

Key Compliance Assurance and Enforcement Metrics

Action

Information

Background

On a quarterly basis, NERC provides the Board of Trustees Compliance Committee (BOTCC) an update on key compliance assurance and enforcement metrics and trends. The instant report focuses on the ERO Enterprise's implementation of the risk-based compliance monitoring and enforcement program (CMEP)¹ in the first quarter of 2015 (Q1 2015). This report includes information on the continued growth of the self-logging program and the appropriate utilization of compliance exceptions and other disposition tracks. In addition, this report describes metrics and trends, which were developed with input from an industry advisory group and coordination with the Regional Entities, focused on the implementation of Inherent Risk Assessment (IRA) and Internal Control Evaluation (ICE) activities. Finally, this report provides an update on processing-related goals and metrics in 2015 and other relevant trends.²

Success Factors

In November 2014, NERC management identified a number of success factors to be measured over the course of 2015 in connection with the implementation of the risk-based CMEP.³ NERC, in coordination with the Regional Entities, collects information related to each measurement and will, over the course of the year, determine the appropriate benchmarks and possible targets for future years, and identify refinements to these metrics, as appropriate. Each metric described in

¹ Refer to the Overview of the Risk-Based Compliance Monitoring and Enforcement Program document that describes the Framework referenced in this report, located here:

<http://www.nerc.com/pa/comp/Reliability%20Assurance%20Initiative/Overview%20of%20the%20ERO%20Enterprise's%20Risk-Based%20CMEP.pdf>.

² Although the focus of this report is the implementation of the risk-based CMEP, NERC continues to track and report on processing metrics. Results for the first quarter of 2015 are found at the appendix, at the end of this report.

³ The seven success factors are:

1. ERO Enterprise Staff Competency (competency and perception): ERO Enterprise staff performing key activities are trained and competent in their areas of responsibility, such as risk assessment, audit, internal controls evaluation, and enforcement, and are regarded by registered entities as being well-qualified in their roles
2. Information and Outreach: Registered entities have the information they need—through outreach, program transparency, and sharing of best practices—to prepare for engaging with the Regional Entities and NERC in the risk-based compliance and enforcement activities.
3. Consistency: The common tools, processes, and templates used by Regional Entities for risk-based compliance activities with registered entities are consistent on matters where consistency is important, and NERC has adequate oversight of that interface.
4. Regulator Trust: The ERO Enterprise has strengthened the trust of the Federal Energy Regulatory Commission (FERC) and applicable Canadian government authorities regarding risk-based compliance and enforcement.
5. Balanced Transparency: An appropriate level of transparency has been determined for various facets of risk-based compliance and enforcement, balancing efficiency and the confidentiality needs of a registered entity with the needs of industry as a whole to learn from others (e.g., transparency of compliance exceptions and aggregation logs, as well as feedback to each entity regarding inherent risk or internal controls evaluation).
6. Metrics Identified: Metrics are identified for key expected results from risk-based compliance and enforcement and benchmarked for 2015.
7. Recognized Value: The value of risk-based compliance and enforcement of registered entities is of demonstrable value to the consuming public and can be clearly and publicly articulated.

this report may support more than one of the 2015 success factors. In addition to the measures and metrics described below, NERC and the Regional Entities continue to measure qualitatively the implementation of the risk-based CMEP activities.

Finding and Analyzing Publicly Available NERC Enforcement Data

In addition to periodic reports such as this, NERC makes a significant amount of enforcement data and analyses available on its website and updates them regularly. An August 2013 [presentation](#) explains how to navigate the enforcement pages and analyze enforcement data.⁴

The publicly available data includes searchable lists of all Notices of Penalty (NOPs), Spreadsheet Notices of Penalty (SNOPs), and Find, Fix, Track, and Report (FFT) issues processed since the inception of these enforcement mechanisms. Recently, NERC added a searchable list of compliance exceptions on its [website](#). In addition to this quarterly compliance analysis, annual reports associated with the CMEP also are available on NERC's website.⁵ Filings made with the Federal Energy Regulatory Commission (FERC) and the associated orders are also regularly posted [online](#).

Questions regarding finding publicly available NERC enforcement data can be sent to enforcement@nerc.net.

⁴ NERC plans to update the Compliance and Enforcement pages in 2015. At that time, the presentation also will be updated.

⁵ <http://www.nerc.com/pa/comp/Resources/Pages/default.aspx>

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Metrics and Key Trends Related to the Implementation of the Risk-Based CMEP

The ERO Enterprise Has More Registered Entities Self-Logging

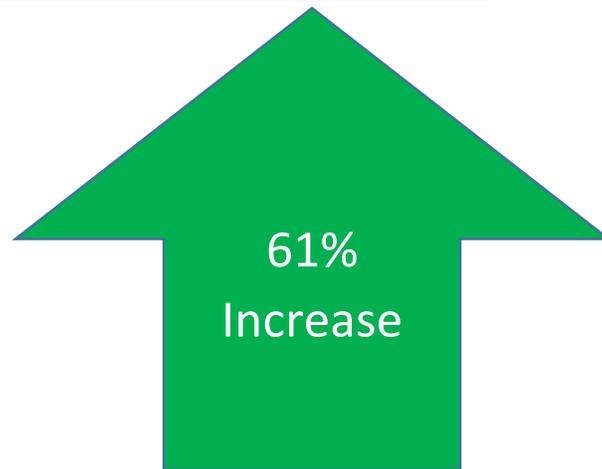


Figure 1: A Strong Increase in Registered Entities that are Self-Logging in Q1 2015

As part of implementing risk-based compliance and enforcement, NERC initiated the self-logging program. As of March 2015, 37 Registered Entities are self-logging.⁶ The ERO Enterprise determined that 14 new registered entities were eligible to self-log in Q1 2015 representing a 61% increase in participation. Of the registered entities that are approved for self-logging, seven of them are registered as Balancing Authorities, one is registered as a Reliability Coordinator, and 13 are registered as Transmission Operators. The registered entities that are self-logging were found to be eligible by the appropriate Regional Entity. As previously indicated, in 2015, NERC will conduct a review of the implementation of the self-logging program.

In response to the FERC Order on the risk-based CMEP in February 2015, the Regional Entities are developing formal criteria on how to evaluate a registered entity's internal controls. This process is expected to be complete in May 2015.

As to entities in the program, the properly mitigated minimal risk issues that the registered entity tracks on its log are presumed to be resolved as compliance exceptions. The self-logging program allows those registered entities to keep track of minimal risk noncompliance (and their mitigation activities) on a log that is periodically reviewed by the Regional Entity.

The ERO Enterprise Has Appropriately Treated Instances of Noncompliance Posing a Minimal and Moderate Risk as Compliance Exceptions and FFTs, Respectively

In Q1 2015, out of 196 instances of noncompliance posing a minimal risk to the reliability of the bulk power system (BPS), the ERO Enterprise disposed of 127 (65%) as compliance exceptions⁷ (See Figures 2 and 3 below). The compliance exception disposition track allows the Regional

⁶ [Self-Logging of Minimal Risk Issues Program Overview](#).

⁷ A compliance exception is essentially an evolution of the FFT program to resolve minimal risk noncompliance through a streamlined processing track outside of an enforcement action under section 5.0 of the CMEP. There are two ways that a noncompliance can qualify for compliance exception treatment. One is on a case-by-case basis; an individual issue is deemed to have posed a minimal risk to the reliability of the BPS and does not warrant a penalty. This discretionary treatment is available for any qualified minimal risk issue, regardless of the registered entity or discovery method. In addition, the resolution of any noncompliance, including whether it may be resolved as a compliance exception, is based on a review of specific facts and circumstances.

Entities to dispose quickly of noncompliance posing a minimal risk so that they can focus attention on noncompliance posing a moderate or serious risk.

The Regional Entities treated the other noncompliance posing a minimal risk as FFTs, SNOPs, or NOPs based on the underlying facts and circumstances, as discussed below. The Regional Entities also used the FFT disposition method as appropriate for most of the noncompliance posing a moderate risk in Q1 2015. See the Appendix for additional detail regarding these instances of noncompliance.

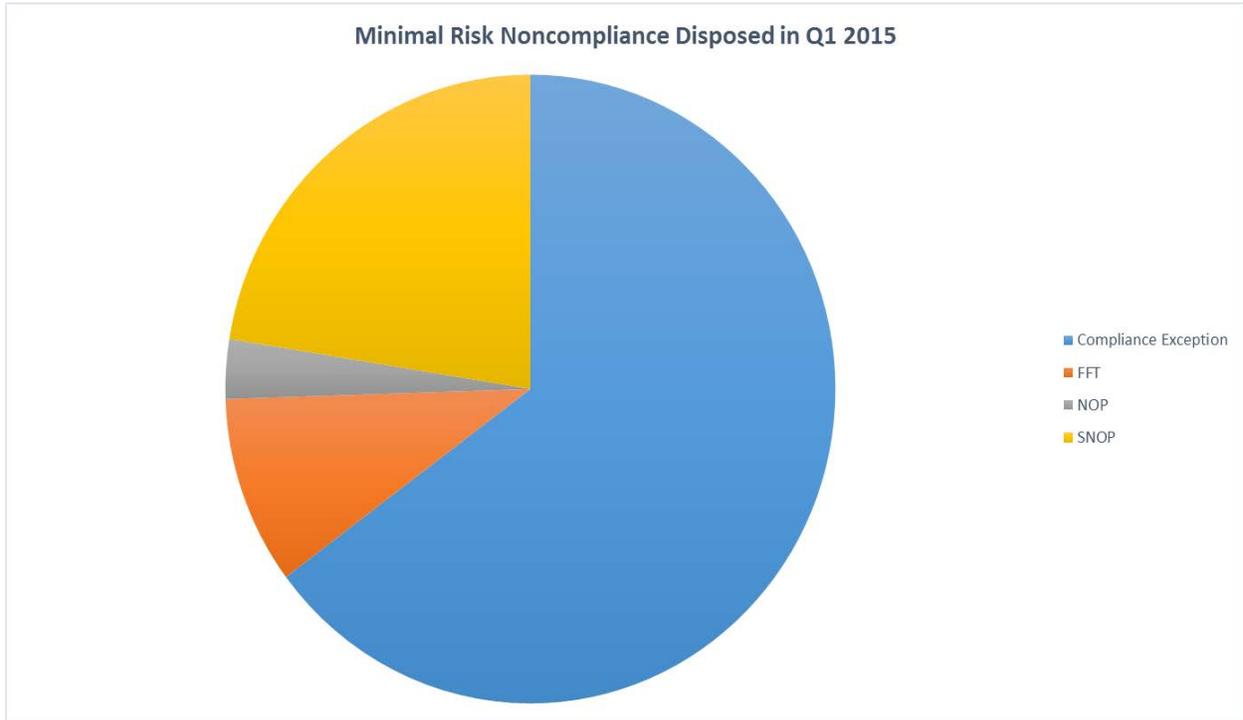


Figure 2: Strong Usage of the Compliance Exception in Q1 2015

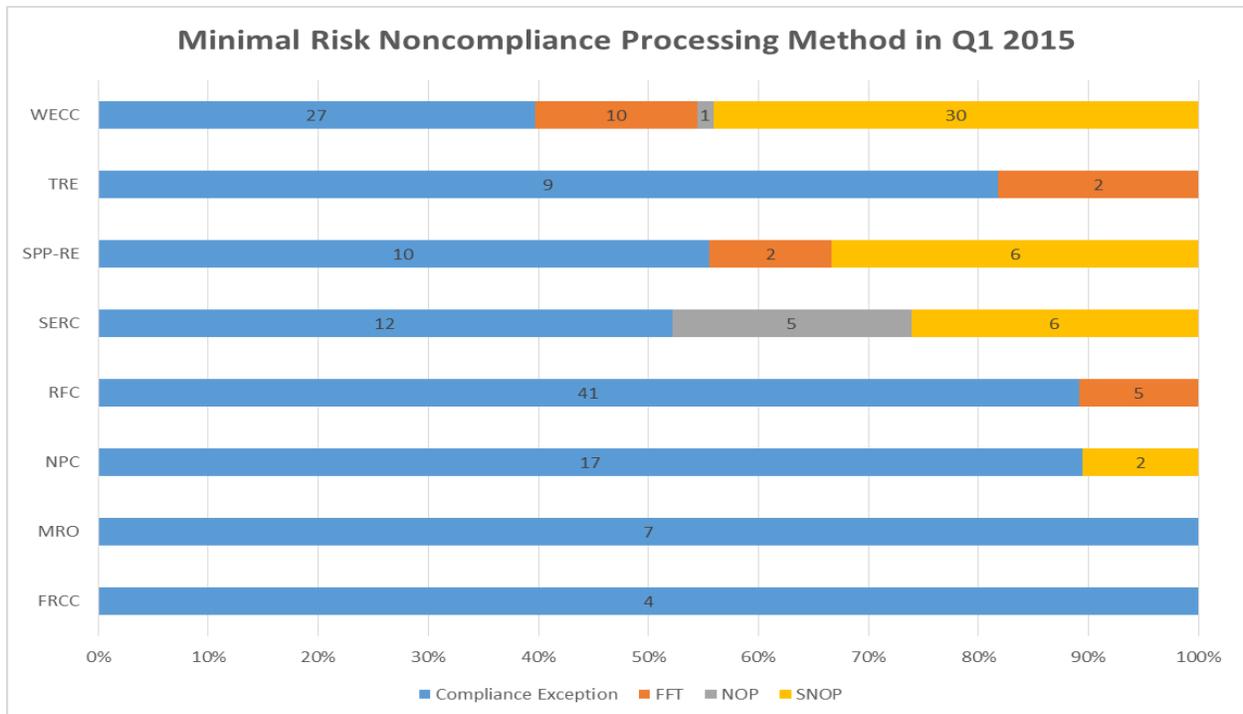


Figure 3: All Regional Entities Are Using Compliance Exceptions

The ERO Enterprise Staff Received Risk-based Compliance Training and Education Focused on IRAs and ICEs

NERC and the Regional Entities recognize the importance of staff training and education to help support implementation of consistent IRA and ICE processes. This metric reports on the NERC-led ERO Enterprise staff training conducted during the reporting period of Q4 2014 through Q1 2015. Q1 2014 was an important time for implementation of the IRA and ICE Guides and rollout of risk-based compliance monitoring activities, which is why it is included in this initial compliance monitoring metric report. This metric provides information on staff attendance, areas of competency and content, and attendee satisfaction rates in relation to whether the training is relevant to attendees' roles and responsibilities in compliance monitoring.

