



REGIONAL ENTITY TRUSTEES MEETING

APRIL 23, 2018

Kansas City, Missouri

A G E N D A

8:00 a.m. – 3:00 p.m.

1. Call to Order/Introductions.....Dave Christiano
2. Antitrust GuidelinesDave Christiano
3. Approval of Meeting Minutes – 01/28/2018Dave Christiano
4. Transition Discussion Ron Ciesiel
5. Transition Checklist Debbie Currie and Kevin Perry
6. Financial Report.....Debbie Currie
Action item: No additional funding required for 2018
7. NERC Compliance Committee Jennifer Flandermeyer
8. NERC Summer Assessment Alan Wahlstrom
9. CIP Update..... Kevin Perry
10. System Events Review Alan Wahlstrom
11. Enforcement Report Joe Gertsch
12. President’s Report..... Ron Ciesiel
13. 2018 Metrics Ron Ciesiel
Action item: Approve revised 2018 metrics
14. Outreach Activity Emily Pannel
15. NERC COMMITTEE REPORTS – Comments or Questions
 - a. Planning VACANT
 - b. Critical Infrastructure Protection.....Eric Ervin
 - c. Operating.....Jim Useldinger
 - d. System Protection and Control.....Louis Guidry
16. New Action Items..... Emily Pannel

The meeting will be followed by a closed executive session to discuss personnel issues and financial audit results.

*Relationship-Based • Member-Driven • Independence Through Diversity
Evolutionary vs. Revolutionary • Reliability & Economics Inseparable*

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

JANUARY 29, 2018

Oklahoma City, Oklahoma

A G E N D A

8:00 a.m. – 3:00 p.m.

Meeting Materials

1. Call to Order/Introductions.....Dave Christiano

Chairman Christiano called the meeting to order at 8:01. He introduced FERC's Darrell Piatt. Mr. Piatt stated that FERC's Mike Bardee is retiring.

Chairman Christiano discussed the death of Trustee Gerry Burrows. Gerry entered our industry in 1971 and worked with KCP&L until 2006. He was one of the founding SPP RE Trustees in 2007. Gerry volunteered doing outdoor activities with deaf children and was a very giving person. KCP&L's Jennifer Flandermeyer shared memories of Gerry, including his quiet, gentle way of leading.

2. Antitrust GuidelinesDave Christiano

The group reviewed the guidelines.

3. Approval of Meeting Minutes – 10/30/2017.....Dave Christiano

The minutes were unanimously approved.

4. Transition Discussion Ron Ciesiel

Last fall, NERC asked SPP RE's Registered Entities to state which RE they wanted to join. Then NERC issued its staff opinion, assigning most of the companies to MRO and some to SERC. After accepting comments from industry, NERC restated its decision on the allocation of entities.

On February 8, the transition/dissolution plan will be presented to the NERC Board for approval. In the [February board packet](#), NERC stated they may not file with FERC until June 30, 2018. Ron emphasized the importance of moving this process expeditiously so SPP RE staff can move on with their careers. Ron suggested everyone read the NERC Board packet for a full understanding of NERC's actions.

The packet indicates NERC will lead compliance and enforcement for SPP, Inc. for two years. SPP Board member Julian Brix noted that SPP, Inc. leadership recently met with NERC leadership to discuss the transition. He stated that SPP, Inc. requested to be assigned to RF due to its experience auditing RTOs.

Shon Austin and Jimmy Cline have accepted positions with SERC. SPP RE now has 20 employees and more may leave. Right now we expect our staffing is adequate to meet our CMEP duties. If any major system events

arise, that may cause an issue regarding which REs will be involved. Enforcement is doing its best to process noncompliance issues and get them up to NERC. Eventually we will need to transfer violations to the new RE. OATI will have to do some software modifications to effect the transfer to new REs.

5. **2017 Annual Report..... Ron Ciesiel**
SPP RE staff met its 2017 goals despite a tumultuous year. About 90% of incoming violations were self-identified, which is excellent news. The Facility Ratings Alert program has finally wrapped up and thousands of discrepancies mitigated; we are now in great shape regarding our understanding of what the transmission system actually looks like. FERC and NERC observers of SPP RE’s audits gave us superb accolades. Trustee Whitley noted that staff’s performance was very good during a difficult year.
6. **Accept 2017 Goals and Metrics Performance * Action item.... Ron Ciesiel**
Staff met or exceeded 12 of 14 metrics. The Trustees approved staff’s performance at 118.5% of 2017 metrics. Chairman Christiano saluted staff’s 2017 performance.
7. **Approve 2018 Goals and Metrics * Action item Ron Ciesiel**
Mr. Ciesiel reviewed the 2018 staff goals and metrics. Kevin Perry discussed the steps to transferring files to other REs. We will electronically shred documents that aren’t needed for regulatory reasons. Then we will put files we need to transfer on secure “iron key” hard drives and give them to the gaining RE. The data will be encrypted. Ms. Flandermeyer noted the importance of this file transfer.

To give more weight to the “transition close out” metric 12, the trustees adjusted the metrics as follows: metric 2 - 5%, metric 3 - 5%, metric 10 - 10%, metric 11 - 7.5%, metric 12 - 15%. Staff were directed to develop a close-out/transition plan with milestones for metric 12 by March 12, 2018. The Trustees approved the metrics with the above modifications and addition of a specific plan for metric 12.

8. **CIP Update Kevin Perry**
Mr. Perry gave updates to CIP-003-7, CIP-008-5, CIP-013-1, CIP-002-6, and CIP-012-1. He reviewed CIP version 5 standards and requirements that have been violated in our region.

Two new cyber vulnerabilities are Meltdown and Spectre; they “steal secrets” and are enabled as a result of the intrinsic design characteristics of modern CPU processors (speculative processing). Devices with processors from 2015 or earlier are more likely to exhibit slowdowns due to mitigation efforts. These vulnerabilities are likely the first two demonstrations of how these design characteristics can be exploited.

To mitigate these vulnerabilities, companies should: test patches thoroughly before installing operating system patches, including stress testing; isolate your BES Cyber Systems and associated EACMS, PACS, and PCAs from the Internet; avoid mixed-trust virtual system environments; and avoid using the same authentication credentials for CIP-protected and corporate Cyber Assets. The above recommendations are not related to the CIP standards; these are just good cyber security practices.

9. **2017 System Events Review**.....**Alan Wahlstrom**
There were three events in the SPP RE region in the fourth quarter of 2017. Two were category 1a - *loss of three or more elements* and there was one category 1h - *partial loss of EMS*. Mr. Wahlstrom also reviewed recent NERC lessons learned.
10. **Enforcement Report**..... **Joe Gertsch**
SPP RE has a caseload of 171 active violations; 129 are CIP and 42 are operations & planning. There were 125 issues self-reported. In 2017 we processed 192 violations, which is significantly higher than in recent years. Mr. Ciesiel noted that the MRRE program needs to improve some of its communication processes. We are processing as many issues as we can as “mitigating activities”.
11. **President’s Report**..... **Ron Ciesiel**
Violations in SPP RE were down in 2017 from 2016. The Regional Compliance Working Group and SPCWG are focusing on misoperations. We had an actionable contact in the third quarter of 2017. The number of new standards going into effect is dropping.
12. **Financial Report**.....**Debbie Currie**
We went over budget by ~\$190,000 in 2017. The 2018 budget was slightly decreased from 2017.
13. **Outreach Activity****Emily Pennel**
SPP RE is planning workshops for March 27 and June 5. If SPP RE continues on through 2018, a fall workshop and more Trustee meetings will be scheduled.
14. **NERC Compliance Committee****Jennifer Flandermeyer**
A number of CCC members are retiring or rolling off, so the group is working on succession planning and putting new people into leadership roles. The CCC is reaching out to all of the RE workshops to help people understand what the CCC does.

The third-party Program Alignment tool acts as a “concerns line” for industry to submit consistency issues. There will be a stakeholder survey later this



year or early 2019. The CCC audits NERC's adherence to the Rules of Procedure; the CCC reviewed the standards process manual and standards applicable to NERC.

15. NERC COMMITTEE REPORTS – Comments or Questions

- a. Planning.....Noman Williams
- b. Critical Infrastructure Protection.....Eric Ervin
- c. Operating.....Jim Useldinger
- d. System Protection and Control.....Louis Guidry

16. New Action Items.....Emily Pennel

- SPP RE will give public reports on the transfer of files to other REs

17. Future Meetings.....Dave Christiano

The meeting was adjourned at 1:54 for executive session.

Respectfully submitted,
Emily Pennel
SPP RE Trustees Secretary



SPP RE TRUSTEE MEETING

January 29, 2018, 8 am – 3 pm

Skirvin Hilton – Oklahoma City, Oklahoma

• ATTENDANCE LIST •

Name	Company
Monica Evans	SPP RE
Emily PENNELL	SPP RE
Kevin Perry	SPP RE
Loe Gerlach	SPP RE
Mark W. Mahler	SPP RE Trustee
David Christiano	"
Steve Whitley	SPP RE Trustee
RON CIESIEL	SPP RE
John Olsen	Westar
Jennifer Flandermeyer	KCP&L
MARK CRISSON	SPP DIRECTOR
JULIAN BRIZ	SPP DIRECTOR
Norman Williams	SCMCN
DARRELL PIATT	FERC STAFF
Deborah Currie	SPP RE
BARY WARREN	South Central MCN/GRODLIANCE

SPP RE Transition Checklist Report

Debbie Currie/Kevin Perry

April, 23 2018

RE Checklists

- Developed two checklists to shutdown operations efficiently and effectively
- Included in 2018 Goals and Metrics:
 - Develop two checklists
 - Complete checklists
 - 15% weighting factor
- Trustees approved checklists Trustees on March 12 call

RE Checklists

- **Individual Checklist** – ensures employee has:
 - ✓ Completed knowledge transfer
 - ✓ Returned SPP equipment
 - ✓ Conducted other necessary activities prior to departure
- 3 employees completed checklist prior to March departures
- **RE Dissolution Checklist** – Ensures CMEP and other ERO-data is transferred securely and timely

RE Dissolution Checklist

- SPP RE working with NERC, SERC and MRO to transfer records
 - Participating in bi-weekly calls scheduled by NERC
- SPP RE's CMEP data housed in webCDMS and on internal secure server (Y:Drive)
 - WebCDMS data transfers will be made by OATI
 - NERC is managing initial work with OATI
- Registered Entity-maintained data (CIP audit evidence)

RE Dissolution Checklist

- **Non-CMEP records housed internally or maintained by SPP, Inc.**
 - ✓ Events Analysis
 - ✓ BES Exception Requests
 - ✓ Entity Certification
 - ✓ Registration/Deregistration
 - ✓ Reliability Assessment Data (SPP, Inc.)
 - ✓ NEL data (SPP, Inc.)
 - ✓ Auditor Training Certificates

Data Transfer to NERC, MRO, SERC

- SPP RE is transferring internally-housed CMEP records
 - Iterative process occurring ~ twice a month
 - Index and capture records to be transferred
 - Expunge records not subject to regulatory retention policy
- In March, SPP RE purchased six Datalocker USB drives to securely transfer data
 - Two each for NERC, SERC & MRO
 - MRO and SERC and will receive data for Registered Entities per NERC determination
 - All Registered Entities initially mapped to MRO or SERC; there has been some movement back-and-forth and a few are still under review

Data Transfer to NERC, MRO, SERC

- Datalocker drives will be recommissioned and sent to NERC, MRO & SERC upon data transfer completion
- Targeting June 30, 2018 completion of data transfer, with milestones

Data Transfer Progress

- Three shipments to date
 - ✓ 163,841 files (175.33 GB) sent to MRO
 - ✓ 26,862 files (22.47 GB) sent to SERC
 - ✓ 612 files (146.21 MB) sent to NERC
- 95% of compliance data has been sent
- No Enforcement data has been sent yet
- NEL data sent to NERC Feb. 28

SPP RE Individual Checklist

ACTION ITEM	
	EVERYONE (IF APPLICABLE)
	Train 1 other person on metrics info in case of staff departure
	Train 1 other person on job duties in case of staff departure (such as webCDMS, budget, etc.)
☒	Clean office space, return usable supplies to RE Flex room
☒	Take personal belongings home
☒	Review personal network share folders and clean out
	Save all electronic files you need (contact lists, pictures, etc) from phone and PC
☒	Leave your desk key at your desk
☒	Shred paper documents
☒	Shred electronic media
	Turn in projectors, travel monitors and other community equipment to RE Flex room
	Return home equipment signed out under RE (for example: screen, keyboard, mouse)
	Verify PGP passphrase
☒	Turn in keys to RE Flex room
☒	Turn in keys to file cabinet in RE Flex room
	IF TRANSFERRING TO RTO
☒	Preserve data required for carry forward - e.g Accounting activities
☒	Remove RE specific data files and software from laptops
	IF LEAVING SPP
☒	Submit 2 week resignation notice to manager and HR
☒	If you want to keep cell number, contact Verizon to port it to a new phone

