AGENDA

8:00 a.m. – 3:00 p.m.

1. Call to Order/Introductions ................................................................. John Meyer
2. Antitrust Guidelines ............................................................................ Emily Pennel
3. Approval of Meeting Minutes – 10/27/14 ............................................. John Meyer
4. 2014 Year in Review ........................................................................... Ron Ciesiel
5. Accept 2014 Goals and Metrics Performance * Action item ............. Ron Ciesiel
6. Approve 2015 Goals and Metrics * Action item ................................. Ron Ciesiel
7. CIP Update ......................................................................................... Kevin Perry
8. Compliance and Certification Committee ......................................... Jennifer Flandermeyer
9. Bulk Electric System Definition Activity Update .............................. Greg Sorenson
10. Inherent Risk Assessment /Internal Controls Evaluation Update ...... Mike Hughes
11. Summary of Recent System Events ................................................. Alan Wahlstrom
12. Enforcement Report .......................................................................... Joe Gertsch
14. Electric Infrastructure Protection Discussion .................................... Dave Christiano
15. Year-to-Date Financial Statement .................................................... Debbie Currie
16. Outreach Activity .............................................................................. Emily Pennel

17. NERC COMMITTEE REPORTS – Comments or Questions
   17a. Planning Committee ................................................................. Noman Williams
   17b. Critical Infrastructure Protection ............................................... Eric Ervin
   17c. System Protection and Control ................................................... Lynn Schroeder
   17d. Interchange Subcommittee ........................................................ Jason Smith
17e. Operating Committee Report .................................................. Jim Useldinger
18. New Action Items ........................................................................ Emily Pennel
19. Future Meetings ............................................................................ John Meyer

April 27, 2015 - Tulsa
July 27, 2015 - Kansas City
October 26, 2015 - Little Rock
SPP Regional Entity Antitrust Guidelines

It is SPP RE’s policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or which might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.
REGIONAL ENTITY TRUSTEES MEETING
OCTOBER 27, 2014
SPP Corporate Center
Little Rock, Arkansas
A G E N D A
8:00 a.m. – 3:00 p.m.
Download Meeting Materials

1. Call to Order/Introductions ................................................................. John Meyer

2. Antitrust Guidelines ....................................................................... Emily Pennel

3. Approval of Meeting Minutes – July 29, 2014 .................................. John Meyer
   Chairman John Meyer called the meeting to order at 8:04 a.m. Emily Pennel reviewed the
   Antitrust Guidelines. John Meyer noted an incorrect date in the previous meeting minutes,
   which will be corrected. The Trustees unanimously approved the July 29, 2014, minutes.

4. Winter Reliability Assessment Overview ..................................... Lanny Nickell
   The 2014/2015 Winter Reliability Assessment shows a projected Total Internal Demand
   (coincident) of 35,265 MW. The actual 2013/2014 winter peak demand was 37,106 MW.
   Existing Certain Capacity resources are 64,179 MW. About 377 miles of transmission are
   expected to be added during the assessment time frame. Reserve margins are adequate;
   SPP members are required to maintain a 12% capacity margin, which translates to a 13.6%
   reserve margin. The forecasted reserve margin is 81% for winter 2014/2015. The Trustees
   unanimously accepted the report for submission to NERC.

5. Critical Infrastructure Protection Committee (CIPC) Update .......... Robert McClanahan
   At the last NERC CIPC meeting, the group discussed potential cybersecurity legislation.
   Numerous bills have been introduced, but none have traction. The Cybersecurity Risk
   Information Sharing Program identifies cybersecurity risks in real time and notifies affected
   entities. Initial plans are to deploy the program to 28 utilities. The Electric Sector
   Coordinating Council recently approved a guidebook for security clearances in the electric
   sector. NERC is raising the importance of physical security efforts. The third bi-annual
   continent-wide grid exercise, GridEx III, is scheduled for November 18-19. A main goal of
   the exercise is to identify areas where communication between NERC and industry needs to
   be improved.

   This is Robert McClanahan’s last meeting as the SPP RE CIPC representative. He is also
   stepping down as chair of the SPP RE CIP Working Group (CIPWG). Ron Ciesiel thanked
   Mr. McClanahan for his service. Eric Ervin of Westar will be the new SPP RE representative
   on the NERC CIPC.

6. CIP V5 Transition Update ............................................................... Kevin Perry
   The second set of revisions to the CIP Version 5 standards were approved. The standard
   drafting team will review the comments before reposting the standards for final ballot.
   Version 5 implementation is 17 months away. The new standards introduce a significant
   increase in the number of assets and systems that are covered by the standards. Further
   transition guidance is pending.

   SPP RE CIP staff is meeting bi-weekly with a group of SPP CIPWG members to answer CIP
   V5 questions. SPP RE would like to partner with the SPP RTO Compliance Department to
conduct CIP V5 outreach. SPP RE wants to be as helpful as possible to Registered Entities in understanding the new standards by sharing best practices, discussing hypothetical questions, and sharing what other Registered Entities are doing. There are no compliance expectations related to the outreach. A stakeholder noted that SPP RE has been doing a good job with outreach.

7. **Misoperations White Paper** ................................................................. **Doug Bowman**

A misoperation occurs when a protective relaying scheme trips for a disturbance or fault outside of its zone of protection, which can result in unintended outages. SPP had the highest percentage of misoperations of any region in the U.S. in 2013. Communications are a leading cause of misoperations in our region. The SPP System Protection Control Working Group (SPCWG) analyzed misoperations from Q4 2012 through Q3 2013 to determine the root causes associated with communication system failures and provide lessons learned that can be applied to reduce the number of future misoperations.

The NERC Protection System Misoperations Task Force determined that these misoperations could be broken down into one of five sub-causes. The SPCWG added two additional categories of sub-causes. The SPCWG reviewed 101 misoperations that occurred in SPP for the one year period. The two sub-causes with the most misoperations were:

1) Communication Interface Failure, and 2) Station Signal Path Failure.

Lessons learned included:

- Equipment spark gaps, insulators, and surge arresters are known to cause carrier holes if not maintained properly.
- Fiber optic communications provide increased reliability and security over microwave or power line carrier systems.
- End-to-end testing is advantageous during commissioning to find timing errors and to confirm signal quality.
- Deteriorated, older equipment requires increased maintenance activity and is more likely to fail than newer equipment. Diagnostic capabilities are lacking as well.
- Mismatched equipment or differing setting philosophies at opposite ends of the line can create timing issues resulting in a misoperation.

Communications assisted schemes add sophistication to line protection schemes. Knowing the root causes enables utilities to more accurately troubleshoot problems and take preventive measures to reduce the likelihood of misoperations in the future.

Ron Ciesiel thanked the SPCWG for its work on this paper. The Trustees commented that we are moving in the right direction.

8. **2014 Stakeholder Satisfaction Survey Results** ................................. **Ron Ciesiel**

SPP RE issued the 2014 Stakeholder Satisfaction Survey on September 18, 2014, to the 123 Primary Compliance Contacts who are registered in SPP RE’s compliance database (webCDMS). The survey had a 62% response rate (76 respondents), up from 57% in 2013. Of the 76 respondents, 16 opted out of the survey because they do not work with SPP RE enough to provide input.

Respondents were asked to assess six SPP RE programs on their importance, how well they meet expectations, and customer service/responsiveness. Stakeholders were also asked to assess SPP RE’s performance in relation to other Regional Entities, to rate overall performance, and to provide qualitative comments. On a scale of 1-5 in which 5 represents the most favorable score, average ratings throughout the survey were between 3.3 and 4.5.

None of the 30 respondents who interact with other Regional Entities rated SPP much worse or somewhat worse, 38% rated SPP RE about the same, 31% rated SPP RE somewhat better, and 31% rated SPP RE much better. When asked how well SPP RE’s programs and services meet expectations, respondents rated all with average scores in the meets
9. Summary of Recent System Events................................................................. Alan Wahlstrom

Through 3Q 2014, we have 20 total events. In 3Q we had one Category 1h. event - Loss of monitoring or control at a control center. We had one Category 2c. event - Voltage excursions equal to or greater than 10 percent lasting more than 15 continuous minutes due to a BPS emergency.

NERC has published several lessons learned related to Load-Shedding Plans for Localized Events, Loss of EMS Monitoring and Control Functionality for More Than 30 Minutes, Redundant Network Interface Cards on EMS Systems, and Loss of EMS/Dispatch Workstation Functionality due to NTP Time Synchronization Device Misconfiguration.

Regarding the Polar Vortex event, SPP experienced the lowest number of outages except for Florida. Ron Ciesiel thanked operations personnel for their excellence during the Polar Vortex event. Winter is coming, so we need to be prepared this year as well.

10. 2015 Implementation Plan............................................................................. Ron Ciesiel

The SPP RE plan highlights changes, identifies initiatives and activities, covers the Registered Entity Assessment process, identifies regional risks and standards/requirements, and covers the audit schedule and outreach. In 2015, a risk-based compliance oversight framework takes the place of the Actively Monitored List. SPP RE developed a Regional Audit Scope Plan that identifies the risk elements in the SPP RE footprint: top violated standards, facility ratings impacts, new enforceable standards, and protection of Cyber Assets.

In 2015, we will conduct on-site audits for Transmission Operators (TOPs) and Balancing Authorities (BAs) on the 3-year cycle. Ops & Planning will conduct off-site audits or spot checks for non-BA/TOP entities and recently-registered entities. Off-site CIP audits for entities with no identified Critical Cyber Assets are cancelled through the remainder of the transition period (3/30/16). To develop the monitoring scope, SPP RE will perform Registered Entity Risk Assessments for entities scheduled for 2015 monitoring.

11. Enforcement Report....................................................................................... Joe Gertsch

Compliance exceptions do not count toward violation history. We have had 99 incoming violations in 2014; this is a historic low. Violations are 68% CIP and 32% Ops/Planning. The current caseload is 142 violations. Self Reports represent 62% of violations; historically this number has been in the 40-50% range. There are 14 High Impact violations.

12. Financial Discussion .................................................................................... Ron Ciesiel

Total expenses are ~$1.7 million under budget. The projected year-end budget underrun increased from $1.85 million to $2.2 million. The Trustees will be looking at eliminating some open positions for next year.

13. SPP RE 2014 Trustee Self-Assessment.......................................................... John Meyer

The 2014 assessment reported five meetings with an average attendance of 38. Major accomplishments included:
1. Overall 2013 staff performance goals and metrics achievement was 104.36%;
2. Ron Ciesiel served as executive sponsor and two SPP RE staff served on the development team for the NERC Auditor Handbook, which was published in May 2014;
3. Successfully implemented Bulk Electric System Definition exception process;
4. Reviewed/accepted three regional reliability assessments;
5. Continued compliance outreach program of webinars, workshops, newsletters, and videos. The 2013 average number of registrants per webinar increased 64% over 2012; workshops had a 7% increase in participants;
6. Maintained generally favorable stakeholder satisfaction scores;
7. Maintained <12 month enforcement caseload; and
8. Operated RE within approved budget limits.

Major pending issues:
1. Continue working with Registered Entities on CIP version 3 to version 5 transition;
2. Continue working with NERC and other Regional Entities to streamline and standardize CMEP processes through tools and initiatives such as the Reliability Assurance Initiative, auditor training/certification, added on-site audit efficiencies, and risk-informed audit scope;
3. Monitor Registered Entities’ remediation of Facility Ratings discrepancies (FAC Alert), which draws to completion at the end of 2014;
4. Continue focusing on and monitoring relay misoperations and the Event Analysis program; and
5. Continue targeting outreach to improve Registered Entity compliance programs to reduce violations and achieve greater BES reliability.

The Trustees approved the assessment unanimously for submission to the SPP RTO.

We are very close to implementing the compliance exception program, which will be processed in webCDMS. It will tend to replace most of the Find, Fix, Track issues. Bulk Electric System activity has been moderate in SPP RE with ~130 total requests and no major surprises to date.

NERC is reviewing and possibly revamping the entity registration criteria. In final draft form, the following functions are recommended for elimination: Load Serving Entity, Interchange Authority, and Purchasing Selling Entity. The threshold for inclusion in the registry for a Distribution Provider is recommended to increase from 25 MW to 75 MW.

The approved 2015 SPP RE budget calls for a flat budget when compared to the 2014 budget, including a slight reduction in manpower. All RE and NERC budgets have been approved by NERC and FERC for implementation in 2015.

We are in the sixth consecutive quarter with no vegetation contacts. In SPP there were ~420 Facility Ratings Alert (FAC) high priority discrepancies, ~1,980 medium priority, and ~4,050 low priority. Most of them were underbuilds. Eight companies have been granted extensions. Extension requests must be made well before January 1, 2015. The top 10 most violated standards are similar to NERC’s top 10. The number of PRC-005 violations have dropped.

15. Year-to-Date Financial Statement ......................................................... Debbie Currie
This agenda item was covered earlier in the meeting.

16. Staff Goals and Metrics ........................................................................ Ron Ciesiel
Staff are on target to meet all the performance metrics by the end of the year.

17. Outreach Activity ................................................................................ Emily Pennel
There were 190 registrants for the 9/4 CIP Transition webinar, 160 registrants for the 10/3 Winter Reliability Assessment webinar, and 216 registrants (in-person/webinar) for the Fall Workshop, which received very positive feedback.

18. NERC COMMITTEE REPORTS – Comments or Questions
18a. Planning Committee ................................................................. Noman Williams
18b. Compliance and Certification Committee ..................................Jennifer Flandermeyer
18c. System Protection and Control .................................................. Lynn Schroeder
18d. Interchange Subcommittee ....................................................... Jason Smith
18e. Operating Committee Report .................................................. Jim Useldinger

19. **New Action Items** ........................................................................ Emily Pennel
There are no new action items to report.

20. **Future Meetings** ........................................................................... John Meyer

    January 26, 2015 - Dallas
    April 27, 2015 - Tulsa
    July 27, 2015 - Kansas City
    October 26, 2015 - Little Rock

The meeting was adjourned at 3:09 p.m.

Respectfully submitted,

Emily Pennel
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<td>Gerry Burrows</td>
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SPP RE 2014 Year-End Report

1-26-15

Ron Ciesiel
SPP RE General Manager
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Executive Summary

In 2014, the SPP RE staff achieved a high level of success when measured by our goals and metrics; staff’s weighted total metrics achievement was 121.8%. Other accomplishments include improved audit and enforcement processes, continued engagement with NERC’s Events Analysis and Facility Ratings Alert programs, timely publication of three Regional Reliability Assessments, increased attendance at webinars and workshops, improved technology, implementation of the revised Bulk Electric System Definition, positive feedback from NERC and FERC observers of SPP RE audits, and favorable ratings on the annual stakeholder survey.

Numbers at a Glance

- Audit reports issued: 54
- Audits performed: 56
- Events processed: 30
- FFTs processed: 62
- Mitigation Plans reviewed: 101
- Newsletters published: 12
- Registration changes: 25
- Reliability Assessments published: 3
- TFE actions: 271
- Videos produced: 8
- Violations processed: 188
- Violations received: 121
- Workshop & webinar attendees: 578
**Compliance Monitoring**

**Performed 56 audits; Issued 54 audit reports**

In 2014, SPP RE conducted 38 off-site audits and published 38 off-site audit reports. Audit teams held 18 on-site audits and published 16 on-site audit reports, including one from work completed in 2013. Three Critical Infrastructure Protection (CIP) 2014 audit reports will be published in 2015.

In 2014, the average time to issue the on-site audit reports was 39 days, compared to our goal of 70 days. The average time to issue the off-site audit reports was 31 days, compared to our goal of 50 days.

