopted risk-based processes and projects that it believes will promote, foster, and influence a reliable BPS. WECC enforcement seeks opportunities to work collaboratively with and educate registered entities in the enforcement space. WECC enforcement also recognizes its obligation to ensure fair and reasonable outcomes.

WECC created a new violation assessment process to improve its ability to assess the impact and the root cause of violations, and to determine effective solutions to address the root causes. WECC calls this process a Violation Risk Assessment Methodology (vRAM). This framework is used to assist WECC enforcement staff in determining the risk posed by a violation, as well as the level of resource allocation that must be dedicated to each violation. During a violation review, WECC enforcement staff use a four-step process to assess the risk of each violation. This process consists of a severity analysis, controls analysis, likelihood analysis, and risk analysis. This new risk characterization allows a more granular reflection of the risk. In addition, this process considers an entity's connectivity, internal controls, and functions when

[144] This table reports the percentage of violations discovered from the years 2007 through 2013 with completed or open mitigation. This table excludes dismissed violations and non-U.S. violations.

determining the severity of a violation. WECC believes that this process helps WECC process lesser-risk violations more quickly than in the past.

In its settlement processes, WECC has worked with registered entities, where appropriate, to agree to the future completion of certain activities above-and-beyond those required to ensure compliance with one or more Reliability Standards in lieu of the full monetary penalties permitted by the NERC *Sanction Guidelines*. These efforts allow registered entities to allocate their resources to those projects that can increase overall reliability and reduce the likelihood of future noncompliance.

As an example of above-and-beyond activities, registered entities in the WECC region have committed to implement improvements to enhance their ability to comply with Reliability Standards. Examples of compliance-related improvements included developing a process to mitigate violations in a timely manner, implementing meetings and programs to increase awareness of compliance issues, and developing processes to identify the full scope of violations promptly. NERC encourages WECC to continue deploying solutions such as these that promote reliability and insight into processes that can manage risk.

d. WECC's Implementation of Various Aspects of the CMEP

As noted in §II.D.1.a above, NERC conducts ongoing oversight activities to evaluate the effectiveness of each Regional Entity's implementation of the CMEP. These activities include regular reviews and periodic spot checks of specific Regional Entity processes. NERC's oversight activities give NERC an ongoing view into how effectively and efficiently the Regional Entity is executing its enforcement responsibilities. Below is a summary of some of NERC's more recent oversight activities specific to WECC.

With respect to the assessment of monetary penalties, WECC tracks and reviews penalty information to ensure that penalties are applied consistently. Responsibility for penalty tracking analysis lies with WECC's compliance enforcement case management team, which works with WECC management to determine appropriate penalties. NERC reviews all penalties submitted by WECC for appropriateness and consistency with monetary penalties assessed by WECC and other Regional Entities for violations of the same Reliability Standards and Requirements occurring under similar facts and circumstances. NERC has found that WECC assesses monetary penalties that are appropriate and consistent with penalties assessed for similar violations.

Based on a spot check, NERC determined that WECC dismisses violations for appropriate reasons. NERC identified opportunities where WECC could improve its Letters of Dismissal and communicated those opportunities to WECC. By implementing these improvements, WECC can improve the quality of its compliance guidance to registered entities.

As part of its ongoing FFT review processes, NERC reviewed a sample of WECC FFT issues filed or posted during the assessment period to examine WECC's procedures for FFT processing and the application of those procedures to the FFT issues in its caseload. Following its review, NERC concluded that WECC's procedures generally followed FFT requirements and guidance. NERC noted that WECC's Notice of FFT Treatment was very useful and included

details on the factors WECC considers, such as the description of the issue, risk statement, and mitigating activities, when considering whether to afford FFT treatment. The WECC sample set contained several instructive examples where the risk statement adequately addressed the issue and the minimal risk to the reliability of the BPS. NERC noted several ways that WECC could improve its FFT postings and related documentation.

e. Conclusion

Based on NERC's review of the factors described above, NERC concludes that WECC has performed as an effective Regional Entity with respect to enforcement activities during the assessment period. WECC should adopt the recommendations for improvement provided through NERC's ongoing oversight activities.

III. Reliability Assessments

A. Overview of Regional Entity Responsibilities

One of the ERO's responsibilities, as set forth in §215(g) of the FPA, 16 U.S.C. §824o(g), and 18 C.F.R. §39.11, is to conduct periodic assessments of the reliability and adequacy of the BPS in North America.[145] These assessments are conducted by the NERC Reliability Assessment and Performance Analysis (RAPA) department. Pursuant to the RDAs, the Regional Entities help to assess reliability and to provide performance assessment and event analysis of the BPS in their footprints.[146] Section 804 of the NERC ROP specifies that the Regional Entities are to provide data and information to support NERC's annual long-term and seasonal assessments of the reliability of the BPS and any special reliability assessments. In addition, the Regional Entities are to conduct self-assessments of resource adequacy and transmission constraints within their footprints.

Throughout the assessment period, the Regional Entities have supported the RAPA program area by providing Regional Entity-specific data and information for the development of NERC's seasonal, long-term, probabilistic and special reliability assessments. These continent-wide assessments are developed annually by NERC through ongoing coordination between the RAPA department and the NERC Reliability Assessment Subcommittee (RAS), a subcommittee of the NERC Planning Committee (PC).[147] The assessments are primarily based on information and data submitted by a variety of registered entities within the Regional Entities.[148] Data includes peak load (demand) forecasts, projected availability of capacity and demand-side management (DSM) resources, and existing and future transmission.[149]

The Regional Entities provide technical input to support the objectives of the RAPA department through the following ERO committees, subcommittees, and working groups:

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[145] Section 39.11(b) of the U.S. FERC's regulations provide that: "The Electric Reliability Organization shall conduct assessments of the adequacy of the Bulk-Power System in North America and report its findings to the Commission, the Secretary of Energy, each Regional Entity, and each Regional Advisory Body annually or more frequently if so ordered by the Commission."