SPP RE Individual Checklist (Con't)

	POST DEPARTURE MANAGEMENT RESPONSIBILITIES
☒	Remove PGP key from EFT server key ring
☒	Remove access from WebCMDS
☒	Notify NERC of staff departure
	EXPLANATIONS
☒	Indicates tasks may not be included in metric scoring for staff remaining on site after June 8, 2018
	COMPLETED BY
	Sign: _____ Date: _____
	REVIEWER
	Sign: _____ Date: _____

SPP RE Dissolution Checklist

	ACTION ITEM	DATA TYPE	MILESTONES	STATUS	DATES	NOTES
	Transfer webCDMS data					
	•Coordinate change order with OATI		Per NERC			SPP responsibility is undetermined at this time.
⊕	•Transfer WebCDMS data to SERC/MRO, and NERC (if applicable)		June 30, 2018			Responsibility of OATI to perform this task.
	Clean Up CMEP applicable files/folders on Y:Drive					
	•Create index of files	electronic CMEP records	April 30, 2018	In progress		CMEP Entity-Specific Folders Complete. Not required for Enforcement folders since everything will be transferred and a manifest is created at the time of transfer. Other folders will be indexed as necessary.
⊕	•Capture audit reports for retention	electronic CMEP records	June 30, 2018; ~2 times per month; alpha	In progress		265 report files transferred on 3/16/2018. 320 report files transferred on 3/30/2018. 24 report files transferred 4/13/2018.
⊕	•Expunge electronic files not subject to regulatory retention	electronic CMEP records	June 30, 2018	In progress		Files will be prepared and approved for deletion, however will not be deleted until data transfer is complete.
⊕	•Document expunged files	electronic CMEP records	June 30, 2018	In progress		Files will be prepared and approved for deletion, however will not be deleted until data transfer is complete.
	Transfer CMEP applicable files/folders on Y:Drive					
	•Purchase required technology	electronic CMEP records	March 15, 2018	Complete	3/8/2018	6 DataLocker Hard drives purchased
	•Configure required technology	electronic CMEP records	March 15, 2018	Complete	3/8/2018	
⊕★	•Prepare data for transfer to SERC, MRO, and/or NERC ••Decrypt files to be transferred ••Verify accessibility of files ••Create duplicate of files to be transferred (for SPP RE use) ••Place files on DataLocker USB drives	electronic CMEP records	June 30, 2018; ~2 times per month; alpha	In progress		<i>iterative process</i> <i>Data to transferred to NERC is to be identified by NERC</i>
⊕★	•Transfer DataLocker USB drives to MRO, SERC, and/or NERC ••Verify receipt of USB drives by MRO, SERC, and/or NERC ••DataLocker USB drives returned to SPP RE for reuse ••Expunge data from USB drives	electronic CMEP records	June 30, 2018; approx. 2 times per month; alpha	In progress		<i>iterative process</i> <i>#1: Picked up 3/16/2018, delivered 3/19/2018,</i> <i>#2: Picked up 3/30/2018, delivered 4/2/2018</i> <i>#3: Picked up 4/13/2016, delivered 4/16/2018.</i>

	•Ensure SPP RE master key is transferred securely	electronic CMEP records	May 31, 2018		
⊕	•Expunge duplicated transferred files	electronic CMEP records	July 31, 2018		
⊕	•Recommission DataLocker USB drives	electronic CMEP records	Aug 31, 2018		
⊕	•Transfer recommissioned drives to MRO & SERC	electronic CMEP records	Aug 31, 2018		
⊕	•Securely transfer to MRO/SERC remaining any hardcopy	hardcopy CMEP records	Aug 31, 2018		
	Identify/Transfer Non- CMEP applicable data				
⊕	•Event Analysis Data	electronic Non-CMEP records	June 30, 2018		
⊕	•BES Exception Requests	electronic Non-CMEP records	June 30, 2018	Complete	4/13 shipment
⊕	•Entity Certification	electronic Non-CMEP records	June 30, 2018	Complete	4/13 shipment
⊕	•Registration/Deregistration	electronic Non-CMEP records	June 30, 2018	Complete	4/13 shipment
⊕	•Reliability Assessment Data	electronic Non-CMEP records	June 30, 2018	In progress	Asked RTO Engineering 3/28/18 to produce data by 4/15/2018
	•Auditor Training Certificates	electronic Non-CMEP records	May 31, 2018		
	EFT Server				
⊕	•Expunge EFT Server files	electronic CMEP records	July 31, 2018		
	Non-Electronic/Physical Office Records				
	•Review hardcopy records (paper, removeable media)		May 31, 2018	In progress	
	•Shred hardcopy files not subject to regulatory retention		May 31, 2018	In progress	
⊕	•Securely transfer to MRO/SERC any remaining hardcopy		July 31, 2018		
	CIP/Audit Data Transfer				
	•Notify applicable registered entities to expunge retained CIP audit evidence	Registered Entity-retained CMEP records	May 31, 2018		
	SPP RTO Retained Files				
	•NEL Data	electronic Non-CMEP records	May 1, 2018	Complete	2/28/18
	•NEL Supporting Data if requested	electronic Non-CMEP records	May 31, 2018		

	LIGHTS OUT!					
#	•Security doors unlocked		August 31, 2018			
#	•Request the decommission of SPP RE's network shared drives ("Y" drive, EFT server)	electronic CMEP records	August 31, 2018			
#	•Transfer control of bank account to SPP RTO		August 31, 2018			
#	•Final Accounting		December 29, 2018			Responsiibility of SPP, Inc., to complete this task per the Termination Agreement.
#	•Confirm transfer of any money left in bank to other REs		December 29, 2018			Responsiibility of SPP, Inc., to complete this task per the Termination Agreement.

EXPLANATIONS

Indicates item may not be completed prior to June 8, 2018. However, items that are "complete" or "in progress" will be included in the metric scoring so long as they are on track to be completed by the Milestone date.

- # Final iterative process will not be complete prior to
- ★ June 8, 2018 E.g., Final audit report will not be complete until July 29, 2018 at the latest .



SPP RE Financial Report

Debbie Currie

Manager, Regulatory Interface and Process Improvement

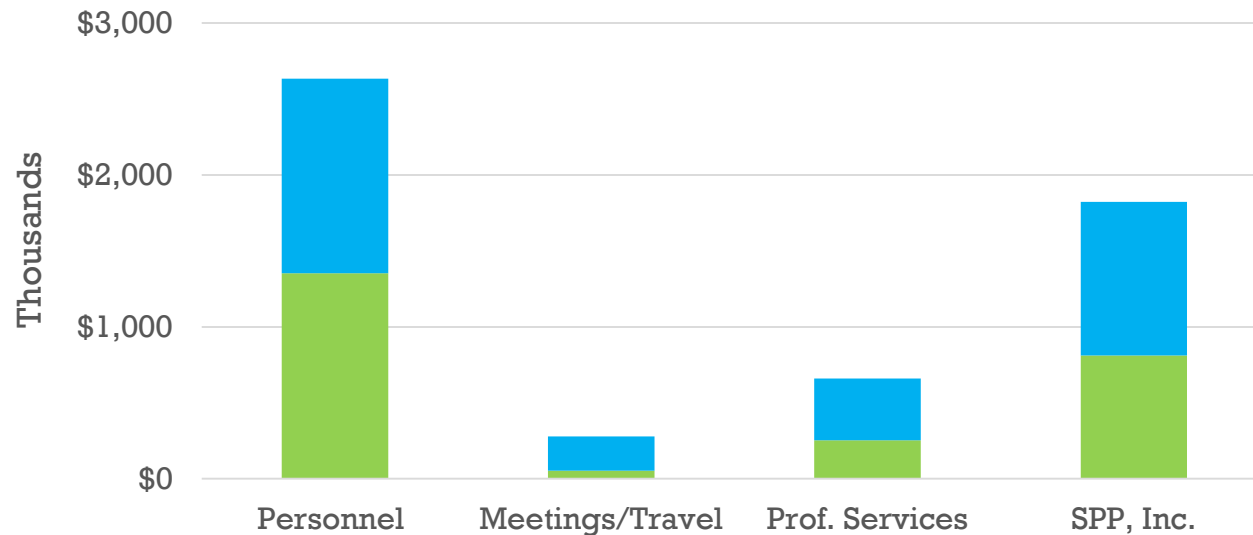
April 23, 2018

SPP RE Budget 2018-2019

- SPP RE prepared a transition year budget for NERC to assist with the dissolution filing made with FERC
- \$5.4M budget through June 30, 2018 (end of CMEP activities)
- \$553k budget through August 31, 2018 (termination of RDA)
- \$109k budget for post-termination activities (concludes April 30, 2019)
- Preparation of a 2019 Business Plan & Budget not needed

2018 Actuals vs. Dissolution Budget

- \$5.4M budget through June 30, 2018
- Total Expenditures \$2.47M through March
- Variance ~\$226k under budget
 - Personnel expenses ~\$36k over budget
 - Meeting/travel expenses ~\$87k under budget
 - Contracts/Professional services ~\$77k under budget
 - SPP, Inc. overhead charge ~\$98k under budget



Overview

- Personnel

- Current Staffing

- 17 direct employees
 - Positive variance due to three staff departures in March and accrual of dissolution expenses

- Meeting/Travel expenses

- Staff travel reduced
 - March workshop held; CIP workshop canceled

- Contracts/Professional Services

- Audits conducted through May; auditor augmentation from NERC, SERC and MRO
 - Trustee expenses continue through June; full-year retainer paid for four trustees in February

Overview, Continued

- **SPP, Inc. Overhead Charge**
 - 2017 budget true-up yielded a credit of ~\$136k
 - SPP Engineering shared staff:
 - 4.4 FTEs, budgeted 4.3 FTEs
 - Will be capped at 500 hours March-June
- **Dissolution costs not budgeted**
 - \$225k for OATI data transfers to MRO and SERC
 - \$439k for SPP, Inc. expenses related to employment of SPP RE staff

Transition Period Expenses

- Two month transition (July 1 – August 31)
 - Small number of staff
 - Modest travel
- Total expenditures projected: ~\$553k
 - Personnel expenses: ~\$300k
 - Meeting/travel expenses: ~\$40k
 - Contracts/Professional services: ~\$65k
 - SPP, Inc. overhead charge: ~\$150k

Post-Termination Expenses

- September 1, 2018 – April 30, 2019
 - Financial requirements exist after termination of Regional Delegation Agreement
 - Will be performed by SPP, Inc.
- Total Expenditures projected: ~\$109k
 - Personnel expenses: ~\$46k
 - Meeting/travel expenses: ~\$0k
 - Contracts/Professional services: ~\$40k
 - SPP, Inc. overhead charge: ~\$23k

Assessments/Penalty Payments

- Total expenditures for SPP RE dissolution: ~\$6.2M
 - June 30, 2018: ~\$5.6M
 - August 31, 2018: ~\$553k
 - April 30, 2019: ~\$109k
- Total funding through June 30, 2018: ~\$5.2M
 - Includes \$290k penalties released for use in 2018
 - Penalty payments collected through December 31, 2017: ~\$400k
 - Penalty payments collected since January 1, 2018: ~\$35k
 - NERC's filing with FERC requested waiver to use funds held in escrow for 2019 budget for SPP RE wind down

Assessments/Penalty Payments

- ~\$1M cash balance carryover from 2017
- \$226k current year budget under-run
- Funding should be sufficient; must request additional funding, if needed, by May 1, 2018

Action Item: RE staff recommends additional funding is not necessary. With SPP RE Trustees agreement, notification will be made to NERC by May 1 that SPP RE will not request additional funding.

- Residual funds/penalties to be transferred to MRO and SERC

NERC CCC Update

April 23, 2018

Jennifer Flandermeyer



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

CCC Activities Update

- **ERO Program Alignment Working Group**
- **CMEP Tool Update**
- **Stakeholder Perception Survey**
- **Rules of Procedure Update**
- **Directly Connected Discussion**
- **Other Activities**

NERC CCC Meeting Schedule

- **June 12-13, 2018: Sacramento, CA (CAISO Offices)**
- **September 18-19, 2018: Austin, Texas (Texas RE offices)**
- **December 5-6, 2018: Atlanta, GA (NERC offices)**
- **2019: TBD**

2018 Summer Assessment

Alan Wahlstrom
Lead Engineer

April 23, 2018

2018 Summer Assessment Demand

Total Internal Demand: 52,553 MW

Demand Response: 867 MW

2018 Summer Assessment Resource Projections

Anticipated Resource: 68,447 MW

Tier 1 Planned Capacity: 779 MW

2018 Summer Assessment Transfers and Margins

Net Firm Capacity Transfers

- Import 3178 MW
- Export 3159 MW

Anticipated Reserve Margin: 32%

SPP Reference Margin: 12%

CIP Update

SPP RE Trustees Meeting
April 23, 2018

Kevin B. Perry, CISA, CRISC
Director, Critical Infrastructure Protection

CIP Standards Development

CIP-003-7 (Security Management Controls)

- FERC issued Order 843 on 4/19/2018.
 - CIP-003-7 and its Implementation Plan approved.
 - CIP-003-7 becomes enforceable 1/1/2020.
 - Enforcement date for Sections 2 and 3 of CIP-003-6, Attachment 1, is deferred until 1/1/2020.
 - NERC to conduct a study to assess adequacy of CIP-003-7 controls, to be completed by 6/30/2021.
 - NERC to modify CIP-003-7 to include a clear requirement to mitigate the risk of malicious code resulting from the use of third-party transient electronic devices (Transient Cyber Assets and Removable Media).
 - Any work performed toward complying with CIP-003-6 will not be lost. The expectations for physical and electronic access controls were not substantively changed with this revision.