The SPP RE CIP audit team observed a Registered Entity’s risk assessment and internal controls evaluation performed by another Regional Entity.

**Improved Audit Processes**

The Operations and Planning (O&P) and CIP audit teams implemented several process and performance improvements in 2014. Overall, the average time to publish audit reports was reduced. The O&P team continued to enhance their pre-audit evidence review. The pre-audit review enables the audit team to perform its work more efficiently and effectively once the official audit period begins, and allows them to make assessments on some standards without further action during the audit. Based on the results of the pre-audit review, the audit team leaders were able to reduce the amount of time spent on-site from approximately 3.5 days to 2.5 days, and in some cases reduce the size of the on-site audit team.

The CIP audit team continued its comprehensive pre-audit evidence review for both on-site and off-site audits. Pre-audit activities include collection and review of randomly sampled evidence and a pre-audit review of follow-up evidence requests stemming from the first evidence review. The first round of CIP compliance audits for Balancing Authority/Transmission Operator-Registered Entities was completed in 2013, with an expectation that having been through the process once already, Registered Entities and their evidence would improve for subsequent audits. The audit team has not seen a significant reduction in questions and possible findings requiring follow-up during the on-site audit; therefore, they have not been able to take advantage of the pre-audit reviews to eliminate a meaningful number of on-site requirements.

Compliance staff implemented use of the NERC Auditor Handbook and associated checklist to verify consistency of audit documentation and work papers.

The CIP and O&P teams continued to emphasize outreach during the audit field work, as permitted by the GAO Generally Accepted Government Auditing Standards (GAGAS). Outreach efforts were coordinated with the audited Registered Entity’s Primary Compliance Contact throughout the audit, starting with the 90-day audit notice, to ensure the level of outreach was acceptable to and met the Registered Entity’s expectations. The O&P audit team outreach focused on reducing misoperations due to communication failures, rolling-out Risk-Based Compliance Monitoring and Enforcement (formerly known as the Reliability Assurance Initiative), and suggesting internal control activities...
for specific requirements.

Many of the SPP RE compliance staff are members or observers to various NERC working groups, task forces and SPP working groups. Two compliance staff team members are actively involved with the development of the new Reliability Standard Audit Worksheet (RSAW) template, new and revised O&P RSAWs, and the CIP Version 5 RSAWs. Two compliance staff team members were actively involved in presenting the ERO Auditor Handbook training and one of the team members continued as an active member of the ongoing Handbook Task Force.

One SPP RE Registered Entity participated in the NERC CIP Version 5 Transition Study (one of six participants) and continues as an active participant in the CIP Version 5 Transition Advisory Group. One member of the CIP compliance team is the project coordinator/primary contact for the Registered Entity and represents SPP RE on the NERC-led core study team. Experiences and lessons learned from the transition study will be used to develop Registered Entity and staff training and will influence development of the Risk-Based Compliance Monitoring and Enforcement program within SPP RE.

We enhanced audit staff training through several mechanisms. In conjunction with NERC and the other REs, SPP RE audit staff and a number of SPP RE contractors participated in two NERC-sponsored auditor workshops. The CIP audit team participated in the 2014 NERC Grid Security Conference. Several staff also attended a NERC-led performance auditing training workshop. One O&P auditor has attained the Certified Internal Auditor certification. Several CIP and O&P auditors are enrolled in training that will result in Certified Internal Auditor certifications.

FERC observers attended five SPP RE audits in 2014. While there is always room for improvement, the general tone of the feedback sessions from observers was very positive.

**Managed TFE Caseload**

The Technical Feasibility Exception (TFE) Program related to CIP standards completed its fifth year in 2014. We have processed 810 new or amended TFE requests since the program’s inception, including 44 TFEs newly submitted in 2014. In 2014 we accepted 91 new or amended TFEs prior to eliminating that processing step from the compliance management application (webCDMS). Staff approved 172 TFEs, disapproved one, and terminated seven. The active TFE caseload at the end of 2014 was 235, an increase of 36 over 2013.

FERC approved a significantly revised TFE process (Appendix 4D to the NERC Rules of Procedure) in 2013. The webCDMS portal was modified in late 2014 to conform to the revised TFE process. In the interim, our Registered Entities continued to manage their TFEs under the pre-modification webCDMS-supported process. With the webCDMS update, SPP RE is no longer required to accept submitted TFEs as a prerequisite step to TFE approval.
Processed 30 Bulk Power System Events

In 2014, SPP RE’s Event Analysis staff engaged with the national NERC Event Analysis program and handled 30 reportable events, including 13 events that qualified for a category of one or higher. This is more events than we had in 2013; the increase may be due to the new EOP-004-2 standard, which requires Registered Entities to report events listed in the Event Analysis Process document. NERC published a Lesson Learned from the SPP RE Region, Improved Contractor Oversight Needed. The NERC Event Analysis Subcommittee believed this was an excellent Lesson Learned and asked Westar Energy to present it to the NERC Operating Subcommittee.

In November 2014, SPP RE Event Analysis staff responded to a FERC inquiry regarding follow-up actions in response to the FERC-NERC Staff Report on the 2011 Southwest Cold Event and the 2014 Polar Vortex and winter storm events. FERC sent a data request to all three Regional Entities involved in the Polar Vortex event; the questions related to reasons for unit outages, actions taken by the Regional Entity to resolve specific generator issues, policy and procedural changes made by the Registered Entities, and outreach activities.

SPP RE reported that almost half of all of the unit outages during the Polar Vortex event were caused by frozen lines, valves, and switches. SPP RE surveyed the Registered Entities to determine if the cold weather generator outage causes have been resolved. The Registered Entities indicated that the following repairs/procedures changes had been made following the January 2104 events:

- Repaired a generator linkage
- Combustion unit tuning
- Replacement of heat trace
- Replaced feed water pump heater
- Installed heated enclosures over controls
- Installed wind breaks
- Procedural change to start a fire in the boiler any time weather is forecasted to below 25°F
- Monitor ambient temperatures more frequently in critical areas

Our response to FERC described SPP’s winter preparedness outreach, including the SPP Regional Transmission Organization’s (RTO) operator training that included numerous weather-related scenarios. SPP RTO formed the Gas Electric Coordination Task force to respond to any gas and electric coordination issues that impact the SPP region. SPP RTO also conducted a Winter Reliability Assessment meeting with its members to discuss procedures and policies concerning winter preparedness.

Managed Entity Registrations and BES Revisions

In 2014, SPP RE added four new Registered Entities, de-activated seven, reduced the number of registered functions for 14, and reviewed but did not change the registration of four. The revised Bulk Electric System (BES) definition went into effect on July 1, 2014. SPP RE processed 143 self-determined notifications for 154 elements and two local networks. The average processing time was 8.4 business days. We are processing three Exception Requests and have met the associated timelines outlined in the NERC Rules of Procedure. An SPP RE team member became chair of the NERC ERO Registration and Certification Functional Group this year.
**Participated in Facility Ratings Alert Program**

NERC launched a Facility Ratings alert program at the end of 2010, with a goal of having all BES lines checked for clearances and ratings by the end of 2013 and remediation of discrepancies complete by the end of 2014. The SPP RE Events Analysis group is coordinating this activity for the SPP RE footprint. All lines under the Facilities Ratings Alert in the SPP RE region have been assessed: 420 discrepancies were found on the high priority lines, 1,980 on the medium priority lines, and 4,050 on low priority lines. All discrepancies on the high priority lines have been remediated, 68% of the medium priority lines have been remediated, and 67% of the low priority lines have been remediated. Final results from the 2014 activities are expected in February 2015. Eight companies have asked for and been granted extensions due to LIDAR contractor availability, outage scheduling conflicts, and retaining resources. One of the Registered Entities that received an extension has completed remediation of all of its lines.

**Published Three Reliability Assessments**

SPP RE is responsible for developing annual winter, summer, and long-term reliability assessments. The 2014 long-term reliability assessment shows adequate reserve margins for the SPP RTO footprint over the next ten years. SPP’s planning processes have identified a number of transmission projects needed for reliability purposes, and it is expected that those projects will be completed as scheduled or mitigation plans will be developed.

The most significant transmission challenges facing portions of the SPP footprint are related to an increase in oil and gas drilling. New oil and gas drilling facilities are built faster than they can be captured in SPP’s planning processes and models. SPP also continues to have an influx of variable generation resources, leading to operational challenges. SPP is enhancing its planning processes to better capture the impacts of the oil and gas projects and variable generation. Given the region’s generation capacity, transmission infrastructure, and enhancements being made to processes and models, SPP is expected to be able to meet any challenges—including environmental regulations—that may arise during the next decade. Registered Entities are experiencing low coal inventories due to congested rail lines; some coal inventories have gone as low as a ten-day supply.
In 2014, the SPP RE Enforcement group received the lowest number of incoming violations it has received since 2009 (121). Of the 121 incoming violations, 66 or 55% were self-identified, i.e., Self-Reports or Self-Certifications submitted by the Registered Entity. CIP violations (87) continue to represent the overwhelming majority of new violations, outnumbering O&P violations by more than two to one.

The SPP RE Enforcement group processed 188 violations in 2014, including 35 of the 36 pre-2013 violations. Even with the loss of an Enforcement Attorney mid-year, SPP RE Enforcement was able to exceed its violation processing goal for 2014 and maintain a caseload index of less than nine months throughout the year. For the third year in a row, the number of violations processed via the Find, Fix, Track and Report (FFTR) disposition method (62) represented the largest number of violations processed. An increase in the number of violations processed utilizing the Full Notice of Penalty process (22) occurred in 2014, primarily due to the processing of multi-region violations. Fifteen of 17 multi-region violations processed in 2014 were processed with the Full Notice of Penalty process. The remaining 104 violations processed in 2014 were either dismissed (44), processed utilizing the Spreadsheet Notice of Penalty process (59), or treated as a Compliance Exception (1).

Due to the reduced number of incoming violations and efficiency gains in the processing of minor risk violations, the Enforcement caseload at year’s end is down to 119, from 186 in 2013. The number of violations older than one year (39) is up slightly from 2014 (36), due principally to the addition of violations that were previously on administrative hold pending resolution of the sovereign immunity issue. It is also noteworthy that the Enforcement caseload at year’s end includes 26 multi-region violations, up from 16 at the end of 2013.

On August 22, 2014, the District of Columbia Court of Appeals ruled in favor of the Southwestern Power Administration (SWPA) in Southwestern Power Administration, ET AL. v. Federal Energy Regulatory Commission. The Court found that federal entities were not subject to monetary penalties under the Energy Policy Act of 2005. The ruling settled an ongoing enforcement action between SPP RE and SWPA regarding four violations and provided a path forward for 36 other federal entity violations.

Mitigation Plans; High Impact Violations

In keeping with the lower number of incoming violations, mitigation activities were also down significantly in 2014. There were 99 mitigation plans submitted in 2014 as compared to 200 in 2013. Similarly, Enforcement completed the review of 101 completed mitigation plans in 2014 as compared to 180 in 2013. At the end of 2014, the number of violations without mitigation plans was not down as significantly. There were 69 violations without mitigation plans at the end of 2014, as compared with 89 at the end of 2013. In part, the difference can be attributed to multi-region violations wherein SPP RE is not the lead Region. Of the 26 multi-region violations in the SPP RE caseload at year’s end, SPP RE is the lead for only one of the multi-region violations and that violation has been mitigated. Twenty of the 25 remaining multi-region violations did not have mitigation plans submitted at year’s end.
Enforcement continues to focus its mitigation plan efforts on “High Impact” (HI) violations to ensure that violations that represent a substantive risk to the Bulk Electric System are mitigated as soon as possible. At the end of 2013, there were 61 open HI violations, 26 of which did not have accepted mitigation plans. At the end of 2014, there were 12 open HI violations; all had accepted mitigation plans and five were complete.
# 2014 Metrics Performance

<table>
<thead>
<tr>
<th>Metric</th>
<th>Actual Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Expedite processing and mitigation of High Impact (HI) violations</td>
<td>104.88%</td>
</tr>
<tr>
<td>3. Accept or reject Mitigation Plans within 30 days of submission by Registered Entity</td>
<td>150%</td>
</tr>
<tr>
<td>4. Complete Mitigation Plan completion reviews within 30 days of Registered Entity notification of completion</td>
<td>150%</td>
</tr>
<tr>
<td>5. Process pre-2013 violations and send to NERC by 11/20/14</td>
<td>100%</td>
</tr>
<tr>
<td>6. Complete incoming violation triage within 60 days of Compliance staff sending the possible violations to Enforcement</td>
<td>150%</td>
</tr>
<tr>
<td>7. Complete documentation close-out of all closed violations within 60 days of issuance of the NCEA</td>
<td>85.57%</td>
</tr>
<tr>
<td>8. Publish non-public off-site audit report to NERC (55 days)</td>
<td>120%</td>
</tr>
<tr>
<td>9. Publish non-public on-site audit report to NERC (75 days)</td>
<td>120%</td>
</tr>
<tr>
<td>10. Review and issue determination for BES registration and deactivation requests</td>
<td>107.286%</td>
</tr>
<tr>
<td>11. Publish internally completed assessment of Self-Certification/exception reporting/periodic data submittals</td>
<td>100%</td>
</tr>
<tr>
<td>12. Process incoming Possible Violations to NERC through webCDMS in 5 business days or less</td>
<td>119.6%</td>
</tr>
<tr>
<td>13. Reduce estimated cash costs</td>
<td>150%</td>
</tr>
<tr>
<td>14. Increase outreach/oversight of relay misoperations data to reduce reported misoperations for 4Q 2013-3Q 2014</td>
<td>142.5%</td>
</tr>
<tr>
<td>15. Assure proper Event Analysis cause codes can be verified from Event Analysis Reports issued by SPP RE Registered Entities</td>
<td>150%</td>
</tr>
<tr>
<td>16. Complete 100% of outreach production goals with a stakeholder satisfaction rating ≥ 3</td>
<td>130%</td>
</tr>
<tr>
<td><strong>ACTUAL WEIGHTED TOTAL</strong></td>
<td><strong>121.84%</strong></td>
</tr>
</tbody>
</table>
Outreach

SPP RE holds three compliance workshops annually. Members, Registered Entities, and other interested parties are invited to attend in-person or via webinar to learn more about SPP RE and NERC processes, emerging issues, compliance best practices, and more. In addition to presentations by SPP RE staff, guests from FERC, NERC, and Registered Entities are invited to speak on topics of interest. In 2014, SPP RE held three workshops with 578 participants, a 16% increase over 2013.

To provide more information regarding the CIP Version transition, SPP RE presented two detailed webinars and a half-day, hands-on training exercise at the Spring and CIP Workshops. SPP RE also presented these materials at the ERO Auditor Training Workshops and the North American Generator Forum.

SPP RE posts training videos to capture basic compliance education presented at webinars and workshops. In 2014 we posted eight new videos on topics including Misoperations, CIP-010, TOP-004, and Port Scans.

SPP RE regularly hosts webinars to inform Registered Entities about compliance matters and emerging issues. In 2014, SPP RE hosted six webinars with 800 registrants. The average number of registrants per webinar increased 60% over 2013, from an average of 80 per webinar to an average of 133.

SPP RE issued 12 monthly e-newsletters that included feature articles, workshop and webinar invitations, and updates on SPP RE and NERC activities.