[146] Assessment of the Regional Entities' performance in the event analysis function is provided in §IV on Reliability Risk Management, below. This §III is focused on the reliability assessment function.

[147] Information of the Reliability Assessment Subcommittee can be found at: http://www.nerc.com/comm/PC/Pages/Reliability-Assessment-Subcommittee-(RAS)-2013.aspx.

[148] Prior to 2011, data was collected and presented based on the political boundaries of each Regional Entity. Following approval by the NERC Planning Committee, assessment areas were introduced in 2011. These assessment areas were based on planning coordinator boundaries (or groups of planning coordinators), which more accurately reflect the planning and operational activities of the BPS. The eight Regional Entities are still responsible for providing reliability assessment data to NERC, but data is collected on an assessment area basis.

[149] *See* n. 155. Additional information about the assessment development process is provided in *NERC Reliability Assessment Guidebook*, version 3.1, available at: http://www.nerc.com/pa/RAPA/rg/ReliabilityGuidelines/Reliability_Assess_Guidebook_3_1Final.pdf.

- PC: The PC is a stakeholder committee chartered by NERC's Board of Trustees to proactively support the NERC enterprise mission[150] and associated NERC program areas by carrying out a broad array of technical activities and responsibilities focused on the reliable planning and assessment of the interconnected bulk power systems of North America. The PC's mission is to promote the reliability of the interconnected bulk electric power systems in North America and to assess and encourage resource and transmission adequacy. The PC also provides a forum where industry representatives and subject matter experts can address reliability, planning and adequacy issues. The PC supports NERC's reliability mission by executing the policies, directives, and assignments from the Board of Trustees and by advising the Board of Trustees on matters related to bulk electric system transmission planning, reliability, and resource adequacy.

- RAS: The RAS reviews, assesses, and reports on the overall reliability (adequacy and security) of existing and planned bulk power systems. Six meetings are held annually to support the peer review and information verification necessary for the development of seasonal, long-term, and probabilistic (biennial) assessments. These peer reviews ensure that each assessment area conforms to its own planning criteria, guides and the applicable NERC Reliability Standards. The RAS reports directly to the NERC PC.

- Performance Analysis Subcommittee (PAS): The PAS provides input to and supports the objectives of the NERC RAPA department. The PAS reviews, assesses, and reports on the state of reliability based on historical performance of bulk power systems. The key findings and recommendations of the PAS serve as technical input to NERC's Reliability Standards and project prioritization, compliance process improvements, reliability assessment, event analysis, and CIP), and ultimately supporting the *State of Reliability* report.

- Reliability Assessment Data Working Group (RADWG): The RADWG (formerly known as the Data Coordination Working Group), operates at the direction of the RAS. The primary function of the RADWG is to facilitate existing data collection efforts of the Regional Entities for NERC's seasonal and long-term reliability assessments. Additionally, this working group provides a platform for collaborative enhancements of current data collection processes to improve the accuracy, consistency, transparency, and efficiency of NERC's reliability assessment processes. Finally, the RADWG collaborates with the Department of Energy Energy Information Administration (EIA) and other governmental/regulatory agencies that conduct similar data collection efforts. The

[150] The ERO's mission is to ensure the reliability of the North American BPS. NERC achieves this mission by facilitating: industry awareness and management of risks to reliability; developing clear, reliability-focused standards; providing reliability assurance and excellence; assessing reliability performance; identifying and improving reliability models; and providing firm and fair enforcement of compliance with mandatory Reliability Standards.

goal of the RADWG is to reduce duplicative reporting requirements while promoting consistent data definitions.

B. Regional Entity Responsibilities in the Preparation of Assessment Reports

NERC annually prepares two seasonal (summer and winter), one long-term (10-year), and one probabilistic (biennial) assessment under the direction of NERC's PC and with support from the RAS. To support these assessments, each Regional Entity conducts reliability assessments for its footprint (assessment area, as described above) in accordance with guidelines provided in the *NERC Reliability Assessment Guidebook* (NERC Guidebook).[151] The NERC Guidebook is a "living document" which aims to improve consistency and transparency, to enhance granularity, and to establish a core framework for conducting independent assessments. While inherent differences in the way that the BPS is planned and operated across North America result in different approaches in conducting reliability assessments, NERC maintains a consistent framework for how the BPS is assessed in different areas. This framework includes a common set of definitions and measures for demand, resources, transfers, transmission, and resource adequacy.

Ongoing coordination between NERC and the Regional Entities occurs throughout the assessment development process. This is accomplished through monthly calls with each Regional Entity to identify Regional Entity-specific challenges in the collection of assessment data and information.

1. Reliability Assessment Data Collection

NERC collects seasonal and long-term electricity supply and demand data for the assessments areas through the Regional Entities. The data is collected through a series of forms that are developed and distributed by the RAPA department, in coordination with the RAS and RADWG. Specific seasonal and long-term data collected for the reliability assessments include: (1) peak load (demand) forecasts; (2) on-peak capacity (including DSM); and (3) transmission facilities. Although these metrics have been collected by NERC since 1968, the level of detail for each metric has grown, especially during the last decade. The data collection activities for each assessment require ongoing coordination between NERC and the Regional Entities. This coordination is executed through the RADWG and RAS to ensure that the data are accurate and consistently reported at the assessment area level.

The underlying data collection processes and planning methods also vary by assessment area or Regional Entity. These variances exist due to the inherent complexity, different corporate structures and unique history of the industry. More importantly, different attributes within each assessment area (*e.g.*, climate, resource mix, market structures) require Regional Entity-specific or assessment area-specific planning considerations. These issues are identified and addressed through the RAS and RADWG. More recently, in 2012, NERC's RAPA department instituted the development of individual Methods and Assumptions reports[152] for the long-term, seasonal, and

[151] The NERC Guidebook is available at: http://www.nerc.com/comm/PC/Pages/Reliability%20Assessment%20Subcommittee%20(RAS)/Reliability-Assessment-Guidebook.aspx.