CIP-008-5 (Incident Reporting and Response Planning)

- FERC issued NOPR 12/21/2017, proposing to direct NERC to modify the Cyber Security Incident reporting requirements to include mandatory reporting of Cyber Security Incidents that *“compromise, or attempt to compromise, a responsible entity’s Electronic Security Perimeter or associated Electronic Access Control or Monitoring Systems for high and medium impact BES Cyber Systems.”*
 - Expands beyond reporting only if the incident compromised or disrupted one or more reliability tasks
 - Reports would be required to be submitted to the E-ISAC and additionally to the Industrial Control Systems Cyber Emergency Response Team (ICS-CERT)
- Comments were due 2/26/2018
- Now pending FERC action

CIP-013-1 (Supply Chain Management)

- FERC issued NOPR proposing to approve CIP-013-1 and require additional proposed revisions, with comments due 3/26/2018
- Includes companion modifications to CIP-005-6 and CIP-010-3
 - Proposes to direct additional modifications
 - Reduce Implementation Plan effective date by six months
 - Include EACMS associated with High/Medium Impact BCS
 - Direct NERC to evaluate the cyber security supply chain risks presented by PACS and PCAs in the BOT-requested study and to file the interim (12-month) and final (18 month) reports with the Commission
 - NERC BOT-directed study specifically included only risks of Low Impact BCS

CIP-013-1 (Supply Chain Management)

- Summary of submitted comments:
 - Almost all Registered Entities recommended approval of the standards as drafted. Non-Registered Entities observed that the Requirements were insufficient in addressing supply chain risks.
 - Registered Entities universally stated that reducing the implementation period from 18 to 12 months was inappropriate given the complexity of the Requirements, while non-Registered Entities stated 12 months was still too long.
 - Registered Entities opposed to expanding scope to include EACMS, given the broad nature of the devices and the preference to include EACMS in the NERC Board-initiated study.
- Now pending FERC Action

CIP-002-6 (BES Cyber System Categorization)

- Initial ballot concluded 10/30/2017
 - Vote resulted in 66.78% approval, barely above the required 2/3 majority
- Revised to add compliance timing for planned and unplanned changes
- Reposted for comment and ballot on 3/16/2018
 - Comment period open through 8:00 PM EDT 4/30/2018
 - Ballot period open April 20-30, 2018

CIP-012-1 (Communications between Control Centers)

- Second ballot concluded 12/11/2017
 - Voted down – 63.91% approval
- Revised to remove “and control” throughout Standard; now only references “Real-time Assessment and Real-time monitoring”
- Removed R2 (requirement to implement plans); R1 already required implementation
- Revised definition of Control Center to include operating personnel exclusions
- Reposted for comment and ballot 3/16/2018
 - Comment period open through 8:00 PM EDT 4/30/2018
 - Ballot period open April 20-30, 2018

CIP-015-1 ???

- There appears to be some movement by the Standards Drafting Team toward addressing virtualization
 - Virtual Machines
 - Virtual networks
 - Virtual storage
- Given the uniqueness of virtual environments, there has been speculation that security controls for virtual environments will become CIP-015-1.

CIP V5 Compliance History

CIP V5 Compliance History

Standard	Self-Reported	Audit/Spot Check
CIP-002-5.1a	7 (+4)	2 (+1)
CIP-003-6	3 (+1)	2
CIP-004-6	22 (+6)	
CIP-005-5	5 (+1)	10
CIP-006-6	10 (+1)	1
CIP-007-6	29 (+7)	5
CIP-008-5	2	
CIP-009-6	2	
CIP-010-2	15 (+5)	3
CIP-011-2	4	
	99 (+25)	23 (+1)

CIP V5 Compliance History

Requirement	Self-Reported	Audit/Spot Check
CIP-002-5.1a R1	3 (+2)	1
CIP-002-5.1a R2	4 (+2)	1 (+1)
CIP-003-6 R1		1
CIP-003-6 R2		1
CIP-003-6 R3	1	
CIP-003-6 R4	1	
CIP-003-6 R6	1 (+1)	
CIP-004-6 R2	3 (+1)	
CIP-004-6 R3	4 (+1)	
CIP-004-6 R4	9 (+4)	

CIP V5 Compliance History

Requirement	Self-Reported	Audit/Spot Check
CIP-004-6 R5	6	
CIP-005-5 R1	5 (+1)	8
CIP-005-5 R2		2
CIP-006-6 R1	5 (+1)	
CIP-006-6 R2	5	1
CIP-007-6 R1	2	1
CIP-007-6 R2	17 (+5)	1
CIP-007-6 R3	1	
CIP-007-6 R4	7 (+2)	2

CIP V5 Compliance History

Requirement	Self-Reported	Audit/Spot Check
CIP-007-6 R5	2	1
CIP-008-5 R1	1	
CIP-008-5 R3	1	
CIP-009-6 R1	2	
CIP-010-2 R1	12 (+3)	3
CIP-010-2 R2	1	
CIP-010-2 R3	1 (+1)	
CIP-011-2 R1	2 (+1)	
CIP-011-2 R2	3	

In The News...

Exposure of BES Cyber System Information

- NERC Full Notice of Penalty filed at FERC 2/28/2018
 - Unidentified Registered Entity in WECC Region
 - CIP-003-3, Requirements R4 (information protection) and R5 (access control) violated
 - Third-party contractor copied protected information to its own network and exposed the information online where it could be accessed without requiring authentication credentials
 - Exposure included data on over 30,000 Cyber Assets, including IP addresses and server host names

Exposure of BES Cyber System Information

- NERC Full Notice of Penalty filed at FERC 2/28/2018 (con't)
 - Information was exposed on the Internet for 70 days
 - Logs revealed data was accessed by unknown IP addresses as well as the reporting white hat security researcher
 - Unknown if anyone other than the security researcher actually downloaded the exposed information
 - Settlement penalty: \$2.7M

Technical Alert TA18-074A

- Joint DHS/FBI [Technical Alert TA18-074A](#) released 3/15/2018:
“Russian Government Cyber Activity Targeting Energy and Other Critical Infrastructure Sectors”
- Russian threat actors targeted government entities and multiple U.S. critical infrastructure sectors, including:
 - Energy
 - Nuclear
 - Commercial facilities
 - Water
 - Aviation
 - Critical manufacturing sectors
- Attacks occurred as early as March 2016

Technical Alert TA18-074A

- Report describes Tactics, Techniques, and Procedures (TTPs) used, including:
 - Spear-phishing emails (from compromised legitimate account)
 - Watering-hole domains
 - Credential gathering
 - Open-source and network reconnaissance
 - Host-based exploitation
 - Targeting industrial control system (ICS) infrastructure
- Report includes a reconstructed screen capture from a plant control system DCS depicting a non-nuclear generating unit

Technical Alert TA18-074A

- Report maps the Lockheed-Martin Cyber Kill Chain model to the malicious cyber activity
- Report includes "indicators of compromise" that can be used to detect similar malicious activity in your environments and recommendations for detecting and preventing a successful attack

Technical Alert TA18-106A

- Russian State-Sponsored Cyber Actors Targeting Network Infrastructure Devices
 - Joint [Technical Alert TA18-106A](#) released 4/16/2018 by DHS, FBI, and the United Kingdom's National Cyber Security Centre (NCSC)
 - Discusses world-wide exploitation of network infrastructure devices (e.g., router, switch, firewall, Network-based Intrusion Detection System (NIDS) devices) by Russian state-sponsored cyber actors.
 - Targets are primarily government and private-sector organizations, critical infrastructure providers, and the Internet service providers (ISPs) supporting these sectors.

Technical Alert TA18-106A

- Malicious actors exploiting weaknesses to:
 - identify vulnerable devices;
 - extract device configurations;
 - map internal network architectures;
 - harvest login credentials;
 - masquerade as privileged users;
 - modify
 - device firmware,
 - operating systems,
 - configurations; and
 - copy or redirect victim traffic through Russian cyber-actor-controlled infrastructure.

Technical Alert TA18-106A

- Malicious actors are taking advantage of:
 - devices with legacy unencrypted protocols or unauthenticated services,
 - devices insufficiently hardened before installation, and
 - devices no longer supported with security patches by manufacturers or vendors (end-of-life devices).

Technical Alert TA18-106A

- Report maps the Lockheed-Martin Cyber Kill Chain model to the malicious cyber activity
- Report includes "indicators of compromise" that can be used to detect similar malicious activity in your environments and recommendations for detecting and preventing a successful attack
- Initial reconnaissance targets Telnet, HTTP, SNMP, and Cisco Smart Install (SMI)
 - Cisco has recently released a patch for SMI that may or may not be related.

Meltdown / Spectre Vulnerabilities

- Operating system, firmware, and microcode updates are being released after an initial rocky start
- Intel announced its next-generation Xeon processors (Cascade Lake) are designed to mitigate Spectre

Meltdown / Spectre Recommendations

- Test thoroughly, including stress testing, before installing operating system and firmware patches to mitigate Meltdown and Spectre vulnerabilities
- Verify isolation of BES Cyber Systems and associated EACMS, PACS, and PCAs from the Internet
- Do not use same authentication credentials for CIP-protected and corporate Cyber Assets
- Avoid mixed-trust virtual system environments

Q1 2018 System Events

Alan Wahlstrom
Lead Engineer

April 23, 2018

SPP Regional Events (January 1 –March 31)

- Four events occurred in SPP region 1Q 2018
- All events were in the lowest assignable risk category
 - Three category 1a. *Loss of three or more elements*
 - One category 1h. *Partial loss of EMS*

Data Link Down: Category 1h

- Data link went down between facilities, causing State Estimator (SE) to become unreliable
- Transport device was added to a station
- Alarms triggered due to overload of CPUs, causing overload on network
- Device was shut down
- Spanning tree was disabled

Multiple Circuit Outage: Category 1a

- Four circuits tripped due to phase-to-ground fault
- 70 MW generation tripped
- Tested relays involved
- Fault was on breaker bushing

Human Error: Category 1a

- Construction crew working inside substation control house made an erroneous wiring change
- Wiring error resulted in three 345 KV lines and wind farm tripping

Human Error: Category 1a

- Construction crew made a temporary wiring connection to energize DC power supply of a relay to be tested
- Wiring was incorrect and caused trip

NERC Lessons Learned

SE Outages Requiring Tuning/Calibrating EMS Settings

- Three events from three companies
- Operators received EMS alarm during off hours; SE failed to converge
- Problem found was vendor settings based on company size
- As changes occur, settings need to be readjusted

State Estimator (SE) Outages Requiring Tuning/Calibrating EMS Settings

Lesson Learned

- Periodic review of SE settings
- Run SE stress test
- Develop in-house expertise
- Working with vendor, consider developing an inventory of key EMS settings that need to be tuned or calibrated

Breaker Failure Due to Trip Coil Polarity

- 115 KV breaker was slow to operate, causing additional breakers to operate
- Breaker had two trip coils
- Both trip coils were on same relay but wired with opposite polarities