In 2014, SPP RE staff continued to participate in the RE Trustees, MOPC and the following SPP working groups: Operating Reliability, Transmission, System Protection and Control, Operations Training, Critical Infrastructure Protection, Generation, Model Development, Event Analysis, Consolidated Balancing Authority, and Operations Model Development. The RE General Manager also participates in Board of Directors meetings.

Improved Technology

In 2014, SPP RE worked with all Regional Entities and NERC to develop, test, and implement new functionality for NERC’s Risk-Based Compliance Monitoring and Enforcement program. This enhancement includes functionality for processing issues of non-compliance such as Compliance Exceptions and Self-Logging. SPP RE staff worked with OATI and other regions to test and implement other webCDMS enhancements, including the addition of a document repository and improvements to the TFE and RAPA modules.

SPP RE worked with the other REs and NERC to implement a Regional Consistency Reporting Tool to improve consistency across the ERO. This online tool allows stakeholders to anonymously report perceived inconsistencies among Regional Entities.
SPP RE strives to continuously improve its performance of its NERC-delegated functions. Each year we ask Registered Entities to provide anonymous input on programs and customer service. The 2014 SPP RE survey had a 62% response rate (76 respondents), up from 57% in 2014. On a 1-5 scale in which 5 represents the most favorable score, average ratings throughout the survey were between 3.3 and 4.5. Of the 30 respondents who interact with other Regional Entities, none rated SPP much worse or somewhat worse, 38% rated SPP RE about the same, 31% rated SPP RE somewhat better, and 31% rated SPP RE much better.

When asked how well SPP RE’s programs and services meet expectations, respondents rated all with average scores in the *meets expectations* range between 3.3 and 3.6. When asked to rate employees’ customer service ability or programs’ responsiveness to needs, respondents rated all with average scores between *good* and *excellent*, from 4.1 to 4.5. The 2014 overall satisfaction rating of 4.1 is the highest rating in four years.

### 2014 Budget Performance

SPP RE’s 2014 actual expenses were $9.4 million compared to the 2014 budget of $11.8 million. The budget variance of ~$2.4 million was driven primarily by four open staff positions, as over 85% of the budget is personnel-based (salaries, travel expenses, and the SPP, Inc. overhead charge). The remaining budget variance of ~$640,000 resulted from a decrease in the use of consultants and contractors arising from the smooth roll-out of the new BES definition, improved audit performance of the Registered Entities, and the absence of any hearings. Although SPP RE was under budget for 2014, all of its required activities were completed as a result of SPP RE staff’s increased experience; a declining number of incoming violations due to a higher level of compliance, particularly in the Operations and Planning area; and enhanced efficiencies in internal SPP RE processes.

### 2014 Goals and Achieved Performance

The following goals were outlined in the 2013 year-end report. Each of these is listed below with its status.

1. Coordinate with NERC and Registered Entities on implementing BES definition exception process

   In 2014, SPP RE staff participated in testing the BESnet tool and developing procedures to evaluate Exception Requests. According to BESnet statistics, SPP RE’s average processing time was 8.4 business days, which is in line with our 10 business day metric on other registration matters. SPP RE discussed the BES definition changes during our Spring workshop.

2. Continue working with NERC and other Regional Entities to streamline and standardize CMEP processes through tools and initiatives such as the Reliability Assurance Initiative,
Auditor Handbook, auditor training/certification, added on-site audit efficiencies, and reduced audit scope

SPP RE implemented the Auditor Checklist for audits conducted during 2014, developed an Entity Risk Assessment template for assessing Registered Entities’ impacts to the BES for use in audit scoping, participated in development of the ERO Sampling Handbook, and participated in and presented at the ERO Auditor Workshops.

3. Monitor Registered Entities’ remediation of Facility Ratings discrepancies (FAC Alert)

At the end of 2014, all Registered Entities completed assessments on all priority lines. All high priority line discrepancies have been mitigated, 67% discrepancies of medium priority lines have been mitigated, and 68% of low priority lines have been mitigated. Eight companies have requested extensions, and one of the companies completed its remediation ahead of schedule. In 2015, SPP RE staff will continue to monitor Registered Entities’ progress on mitigating lines.

4. Work with Registered Entities on CIP version transition

In 2014, SPP RE conducted two webinars and two training exercises for SPP RE Registered Entities. The webinars addressed the identification of BES Cyber Systems and NERC’s CIP V5 Transition Guidance. The training, conducted at the Spring and CIP workshops, consisted of a half-day, hands-on exercise to identify BES Cyber Systems in a fictional entity.

In addition to these formal trainings, SPP RE has conducted numerous outreach activities in conjunction with on-site CIP compliance audits, presented CIP V5 transition updates to the SPP RE Board of Trustees, and responded to numerous emails and phone calls.

An SPP RE staff member is a representative on the NERC CIP V5 Transition Advisory Group and the NERC CIP V5 Transition Steering Committee. An SPP RE Registered Entity was a participant in the CIP V5 Transition Study and is also a member of the Advisory Group. Information from the Advisory Group is being taken back to the SPP membership through the SPP RTO-sponsored CIP Working Group.

5. Meet specific performance metrics and goals

The SPP RE met or exceeded 15 of the 16 performance goals established in the 2014 Staff Goals and Metrics. Most notable was processing 100% of the pre-2013 compliance violations and attaining all outreach production goals with an SPP RE Stakeholder Satisfaction Survey rating of 3.6.
2015 Goals

1. Work with the SPP RTO Compliance Department to develop a coordinated outreach effort for CIP Version 5 transition. The 2015 CIP Compliance Workshop will be mostly dedicated to CIP Version 5 requirements. Additional webinars and a practical exercise are in the early planning stages. SPP RE and the SPP RE Registered Entity will continue their involvement in the CIP Version 5 Transition Advisory Group and continue to keep the SPP membership up to date through the SPP CIP Working Group.

2. Continue working with NERC and other Regional Entities to streamline and standardize CMEP processes through tools and initiatives such as the Risk Based Compliance Monitoring and Enforcement program, Auditor Handbook, auditor training/certification, added on-site audit efficiencies, and reduced audit scope.

3. Develop internal controls to track and monitor CMEP activities.

4. Achieve a favorable rating on all NERC and FERC spot checks.

5. Develop “how-to” guides for Compliance and Enforcement webCDMS process and procedures.

6. Meet specific performance metrics and goals.

7. Monitor Registered Entities’ remediation of Facility Ratings discrepancies (FAC Alert), which draws to completion at the end of 2014.
SPP RE 2015 Staff Goals and Metrics

January 26, 2015

Ron Ciesiel
SPP RE General Manager
Goals and Metrics Development

• Support NERC ERO Performance Metrics
• Support NERC Internal Business Goals
• Support Risk-Based Compliance Monitoring and Enforcement and other NERC Initiatives
• Support SPP, Inc. Strategic Plan
• Reflect Anticipated Changes in Workload/Caseload
• More Mature and Experienced Staff
• Anticipated Process Changes
• Additional Metric to Support Continuous Improvement
## 2015 Goals and Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Goal</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expedite mitigation of High Impact Violations</td>
<td>100 days to Mitigation Plan acceptance</td>
<td>5%</td>
</tr>
<tr>
<td>Process 2014 year-end caseload within 2015</td>
<td>100% of 2014 caseload</td>
<td>10%</td>
</tr>
<tr>
<td>Accept/reject Mitigation Plans within 30 days of submission</td>
<td>100%</td>
<td>5%</td>
</tr>
<tr>
<td>Review Mitigation Plans for completion within 25 days of entity’s notice of completion</td>
<td>100%</td>
<td>5%</td>
</tr>
<tr>
<td>Process Pre-2014 Violations</td>
<td>100% of all Pre-2014 Violations</td>
<td>7.5%</td>
</tr>
<tr>
<td>Triage all Incoming Violations within 60 days</td>
<td>100% of 2015 Violations</td>
<td>5%</td>
</tr>
</tbody>
</table>
# 2015 Goals and Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Goal</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete documentation close-out of 2015 violations within 45 days</td>
<td>100%</td>
<td>5%</td>
</tr>
<tr>
<td>Publish off-site audit reports</td>
<td>45 days</td>
<td>5%</td>
</tr>
<tr>
<td>Publish on-site audit reports</td>
<td>65 days</td>
<td>5%</td>
</tr>
<tr>
<td>Review/Assess registration and deactivation requests within 10 days</td>
<td>10 days</td>
<td>5%</td>
</tr>
<tr>
<td>Publish assessment of self certifications and periodic data submittals by due date</td>
<td>100%</td>
<td>5%</td>
</tr>
<tr>
<td>Notify NERC of incoming violations</td>
<td>5 days</td>
<td>5%</td>
</tr>
</tbody>
</table>
## 2015 Goals and Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Goal</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control audit costs for contractors &amp; travel</td>
<td>2014 Adjusted</td>
<td>10%</td>
</tr>
<tr>
<td>Maintain or improve relay operations success rate</td>
<td>90%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Proper cause coding of events in SPP RE footprint</td>
<td>90%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Outreach production activities</td>
<td>100%</td>
<td>5%</td>
</tr>
<tr>
<td>Continuous Improvement Projects</td>
<td>100%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Overall 2015 Goals and Metrics

• Benefit Registered Entities by:
  – Providing timely processing of audit results and enforcement actions
  – Helping them return to compliance as soon as possible
  – Encouraging most efficient/effective use of SPP RE’s tools and resources
  – Focusing SPP RE staff on specific performance targets

• Successfully meeting all goals should positively impact BES reliability and improve RE processes
Questions or Comments?

Ron Ciesiel
rciesiel.re@spp.org
501-614-3265
1. **Expedite mitigation of High Impact (HI) Violations**

**Objective:** Encourage Registered Entities to mitigate HI violations as soon as possible.

The Compliance staff identifies HI violations based on the intersection of the Compliance staff’s risk determination\(^1\) and the assigned Violation Risk Factor (“VRF”).

<table>
<thead>
<tr>
<th>Risk Determination</th>
<th>VRF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>X</td>
</tr>
<tr>
<td>High</td>
<td>X</td>
</tr>
</tbody>
</table>

Enforcement shall fast track HI violations to ensure they are mitigated as soon as possible. To accomplish this metric, Enforcement will solicit the submission of an acceptable Mitigation Plan, issue a Notice of Alleged Violation or Proposed Penalty or Sanction (“NAVAPS”), or issue a remedial action directive within 100 days of receiving the possible violation from the Compliance staff.\(^2\),\(^3\)

**Measure:** Average number of days to MP Acceptance, issuance of a NAVAPS, or issuance of a Remedial Action Directive from receipt by Enforcement for all HI violations.

(As applicable, the date of MP acceptance, issuance of a remedial action directive, or issuance of the NAVAPS) – (the date the HI violation is sent to Enforcement) = days

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
<th>150%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of days</td>
<td>115</td>
<td>100</td>
<td>70</td>
</tr>
</tbody>
</table>

**Weight:** 7.5%

**Comments:**

i. Consistent with the downward trend of new violations of the Reliability Standards, the number of HI Violations has decreased from 41 in 2013 to 4 in 2014. Accordingly, the weighting assigned this metric has been reduced from 10% to 7.5%.

ii. This metric is aligned with and supports “Goal 4 – Risks to Reliability” in the *ERO Enterprise Strategic Plan 2015-2018* wherein, the ERO Enterprise will “[i]dentify the most significant risks to reliability, provide assurance for mitigating reliability risks . . . .” Additionally, the metric directly supports the timely mitigation of all noncompliance, a *Key Compliance Enforcement Metric* identified by NERC and included in its quarterly report to the NERC BOTCC.

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\(^1\) The initial risk determination will be made during the triage meeting between the Enforcement Staff and Compliance Staff.

\(^2\) HI violations may be exempted from HI treatment with Sanction Review Team approval.

\(^3\) HI violations without an accepted mitigation plan, issuance of a remedial action directive, or issuance of a NAVAPS on 1/1/15 will be included in the 2015 metric.
2. **Maintain caseload of no more than one year**

**Objective:** Maintain 2015 violation processing capability and efficiency to achieve a one-year caseload by 1/1/16.

As of 12/31/14, the SPP RE caseload is 119. To achieve the metric in 2015, SPP RE will send to NERC completed dispositions (i.e. Compliance Exceptions, Settlements, Notice of Confirmed Violations (“NOCV”), Find Fix & Track (“FFT”), Spreadsheet Notice of Penalty, or Dismissals) equivalent to 100% of the 12/31/14, Enforcement caseload.

**Measure:**

\[
\text{Performance contribution} = \frac{\text{Number of completed dispositions}}{\text{caseload on 12/31/14}} \times 100\%
\]

The number of dismissals shall include those dismissals not requiring NERC approval but approved by the SRT.

**Weight:** 10%

**Comments:**

i. This metric is aligned with and directly supports the caseload index target identified in NERC’s *Key Compliance Enforcement Metric* and included in its quarterly report to the NERC BOTCC.

3. **Accept or reject Mitigation Plans within 30 days of submission by the Registered Entity**

**Objective:** To accept submitted Mitigation Plans (“MP”) in accordance with Compliance Management Enforcement Program (“CMEP”) requirements. “Unless the time period is extended by the Compliance Enforcement Authority, it will complete its review of the Mitigation Plan, and will issue a written statement accepting or rejecting the Mitigation Plan, within thirty (30) days of receipt . . . . . . . The Compliance Enforcement Authority will notify the Registered Entity within ten (10) business days after receipt of a revised Mitigation Plan whether the Compliance Enforcement Authority will accept or reject the revised Mitigation Plan . . . .” CMEP Section 6.5.

**Measure:**

\[
\text{Performance contribution} = \frac{\text{Number of MPs accepted or rejected in <= required number of days in a month}}{\text{Number of MPs submitted/resubmitted in the month}} \times 100\%
\]

(accept/rejected days = (“submitted on date” in webCDMS) – (“accepted by region on” or “date of email requesting resubmission” in webCDMS))

To be able to calculate the metric in January 2016, the metric applies to all MPs submitted/resubmitted between 12/1/14 and 11/30/15.

**Weight:** 5%

**Comments:**

i. The 100% performance contribution is based on the number of months 100% of submitted/resubmitted MPs are accepted/rejected within the required number of days identified in the CMDP. For example if Enforcement accepts/rejects 100% of the MPs initially accepted/rejected within the required number of days, it will receive a performance contribution of 100% for that month.
<table>
<thead>
<tr>
<th>Goal</th>
<th>Weight: 5.0%</th>
</tr>
</thead>
</table>
| Comments: i. This metric was changed to include the requirement to accept/reject resubmitted MPs following a rejection within 10 business days of being resubmitted. The average number of days corresponding to an increased payout was reduced from 20 days to 15 days to reflect historical performance and the addition of the 10 day requirement for resubmitted MPs.  

ii. This metric is aligned with CMEP requirements and directly supports the timely mitigation of all noncompliance, a Key Compliance Enforcement Metric identified by NERC and included in its quarterly report to the NERC BOTCC. |

4. **Complete Mitigation Plan completion reviews within 25 days of Registered Entity notification of completion**

Objective: To complete the review of MP completions in accordance with SPP RE requirements.

Measure: Average MP completion review days

Days = (“certification received by region on” date in webCDMS) – (“mitigation verified on” date in webCDMS)

<table>
<thead>
<tr>
<th>Performance Contribution</th>
<th>50%</th>
<th>100%</th>
<th>150%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. days for review of MP completion</td>
<td>35</td>
<td>25</td>
<td>15</td>
</tr>
</tbody>
</table>

Weight: 5.0%

Comments: i. This metric directly supports the timely mitigation of all noncompliance, a Key Compliance Enforcement Metric identified by NERC and included in its quarterly report to the NERC BOTCC.