[152] Methods and Assumptions reports are available at: http://www.nerc.com/pa/RAPA/ra/Pages/default.aspx.

probabilistic assessments. These reports, updated annually, provide detailed documentation of the planning activities and special considerations applicable to each assessment area or Regional Entity and ensure consistency across all Regional Entities.

2. Reliability Assessment Narratives

NERC's seasonal, long-term reliability, and probabilistic assessments include information from each assessment area (or Regional Entity if prior to 2011). Similar to the data collection process (described above), the NERC RAPA department coordinates the collection of assessment information through the RAS. Specifically, narrative guides (or questionnaires) are developed annually, with RAS input, to assess future resource adequacy and identify potential NERC-wide or Regional Entity-specific reliability issues. Narrative guides for the seasonal, long-term, and probalistic assessments are distributed to each Regional Entity several months prior to the data submittal due date to NERC.

The assessment areas submit their self-assessments (in response to the narrative guides) to NERC through the Regional Entities. Each Regional Entity's self-assessment is then distributed to RAS members from other Regional Entities for an in-depth and comprehensive review of the data and information. Peer reviewer comments are discussed with Regional Entity and assessment area representatives, and refinements and adjustments are made, as needed. The Regional Entity self-assessments are then subjected to scrutiny and review by the entire RAS. This peer review process provides an essential check and balance to ensure the validity of the information provided for each assessment. It also provides a mechanism for the members of the RAS to become fully convinced that each Regional self-assessment is accurate, thorough, and complete. Regional Entity representatives are able to examine and better understand planning methods and assumptions in other Regional Entities while also critiquing these processes or identifying potential gaps or shortfalls. Finally, the peer review also ensures consistency of methods and assumptions so that reliability evaluations are uniform.

Following the peer review process, the NERC RAPA compiles all Regional self-assessments into a single draft report, which is reviewed by the NERC Operating Committee (OC), the Member Representatives Committee (MRC), and NERC senior management. The report ultimately requires NERC PC approval before it is submitted to the NERC Board of Trustees for final approval. This comprehensive vetting process promotes the development of independent assessments with heavy coordination among Regional Entity stakeholders.

C. Regional Entity Responsibilities in the Preparation of State of Reliability Reports

NERC annually produces a *State of Reliability* report that provides NERC's independent view of ongoing BPS trends to objectively present an integrated view of reliability performance. The key findings and recommendations serve as technical input to NERC's processes for risk assessment, Reliability Standards projects prioritization, compliance process improvements, event analysis, and CIP activities. The analysis of BPS performance developed as part of the report provides an industry reference of historical reliability, offers analytical insights regarding industry action, and enables the identification and prioritization of specific steps that can be taken to manage risks to reliability. The data that are analyzed to produce the *State of Reliability* report are

submitted by entities across North America. Each Regional Entity is responsible for reviewing the data submitted by entities in its respective region for completeness and accuracy. Once this review is complete, the Regional Entity staff informs NERC staff that the data are ready for analysis.

D. Regional Entity Responsibilities in the Collection of Data for NERC Reliability Databases

The NERC Board of Trustees has approved mandatory data reporting concerning conventional generating units, transmission outages, and demand response availability. NERC collects this data using its Generating Availability Data System (GADS), Transmission Availability Data System (TADS), and Demand Response Availability Data System (DADS) databases. This unique series of databases is used to collect, record, and retrieve operating information tracking, reporting, analyzing, and improving the reliability performance of the BPS. Regional Entity staff work with NERC staff to ensure the data submitted by entities is timely, complete, and accurate.

E. Regional Entity Resources Budgeted for Reliability Assessment and Performance Analysis During the Assessment Period

During the assessment period, each Regional Entity increased its budgeted direct expenses and its budgeted FTE staffing for its RAPA program. The following table shows the amounts of direct expense budgeted by each Regional Entity for its RAPA program in its 2009 and 2014 Business Plans and Budgets as filed with the Commission:[153]

Regional Entity	2009 Budget	2014 Budget	Percent Increase
FRCC	$918,744	$1,270,439	38.3%
MRO	$982,029	$1,329,480	35.4%
NPCC	$1,043,610	$1,888,972	81.0%
RFC	$985,605	$2,213,282	124.6%
SERC	$528,643	$1,398,882	140.1%
SPP RE	$432,558	$1,345,065	211.0%
Texas RE	$365,110	$1,055,983	189.2%
WECC	$2,742,063	$6,516,514	137.7%

The following table shows the direct FTE staffing budgeted by each Regional Entity for its RAPA program in its 2009 and 2014 Business Plan and Budget as filed with the Commission:

Regional Entity	2009 Budget	2014 Budget	Percent Increase
FRCC	3.67	5.29	44.1%
MRO	4.75	6.49	36.6%
NPCC	3.90	5.83	49.5%
RFC	5.50	10.00	84.8%
SERC	4.50	7.60	68.9%

[153] WECC amounts include spending to perform work under DOE grants.

SPP RE	3.40	7.13	109.7%
Texas RE	2.20	4.75	115.9%
WECC	14.00	23.60	68.6%

F. Evaluation of Regional Entity Performance in Reliability Assessment Activities and Areas for Improvement

As the discussion in §§III.B, C, and D above makes clear, the quality of NERC's reliability assessments depends heavily on the collaborative efforts of the Regional Entities, working through the RAS. The ability of the NERC RAPA staff to identify NERC-wide highlights and key findings is heavily dependent on the submittal of on-time, complete, and accurate data and information from each assessment area and Regional Entity.

NERC has assessed the performance of the Regional Entities during the assessment period against the following criteria pertaining to the Regional Entities' roles and responsibilities:

(1) Regional Entities interface with registered entities to support and assure overall alignment with wide-area, ERO-formulated, reliability assessments and performance analyses, program design and structure, and to undertake support functions for wide-area studies and analyses and the development of specific region-centric assessments initiated by the Regional Entity to gather greater insight into a particular reliability issue.

