Audit the Audit

FERC Observations

The views expressed here are those of the FERC staff and do not necessarily represent the views of the Commission
Process Observations

- FERC’s role
- Subjective nature of the reviews
- Reports success in reflecting differences
- Difficult subjects
- Voluntary process
- Facilitators role
- Process efficiency
Much is Good

- Necessary to increase reliability
  - identify vulnerabilities
  - Recognizes excellence and best practices
  - Encourages improvement
  - Experienced multidiscipline team reviews
  - Reports are published for public review
- CA/RCs genuinely interested in improving
- Excellent international cooperation (thanks!)
- An evolving process
FERC’s Role

• Provides continuity and consistency
  – FERC Staff has participated on all reliability reviews
    • Several staff have participated on 8 or more reviews
    • Provides overall perspective of the reviewed

• Independence
  – No operational or market involvement
Without Clear Standards, the Reviews Can Become Subjective or Weak

- **Not really “Audits”**
  - The reviews are voluntary, limited, and are based on standards that are not enforceable
- **Ambiguous standards to audit against**
  - NERC is working on enforceable standards
  - No follow-up, consequences, and/or penalties
- **With ambiguous standards there is no enforced consistency**
  - Examples include – backup center and security
  - This leads to the same grades between minimal and best effort - misrepresenting the review results to the public
- **It is easier to emphasize the quantifiable rather than the unquantifiable items – even if they are more important**
  - Example, Operator Certification vs. Operator Actions
  - Quantifiable can also be important, but isn’t always covered in the standards because of the lack of metrics
Do The Reports Fully Reflect Differences?

- There is a vast difference between the best control centers and the worst
  - NERC “requirements” are not currently an adequate gauge for establishing team recommendations – should use the team’s judgment to identify minimum vs. best practices
  - The process should allow exploration of areas that are not covered by NERC “requirements” to identify the best and worst

- The full magnitude of the differences is not apparent from the written reports
  - No one is perfect, all reports contain suggested improvements
  - No one is worthless, all reports contain positive findings
Comparison Reporting

• Consider a reporting mechanism that compares all review results and identifies “best practices”
  – Results arranged in a table would be best
  – Narrative may be required as well
  – Simple-to-follow for public comprehension - report card format?
  – Final report card cannot be altered by the CA/RC

• Cover the full range of inquiry
  – Tools
  – Training
  – Shift coverage
  – Operational practices
  – Backup facilities
  – Wide area view
  – Security
“Difficult” Areas of Consideration for Future Audits

• Staffing levels
• Tools requirements
• Costly and/or time-consuming actions
• Reluctance to include subjective judgments – especially considering the ambiguous standards (complacency, inattention, etc.)
• Reluctance to name specific products for fear providing endorsement
• Reluctance to pursue topics not covered by NERC “requirements”
CA versus RC

• Differing frameworks and splits in CA and RC functions make it difficult to determine if all reliability duties are covered
• Combined CA/RCs are easier to review
  – Combination CA/RCs have predetermined splits in duties and responsibilities
• Split CA and RCs necessitate a method that assures coverage of the reliability
  – FERC has been tracking the functional roles in the audits as reported by John Keuck
• The responsibilities matrix will help identify roles for both circumstances
Facilitators Role

- The NERC lead often has the most audit experience
  - Be prepared
  - Run an efficient process
  - Have control room walkthrough on first day
- There is a danger the lead will dominate the process and the results
  - Facilitate rather than lead
  - Draw out all of the participants
  - Provide the pre- and post- support effort
    - Maximize the value and minimize the effort of the volunteers
  - Focus on process
- Avoid known process errors
  - Ask open-ended questions and listen more than you talk
  - Never answer a question for the CA/RC from another auditor
  - Never state a conclusion to the CA/RC before its decided with the team
RC/CA Questionnaire

- **Answers should help the team jump-start the process**
- **The facilitator should pre-review the response**
  - Do not accept yes/no answers when a discussion/description is needed
  - Do not accept “information will be provided during the audit”
  - Distribute the responses to team members prior to the audit
- **Refine the questionnaire**
  - Imprecise questions waste audit time
  - Organize questions by sub-team (management, tools, training, operators, back-up facility)
Audit Guide

• Should be organized by sub-team (management, tools, training, operators, backup facility)

• There should be check-off lists in several areas (responsibilities/delegation, tools, backup facility characteristics, etc.)
  – Quantities can be filled in (alarm system scan rate, etc.)

• If done correctly this will enhance team member independence by quickly identifying areas requiring judgment and further inquiry
Team Size and Composition

• Insure diversity with auditors from both other interconnections (don’t let the host region dominate)
  – Some team members have been concerned that recommendations made to one CA will be applied to their CA
• Ideally auditors should be independent experts
• Diversity of expertise is desirable: operators, planners, tools experts
  – Size of Team
• NERC & FERC should encourage participation in teams
• Avoid conflicts of interest
  – Team members should not have consulting or commercial ties
Follow-up

- Immediate concerns should be addressed right away rather than wait until the reports are finalized
- Establish specific practices to correct deficiencies
  - Differentiate by severity
  - Identify timelines for completion
  - Include members of the original team
  - Include the results in an interim public report
  - Require compliance with the corrections
- Capture best practices
  - Does not have to be a single practice or single CA/RC
  - Needs to come back to a single person/committee to assure consistency
  - Should move towards publication
    - Cover each area of reliable operations
Conclusions

• Due to the lack of enforceable standards, the process is subjective by nature
  – This produces mixed results
  – This must be recognized in the design of the process and the expected product
• The process identifies reliability concerns as well as areas of excellence and encourages reliability
  – The reports do not clearly show the range of differences
• There is room for improvement
  – Provide structure and support
  – Consistency
  – Objectivity