5. **Process pre-2014 violations and send to NERC by 11/20/15.**

Objective: To ensure older violations are processed in a timely manner.
Measure: 

\[
\text{(number of pre-2014 violation in the Enforcement caseload)}^6 / \text{(number of pre-2014 violation processed by 11/20/15)}^7
\]

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent sent to NERC</td>
<td>80%</td>
<td>90%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Weight: 7.5 %

Comments:

i. This metric is aligned with a metric NERC established for its Enforcement staff. NERC’s goal is to ensure the timely processing of violations. SPP RE Enforcement is required to report to NERC monthly the status of violations older than the prior year. This metric adds an age component to the violations that SPP RE Enforcement must processed in 2015.

ii. This metric directly supports the timely processing of all noncompliance, a Key Compliance Enforcement Metric identified by NERC and included in its quarterly report to the NERC BOTCC.

6. **Complete incoming possible violation triage within 60 days of Compliance staff sending the possible violation to Enforcement**

Objective: To improve the speed and efficiency of the Enforcement process, SPP RE will determine the proposed disposition method for incoming violations and inform the Registered Entity within 60 days of Compliance staff sending the violation to Enforcement, i.e., completion of the Preliminary Screen.

Measure: 

\[
\sum ((\text{date violation triage complete})^8 - \text{date the violation was sent to Enforcement}) / \text{(violations sent to Enforcement between 1/1/15 and 11/1/15)} = \text{average days to complete violation triage}
\]

<table>
<thead>
<tr>
<th>Performance Contribution</th>
<th>80%</th>
<th>100%</th>
<th>150%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average triage completion (days)</td>
<td>75</td>
<td>60</td>
<td>45</td>
</tr>
</tbody>
</table>

Weight: 5 %

Comments:

i. this metric directly supports the timely processing of all noncompliance, a Key Compliance Enforcement Metric identified by NERC and included in its quarterly report to the NERC BOTCC. Additionally, because the triage process is utilized to assess the risk of issues of noncompliance, this metric directly supports “Goal 4.a Risks to Reliability”, of the ERO Enterprise Strategic Plan 2015-2018 wherein “[r]isks are

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6 MRRE Pre-2014 violations where SPP RE is not the lead are not included in the metric.

7 Compliance Exceptions, FFT, Spreadsheet NOP, and Full NOP violations must be filed with NERC. For dismissals the Letter of Dismissal must be sent to NERC.

8 Violation triage is normally complete when the Notice of Possible Violation (NPV) is sent to the Registered Entity; a Letter of Dismissal or Compliance Exception spreadsheet is filed with NERC or initiation of discovery. In some cases, a formal triage meeting is unnecessary and an Enforcement email documenting its decision to forgo the meeting and a description of its basis, may be used as a substitute for a triage meeting.
identified and prioritized based on reliability impacts, cost and practicality of assessments, projected resources and emerging issues.”

7. **Complete documentation close-out of all violations within 45 days of issuance of the Notice of Completion of Enforcement Action.**

**Objective:** To ensure Enforcement case records and webCDMS are complete and include all documentation necessary to support the processing of a violation or Compliance Exception.

**Measure:** Violation documentation close-out has successfully occurred when:

1. SPP RE File Clerk has synced a Notice of Completion of Enforcement Action (“NCEA”) to NERC, causing the violation status to shift to “closed” status within webCDMS.
2. Case Manager and MP Engineer review the Violation Case Record and the Case Record folder is complete.
3. Substantive and relevant violation documentation has been copied to the violation Enforcement Docket folder and the folder is complete.
4. Documents required for sync with NERC have been uploaded to webCDMS.
5. webCDMS data fields have been completed and verified as accurate.
6. SPP RE File Clerk verifies and signs a Certification of Case Record Close-Out and saves the certification to the Enforcement Docket folder.
7. EFT files are deleted from the EFT folder and copied to the appropriate TMP and Enforcement Docket folders.

Average number of days to completed violation documentation closed-out following issuance of the NCEA or transmittal of the Compliance Exception spreadsheet = (Total number of days to complete documentation close-out for all violations/Compliance Exceptions closed as of 11/1/15) / (Total number of violations closed as of 11/1/15)

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Averaged close-out completion (days)</td>
<td>60</td>
<td>45</td>
</tr>
</tbody>
</table>

**Weight:** 5 %

**Comments:**

i. This metric has been change to include Compliance Exceptions and to required an average time for case file close-out rather than the performance of all close-out activities within 60 days. The performance goal has been changed from 60 days to 45 days to reflect Enforcement past performance and the use of an average value.

ii. This metric indirectly supports “Goal 5 – Coordination and Collaboration” in the ERO Enterprise Strategic Plan 2015-2018 wherein, the ERO Enterprise will “[i]mprove transparency, consistency, quality, and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and cost-effectiveness.”

---

9 A violation is closed when the NCEA is issued or the Compliance Exception spreadsheet is transmitted to NERC. For metric purposes, the closed violations subject to the metric will be derived from the NCEA’s issued between 11/1/14 and 11/1/15.
8. **Publish non-public off-site audit report to NERC**

**Objective:** To ensure non-public off-site audit reports are issued in a timely manner.

**Measure:** Average number of calendar days as measured from the last day of the audit to submission of the non-public audit report to NERC.

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
<th>120%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of days</td>
<td>50</td>
<td>45</td>
<td>40</td>
</tr>
</tbody>
</table>

**Weight:** 5%

**Comments:**

i. The average number of days associated with each performance contribution was decreased by 5 days in recognition of historical Audit team performance. The weighting for this metric was reduced from 7.5% to 5% to reflect this metrics importance in relation to other metrics.

ii. This metric is aligned with and supports “Goal 5 – Coordination and Collaboration” in the *ERO Enterprise Strategic Plan 2015-2018* wherein, the ERO Enterprise will “[i]mprove transparency, consistency, quality, and timeliness of results . . . .”

9. **Publish non-public on-site audit report to NERC**

**Objective:** To ensure non-public on-site audit reports are issued in a timely manner.

**Measure:** Average number of calendar days as measured from last day of the audit to submission of the non-public audit report to NERC.

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
<th>120%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of days</td>
<td>75</td>
<td>65</td>
<td>55</td>
</tr>
</tbody>
</table>

**Weight:** 5%

**Comments:**

i. The average number of days associated with each performance contribution was decreased by 5 days in recognition of historical Audit team performance. The weighting for this metric was reduced from 7.5% to 5% to reflect this metrics importance in relation to other metrics.

ii. This metric is aligned with and supports “Goal 5 – Coordination and Collaboration” in the *ERO Enterprise Strategic Plan 2015-2018* wherein, the ERO Enterprise will “[i]mprove transparency, consistency, quality, and timeliness of results . . . .”
10. **Review and issue determination for BES registration and deactivation requests**

**Objective:** To ensure self-determined notifications, new registration, and deactivation requests submitted pursuant to the BES definition change are reviewed and issued in a timely manner.

**Measure:** Average number of business days from SPP RE’s receipt of completed forms, including one-lines and all requested supporting data, to notifying the Registered Entity of SPP RE’s registration/deactivation decision.

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
<th>120%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of days</td>
<td>15</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

**Weight:** 5%

**Comments:**

i. This metric directly addresses and improves upon the 50 calendar day review period proposed in revisions to the NERC Rules of Procedure 5A and approved by the NERC board for review of de-activation requests.

ii. This metric directly supports the “ERO Enterprise Strategic Plan Goal 2a Registration”, and exceeds the timelines in the 2015 ERO Enterprise Metrics, sub-metric C related to proposed de-activation of IAs, PSEs, and some DPs.

11. **Publish internally completed assessment of Self-Certification/periodic data submittals**

**Objective:** Complete and publish internal assessments of Self-Certification and periodic data submittals by the due dates established in the SPP RE reporting requirements schedule.

**Measure:** \((\text{number of assessments completed by the due date}) / (\text{total number of assessments for 2015}) = \) percent completed on time

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>50%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent completed on time</td>
<td>80%</td>
<td>90%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Weight:** 5%

**Comments:**

i. The Performance Contribution associated with the 80% and 90% on time completion was reduced to 50% and 80% respectively to reflect a greater emphasis on completing 100% publication of internally completed assessments of self-certifications and periodic data submittals.

ii. This metric is aligned with and supports “Goal 5 – Coordination and Collaboration” in the *ERO Enterprise Strategic Plan 2015-2018* wherein, the ERO Enterprise will “[i]mprove transparency, consistency, quality, and timeliness of results . . . . . .”
12. **Process incoming possible violations to NERC through webCDMS in 5 business days or less**

**Objective:** To ensure possible violations are processed in webCDMS in a timely manner.

**Measure:** Average number of business days to enter possible violations into webCDMS as measured from the date of the Registered Entity exit presentation (audit, spot-check, etc.), or from the date the Registered Entity self-reported, as applicable, to completion of the Preliminary Screen.

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
<th>120%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of days</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

**Weight:** 5%

**Comments:**

i. This metric is a CMEP requirement. Additionally, this metric is aligned with and supports “Goal 5 – Coordination and Collaboration” in the *ERO Enterprise Strategic Plan 2015-2018* wherein, the ERO Enterprise will “[i]mprove transparency, consistency, quality, and timeliness of results . . . . .”

13. **Control out-of-pocket expenses for on-site/off-site audits (contractor billings and travel)**

**Objective:** Reduce out-of-pocket travel expense for on-site audits and contractor billings for on-site and off-site audits by improving efficiency and expanding the role Compliance staff plays in the production of audit reports.

**2015 Audit Budget:**

- CIP $300,000
- O&P $275,000

**Measure:** 

\[
\frac{[(2015 \text{ budget}) - (2015 \text{ actual})]}{[2015 \text{ budget}]} = \text{percent increase/decrease}
\]

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>50%</th>
<th>100%</th>
<th>150%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent difference</td>
<td>+10%</td>
<td>0%</td>
<td>-15%</td>
</tr>
</tbody>
</table>

**Weight:** 10 %

**Comments:**

i. This metric tracks out-of-pocket expense for audits (it does not track internal man-hours or fixed overhead expense.) The total contractor billings and travel expense for audits is tracked and monitored. The 2014 actual expense was used as a starting point, and the 2015 budget was used as the basis. The travel expense was adjusted to reflect recent increases in airfare, and hotel prices.

---

10 CMEP Section 3.8. “The Preliminary Screen shall be conducted within five (5) business days after the Compliance Enforcement Authority identifies the potential noncompliance . . . . .”
ii. Based on budget to actual performance in 2014 the percent difference for a 150% performance contribution was increased from -10% to -15%. Similarly, the performance contribution associated with a +10% difference was reduced from 80% to 50%.

iii. This metric is aligned with and supports “Goal 5 – Coordination and Collaboration” in the ERO Enterprise Strategic Plan 2015-2018 wherein, the ERO Enterprise will “[i]mprove transparency, consistency, quality, and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and cost-effectiveness.”

14. Continue outreach/assessment to maintain or improve protective relay operations success rate for 4Q2014 – 3Q2015

Objective: Improve the operations success rate for transmission and generation protective relay systems (i.e. reduce the rate of misoperations) through various outreach mechanisms, i.e. System Protection and Control Working Group, compliance workshops, and webinars.

Measure: \[
\frac{\text{total number of correct operations}}{\text{total number of operations}} = \text{success rate}
\]

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
<th>150%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success rate</td>
<td>88%</td>
<td>90%</td>
<td>92%</td>
</tr>
</tbody>
</table>

Weight: 2.5 %

Comments:

i. SPP RE does not have direct control over the operations success rate of protection system relays. Nevertheless, SPP RE will continue to focus its outreach and assessment efforts to reduce misoperations within the SPP region.

ii. The success rate associated with the 80%, 100% and 150% performance contribution was increased from 84% to 88%, from 87% to 90% and from 90% to 92% respectively to reflect historical performance.

iii. This metric directly supports the ERO Enterprise Metric 1: Reliability Results, Measure of Success 4. Protection System Misoperations, which is aligned with the reduction of protection system misoperations.

15. Assure proper Cause Codes can be verified from Event Analysis Reports issued by SPP RE Registered Entities

Objective: To ensure regional events are tied to their causes as accurately as possible to support NERC’s continent-wide tracking and trending.

Measure: Regional success rate published in periodic NERC report.

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>50%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success rate</td>
<td>80%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Weight: 2.5 %
Comments:

i. The 150% performance contribution was eliminated from this metric. The success rate for 100% performance contribution was changed from 96% to 100% and the performance contribution for a 80% success rate was reduced from 80% to 50% to reflect past performance.

ii. This metric is aligned with and supports the ERO Enterprise Metric 1: Reliability Results wherein a Measure of Success is having fewer, less severe events during 2015 - 2018.

16. Outreach Production Goals

Objective: Complete 3 workshops, 6 webinars, 12 newsletters

Measure: Percent completion: The number of workshop, webinars and newsletters completed in 2015 / (21), the number of workshops, webinars and newsletters planned in 2015.

An average outreach rating ≥ 3 for videos, webinars, workshops and newsletters is required for a performance contribution.

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>80%</th>
<th>100%</th>
<th>150%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent completion</td>
<td>80% + ≥ 3</td>
<td>100% + ≥ 3</td>
<td>100% + ≥ 4</td>
</tr>
<tr>
<td>Rating</td>
<td>Rating</td>
<td>Rating</td>
<td>Rating</td>
</tr>
</tbody>
</table>

Weight: 5 %

Comments:

i. This metric indirectly supports the ERO 2015 Enterprise and Corporate Metrics: Sub-metric A (the quality of board-approved standards), Sub-metric G (implementation of RAI reforms), Sub-metric H (increased participation in security model assessments and ES-ISAC), and Sub-metric K (improving stakeholder satisfaction and perception).

17. Continuous Improvement Project Goals

Objective: Complete identified projects designed to improve SPP RE’s performance of its compliance enforcement authority function and implementation of NERC directives.

(1) RAI Implementation - fully implement processes and procedures required for implementation of NERC’s Risk Base Initiative.
(2) Compliance Workbook – create a detailed how-to manual covering all Compliance/CDMS processes and procedures.
(3) Enforcement Workbook – create a detailed how-to manual covering all Enforcement/CDMS processes and procedures.
(4) Budget Workbook – develop a detailed how-to manual covering the SPP RE budget process.
(6) Develop internal controls to track and monitor CMEP activities.
Measure: The number of projects completed by 12/31/15.

<table>
<thead>
<tr>
<th>Performance contribution</th>
<th>50%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Completed</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

Weight: 10 %

Comments:

i. This is a new metric designed to give emphasis to continuous improvement of SPP RE CMEP processes and ensure timely implementation of recent NERC initiatives.

ii. The SPP RE General Manager will assign project leads and team members. The teams will develop a detailed works scope and present that work scope to the Trustees for their approval before the end of the 1st quarter of 2015.

iii. This metric directly supports two goals established in the ERO Enterprise Strategic Plan 2015-2018, “Goal 2b – Compliance, Registration, and Certification” wherein, one of the key deliverables is “[t]ransformation of the Reliability Assurance Initiative from concept to implementation” and Goal 5 “[i]mprove transparency, consistency, quality, and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and cost-effectiveness.”
Agenda

• CIP Version 5 Transition Update
• Training and Outreach
• CIP Version 5 Revisions
• CIP-014 (Physical Protection)
CIP Version 5 Transition Update

• Two Lessons Learned being finalized after industry comment:
  – Generation Segmentation
  – Far-End Relay

• Expected to be approved for official posting as Guidance in Support of a Reliability Standard at the February 2015 Standards Committee meeting.
CIP Version 5 Transition Update

• Three Lessons Learned currently posted for industry comment:
  – EACMS (Electronic Access Control or Monitoring Systems) Mixed Trust Authentication
  – Interactive Remote Access
  – Programmable Electronic Device
• Comments due to NERC by February 6, 2015.
CIP Version 5 Transition Update

• Top 15 Lessons Learned planned to be at least posted for industry comment by April 1, 2015.
  – Lessons Learned plan at the following URL: http://www.nerc.com/pa/CI/tpv5impmntnstdy/Planne\%20Lessons\%20Learned\%20and\%20FAQs.pdf

• Next Lessons Learned expected to be posted:
  – Virtualization (Virtual Machines and Virtual Local Area Networks)
  – Generation Interconnection (Generation Lead Line)
  – Grouping BES Cyber Systems
  – External Routable Connectivity
NERC-Sponsored Training

• CIP University (NERC web site) planned
  – Compilation of links and references to NERC and Regional training, presentations, guidance, and other CIP V5 information.

