

Welcome

NPCC Spring 2018 Workshop

Scott Nied

White Plains, NY

May 23 – 24, 2018

Welcome – Before We Begin

Go to www.slido.com and enter “NPCC2018”

OR

Get the slido app on your
Phone and enter “NPCC2018”

We will explain in a minute!

Get ready for a test.



May 23 Classroom Tracks

2:00 pm, 3:00 pm, 4:00 pm

	2:00 pm	3:00 pm	4:00 pm
Track 1	A	B	C
Track 2	B	C	A
Track 3	C	A	B

A: Entity Risk Assessment Team (Larchmont 1&2, Lower Level)

B: Compliance Monitoring Team (Briarcliff 1&2, Lower Level)

C: Mitigation/Enforcement Team (Main Ballroom)

Thursday

- We are offering a box lunch (slido poll)
- We are having a raffle for those who attend



Compliance Solutions

- Proven Compliance Solutions
- SOS Intl
- Assurx
- Cooper Compliance
- SigmaFlow, LLC
- FoxGuard Solutions, Inc.
- AESI Inc.



Two Polls

- White Plains famous person
- First time attendees



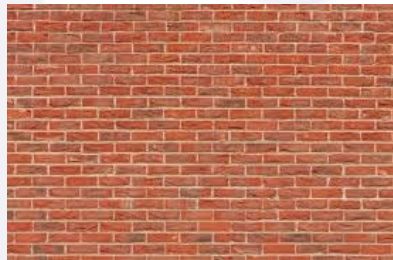
ERO Push for Collaboration

- Recent NERC ERO CMEP workshop
- RAPA, Planning, Operating
- Emerging issues, OC, PC, CIPC
- NERC and FERC
- Battlefield



Two Results

- Stakeholders viewpoint
- Stronger ERO



NPCC Intent

- Play nice in the sandbox
- Make progress through influence
- Represent who?



ERO Challenges

- Industry Expectations
- Demand Side/DER growing
- Inverter proliferation
- Human Perf – levels of awareness
- Cyber Threat Matrix



May 9 NERC and Resilience

- Current programs support resilience concept
 - Reliability Standards process
 - Reliability Assessments
 - Events Analysis
 - Situational Awareness, E-ISAC, BPSA
- In the four timeframes
 - Pre-Event, Transient immed after during automatic operations, Operator response, restoration and recovery to sustainable state
- Which matches the aspects of the NIAC construct
 - Robustness, Resourcefulness, Rapid Recovery, Adaptability

- Questions?
- Send comments/questions through slido
- Javier is monitoring them
- He will vet them for the speaker



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NPCC 2018 Spring Compliance and Standards Workshop

CMEP UPDATE

May 23, 2018

Sal Buffamante
AVP Compliance

2017 Compliance Program Final Numbers

- Conducted 30 off-site Operations & Planning (O&P) audits, 8 on-site O&P audits, 4 off-site O&P spot checks, 11 off-site CIP audits, and 11 on-site CIP audits;
- Participated on two MRRE audits as the LRE for 5 entities; observed FERC-led CIP audit of one entity
- Performed 40 Inherent Risk Assessment Updates (IRA)
- Performed 10 Internal Control Evaluations (8 O&P, 2 CIP)
- Processed 9 new Technical Feasibility Exception (TFE) submittals from 7 registered entities; 9 Material Change Reports(MCRs) and 7 TFE Terminations;
- Closed 107 Violations (24 dismissed, 3 FFTs, 47 CEs, 33 Canadian Filings);
- Accepted 4 Mitigation Plans;
- Accepted 188 Mitigation Activities;
- Processed 13 new entity registrations, 14 entity delisting's, 2 function deactivations, 2 entity name changes, 4 added functions, 4 DP to DPUF changes and 0 certification reviews.

2018 Compliance Program

- **NERC Oversight and Updates**
- **ERO Enterprise Future Issue: Resiliency**

Remainder of Workshop

- **NPCC Entity Risk Assessment**
Better practices, Lessons Learned, and Industry Look Ahead
- **NPCC Compliance Monitoring**
Audit Preparation for CIP and O&P Audits
- **NPCC Mitigation/Enforcement**
Trends and Advice
- **NPCC Cyber and Physical Security Outreach**
- **CDAAs Enhancements and the CMEP Technology Tool**

NERC Oversight

As outlined in the Rules of Procedure, NERC has responsibility for oversight and monitoring of the Regional Entities.

NERC seeks to ensure consistency and fairness among the various Regional Entity programs.

NERC carries out its oversight and monitoring activities through:

- Annual reviews of the Regional Entity implementation plans;
- Oversight audits of select registered entity audits;
- Annual assessments of select NERC Reliability Standards for consistency of approach through the Key Reliability Standard Spot Check (KRSSC) program;
- Compliance Monitoring and Enforcement Program (CMEP) audits of registered entities.

NERC Updates

Examples:

NERC posed the following ERO Enterprise-Endorsed Implementation Guidance documents:

- CIP-002-5.1a, R1 - Shared Ownership of BES Facilities
- CIP-010-3 R1.6 Software Integrity and Authenticity
- CIP-014-2 R4 Evaluating Potential Physical Security Attack
- CIP-014-2 R5 - Developing and Implementing Physical Security Plans

NERC also posed the following Proposed Implementation Guidance documents:

- PRC-024-2 R2 - Generator Voltage Protective Relay Settings
- PRC-023-4, R1 - Determination of Practical Transmission Relaying Loadability Settings
- CIP-002-5.1a R1 - Voice Communications in a CIP Environment

NERC posed three new Reliability Standard Audit Worksheets (RSAWs):

- TOP-001-4
- INT-009-2.1
- INT-010-2.1

Resiliency

The rise in the frequency and magnitude of major weather events, as well as increasing threats such as cyber and physical attacks against the grid, make it necessary to think not only about the reliability, but the resilience of the grid and its ability to withstand and recover from intense shocks to the infrastructure.

Reliability and resiliency are intertwined and often confused. NERC, defines reliability as a combination of sufficient resources to meet demand (adequacy) and the ability to withstand disturbances (security). NERC and the Regional Entities monitor the ability of Reliability Coordinators and other registered entities to respond to generation or transmission outages.

Security is harder to measure because it reflects preparedness to withstand uncertain external forces. Modeling and simulator exercises help, but the impacts of low-probability, high-impact events remain difficult to predict. The ERO promotes cybersecurity, emergency preparedness, and physical security outreach to ensure grid operators and utilities are prepared for attacks or blackouts.

Resiliency

Resilience is a more expansive concept than reliability, encompassing consequences to the electricity system and other critical infrastructure from increasingly likely high-impact external events.

Resilience is a grid attribute that improves the response to such events.

The ERO as well as regulators and policymakers across the world are pushing for new structures that can properly value and promote the redundancy and resilience capabilities the grid needs to respond.

Technologies such as microgrids and distributed energy resources and wide-area situational awareness are a few examples.

NPCC Entity Risk Assessment

Better practices, **Lessons Learned**, and Industry Look Ahead

NPCC Compliance Monitoring

Audit Preparation for CIP and O&P Audits

NPCC Mitigation/Enforcement

Trends and **Advice**

NPCC Cyber and Physical Security Outreach

QUESTIONS ?



Spring NPCC Compliance and Standards Workshop May 23-24, 2018

Reliability Standards Outlook

Guy V. Zito
NPCC AVP - Standards

Discussion Items:

- Overview of Standards Development RSDP
- Standards Efficiency Review
- Cost Effectiveness
- Guidelines and Technical Basis
- Steady State and Periodic Reviews
- Standards Process Manual Revisions
- RISC and Emerging Risks
- Resilience

Discussion Items cont. :

- Process and Stakeholder tools
 - Compliance Policy Guidance
 - Request for Interpretations
 - Feedback Loops
 - Approach to addressing DER BES Impact
- NPCC Regional Standards and Directories
- FERC Legal Process for Standards
- NPCC Regional Standards Committee
- Future of Standards and Criteria

NERC Standards Development

- Overview-NERC Reliability Standards Development Plan (RSDP) 2018-2020, NERC Board of Trustees (BOT) Approved
 - Periodic Reviews
 - Project 2017-04 Interchange Scheduling and Coordination Standards (INT-004, 006, 009, 010)
 - Project 2017-05 NUC-001
 - Project 2017-03 FAC-008 Periodic Review
 - Projects Scheduled and continuing through 2018
 - Modifications to CIP Standards –cont.
 - Project 2015-10 Single Points of Failure - TPL-001
 - Project 2017-06 Modification to BAL-002-2
 - Project 2017-01 Modifications to the BAL-003-1.1
 - Project 2015-09 Establish and Communicate System Operating Limits-FAC-010, FAC-011, FAC-014
 - 2017-07 Standards Alignment with Registration
 - 2018-01 Canadian-specific Revisions to TPL-007-2

NERC Standards Development

– Additional Considerations

- Reliability Issues Steering Committee (RISC)
- Essential Reliability Services Task Force (ERSTF) recommendations
- Industry Feedback Loops (e.g. Events Analysis, Compliance, RAPA)
- IEEE 1547 and VER Modeling
- Standards Efficiency Review
- Standards Grading
- DOE Report and NOPR to FERC (Resiliency concerns)
- High Impact Low Frequency events

