

2020 Entity Outreach, Trend Sharing, and Self Assessment

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A note on FAC-003

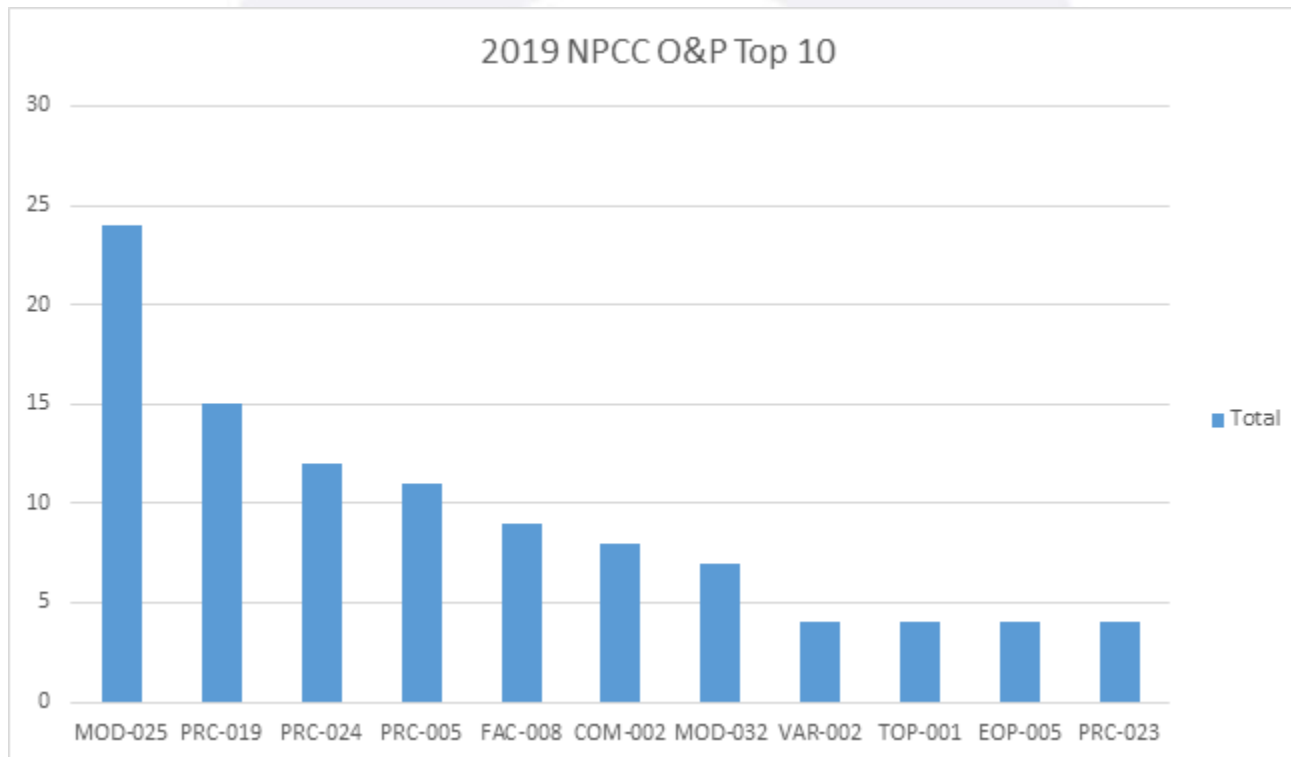
Transmission Vegetation Management

- Minimum Vegetation Clearance Distance (MVCD) in R1 and R2

2020 Outreach

- February 14 – Targeted GO/GOP on 2020 Audit schedule
- FAC-008 Survey
- Compliance Bulletins – All stakeholders
 - March 24
 - March 27
- 3rd Quarter – All 2021 Audit entities
- CIP-013 Outreach
- Self-Logger and Self-Reporter Outreach

O&P Trends



February 14 Outreach

- Targeted to GO/GOP on 2020 audit schedule
- Trends were shared
- Root causes
- Give # of SR that have come in since then who are audit schedule
- A chance for self-report credit

FAC-008 Survey

- February 12, 17 largest TOs in NPCC
- Intent: Your program is paramount to reliability
- NPCC assesses and trends responses
- NPCC acquires global insight to bring to the table with all TOs and GOs

March 24 Compliance Bulletin

- Similar to Feb 14 email to audited entities
- O&P Trends
- Root causes
- Posted on NPCC website

March 27 Compliance Bulletin

- CIP-013 outreach explained
 - Separate presentation on this webinar
- FAC-008 survey effort
 - Why?
 - Purpose

3rd/4th Quarter

- 2021 monitoring schedule
- All entities on 2021 schedule

What is the deliverable?

- Increased entity awareness
- Earlier discovery by the entity
- Mitigation starts earlier
- BES risk is reduced/eliminated

Why are Facility Ratings important?

They are the main component in the determination of accurate System Operating Limits

Without accurate Facility Ratings, accurate real-time situational awareness is not accomplished and planning models are inaccurate.