(2) Regional Entities evaluate and provide seasonal, long-term reliability, and probabilistic assessments of the planning coordinator within their regions (assessment areas) including the data supporting the various analyses and evaluations of anticipated reliability conditions.

(3) Regional Entities compile interconnection-wide, steady-state and dynamic models of the registered entities within their regions that have been developed by the applicable planning coordinators consistent with the program design and structure.

(4) Regional Entities perform the data gathering function for certain performance analysis data efforts, assuring integrity, quality, and timeliness of the underlying data, and using data-gathering quality control procedures, forms and reporting mechanisms provided by NERC.

(5) Regional Entities provide technical resources and expertise in support of strategic plan initiatives, aligning budget and resource process proposals that maximize the efficiency and effectiveness of the overall ERO enterprise on technical, analyses, IT and program approaches.

(6) Regional Entities manage their technical participation in applicable ERO committees and sub-groups in alignment with overall strategic objectives and the RAPA program structure and design while minimizing duplication and the overlap with SMEs and technical groups.

(7) Regional Entities coordinate with registered entities and provide technical resource support to wide-area analysis of technical issues (oscillations, frequency, modeling, system protection, BES, etc.) that involve joint efforts.

(8) Regional Entities support the development and implementation of major projects and initiatives (*e.g.*, application of the BES definition), process exceptions requests, implement compliance, registration and standards applicability activities, and arrange Regional Entity processes for consistent use within North America.

(9) Regional Entities manage the relationship with registered entities with respect to RAPA program deliverables and objectives, including data and analytic assembly quality, integrity, and timeliness.

(10) Regional Entities collect misoperation data in fulfillment of obligations in PRC-004-2.1a, Requirement R3. The Regional Entities, in conjunction with their respective protection system subcommittees, analyze the data to determine trends and recommendation actions.

Based on its review of the Regional Entities' performance in Reliability Assessment during the assessment period, NERC makes the following observations:

(1) All Regional Entities conduct Reliability Assessments in general accordance with the NERC Guidebook.

(2) NERC supports and collaborates with Regional Entity staff through stakeholder committees to ensure consistent execution of delegated functions. In addition, the Regional Entities directly collaborate and communicate with registered entity personnel when conducting reliability assessments. Together, NERC and the Regional Entities have maintained a common framework for assessing the reliability of the BPS.

(3) Further improvements in data checking and validation processes are needed. Regional Entities are leading and participating in the development of the NERC Reliability Assessment Data System (RADS). While this automated data system is still under development, significant improvements to data collection and validation have already been made at the Regional Entity level to support RADS in 2015.

(4) Each Regional Entity reviews the data submitted by registered entities for completeness and accuracy in TADS, DADS, and GADS. Once the review is complete, the Regional Entity informs NERC that the data is ready for analysis. The Regional Entities have typically met these expectations.

(5) In the future, some Regional Entities may need more resources in the future to support evolving assessment approaches. More granular reliability assessments, which are expected through the course of increased evaluations of high-priority emerging reliability issues, may require additional data and information. This is true particularly in response to a changing resource mix and an evolving electricity

grid, different approaches for measuring and evaluating future reliability may be needed. Most reliability assessment data supports the measurement of resource adequacy. To support a comprehensive understanding of essential reliability services, NERC will be considering how other long-term reliability evaluations should occur and what data and information will be needed over the next several years. These efforts, along with further evaluation of environmental regulations, DSM, gas and electric interdependencies, increasing variable generation, and other emerging reliability issues, require strong support from the ERO.

(6) Some Regional Entities rely upon their member entities to perform various technical reviews. In order for Regional Entities to provide an independent review of both BPS performance and future states of reliability, Regional Entities may need increased staff participation. The need for independent review by regional staff will be greater over time given the challenges of the evolving BPS.

Based on its review, NERC makes the following recommendations for improvements:

(1) NERC and the Regional Entities should work collaboratively to develop an ERO enterprise-wide database solution to reinforce the existing structures and processes (including Regional Entity involvement) used to develop NERC assessments. An ERO-wide database solution would allow for consistent data error checking which would ultimately improve the overall efficiency across the ERO and contribute to better reliability assessments.

(2) NERC RAPA department management needs to further work on the best design for managing functional area relationships with the Regional Entities and developing better metrics to evaluate Regional Entity performance.

Going forward, NERC, in collaboration with the Regional Entities, will: (1) develop a comprehensive overarching design and set of controls, reporting requirements, metrics, and feedback mechanisms for reliability assessment activities, including the essential oversight elements listed above; (2) identify functional qualifications for performance of reliability assessment activities; and (3) adopt risk-based approaches to monitoring performance of delegated functions and providing effective feedback and coaching to continuously improve overall ERO Enterprise performance.

In conjunction with these improvement efforts, the Regional Entities should (1) continue to support NERC in the development of comprehensive functional program designs and controls (*e.g.*, performance metrics and Regional Entity assessments based on common criteria); and (2) adapt existing Regional Entity programs for reliability assessment activities to conform with emerging program designs provided by NERC (*e.g.*, ERO-enterprise wide data collection and database systems).

Many of the improvement activities described above have been initiated during the latter stages of the assessment period. In October 2013, the ERO Executive Management Group, comprised of senior management from NERC and each Regional Entity, approved a revised ERO-RAPA group charter. The purpose of the revised ERO-RAPA group charter is to provide a forum

for Regional Entities and NERC RAPA department staff to collaborate on ongoing activities that are part of the RAPA department's approved roles and responsibility. This group will facilitate the flow of information, jointly coordinate work product expectations (scope, timing, resource expenditures, schedule, etc.) and promote consistency in the final products. The ERO-RAPA group includes a staff person from each of the eight Regional Entities (selected by the Regional Entity) to provide overall coordination of assessment activities with the NERC RAPA staff. Also, the ERO-RAPA group will implement, promote, and provide strategic and tactical guidance for Reliability Assessment activities per the ERO Oversight Model.