Standards Efficiency Review

- Review the entire set of approved standards with a focus on retiring
- Work is underway on Phase 1 O&P- to be completed mid-2018
- Work on Phase 2 (CIP) later this year
- Pre-standard development activity
- Open and transparent process-not documented
- Not a Standards Grading exercise

Cost Effectiveness

- Cost Effectiveness Analysis Process CEAP
 - Pilots conducted 2013 and 2014-analysis of different approaches and costs to meet a standard's objective
 - Proved burdensome- no resources
- Cost Effectiveness
 - Analysis of the Risk being reduced
 - Cost associated with reducing that risk
 - Cost associated with not reducing the risk (reliability and societal)
 - Standards Drafting Teams and Periodic Review Teams
 - **Teams asked to develop alternatives**
 - **Add question(s) to the Comment forms**
 - Application to all Standards projects

Technical Rationale for Reliability Standards

- Technical Rationale Transition Plan
 - Track 1 and 2 (CGP?)
- Remove from Reliability Standards (supporting documentation)
 - Guidelines and Technical Basis
 - Technical Rationale
 - Implementation Guidance
- FERC Approved parts of the Standard (mandatory and enforceable)
 - **Applicability**
 - **Requirements**
 - **Implementation Plan**
 - **Effective Date**
 - VRFs and VSLs
- May contain Compliance Guidance but not processed through the CGP
- Supporting Documents Section 11 of the SPM
- To be located with Standards to which they apply but as separate documents
- All standards going forward
- GTB Teams will begin the process of review of supporting documentation from the standards.

Steady State and Enhanced Periodic Review

- Steady State
 - Core set of Results-based Standards
 - All previous FERC Directives addressed
 - Independent Expert Review Panel recommendations considered
 - Meets “Ten Benchmarks of Excellence”
 - All Paragraph 81 identified issues addressed
- Periodic Reviews
 - Cross Functional Team of NERC Standing Committee Chairs, Staff, Regional Entities, and others to review standards
 - All enforceable standards in effect for a year or more
 - Subject Matter Expert Teams as required
 - Expedited, efficient and effective period review of standards
 - Regional Standards-Variations? Retirements?
 - Costs

Steady State and Periodic Review

- Grading currently underway in 2018- 53 Requirements
 - CIP-014-2 Physical Security
 - COM-002-4 Operating Personnel Communications Protocols
 - FAC-003-4 Transmission Vegetation Management
 - FAC-013-2 Assessment of Transfer Capability for the Near-Term Transmission Planning Horizon
 - IRO-006-5 Reliability Coordination — Transmission Loading Relief (TLR)
 - MOD-020-0 Providing Interruptible Demands and Direct Control Load Management Data to System Operators and Reliability Coordinators
 - MOD-025-2 Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability
 - MOD-026-1 Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions
 - MOD-027-1 Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions
 - MOD-028-2 Area Interchange Methodology
- 2017 Final grades – 2018-2020 Reliability Standards Development Plan

Standards Process Manual Revisions

- **Sections with substantive revision:**
 - Section 6 “Process for Conducting Field Tests”
 - Section 7 “Process for Developing an Interpretation”
 - Section 11 “Process for Approving Supporting Documents”
- **Sections with minor revisions:**
 - Section 2.1 “Definition of a Reliability Standard”
 - Section 3.7 “Governmental Authorities”
 - Section 8 “Process for Appealing an Action or Inaction”

Reliability Issues Steering Committee (RISC) and Emerging Risks

“ERO Reliability Risk Priorities,” – 2017 Report - 8 Risks Identified and a potential framework for Resilience

- Risk Profile #1: Changing Resource Mix (High)
- Risk Profile #2: Bulk-Power System Planning (High)
- Risk Profile #3: Resource Adequacy and Performance (High)
- Risk Profile #4: Increasing Complexity in Protection and Control Systems and Asset Management (Moderate)
- Risk Profile #5: Human Performance and Skilled Workforce (Low)
- Risk Profile #6: Loss of Situational Awareness (Moderate)
- Risk Profile #7: Extreme Natural Events (Moderate)
- Risk Profile #8: Physical Security Vulnerabilities (Moderate)
- Risk Profile #9: Cybersecurity Vulnerabilities (High)

Resilience

- “The ability to withstand and reduce the magnitude and/or duration of disruptive events, which includes the capability to **anticipate, absorb, adapt to, and/or rapidly recover** from such an event.”
- Ken McIntyre – FERC Chairman-“Top priority of the Commission” address concerns- DOE Staff Report and NOPR”
- FERC terminated the DOE NOPR proceedings and developed a NOPR “ORDER TERMINATING RULEMAKING PROCEEDING, INITIATING NEW PROCEEDING, AND ESTABLISHING ADDITIONAL PROCEDURES” Issued January 8th, 2018.
- FERC NOPR
 - what resilience of the bulk power system means and requires;
 - understand how each RTO and ISO assesses resilience in its geographic footprint; and
 - use this information to evaluate whether additional Commission action regarding resilience is appropriate at this time.

Resilience and HILF

Electromagnetic Pulse (High Altitude “HEMP”)

- Three components of a HEMP E1, E2, and E3
- The E2 and E3 generally well understood; E2 similar to lightning and E3 similar to GMD. Starfish Prime studies in 1962. E3 understanding resulted in revision to TPL-007 and supplemental analysis-increase in the studied electric field.
- The E1 component is a very brief but intense electromagnetic field that can quickly induce very high voltages in electrical conductors. Most destructive.
- Creates an artificial radiation belt

Electromagnetic Pulse (High Altitude “HEMP”)

- Electric Power Research Institute EPRI Study of E1
 - Study to be released late 2018
 - Study uses wave guides and direct injection
 - Study will recommend cost effective mitigation methods to harden the grid against E1
- FERC
 - Waiting for study
 - Potential for a NOPR to address possible BES E1 risks
 - Potential for a similar approach as GMD, one for operational and one for planning (i.e. EOP-010 and TPL-007)
 - Critical facility list development identifying where potential weaknesses may exist

Compliance Guidance Policy

Compliance Guidance Policy-a Standards perspective:

- Process for developing approaches useful in providing guidance for implementing standards
- November 4-5, 2015 BOT approvals (NERC Comp. and Enf. Webpage)
- Two Types of Guidance:
 - CMEP Implementation Guidance:
 - Approaches on how entities could comply with standards
 - Led and developed by SME; vetted by pre-approved organizations, not NERC
 - Not necessarily the only approach to comply with a standard
 - Endorsed for Deference by the ERO
 - CMEP Practice Guide-Auditor Instructions
 - Initiated by ERO Policy
 - Initiated by ERO in response to a specific issue
- Section 11-"Process for Approving Supporting Documents" of the SPM under revision
- Upon ERO approval, provides compliance deference

Compliance Guidance Policy Pre-approved Orgs.

- American Public Power Association (APPA)
- Canadian Electricity Association (CEA)
- Edison Electric Institute (EEI)
- Electricity Consumers Resource Council (ELCON)
- Electric Power Supply Association (EPSA)
- ISO/RTO Council
- Large Public Power Council (LPPC)
- National Association of Regulatory Utility Commissioners (NARUC)
- National Rural Electric Cooperative Association (NRECA)
- North American Generator Forum (NAGF)
- North American Transmission Forum (NATF)
- Northwest Public Power Association (NWPPA)
- Transmission Access Policy Study Group (TAPS)
- Western Interconnection Compliance Forum (WICF)
- NERC Planning Committee (PC)
- NERC Operating Committee (OC)
- NERC Critical Infrastructure Protection Committee (CIPC)
- Regional Entity Stakeholder Committees

Standards Interpretations

Request for Interpretation (RFI):

- Standard Processes Manual (SPM) Section 7 outlines the process for developing an interpretation. Eight criteria for rejecting a request.
- A valid interpretation provides additional clarity about one or more requirements, but does not expand on any requirement and does not explain how to comply with any requirement.
- Any entity that is directly and materially affected by the reliability of the North American Bulk Power Systems may request an interpretation.
- The NERC Standards and Legal staff shall make a recommendation to the Standards Committee whether to accept the Request for Interpretation (RFI).

Standards Interpretations

Request for Interpretation (RFI) cont.:

- Reasons to reject RFIs Section 7 SPM
- Requests approval of a particular compliance approach;
- Identifies a gap or perceived weakness in the approved Reliability Standard;
- Where an issue can be addressed by an active standard drafting team;
- Where it requests clarification of any element of a Reliability Standard other than a Requirement;
- Where a question has **already been addressed in the record**;
- Where the Interpretation identifies an issue and proposes the development of a new or modified Reliability Standard, (such issues should be addressed via submission of a SAR);
- Where an Interpretation seeks to expand the scope of a Reliability Standard; or
- Where the meaning of a Reliability Standard is **plain on its face**.

NPCC Feedback Loop

Stakeholder tool to document how a results-based Reliability Standard improvement Issue (“Issue”) is identified, evaluated, and addressed.

<https://www.npcc.org/Compliance/Feedback%20Process/FeedbackProcess.pdf>

- 1) Issue Identification (Entity Risk Assessment, Monitoring, Enforcement or Event Analysis)
- 2) Evaluation (Preliminary screen, Scope, Type, Importance)
- 3) NERC Process Recommendation (Final Recommendation from team, NPCC Regional Standards Committee, NPCC action taken)

Approach to Addressing DER

Stakeholder tool under development by the Regional Standards Committee to document DER issues identified, evaluated, and pursue how they be addressed.