• Small Group Advisory Training
  – Three 3-day industry sessions scheduled in Atlanta:
    ▪ February 24-26, 2015
    ▪ March 24-26, 2015
    ▪ April 21-23, 2015
  – Agenda still being developed.
SPP Regional Outreach

• The SPP RE and SPP RTO compliance staffs are collaborating on CIP V5 outreach.
  – June “CIP Week” ([register here](#))
  – Webinars
  – Multi-entity outreach visits
  – One-on-one assistance visits

• Circulating an outreach survey to the SPP RE entities.
  – Survey closed January 21, 2015
  – Determining outreach needs by topic
  – Determining interest in site visits
Outreach Needs (57 Respondents)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Response percent</th>
<th>Response total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classifying BES Cyber Systems</td>
<td>55.56%</td>
<td>30</td>
</tr>
<tr>
<td>Grouping BES Cyber Systems</td>
<td>51.85%</td>
<td>28</td>
</tr>
<tr>
<td>Virtualization</td>
<td>35.19%</td>
<td>19</td>
</tr>
<tr>
<td>External Routable Connectivity</td>
<td>38.89%</td>
<td>21</td>
</tr>
<tr>
<td>Completing RSAWS (Reliability Standard Audit Worksheets)</td>
<td>37.04%</td>
<td>20</td>
</tr>
<tr>
<td>Evidence needed at audit</td>
<td>48.15%</td>
<td>26</td>
</tr>
<tr>
<td>Policy Template for CIP-003-S</td>
<td>44.44%</td>
<td>24</td>
</tr>
<tr>
<td>Document Template for CIP-004-5</td>
<td>33.33%</td>
<td>18</td>
</tr>
<tr>
<td>Document Template for CIP-006-5</td>
<td>33.33%</td>
<td>18</td>
</tr>
<tr>
<td>Document Template for CIP-010-1</td>
<td>37.04%</td>
<td>20</td>
</tr>
<tr>
<td>Programmable Electronic Devices</td>
<td>35.19%</td>
<td>19</td>
</tr>
<tr>
<td>Interactive Remote Access</td>
<td>40.74%</td>
<td>22</td>
</tr>
<tr>
<td>CIP Terms and Definitions</td>
<td>33.33%</td>
<td>18</td>
</tr>
<tr>
<td>System Baselining</td>
<td>44.44%</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>12.96%</td>
<td>7</td>
</tr>
</tbody>
</table>

Statistics based on 54 respondents
CIP Standards Revisions

- CIP-003-6, CIP-004-6, CIP-006-6, CIP-007-6, CIP-009-6, CIP-010-2, and CIP-011-2 were adopted by the NERC Board of Trustees November 13, 2014.
  - Removed Identify, Assess, and Correct Language from 17 requirements.
  - Addressed the Communications Networks directives of FERC Order 791.
    - CIP-006-6 / Requirement Part 1.10: Physical protection of cabling and other non-programmable components of BES Cyber Systems existing outside of the PSP.
CIP Standards Revisions

- Additional revisions in progress to address remaining FERC Order 791 directives.
- Comment and ballot period closed January 9, 2015.

<table>
<thead>
<tr>
<th>Ballot</th>
<th>Quorum</th>
<th>Weighted Segment Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP-003-7</td>
<td>81.22%</td>
<td>81.92%</td>
</tr>
<tr>
<td>CIP-004-7</td>
<td>81.71%</td>
<td>98.89%</td>
</tr>
<tr>
<td>CIP-007-7</td>
<td>81.46%</td>
<td>98.86%</td>
</tr>
<tr>
<td>CIP-010-3</td>
<td>81.71%</td>
<td>88.13%</td>
</tr>
<tr>
<td>CIP-011-3</td>
<td>81.71%</td>
<td>98.89%</td>
</tr>
<tr>
<td>CIP Implementation Plan</td>
<td>81.46%</td>
<td>97.21%</td>
</tr>
<tr>
<td>CIP-010 Definitions</td>
<td>81.71%</td>
<td>89.63%</td>
</tr>
<tr>
<td>CIP-003 Definitions</td>
<td>81.22%</td>
<td>86.02%</td>
</tr>
</tbody>
</table>
CIP Standards Revisions

• Revised Standards were approved by the ballot body
  – Submitted comments were reviewed by the Standards Drafting Team
  – No additional modifications to the CIP standards are necessary

• Revised CIP standards and Implementation Plan posted for final ballot
  – Ballot period closes at 8:00 PM Eastern Standard Time, Monday, February 2, 2015
CIP-014-1 (Physical Security)

- Approved by FERC Order 802 on November 20, 2014.
- Enforceable October 1, 2015.
- Compliance milestones (latest date is NLT Feb 16, 2017):
  - Initial risk assessment (IRA) complete on or before October 1, 2015
  - Assessment verification (IVA) = IRA + 90 calendar days
  - Assessment Modifications (AM) = IVA + 60 calendar days
  - Control Center Notification (CCN) = AM + 7 calendar days
  - Security Plan (SP) = AM (or IVA) + 120 calendar days
  - Security Plan review (SPR) = SP + 90 calendar days
CIP-014 (Physical Security) Revisions


• SAR proposes to address FERC Order 802 directives:
  – Remove the term “widespread” from CIP-014-1 or, alternatively, modify the standard to address Commission concerns.
  – Responsive filing required six months after the effective date of Order 802 (due July 24, 2015).
Helpful Resources

- **NERC Website Links:**
  - [CIP V5 Transition Home Page](#)
    - CIP V5 Standards and Implementation Plan
    - CIP V5 Transition Guidance
    - CIP V5 Transition Study Lessons Learned
  - **Project 2014-04 (Physical Security)**
    - CIP-014-1
    - CIP-014-1 Implementation Plan
    - CIP-014 Revisions SAR
Helpful Resources

- SPP RE Website: CIP V5 Outreach
  - [Identifying BES Cyber Systems SPP RE Webinar Updated 10-30-14](#)
  - [CIP V5 Transition Guidance SPP RE webinar- 2014-09-04](#)
  - [CIP_V5_SPP RE Hands-On Training Materials March_2014](#)
SPP RE CIP Team

- **Kevin Perry**, Director of Critical Infrastructure Protection
  (501) 614-3251
- **Shon Austin**, Lead Compliance Specialist-CIP
  (501) 614-3273
- **Steven Keller**, Lead Compliance Specialist-CIP
  (501) 688-1633
- **Jeremy Withers**, Senior Compliance Specialist-CIP
  (501) 688-1676
- **Robert Vaughn**, Compliance Specialist II-CIP
  (501) 482-2301
NERC CCC Update

January 26, 2015

Jennifer Flandermeyer

SPP Southwest Power Pool

Helping our members work together to keep the lights on... today and in the future
2015 Work Plan

• CCC 2015 Work Plan
  – Full Work Plan provided in background materials
  – On schedule to submit the following CCC documents for NERC Board review and approval in May 2015:
    ▪ CCC Charter
      – During the November 2015 Board meeting, it was decided that the monitoring language within the Rules of Procedure would remain, and that the CCC would review its Charter and related procedures to update language to reflect what the CCC has been doing to support NERC and act as an advisory role and actual activities and support the CCC performs.
    ▪ Associated CCC Procedures (CCCPP-001 through CCCPP-03, 07, 010)
ER0 Monitoring Subcommittee

• Stakeholder Survey
  – Changes for 2015
  – Consistency with previous years
  – Actions from survey results
  – Role of CCC
CCC Activities Supporting RAI

• Focus of the December CCC meeting was on RAI-related topics and the ERO Enterprise’s transition to risk-based compliance and enforcement activities. Further, the CCC discussed activities to support the implementation and rollout of the ERO’s Risk-based Compliance Oversight Framework and completion of deliverables included in the CCC 2015 Work Plan.
  – RAI reframed as RB-CMEP
  – Specific items where CCC support is occurring
Risk Based Registration Update

- The CCC’s Organization Registration and Certification Subcommittee continues to support NERC’s Risk-Based Registration initiative by forming a task force to work with NERC and the Registration Certification Functional Group (RCFG) on Phase 2 of RBR initiative.
NERC CCC 2015 Meeting Schedule

• March 3 – 4, 2015: Atlanta, GA (NERC)
• June 10 -11, 2015: Arlington, VA (NRECA host location)
• September 16-17 (Toronto, Canada), co-located with other committees
• December 2-3, 2015: Atlanta, GA (NERC)

http://www.nerc.com/comm/CCC/Pages/AgendasHighlightsandMinutes-.aspx
Registration and BES Definition Changes

January 26, 2015

Greg Sorenson
Senior Compliance Engineer
gsorenson.re@spp.org
501.688.1713
Overview

• BES Definition Changes
• Self-determined Notifications
• Exception Requests
• Risk Based Registration
Revised BES Definition Changes

- Normally open switches
- 100 kV and above networks
- 69 kV networks fed by multiple >100kV sources
  - >100kV source lines are no longer radial lines
- Reactive resources
- Generating stations with GSU 69kV high-side transformer that also serve load from the 69kV bus that have a 69/>100kV transformer to the BES
Self-Determined Notification (SDN) vs. Exception Request (ER)

- SDN – did not meet old BES definition, meets new BES definition (inclusion)
- SDN – met old BES definition, does not meet new BES definition (exclusion)
- ER – does not meet the new BES definition, but is material to the Reliable Operation of the BES (inclusion)
- ER – meets new BES definition, but is not material to the Reliable Operation of the BES (exclusion)
SPP RE Review of Self-Determinations

• BES Definition Reference Handbook
• SPP RE Review time averaged 8.5 business days in 2014
• NERC met monthly to validate notifications
• Clear, well-marked, One-line diagrams and meter data greatly expedited review – thank you!
• BESnet tool still available for use if needed
SPP RE Review of Exception Requests

• Initial Review: Is sufficient information provided to evaluate?
  – 60 day maximum per NERC RoP
  – We allow a 14 day comment period during the initial review for TOP/RC/PA comments

• Substantive Review: Technical Evaluation
  – We will review the submitted information
  – We may run load flow studies
  – We may convene a Technical Review Panel
NERC Review of Exception Requests

• After SPP RE issues a Recommendation, Entities have 30 days to respond prior to the NERC decision

• NERC will evaluate the regional recommendation and issue a decision within 90 days of the regional recommendation

• The NERC decision completes the decision process, but is subject to appeal
Compliance Obligations

• For elements that are no longer part of the BES definition, the compliance obligation ends once region is notified via a self-determined notification.

• New BES Elements: must be compliant with all Reliability Standards by July 1, 2016.

• During an Exception Request the BES status per the definition applies.
Revised BES definition NERC

• July 1, 2014 implementation
• Most activity in NPCC (100kV – 200kV)
• 1000 Self-Determination notifications NERC wide submitted
  – 91 awaiting regional or NERC action
• 11 Exception Requests NERC wide submitted
  – 10 awaiting regional or NERC action

Data as of January 12, 2015
Revised BES Definition SPP RE

• No changes to the list of registered entities
• 134 exclusion self-determinations and 8 inclusion self-determinations filed by SPP RE entities
• 138 were accepted by NERC, 2 rejected by NERC, 2 awaiting NERC action
• 3 Exception requests for exclusion have been filed
  – NERC stated one could be filed as an SDN
• BESnet tool still available for use, but not much additional action is anticipated
Risk Based Registration

- NERC has filed proposed changes to the NERC RoP
- If approved, Purchasing-Selling Entities, Interchange Authorities, and Load Serving Entities would no longer be registered functions
- The registration load threshold for Distribution Providers would increase to 75MW
- SPP RE will make registration changes after FERC approval
Summary

• Self-determined Notifications
• Exception Requests
• Risk Based Registration
Reliability Assurance Initiative

The Reliability Assurance Initiative (RAI) is the Electric Reliability Organization’s (ERO) strategic initiative to transform the current compliance and enforcement program into one that is forward looking, focuses on high reliability risk areas and reduces the administrative burden on registered entities.
ZERO TOLERANCE
RAI

From: Historical Compliance

To: Future Assurance
RAI - Compliance

- Auditor Handbook and Checklist
- Inherent Risk Assessment (IRA) Guide
- Internal Control Evaluation (ICE) Guide
- Bulk Electric System (BES) Exception Process
- Multi-Regional Registered Entity (MRRE) Audit Process (see page 5)
- Regional Consistency Reporting Tool
- Risk Based Registration (RBR)
RAI - Enforcement

- Enhanced Find Fix Track (FFT)
- Compliance Exception
- Self-Logging of Minimal Risk Issues
RAI – Overview Links

• RAI Article - SPP RE October 2014 Newsletter
• NERC RAI Program Page
RELIABILITY ASSURANCE INITIATIVE

RISK BASED COMPLIANCE
INHERENT RISK ASSESSMENT (IRA)
Definition

- Risk
  - Possibility that something undesirable will happen
  - Measured as a combination of likelihood and impact
Types of Risk

- **Inherent Risk**
  - Risks “built-in” to a given entity, based on geography, what facilities it operates, “interconnectedness,” etc.