At the start of the ERO Enterprise's implementation of risk-based compliance monitoring activities, NERC and the Regional Entities developed a two-phased training approach. Phase One activities began in Q4 2014 following the finalization of the ERO Enterprise IRA and ICE Guides and continued into Q1 2015. During Phase One, training activities focused heavily on CEA staff primarily responsible for IRA and ICE activities, as well as providing education on IRA and ICE to other CEA staff. Phase Two will incorporate lessons learned and other examples obtained throughout actual application of IRA and ICE, and it will provide a continued assessment of education needs to support the ERO Enterprise training program.

During the reporting period, NERC and the Regional Entities completed Phase One training and also began Phase Two training. Phase Two training activities represent the continued training and education needed to support the transformation of risk-based compliance monitoring and consistent operation of Regional Entities to implement IRA and ICE. The information provided on this metric reflects Phase One and Two training and education activities that occurred during the reporting period of Q4 2014 through Q1 2015. Going forward, NERC will continue to report on ERO Enterprise training and education activities each quarter.

To date, there were three training and education events held for NERC and Regional Staff. First, as part of the Phase One training, NERC and the Regional Entities held three, 16-hour in-person training sessions focused on Regional Entity staff primarily responsible for IRA and ICE activities. Ninety NERC and Regional Entity staff attended the three training sessions. In addition, three FERC staff members attended as observers. Secondly, NERC and Regional Entity staff held two webinars for other CEA staff who are not directly responsible for IRA and ICE processes, which included Regional Entity management, audit, legal, and enforcement staff. Lastly, NERC and the Regional Entities coordinated with a group of industry stakeholders to arrange an educational exercise in February 2015. The purpose of this exercise was to help educate NERC and Regional Entity staff and industry participants on the perspective of scaling ICE processes for smaller, low-risk registered entities, and to help NERC and the Regional Entities obtain a better understanding of how small entities identify, evaluate, and document internal controls. All eight Regional Entities, plus NERC staff, participated in the exercise in addition to the 12 industry stakeholder participants in attendance. Regional Entities had 100% participation at the first three training and education events.

During all training and education activities, key competency areas and learning objectives were identified and related to major content areas from the IRA and ICE guidelines. For each learning objective, more detailed, specific training material, discussions, and activities were developed and addressed during the training activity. Figure 4 below identifies the number of hours for each

event by competency area. The competency areas reflected below are currently being reviewed by NERC and the Regional Entities for incorporation into an enhanced version of the ERO Enterprise Compliance Auditor Capability and Competency Guide (Competency Guide). The name of the Competency Guide and content will be updated to reflect the transition to risk-based compliance monitoring.

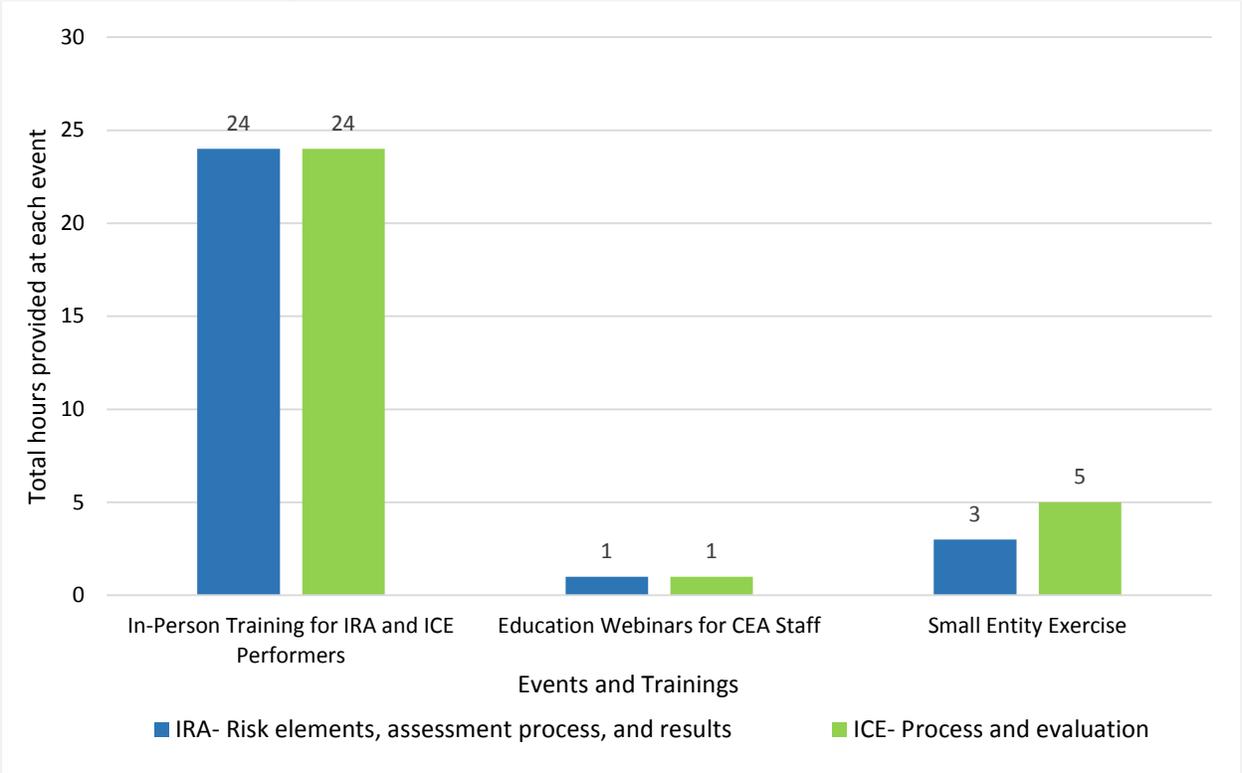


Figure 4: Training and Education Hours by Competency Area by Event

Following each of the training and education events, a survey was distributed to obtain information on the general satisfaction, delivery method, content, and overall value participants felt they gained from the sessions. Based on the survey results for the first two events, shown in Figure 5 below, and discussions following the third event on the small entity exercise, key takeaways include:

- Overall, staff believe that the training objectives, content, materials, and delivery was valuable and relevant to their job roles and responsibilities.
- Ongoing training and education needs may vary based on Regional Entity and role of Regional Entity staff.
- In-depth examples tailored toward predefined competencies and skills and lessons learned from IRA and ICE implementation are useful to the training.
- Continued interest in internal control training on foundational principles, design, testing, and documentation.

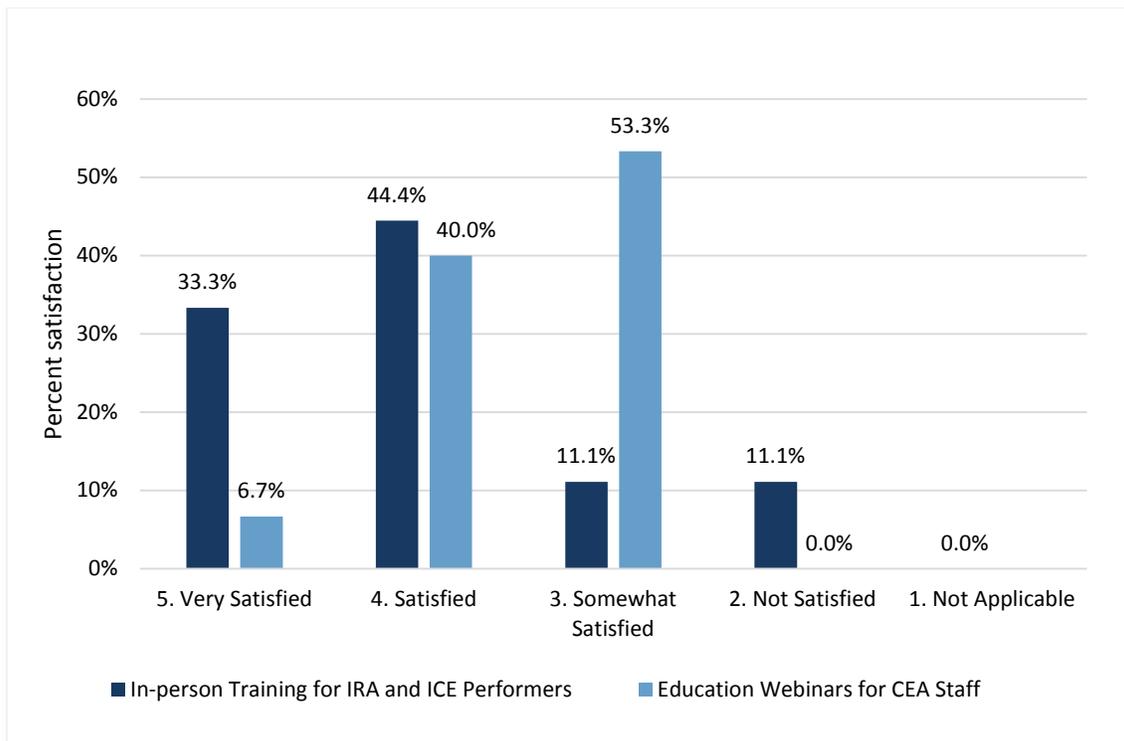


Figure 5: Regional Entity Participant Satisfaction with Content and Delivery

During Q2 2015, NERC and the Regional Entities are planning other training and education events, such as the Fall 2015 ERO Enterprise CMEP Workshop and an instructor-led internal control course to continue the training and education program on risk-based compliance monitoring and enforcement activities. Further, NERC and Regional Entity staff are working toward a more formalized and enhanced training and education program for risk-based compliance monitoring. This training and education program will be coordinated with the NERC Training Department and use existing software and tools, like the ERO Enterprise Learning Management System to develop training modules for functional roles and track individualized training and education across the ERO Enterprise.

The ERO Enterprise Conducted Multiple Industry Outreach Events for Risk-based Compliance Monitoring and Enforcement

This metric reports on the number of industry outreach activities completed by the ERO Enterprise and includes activities such as webinars, workshops, and bulletins. This metric also provides results from post-outreach event surveys that will support ongoing and continued outreach.

During Q4 2014 and Q1 2015, the ERO Enterprise hosted a series of three outreach events. The three outreach events, occurring on November 6 and 20, 2014, and March 5, 2015, included ERO Enterprise staff and industry panelists presenting on risk-based topics. The outreach events provided continued communication and education to industry stakeholders on the ERO Enterprise's transformation to risk-based compliance monitoring and enforcement activities. During these events, presentations were given by NERC, Regional Entities and panels of industry stakeholders. For each event, two options were available for attendance, either in-person or dial-in to a listen-only webinar.

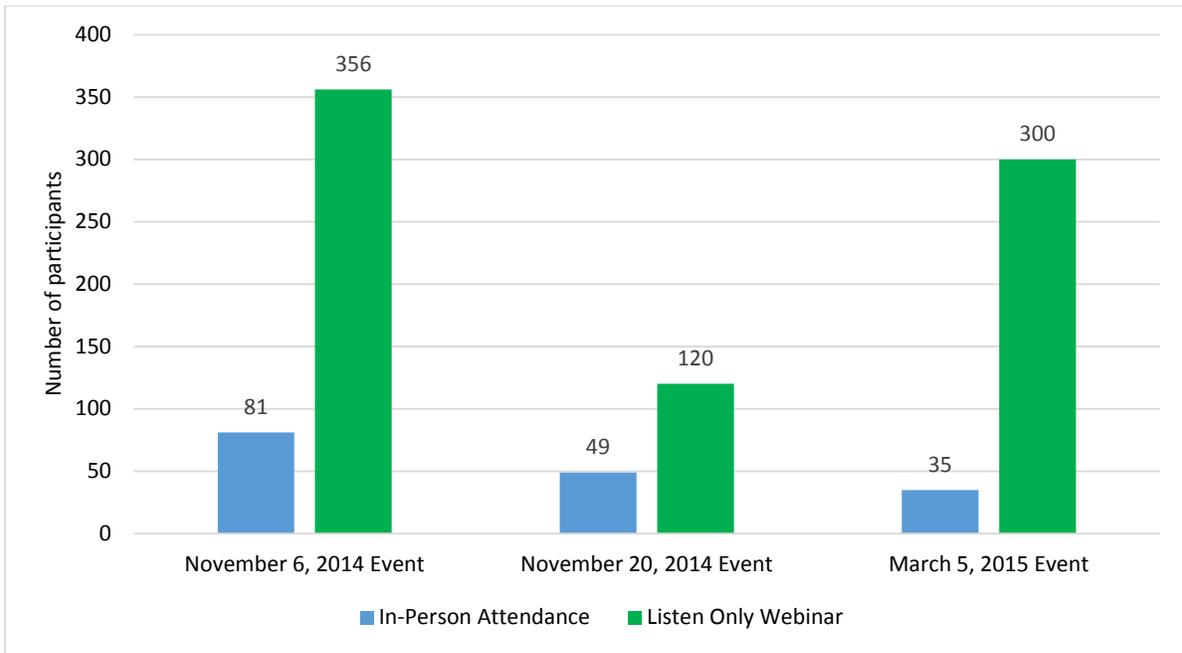


Figure 6: Total Participation in ERO Enterprise Industry Outreach Events

Figure 7 below is a summary of outreach events and correlating satisfaction results. NERC and the Regional Entities will use the survey results to evaluate future outreach needs in 2015.