- 1) Issue Identification (Stakeholder, RAPA, or Event Analysis)
- 2) Evaluation (Preliminary screen, Scope, Type, Importance)
- 3) NERC or Regional solution Recommendation (NPCC action taken)

NPCC Regional Standards

- PRC-006-NPCC-1 Revision to:
 - Review for potential revisions made necessary by:
 - NERC PRC-006-1/PRC-006-2 Automatic Underfrequency Load Shedding
 - NERC PRC-024-1/PRC-024-2 Generator Frequency and Voltage Protective Relay Settings standards.
 - Review for Dispersed Generation (DG) issues
 - First Draft posted for 45 day comment period ending October 16, 2017
 - Second draft posted for 45 day comment period ending May 31, 2018
 - Draft developed to enable retirement of NPCC Directory 12 on UFLS
 - Ballot in third quarter 2018

NPCC Directories (Criteria)

- NPCC Full Members:
 - NPCC Criteria Compliance Enforcement Program (CCEP)
- Non-NPCC Members:
 - Obligations in Tariffs & Other Agreements
- 2018 Activity:
 - Directories #2 and #5 – Under Review
 - Directory 7 Under Review-RAS Alignment
 - A-10 Methodology– Under Review

Legal Procedural Information for Standards (US)

- BOT Approves Standard
- NERC Files a Petition with FERC and Canadian Regulatory Authorities.
- FERC elects RM or RD (RM Rulemaking-NOPR) no time requirement for FERC to act
- NOPR – **60 days to comment**
- FERC Final Order Date (Date the Order is Issued)
- Federal Register Publication Date – Effective Date of the ORDER (not the Standard) . This is the “Commission Approval Date”
- Effective Date of the Standard is usually defined in the Petition filed by NERC, e.g. “effective on the first day of the first calendar quarter that is XXX months after Commission Approval Date”
- Implementation Plan
- **Request for Rehearing of a Final Order can be requested within 30 days of FERC Final Order Date** (not Commission approval date)
 - FERC must act on a rehearing request within 30 days and if no action is taken the rehearing request is deemed denied
 - FERC can delay its action on this indefinitely
 - FERC almost always delays action
 - Request for rehearing does not impact the Commission approval date
 - **Preserves right to appeal to Court**

NPCC Regional Standards Committee

- Interface with RISC- emerging issue identification
- Review and comments on NERC/ERO and Eastern Interconnection Regional Standards
- Develops Ballot Recommendations for NERC/ ERO Standards and Interpretations
- Participates in NERC Standards drafting and influence processes through various groups-formal and informal
- Oversees the Development and Maintenance of NPCC Regional Standards
- Oversees the Development and Maintenance of NPCC Regional Directories
- Regional Delegation Agreement-Standards Program Area
- Review all FERC Orders, Rulings, NOPRs and Petitions related to Standards
- Participates in Feedback loop mechanisms to improve standards

Future of Standards and Criteria

- Standards will all undergo EPR and be graded
- Standards will be reviewed for “efficiency”
- Increased emphasis on cost and justification of standard-based solutions
- Standards Metrics-are standards improving? Is reliability improving? Feedback Loops and consistency
- Risk “informed” solutions
- Increased Continent-wide vs. Regional solutions
- Increased informal consensus building and development
- As standards improve-less Regional criteria

“Intelligence is the ability to adapt to change.”- Stephen Hawking



Stephen Hawking (Jan 1942-March 2018)

Questions or Comments ?

NPCC 2018 Spring Compliance and Standards Workshop

Standards Efficiency Review (SER)

Guy V. Zito

NPCC AVP - Standards

SER Overview

- Industry requested BOT in May 2017 to evaluate all standards using a risk based approach to identify potential retirements or modifications to standards
- Give consideration to:
 - FERC P-81 Criteria from FFT Order
 - IERP previous recommendations
 - Excessive compliance reporting burdens
 - Compliance self reports and violations

SER Overview

- Conduct the project in two phases, O&P and then CIP
- Functional Advisory Group –oversight
- Three teams of SMEs formed to conduct Phase 1 of the SER
 - Operations Planning
 - Long Term Planning
 - Real Time Operations
- SER vs Standards Grading-what's the difference?

SER Overview, cont.

- SER Matrix developed with 9 questions to be used to identify retirement candidates. 450+ active requirements total in Phase 1
- SER Matrix posted for industry input through February 2, 2018. NERC extended the date to March 6, 2018 to allow more time for the industry to identify candidates.
- To date, NERC has received 35 responses from industry commenters. NPCC provided a staff response and incorporated some input from RSC members.

SER Overview, cont.

- NPCC's response indicated 145 requirements should be reviewed for potential retirement and are not needed in the NERC Standards. The candidates have at least one of the following attributes:
 - Certification candidates (incorporate into TOP, BA, or RC Certifications)
 - Business Practices (potential to be NAESB standards)
 - P81 – duplicative, administrative or little benefit to reliability
 - Part of a Periodic Review and in the process of review for potential retirement
 - Part of an active Standards Development Project where some preliminary work from a drafting team shows opportunity to retire requirement(s)

SER Process Challenges

- Justifications for retirements-FERC ruled them to be necessary for “reliable operation” as defined in the statute.
- Due diligence in reviewing to ensure no FERC Directive was once associated with a retirement candidate.
- Some requirements have to be cross reviewed by other team(s). Coordination between the three teams and uniform analysis and decision making.
- Dividing up the resultant recommended work into SARs
- Incorporation into the Reliability Standards Development Plan
- Timeline for completion (teams and industry)
- Industry resource constraints due to SER, Standards Projects, Standards Grading and any FERC Directives being issued.
- Process not documented, industry awareness

SER Next Steps

- Individual teams have broken up into subgroups to start the analysis and have been meeting bi-weekly via tele.
- NERC Extranet will house in-process work and all agreed on recommendations.
- Once candidates for retirement or modification are agreed to by the teams; justifications and SARs will then be developed.
- SARs will be developed and submitted to the NERC Standards Committee to begin the formal standards development process. Posting is expected to be by June 5, 2018, through the 19th. Phase 1 project to be completed third quarter 2018.
- Industry NERC Webpage

<http://www.nerc.com/pa/stand/pages/standards-efficiency-review.aspx>

“The greatest enemy of knowledge is not ignorance, it is the illusion of knowledge.”



Stephen Hawking (Jan 1942-March 2018)

Discussion - Questions or Comments ?

CIP Standards update

NPCC Spring Workshop
May 23-24, 2018

Agenda

- Control Center definition
- CIP-012
- Supply Chain
- Low Impact

Control Center definition

- Control Center definition ballot failed
- See CIP-012 applicability posted May 18, 2018

CIP-012

Communications between Control Centers

Responsible Entities

BA, GOP, GO, RC, TOP, TO

CIP-012

more

- CIP-012 posted May 18, 2018 for comments and ballots
- For “real-time data specification elements” see TOP-003 and IRO-010 for

CIP-012

more

Exemption - A Control Center at a generation resource or Transmission station or substation that transmits to another Control Center Real-time Assessment or Real-time monitoring data pertaining only to the generation resource or Transmission station or substation at which the transmitting Control Center is located.

CIP-012

more

R1

Shall implement, **except under CIP Exceptional Circumstances**, one or more documented plan(s) to mitigate the risk of unauthorized disclosure or modification of Real-time Assessment and Real-time monitoring data while being transmitted between any applicable Control Centers.

Supply Chain

- Supply Chain (CIP-013, CIP-005 CIP-010) pending at FERC
- CIPC to establish an advisory task force
- In June, NATF plans to finalize and submit for NERC endorsement “Supply Chain Cybersecurity Risk Management” guidance document

Low Impact

- FERC issued Order 843, approving CIP-003-7
- Effective dates for CIP-003 Attachment 1, Sections 2 and 3 related to physical and electronic access controls changed to January 1, 2020
- LERC / LEAP terms retired

Low Impact more

- New requirements for Transient Cyber Assets and Removable Media
- Declaring and responding to CIP Exceptional Circumstances
- Hint – if you have High / Medium, you may want to leverage that program for Lows

Low Impact more

In the Order, the Commission directed NERC to develop further modifications to address the need to mitigate the risk of malicious code that could result from third-party TCAs