Figure 1a-c: Simplified Drawings

Figure 1a: Proper Arrangement

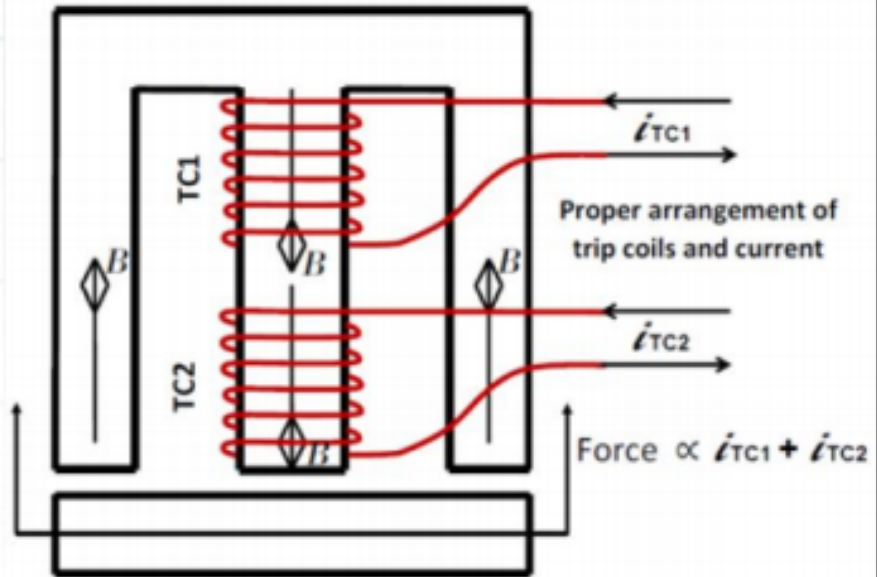


Figure 1b: Coil Orientation Wrong

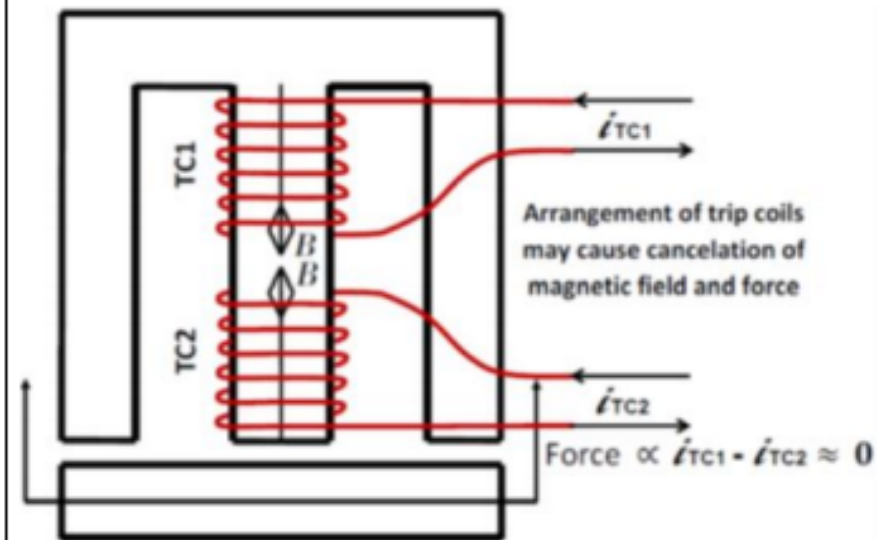
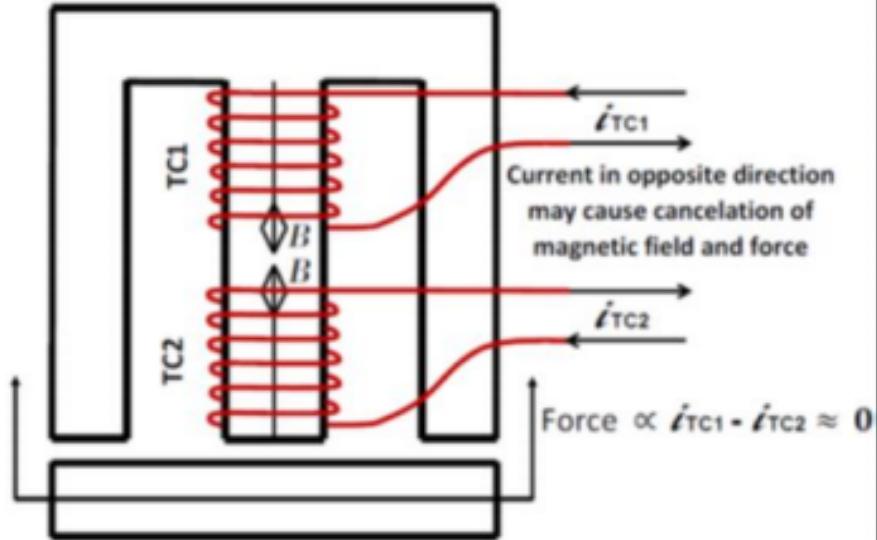


Figure 1c: Wiring / Current Flow Wrong



Breaker Failure Due to Trip Coil Polarity

- Common assembly trip coils installed by a vendor need to be verified
- Field wiring needs to be verified, as it may defeat properly installed trip coils
- Test breakers with common trip coil assemblies for proper tripping when trip coils are energized simultaneously

Event Analysis & Reliability Assessments Department

10 Year Accomplishments

SPP RE Event Analysis 2008-2018

- Reviewed and analyzed 222 events
- Produced:
 - 15 lessons learned
 - 5 lessons learned published by NERC
 - NERC will publish 3 more SPP RE lessons learned after SPPRE closure
- Analyzed over 2,000 lines for FAC Line Rating Alert

SPP RE Event Analysis 2008-2018

- Oversaw 30 Reliability Assessments
- Assisted with four NERC Special Assessments and four NERC State of Reliability Reports
- 3 FERC data and information submittals; 200+ documents
- Participated in 8 NERC working groups

Enforcement Update

April 23, 2018

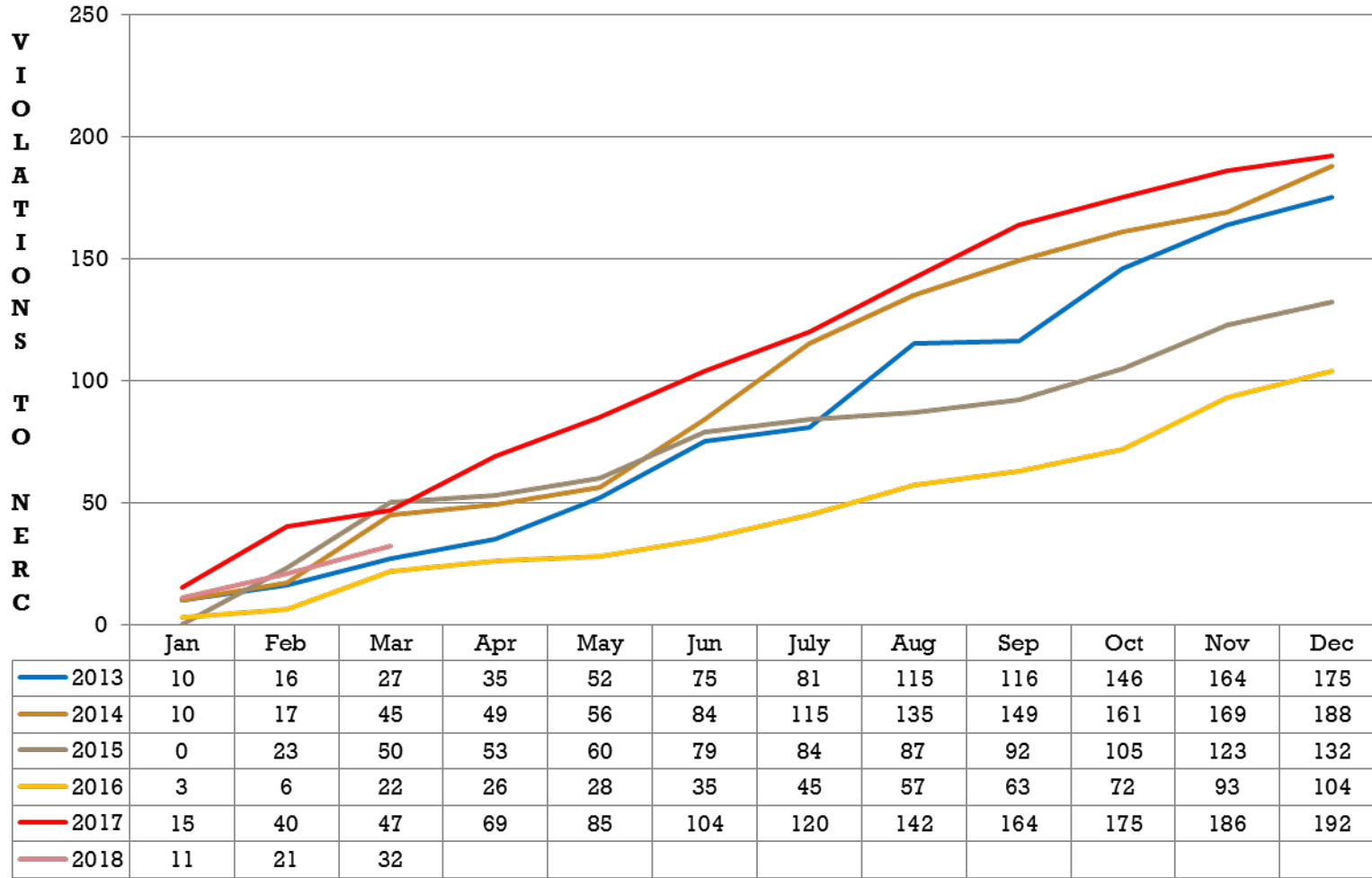
Joe Gertsch
Manager of Enforcement
jgertsch.re@spp.org
501.688.1672

Enforcement Activity Summary

SPP RE Enforcement Activities March 31, 2018	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	January	February	March	Total 2018
Notice of Preliminary Screen Issued	6	56	132	254	239	173	189	121	89	174	198	11	8	21	40
Notice of Alleged Violation (NAVAPS)															
NAVAPS Issued	6	45	10	7	0	2	1	6	0	7	0	0	0	3	3
Notice of Confirmed Violation (NOCV)															
NOCV Sent to Entity/NERC	0	8	25	15	4	1	0	1	0	0	0	0	0	0	0
NOCV BOTCC Approved	0	7	11	29	4	1	0	1	0	0	0	0	0	0	0
Settlements / Full Notice of Penalty															
To NERC for Approval	0	0	0	89	118	52	5	15	28	1	20	0	0	0	0
BOTCC Approved	0	0	0	50	81	103	14	30	24	5	20	0	0	0	0
Settlements / Spreadsheet NOP															
To NERC for Approval	0	0	0	16	22	49	43	59	8	0	10	0	0	0	0
BOTCC Approved	0	0	0	0	38	49	65	46	8	0	10	0	0	0	0
Find, Fix, Track															
To NERC for Approval	-	-	-	-	43	78	86	62	13	4	10	0	0	0	0
BOTCC Approval	-	-	-	-	36	74	95	61	14	4	10	0	0	0	0
Compliance Exception	-	-	-	-	-	-	-	1	69	68	126	5	8	5	18
Dismissals															
To NERC/SPP RE SRT for Approval	0	0	1	16	75	43	41	44	14	31	26	0	2	6	8
NERC/SPP RE SRT Approved		0	1	16	75	43	41	44	14	31	26	0	2	6	8
Notice of Penalty															
Approved by FERC	0	5	13	57	180	184	141	118	15	17	30	0	0	0	0
Violations Awaiting NERC Approval														6	
Active Violations - Caseload														106	
Caseload Index (months)*														8.6	

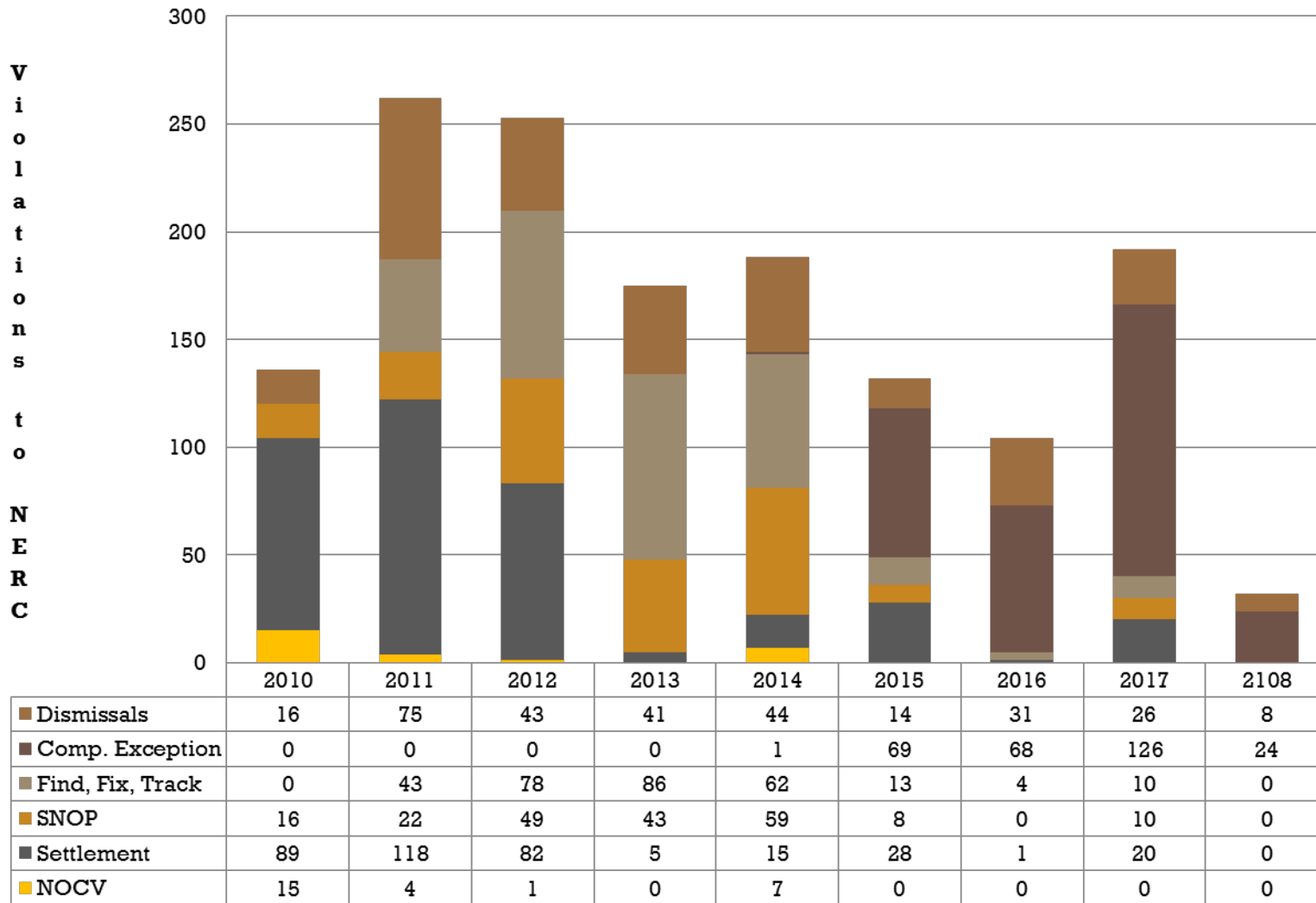
* Based on previous 12 months processing (147)

Enforcement Monthly Violation Processing



RUNNING TOTAL VIOLATIONS PROCESSED

Enforcement Processing Methods



SPP RE Caseload – March 31, 2018

- 106 - Active SPP RE Violations
 - 4 - Settlement
 - 9 – Multi Region Registered Entity (MRRE)
- 31 - 693 Violations
- 75 - CIP Violations
- Discovery Method
 - 21 - Audit
 - 55 - Self Report
 - 28 - Self Certification
 - 2 – Spot Check
 - 0 - Log

Caseload Aging

- SPP RE – 106 violations
- Average age - 247 days / 8.2 mo.

