MRO’s CMEP Approach
Ten-Year Retrospective and A Bright Future

Sara Patrick, MRO Vice President, Compliance Monitoring and Regulatory Affairs
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Maintain and improve the quality of life through a highly reliable regional Bulk Power System.
Strive to assure each Bulk Power System owner and operator within our region is a Highly Effective Reliability Organization (or HERO).
We are accountable for results, we provide clarity and assurance of procedures, processes, and controls to improve the reliability of the bulk power system. We deliver meaningful outcomes to those we serve and use our funding wisely. We embrace our public trust obligation to be independent and transparent. We are collaborative in approach and seek constructive solutions.
To those ends we are:

- **Principled.** We do the right thing, the right way. We earn trust each day by treating every person with respect, fairness, and integrity.

- **Responsive.** We have a sense of urgency to act on the basis of facts, risks, and the needs of others.

- **Rigorous.** We are accurate, exacting, and demanding to improve the reliability of the Bulk Power System.

- **Objective.** We are intellectually honest, truthful, candid, and act without bias.

- **Innovative.** We embrace new ideas and lead change to improve the future.

- **Effective.** We create value for those we serve.
**Our History**

- Before 2003, voluntary standards and MAPP and MAIN for MRO
- Reliability Standards became mandatory under the 2005 Energy Policy Act adopted by Congress and agreements with Canadian Provinces
- FERC named NERC as the ERO in 2006, and the Regional Entities received delegated authority in 2007

**MRO Profile**

- Spun-off MAPPCOR in 2005; began operations in 2007
- Dan Skaar, President and CEO
- Began with 17 employees in 2007, 41 in 2017
Full Notices of Penalty for every enforcement action
  • MRO negotiated the first settlement agreement in the ERO
  • Penalty was reduced for investments in tools and training

Actively Monitored List

Prescriptive 3/6 year Compliance Audits

Mitigation Plans required for every Possible Violation

$5K-$15K penalties were typical
Evolving Processes, Maturing View of Risk

2009/2010

- **Adopted Three-Step Approach**
  - Compliance Monitoring
  - Risk Assessment and Mitigation
  - Enforcement

- **$0 penalties typical for lower risk issues**

- **Comprehensive approach to mitigation**
  - Reduces recidivism
  - Focused on risk to reliability and implementing controls to detect, prevent, and correct noncompliance

- **Risk determinations on all noncompliance**
  - Technical assessment, SME to SME

- **Streamlining begins with Administrative Citation Process**

- **Settlement Agreements focused on “above and beyond” activities as offset for proposed penalties**
The **Reliability Assurance Initiative (RAI)** relied heavily on HRO Theory and Highly Effective Reliability Organizations (HEROs)

HEROs keep the small stuff small.
Five characteristics of highly reliable organizations:

1. **Preoccupation with failure (risk)**
   - Attention on close calls and near misses (“being lucky vs. being good”); focus more on failures rather than successes

2. **Reluctance to simplify interpretations**
   - Solid “root cause” analysis practices

3. **Sensitivity to operations**
   - Situational awareness and carefully designed change management processes

4. **Commitment to resilience**
   - Resources are continually devoted to corrective action plans and training

5. **Deference to expertise**
   - Listen to your experts on the front lines (ex. authorities follows expertise)
Focus on reliability risk, rather than compliance risk

Recognition of Acceptance of Responsibility as fundamental to maintaining reliability

Find, Fix, Track and Report (FFT)

Spreadsheet Notice of Penalty (SNOP)
The intent of the RAI was to re-engineer the compliance and enforcement approach by:

• Recognizing registered entity’s risk and its management practices around risk in the scope and conduct of our work
• Recognizing and rewarding registered entities who design and implement strong preventive, detective and corrective action programs
• Reserving enforcement proceedings for significant matters by creating a new path outside of enforcement
• Reducing administrative compliance burdens
Streamline Enforcement processes

Increase stakeholder outreach
  - SAGs
  - PROS

Implement Guided Self Certifications
  - Instructions on evidence review and required documentation submission
  - Targets specific Standards/Requirements identified as regional risks or compliance trends

Consider inherent risks and internal controls in compliance monitoring
Pilot projects across the ERO

MRO’s focus:
- Internal Controls Evaluation
- Audit scope based on individual entity risk
- Self-Logging
- Coordinated oversight of Multi-Region Registered Entities

Compliance Exceptions
- MRO processed 125 findings as Compliance Exceptions from July 1, 2014, the date on which Compliance Exceptions became eligible for filing, to December 31, 2016
Continuing to Improve Risk-Based Approach
2015/2016

Inherent Risk Assessment (IRA)
- Developed for all registered entities in MRO
- Considers individual risk based on registered entity functions, equipment, facilities, location, etc.
- Base Case initiative drives alignment across ERO

Compliance Oversight Plans (COPs)
- Developed for registered entities scheduled for audit in 2017
- Three-year plan identifies Standards/Requirements and the compliance monitoring approach (audit, self-certification, spot check) for each calendar quarter
- Considers performance risk, recognizes HEROs
Where Are We Now?