Questions



Compliance Portal (CDAA) and CMEP Tool Update and One-Time Attestations

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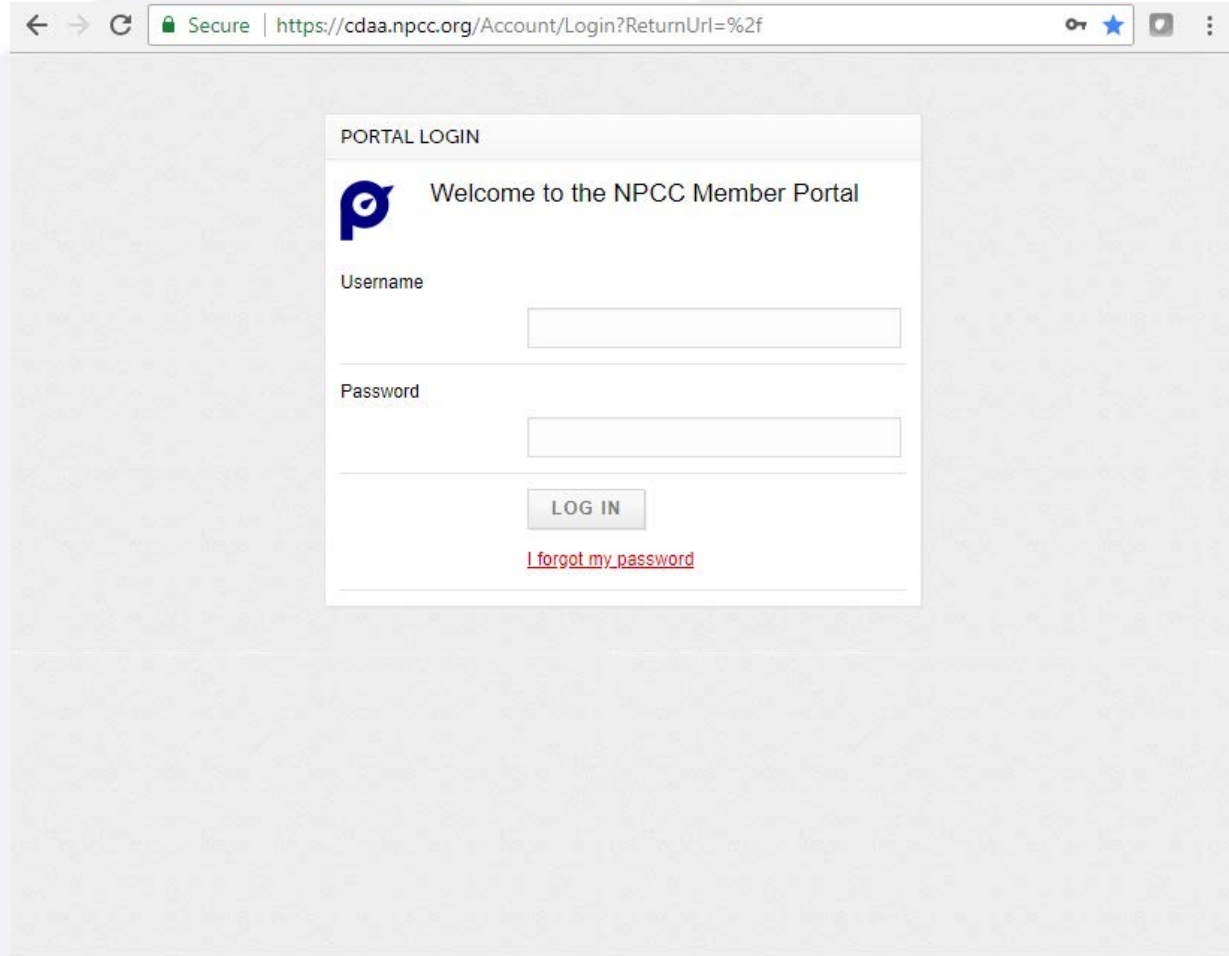
Compliance Portal

<https://cdaa.npcc.org>

Additional Names

- CMEP Data Administration Application (CDAA)
- “The Portal”
- “The Member Portal”
- “The Compliance Portal”

*****Not to be confused with the NPCC website (npcc.org). The website is for Committees, Task Forces, and Working groups.**



The screenshot shows a web browser window with the address bar displaying "Secure | https://cdaa.npcc.org/Account/Login?ReturnUrl=%2f". The page content is titled "PORTAL LOGIN" and includes the NPCC logo and the text "Welcome to the NPCC Member Portal". Below this, there are input fields for "Username" and "Password", followed by a "LOG IN" button. A link labeled "I forgot my password" is located below the login button.

What is the Compliance Portal Used For?

- Entity Information – More on next slide
- TFEs
- Self-Certifications
- Scope Expansions
- Link to Complaint Form (NERC Site)
- Mitigation Plans
- Non-Compliance
- Periodic Data Submittals (FAC-003 Events)

Entity Obligation

- Maintain the roles of your users!
- The Entity Administrator does this
- Primary Compliance Contacts (PCCs) are used for:
 - NERC Alerts
 - NPCC Compliance Webinars/Emails
 - Threats Identified in 2017 FERC CIPV5 Audits Lessons Learned Report
 - Better Practice Elements for Audit Preparation
 - Internal Controls
 - Compliance matters
 - Request for information regarding non-compliances
 - Formal CMEP documentation (Preliminary Screen Notice, NOPV, NAVAPS, etc)

CDAA - What's New #1 – New Dashboard!

The new Non-Compliance Dashboard will allow some users to view an overview of the status of all open non-compliance and recently closed or dismissed non-compliance for the registered entity (or entities) they have permissions to access.

Quick Look on Landing Page.

Details of changes:

All non-compliance which are in any open state will be displayed

All non-compliance closed or dismissed in the past 3 months will also be displayed

Default sort will be: Date Reported for all open non-compliance and Dismissed/Closed will be displayed last (sorted by Date Reported)

ACTIVE OR RECENTLY CLOSED (SINCE 02/01/2018)

		Region ID	NERC Violation ID	Standard	Date Reported	Identification Method	Violation State
	View	NPCC2018-201535		CIP-002-5.1 R2.	4/18/2018	Self-Report	Screening In Progress

Screening In Progress
4/18/2018

Review In Progress

Determination In Progress

Determination Completed

Sent to NERC

Filed to FERC

Pending Regional Closure

Closed

[Informal Mitigation Plan Received 4/18/2018 Region reviewing Mitigation Plan](#)

RPP: Showing 1 to 1 of 1 entries

FIRSTPREVIOUS1NEXTLAST

CDAA - What's New #2 – New Search Page!

The new Search Page features will allow users to search reported non-compliance for the registered entity (or entities) they have permission to access using several different criteria. **This includes audit findings and self-logged issues.** Users will have a read-only view to non-compliance details submitted, see contact information for the Regional Contact, Screener Contact and Point of Contact, and the ability to go to the Mitigation Plan.


NPCC Member Portal STAGING
STAGING STAGING STAGING

 Welcome Jason Wang
  A Test Company
  Logout

[HOME](#)
[SYSTEM ADMINISTRATION](#)
[TFES](#)
[SELF-CERTIFICATIONS](#)
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NON COMPLIANCE SEARCH

SEARCH EXPORT

NON-COMPLIANCE SEARCH CRITERIA

Identification Method: All Identification Methods
Standard: All Standards
Requirement: All Requirements
Subrequirements: (Select a Requirement to Load)
Functions: Click to select functions...
Date Submitted: mm/dd/yyyy through mm/dd/yyyy

NON-COMPLIANCE SEARCH

	Region ID	NERC Violation ID	Standard	Requirement	Violation State	Identification Method	Date Submitted
Select	NPCC2018-201535		CIP-002-5.1	R2.	Screening In Progress	Self-Report	04/18/2018

RPP: 100 Showing 1 to 1 of 1 entries
 FIRST PREVIOUS 1 NEXT LAST

CDAA - What's New #3 – New Mitigation Plan Grouping!

The default view of the Mitigation Plan search page has been changed to show only the current version of each Mitigation Plan, making it easier for users to find the most recent version of any given Mitigation Plan. Users will have the option to change the view to see all versions of Mitigation Plans.

MITIGATION PLAN SEARCH

SEARCH
READY FOR SIGNATURE
SIGN FORMS
CREATE PDF
EXPORT

MITIGATION PLAN SEARCH CRITERIA

Standard: All Standard Families

Mitigation Plan Status: Click to select status...

Requirement: All Requirements

NERC Violation ID:

Regional Control ID:

Functions: Click to select functions...