- **Control Risk**
  - Risk that management practices or control activities are not achieving their reliability or compliance objectives

- **Detection Risk**
  - Risk that possible violations are going unnoticed

- **Residual Risk**
  - Risk that remains after application of a control and other mitigating factors
  - Difficult and expensive to eliminate 100% of risk – we must live with some risk
Risk Based Compliance Framework
The first step - Risk Elements

- Registered Entity Functions
- ERO & Regional Characteristics
- Events
- RISC

Risk Elements

IRA

Input
Scope
Inherent Risk Assessment

ICE

Input
Focus
Internal Controls Evaluation

CMEP Tools

Scope and Focus for Entities not participating in ICE

Entity Compliance Oversight Plan

Oversight Tool Selection
INITIAL SCOPE

• No longer an actively monitored list (AML) (i.e. no longer a “one size fits all” approach).
• New – on an annual basis, risk elements are identified which drive the standards and requirements selected as the initial or base scope.
• Also on an annual basis, each Region identifies local risk elements to add to their regional base scope.
• 2015 ERO Compliance Monitoring and Enforcement Implementation Plan
## Example Risk Element

**Table 4 – Workforce Capability**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Requirements</th>
<th>Entities for Attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP-004-3a</td>
<td>R1, R2</td>
<td>Balancing Authority, Generator Operator, Generator Owner, Reliability Coordinator, Transmission Operator, Transmission Owner</td>
</tr>
<tr>
<td>EOP-001-2.1b</td>
<td>R2, R3 R4</td>
<td>Transmission Operator, Balancing Authority</td>
</tr>
<tr>
<td>EOP-003-2</td>
<td>R8.</td>
<td>Transmission Operator, Balancing Authority</td>
</tr>
<tr>
<td>EOP-005-2</td>
<td>R10.</td>
<td>Transmission Operator</td>
</tr>
<tr>
<td>EOP-005-2</td>
<td>R11.</td>
<td>Transmission Operator, Transmission Owner, Distribution Provider</td>
</tr>
<tr>
<td></td>
<td>R17.</td>
<td>Generator Operator</td>
</tr>
<tr>
<td>EOP-006-2</td>
<td>R9, R10</td>
<td>Reliability Coordinator</td>
</tr>
<tr>
<td>PER-005-1</td>
<td>R3.</td>
<td>Reliability Coordinator, Balancing Authority, Transmission Operator</td>
</tr>
<tr>
<td>TOP-004-2</td>
<td>R6</td>
<td>Transmission Operator</td>
</tr>
</tbody>
</table>
The second step - Inherent Risk Assessment

- Registered Entity Functions
- ERO & Regional Characteristics
- Events
- RISC

Inherent Risk Assessment

Internal Controls Evaluation

Oversight Tool Selection

Entity Compliance Oversight Plan
IRA FLOW CHART

Information Gathering
- Gather Risk Elements Module Output
- Determine Entity Specific Information Needs to Perform IRA
- Develop Targeted Information Request List

Assessment
- Risk Factor and Standards and Requirements Applicability Review
- Risk Factor Analysis
- Review of IRA Conclusions

Results
- Results Documentation
- Draft Compliance Oversight Plan for Registered Entity
What does a risk assessment look like?

- Not a letter grade or single rating
- Entities will **not** be compared and ranked

### Technical Assessment

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Low Risk</th>
<th>Moderate Risk</th>
<th>High Risk</th>
<th>Entity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>PSE, LSE, DP</td>
<td>GO, GOP, TO, IA, PA</td>
<td>RC, BA, TOP</td>
<td>High - TOP</td>
</tr>
<tr>
<td>Geography/Climate</td>
<td>Flat or no identified issues</td>
<td>Moderate terrain issues (list)</td>
<td>Mostly rugged terrain, mountains, oceans</td>
<td>Low – Flat. No identified issues.</td>
</tr>
<tr>
<td>Vegetation Management</td>
<td>Little or no trees (plains; desert)</td>
<td>Moderate climate</td>
<td>Invasive climate or past identified issues</td>
<td>Moderate climate with variable terrain.</td>
</tr>
<tr>
<td>Transmission</td>
<td>Voltage: &lt; 100kV</td>
<td>100 - 230kV</td>
<td>&gt; 230kV</td>
<td>High - 345 kV</td>
</tr>
<tr>
<td></td>
<td>Length over 100kV: &lt; 100 miles</td>
<td>100 - 500 miles</td>
<td>&gt; 500 miles</td>
<td>High – 720 miles &gt; 100kV</td>
</tr>
<tr>
<td></td>
<td>Interconnections: 1</td>
<td>2 - 5</td>
<td>6 or more</td>
<td>High – 18 Interconnections</td>
</tr>
<tr>
<td></td>
<td>Flowgates: No Flowgates</td>
<td>1 - 5</td>
<td>6 or more</td>
<td>High – 12 flowgates</td>
</tr>
<tr>
<td></td>
<td>IROL's: No IROL's</td>
<td>1 - 2 IROL's</td>
<td>&gt; 2 IROL's</td>
<td>Low - None</td>
</tr>
<tr>
<td></td>
<td>DC Interconnection: None</td>
<td>1</td>
<td>&gt;2</td>
<td>Low - None</td>
</tr>
<tr>
<td></td>
<td>SPS: No SPS</td>
<td>1 SPS</td>
<td>2 or more SPS</td>
<td>Low - None</td>
</tr>
<tr>
<td></td>
<td>UFLS: No UFLS</td>
<td>UFLS</td>
<td>Past issues with UFLS</td>
<td>Moderate - UFLS</td>
</tr>
<tr>
<td></td>
<td>UVLS: No UVLS</td>
<td>UVLS</td>
<td>Past issues with UVLS</td>
<td>Low – no UVLS</td>
</tr>
</tbody>
</table>
WHERE DOES RESOURCE INFORMATION COME FROM?

- Pre-Audit Questionnaire with basic information and facts about the Registered Entity.
- SPP RTO – IROL list; SPS list; system maps.
- Previous audits.
- Violation history.
- Self-certifications.
- Periodic data submittals.
- Information available to the general public – websites; annual reports.
IRA CONCEPTS

• IRA results (output) will be shared with the Registered Entity.

• IRAs expected to be completed for all 3-year audits scheduled in 2015.
  – IRA will initially drive audit scope.

• Regional Entities will develop plans to complete all registered entity IRAs.

• IRAs will help drive compliance monitoring plans for all entities: audit; spot check; self-certification; periodic data submittal.

• **Inherent Risk Assessment Guide**
The third step - Internal Controls Evaluation, is optional.
What are internal controls?
Basic Types of Controls

• Preventative
  ▪ Aimed at preventing errors or irregularities from occurring which may have negative effects

• Detective
  ▪ Designed to find out and discover the different errors or irregularities which may have occurred

• Corrective
  ▪ Corrective controls restore the system or process back to the state prior to a harmful event
Key Controls

A key control is one that is required to provide reasonable assurance that material errors will be prevented or timely detected.

Key controls most likely work in combination with other preventive, detective, and corrective controls to effectively address the risk.
ICE

• ICE will take time in the initial phase. Efficiencies will come over time.

• Short term pain, but may yield long term gain.

• Collaborative engagement with registered entity to finalize scope of each ICE engagement.
  – ICE may be limited to certain standards or requirements
  – ICE may, or may not, be tied to parts of an IRA

• ICE activities may occur in parallel with IRA activities.
What is this?

an ice floe
ICE Flow

Identify key controls related to risks → Request controls information → Test effectiveness of controls → Identify how well controls address risks and provide compliance assurance

For a more detailed flow chart, see page 3 of the NERC Internal Controls Evaluation Guide
ICE Outcomes

• Compliance oversight for the registered entity:
  ▪ On-site or off-site Audit
  ▪ Spot Check
  ▪ Self Certification
  ▪ Other?

• Customized CMEP tools:
  ▪ Scope and focus of audit
  ▪ Scope and focus of self certification
  ▪ Spot checks and investigations

• Document and communicate results with the registered entity

• Feedback to registered entity
  ▪ Areas of strength
  ▪ Areas of improvement
3 part communication process is clearly established

Operators trained regularly on 3 part communication

Operator consoles have a visual reminder to use 3 part communication

Operators use 3 part communication for all information exchange and not just directives

All directives recorded on tapes

Shift supervisor regularly listens to the tapes to verify 3 part communication

Feedback to operators on improving 3 part communication
IRA and ICE Timing

These two figures show how **Data and Information flows (not timing)**...

Here is **one of many scenarios** how they may play out on a timeline...

Here is **another scenario** how they may play out on a timeline...
Total SPP Events for 2014

- 30 total events, 13 Category 1 Events, 3 Category 2 events analyzed via NERC’s Event Analysis process
SPP Regional Events (October 1\textsuperscript{st} –December 31\textsuperscript{st})

- One category 1h. Partial loss of monitoring or control, at a control center for 30 min
- One category 1a. An unexpected outage, contrary to design, of three or more BPS facilities
- One category 2a. Complete loss of SCADA, control or monitoring for 30 min
Loss of SCADA

- Technician Error
  - Technician accidently cut fiber optic cable
  - SCADA communication was lost to 15 69KV substations, 4 161 KV substations and 2 generating stations
  - Event lasted 133 min
Three Phase Fault

- 345 KV Phase fell onto 230 KV line
  - Top portion of structure on fire and broken free
  - 345 KV line was in contact with all three phases of the 230 KV line
  - Equipment lost 345 KV line, Two 230 KV lines, One 115 KV line, One Unit 750 MW generation online at time of trip.
Complete loss of SCADA

- Failed failover test resulted in complete loss of EMS
  - Failover test from the Backup site
  - EMS Staff on-site at Primary unable to bring primary and back-up systems back online.
  - Primary was re-booted
  - Duration 43 min
NERC LESSONS LEARNED
Control System Network Switch Failure

- Partial failure of a core switch for two units but allowed ports to stay open
- Secondary switch detected failure opened its ports for communication
- Simultaneous operation caused network to loop generating a data storm
- Data storm blocked communication to unit controls.
Control System Network Switch Failure

• Lesson Learned
  – Redundant devices may introduce unanticipated scenarios if not fully tested
  – Consider external monitor for diagnostics and alarming
  – Testing of network topology and failover
Bus Differential Power Supply Failure

- The differential relay power supply capacitor started degrading
  - The failing capacitor caused the analog to digital converter to give erroneous current and voltage values.
  - This resulted in an “A” phase Bus trip on bus 1 and Bus 2
  - 58,000 customers lost
Bus Differential Power Supply Failure

• Corrective Actions

  – The affected DC power supplies were replaced with new versions of power supplies that incorporate additional self-monitoring
Bus Differential Power Supply Failure

- Lesson Learned
  - For high impact schemes supervision should be independent of the tripping device
  - If one scheme is used to trip two busses then there should have involved increased security when applied
  - Relay manufactures should ensure there is sufficient device monitoring.
Loss of Generators Due to Control Air

- Multiple issues with Generators tripping due to control air
- **Corrective Actions**
  - Procedural changes to reduce non critical air usage
  - Reconfigure electrical supply to air compressors so that the loss of one source would not trip multiple air compressors
  - Install additional air compressors
Loss of Generators Due to Control Air

• Lesson Learned
  – Plant personnel should be aware that when headers are tied together a problem could result in multiple units tripping
FAC Alert January 15th 2015

- Remediation

100% of the High priority lines are complete

72% of the Medium priority lines are complete

75% of the low priority lines are complete
Links

- SPP RE Event Analysis Webpage
  
  http://www.spp.org/section.asp?pageID=142

- Event Analysis Process Documents
  

- SPP Lessons Learned
  

- NERC Lessons Learned
  
Enforcement Update

January 26, 2015

Joe Gertsch
Manager of Enforcement
jgertsch.re@spp.org
501-688-1672
<table>
<thead>
<tr>
<th>SPP RE Enforcement Activities</th>
<th>December 31, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
</tr>
<tr>
<td>Notice of Preliminary Screen Issued</td>
<td>26</td>
</tr>
<tr>
<td>Notice of Possible Violations Issued</td>
<td>6</td>
</tr>
<tr>
<td>Notice of Alleged Violation (NAVAPS)</td>
<td>6</td>
</tr>
<tr>
<td>Notice of Confirmed Violation (NOCV)</td>
<td>0</td>
</tr>
<tr>
<td>NOCV Sent to Entity/NERC</td>
<td>0</td>
</tr>
<tr>
<td>NOCV BOTCC Approved</td>
<td>0</td>
</tr>
<tr>
<td>Settlements / Full Notice of Penalty</td>
<td></td>
</tr>
<tr>
<td>To NERC for Approval</td>
<td>0</td>
</tr>
<tr>
<td>BOTCC Approved</td>
<td>0</td>
</tr>
<tr>
<td>Settlements / Spreadsheet NOP</td>
<td></td>
</tr>
<tr>
<td>To NERC for Approval</td>
<td>0</td>
</tr>
<tr>
<td>BOTCC Approved</td>
<td>0</td>
</tr>
<tr>
<td>Find, Fix, Track</td>
<td></td>
</tr>
<tr>
<td>To NERC for Approval</td>
<td>-</td>
</tr>
<tr>
<td>BOTCC Approval</td>
<td>-</td>
</tr>
<tr>
<td>Compliance Exception</td>
<td>-</td>
</tr>
<tr>
<td>Dismissals</td>
<td></td>
</tr>
<tr>
<td>To NERC/SPP RE SRT for Approval</td>
<td>0</td>
</tr>
<tr>
<td>NERC/SPP RE SRT Approved</td>
<td>0</td>
</tr>
<tr>
<td>Notice of Penalty</td>
<td></td>
</tr>
<tr>
<td>Approved by FERC</td>
<td>0</td>
</tr>
</tbody>
</table>

| Violations Awaiting BOTCC Approval                    | 14    |      |      |      |      |      |      |              |                |              |          |          |          |
| Active Violations - Caseload                         | 119   |      |      |      |      |      |      |              |                |              |          |          |          |
| Caseload Index (months)*                              | 7.6   |      |      |      |      |      |      |              |                |              |          |          |          |

* Based on previous 12 months processing (188)
## Enforcement Monthly Violation Processing

### Running Total Violations

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>15</td>
<td>35</td>
<td>43</td>
<td>44</td>
<td>54</td>
<td>74</td>
<td>81</td>
<td>96</td>
<td>139</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td>6</td>
<td>16</td>
<td>25</td>
<td>51</td>
<td>65</td>
<td>82</td>
<td>123</td>
<td>149</td>
<td>164</td>
<td>183</td>
<td>261</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
<td>15</td>
<td>38</td>
<td>48</td>
<td>59</td>
<td>70</td>
<td>93</td>
<td>111</td>
<td>170</td>
<td>194</td>
<td>217</td>
<td>254</td>
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<tr>
<td>2013</td>
<td>10</td>
<td>16</td>
<td>27</td>
<td>35</td>
<td>52</td>
<td>75</td>
<td>81</td>
<td>115</td>
<td>116</td>
<td>146</td>
<td>164</td>
<td>175</td>
</tr>
<tr>
<td>2014</td>
<td>10</td>
<td>17</td>
<td>45</td>
<td>49</td>
<td>56</td>
<td>84</td>
<td>115</td>
<td>135</td>
<td>149</td>
<td>161</td>
<td>169</td>
<td>188</td>
</tr>
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</table>
Enforcement Processing Methods

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dismissals</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>16</td>
<td>75</td>
<td>43</td>
<td>41</td>
<td>44</td>
</tr>
<tr>
<td>Comp. Exception</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Find, Fix, Track</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>43</td>
<td>78</td>
<td>86</td>
<td>62</td>
</tr>
<tr>
<td>SNOP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>22</td>
<td>49</td>
<td>43</td>
<td>59</td>
</tr>
<tr>
<td>Settlement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>89</td>
<td>118</td>
<td>82</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>NOCV</td>
<td>0</td>
<td>8</td>
<td>25</td>
<td>15</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>
Enforcement Caseload – December 31, 2014

- 119 - Open Violations
  - 26 - Joint Settlement w/ Other Regions
  - 13 - Settlement
  - 80 - Settlement Not Requested (NAVAPS/NOCV)

- 36 - 693 Violations

- 83 - CIP Violations

- 12 - High Impact Violations

- Discovery Method
  - 46 - Audit
  - 59 - Self Report
  - 9 - Self Certification
  - 1 - Spot Check
  - 4 - Investigation
Caseload Aging

- **SPP RE** – 94 violations, average age - 306 days
  
<table>
<thead>
<tr>
<th>Age (days)</th>
<th>Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 300</td>
<td>44</td>
</tr>
<tr>
<td>201 – 300</td>
<td>14</td>
</tr>
<tr>
<td>101 – 200</td>
<td>16</td>
</tr>
<tr>
<td>51 – 100</td>
<td>4</td>
</tr>
<tr>
<td>1 - 50</td>
<td>16</td>
</tr>
</tbody>
</table>