2017-2018

- **IRAs**
  - Completed 2016

- **COPs**
  - RC, TOP, BA will be completed in 2017
  - Others completed in 2018

- **Streamlined Enforcement processes**
  - Enforcement reserved for significant matters
  - FFT/CE/SNOP fully implemented
  - Settlements are rare
    - Shared understanding of risk results in greater acceptance of enforcement determinations

- **Compliance Guidance Policy**
  - Endorsement of MRO SAGs as Implementation Guidance
Where Are We Now?
2017-2018

- MRO CMEP philosophy
- Industry engagement
- Addressing risk outside enforcement processes
- Feedback to Standards development
- Everything we do is about improving reliability
Where Are We Now?
MRO 2017 Strategic Objectives

- Simplification of Regulation

- Risk-based methodologies are implemented with proper rigor and safeguards

- Improve Clarity of Standards and Rules

- Greater consistency within MRO and across NERC/Regional Entities

- Coordination communication within MRO and across NERC/Regional Entities
## Where Are We Now?

**MRO Committee Support of Strategic Objectives**

<table>
<thead>
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<tr>
<td>Compliance Committee</td>
<td>Goals 1 and 5</td>
<td>Goals 1, 5 and 6</td>
<td>Goals 2, 4 and 6</td>
<td>Goals 2, 3 and 4</td>
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<td>Standards Committee</td>
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<td>Goals 1 and 2</td>
<td>Goal 3</td>
<td>Goal 4</td>
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Where Are We Now?
Encouraging Right Behaviors

Intelligence-led

System Events

Operational Information

Emerging Issues

Risk-Based

Reliability Standards

Risk Assessments

Alerts and Other Tools

Adaptive

Industry Behavior

Regulatory Response

Serious Disengagement

Enforcement

Effective Risk Management

Maintain Awareness

Proportional and Responsive: Promotes Reliability

SHARED OUTCOME = RELIABLE OPERATIONS
Where Are We Now?
Encouraging Right Behaviors

We Support HEROs through:

- CLARITY
- ASSURANCE
- RESULTS
Reliability Ethics

- Accept responsibility
- Strong self-reporting trends
- Responsive mitigation
- Compliance is a byproduct of strong management practices
Where Are We Now?
Accepting Responsibility

Self-Identified Noncompliance
(June 18, 2007 – July 24, 2017)

- Accepts Responsibility
- Does Not Contest
- Neither Admits nor Denies

CLARITY ▪ ASSURANCE ▪ RESULTS
Self-Identified vs. MRO Discovered
(June 18, 2007 – June 24, 2017)
Where Are We Now?
MRO Identified Noncompliances Reduced

Number of Noncompliance by Year
(June 18, 2007 – June 24, 2017)

- CIP Standards
- Operating & Planning Standards
- Yearly Total
Where Are We Now?
MRO Assessed Penalties Over Time

<table>
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<tr>
<th>Year</th>
<th>Penalty</th>
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<tbody>
<tr>
<td>2008</td>
<td>$75,080</td>
</tr>
<tr>
<td>2009</td>
<td>$60,000</td>
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<tr>
<td>2010</td>
<td>$293,500</td>
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<tr>
<td>2011</td>
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<td>2013</td>
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<td>2014</td>
<td>$170,000</td>
</tr>
<tr>
<td>2015</td>
<td>$189,500</td>
</tr>
<tr>
<td>2016</td>
<td>$18,000</td>
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Total Assessed Penalties 2008 to 2016 - $1,478,580
Average Annual Penalty - $164,000
Where Do We Go From Here?

- **Registered entities**
  - HEROs with strong, self-monitored compliance programs
  - MRO provides support, information, and “right-sized” oversight

- **Risk Assessment and Mitigation**
  - Focus on risk identification and analysis
    - BES, regional, and individual entity
    - Reliability near-misses
  - MRO provides support to HEROs
    - Transparency of expectations
    - Mitigation of known risks
    - Identification of emerging risks
Compliance Monitoring

- MRO conducts targeted CMEP activities that are customized for each entity
  - Oversight uses appropriate tools, frequency, scope
  - COPs are developed and are living documents
  - Large audits are rare
  - Smaller CMEP touchpoints are the norm

- COPs replace Rules of Procedure requirements
  - Three-year onsite audits for RCs, TOPs and BAs
  - CMEP Implementation Plan

- Guided Self Certifications become more focused
  - Issued based on risk for individual registered entity, rather than by function
Where Do We Go From Here?

Enforcement

- Self-Logging would not be reported to NERC or FERC
  - Would be available for NERC or FERC inspection
- Number of processing methods could be reduced to two
  - Compliance Exceptions, which would not be filed with FERC
  - Notices of Penalty, which would be filed with FERC
- Compliance Exceptions could be used for all risk levels
  - Including moderate and serious
  - Addressed and mitigated quickly, including revising preventive controls
- Notices of Penalty would be reserved for more serious matters
  - Such as serious repeat violations
  - FFT process retired
- Shorter processing time
Where Do We Go From Here?
Sustainable CIP Standards

- Can CIP standards keep up with threats and technologies?
- Are there costs associated with the churning of CIP standards (version 3, 4, 5, 6…….)?
- Do the CIP standards encourage adoption of new and better technologies around security?

Alternatives to the status quo
  - Reverse TFE approach
  - Discretion in compliance oversight (meeting the purpose of the standard versus strict compliance to requirements)
  - Replace current standards with security objectives
Simplify Rules of Procedure

- Section 400 Compliance Enforcement
  - Remove or modify annual CMEP IP
  - Remove requirement for 3-year audits of BAs, TOPs, and RCs
- Appendix 4C Uniform Compliance Monitoring and Enforcement Program
  - Expand use of CEs and eliminate FFTs
- Appendix 5A Organization Registration and Certification Manual
  - Simplify Risk-Based Registration

Review for appropriate level of detail