<u>Age (days)</u>	<u>Violations</u>
> 300	43
201 – 300	8
101 – 200	18
51 – 100	11
1 - 50	26

- Pre-2017 violations: 17

SPP RE 2018 Violation Dismissals

Consolidation with another violation	5
Transfer Dismissal.....	0
Self-Report wrong standard and/or requirement	0
Provided exculpatory evidence	1
Entity Dissolution	<u>2</u>
	Total
	8

March Mitigation Plan Summary

- **Mitigation Plan Status (month/year)**

Submitted	9/11
Accepted	3/6
Certified Complete	5/13
Completion Verified	1/9
Mitigating Activity Completed	3/8
- **Active Violations with no Mitigation Plans**

Initiated	54
-----------	----

Active Violations without Mitigation Plans

- Discovery Method

Compliance Audit	3
Self- Certification	20
Self-Report	29
Spot Check	2

Average age - 134 days

<u>Age (days)</u>	<u>Violations</u>
> 300	9
201 – 300	5
101 – 200	11
51 – 100	3
1 - 50	26



Joe Gertsch
Manager of Enforcement
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President's Report

April 23, 2018

Kansas City, MO

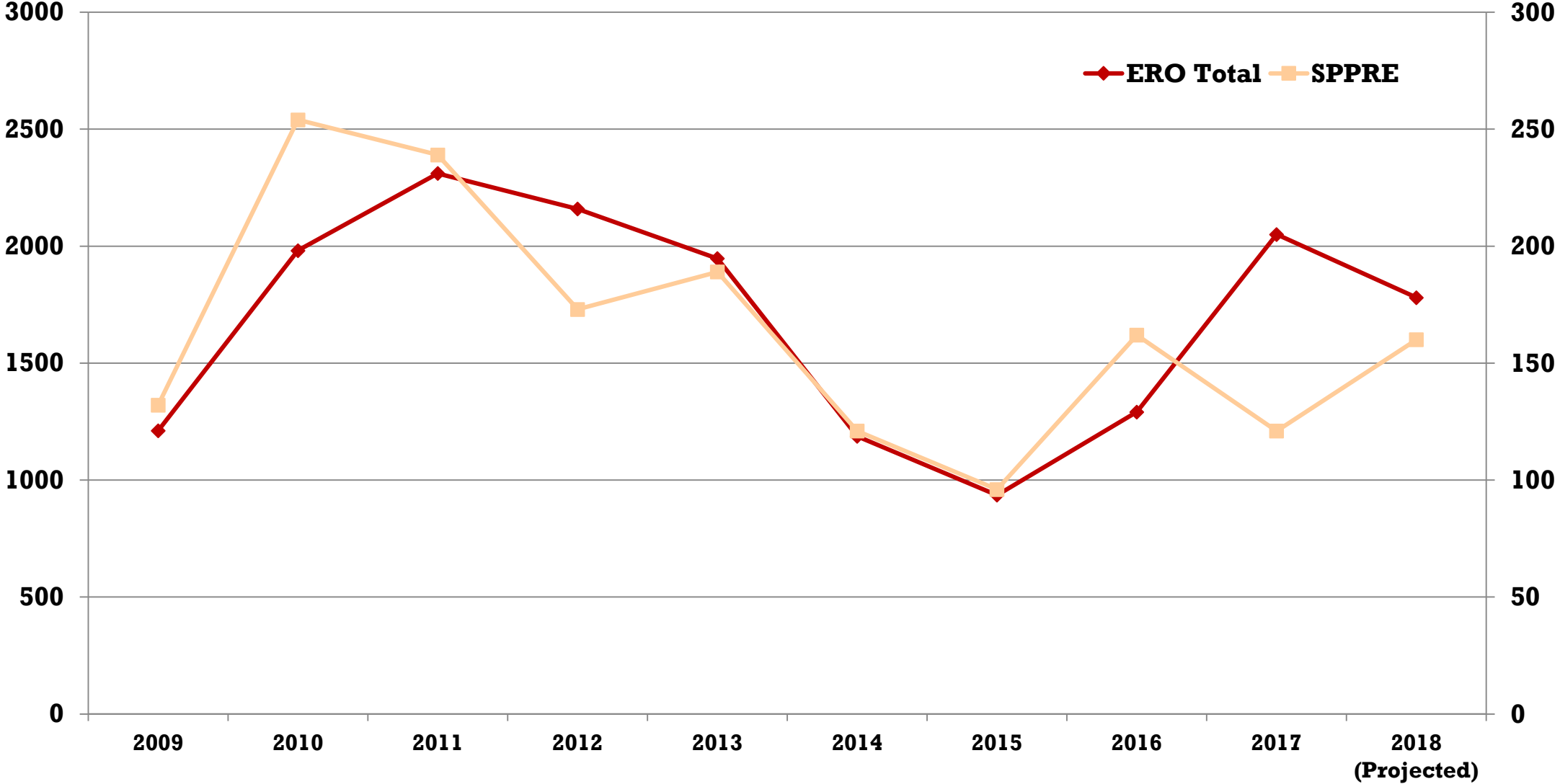
Ron Ciesiel

SPP RE President and General Manager

SPP RE Dissolution & Transition

- [NERC filed with FERC](#) its petition to dissolve SPP RE and transfer Registered Entities to MRO & SERC
- NERC requested FERC ruling by 5/4/18 and for transition to be complete by 7/1/18
- Data transfers to MRO, NERC, SERC are underway
 - 25% of data successfully transferred
- Staff has shrunk but stabilized at 17 employees
 - High confidence staff can fulfill its duties until 6/30/18
- Finances in good shape; will not need to make additional assessment request in 2018
- Email nerc.registration@nerc.net with questions

Violations by Year



Updated 4/2/2018

Most Violated Standards

Based on rolling 12 months through 3/31/18 [Represents ~ 83% of total violations]

Rank	Standard	Description	Violations Current	Violations Previous	Δ	Risk Factor
1*	CIP-007	Systems Security Management	20	29	-9	Medium
2	VAR-002	Network Voltage Schedules	15	9	+6	Med./Lower
3*	CIP-004	Personnel & Training	12	10	+2	Med./Lower
4*	CIP-010	Change Management	11	8	+3	Medium
5*	PRC-005	Protection System Maintenance	8	18	-10	High/Med
6*	CIP-002	Cyber System Categorization	8	1	+7	High/Lower
7*	CIP-006	Physical Security of Cyber Assets	5	6	-1	Medium
8*	CIP-005	Electronic Security Perimeters	5	12	-7	Medium
9	MOD-026	Generator Modeling – Volt & VAR	4	0	+4	Med./Lower
10	TOP-001	Transmission Operations	4	0	+4	High/Med
	All	SPP RE Top 10 Total Incoming	92	93	-1	
		SPP RE Total Violations	111	202	-91	