- **Pre-2014 violations** - 40

- **MRRE** – 25 violations, average age - 238 days
High Impact Violation Summary

• 12 – Open High Impact Violations
  4 - Settlement
  1 - Multi Region
  7 - Disposition Undetermined

• Open High Impact Violations Mitigation Status
  5 - Mitigation Plan Complete
  6 - Mitigation Plan Accepted
  1 – Certification received, under review
SPP RE 2014 Violation Dismissals

Consolidation with another violation .......................... 24
NERC V3 – V5 Guidance (approach 2) ........................... 2
Self-Report wrong standard and/or requirement....... 5
Provided exculpatory evidence ........................................ 8
Incorrect Interpretation of Standard ............................ 5

Total ................................................. 44
December Mitigation Plan Summary

• Mitigation Plan Status (month/year)
  Submitted       2/99
  Accepted        2/102
  Certified Complete     8/99
  Completion Verified   4/101

• Open Violations with no Mitigation Plans
  Initiated       65
  Submitted       4
  Total            69
Southwest Power Pool
Regional Entity

Joe Gertsch
Manager of Enforcement
jgertsch.re@spp.org
501-688-1672
SPP RE General Manager’s Report to the SPP RE Trustees

January 26, 2015
Dallas, Texas

Ron Ciesiel
SPP RE General Manager
Vegetation Management Update

- NERC 4Q 2014 Vegetation Management Report
  - No reportable contacts in SPP RE footprint
  - 7th consecutive quarter with no reportable contacts
Operation/Misoperation Comparison

![Graph showing the comparison between operations and misoperations over different quarters.](chart)
Causes of Misoperations 3Q 2012-3Q 2014
Misoperations by Voltage
Misoperations by Type

[Bar chart showing the number of misoperations by type for different quarters from Q1-11 to Q3-14. The chart includes categories such as Unnecessary Trip during fault, Unnecessary Trip other than fault, Failure to Trip, Slow Trip, and Still Under Review.]
## Most Violated Standards

Based on rolling 12 months through 12/31/14 [Represents ~ 88% of total violations]

<table>
<thead>
<tr>
<th>Rank</th>
<th>NERC 12 Month Rank</th>
<th>Standard</th>
<th>Description</th>
<th>Number of Violations</th>
<th>Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>CIP-007</td>
<td>Systems Security Management</td>
<td>28</td>
<td>Med./Lower</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>CIP-005</td>
<td>Electronic Security Perimeters</td>
<td>15</td>
<td>Med./Lower</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>CIP-006</td>
<td>Physical Security - Critical Cyber Assets</td>
<td>13</td>
<td>Med./Lower</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>FAC-008</td>
<td>Facility Ratings (includes FAC-009)</td>
<td>11</td>
<td>Med./Lower</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>CIP-003</td>
<td>Security Management Controls</td>
<td>11</td>
<td>Med./Lower</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>CIP-002</td>
<td>Critical Cyber Asset Identification</td>
<td>8</td>
<td>High/Lower</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>CIP-004</td>
<td>Personnel &amp; Training</td>
<td>8</td>
<td>Med./Lower</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>VAR-002</td>
<td>Network Voltage Schedules</td>
<td>6</td>
<td>Med./Lower</td>
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<td>9</td>
<td>5</td>
<td>PRC-005</td>
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<td>High/Lower</td>
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<td>10</td>
<td>**</td>
<td>TOP-002</td>
<td>Normal Operations Planning</td>
<td>2</td>
<td>Med./Lower</td>
</tr>
</tbody>
</table>

* NERC as of June 30, 2014
** Not in NERC Rolling 12 month Top Ten
SPP RE December 2014
Financial Report

January 26, 2015

Debbie Currie
Manager, Regulatory Interface and
Process Improvement
dcurrie.re@spp.org
501.688.8228

Southwest Power Pool
Regional Entity
December 2014 Financial Overview

• SPP RE ended the year with 4 open staff positions
• Open positions drive a large percentage of actual to budget variance
  ▪ Impacts Personnel Expenses, Travel Expenses and SPP, Inc. Overhead Charge
  – These positions are included in the 2015 Budget
  – Likely to eliminate one or more open positions in 2016 budget, but not all. Open positions may be needed for:
    ▪ RAI Initiatives
    ▪ CIP V5 activities
December 2014 Financial Overview, cont.

• Contractor/Consultant/Professional Service costs below budget
  – Audit Performance Improvement by Registered Entities
    ▪ Reduction in violations
  – Cancellation of CIP off-site audits
  – No hearings
  – Increase in staff experience
    ▪ Pre-audit work leading to reduced time onsite or a reduction in audit team size
  – Smooth roll-out of BES definition
December 2014 YTD Actuals vs. Budget

- Total expenses ~$2.4 Million under budget
  - Personnel Expenses ~$894k under budget
  - Meeting/Travel Expenses ~$85k under budget
  - Professional Services ~$642k under budget
  - SPP, Inc. Overhead Charge ~$733k under budget
Budget Highlights

• Proposed 2015 budget $11.8 million
• Decrease in expenses $16k/0%
• 4 open positions will continue to drive a budget under-run in 2015
• 2016 Budget work will begin mid-February
Questions?

Debbie Currie
Manager, Regulatory Interface and Process Improvement
dcurrie.re@spp.org
**SOUTHWEST POWER POOL REGIONAL ENTITY**  
**STATEMENT OF ACTIVITIES**  
**2014 DECEMBER YTD DRAFT (UNAUDITED)**

### Funding

<table>
<thead>
<tr>
<th></th>
<th>2014 DEC YTD</th>
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<th>2014 FULL YEAR</th>
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<tr>
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<td>Total SPP RE Funding</td>
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<td>Testing Fees</td>
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<tr>
<td><strong>Total Funding (A)</strong></td>
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<td>9,727,456</td>
<td>2,678</td>
<td>9,727,456</td>
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### Expenses

#### Personnel Expenses

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<tr>
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<th>2014 DEC YTD</th>
<th>VARIANCE</th>
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<tr>
<td></td>
<td>ACTUAL</td>
<td>BUDGET</td>
<td></td>
<td>PROJECTION</td>
<td>YEAREND BUDGET</td>
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</tr>
<tr>
<td>Salaries</td>
<td>3,331,219</td>
<td>4,103,334</td>
<td>(772,115)</td>
<td>3,412,570</td>
<td>4,103,334</td>
<td>(690,764)</td>
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<tr>
<td>Payout Taxes</td>
<td>223,010</td>
<td>313,905</td>
<td>(90,895)</td>
<td>232,602</td>
<td>313,905</td>
<td>(81,303)</td>
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<tr>
<td>Benefits</td>
<td>325,816</td>
<td>330,805</td>
<td>(4,989)</td>
<td>326,359</td>
<td>330,805</td>
<td>(4,446)</td>
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<tr>
<td>Retirement Costs</td>
<td>137,880</td>
<td>104,133</td>
<td>(33,747)</td>
<td>140,646</td>
<td>104,133</td>
<td>(36,513)</td>
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<tr>
<td><strong>Total Personnel Expenses</strong></td>
<td>4,017,985</td>
<td>4,912,177</td>
<td>(894,192)</td>
<td>4,112,177</td>
<td>4,912,177</td>
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#### Meeting Expenses

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<tr>
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<tr>
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<td>BUDGET</td>
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<td>PROJECTION</td>
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<tr>
<td>Meetings</td>
<td>101,112</td>
<td>91,500</td>
<td>9,612</td>
<td>108,385</td>
<td>91,500</td>
<td>16,885</td>
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<tr>
<td>Travel</td>
<td>399,004</td>
<td>486,000</td>
<td>(87,006)</td>
<td>319,115</td>
<td>486,000</td>
<td>(166,885)</td>
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<td><strong>Total Meeting Expenses</strong></td>
<td>492,116</td>
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<td>427,500</td>
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#### Operating Expenses

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<tr>
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<tbody>
<tr>
<td></td>
<td>ACTUAL</td>
<td>BUDGET</td>
<td></td>
<td>PROJECTION</td>
<td>YEAREND BUDGET</td>
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<tr>
<td>Contracts &amp; Consultants</td>
<td>707,843</td>
<td>1,031,000</td>
<td>(323,157)</td>
<td>691,446</td>
<td>1,031,000</td>
<td>(339,554)</td>
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<td>Office Rent</td>
<td>-</td>
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<tr>
<td>Office Costs</td>
<td>10,995</td>
<td>8,000</td>
<td>2,995</td>
<td>11,147</td>
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<td>Administrative Costs</td>
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<td>Professional Services</td>
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<td>466,100</td>
<td>(322,282)</td>
<td>127,508</td>
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<td>(338,592)</td>
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<td>Computer Purchase &amp; Maint</td>
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<tr>
<td>Depreciation</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Miscellaneous/Contingency</td>
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<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>862,096</td>
<td>1,505,100</td>
<td>(642,404)</td>
<td>830,100</td>
<td>1,505,100</td>
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#### Total Direct Expenses

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<tbody>
<tr>
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<td>ACTUAL</td>
<td>BUDGET</td>
<td></td>
<td>PROJECTION</td>
<td>YEAREND BUDGET</td>
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<tr>
<td>SPP Inc Indirect Expenses</td>
<td>4,095,458</td>
<td>4,828,852</td>
<td>(733,394)</td>
<td>4,103,852</td>
<td>4,828,852</td>
<td>(725,000)</td>
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<td>SPP RE Indirect Expenses</td>
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<tr>
<td><strong>Total Indirect Costs</strong></td>
<td>4,095,458</td>
<td>4,828,852</td>
<td>(733,394)</td>
<td>4,103,852</td>
<td>4,828,852</td>
<td>(725,000)</td>
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#### Total Expenses

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<tr>
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<td>ACTUAL</td>
<td>BUDGET</td>
<td></td>
<td>PROJECTION</td>
<td>YEAREND BUDGET</td>
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<tr>
<td>Net Change in Assets (A-B)</td>
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<td>(2,355,373)</td>
<td>9,473,629</td>
<td>11,823,629</td>
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#### Fixed Assets

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<td>Depreciation</td>
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<tr>
<td>Computer &amp; Software CapEx</td>
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<td>Leasehold Improvements</td>
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<td>Increase/(Decrease)in Fixed Assets (C)</td>
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#### Total Budget (Expenditures plus Incr (Dec) in Fixed Assets (B+C))

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<tbody>
<tr>
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<td></td>
<td>PROJECTION</td>
<td>YEAREND BUDGET</td>
<td></td>
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<tr>
<td>Change in Working Capital (Total Funding less Total Budget) (A-B-C)</td>
<td>261,078</td>
<td>(2,096,173)</td>
<td>2,358,051</td>
<td>253,827</td>
<td>(2,096,173)</td>
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#### FTBs*

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<td>Beginning WC - 01/01/2014</td>
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<td>2,096,173</td>
<td>1,287,804</td>
<td>3,383,977</td>
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<td>1,287,804</td>
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<tr>
<td>Change to WC - 2014 YTD</td>
<td>253,827</td>
<td>(2,096,173)</td>
<td>2,358,051</td>
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<td>(2,096,173)</td>
<td>2,350,000</td>
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<td>Working Capital as of 12/31/14</td>
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<td>3,645,855</td>
<td>3,637,804</td>
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*Headcount (RE direct staff count as of 12/31/2014 and shared staff YTD billed hours (1880).
2015 Outreach

• 2015 Workshops:
  – March 10-11, Spring Workshop, Little Rock Register
  – June 2-3, CIP Workshop, Kansas City Register
  – Sept. 29-30, Fall Workshop, Dallas Register
  – All workshops are followed by RTO Compliance Forums

• SPP RE and RTO conducted a survey to determine stakeholders’ most important CIP outreach needs in 2015
Performance Analysis Subcommittee (PAS) Update

- Performance Analysis Subcommittee (PAS) made the following recommendations:
  - ALR 1-5 data collection be discontinued. This metric will be replaced with a metric to be developed by the Essential Reliability Services Task Force.
  - ALR 2-3 be discontinued and replaced with a metric to be developed by the Essential Reliability Services Task Force.
  - ALR 6 – 11 & 12 & 13 & 14 Metrics require changes due to BES definition change; changes proposed to Metric Description:
    - Normalized count (on a per circuit basis) of Bulk Electric System AC Transmission Element that were initiated by the TADS cause code of Failed Protection System Equipment.
    - Changes proposed to Data Collection Interval and Roll Up: The TADS data provides the total number of automatic transmission system outages and the number of outages initiated by Failed Protection System Equipment for Bulk Electric System elements.
- The PC approved the discontinuing of ALR1-5, ALR2-3
- The PC approved recommendations of modifications ALR 6 – 11 & 12 & 13 & 14
- 2015 SOR Schedule:
  - Draft report will be out in April
  - Projected chapters:
    1. Key Findings
    2. 2014 Year in Review
    3. SRI plus TADS, GADS, DADS data analysis summary
    4. ALR Dashboard and specific ALR discussions as needed
    5. New ALR-CP metrics, if available
    6. EA Summary
    7. Generation response to previous SOR Key Findings
    8. Transmission response to previous SOR Key Findings
    9. Distribution response to previous SOR Key Findings
    10. SED

Generating Availability Data System Working Group

- The PC endorsed the Generating Availability Data System Working Group (GADSWG) to begin developing a section 1600 data request, consistent with the BES definition, to require reporting by wind facilities 75 MVA and greater. The goal is to have the data request processed through the stakeholder comment process in time for the August 2015 NERC Board of Trustees meeting. GADSWG is recommending the following
  - Mandatory Reporting
    - Wind farm/facilities with a capacity 75 MW+ and a commercial date of 1/1/2005 or later
    - MW threshold would be lowered at a future date
  - Data collection to include
SPP Regional Trustee Meeting
January, 26 2015
December 2014 NERC Planning Committee Update

- Generator data: plant, group and subgroup levels
- Performance data
- Component outage data

**Transmission Data Availability System**

- The PC approved ending the collection of planned outages, effective in the first quarter reporting period and beyond, for Transmission Data Availability System (TADS). TADS began collecting the data five years ago because EIA was requiring the data, and there was a belief that the data provided reliability value. TADS has analyzed the data and has not been able to draw any actionable reliability conclusions. Given the costs associated with collecting the data, the TADS Working Group recommended discontinuing. However, operational outages will continue to be collected for 200 kV and above circuits.

**Geomagnetic Disturbance Task Force**

- The Geomagnetic Disturbance (GMD) task force provided an update on the work associated with mitigating the risk from these events.
  - TPL-007-1 will soon undergo final ballot and is expected to be filed with FERC by the end of January 2015. TPL-007-1 requires a vulnerability assessment of the transmission system to determine its ability to withstand a GMD event without causing voltage collapse and requires a thermal assessment of key auto-transformers. To simplify this complex task, a table has been created to reference thermal assessments on various types of transformers.
  - EOP-010-1 was approved by FERC with an enforcement date of April 1, 2015. A transformer manufacturer is under contract to develop a thermal modeling guide, and the initial draft is expected in early 2015. NERC has contracted with EPRI to address additional technical challenges, such as improving ground conductivity models, developing a tool to support assessment of harmonic impacts, and providing education and training to industry.

