



MIDWEST
RELIABILITY
ORGANIZATION

CIP-014-2 R1

Assessment Observations and Common Practices

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CLARITY

ASSURANCE

RESULTS

Agenda

- **When auditing CIP-014-2 R1, what does MRO staff consider?**
- **Some must haves in your risk assessment study**
- **Common practices**



MRO Staff Considerations When Auditing CIP-014-2 R1

- **Is the risk assessment “*designed to identify the Transmission station(s) and Transmission substation(s) that if rendered inoperable or damaged could result in instability, uncontrolled separation, or Cascading within an Interconnection*”?**
- **Does the risk assessment have reasonable criteria, study methodology, and assumptions?**



MRO Staff Considerations When Auditing CIP-014-2 R1

- **If the risk assessment uses optimistic study assumptions, audit staff will ask questions to understand.**
- **Can audit staff reach the same conclusion you reached, based on the output of the steady state, dynamic simulation, and application of your criteria?**
- **Note: Audit staff will not rely solely on third party reviews.**



Some Must Haves

- **Dynamic study in addition to steady state analysis**
- **Criteria for steady state and dynamic**
- **Loss of entire substation (smoking crater)**
- **Delayed remote clearing**



Some Must Haves

- **If using a generic fault clearing time, it has to be more conservative than the actual fault clearing time**
- **Monitor a wider area**
- **Set up the study in a way to be able to test the criteria you developed**
- **Fix any problems in the base case models**



Common Practices to Consider

- **Transmission Owners without critical substations include a five-year out model in its risk assessment**
- **Have models that show your system under stress**
- **Consider the impact of the Undervoltage Load Shedding (UVLS), underfrequency load shedding (UFLS), and Remedial Action Schemes (RAS)**



Common Practices to Consider

- **One size fits all criteria might not be a good practice**
- **Consider substations that are physically very close**
- **Make your criteria specific, not abstract**
- **Document assumptions used**
- **When updating a model, consider the impact of future projects from neighbors' footprints**



Common Practices to Consider

- **Document consequential and nonconsequential load and generation loss in the steady state and dynamic simulation**
- **Incorporate the load and generation impact from the dynamic simulation as a starting point for the steady state study**
- **Run the simulation for no less than 10 seconds preferably 20 seconds**





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An article on CIP-014 R1 will be published in the November/December issue of MRO's Midwest Reliability Matters

Questions