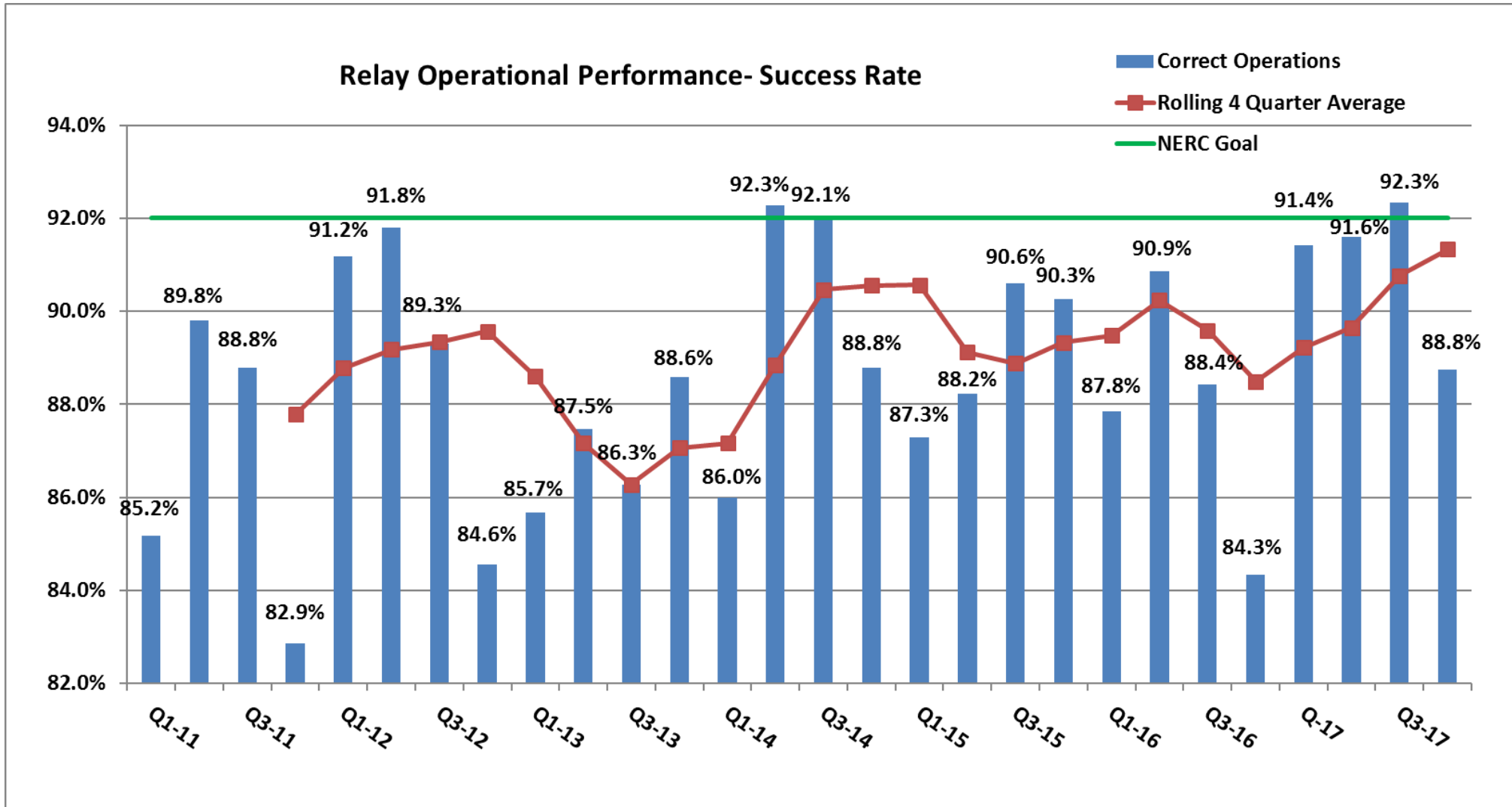
* Also in NERC Top 10

Standards No Longer in Top 10

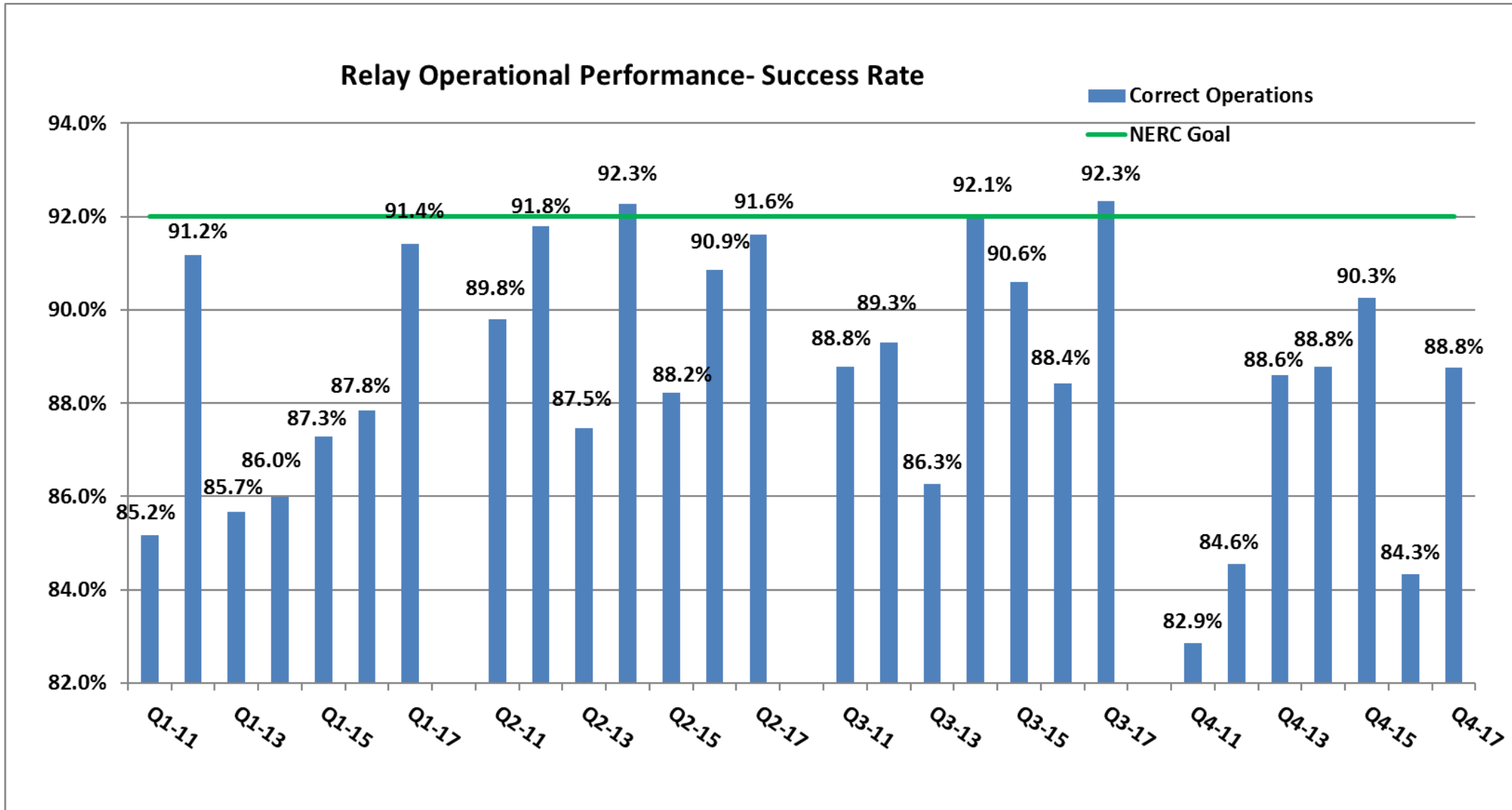
*	MOD-025	Generator Capability Testing	2	34	-32	Medium
*	PRC-024	Generator Relay Settings (Hz and V)	0	29	-29	Med./Lower
*	PRC-019	Generator Regulating Controls	0	18	-18	Medium



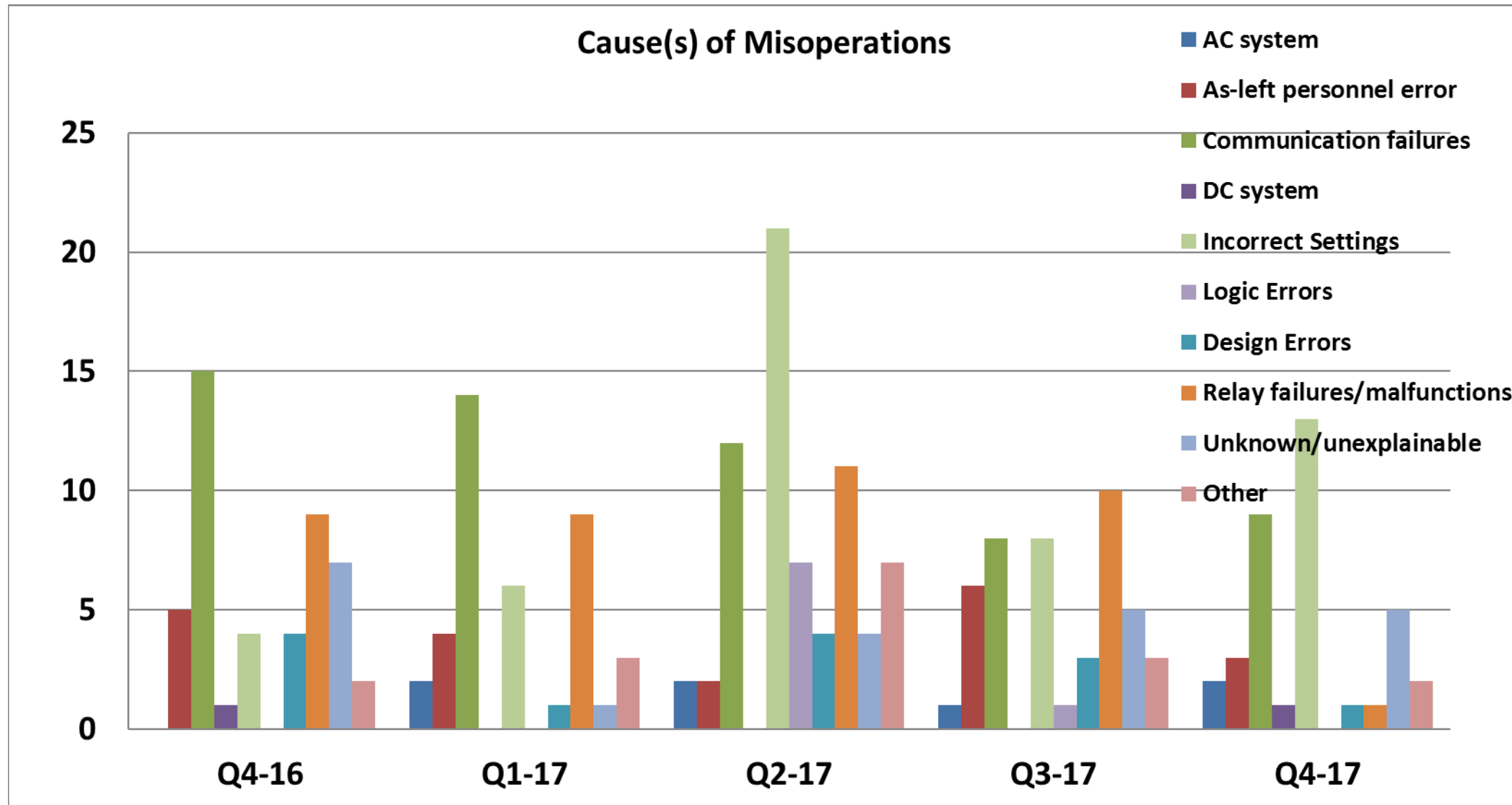
SPP RE Misoperation Report as of Q4-17



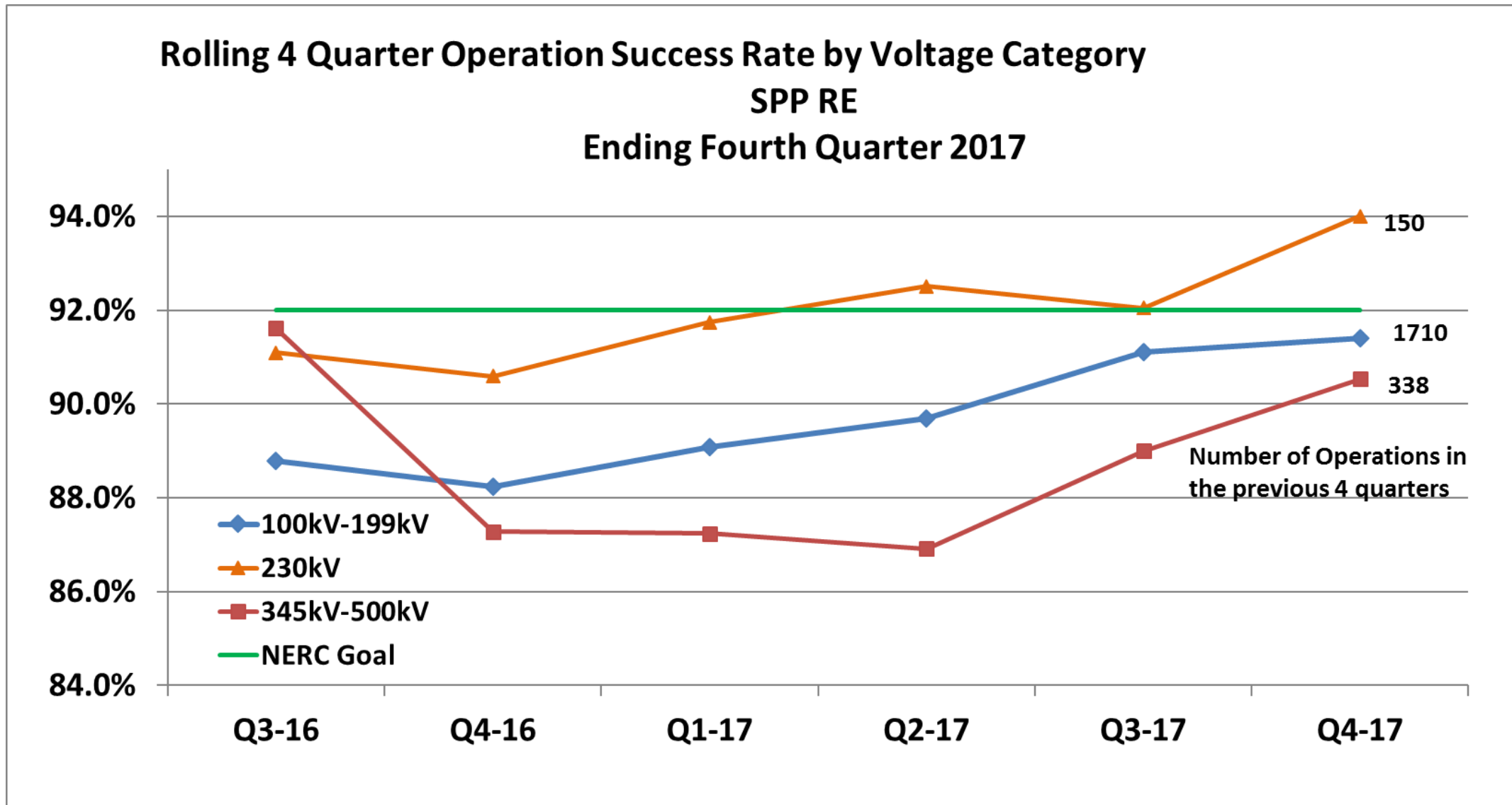
Relay Operation Success Rate (Quarter Grouping)



Causes of Misoperations Q4-16 to Q4-17



Success Rate by Voltage Category



Additional Information

New Standards: April 1, 2018

- [IRO-018-1: Reliability Coordinator Real-time Reliability Monitoring and Analysis Capabilities](#)
- [TOP-010-1: Real-time Reliability Monitoring and Analysis Capabilities](#)

New Standards: July 1, 2018

- CIP-009-6: Cyber Security, Recovery Plans for BES Cyber Systems (Requirement 2.3)
- CIP-010-2: Cyber Security, Configuration Change management and Vulnerability Assessments (Requirements 3.2, 3.2.1, 3.2.2)
- MOD-026-1: Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions (Requirement 2, 2.1 – 2.1.6)
- MOD-027-1: Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions (Requirement 2, 2.1-2.1.5)
- TOP-001-4: Transmission Operations

New Standards: July 1, 2018

- [TPL-007-1: Transmission System Planned performance from Geomagnetic Disturbance Events \(Requirements 2\)](#)

New Standards: September 1, 2018 *

- [CIP-003-6, Cyber Security: Security Management Controls \(Requirements 2 ATT. 1, Sec. 2 and 3\)](#)

** If FERC approves CIP-003-7, then CIP-003-6 will not go into effect*

New Standards: January 1, 2019

- [BAL-002-1: Balancing Authority Control](#)
- [FAC-001-3: Facility Interconnection Requirements](#)
- [TPL-007-1: Transmission System Planned Performance for Geomagnetic Disturbance Events \(Requirement 5\)](#)