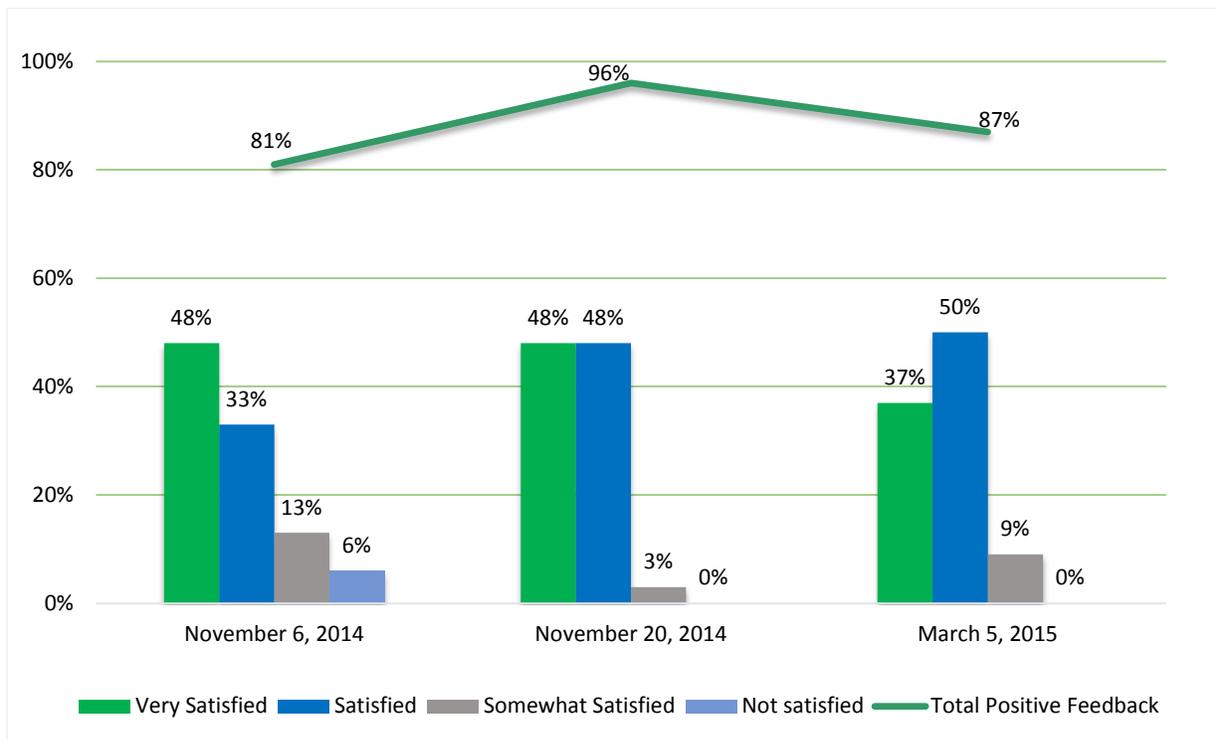


Figure 7: ERO Enterprise Industry Outreach Event Satisfaction by Event

Participants noted that all the events provided an opportunity for industry stakeholders to share examples, tips, and techniques for how registered entities can prepare for future interactions with risk-based compliance monitoring and enforcement activities. Stakeholders also found that the industry panels addressed some areas of concern regarding expectations for participating in IRA and ICE processes and allowed industry to hear different viewpoints from various involvement in on-going risk-based compliance monitoring and enforcement activities.

Key takeaways from Q4 2014 and Q1 2015 outreach events include:

- Participants provided positive feedback regarding participation by small entities in the stakeholder panels to demonstrate scalability in risk-based activities.
- Events encouraged open and honest dialogue and allowed stakeholders to ask questions and hold further group discussions on the matters of concern.
- Stakeholders would like to have all Regional Entities represented at future events to get a better understanding of regional activities.
- Stakeholders found the risk-based messaging comprehensive and appreciated the open communication.
- Stakeholders appreciated the knowledge shown by the presenters and industry panelists regarding the Framework and each of its components (Risk Elements, Inherent Risk Assessment, etc.)
- Stakeholders raised concerns over the time and resources required to complete IRA/ICE activities and expectations for ICE evidence.
- Participants from smaller, lower-risk registered entities would like to receive additional information on expectations and scalability of ICE concepts and expectations.

In the past two quarters, Regional Entities also conducted several meetings, conference calls, webinars, and workshops to address industry’s questions and concerns over risk-based compliance monitoring and enforcement. All key elements and region-specific subjects of compliance monitoring and enforcement were discussed in the workshops with participation ranging from 80 to 200 industry participants. The webinars provided a platform to discuss specific risk-based subjects such as Self-Logging, IRA and ICE process, etc. Figure 8 below summarizes outreach events, which included risk-based focused sessions held by Regional Entities.

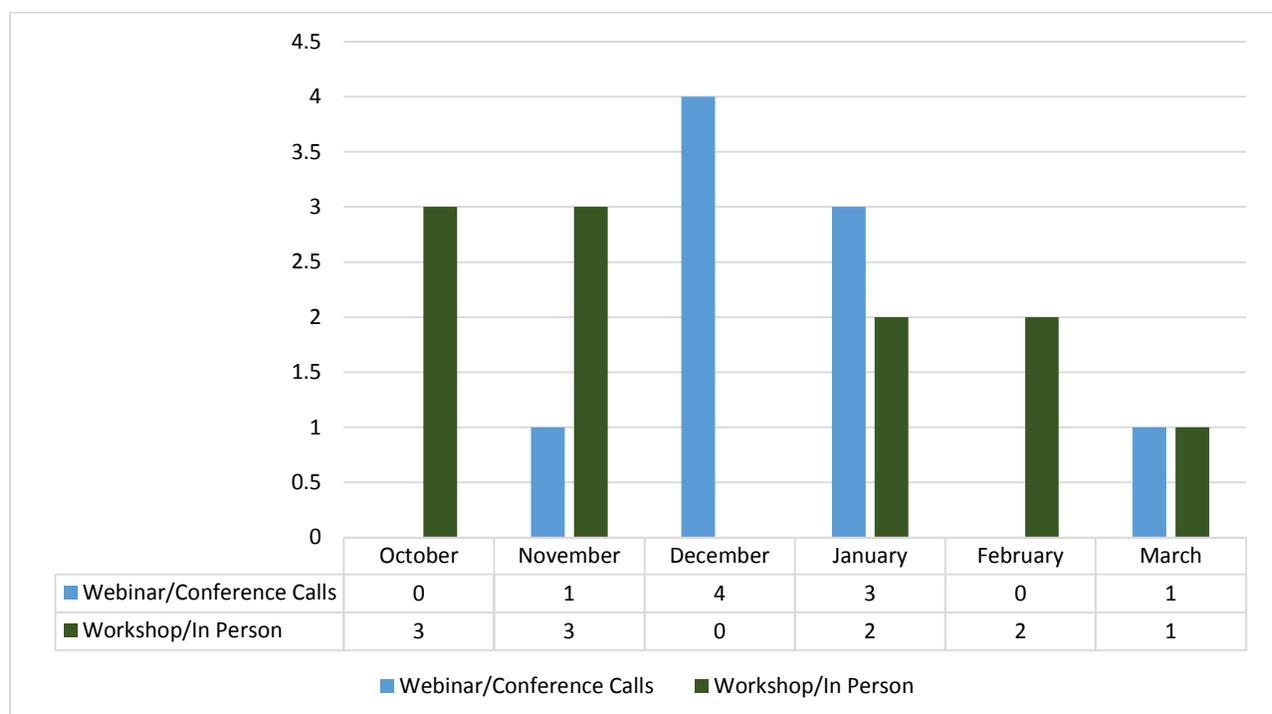


Figure 8: Regional Entity Industry Outreach Events Summary

Based on the feedback received, NERC and Regional Entities will continue to conduct outreach activities that focus on self-logging, compliance exceptions, risk elements, frequently asked questions, and examples of completed IRA and ICE summaries. NERC and the Regional Entities plan to host another face-to-face outreach event in the fall of 2015. Additionally, as a part of ongoing outreach activities, NERC and the Regional Entities will host a monthly webinar series on the 2015 risk elements and their associated areas of focus for compliance monitoring as reflected in the 2015 CMEP Implementation Plan.⁸

The ERO Enterprise Completed IRAs and ICEs during Q1 2015

This metric tracks the completion of IRAs and ICEs for registered entities across the ERO Enterprise. The purpose of this metric is to demonstrate the ERO Enterprise's progress in implementation of risk-based compliance monitoring.

There are 196 registered entities scheduled to be audited in 2015 in the United States. As shown in Figure 9, 115 of those entities had completed IRAs.

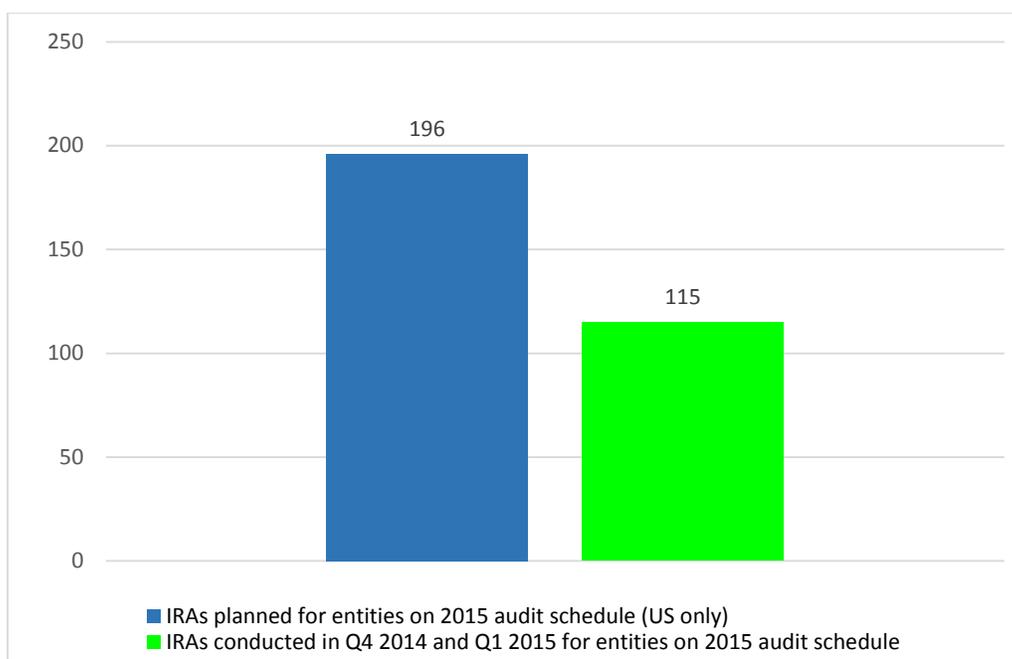


Figure 9: Number of IRA Planned for Registered Entities on 2015 Audit Schedule Compared with IRA Completed by Q1 2015 in ERO Enterprise

Figure 10 shows that before the end of Q1 2015, Regional Entities had completed IRAs for six percent of registered entities in the US. Regional Entities will continue conducting IRAs in order to develop a risk profile of all registered entities within the ERO Enterprise registry.

⁸ This outreach activity is also in support of the 2015 ERO Enterprise Metric 4: Program Execution Effectiveness, Sub-metric B.

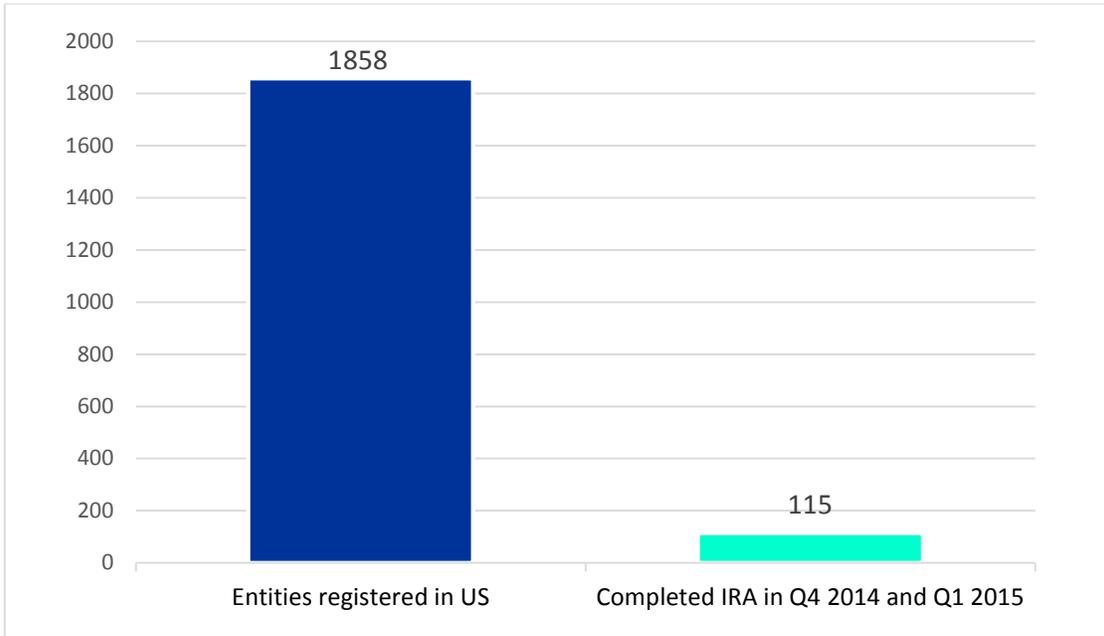


Figure 10: Total Number of IRAs Completed for Registered Entities in US

Regional Entities have completed seven ICE evaluations following 77 IRAs completed in Q1 2015 as shown in Figure 11 below. Additional ICE evaluations are in progress or are in planning stages. Although ICE evaluations are optional, during the initial implementation of the risk-based Compliance program, Regional Entities offer ICE separately or in conjunction with all 2015 IRA evaluations. A registered entity interested in an ICE may also contact its Regional Entity to request an ICE evaluation. ICE evaluations outside the Regional Entity’s current work plan will be scheduled and planned based on availability of Regional Entity resources.

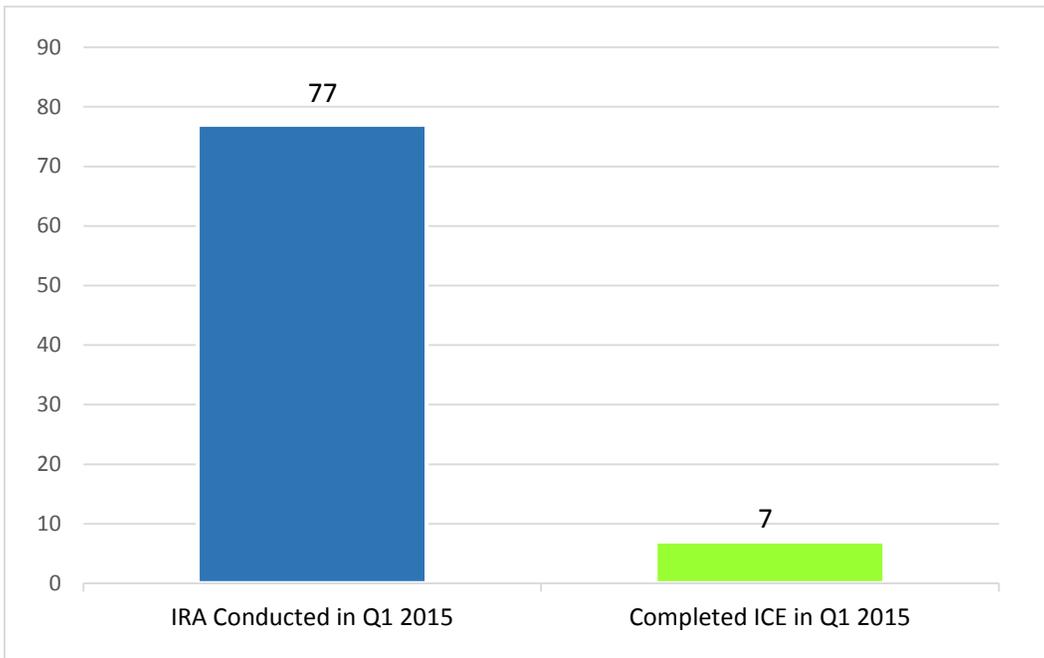


Figure 11: Number of ICE Conducted after Completion of IRA in Q1 2015 in ERO Enterprise

IRA and ICE Had an Impact on 2015 Audit Schedules

This metric will track how a registered entity's IRA and ICE affects a scheduled audit. Specifically, this metric will help illustrate whether an IRA or ICE leads to a modification to a regional audit schedule and an alternate monitoring method.