Display: Current Mitigation Plans Only

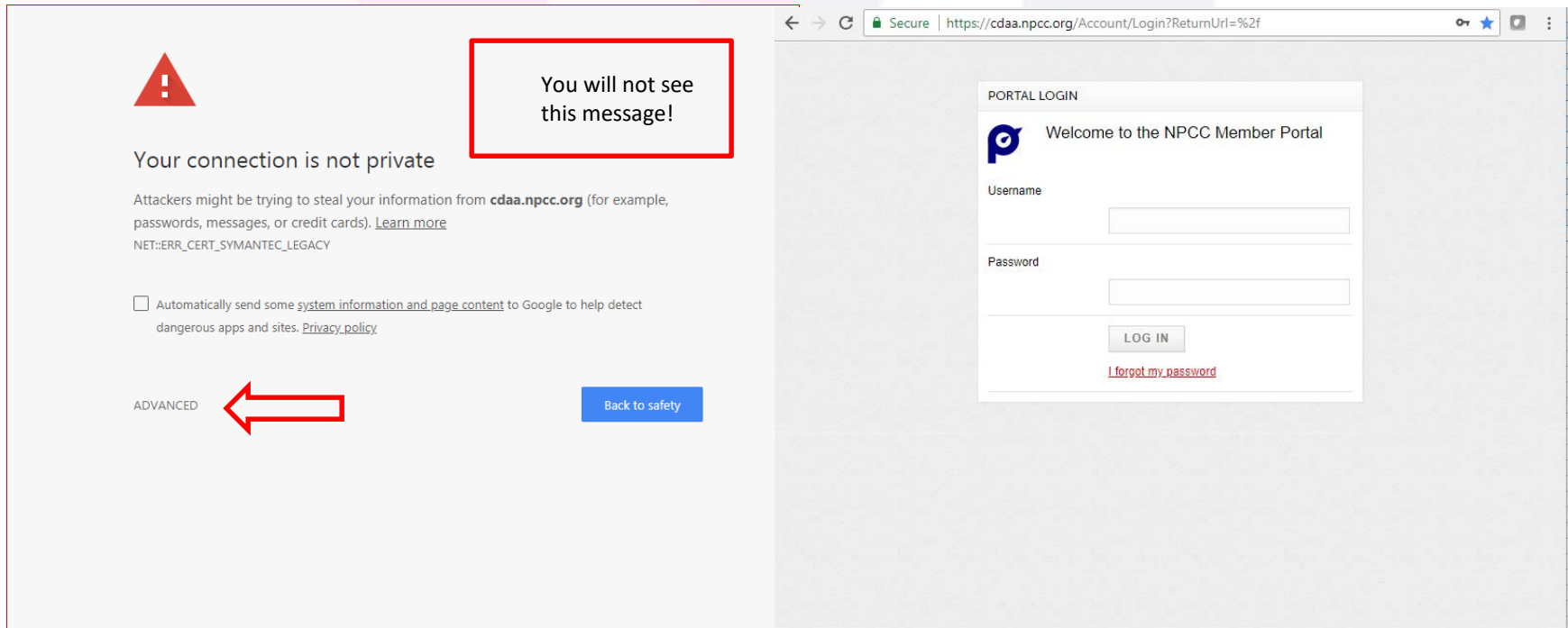
MITIGATION PLAN FORM SEARCH

		Standard	Requirement	NERC Violation IDs	Regional Violation IDs	Date Submitted	Next Milestone Due Date	Expected Completion Date	Status	MP Type	MP Group Count	Attachments
☐	Select						01/07/2015	02/10/2015	Region Awaiting Mitigation Plan (Pending Signature)	Formal	1	
☐	Select	CIP-002-5.1	R2		NPCC2018-201535	04/18/2018	04/21/2018	04/30/2018	Region reviewing Mitigation Plan	Informal	1	

RPP: 100
Showing 1 to 2 of 2 entries
FIRST
PREVIOUS
1
NEXT
LAST

CDAA - What's New #4 – Chrome Security Enhancement!

Using **Google Chrome**, users found a Privacy Alert when attempting to access <https://cdaa.npcc.org>. This issue was a side effect of Google enhancing Chrome's security. Google decided that Symantec is no longer a trusted certificate authority and the latest build of Chrome (Build 66) would warn users if they try to use https to connect to a site that is using a Symantec SSL certificate. NPCC IT replaced the security certificate resulting in normal operation of the compliance portal.



The screenshot shows a Chrome browser window. On the left, a warning dialog box is displayed with a red triangle icon containing an exclamation mark. The text reads: "Your connection is not private". Below this, it says: "Attackers might be trying to steal your information from **cdaa.npcc.org** (for example, passwords, messages, or credit cards). [Learn more](#)". At the bottom of the dialog, there is a checkbox labeled "Automatically send some system information and page content to Google to help detect dangerous apps and sites. [Privacy policy](#)". The word "ADVANCED" is visible at the bottom left of the dialog, with a red arrow pointing to it. A blue button labeled "Back to safety" is at the bottom right. A red box highlights the text "You will not see this message!". On the right, the browser's address bar shows "Secure | https://cdaa.npcc.org/Account/Login?ReturnUrl=%2f". The main content area displays the "PORTAL LOGIN" page with the NPCC logo, the text "Welcome to the NPCC Member Portal", and input fields for "Username" and "Password". A "LOG IN" button and a link "[I forgot my password](#)" are also visible.

CDAA - What's Upcoming In 2018?

- CDAA User Guide Update – Hasn't been updated since 2013.
- Self-Certification and Mitigation:
 - Self-certification non-compliance: You will have the ability to add mitigation activities similar to self-reports.
- Extension Request for Mitigation Activities/Plan
 - No more 3 month requirement for each milestone (still requirement when initially submitting milestones)
 - New rule: Do not allow submission of an extension where milestones have a proposed due date which is past the proposed mitigation plan completion date.

CDAA Questions?

- Send to jwang@npcc.org
- Desk Number: 212-205-7068

CMEP Technology Tool

- What this presentation will address:
 - What is it?
 - When can the ERO expect it going live?
 - Can a registered entity participate and provide feedback?

CMEP Technology Tool

- All compliance related activities will now be consolidated into the CMEP tool
 - One tool amongst all regions
 - Self-Reports, Audits, Self-Certifications, Mitigation Plans
- Will replace all regional compliance portals (CDAA, WebCDMS)
- Will replace NPCC's CITS (Compliance Information Tracking System)

Timeline – Process Harmonization

Process (No Stakeholders yet)	Start	End (Vendor can Implement)	Status
Self-Reports and Self-Logging	March	June	In progress
Enforcement Processing (PNC, CE/FFT, Disposition and Settlement)	May	July	Planning
Mitigation Plan Creation and Tracking	May	September	Planning
Self-Certification, Periodic Data Submittals, TFE	September	November	
Compliance Audit and Spot Check; Compliance Investigations, Complaints	October	March 2019	
Compliance Planning (Risk Elements, IP, IRA, ICE, COP)	November	April 2019	

CMEP Tool – Entity Participation

- Each Process Harmonization will result in questions.
Real Example:
 - Self Logging Entities :
 - Are there issues submitting self-logs through an excel spreadsheet? Good/Bad? Why/Why Not?
 - What are your thoughts on submitting issues ad hoc versus within the quarterly timeframe?
 - Is there a preference? Why?
- Testing/Deployment will involve stakeholder feedback before going operational

CMEP Tool – Canadian Provinces

- What types of data segregation will need to be implemented related to International Entities?
- NERC welcomes Canadians to use the tool
- Carve outs can be discussed by Province
- Data Centers in U.S. and Canada?
- FERC will not get Canada data

CMEP Tool – Unanswered

- Deployment – will the tool be released simultaneously or staggered?
- CEI data within the tool?

CMEP Tool Questions?

- Send to jwang@npcc.org
- Desk Number: 212-205-7068

One Time Attestations

- 12/11/14 RBR Filing
- *“NERC would permit registered entities to record a one-time attestation of “Not Applicable” to a given Reliability Standard requirement. For example, if the registered entity does not own or operate Underfrequency Load Shedding or Undervoltage Load Shedding assets, it should simply use the “Not applicable” designation.”*

More from 12/11/14...

“The Regional Entity would then carry forward this declaration from year-to-year, without requiring the registered entity to repeat the attestation each year, unless circumstances materially change requiring the need for the registered entity to notify the appropriate Regional Entity.

NERC or the Regional Entity would have the ability to verify the recordation is correct, on an as needed basis, but this should be infrequent.”

Finally

“In each case, NERC and the Regional Entities would have the opportunity to audit to verify the single attestation is true and correct.”

(A better statement: NPCC has the right to confirm or corroborate.)

What does this mean?

- Don't worry. NPCC will work to not include things that we know are NA
- No TSP, No FAC-003 trans, No black start units, No UFLS, No IROL equipment
- We try to identify these during IRA

Why today?

- There was a complaint
- NPCC obligation to explain this approach at THIS workshop

Other Questions?

Lunch Time!

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

ERO Enterprise Program Alignment Process

Barb Nutter, NERC, Mgr., Business Support

Matt Goldberg, ISONE, Dir., Reliability & Operations Compliance
& CCC/AWG Member

NPCC Compliance & Standards Workshop, May 23, 2018

RELIABILITY | ACCOUNTABILITY



- Introduction
- ERO Enterprise Program Alignment Process (Program Alignment)
- Issues and Recommendations
- Compliance Certification Committee (CCC) and Alignment Working Group (AWG)
- Closing
- Questions

- Approved by the Board of Trustees Compliance Committee (BOTCC)
- Intended to enhance efforts to identify, prioritize, and resolve alignment issues
- Relies on input from NERC's oversight and monitoring, regional observations, and registered entity reporting
- Work with the CCC and AWG, as appropriate

Track

Identify & Capture Issues

- Program Oversight and Monitoring
- Survey Responses
- Stakeholder Reporting
- NERC Central Repository