IV. Reliability Risk Management (Situation Awareness and Event Analysis)

This §IV evaluates the Regional Entities' activities during the assessment period with respect to Reliability Risk Management. Reliability Risk Management encompasses the program areas of Situation Awareness and Event Analysis.

A. Regional Entity Progress in Identifying and Analyzing System Events and Improving Situation Awareness

Pursuant to the RDAs and the NERC ROPs, NERC and the Regional Entities collaborate to monitor present conditions on the BPS by gathering and assessing situation awareness information from registered entities.[154] The Regional Entities also assist NERC in analyzing major events, off-normal occurrences, BPS performance and BPS vulnerabilities.[155] NERC notes that as a general matter the Regional Entities have not devoted, and have not been asked to devote, a level of resources to these activities comparable to the resources devoted to compliance monitoring and enforcement and reliability assessment. However, during the assessment period, the Regional Entities as a group made significant progress in executing these duties. The primary, collaborative achievement during this period was the formalization of a voluntary ERO Event Analysis process which facilitates coordinated responses to and review and analysis of system events. As part of the formalization of the Event Analysis process, an event classification system based on event severity was developed and put into effect. During the assessment period, NERC and the Regional Entities began using the event analysis process to analyze events and disseminate lessons learned to all industry members and to Regional Entities.

Prior to formalization of the event analysis process, which brought the ERO event analysis program to a mature state, the Regional Entities interacted individually with registered entities without a coordinated ERO-wide program for information sharing. In 2010, the Regional Entities initiated a dialogue with registered entities to discuss the requirements for preparing consistently formatted event reports. ReliabilityFirst, for example, developed a series of questions and a list of Reliability Standards that registered entities could use as a guideline as they developed event analysis reports and performed internal compliance reviews.

In June 2010, NERC and the Regional Entities created the NERC Event Analysis Working Group (EAWG), which included members from every Regional Entity. The EAWG expended significant efforts to develop an ERO Event Analysis process document in coordination with industry stakeholders for use across North America. On October 25, 2010, personnel from NERC, the Regional Entities, and the EAWG commenced a field trial of the ERO Event Analysis process, and conducted a comprehensive evaluation of the field trial data. Industry engagement in the field trials was noteworthy. Using the extensive feedback received from registered entities during the field trials, the EAWG developed version 1 of the *ERO Event Analysis Process*, which went into effect on February 21, 2012.[156] In June 2012, the NERC Operating Committee approved version

[154] ROP Section 1001 (Situation Awareness). The Regional Entities' responsibilities with respect to event analysis and situation awareness are described in Section 7 of the RDAs.

[155] ROP Section 807 (Analysis of Major Events) and Section 808 (Analysis of Off-Normal Occurences, Bulk Power System Performance, and Bulk Power System Vulnerabilities).

[156] *See* the EA Program web page, available at: http://www.nerc.com/pa/rrm/ea/Pages/EA-Program.aspx.

2 of the *ERO Event Analysis Process*, and the EAWG was transitioned to the NERC Event Analysis Subcommittee. By integrating industry engagement and the collaborative review of disturbances into the ERO Event Analysis process, the EAWG improved the effectiveness, predictability, consistency, and timeliness of the ERO Event Analysis program. The EAWG has since been elevated from a working group to a subcommittee under the NERC Operating Committee. Regional Entity staff continue to actively participate in the implementation and improvement of the ERO Event Analysis program. Since October 2010, registered entities have submitted more than 325 event reports through the ERO Event Analysis program. Several lessons learned have already been shared with the industry as a result of the ERO Event Analysis program.

The ERO Event Analysis program facilitates the sharing of lessons learned from applicable system events and trends. This sharing of lessons learned provides benefits to industry in terms of enhanced reliability. The new process provides a mechanism for registered entities to complete a preliminary event report for events occurring on their system. The higher the category of the system event (based on the event classification system), the more detailed analysis the registered entity is expected to perform and to share with the Regional Entity and NERC.

During the assessment period, a major test of the Regional Entities' progress in situation awareness and event analysis occurred in connection with the February 2011 Southwest Cold Weather Event, which affected areas of New Mexico, Arizona, and Texas within the WECC, Texas RE and SPP RE footprints and was the first major Category 4 Event to occur after the current ERO Event Analysis process was put in place. Approximately 1.3 million electric customers were out of service at the peak of this event. NERC, the Commission, and the Regional Entities jointly analyzed the Southwest Cold Weather Event, conducted an assessment of previous severe winter events, published lessons learned, distributed training materials, and hosted an informational webinar to help industry members prepare for future severe cold weather events. As a result of the experience with this event, the ERO Event Analysis program was enhanced.

In addition to executing the Event Analysis process upon the occurrence of significant system events, the Regional Entities support NERC's situation awareness efforts by providing more detailed information on occurrences of interest,[157] making initial notifications of certain Regional Entity-specific occurrences, and participating in daily situation awareness conference calls and weekly event analysis meetings. The Regional Entities also code all events and present them in monthly discussions with NERC.

NERC and the Regional Entities are continuously refining the ERO Event Analysis process based on experience and as system conditions change. For example, in 2013, NERC began focusing on energy management system (EMS) outages and their impact on BPS reliability. This focus on EMS outages has resulted in the publication and dissemination of two NERC Advisories pursuant to NERC ROP Section 810 as well as multiple lessons learned. NERC and the Regional Entities also conducted a monitoring and situation awareness workshop in September 2013 to share the lessons learned and the good industry practices learned from this work.

[157] Many of these occurrences do not rise to the level of a reportable event within the ERO Event Analysis program.