New Standards: April 1, 2018

- [EOP-004-4: Events Reporting](#)
- [EOP-005-3: System Restoration from Blackstart Resources](#)
- [EOP-006-3: System Restoration Coordination](#)
- [EOP-008-2: Loss of Control Center Functionality](#)

SPP RE Metrics Reporting as of March 31, 2018

Within Target

Outside Target but within Alloted Range

Outside Alloted Range

1. Maintain Caseload

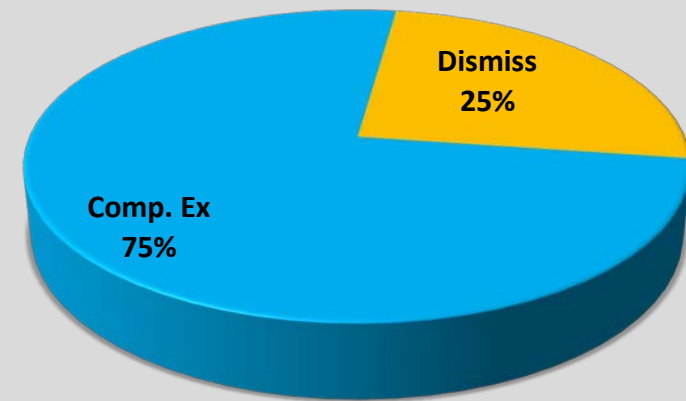
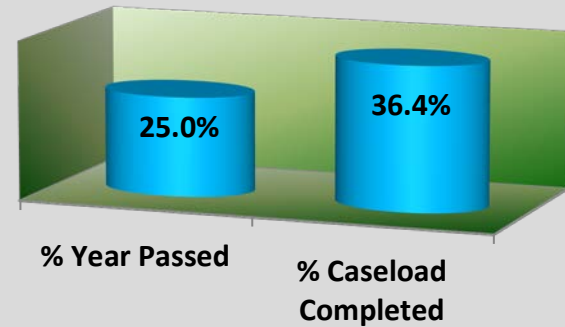
2. Mit. Accept/Reject

3. Mit. Plan Completion

4. Process Pre-2017 Violations

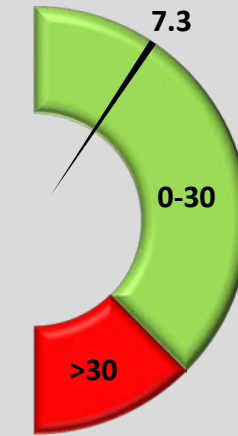
Maintain Caseload at or Below 88

FFT	Settle	Dismiss	NOCV	Comp. Ex	Total	% Year Passed	25.0%
0	0	8	0	24	32	Remaining Caseload	56



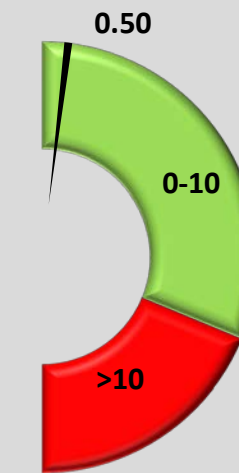
Accept/Reject Mitigation Plans within 30 days

Current Avg. Days	7.3
Version 1 Mit Plans	6



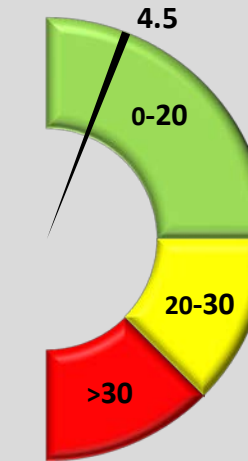
Accept/Reject Resubmitted Mitigation Plans within 10 days

Current Avg. Days	0.5
Resubmitted Mit Plans	4



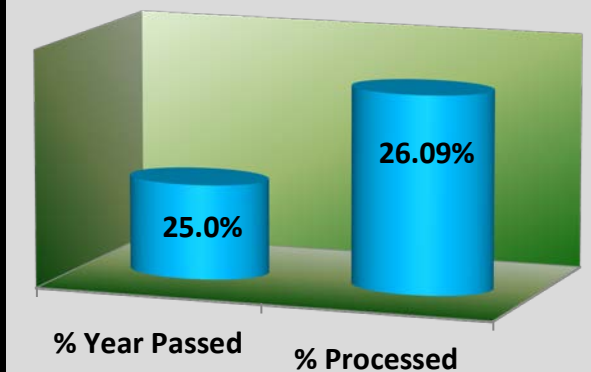
Complete Mitigation Reviews <= 30 days

Current Avg. Days	4.5
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Process 100% of Pre-2017 Caseload

Goal	23
Pre-2017 processed	6



5. Records Close Out

6. Publish Off-Site Audit

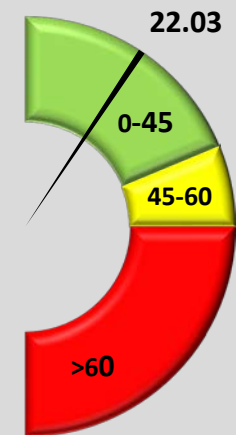
7. Publish On-Site Audit

8. Publish Self-Cert, Periodic Data Submittals

9. Incoming Processing

Close Out Violation Records in Average of 45 Days

# of Violations Closed	60
Current Average Days	22.0



Publish Off-site within 40 days

# Published YTD	5
# of Reports Published in more than 40 Days	0

Average Publishing Time <=40 Days	0
Average Publishing Time 40-50 Days	0
Average Publishing Time >=50 Days	0

Avg Days to Publish	28.40
% Published Reports <=40 Days	100%

Publish On-site within 65 days

# Published YTD	2
# of Reports Published in more than 65 Days	0

Average Publishing Time <=65 Days	0
Average Publishing Time 65-75 Days	0
Average Publishing Time >=75 Days	0

Average Days to Publish	36.50
% Published Reports <=65 Days	100%

Publish Reports Within Alloted Timeframe

# Reports Published YTD	5
# Published On Time	5

Percentage Completed On Time	100%
------------------------------	------

Preliminary Screening of Potential Noncompliance Issues within 5 days

Issues Submitted	45
Reviews Completed within 5 Days	45

Percentage Completed within 5 Days	100%
------------------------------------	------

10. Budget Control

11. Outreach

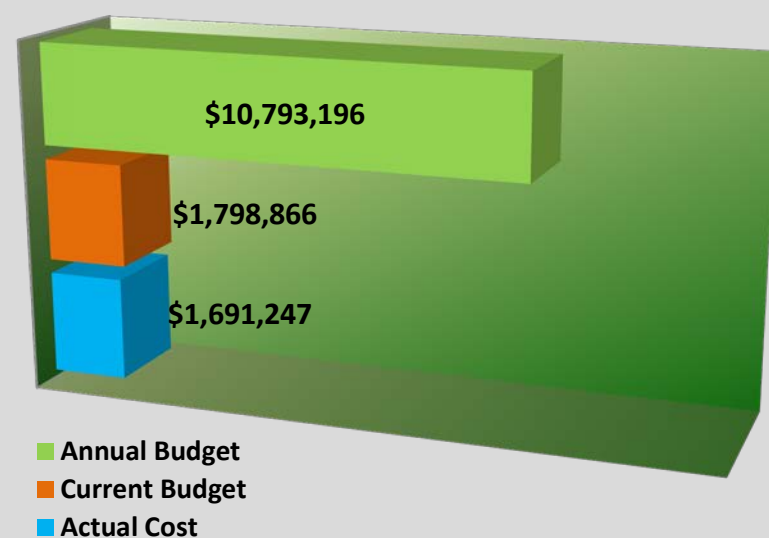
12. Transition Close-Out

13. Close Out System Events

14. Dissolution Year Multiplier

Maintain Expenses within Budget

Budget Variance	-5.98%
-----------------	--------

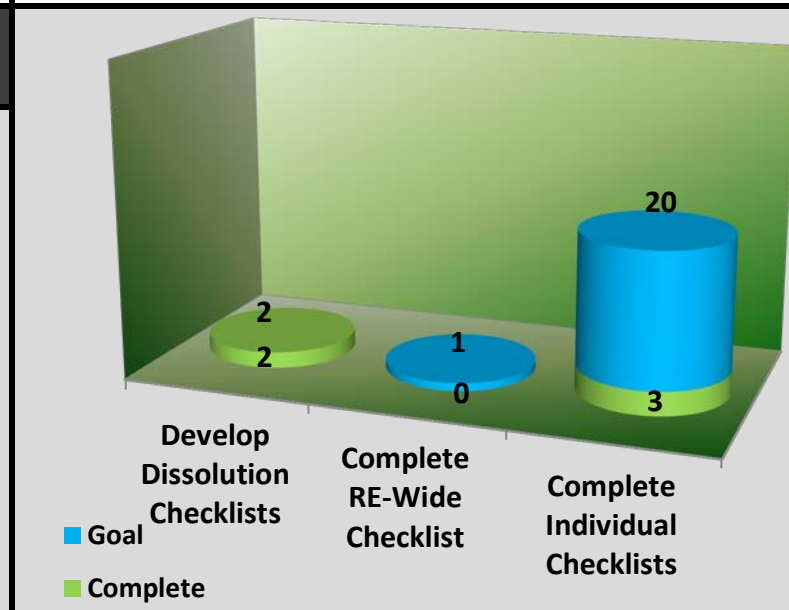


Complete 1 Workshop and 12 Newsletters in 2018

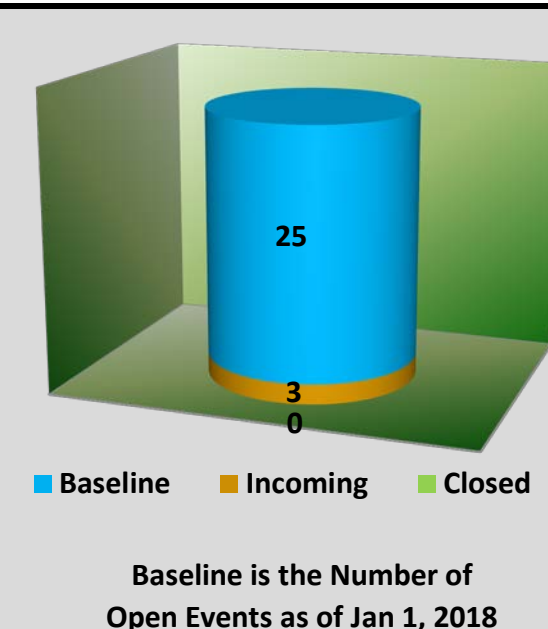
Newsletters	3
Workshops	1



Complete Checklists Before Dissolution Date



Reduce # of open events to 15



Based on 2018 Transition Year Accomplishment and Stakeholder Survey Rating

Due at end of 2018 activities	TBD
-------------------------------	-----

Half-Year SPP RE Metrics Reporting as of March 31, 2018

Within Target

Outside Target but within Alloted Range

Outside Alloted Range

1. Maintain Caseload

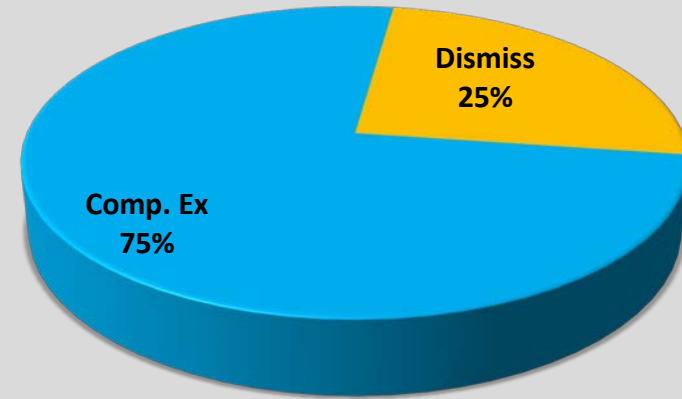
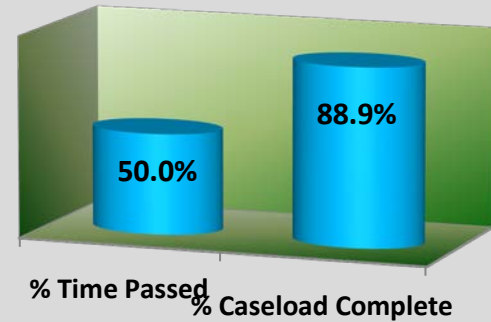
2. Mit. Accept/Reject

3. Mit. Plan Completion

4. Process Pre-2017 Violations

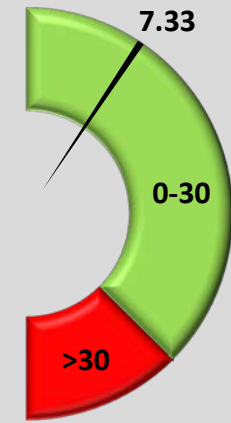
Maintain Caseload at or Below 36

FFT	Settle	Dismiss	NOCV	Comp. Ex	Total	% Time Passed	50.0%
0	0	8	0	24	32	# Remaining to Goal	4