Triage

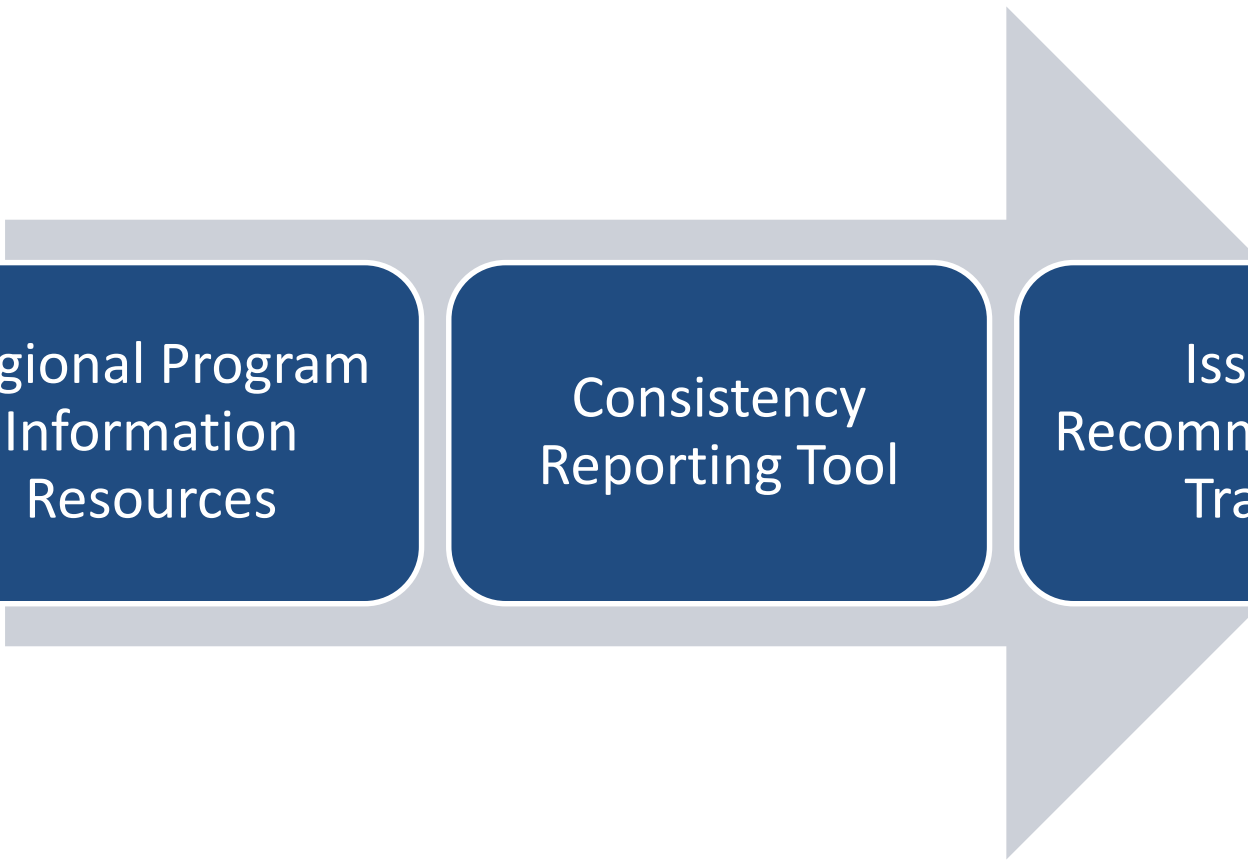
Classify, Analyze, &
Prioritize

- NERC Initial Screening
- Regional Input and CCC Alignment Working Group Engagement
- Materiality and Priority
- Responses and Recommendations

Transparent

Post & Report

- Program Alignment – Issues and Recommendations Tracking
- Quarterly Reporting
- Regional Program Information



Regional Program
Information
Resources

Consistency
Reporting Tool

Issues &
Recommendations
Tracking

Compliance and Enforcement

About Compliance Operations

Regional Entity Compliance Programs

ERO Enterprise Program Alignment Process

Compliance Analysis and Certification

Organization Registration

Organization Certification

Compliance Investigation

Compliance Hotline

Audit Assurance and Oversight

Regional Audit Reports of Registered Entities

Physical Security Standard Implementation

Security Reliability Program

Risk-Based CMEP

Compliance Tools and Auditor Resources

Compliance Guidance

Compliance Application Notice (CANs)

Program Areas & Departments > Compliance & Enforcement > ERO Enterprise Program Alignment Process

ERO Enterprise Program Alignment Process

The ERO Enterprise Program Alignment Process is intended to enhance efforts to identify, prioritize, and resolve alignment issues across the ERO Enterprise. This is a repeatable, transparent process that registered entities (or other relevant industry stakeholders) may use to report any perceived inconsistency in the approach, methods, or practices implemented and executed by the Regional Entities.

Using this process, NERC will capture identified issues from the various resources in a centralized repository. NERC will classify the issue through an initial screening process to ensure the appropriateness for this process, then work with Regional Entities and stakeholders (Compliance and Certification Committee) to analyze the issues and determine the scope and material impact. The ERO Enterprise will develop recommendations and determine the priority of the activities taking into consideration all ERO Enterprise efforts. Finally, NERC will post the issue along with the recommendations/results in the Program Alignment – Issues and Recommendations Tracking document and provide status updates on its activities.

The ERO Enterprise Program Alignment Process relies on input from NERC's oversight and monitoring, regional observations, and registered

Consistency Reporting Tool (EthicsPoint)

Program Alignment Resources

CCC Alignment Working Group Scope

ERO Enterprise Operating Model

ERO Enterprise Program Alignment Efforts

Issues and Recommendations Tracking (02/06/2018)

Regional Program Information Resources

Regional Program Information Background

Regional Program Information Matrix (10/10/2017)

Regional Program Information Matrix

				Regional Program Information Matrix			
				The following information is intended to provide general information regarding each Regional Entity's process and timing around key CMEP activities. In the event of a conflict between the NERC Rules of Procedure or Guides and this document, the NERC Rules of Procedure and Guides prevail.			
Line Item Ref.	CMEP Section	NERC ROP Reference or Guidance	Process/Activity	FRCC	MRO	NPCC	RF
2	Inherent Risk Assessment (IRA)	ERO Enterprise Guide for Compliance Monitoring Appendix 4C of RoP, Section 3.1, 3.1.2, and 3.1.4.1	What is the process for gathering IRA-related information?	FRCC creates a targeted questionnaire to gather data not already known and contacts the registered entity. The registered entity is given two weeks to respond. FRCC asks for portfolio data as well as performance data such as compliance history, compliance culture, and events.	MRO creates a targeted questionnaire to gather data not already known and contacts the registered entity. MRO pre-populates any known information before sending the questionnaire to the registered entity. MRO also uses data available internally at MRO through Registration or Operations, data obtained from Planning Coordinators, and facility verification spreadsheets that are updated by the registered entity.	NPCC creates a targeted questionnaire to gather data not already known and contacts the registered entity.	RF creates a targeted questionnaire to gather data not already known and contacts the registered entity.
			When does the IRA usually occur, including IRA updates?	FRCC begins IRA updates 210 days before an audit. FRCC has a maximum time of three years between IRA updates. The ERO Enterprise Guide for Compliance Monitoring also identifies possible triggers for IRA updates.	Generally, an IRA will be updated every three years for each registered entity; however, updates may be required at any time due to changes in the entity's registration or facility acquisition/construction, etc. The ERO Enterprise Guide for Compliance Monitoring also identifies possible triggers for IRA updates.	IRA updates occur approximately 150 days prior to NPCC sending the Audit Notification Letter. IRA updates are not done annually. Unless there is a reliability situation that dictates otherwise, NPCC will update IRAs based on a three- or six-year cycle. For any new registered entities, the IRA is targeted to occur in the following year after registration is complete. The ERO Enterprise Guide for Compliance Monitoring also identifies possible triggers for IRA updates.	The initial IRAs are being developed using the current audit schedule. RF typically initiates IRAs approximately 110 business days prior to a scheduled compliance monitoring activity. Once all IRAs are complete, RF will update the IRA prior to a planned compliance monitoring activity. RF conducts an update when an emerging risk is identified or an ERO Enterprise Risk Factor is determined. RF is considering additional triggers such as trending issues, and economic factors that may be impactful to a registered entity's behavior. The ERO Enterprise Guide for Compliance Monitoring also identifies possible triggers for IRA updates.
			Where can a registered entity find additional information on the regional IRA process, such as a possible data requests, processes, etc.?	FRCC informs the registered entities of IRA processes and timelines via outreach activities.	MRO informs registered entities about its IRA process through presentations at regional conferences and through newsletter articles. Additional information can be found on MRO's Oversight and Risk Management website, located here: https://www.midwestreliability.org/assurance/IRAMPages/tools.aspx	Additional information can be found on NPCC's website, located here: https://www.npcc.org/ComplianceEntity%20Risk%20AssessmentFormsPublic%20List.aspx	Additional information can be found on RF's website, located here: https://www.rfirst.org/compliance/Pages/default.aspx
			How will an entity be notified of the results of the IRA?	FRCC provides the registered entity an IRA Summary Report.	MRO provides the registered entity an IRA Summary Report, which contains the risk factor analysis and resulting higher-risk requirements for the entity.	NPCC provides an IRA Summary Report to the primary compliance contact.	The IRA & COP are documented in the entity-facing IRA Summary Report, which is shared within the entity compliance monitoring notification package. The report is reviewed with the registered entity as part of the Compliance Monitoring coordination call, typically within 85 calendar days prior to the

Issues and Recommendations / Resolutions

- Completed
 - Penalty Alignment
 - Inherent Risk Assessments (IRAs)
 - Assessing Compliance with Reliability Standards Having Phased Implementation Plans with Completion Percentages
 - Coordinated Oversight Roles and Responsibilities

- Resolution in Progress
 - Mitigation Practices
 - Compliance Oversight Plan (COP) Transparency
 - Internal Controls