An added benefit of the ERO Event Analysis process is that it has driven a significant decrease in the initiation of formal compliance investigations by NERC and the Regional Entities. The responsiveness of registered entities in providing more extensive information about BPS disturbances has enabled NERC and the Regional Entities to perform more complete compliance assessments of these occurrences, without the use of a formal compliance monitoring method.

B. Hurricane Sandy Provided a Meaningful Case Study and Test of the ERO's Situation Awareness Capabilities

During the assessment period, in late October 2012, Hurricane Sandy provided a major test of the abilities of NERC, the Regional Entities, and the registered entities to engage in large-scale situation awareness and information sharing activities during a major system event. The hurricane made landfall on the Eastern Seaboard on October 29, 2012, and caused massive disruptions to the electric power system in New York, New England, and the Mid-Atlantic states. Over the course of the event, 20,007 MW of generation capacity was rendered unavailable and the distribution system was severely damaged. Approximately 8.35 million electric customer outages were reported across the impacted area.

In preparation for Hurricane Sandy, the Regional Entities and registered entities assisted NERC in monitoring conditions on the BPS and in responding to events as necessary. For example, ReliabilityFirst, NPCC, SERC, the New York Independent System Operator (NYISO), ISO New England (ISO-NE), and PJM Interconnection (PJM), in conjunction with NERC's situation awareness team, coordinated storm preparation plans with the transmission owners, generation owners, balancing authorities, and other registered entities within the area forecasted to be impacted. Entities worked to ensure that sufficient numbers of additional field operation crews were scheduled and available to respond to the expected storm-related disruptions. Where possible, previously scheduled outages were postponed to ensure that facilities would be available over the next several days. Generators were advised of expectations during the storm, which included the potential for abnormal dispatch instructions. Blackstart units were also contacted to confirm that the units had sufficient fuel available to run for an extended duration.

A day before the hurricane made landfall, NPCC initiated a series of daily coordination conference calls. During these calls, the reliability coordinators in NPCC shared reported current and projected system status and operational challenges. These regional conference calls were an important means of monitoring and communicating events with adjacent reliability coordinators, and they continued daily throughout the storm and during the ensuing recovery efforts. In addition, gas pipelines were contacted and requested to advise ISO-NE of any special procedures or anticipated abnormal conditions in light of the impending storm. All gas pipelines implemented their hurricane preparedness plans for the Northeast region, which included checking on-site generators for compressor stations and reviewing staffing plans and facility flood plans.

Registered entities convened or participated in numerous conference calls and broadcasts. They also communicated with the mutual assistance groups to which they belonged. These calls began on October 27, 2012, and continued through the restoration effort, with some lasting though November 9, 2012. Following the storm, NPCC, ReliabilityFirst and SERC, whose footprints include the areas directly impacted by the storm, participated in a joint effort with NERC to provide an overview of the impact of Hurricane Sandy on the interconnected power systems and gather

lessons learned for storm preparation and restoration. The results of this effort are included in the *Hurricane Sandy Event Analysis Report* published by NERC in April 2014.[158]

Other Regional Entities have had the opportunity to exercise their situation awareness and information sharing processes and to demonstrate their proficiency, but not at the level that was required during Hurricane Sandy. FRCC, SERC, and SPP RE demonstrated their situation awareness processes and proficiency during Hurricane Isaac in September, 2012. ReliabilityFirst demonstrated its situation awareness processes and proficiency during the Derecho storm response in June through July 2012. Finally, WECC demonstrated its situation awareness processes and proficiency during multiple wildfires that caused transmission system disturbances in the Spring of 2013. While all of these events were smaller in scale and impact than Hurricane Sandy, the general processes used by the Regional Entities were the same and in each instance they were successfully executed.

C. Areas for Future Improvement and Enhancements

The Event Analysis Subcommittee of the NERC OC conducts an annual review of the ERO Event Analysis process. The OC receives comments from industry members on the ERO Event Analysis process and gives these comments full consideration during its annual review. Some commenters have suggested that communication and coordination between the parties involved in event analysis should be further enhanced. Examples of suggested improvements include increasing the timeliness, transparency and comprehensiveness of dissemination of information relating to event analysis and lessons learned, and streamlining the cause coding mechanism. In response, NERC is exploring the possibility of implementing enterprise information technology systems to provide efficiencies in event analysis and related reporting processes.

[158] Available at: http://www.nerc.com/pa/rrm/ea/Oct2012HurricanSandyEvntAnlyssRprtDL/Hurricane_Sandy_EAR_20140312_Final.pdf.

V. Business Planning and Budgeting, Finance and Accounting

A. Provisions of Commission Orders, the RDAs and the ROP Concerning the Regional Entities' Business Plans and Budgets and Financial Accounting and Reporting

The Commission's regulations at 18 C.F.R. §39.4(b) require that the ERO's annual business plan and budget submission include "the entire annual budget for statutory and non-statutory activities for each Regional Entity, with supporting materials, including . . . each Regional Entity's complete business plan and organization chart, explaining . . . the proposed expenditure of funds collected in sufficient detail to justify the requested funding collection and budget expenditures . . . ." The regulation further specifies that the ERO's annual budget submission "shall include the line item budgets for the activities of each Regional Entity that are delegated or assigned to each Regional Entity pursuant to §39.8." Further, in Order No. 672, the Commission stated that "The ERO must determine, at a minimum, whether each Regional Entity's proposed budget is adequate to carry out the functions delegated to it." [159]

The RDAs specify that the Regional Entity and NERC shall develop, through a collaborative process, an annual business plan and budget, in accordance with the Commission's regulations and orders and NERC business planning and budgeting policies and instructions.[160] The Regional Entity's business plan and budget is to describe the activities necessary for, and provide a budget with adequate resources for, the Regional Entity to carry out its delegated activities under the RDA. The business plan and budget is also required to show the funding sources and amounts to fund the proposed budget, including, as applicable, assessments to end users, penalty monies and other sources of funds. The RDAs further provide that NERC is to provide the Regional Entity with the form or forms, and accompanying instructions, for submittal of the Regional Entity's business plan and budget. NERC and the Regional Entities are to develop an annual schedule for preparation of the business plan and budget, and each Regional Entity is to submit its proposed annual business plan and budget for carrying out its delegated authority functions and related activities in accordance with the schedule. These RDA provisions are also reflected in Section 1103 and Section 1104 of the NERC ROP.