**EPA 111d – NERC Review**

- NERC staff presented their plan to complete reliability assessments of the impacts of EPA’s clean power plan. NERC has performed an initial reliability review that qualitatively evaluated EPA’s building block assumptions. This initial report was referenced by many entities in responding to EPA’s proposed rule. NERC plans to conduct three additional phases as part of their review/study.
  - Phase I, to be completed by March 2015, will consist of a resource adequacy study, a transmission adequacy study, and a review of existing studies.
  - Phase II will be completed after the final rule is issued and before the states’ implementation plans are submitted. The report will be issued in December 2015.
  - Phase III will be completed after the implementation plans are submitted with the report expected to be issued in December 2016.
Protection System Mis-operations

- NERC continues to identify protection system mis-operations as a significant risk and is focused on reducing system-wide mis-operations by 25% in 2015. Through statistical analysis, NERC has found a positive correlation between the severity of transmission events and mis-operations.
  - NERC wide mis-operation rate is approximately 10% but does vary somewhat from region to region.
  - Majority of all mis-operations are attributable to incorrect settings/logic/design errors, communication failures, and relay failures.
  - NERC, with Regional Entities, relay vendors, and industry participants will coordinate the development of training modules, guidelines, webinars, and technical bulletins. An industry workshop is planned for 2015 to develop, approve, and reinforce protection system best practices.

Modeling Project Task Force

- As part of the implementation for MOD-032-1 and MOD-033-1, NERC is forming a Modeling Project Task Force consisting of industry representatives, NERC staff and Regional Entity staff to draft criteria for the selection of an interconnection-wide model builder. NERC views the requirements to jointly develop models as requiring their intervention to select a model builder. This new process will essentially replace the Multiregional Modelling Working Group (MMWG) model building process. NERC will select the model builder by July 2015.
NERC CIPC Meeting

- The NERC CIPC held its quarterly meeting in Atlanta, GA on December 9-10, 2014. The materials for this meeting can be found at:
  - Agenda:
    - [http://www.nerc.com/comm/CIPC/Agendas%20Highlights%20and%20Minutes%202013/Agenda%20CIPC%20December%209-10%202014.pdf](http://www.nerc.com/comm/CIPC/Agendas%20Highlights%20and%20Minutes%202013/Agenda%20CIPC%20December%209-10%202014.pdf)
  - Presentations:
  - Draft Minutes:
    - Draft minutes from the meeting had not been released as of the date of this report.

- Two classified briefings were conducted in conjunction with CIPC.
  - DHS held one of its Infrastructure Protection Outreach briefings on the Monday afternoon prior to CIPC. These briefings were held in approximately 10 key cities across the US.
  - DOE held an Energy Sector briefing on Tuesday morning before CIPC.

- Tim Roxey, NERC, CSO gave an overview of changes at the ES-ISAC.
  - The Critical Infrastructure Department at NERC has been eliminated and all of its functions have been transferred to the ES-ISAC.
  - Carlo Castaneda gave an overview of several active malware campaigns targeted at the Energy Sector.

- Nathan Mitchell of APPA provided an overview of legislative activities related to infrastructure protection on Capitol Hill.
  - In December, the House passed a bill introduced by Rep. Trent Franks (R-Ariz) to include EMP in national planning scenarios (HR 3410). While this bill will expire with the end of the Congressional session, it indicates that EMP is still on the minds of some in Washington.
  - No other legislation is expected to move in the foreseeable future. However, with the change of control of the US House and Senate, the landscape could change.

- Tim Conway, SANS, Chair of the Grid Exercise Working Group (GEWG), reported on preparations for GridEx III, scheduled for November 18-19, 2015.
  - Work continues on scenario development.

- The Security Training Working Group (STWG) announced that each CIPC meeting in 2015 (except December) will provide two pre-meeting workshops, one focused on physical security, and the other cyber security.
Robert McClanahan has stepped down as SPP CIPWG Chair and will also transition out of the role of SPP’s Cyber voting delegate at NERC CIPC.

- Eric Ervin of Westar has assumed the role of SPP CIPWG Chair. CIPWG has proposed to the SPP RE that Eric become the CIPC Cyber voting delegate for SPP.
- Robert McClanahan would transition to Cyber alternate at CIPC.

CIPC meeting dates for 2015 are as follows:

- March 10-11, 2015 (Jacksonville, FL)
- June 9-10, 2015 (Atlanta, GA)
- September 15-16, 2015 (TBD)
- December 15-16, 2015 (Atlanta, GA)
Additional Input on Order No. 758 for Project 2007-17.3 [Provide report to Project 2007-17.3 drafting team after SPCS meeting] (quotes below excepts from DRAFT report)

“The Project 2007-17.3 standard drafting team has implemented the SPCS recommendations for inclusion of sudden pressure relays, and corresponding minimum maintenance activities and maximum maintenance intervals, in proposed standard PRC-005-4. During development of the proposed standard, the drafting team has received questions as to whether additional devices should be included to address the FERC concern stated in Order No. 758. Specifically, questions have focused on turbine generator vibration monitors and circuit breaker arc extinguishing systems.”

The supplemental report provides additional information on events during which these devices operated or failed to operate, and additional analysis on whether maintenance and testing of these devices should be addressed in PRC-005.

“Upon review of the previous SPCS recommendations and specific events involving turbine generator vibration and circuit breaker arc extinguishing systems, the SPCS reaffirms its recommendation that the only devices that respond to non-electrical quantities that should be included in the applicability of PRC-005 are sudden pressure relays utilized in a tripping function. When applied in a tripping function, sudden pressure relays initiate actions to clear faults to support reliable operation of the bulk power system. The two devices evaluated ... respond to abnormal equipment conditions and take action to protect equipment from mechanical damage or premature loss of equipment life, rather than for the purpose of initiating fault clearing or mitigating an abnormal system condition to support reliable operation of the bulk power system.”

Power Plant and Transmission System Protection Coordination [Present report for approval at December 2014 PC meeting]

The sub team response to the comments and revisions from the last posting was reviewed. (See previous notes regarding changes to this revision.) This is a reliability guideline rather than a standard. As a guideline industry comments were still required. The modified report and comments were approved.

Order No. 754 Data Request [Present report for approval at December 2014 PC meeting]

The data suggests that the exposure to single points of failure is broader than the list of devices in TPL-001-4. Data suggests that protective relays, dc control circuitry, and single station dc supplies without “full” monitoring present the greatest reliability risk. The data indicates that a single point of failure in
communication system poses a lower level of risk. Likewise data suggests that a single point of failure in ac current and voltage inputs poses a lower level of risk.

Options for addressing in TPL-001 (if this is the direction that is recommended by both SPCS and SAMs) could include modifying the lists of protection system components to be considered. It could also include more stringent requirements for addressing protection system components for three phase faults within the extreme events. An alternative method to address the concern could be as a new standard in conjunction with removing the relay failure portions from the existing TPL-004.

Note, Copied from the data request:
DC Control Circuitry (redundancy) – The protection system includes two independent DC control circuits with no common DC control circuitry, auxiliary relays, or circuit breaker trip coils. For the purpose of this data request the DC control circuitry does not include the station DC supply or the main DC distribution panel(s), but does include all the DC circuits used by the protection system to trip a breaker, including any DC control circuit (branch) fuses or breakers at the main DC distribution panel(s).

Protection System Misoperation Data
Discuss role of SPCS in reviewing regional misoperation data and providing input to NERC Performance Analysis and drafting team efforts. Many of the regions have review processes for misoperation data; this may develop into a more structured program. Regions may want to review the “scrubbing” of the information. For example, relay setting errors are sometimes incorrectly coded when relays trip during abnormal configurations (rather than coding other explainable). This could lead to the data suggesting there are more relay coordination issues than there are in reality. More Q/A on the misoperation data is needed because decisions are being made off the reports.

Review of PRC Standards under Development
- Standards are moving toward risk based rather than zero tolerance.
- PRC-001-2 and PRC-027-1, System Protection Coordination. Last draft that was posted had a requirement to have a process for coordination. This would be inclusive of internal relay coordination as well as interconnects. There was also a requirement to verify existing coordination of a subset of systems such as interconnects 200kV and above. 36 sets of comments were received.
- PRC-002-2, Disturbance Monitoring posted and passed (around 71%) will be going to ballot soon.
- PRC-004-3, Protection System Misoperations went to BOT in August. Petition sent to FERC. FERC issued Reliability Directive (RD) meaning FERC accepted as is.
- PRC-005-3, Protection System Maintenance and Testing - FERC issued NOPR, mentioned methodology for when to require reclosing relays to be within the standard.
- PRC-005-4; Protection System Maintenance and Testing – current out for final ballot. This added sudden pressure relay. SPCS technical paper was used by the drafting team.
• PRC-006-2 and PRC-010-1; Underfrequency and Undervoltage Load Shedding – 006 is in final ballot, 010 has passed final ballot.
• PRC026-1; Protection System Response to Power Swings – shorter than normal comment and balloting periods were requested. Second ballot was at 53%.
• PRC standard revisions to address dispersed power producing resources
• Definition of Special Protection System/Remedial Action Scheme – passed last week at 67% will be out for final ballot. This will initiate all SPS standards to be re-drafted/combined.

Unit Auxiliary Transformer Protection
Reviewed draft report that addresses UAT low side over current question related to PRC-025 (since there is a requirement of the high side, should there be a requirement for the low side). Power plants unlike transmission and distribution do not typically overload the transformers and may desire to have overloads closer that 150% of the transformer ratings. Even if there was a system wide low voltage event, the paper details how the increased current (due to the constant KVA of the motors) would not trip the UAT overloads based on typical settings.

Future Meetings
February 3-5 – Juno Beach
April 14-16 – Ft. Worth
NERC Operating Committee

Report to the SPP Regional Entity Trustee

January 26, 2015

Jim Useldinger, Kansas City Power & Light

Activity Update

A regular meeting of the NERC Operating Committee (OC) was held on December 9-10, 2015 in Atlanta, GA.

OC meeting highlights:

- Essential Reliability Services Task Force (ERSTF) initial technical reference document “Concept Paper on Essential Reliability Services that Characterize Bulk Power System Reliability” was posted for comment in October, 2014. Feedback was incorporated into a final version which has been posted at: http://www.nerc.com/comm/Other/Pages/Essential-Reliability-Services-Task-Force-(ERSTF).aspx

  This paper’s intended purpose is to educate and inform industry, regulators and the public about essential reliability services. The TF developed an approach and framework for the long-term assessment of essential reliability services to supplement existing resource adequacy assessments. The TF approach is to then develop a series of metrics that can be continually measured for further evaluation.

  Nine possible measures were identified with the TF recommending moving forward with four of those measures at this time. The remaining five measures will be further evaluated by the ERSTF. The four measures are detailed in the Phase 2 document “Draft ERSTF Measures Framework Report Phase II Deliverable Phase II.” This report tracks and provides the necessary level of technical detail guidance for each of the measures being evaluated. It is intended to be a “living” document and won’t be finalized until 2015. Measure 1 and 3 identify the parameters and data required to measure historical inertia at an Interconnection and balancing authority level. Measure 2 calculates a rate of change of frequency for an Interconnection and is intended for the planning horizon level. Measure 6 identifies ramping capability requirements at the balancing authority level.

  The OC endorsed this initial draft of the ERSTF Phase 2 document and requested the ERSTF to include in the final report a proof of concept associated with the four measures and a detailed project schedule and business plan that addresses the timing of the implementation of the measures.

- Eastern Interconnection Data Sharing Network (EIDSN) is developing a network to replace NERCnet. IEDSN Board approved the vendor recommendations on September 8, 2014 and that contracts were executed in November 2014. Sprint will provide the primary network backbone and be the network administrator. AT&T will provide a secondary backbone. The EIDSN anticipates that all circuit installation will be complete by May 2015 to allow for the timely transition from NERC net.

- Lessons Learned – Southern Company – 2014 Polar Vortex Experience presentation provided an overview of the lessons learned during the January 2014 Polar Vortex experience which included a winter operations drill on December 2013. Based on forecasted temperatures, Southern reviewed its unit commitment plans and issued a conservative operations watch and fleet advisory. Good opportunity for operations teams to perform a review of training, procedures and tools.

- Lessons Learned – Millstone Event presentation was made by representatives from Northeast Utilities. This was a transmission event that occurred on Sunday morning May 25, 2014 that resulted in the loss of all transmission lines at the Millstone nuclear plant switchyard. Millstone units 2 and 3 tripped, resulting in a 2100 MW
contingency. NU will continue working with the EAS to properly document value added Lessons Learned for industry use.

- **Operating Reliability Coordination Agreement (ORCA)** Implementation Update – the MISO South region expansion required that MISO work collaboratively with many entities. ORCA established between MISO and Joint Parties. Overall number of TRL’s in the SERC region have declined, the number of TLR’s in the TVA sub-region of SERC have increased due to weather and transmission outages. ORCA was intended to progress through three stages, however progress beyond Phase 1 has not occurred. Unless mutually agreed to by all parties to the ORCA, the agreement will sunset in April 2015. Outstanding commercial issues between the Joint Parties and MISO remain which are subject to FERC settlement discussions.

- The **Reliability Guideline: Generating Unit Operations during Complete Loss of Communications** underwent revisions to address the OC concerns raised at the October, 2014 meeting. The proposed revisions explicitly address transmission concerns when implementing the guideline. The revisions also address coordination of actions between generator operators and reliability coordinators, transmission operators or balancing authorities. The OC approved the revised Guideline for a 45-day comment period.

- The draft **Reliability Guideline: Reliability Coordinators – Balancing Authorities – Transmission Operators Communication: Loss of Real-Time Reliability Tools Capability/Loss of Equipment Significantly Affecting ICCP Data** was presented by the ORS. The OC tasked the ORS with developing this guideline in response to recommendations from the September 2011 Southwest Blackout Event. This guideline was developed with a goal of maintaining situational awareness and promoting the reliability of the BES. Balancing Authorities (BA), and Transmission Operators (TOP) should have established procedures for notifying their neighboring entities and their Reliability Coordinator (RC) during periods of operation in which critical Real-time tools capability is degraded or lost (e.g.: SCADA, State Estimation (SE), Contingency Analysis (CA), Automatic generation Control (AGC) or loss of equipment significantly affecting ICCP data transfer ). RCs should, in turn, have established procedures for notifying their neighboring RCs and entities within their RC Area during periods of operation in which critical Real-time tools capability is degraded or lost. The OC approved the draft Guideline for a 45-day comment period.

- **Subcommittee Reports**
  - Operating Reliability Subcommittee (ORS)
    - Palmyra, Missouri Load Area – AECI provided a status report regarding its on-going reliability concerns for the Palmyra, MO load area. ORS will coordinate with NAESB in regard to flowgate management concerns that have been raised.
    - NERC Reliability Coordinator Hotline – NERC staff is working with the ORS and the National Oceanic and Atmospheric Administration’s Space Weather Prediction Center to schedule a test call initiated by the SWPC for GMD notifications utilizing the NERC Hotline.
  - Resources Subcommittee (RS)
    - RS in support of the BAL-003-1 Implementation effort
    - Eastern Interconnection Frequency Response Initiative – purpose is to improve EI frequency response by conducting a survey of generators to collect data related to generator governor settings. The survey results indicate that 1) many generator operators do not know what their dead band value is, 2) many dead bands exceed 36mHz and 3) many generators have outer loop control when operating in AGC or set point control that does not include frequency response. RS recommends that NERC issue an Industry Advisory Alert, the OC was supportive of the RS’s directions and encouraged NERC to proceed.
  - Event Analysis Subcommittee (EAS)
    - EAS Lessons Learned Summary published in December, 2014 included 3 LL. Go to www.NERC.com > “Program Areas & Departments” tab >“Reliability Risk Management” (left
Personnel Subcommittee (PS)

- An updated Continuing Education Program Administrative Manual V4.3 was approved by OC.

Next Meeting
The next meeting of the Operating Committee will be on March 10-11, 2015 in Jacksonville, Florida.