- Review in Progress
 - Assessment Criteria
 - TOP-001-4
- Closed
 - Disposition of Noncompliance
 - Standards (CIP-007, 35-day timeline)
 - Treatment of “aggregated weighted value” for CIP-002-5.1, Attachment 1’s Impact Rating Criterion 2.5

- Regional Consistency Reporting Tool – Completed
 - RSAWs
 - Requesting Low-Impact Cyber Assets
- Stakeholder – Closed
 - One-Time Attestations

Compliance and Certification Committee Advises NERC Board of Trustees and Senior Staff

Advisory Committees

*Compliance and
Certification Committee*

*Reliability Issues
Steering Committee*

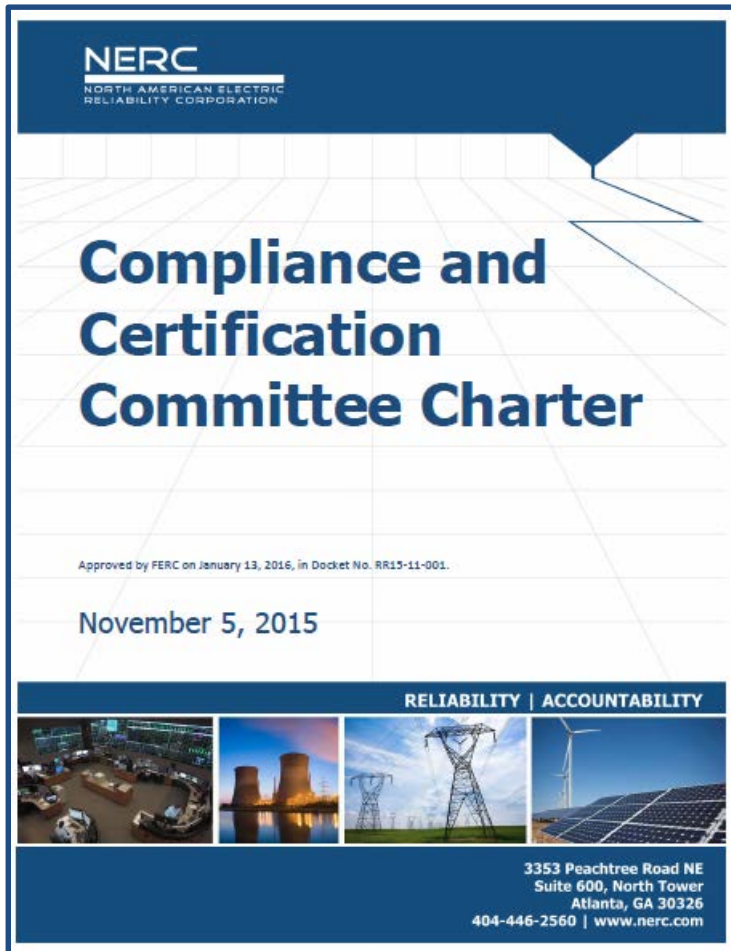
Standards Committee

Technical Committees

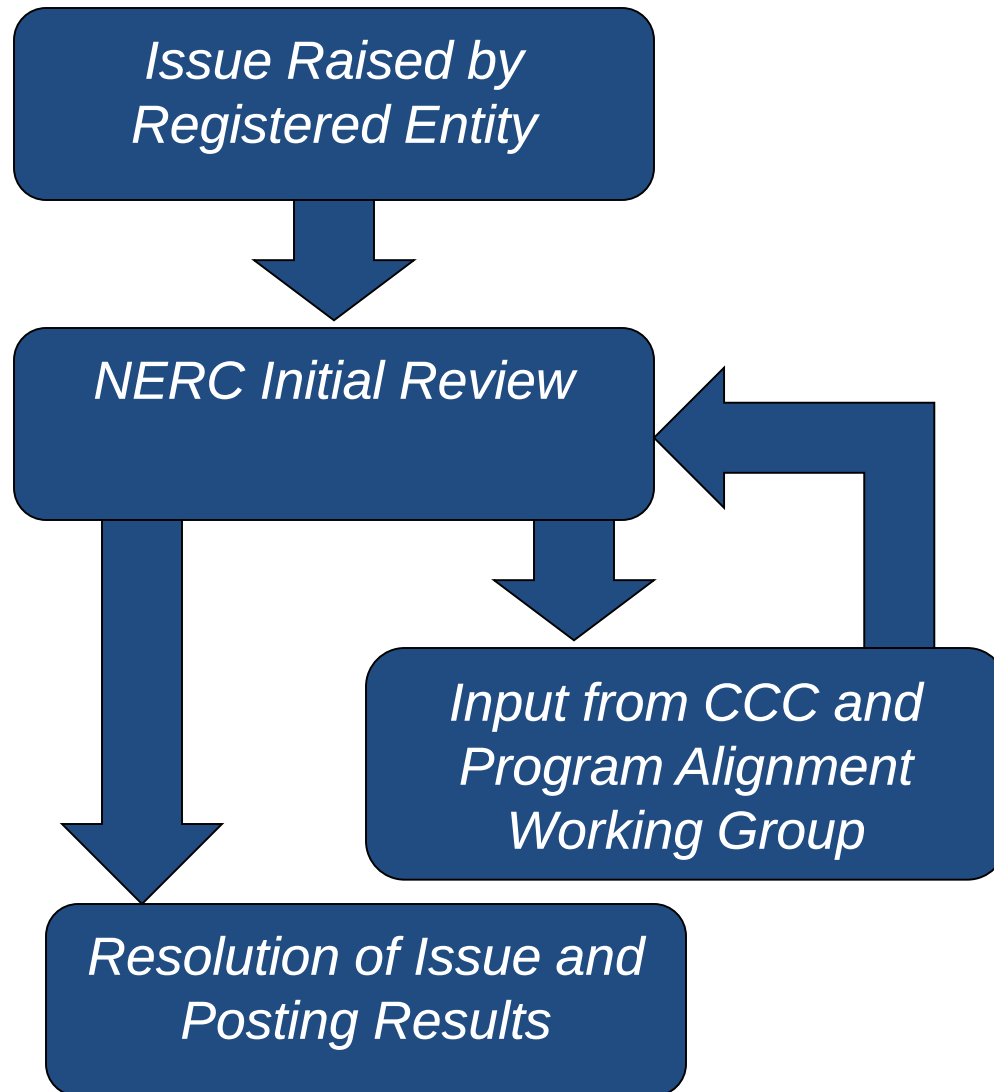
Operating Committee

Planning Committee

*Critical Infrastructure
Protection Committee*

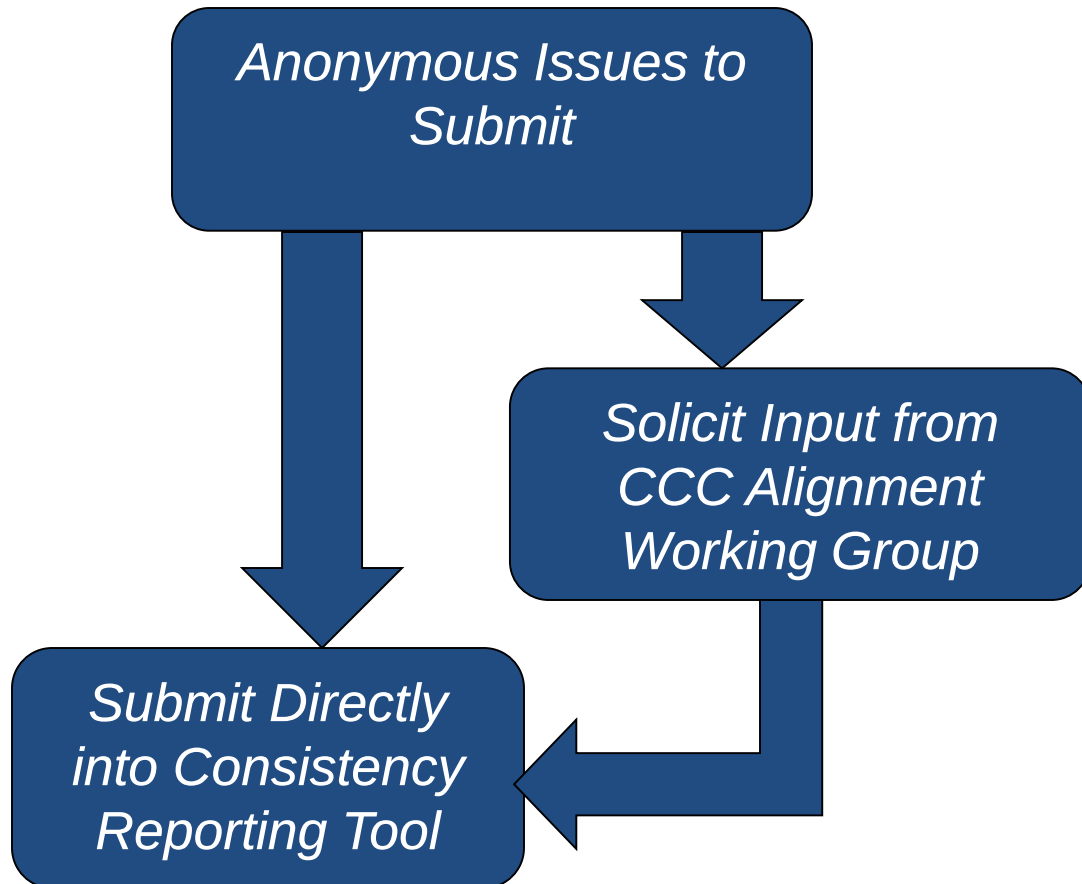


- Provide advice and support for CMEP, as well as Registration and Certification processes
- Participate in development of NERC Stakeholder Effectiveness Survey
- Partner with ERO Enterprise related to review and comment of draft RSAWs
- Develop NERC criteria for Regional oversight
- Shape development Input on development of Implementation Guidance process
- Stakeholder input on the ERO Enterprise Program Alignment Process
- Participate in discussions to identify emerging risks to reliability