Of the 118 entities scheduled for an audit in 2015 that also had a completed IRA evaluation, 23 were removed from the audit schedule. In 17 cases, the Regional Entity recommended modification to the Registered Entity audit frequency. In 22 instances, the Regional Entity determined Self-Certification as the appropriate monitoring method for the year.

Although Q1 is the initial phase of the program implementation, the above numbers demonstrate the initial impact of IRAs to monitoring methods.

Metrics and Key Trends Related to Mitigation and Self-Identification of Noncompliance

Noncompliance is Being Mitigated Timely

As of Q1 2015, the ERO enterprise is ahead of schedule with mitigation implemented for 43% of noncompliance discovered in 2014. The ERO Enterprise is also actively mitigating older noncompliance. Mitigation of noncompliance is essential to the ERO Enterprise's mission. The ERO Enterprise created mitigation metrics to ensure timely completion of mitigating activities. As such, the objective of the Mitigation Completion Status metric is to promote timely mitigation of all noncompliance, which reduces risk to the BPS (See Figure 12 below). The mitigating activity completion metric tracks the completion of Mitigation Plans and mitigation activities for all noncompliance.

The table below shows the ERO Enterprise's targets and thresholds for mitigating activity completion by discovery year of the noncompliance.

Time frame	Required Mitigation	On going	Progress toward the Target	Threshold	Target
2010 and older	4182	31	99.26%	98%	100%
2011	1742	80	95.41%	95%	98%
2012	1461	114	92.20%	90%	95%
2013	1169	233	80.07%	75%	80%
2014	990	560	43.43%	75%	80%

Figure 12: Mitigation Completion Status Table

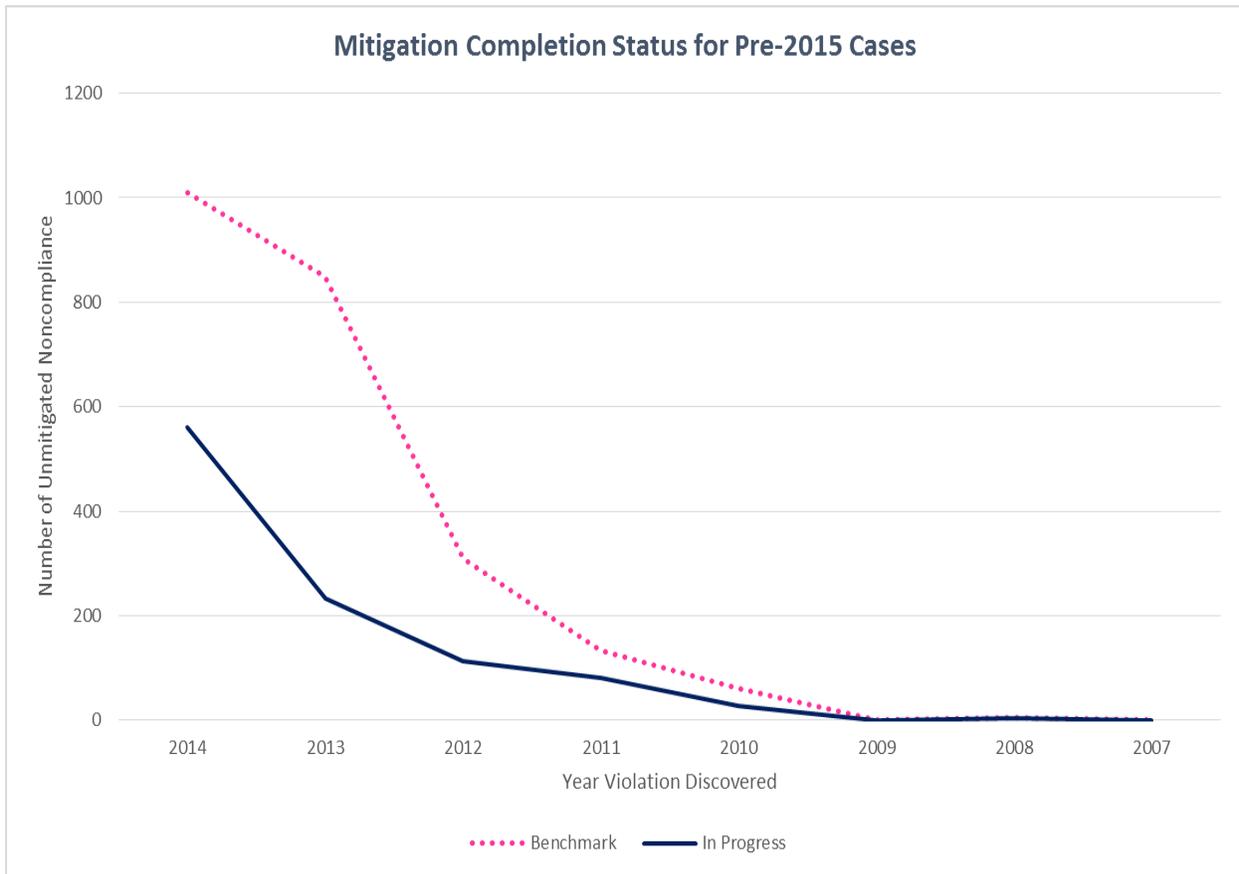


Figure 13: Mitigation Completion Status by Discovery Year

Figure 13 shows the progress displayed in Figure 12. NERC, in collaboration with the Regional Entities, will continue to monitor timely completion of formal Mitigation Plans and mitigating activities in 2015. The 31 violations from 2010 and before largely involve federal entities that have had limited interaction with their Regional Entities during the pendency of federal litigation about NERC’s ability to assess financial penalties against federal entities. While the registered entities have not certified the mitigation as complete, this is mainly a matter of documentation – as opposed to actual completion – that is expected to be resolved over the course of the next year as the Regional Entities work with the federal registered entities to resolve their noncompliance. NERC is closely monitoring noncompliance that still has mitigation in process.

The ERO Enterprise Continues to Promote Self-Assessment and Identification of Noncompliance
 NERC and the Regional Entities monitor noncompliance discovery trends and promote self-discovery of noncompliance. The ERO Enterprise set a target that the registered entities should internally discover 75% of noncompliance in 2015. In Q1 2015, the registered entities self-discovered 96% of noncompliance (See Figure 14 below). Typically, registered entities discover a higher percentage of noncompliance in the first quarter. Registered entities’ self-discovering of noncompliance is important because it allows for earlier mitigation of noncompliance that could result in a reduction of risk to the BPS.

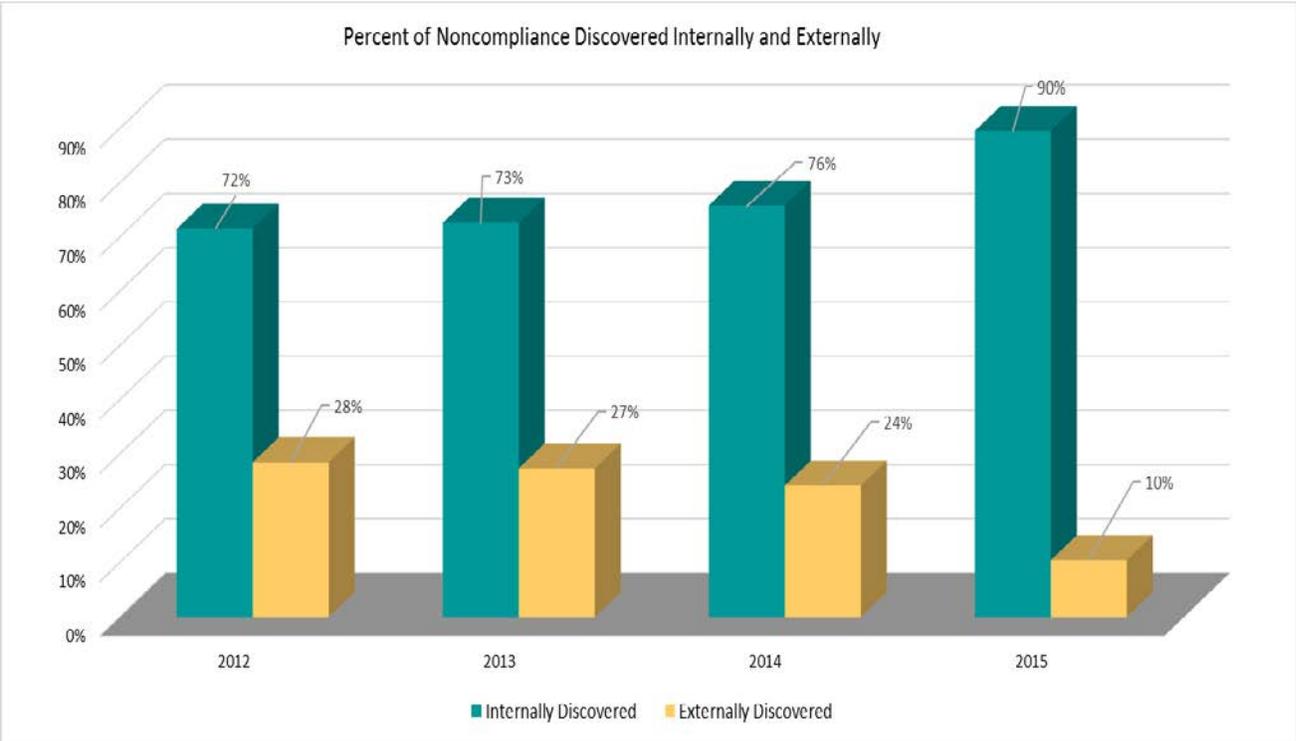


Figure 14: High Internal Discovery of Noncompliance in 2015

Appendix

Trends Regarding Disposition of Noncompliance Posing a Minimal or Moderate Risk to the Reliability of the Bulk Power System

Minimal Risk Noncompliance Were Treated as SNOPs if the ICP Was Weak

The ERO Enterprise disposed of 44 minimal risk violations as SNOPs in Q1 2015.⁹ One registered entity had five related minimal risk violations disposed of in a single SNOP. The registered entity did not present an Internal Compliance Program (ICP) for the Regional Entity to review. As a result, the Regional Entity disposed of the violations in an SNOP with an associated penalty.¹⁰

A Regional Entity also disposed of a PRC-005-1 R2 violation in an SNOP. There was a clear distinction for this violation compared to similar noncompliance disposed of as compliance exceptions.¹¹ The registered entity did not complete the Regional Entity's Internal Compliance Program Assessment. As part of the Settlement Agreement, the registered entity committed to improve its compliance program. The registered entity failed to maintain or test a large number of devices, including 100% of its DC control circuit maintenance in 2009 and one of its three station batteries. For the station battery error, the registered entity displayed inadequate execution of internal controls. The registered entity assumed that it had performed maintenance on all three batteries when it tested the other two batteries. In the case of the DC control circuit maintenance, the registered entity did not properly implement internal controls because it had inadequate documentation for the prior tests. The risk was minimal because the registered entity had compensating detective controls.

Similarly, a Regional Entity disposed of other PRC-005-1b R1 and R2 instances of noncompliance in SNOPs.¹² Like the instances above, the registered entity did not present an ICP for the Regional Entity to consider. The auditors discovered that the registered entity failed to establish maintenance and testing intervals and their basis for associated communication systems, voltage and current sensing devices, and DC control circuitry in its Program. The registered entity's Program set the testing and maintenance interval as "continuously monitored" due to lack of compliance understanding. The lack of compliance understanding was likely caused by insufficient training. The registered entity did not understand that "continuously monitored" was not considered an appropriate interval.

Minimal Risk Noncompliance with Extensive Scope Were Treated as SNOPs

A Regional Entity treated a PRC-005-1 R2 violation as an SNOP because it involved five separate instances.¹³ The registered entity could not provide evidence that Protection System devices were maintained and tested within defined intervals for eight relays. The registered entity also failed to provide evidence of the date each Protection System device was last tested or maintained for 15 relays. The violation was determined to pose a minimal risk to the reliability of the BPS due to many of the relays performing a backup function. As part of its Mitigation Plan, the registered entity committed to complete a validation of its transmission Protection System inventory for all of its transmission substations.

⁹ All SNOPs filed by NERC can be found at <http://www.nerc.com/pa/comp/CE/Pages/Enforcement-and-Mitigation.aspx>.

¹⁰ See WECC2014013601, WECC2014013347, WECC2013013093, WECC2014013567, and WECC2013013094.

¹¹ See WECC2014013602.

¹² See WECC2014014118 and WECC2014014119.

¹³ See SERC2013013258.

The other PRC-005-1 R2 violation treated as an SNOP involved a federal entity that failed to have a Program that defined the intervals for maintenance and testing. The violation posed a minimal risk to the reliability of the BPS because of the small size of the generator, its interconnection characteristics, and the fact that despite the lack of a Program, it maintained its Protection Systems in the previous years. The noncompliance was found at a Compliance Audit, and there was previous violation history. The Regional Entity disposed of the six minimal risk violations as SNOPs because they were related to a single federal entity with multiple violations of Reliability Standards, some of which were event-related.¹⁴

A Regional Entity disposed of 11 minimal risk violations as SNOPs because they were related to a moderate risk violation. The violations were inter-related CIP issues with some having related previous violations.¹⁵

Minimal Risk Noncompliance with Unique Circumstances Were Treated as SNOPs

A Regional Entity treated a CIP violation as an SNOP because the registered entity's failure to perform in a reliability-enhancing manner in the mitigation process.¹⁶ NERC encourages internal discovery of noncompliance. Such identification should mark the beginning of coordination and partnership between the registered entity and the Regional Entity to remove outstanding risk to the BPS. This coordination and partnership should include timely identification, communication, and completion of mitigating activities. The failure of a registered entity to perform in this reliability-enhancing manner was the basis for the treatment of this violation as a Spreadsheet Notice of Penalty instead of a Find, Find, Track, and Report or Compliance Exception.

Regional Entities Issued FFTs for Moderate Risk Issues

NERC encourages the Regional Entities to utilize the FFT track for moderate risk issues as appropriate. In Q1 2015, the ERO Enterprise disposed of 16 moderate risk issues through the FFT track.