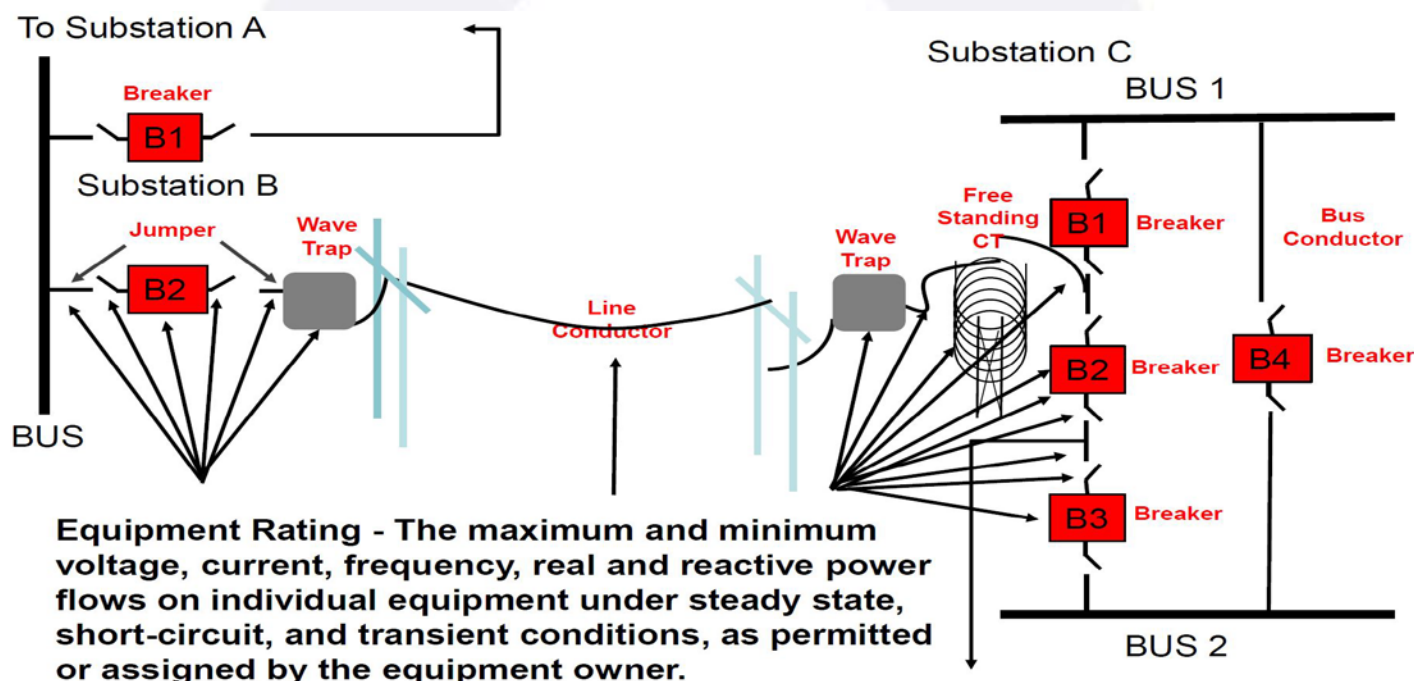
- Interface MW Flow
- Transient Stability
- Voltage Stability
- System Voltage Limits
- Interconnection Reliability Operating Limits

ERO Trends and Perceptions

- NERC Board of Trustees, ERO CMEP Implementation Plan
- SERC started field visits in 2018
- FAC-008 Violations
 - Self Reports
 - Audit Discoveries
 - Reasons: Database issues, Changes in Field, Change Management
 - Most Limiting Series Component not respected
- NPCC Discoveries, Last 3 years

Self-report: 6, all penalties; Onsite Audit: 0; Offsite Audit: 1 (Minimal)

Example - Series Components



NPCC Actions Toward Mitigating the Risk

- Have spread greater awareness over the past 2 years
 - Socialization began in 2018: Compliance Committee, Workshops
- Diagnosis: Not a pandemic
- March 2020 Data Gathering via Survey
- NPCC Compliance Bulletin
- Assessments of Controls – Sustainable?
- Audits, Substation Visits

NPCC Survey Specifics

- 16 Questions, some open ended
- February 12, 2020: Sent to 17 Largest TO's (Investor Owned Utilities with the largest programs)
- There are 42 TO's in NPCC. Many are less impactful municipals.
- March 6, 2020: 13 Responses Received (Covers 16 TO's)
- Responses were categorized/bucketed

Key Insights

- 6 of 12 consider themselves High impact to BES reliability
- Tracking and updating changes to ratings?
 - 7 using software
 - 3 spreadsheet related
 - 2 Access Database, Don't have a template
- How often verify FAC methodology vs. equipment in field vs. in database by substation visits and ROW walkdown?
 - 0 – periodic, scheduled; 0 – one time walkdown, 12 – As needed, only for new equipment, rarely