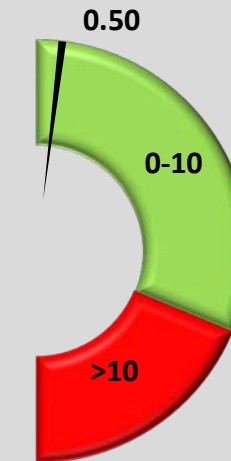
Accept/Reject Mitigation Plans within 30 days

Current Avg. Days	7.33
Version 1 Mit Plans	6



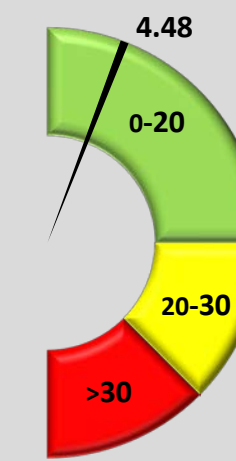
Accept/Reject Resubmitted Mitigation Plans within 10 days

Current Avg. Days	0.5
Resubmitted Mit Plans	4



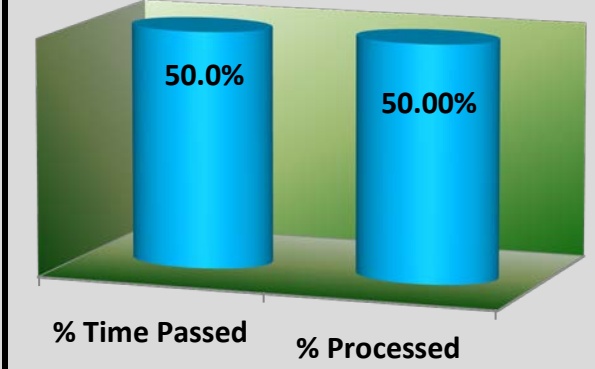
Complete Mitigation Reviews <= 30 days

Current Avg. Days	4.48
-------------------	------



Process 12 of Pre-2017 Caseload

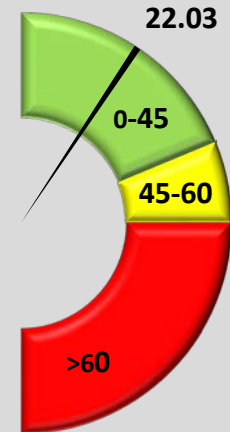
Goal	12
Pre-2017 processed	6



5. Records Close Out

Close Out Violation Records in Average of 45 Days

# of Violations Closed	60
Current Average Days	22.03



6. Publish Off-Site Audit

Publish Off-site within 40 days

# Published YTD	5
# of Reports Published in more than 40 Days	0

Average Publishing Time <=40 Days	100%
Average Publishing Time 40-50 Days	0%
Average Publishing Time >=50 Days	0%

Avg Days to Publish	28.40
% Published Reports <=40 Days	100%

100%

7. Publish On-Site Audit

Publish On-site within 65 days

# Published YTD	2
# of Reports Published in more than 65 Days	0

Average Publishing Time <=65 Days	100%
Average Publishing Time 65-75 Days	0%
Average Publishing Time >=75 Days	0%

Average Days to Publish	36.50
% Published Reports <=65 Days	100%

100%

8. Publish Self-Cert, Periodic Data Submittals

Publish Reports Within Alloted Timeframe

# Reports Published YTD	5
# Published On Time	5

Percentage Completed On Time

100%

9. Incoming Processing

Preliminary Screening of Potential Noncompliance Issues within 5 days

Issues Submitted	45
Reviews Completed within 5 Days	45

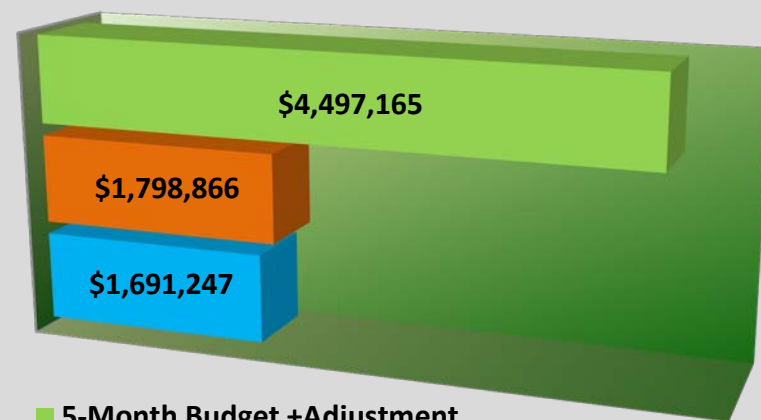
Percentage Completed within 5 Days

100%

10. Budget Control

Maintain Expenses within Budget

Budget Variance	-5.98%
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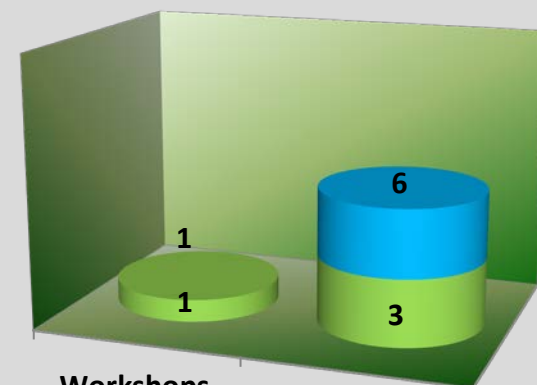


5-Month Budget +Adjustment
Current Budget
Actual Cost

11. Outreach

Complete 1 Workshop and 6 Newsletters in 2018

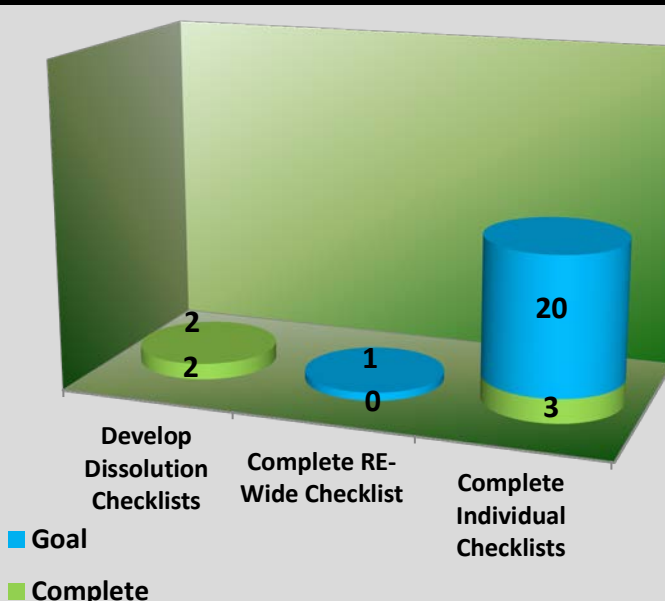
Newsletters	3
Workshops	1



Workshops: Goal (1), Complete (1)
Newsletters: Goal (6), Complete (3)

12. Transition Close-Out

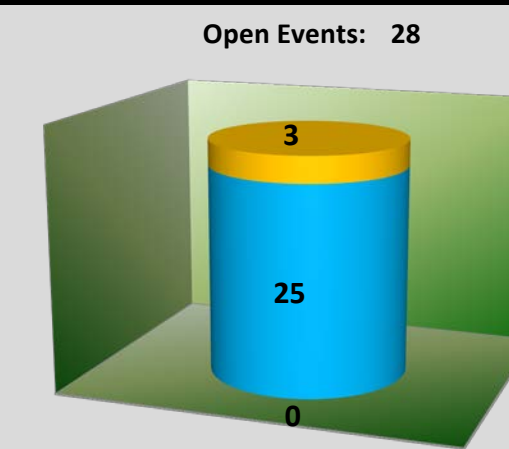
Complete Checklists Before Dissolution Date



Develop Dissolution Checklists: Goal (2), Complete (2)
Complete RE-Wide Checklist: Goal (1), Complete (1)
Complete Individual Checklists: Goal (20), Complete (3)

13. Close Out System Events

Reduce Number of Open Events to 20



Open Events: 28
Baseline is the Number of Open Events as of Jan 1, 2018

14. Dissolution Year Multiplier

Based on 2018 Transition Year Accomplishment and Stakeholder Survey Rating

Due at end of 2018 activities	TBD
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NERC Critical Infrastructure Protection Committee (CIPC) Report to Southwest Power Pool Regional Entity Trustees

Submitted by Eric Ervin, Chair, SPP SECWG
April 6, 2018

NERC CIPC Meeting

- The NERC CIPC held its quarterly meeting in Jacksonville, FL March 6-7
 - Agenda, Presentations, and Minutes:
 - <http://www.nerc.com/comm/CIPC/Pages/AgendasHighlightsandMinutes.aspx>
 - Next NERC CIPC Meeting will be held in New Orleans, LA June 5-6.
 - The meeting was held in conjunction with a Security Incident Response During and After Natural Disasters and Emerging Technologies Roundtable workshops.
- Marc Childs, Great River Energy, CIPC Chair, provided the opening Chair remarks.
 - Cyber Security Risk Management. Cyber security program efforts address the RISC, E-ISAC Long Term Strategic Plan, and the ERO Enterprise Long Term Strategy.
 - Identification and reduction of cyber risks,
 - Cyber security risk of Fuel Handling SCADA systems for Generation,
 - Updated guidance in relation to NERC's Remote Access Study,
 - GridEx planning and preparation,
 - Supply Chain (vendor security controls and legacy systems testing).
 - Physical Security Risk Management. Physical security program efforts address the RISC, E-ISAC Long Term Strategic Plan, and the ERO Enterprise Long Term Strategy.
 - Identification and reduction of physical risks,
 - Security practices for High Impact Control Centers,
 - Security implications of drones on electric power,
 - Key management security for physical access.
 - NERC Standards Implementation Input. The Compliance and Enforcement Input Working Group (CEIWG) is established to solicit industry stakeholders for input to assist NERC staff with clarification on compliance monitoring or enforcement with the following documents:
 - Implications of Cloud Services for CIP Assets (Pilot/Study),
 - Implementation Guidance for Voice-over-IP services,
 - Implementation Guidance for Shared Transmission Facilities.
- Agency Updates
 - Department of Energy
 - Sec. Perry is doing a reorganization of DOE; Cyber is going to double in size.
 - C2M2 update kicked off to be completed by end of 2018, to better align with standards, workshop in June to review.
 - Working with the National Lab's to prepare for cyber incidents.
 - Grid Security guidance being developed by DOE.

- Critical Energy Information – working with industry folks to determine how to better protect.
 - Working with Dept. of Defense to determine how best to protect Defense Energy information.
 - Department of Homeland Security
 - DHS continues to be concerned about the reliability and resilience including the critical cyber systems that rely on the electric grid. This depends on the grid being robust and resilient. DHS works closely with the other sectors.
- Bill Lawrence, Director E-ISAC, provided an E-ISAC Update
 - E-ISAC Critical Broadcast Program
 - Launched a rapid information sharing capability of the E-ISAC on Feb 7
 - 1208 individuals from 245 organizations
 - CRISP (CRISP Governance Committee Activities)
 - Established E-ISAC local access to CRISP data
 - Governance Committee organized, charter under development
 - Further expanding Membership Base – target minimum of four companies joining
 - Identifying and evaluating opportunities to lower cost of participation
 - Developing Strategic Plan
 - Portal Enhancements
 - Industry Augmentation Program
 - Completed week with participating analysts from NYPA and SRP.
 - Built trust while exchanging expertise and understanding of threats and response processes
- Kaitlin Brennan, Manager – Cyber and Infrastructure Security, EEL, provided a Legislative Update
 - S.79 Securing Energy Infrastructure Act – Sens. King (I-ME) & Risch (R-ID)
 - DOE pilot program to study Cybersecurity Risk
 - S.141/H.R. 3086 Space Weather Research and Forecasting Act
 - Coordinate Federal Agency work to address space weather
 - National Defense Authorization Act (H.R. 2810; P.L. 115-91)
 - Repaneled former EMP commission, old commission by DOE and FEMA, new by Senate Armed Service Committee
 - Cyber SAFETY Act of 2018 (S.2392) – Sen. Daines
 - Clarify the Safety act of 2002 to include qualifying cyber incidents in addition to acts of terrorism

SPP Registered Entity

Board of Trustees

April 23, 2018

Resolution

Performance of the SPP RE Staff

Whereas the SPP Regional Entity has successfully contributed to regional reliability; and

Whereas the SPP Regional Entity has carried out its delegated authority from the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC);

Therefore be it resolved the SPP Registered Entity Board of Trustees expresses its thanks and appreciation to the staff of the SPP Regional Entity for its diligence, professionalism, and efforts, resulting in outstanding performance of these essential functions for the past 11 years.

This is hereby acknowledged of the 23rd day of April 2018, in Kansas City, Missouri.

David Christiano

David Christiano

Mark Maher

Mark Maher

Stephen Whitley

Stephen Whitley