In one moderate risk instance of noncompliance, a FAC-009-1 R1 issue resulted in facilities being operated above their stated limit because of the documentation of Facility Ratings.¹⁷ Despite the moderate risk, a Regional Entity chose FFT track for the noncompliance because the registered entity self-reported the issue, fully cooperated, initiated an internal review of compliance with FAC-009-1, and conducted a comprehensive review of its solely- and jointly-owned Facilities. It was also the registered entity's first issue with the Reliability Standard and Requirement. In another moderate risk issue that involves PRC-005-1 R1, the registered entity failed to establish a Program that included all required devices.¹⁸ A Regional Entity discovered this issue at a Compliance Audit. While the registered entity had no previous violation history, it involved a 1000 MW plant connected at 345 kV. The registered entity also failed to test the devices within a period recommended by an industry standard. The risk was partially compensated by the registered entity's alarming capability on some equipment and the age of the plant.

The Regional Entities also disposed of moderate risk and minimal risk issues as FFTs when the issues were related. In one case, the registered entity had five inter-related CIP issues that were

¹⁴ See NP15-19-000.

¹⁵ See NP15-23-000.

¹⁶ See NPCC2013012894.

¹⁷ See MRO2013012698.

¹⁸ See TRE2014014442.

treated as FFTs. Four of the issues posed a moderate risk to the BPS and one of them posed a minimal risk to the BPS.

Trends Associated with Risk Posed by Noncompliance Resolved in Q1 2015

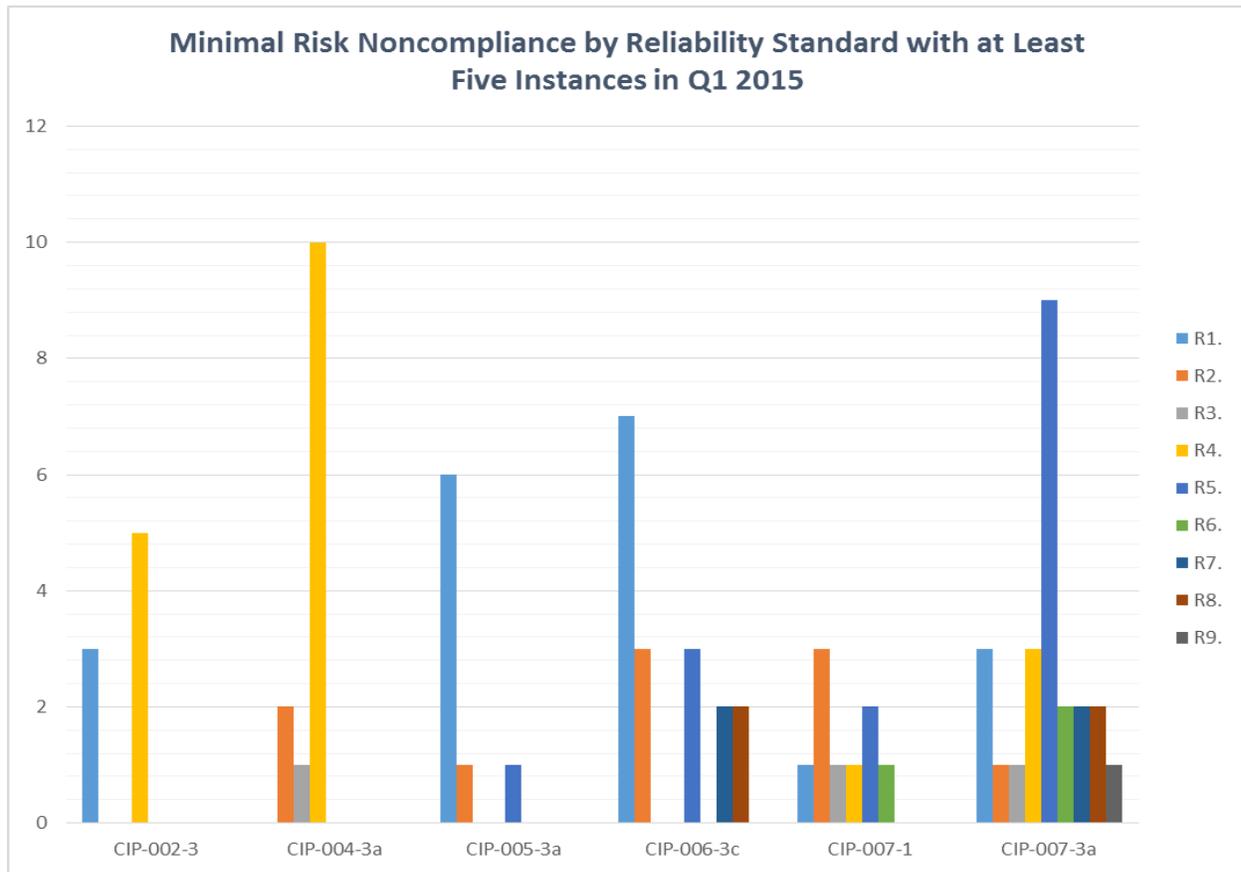


Figure 15: Top Minimal Risk CIP Noncompliance Disposed of in Q1 2015

Figure 15 shows Reliability Standards and Requirements with at least five instances of noncompliance in Q1 2015. The most violated CIP related Reliability Standards in Q1 2015 are all in the top 10 most violated Reliability Standards since 2012.¹⁹

¹⁹ CIP-004 instances of noncompliance were determined to pose a minimal risk in 83% of the cases since 2012. CIP-005 instances of noncompliance were determined to pose a minimal risk in 59% of the cases since 2012. CIP-006 instances of noncompliance were determined to pose a minimal risk in about 68% of the cases since 2012. CIP-007 instances of noncompliance were determined to pose a minimal risk in about 60% of the cases since 2012.

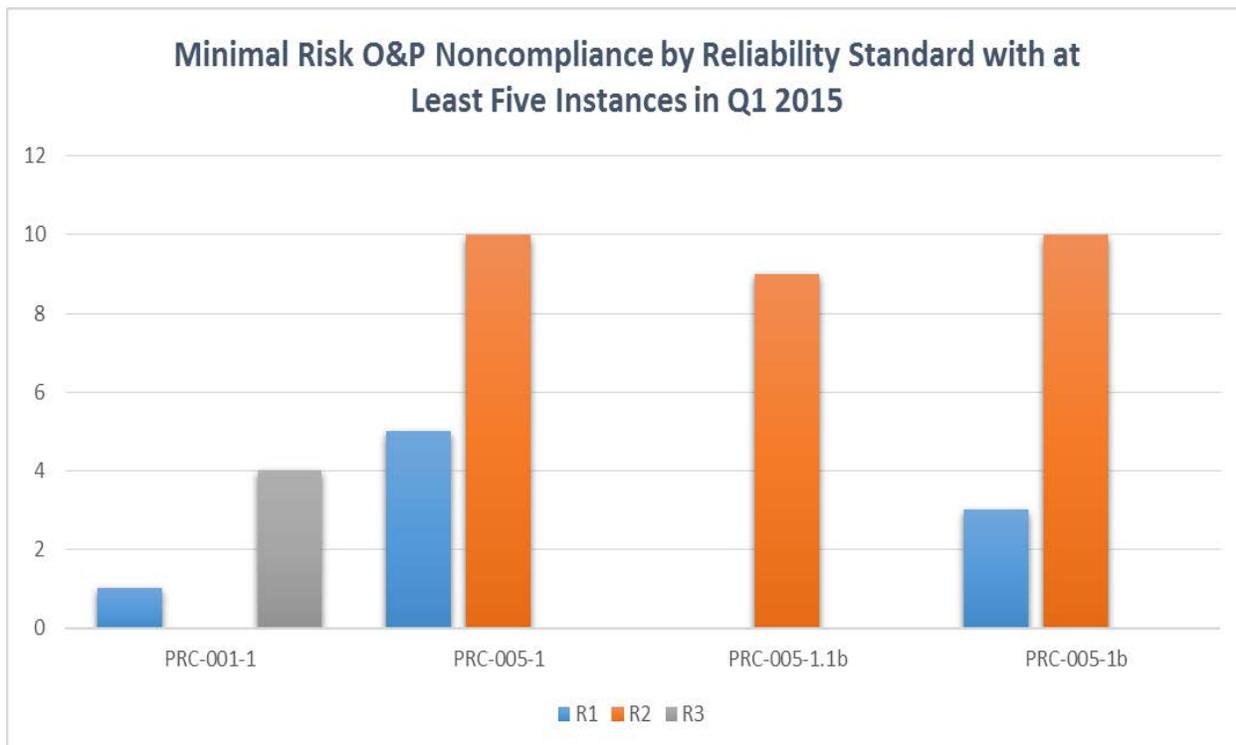


Figure 16: Top O&P Minimal Risk Noncompliance Disposed of in Q1 2015

Figure 16 shows the minimal risk O&P related noncompliance with at least five instances in Q1 2015. PRC-005 is one of the top ten most violated Reliability Standards filed since 2012.²⁰

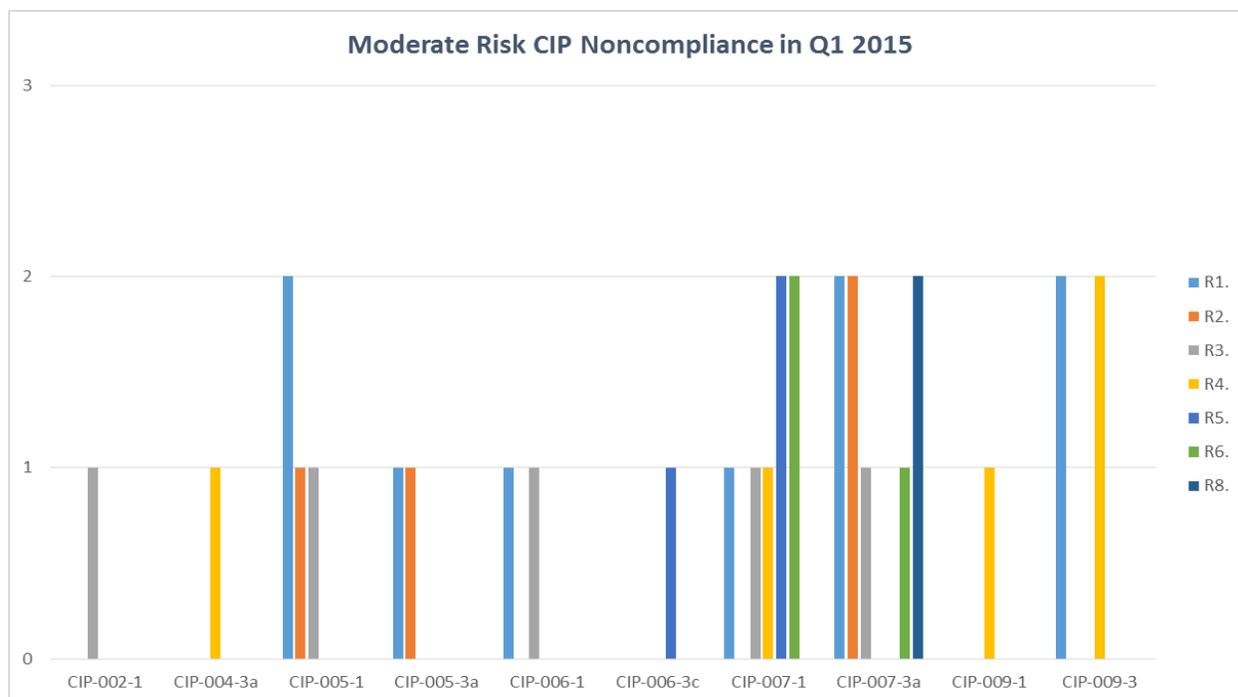


Figure 17: Top Moderate Risk Noncompliance Disposed of in Q1 2015

Figure 17 shows the CIP-related noncompliance deemed to pose a moderate risk in Q1 2015.²¹

²⁰ PRC-005 instances of noncompliance were determined to pose a minimal risk in about 81% of the cases since 2012.

²¹ CIP-002 instances of noncompliance were determined to pose a moderate risk in about 16% of instances of the cases since 2012. CIP-004 instances of noncompliance were determined to pose a moderate risk in about 15% of the cases since 2012.

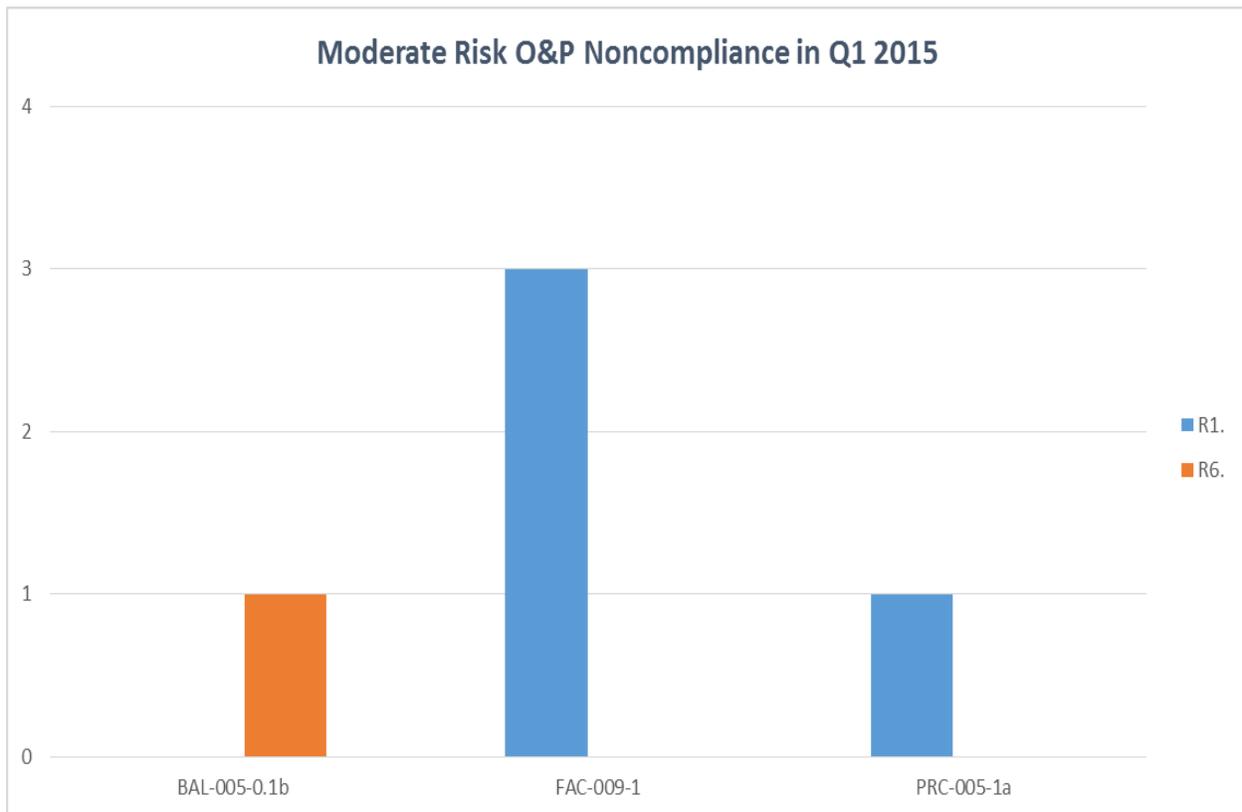


Figure 18: Moderate Risk O&P Noncompliance in Q1 2015

Figure 18 shows the O&P related noncompliance deemed to pose a moderate risk in Q1 2015.²²

Top Serious Risk Noncompliance Disposed of in Q1 2015

One CIP-007-1 R3 violation posing a serious and substantial risk to the reliability of the BPS filed in Q1 2015. CIP-007 noncompliance were determined to pose a serious risk in about 2% of instances of noncompliance filed since 2012.