More Insights

- 9 use peer review for ratings changes as a second set of eyes
- Breaker status changes: Larger entities consider breaker and half schemes in conservative fashion and consider the limiting element when one breaker is open. There is no need to calculate a new rating or make notifications.
- Facility Ratings Database Access Controls
 - 6 - key people make changes w/o review, 4 – key people make changes with review, 2 – anyone can change

Final Insights

- Does entire Transmission org, including contractors, that are involved in ratings determination get trained?
 - 7 - No formal training, 5 - Only the FTE and relevant contractors are trained
- Biggest challenge toward accuracy of Facility Ratings?
 - 7 - Change Mgmt for Planned and Emergency work, 4 - databases that are not synched, 1 - mergers
- Would you volunteer for entity outreach on your program?
 - 6 Yes, 5 Maybe, 1 No

Methodologies and Sustainment

- Common: Multiple methodologies are used depending on equipment.
 - Many have Normal, LTE, STE based on Summer and Winter
 - Some have Dynamic (real time) ratings and some have Ambient based on situation, recent temps, and recent loads
- In general, all 12 feel their process “is sustainable”.

Process for planned/emerg work. Trans Engr and Field Engr speak and review as-builts. Trans Engr and Sys Ops are notified which include proper ISO notification.

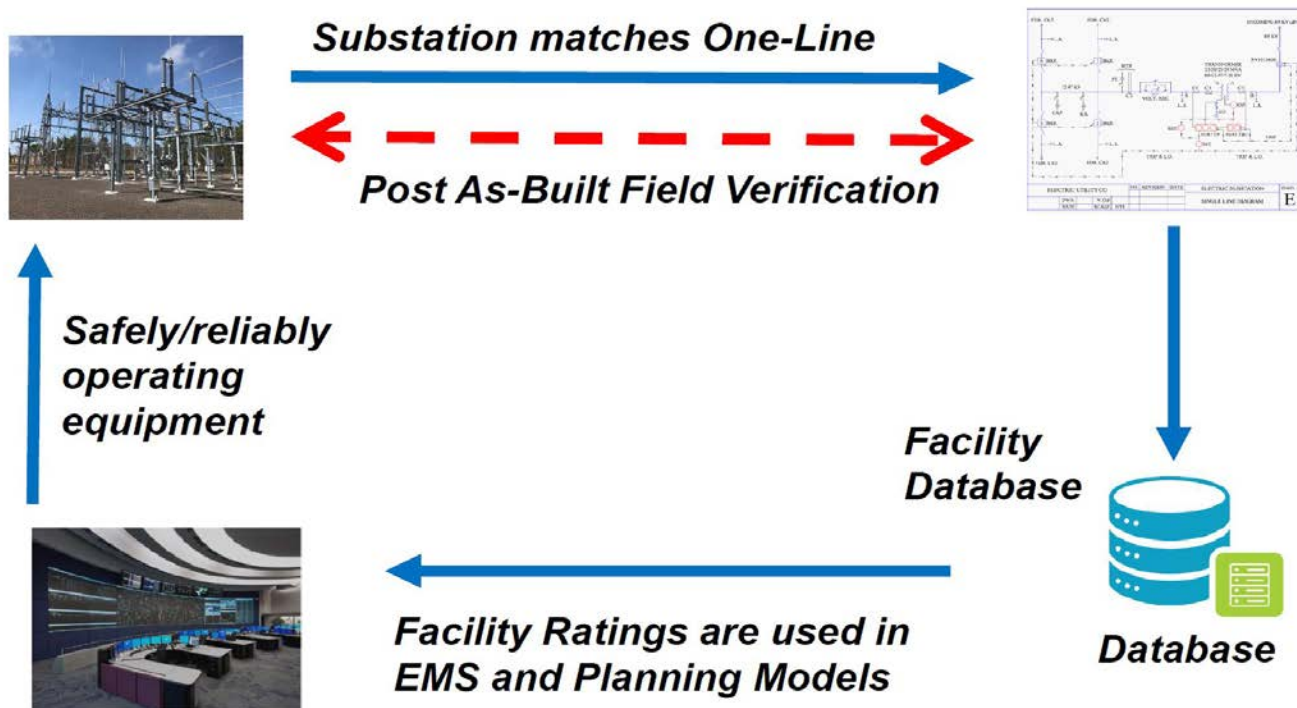
Equipment Failure?

- Process for replacing equipment due to failure
 - Duplicates of key equipment are kept to defend ratings/models
 - Replacement is the same or higher rating
 - If not like for like, nameplates/rating is reviewed by engineering.
 - As-builts come back from the field
 - If a ratings difference is confirmed or known, Sys Ops is notified and the ISO process is followed for notification

Best way for NPCC/Regions to help industry?

- Keep a constant platform in place for best practices and internal controls
- Offer a voluntary outreach program to discuss processes w/o visiting stations
- Surveys like this that have succeeded in raising awareness already at my company
- Outreach at workshops, scheduled engagements, and bulletins

How does this all fit together?



Thank you