Additionally, the RDAs specify that NERC shall develop, in consultation with the Regional Entities, a reasonable and consistent system of accounts, with a level of detail and record keeping comparable to the Commission's Uniform System of Accounts and sufficient to allow the Commission to compare the Regional Entity's approved budget with actual results for the year.[161] The Regional Entity must follow NERC's prescribed system of accounts except where a departure is specifically allowed by NERC. Further, the RDAs require the Regional Entities to submit to NERC (i) unaudited quarterly interim financial statements, in a form provided by NERC, no later than 20 days after the end of each fiscal quarter, and (ii) audited annual financial statements,

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[159] *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006), at P 229.

[160] The RDA provisions described in this paragraph are generally found in Section 9 of each RDA.

[161] This provision is also specified in NERC ROP Section 1103.4 (NERC Budget Development).

including supporting materials, in a form provided by NERC, no later than May 1 of the following year.

The Commission has also required NERC and the Regional Entities to file annual comparisons of each entity's budget to actual results for the year. These reports (sometimes referred to as "true-up reports") are to be filed on or before May 30 of the following year. The Commission originally imposed this requirement in its order accepting the NERC and Regional Entity business plans and budgets for the year 2008,[162] and clarified the requirements for this filing in several subsequent orders. The filings are to provide a comparison of the NERC and Regional Entity budgets to actual costs incurred in the preceding year, "in sufficient detail and with sufficient explanations for the Commission to determine, by program area, the reasons for deviations from the budget and the impacts of those deviations."[163] In an order issued in June 2008, the Commission provided additional direction concerning the required contents of the Regional Entities' annual true-up reports:

> 37. To promote consistency and transparency, the Commission directs the use of certain practices and formats in future true-up filings. In particular, Regional Entities must provide a cover letter discussing major areas of actual cost-to-budget variances for all of the Regional Entity's statutory programs in the aggregate. Regional Entities should also follow NERC's template for the presentation of actual costs and budgeted costs on a program-by-program and line-item basis. Significant variances must be explained on a line-item basis with enough particularized information to clearly support each such variance. Regional Entities should refrain from using generic, program area summaries to support significant variances. The cause for each such variance should therefore be clear on its face. Further, each Regional Entity must provide an explanation of the allocation methods it used to allocate indirect costs to the direct statutory program or functional areas, as well as any allocation between any statutory and non-statutory activities.[164]

In addition, the Commission directed that in the annual true-up reports, NERC and the Regional Entities should justify any use of cash reserves as variances.[165]

B. Regional Entity Performance in Business Planning and Budgeting, Accounting and True-Up Reporting

Throughout the assessment period, consistent with the provisions of the Commission's regulations and orders, the RDAs, and the ROPs summarized above, NERC and the Regional Entities have collaboratively developing annual business plans and budgets for each year 2010 through 2014 which describe the activities and resources necessary to execute the Regional

[162] *North American Electric Reliability Corporation, Order Conditionally Accepting 2008 Business Plan and Budget of the North American Electric Reliability Corporation and Ordering Compliance Filings*, 121 FERC ¶ 61,057 (2007).

[163] *Id.* at P 23. In addition, any use of statutory funds for non-statutory activities is to be identified and an explanation provided as to how the statutory funds will be reimbursed. *Id.* at P 66.

[164] *North American Electric Reliability Corporation, Order Conditionally Accepting Compliance Filing*, 123 FERC ¶61,282 (2008), at P 37.

[165] *Id.* at P 38.

Entities' delegated authority functions and related activities. Overall, the Regional Entities have performed their responsibilities in the business planning and budgeting process in accordance with the requirements of the Commission's regulations and orders, the RDAs and the NERC ROPs. In a sense, the five-year evaluation of the Regional Entities' performance in business planning and budgeting, accounting and true-up reporting can be considered redundant because NERC and the Regional Entities engage in these activities on an annual basis (or more frequent basis for some aspects of financial reporting), which provides NERC with continuous opportunities to review each Regional Entity's performance of these functions and its compliance with procedures and requirements, and to identify and correct any deviations or deficiencies. Further, the Commission's annual review and acceptance of each Regional Entity's business plan and budget and true-up report provides an ultimate check on the Regional Entity's performance.

To provide ongoing, collaborative oversight of the business planning and budgeting and accounting and financial reporting processes, NERC and the Regional Entities have formed an ERO Finance Group comprised of representatives of NERC and each Regional Entity. The purpose of the group is to: (1) facilitate the coordination, preparation, review and approval by NERC and the Commission of the NERC and Regional Entity business plans and budgets consistent with the requirements of the NERC ROP, the RDAs, any specific requirements established by the NERC Finance and Audit Committee or Board of Trustees, and applicable statutory, governmental and regulatory requirements; (2) facilitate the coordination, preparation, review and filing of the NERC and Regional Entity business plans and budgets with Canadian and, to the extent applicable, other governmental and regulatory authorities consistent with applicable governmental and regulatory requirements; (3) collaborate and support initiatives to improve the cost effectiveness and efficiency of NERC and Regional Entity operations; and (4) provide general support to the NERC and Regional Entity executive leadership regarding such other finance and accounting matters as may from time to be deemed necessary.