Trends in Compliance Exceptions in Q1 2015

Regional Entities commonly used compliance exceptions in Q1 2015 for complex Reliability Standards and Requirements. These Requirements typically have implementation processes that present numerous opportunities for noncompliance even in well-controlled entities. Registered entities commonly have isolated issues with requirements that necessitate monitoring, tracking, and maintaining numerous devices.

CIP-Related Compliance Exceptions Involved Discrete Issues with Complex Standard

Registered entities commonly have issues with CIP-004-1 R4. CIP-004 is one of the top ten most commonly violated Reliability Standards since 2012.²³ Requirement 4 involves the maintenance of lists of personnel with access to Critical Cyber Assets (CCAs).²⁴ There were five compliance

CIP-005 instances of noncompliance were determined to pose a moderate risk in about 39% of the cases since 2012. CIP-006 instances of noncompliance were determined to pose a moderate risk in about 31% of the cases filed since 2012. CIP-007 instances of noncompliance were determined to pose a moderate risk in about 38% of the cases since 2012.

²² FAC-009 instances of noncompliance were determined to pose a moderate risk in about 16% of the cases since 2012. PRC-005 instances of noncompliance were determined to pose a moderate risk in about 18% of the cases since 2012.

²³ See WECC2014014264 and WECC2014014405.

²⁴ **R4. Access** -The Responsible Entity shall maintain list(s) of personnel with authorized cyber or authorized unescorted physical access to Critical Cyber Assets, including their specific electronic and physical access rights to Critical Cyber Assets.

R4.1. The Responsible Entity shall review the list(s) of its personnel who have such access to Critical Cyber Assets quarterly, and update the list(s) within seven calendar days of any change of personnel with such access to Critical Cyber Assets, or any change

exceptions issued for this Requirement in Q1 2015. All instances were self-discovered by the registered entities. In addition, the registered entities had other controls in place that mitigated the risk of the noncompliance. In one instance, the registered entity failed to remove a former employee from an Access List; however, the employee's supervisor collected and locked the employee's badge and associated Physical Security Perimeter key reducing the risk of the noncompliance. In another instance, the noncompliance duration was short, only three days, and the registered entity discovered the instance of noncompliance in its quarterly review of physical access rights, an internal control.

CIP-007-3a R5 involves account management.²⁵ CIP-007 is another one of the top ten most commonly violated Reliability Standards since 2012. Like CIP-004 R4, registered entities have numerous opportunities to have issues with R5 because there are numerous opportunities for failure.

The CIP-007 R5 compliance exceptions had two underlying facts and circumstances in common. They involved a limited number of devices, and/ or those devices lacked a technical feasibility exception (TFE). However, the compliance exceptions involved registered entities that had compensating measures in place to reduce the risk that the noncompliance posed to the BPS. Given those compensating measures, the Regional Entities showed appropriate discretion in the usage of compliance exceptions for these minimal risk noncompliance.

O&P-Related Compliance Exceptions Commonly Involved PRC-005 Program Implementation

PRC-005 R1 and R2 were the most common Operations and Planning noncompliance treated as compliance exceptions. Like the commonly violated CIP-related compliance exceptions, registered entities have many opportunities to have issues with PRC-005 R1 and R2.

The Regional Entities exercised appropriate discretion in treating these instances of noncompliance as compliance exceptions when they posed a minimal risk to the reliability of the BPS. Notably, one registered entity self-reported that it had issues with implementation of its Program. The registered entity tested a device nine days late when it was adopting new testing intervals for the device in scope to comply with PRC-005-2. The registered entity is a 96.6 MW wind facility that showed active management of its Program, but not perfect management of its Program.²⁶ In another PRC-005-related instance of noncompliance, a registered entity had implementation issues with its Program that were caused by high personnel turnover rates along with changes in leadership; however, the registered entity employs a comprehensive backup program, has a configuration which reduces the likelihood of tripping and a misoperation, and has a monitoring system which sounds alarms upon failure of some equipment. The issue posed minimal risk to the BPS, and a streamlined disposition method was appropriate.

Another registered entity had a PRC-005 noncompliance related to its Program implementation.²⁷ The registered entity is a 50 MW generator that did not test its current

in the access rights of such personnel. The Responsible Entity shall ensure access list(s) for contractors and service vendors are properly maintained.

R4.2. The Responsible Entity shall revoke such access to Critical Cyber Assets within 24 hours for personnel terminated for cause and within seven calendar days for personnel who no longer require such access to Critical Cyber Assets.

²⁵ **R5.** Account Management — The Responsible Entity shall establish, implement, and document technical and procedural controls that enforce access authentication of, and accountability for, all user activity, and that minimize the risk of unauthorized system access.

²⁶ See WECC2014014376.

²⁷ See RFC2014014206.

transformers and potential transformers, but had a maintenance program that reduced the risk of not testing them according to the Reliability Standard and Requirement. Throughout the duration of the noncompliance, the registered entity maintained and tested various components of CTs and PTs as part of the routine maintenance and testing of the plant's electrical systems, particularly the generation protective systems. The routine maintenance tests and checks conducted decreased the risk posed by the instant noncompliance. Moreover, the tests, when performed, demonstrated that the CTs and PTs were operating properly.

Efficiency-Related Metrics and Trends for Q1 2015

The ERO Enterprise monitors several measures that relate to processing efficiency. Currently, the efficiency-related metrics reflect the reality of the Regional Entities' inventories. The ERO Enterprise has reached a steady state concerning processing.