Program Alignment Working Group

- Aids in the screening of information, as appropriate
- Supports further investigation of a potential issue as requested by NERC
- Providing suggested resolutions, as appropriate
- Works directly with stakeholders to shape issue to be reviewed



- Anonymous information is submitted through Consistency Reporting Tool
- CCC Alignment Working Group available to facilitate process
 - Can submit directly on behalf of stakeholder
 - Can provide technical guidance for entity to submit information anonymously into Consistency Reporting Tool

- Send questions to consistency@nerc.net
- ERO Enterprise Program Alignment Process Page
<http://www.nerc.com/pa/comp/Pages/EROEnterProAlign.aspx>
- Consistency Reporting Tool (EthicsPoint)
<https://secure.ethicspoint.com/domain/media/en/gui/51749/index.html>
- Standards and Compliance Bulletin
<https://www.nerc.com/pa/comp/Pages/Default.aspx>

- Program Alignment Process Webinar (presentation)

http://www.nerc.com/pa/comp/Compliance%20Operations%20Webinars/Program_Alignment_Outreach_Industry_Webinar_Oct2017%20PDF.pdf

- Program Alignment Process Webinar (streaming webinar)

<http://www.nerc.com/pa/comp/Pages/ComplianceTraningWorkshops.aspx>

- Program Alignment enables stakeholders to raise perceived alignment issues
- NERC is committed to providing transparency to the submitter and stakeholders
- Industry alone and through the CCC participates in the process
- ERO Enterprise needs stakeholder input to improve alignment



Questions and Answers



E-ISAC Industry Augmentation Program (IAP) Pilot with Large Public Power Council (LPPC)

Spring 2018 NPCC Compliance and Standards Workshop
Crowne Plaza, White Plains, NY
May 23-24, 1018

May 2018
TLP:GREEN

RESILIENCY | RELIABILITY | SECURITY



- **Electricity Information Sharing and Analysis Center**

- Supports, facilitates and encourages security information sharing
- Provides and encourages collaborative analysis
- Develops and disseminates mitigation advice
- Conducts technical sector coordination functions
- Members are asset owner operators across North America
- Located in Washington, DC - global awareness for the North American grid

Mission

The E-ISAC reduces cyber and physical security risk to the electricity industry across North America by providing unique insights, leadership, and collaboration

Vision

To be a world class, trusted source for quality analysis and rapid sharing of electricity industry security information

E-ISAC Strategic Plan

Vision: To be a world class, trusted source of quality analysis and rapid sharing of electricity industry security information

Supported by:

- NERC Board of Trustees
- Electricity Subsector Coordinating Council (ESCC)
- ESCC Members Executive Committee (MEC)

Information Sharing

Accelerate sharing and high priority notifications

Enhance portal

Improve information flow and security

CRISP

CYOTE

CAISS

Strategic Vendor Partnerships

Analysis

Hire and develop exceptional employees

Leverage information sharing technologies and resources to enhance analytical capability

Prioritize products and services

Metrics benchmarking

Evaluate 24x7 Operations (future)

Engagement

Build trust and show value

World Class ISAC



- Founded in 1987, the Large Public Power Council (LPPC) is comprised of 26 of the nation's largest public power systems.
- Locally owned and governed not-for-profit electric utilities committed to the people and communities they serve.
- Advocates for policies that allow public power systems to build infrastructure, invest in communities, and provide reliable service at affordable rates.



LPPC provides reliable, low-cost power to more than 30 million people



- An opportunity for E-ISAC member asset owners and operators to engage with the E-ISAC and augment E-ISAC operations
- In-person E-ISAC engagements that are limited in duration
- An enriched learning experience for industry and the E-ISAC staffs
- Opportunity for relationship building between the industry and the E-ISAC
- Involves code of conduct and information sharing protections

- Members of the LPPC Cyber Security Task Force (CSTF) actively engaged with the E-ISAC to pilot the IAP.
- A Working Group of E-ISAC staff and CSTF members was formed to establish a pilot IAP program, including a Program Manual.
- Five (5), either one-week or 3-day engagements were scheduled in 2018 at the E-ISAC in Washington, DC for LPPC personnel.
- The Program Manual for the pilot includes the curriculum for each day of the engagement.
- Industry participants are expected to provide feedback that will improve the IAP and the industry participant experience.

- **E-ISAC**

- S. Herrin, Director Operations and CRISP Senior Manager
- J. Reisman, Watch Operations Chief
- F. Hintermister, Cross Sector Manager

- **LPPC**

- R. Crissman, Senior Consultant, New York Power Authority
- K. Carnes, VP and CISO, New York Power Authority
- M. Fish, Sr. Dir. Enterprise Cyber Security, Salt River Project
- T. Pospisil, Dir. Corporate Security and CSO, Nebraska Public Power District
- P. Clark, Manager CIP Compliance, Grand River Dam Authority
- M. Morshed, Director Information Security, Sacramento Municipal Utility District

- Introduction
- Purpose and Benefits
- Definitions and Acronyms
- Pilot Program Administration
- Pilot Program Roles and Responsibilities
 - E-ISAC
 - LPPC Participants
- Pilot IAP Implementation
 - Scheduled Engagements
 - Actions Prior to an Engagement
 - Pilot Engagement Curriculum
- Post Pilot IAP Engagement Actions
- IAP Participant Alumni Group



- 1st Engagement: January 22 – 26, 2018
 - **Cyber Security Focus:** Salt River Project and New York Power Authority
- 2nd Engagement: February 24 – March 2, 2018
 - **Cyber Security Focus:** Nebraska Public Power District and New York Power Authority
- 3rd Engagement: April 30 – May 4, 2018
 - **Cyber Security Focus:** Jacksonville Electric Authority, Sacramento Municipal Utility District, and Los Angeles Department of Water and Power
- 4th Engagement: June 25 – 29, 2018
 - **Operations Technology Focus:** TBD – Operations Technology Staff
- 5th Engagement: July 23 – 27, 2018
 - **Physical Security Focus:** TBD – Physical Security Staff

- Professional development opportunity
- Learn about the E-ISAC and the stakeholders it works with
- Enhance understanding on how to contribute to sector and cross sector security collaboration
- Understand code of conduct and information sharing processes
- Proactively shape and influence E-ISAC innovation and member service
- Collaborate with the entire E-ISAC
- Improve information exchange
- Possible Continuing Education Units (CEUs)



NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Certificate of Training



E-ISAC

ELECTRICITY
INFORMATION SHARING AND ANALYSIS CENTER

E-ISAC Industry Augmentation Program

Recommended Professional Continuing Education Hours – 12.0 PCEH*

**NERC is not a registered CPE provider. Participants are responsible for verifying that NERC PCEH are eligible for reporting toward continuing education requirements.*

THIS IS TO CERTIFY

SUCCESSFULLY COMPLETED THE NAMED
COURSE AND ALL ACTIVITIES CONTAINED THEREIN.

AWARDED: DATE

Bill Lawrence

Bill Lawrence
Director of the E-ISAC



www.NERC.com

- Augment staff to achieve our shared mission
- Integrate member driven innovation and ideas
- Increase member understanding of E-ISAC capability, capacity, and considerations among members
- Increase E-ISAC understanding of members' security programs, processes, tools, and practices.
- Improve product and service mix
- Cultivate informed subject matter experts throughout the sector

- Participants for the pilot from LPPC members
 - Salt River Project
 - New York Power Authority
 - Nebraska Public Power District
 - Grand River Dam Authority
 - Sacramento Municipal Utility District
 - Jacksonville Electric Authority
 - Los Angeles Department of Water and Power
- Future participants will include other LPPC CSTF member representatives
- Future participants may also include talent from other industry organizations

- Contact us:
 - E-ISAC: Steve Herrin; operations@eisac.com
 - LPPC CSTF: Randy Crissman; Randy.Crissman@nypa.gov
 - Portal URL: www.eisac.com (after pilot with LPPC)
- Program materials on E-ISAC portal (after pilot with LPPC)
- Nominate qualified staff for participation in the IAP
(send to Events@eisac.com – currently in effect)
- Program application submittal and review (after pilot with LPPC)
 - Participant vetting
 - NDA and Code of Conduct requirements
- Identify mutually acceptable participation scheduling opportunities
(after pilot with LPPC)

- IAP Management
 - LPPC plans to support program management through the end of 2018
 - Program updates and improvements are expected
 - Lessons learned feedback from participants and their organizations
 - Currently managing a list of over 80 after actions from the pilot
- Future Awareness and Participation
 - Expand to other industry participants
 - E-ISAC Member Executive Committee (MEC) support
 - Electricity Subsector Coordinating Council (ESCC) support



Questions and Answers