Since NERC became the ERO, NERC and the Regional Entities have continuously striven for consistency and improved transparency and detail in the annual NERC and Regional Entity business plans and budgets. The ERO Enterprise business planning and budgeting processes matured significantly during the assessment period. During this period, the ERO Enterprise implemented numerous process improvements in the areas of business and resource planning, allocation and budgeting. In the development of the 2010 business plans and budgets, in particular, a number of significant improvements were adopted. NERC believes that in the preparation of the 2012 business plans and budgets, a mature, steady state was reached with respect to process, format and content. This steady state has been maintained in the development of the 2013 and 2014 business plans and budgets and the currently ongoing development of the 2015 business plans and budgets (which will be completed outside of the assessment period). A partial list of steps that have been taken to achieve consistency, transparency and appropriate levels of detail includes the following:

(1) Development, adoption and use of a common, consistent chart of accounts by all entities and the presentation of budget and financial information in accordance with the accounting system;

(2) Development and use of a consistent organization and format for the business plans and budgets and the annual true-up reports, including a common table of contents,

common and consistent information, and common and consistent format for tables and charts providing the Regional Entity's funding, budget, actual costs, and staffing information;

(3) Development and use of a common definition of administrative (indirect) costs and consistent methodologies for identifying budgeted and actual expenses as "direct" or "indirect" expenses;

(4) Development and use of a consistent methodology for allocating indirect expenses to the direct program budgets;

(5) Development and use of a consistent policy for capitalizing vs. expensing expenditures;

(6) Collaborative development, on an annual basis, of a set of detailed shared (common) business planning and budgeting assumptions to be used by NERC and each Regional Entity in preparing their individual business plans and budgets. In recent budget preparation cycles, these assumptions have been expanded from a one-year set of assumptions to a three-year set of assumptions;

(7) Development of a common set of budget metrics for each Regional Entity to present in the annual business plan and budget filings; and

(8) Introduction of a three-year budget forecast into NERC's and each Regional Entity's annual business plan and budget.

In addition, NERC and the Regional Entities jointly develop a three-year rolling *ERO Enterprise Strategic Plan* which includes goals, objectives and deliverables over the planning period and is used in the development of each entity's business plan and budget. The development and implementation of these common formats and methodologies has helped to continuously improve the efficiency of the business plan and budget preparation process and enabled NERC and Regional Entity financial and accounting staffs and senior management to devote greater attention to more substantive budget issues.

In accordance with the RDA provisions described earlier, NERC and the Regional Entities establish and publish, for each annual budget preparation cycle, a detailed schedule for preparation, review, and approval of the business plans and budgets. The annual business planning and budgeting process for a year typically begins late in the second preceding year or early in the preceding year. The schedule provides for posting of initial and revised drafts, and periods for receipt of stakeholder comments, leading up to the ultimate approval of the business plans and budgets by the NERC Board of Trustees at its August meeting and filing of the business plans and budgets with the Commission by on or about August 23 as required by the Commission's regulation. In addition, each Regional Entity goes through a posting and stakeholder review and comment process for its membership and other interested parties prior to approval of its business plan and budget by its governing body for submission to NERC. In its business plan and budget filing with the Commission, NERC provides descriptions of each Regional Entity's internal process. Over the assessment period, NERC and the Regional Entities have significantly increased

the transparency of the business plan and budgeting process, by providing numerous opportunities for stakeholder input and feedback prior to Regional Entity board and NERC Board of Trustees approval and submittal to the Commission.

NERC's oversight of the Regional Entities' business plan and budget preparation, leading up to approval of the Regional Entities' business plans and budgets, is generally focused on the following areas:

(1) An assessment of the adequacy of the Regional Entities' resources and activities being budgeted by the Regional Entity to perform delegated functions.

(2) A review of the alignment of the Regional Entity's goals, objectives and major activities to the *ERO Enterprise Strategic Plan*.

(3) A review of the quality and completeness of the financial information presented by the Regional Entities, including:

(i) Conformance with the Commission's budget reporting requirements;

(ii) Separation of statutory and non-statutory activities;

(iii) Supporting detail for projections; and

(iv) Working capital and operating reserve budgets, projections, policies and controls.

(4) A review of the Regional Entities' efforts to improve efficiency and control costs.

Throughout the budget review process, where appropriate, NERC requests additional information and recommends changes. As needed, NERC and Regional Entity management and finance staffs convene meetings and conference calls to provide feedback and to refine their respective business plans and budgets. In addition to reviewing and providing feedback to the Regional Entities, NERC management considers other relevant information when reviewing the Regional Entity budgets, such as the findings and recommendations contained in the audits the Commission has conducted of NERC and the Regional Entities.

During the assessment period, the Regional Entities also performed in accordance with requirements with respect to financial reporting, including the preparation of the annual true-up reports. During the assessment period, NERC and the Regional Entities have significantly increased the transparency and content of quarterly and year-end actual-to-budget variance reporting to the Finance and Audit Committee of the NERC Board of Trustees. In general, the Regional Entities have consistently submitted their unaudited quarterly financial reports on a timely basis as required by the RDAs. With respect to the annual true-up reports, NERC and the Regional Entities developed a common, consistent format for these reports complying with the Commission's directives. The format consists of (i) a cover letter identifying major areas of actual cost to budget variance for each program and providing the other information specified by Commission orders (*e.g.*, whether any statutory funds were used for non-statutory activities, the Regional Entity's use of cash reserves and change in its working capital position); (ii) tables

comparing on a line-item basis actual to budgeted expenditures on a total statutory basis and (if the Regional Entity also has non-statutory activities) total company basis; and (iii) tables comparing on a line-item basis actual to budgeted expenditures for each of the Regional Entity's direct statutory programs and its administrative (indirect) programs, with narrative explanations provided for line-item variances that exceed $10,000 or 10% of budget. In general, the Regional Entities have submitted their audited annual financial reports and their draft true-up reports to NERC on a timely basis to allow for NERC to review and provide any feedback and the reports to be filed with the Commission by the May 30 deadline. In addition, NERC and the Regional Entities have developed a set of administrative cost metrics to be presented to the Commission as part of the annual true-up report filing.