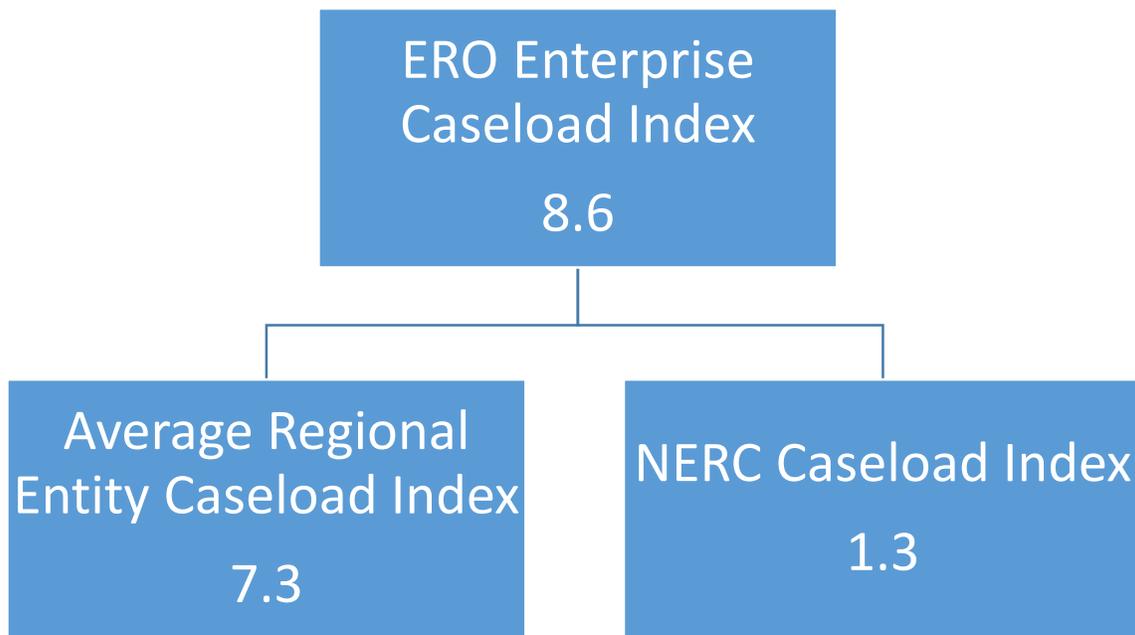


Figure 19: ERO Enterprise Caseload Index Q1 2015

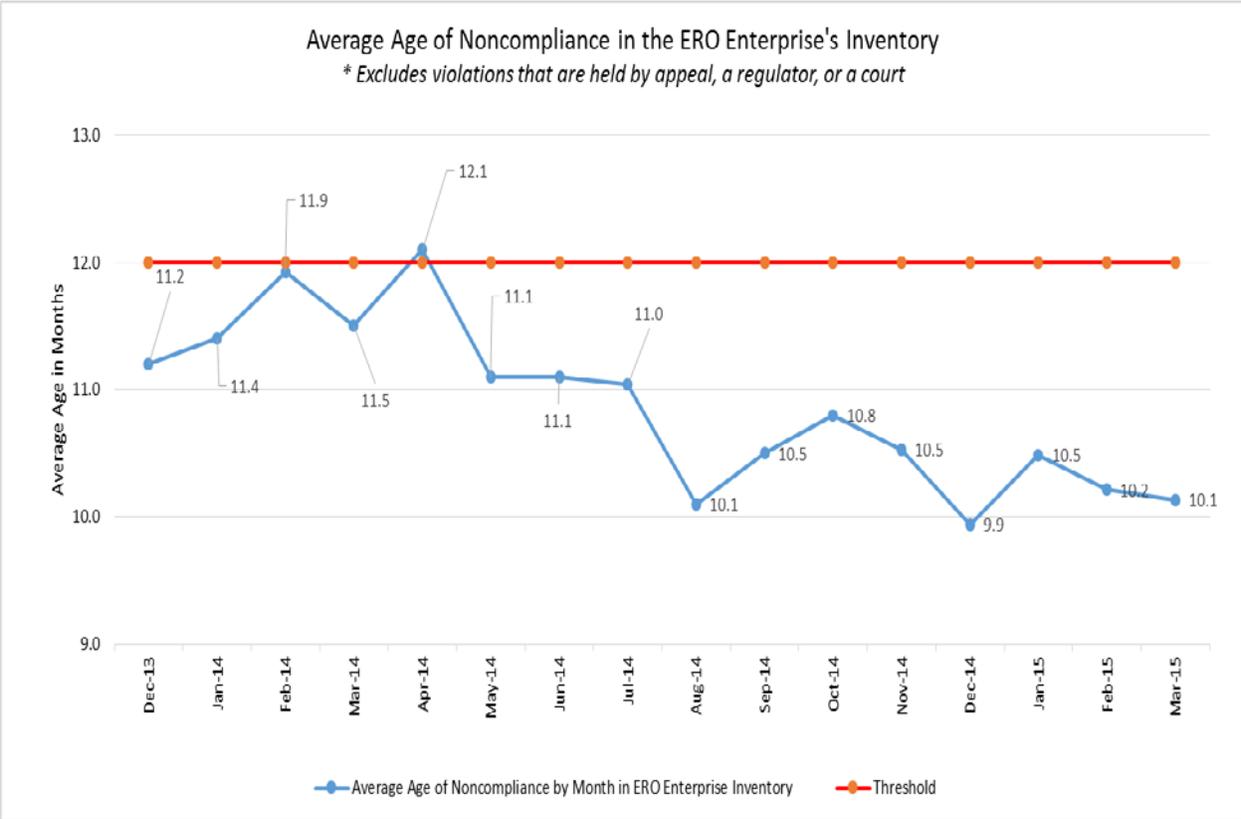


Figure 20: Average Age of Noncompliance in ERO Enterprise's Inventory

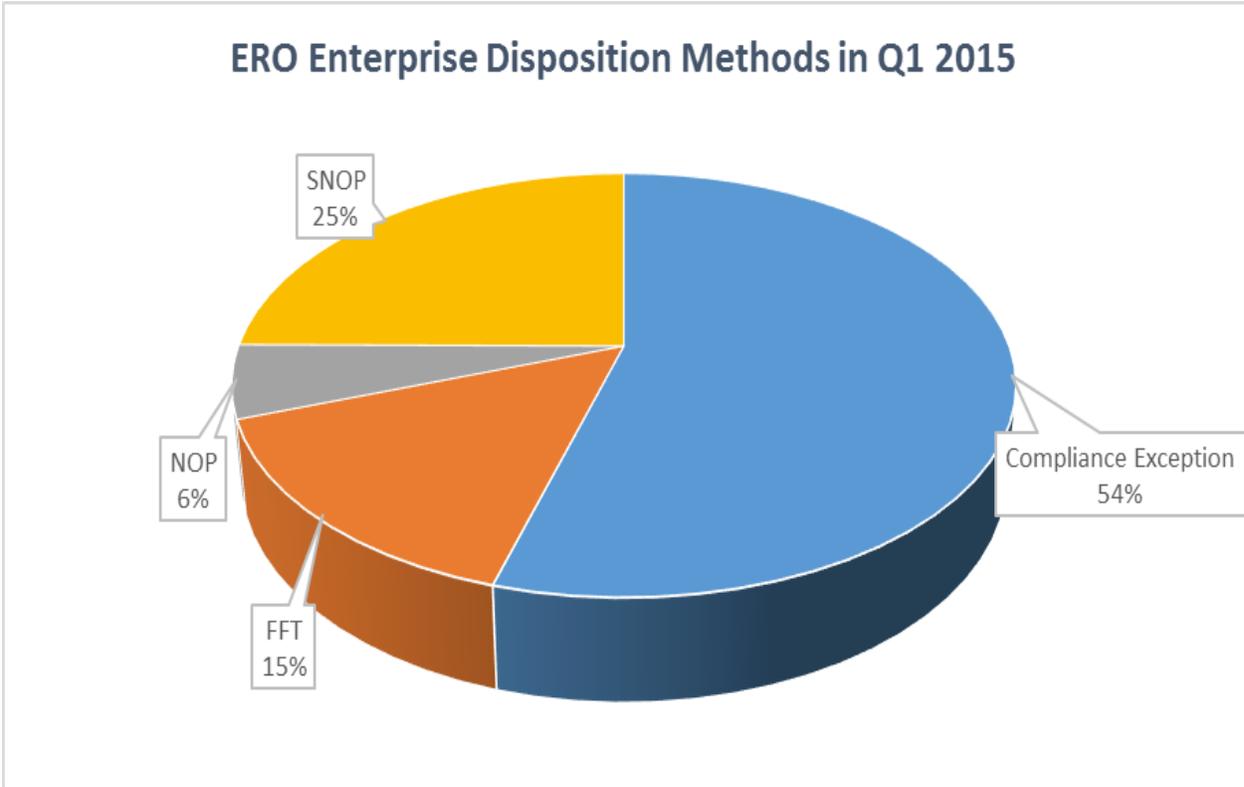


Figure 21: ERO Enterprise Disposition Methods in Q1 2015

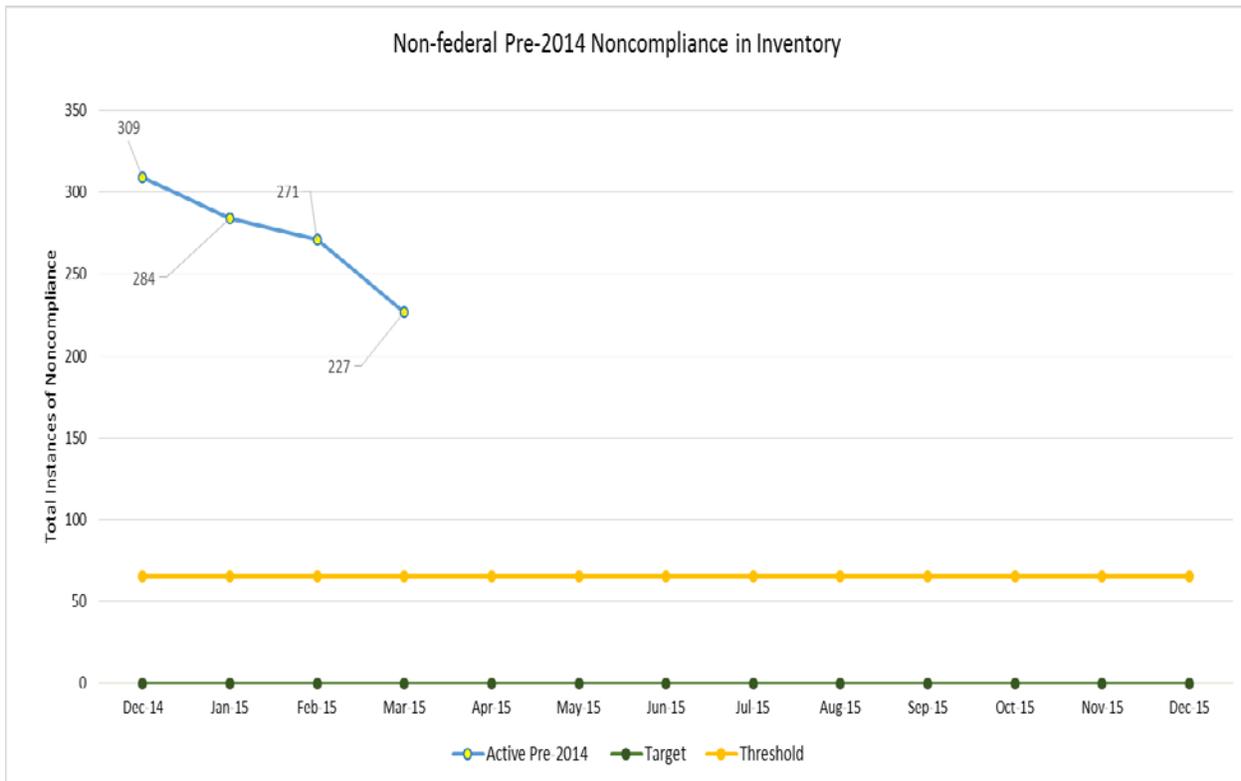


Figure 22: Non-federal Pre-2014 Noncompliance in Inventory

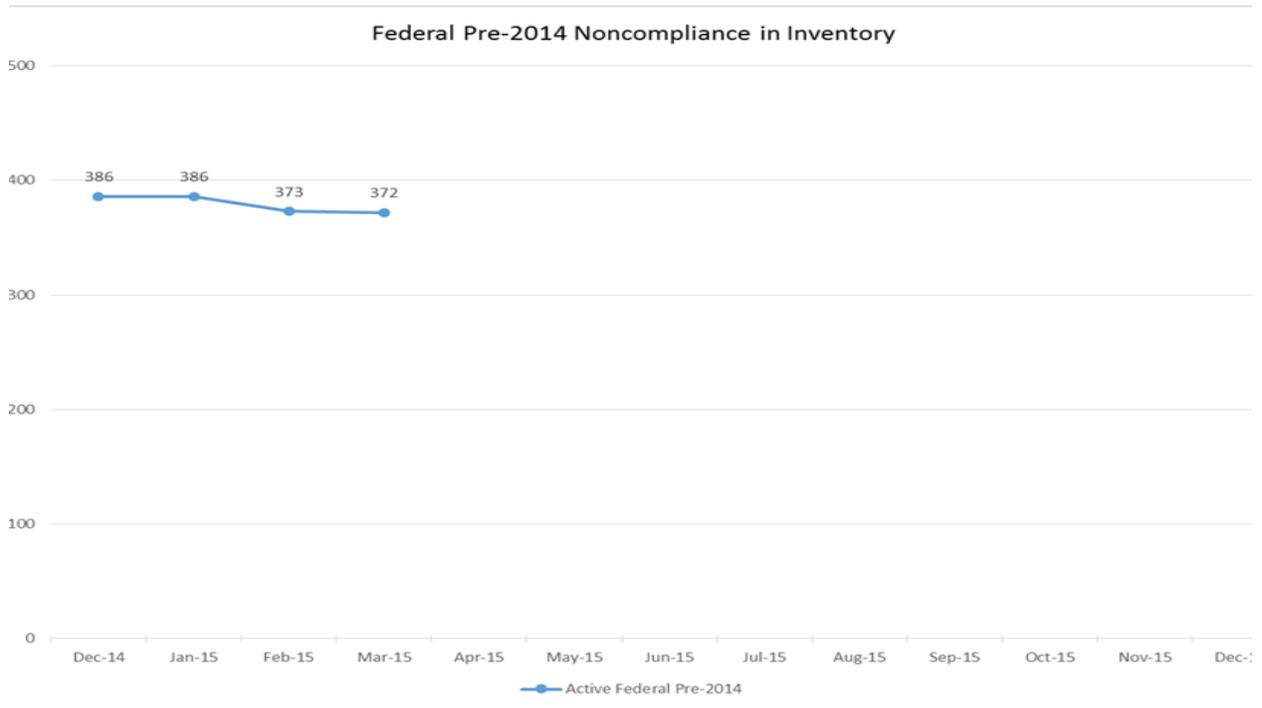


Figure 23: Federal Pre-2014 Noncompliance in Inventory

Risk-Based Compliance Monitoring and Enforcement Program Implementation

Action Update

Informational Filing Status Update

On November 3, 2014, NERC submitted an informational filing to the Federal Energy Regulatory Commission (FERC) describing the various processes and programs developed and deployed through the ERO Enterprise's risk-based Compliance Monitoring and Enforcement Program (risk-based CMEP).

On February 19, 2015, FERC issued an order approving the implementation of the risk-based CMEP. In the Order, FERC directed NERC to submit by May 20, 2015 (90 days), a compliance filing addressing various details of the risk-based CMEP and including revisions to the NERC Rules of Procedure that articulate the risk-based CMEP concepts and programs.

In addition to the above, the FERC Order imposed certain conditions on the implementation and continued development of the program and directed NERC to submit by February 19, 2016 (one year from the Order), an annual report on the risk-based CMEP implementation.

Immediately after FERC issued the February 19 Order, NERC began collaborating with the Regional Entities to address the items FERC identified as requiring additional attention.

On March 12, 2015, NERC filed a Motion for a 45-day extension of time for the Rules of Procedure revision changes. This request did not affect the other items that FERC requested the ERO address in the May 20, 2015, compliance filing. FERC approved NERC's Motion for an extension on March 16, 2015, which extends the time to file the Rules of Procedure revisions to July 6, 2015.

On or before May 20, 2015, NERC will submit a compliance filing to FERC that will address those areas that FERC identified in its February 19 Order. While this filing will not include the final redline Rules of Procedure changes for FERC approval, it will include a status update regarding the proposed revisions.

NERC's proposed timeline for the Rules of Procedure filing is to post the proposed revisions on April 6, 2015, for a 45-day public comment period. This 45-day public posting would close on May 21, 2015. The Board of Trustees would then consider the revisions. If the Board of Trustees approves these revisions, NERC would file the proposed Rules of Procedure changes with FERC for its approval on or before July 6, 2015.

Ongoing Activities

Metrics Reporting

NERC continues to work with the Regional Entities on the development and benchmarking of objective metrics to assess the success of the implementation of the risk-based CMEP. NERC and

the Regional Entities are also determining the relevant data necessary to assess this success. Over the course of the year, NERC will collect this data and information related to each measurement in order to determine the appropriate benchmarks and possible targets for future years. Each metric may support more than one success factor, and none of the metrics are intended to replace the qualitative evaluation that will be performed through the coordinated management processes referenced below. Initial metrics related to processing, efficiency, and implementation of risk-based compliance monitoring and enforcement are included in this package.

Coordinated Management of ERO Enterprise Functions

The initial phase of the coordinated management regarding the implementation of the risk-based CMEP processes involves a review by NERC staff of the relevant Regional Entity process documents, such as policies, procedures, narratives, and flowcharts, and a comparison to the ERO Enterprise guidance documents. This initial phase, which is underway and is expected to conclude during the second quarter of 2015, is designed to promote consistency in the application of the ERO Enterprise's risk-based processes, as well as identify areas where alignment is required.

In phase two, NERC's coordinated management will include an evaluation of how risk-based compliance monitoring concepts are utilized, the determinations made when using these concepts, and the results of their practical application by the Regional Entities. Phase two of NERC's coordinated management will continue throughout the remainder of 2015 and into 2016 and will focus on samples of compliance monitoring work by each Regional Entity while using their risk-based concepts.

For risk-based enforcement activities, NERC will review the Regional Entities' processes for self-logging and compliance exceptions. NERC and the Regional Entities are developing a program document that will provide the basis for the Regional Entities' administration of the self-logging program. The program document will include the methodology for a formal review of the registered entity's ability to identify, assess, and correct noncompliance. It will also describe the process for review of the self-logged items. NERC's review will evaluate how Regional Entities aligned their processes and practices with the program document. The review will also examine the Regional Entities' use of the compliance exception disposition method and how they substantiate their determinations of minimal risk. This review will occur during the second half of 2015.

Training and Education

To support the ERO Enterprise's initial implementation of risk-based compliance monitoring activities, specifically related to the Inherent Risk Assessment (IRA) and Internal Controls Evaluation (ICE) guidelines, NERC and the Regional Entities developed a two-phased training approach. Phase One activities began in Q4 2014 and completed in Q1 2015. During Phase One, training activities focused heavily on those ERO Enterprise staff who are primarily responsible for IRA and ICE executions. Phase Two will go into further depth with both IRA and ICE concepts. Phase Two, which began in Q1 2015, incorporates lessons learned and other examples obtained throughout actual application of IRA and ICE throughout the ERO Enterprise. Throughout 2015, NERC will continually assess education needs in support of the ERO Enterprise training program.

Key takeaways from recent training activities include:

- Overall, ERO Enterprise staff believe that the training objectives, content, materials, and delivery were valuable and relevant to their job roles and responsibilities.
- Ongoing training and education needs may vary based on roles, Regional Entity characteristics, or other factors. As such, target audience and learning objectives are continually evaluated.
- Future training activities will provide in-depth examples and be tailored toward predefined competencies and skills, as well as lessons learned from IRA and ICE implementation.
- Additional internal control training on foundational principles, design, testing, and documentation should continue for Regional Entity staff.

During Q2 2015 and beyond, NERC and the Regional Entities continue to plan and enhance the existing training and education program on risk-based compliance monitoring and enforcement activities. Further, ERO Enterprise staff are working toward a more formalized, systematic approach to the ERO Enterprise training and education program for risk-based compliance monitoring, the progress of which will be shared in future updates as it is developed. This training and education program will be coordinated with the NERC Training Department and use existing software and tools, to include the ERO Enterprise Learning Management System to develop training modules and support individualized records for training and education across the ERO Enterprise.

Some upcoming Compliance Monitoring and Enforcement training and education activities include:

- 2015 Fall ERO Enterprise Staff Compliance Monitoring & Enforcement Workshop (October 2015);
- Instructor-led course(s) on internal controls (July 2015);
- 2015 Spring and Fall Auditor Team Lead Training with incorporated materials reflecting risk-based compliance monitoring (April and Fall 2015);
- Monthly webinar series on application of risk-based concepts;
- Monthly webinar series (industry-focused) for Risk Elements identified in the 2015 ERO Enterprise CMEP Implementation Plan and the standards and requirements identified as areas of focus related to each Risk Element;
- Enforcement Basics (April 2015);
- Self-Logging Evaluation (June 2015);
- Penalty Assessment (July – August 2015); and
- Risk Assessment (Q4 2015).

NERC will also provide training on risk-based CMEP processes related to enforcement, especially compliance exceptions and the self-logging program. NERC is developing this training based on early experience with implementing the programs and observations from the various reviews. NERC Enforcement is also committed to conducting outreach and providing up-to-date guidance

on Board-approved Reliability Standards and related Risk Elements to support risk-based compliance monitoring.

Industry Stakeholder Outreach on Risk-Based CMEP

Throughout the end of 2014 and through the end of Q1 2015, the ERO Enterprise hosted a series of three face-to-face outreach events. The three outreach events, occurring on November 6 and 20, 2014, and March 5, 2015, included ERO Enterprise staff and industry panelists presenting on risk-based topics. The outreach events provided continued communication and education to industry stakeholders on the ERO Enterprise's transformation to risk-based compliance monitoring and enforcement activities. These events fostered discussions among NERC, Regional Entities, and panels of industry stakeholders.

Based on the positive feedback, NERC and Regional Entities will continue to plan similar, targeted outreach activities throughout 2015 that focus on self-logging, compliance exceptions, risk elements, frequently asked questions, and examples of completed IRAs and ICEs.

Additionally, the ERO Enterprise will host a series of webinars on each risk element outlined in the 2015 CMEP Implementation Plan. Each monthly webinar will focus on one risk element and will include guidance and discussion on the areas of focus identified in the 2015 CMEP Implementation Plan. The webinars will take place on the third Thursday of each month.

Risk-based CMEP Update

Sonia Mendonça, Deputy General Counsel, Vice President of
Compliance and Enforcement

Steven Noess, Director of Compliance Assurance
Board of Trustees Compliance Committee

May 6, 2015

RELIABILITY | ACCOUNTABILITY



- Structured programs to examine Regional Entity execution of delegated functions
- Feedback and recommendations to Regional Entities for improvement and training

- Phase I (Q1-Q2 2015)
 - Review of processes and procedure documents to assess consistency with risk-based CMEP design (focus on Inherent Risk Assessments and Internal Control Evaluations)
 - 5/8 Regional Entities complete
 - On target for 8/8 at end of Q2 2015
- Phase II (Q3 2015+)
 - Sampling of activities related to performance of specific activities
 - Confirm risk, scope, and audit conclusions are reasonable and properly supported

- Annual review program
 - Specific elements of the CMEP are reviewed on an annual basis and other elements on a rotating basis.
- Past Process Reviews (formerly known as Spot Checks)
 - Letters of Dismissal
 - Settlement Agreement and NOCVs
 - Mitigation Plan Processes
 - Find, Fix, Track, and Report Sampling (performed annually – with FERC in 2014)
- Upcoming Process Reviews
 - Triage and Dismissals (May 2015)
 - Self-Logging, Find, Fix, Track, and Report, and Compliance Exceptions (Q4 2015)

- 2015 Spring ERO Enterprise Compliance Monitoring & Enforcement Staff Workshop
- Webinars on enforcement topics
- July 2015 instructor-led training (16-hour course) on internal controls for ERO Enterprise staff conducting Internal Control Evaluations
- Fall 2015 enhancements to comprehensive, systematic training program for ERO Enterprise staff

- Joint sessions between ERO Enterprise staff and industry at the 2015 Spring Standards & Compliance Workshop
- Monthly webinar outreach series on Reliability Standards associated with Risk Elements
- Q3 2015 small entity workshop
- Fall industry outreach event on risk-based activities

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Key Compliance Monitoring and Enforcement Metrics and Trends

RELIABILITY | ACCOUNTABILITY



- The ERO Enterprise continued to implement risk-based compliance monitoring and enforcement in Q1 2015
- High satisfaction rates for ERO staff training and registered entity personnel training
- Inherent Risk Assessments completed for more than half of the entities on 2015 audit schedule
- More registered entities accepted to the Self-Logging program in Q1 2015
- Compliance Exceptions were the most common disposition method in Q1 2015
- Regional Entities consistently used new disposition methods
- Noncompliance mitigated on track with the ERO Enterprise target

High Satisfaction and Participation in Training and Outreach Activities

3 Regional
Entity Staff
Training Events

3 Industry
Outreach
Events

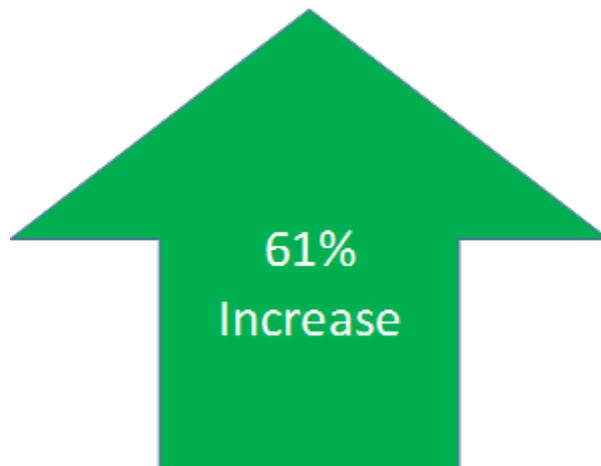
100%
Participation

165 in-person
776 webinar

90 %
Satisfaction

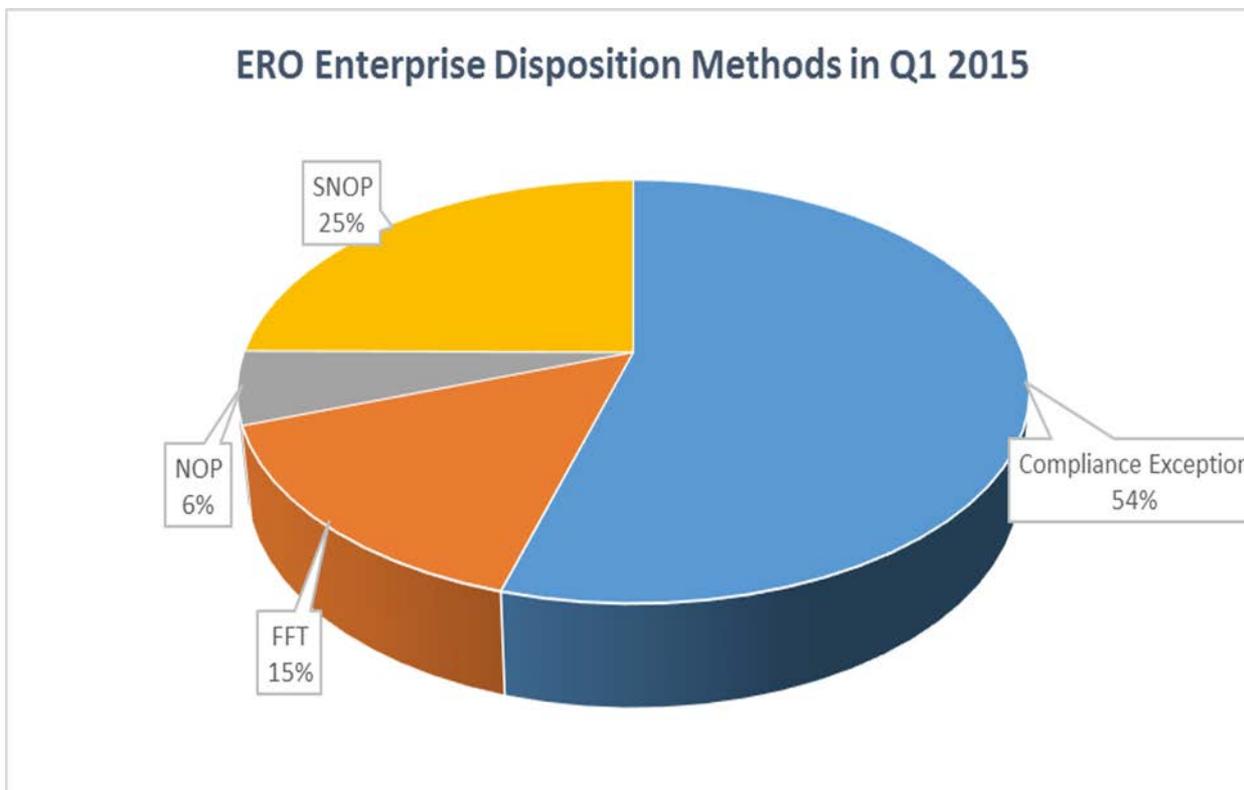
88 %
Satisfaction

- The ERO Enterprise has completed 115 Inherent Risk Assessments, which make up 60% of IRAs for registered entities on the 2015 Compliance Audit Schedule
- The ERO Enterprise has completed seven Internal Control Evaluations

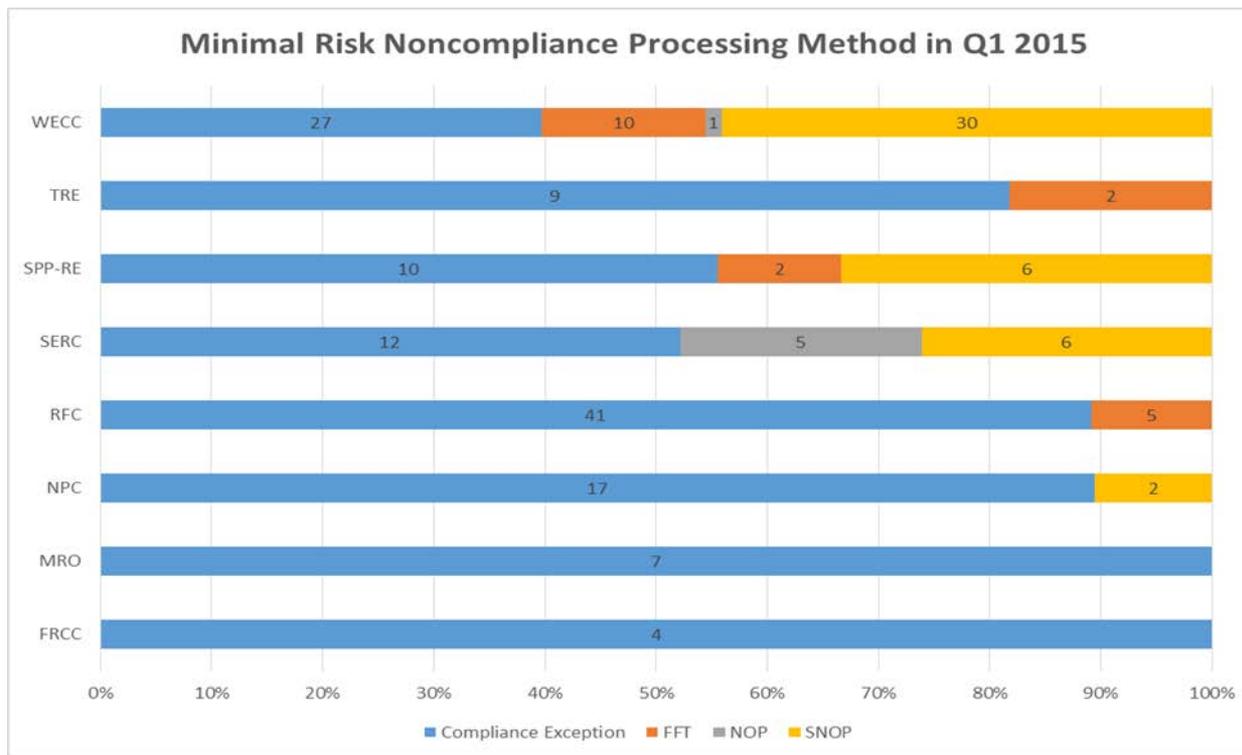


Increase in Registered Entities that are Self-Logging in
Q1 2015

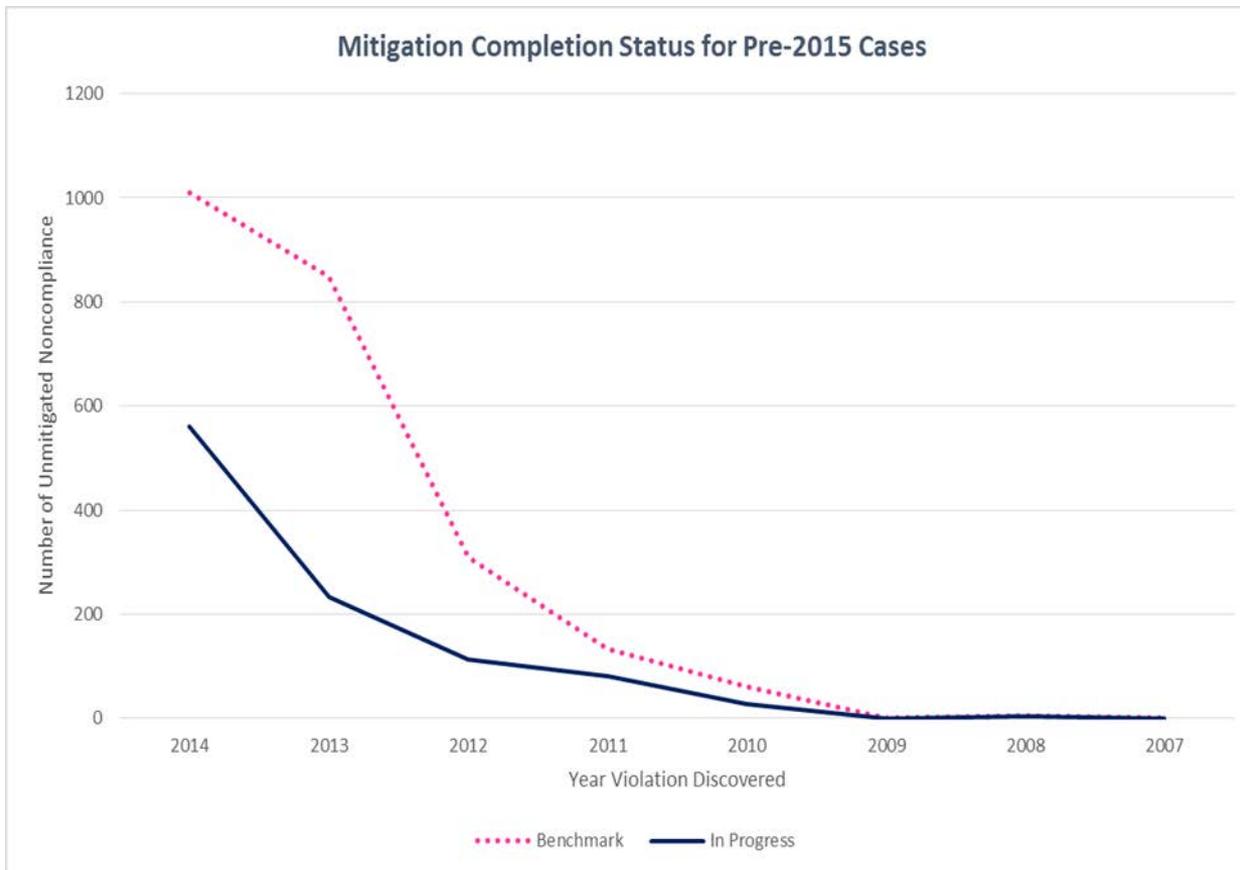
Compliance Exceptions Most Common Disposition Method



Compliance Exception was the most common disposition method for minimal risk noncompliance in Q1 2015.



All Regional Entities used Compliance Exceptions.



The ERO Enterprise is ahead of target in mitigation completion.

- Publicly available data at <http://www.nerc.com/pa/comp/CE/Pages/Enforcement-and-Mitigation.aspx> includes searchable lists of all:
 - Notices of Penalty (NOPs)
 - Spreadsheet Notices of Penalty (SNOPs)
 - Find, Fix, Track, and Report (FFT) issues
 - NERC added a searchable list of compliance exceptions on its [website](#).
- Prior key metrics and trends reports: <http://www.nerc.com/pa/comp/CE/Pages/Compliance-Violation-Statistics.aspx>



Questions and Answers