Why is misoperation reporting changing?

On July 1, 2016 the current PRC-004 standard was replaced by PRC-004-4. While this new standard still requires entities to maintain their misoperation information as has been done previously, it removes the reporting requirement to the regions. Instead, the reporting of this information will be done directly to NERC via a section 1600 Data Request. Along with their misoperation data, this request requires entities to report total operations data.

Where do I submit Q2 2016 data?

NERC’s Misoperations Information Data Analysis System (MIDAS) became available for entities to submit their Q2 2016 data starting July 1, 2016. Any entities on a WECC Major path were able to submit misoperations that occurred during Q2 via webCDMS in order to comply with the reporting time-frames within the PRC-004-WECC-1 standard. (All Q2 data should be reported to the MIDAS portal now that it is open.)

What about WECC regional standards and criteria?

- There is no change to PRC-004-WECC-1 and GOs and TOs on a WECC Major Path will still need to report any misoperations within 10 business days of identifying a misoperation and completion of repairs or the replacement of equipment as specified in R3. For Q2, WECC opened a reporting period in webCDMS to allow those entities a place to report their data within the time tables set forth in the standard. Going forward, these will be reported directly to MIDAS.
- The WECC Standards team is looking into the appropriateness of retiring PRC-003-WECC-CRT-1. Until that decision has been made, entities should continue to report as specified in the criterion.

What about Corrective Action Plans?

Entities should continue to provide quarterly updates on any open Corrective Action Plan (CAP). Any updates provided with Q1 2016 data were included in the import of historical data. Going forward, any updates may be made with the NERC template via MIDAS.
What about historical data?

WECC imported historical data from Q1 2013 through Q1 2016. This included the most current status of any CAPs. Any open CAPs that dated prior to Q1 2013, were also added to the data set delivered to NERC.

What notifications will MIDAS provide?

Midas will send out reminder notifications to entities who have not yet submitted for a particular quarter. They will also provide confirmation notifications upon submittal. Once the submittal is being by the regions or NERC, they may send additional notifications to the MIDAS contacts as questions arise.

Who can be a MIDAS contact?

NERC has set up all Primary Compliance Contacts (PCCs) as that entity’s MIDAS Contact. If you would like to add additional contacts, or are a PCC that would like to be exempt from receiving MIDAS notifications, please send an email to support@wecc.biz with the subject line “Misoperation Contacts” and include the following information:

- Contact Name
- Contact Title
- Contact Phone Number
- Contact Email
- Entity Name
- Entity NCR
- If the contact wishes to receive MIDAS emails
- Type of contact (PCC or Additional MIDAS)

How long will we use the spreadsheet to report data?

NERC plans on enhancing MIDAS to be a full web-based portal that entities can use to submit their data in directly. (Similar to the webCDMS form.) They hope to have this completed around the end of 2016 but to date, there has not been a firm release date announced.

What does NERC mean by “total operations”?

Here is the definition NERC has given for Protection System Operations:

**Definition of Protection System Operation**

1. The correct operation of a Protection System associated with isolating a faulted system Element.
2. The correct operation of a Protection System associated with isolating equipment for non-Fault conditions such as power swings, over excitation, or loss of field (excluding control functions performed by a protective relay; e.g., when a reverse power relay is used to trip a breaker during generator shutdown).

3. The unintended operation of a Protection System for a Fault outside the zone it is designed to protect.

4. The unintended operation of a Protection System for a non-Fault condition.

5. Any failure of a Protection System to operate for its intended function such as clearing a Fault within the zone it is designed to protect.

Notes:

1. When reclosing is applied (automatic or manual), a sequence of reclosing and tripping associated with isolating a faulted system Element is counted as a single operation. Multiple unintended operations of an Element due to this sequence of reclosing and tripping would also be counted as a single operation.

2. Transformer operations are reported by the high-side voltage. Generator operations are reported by the generator step-up transformer high-side voltage.

3. Operations which are initiated by control systems (not by Protection Systems), such as those associated with generator controls, turbine/boiler controls, static var compensators (SVCs), flexible ac transmission systems (FACTS), high-voltage dc (HVdc) transmission systems, circuit breaker mechanisms, or other facility control systems, are not reported as operations of a Protection System.

Here are some examples of operations as provided by NERC:

**Protection System Operation Examples**

1. A permanent Fault occurs on Line A and all line breakers operate and go through a complete reclose sequence (trip, close, trip, close, and trip). This event is considered one operation. Analysis would indicate that this was a correct operation.

2. A permanent Fault occurs on Line B and all line breakers operate correctly but, at the same time, a breaker on Line C operates. This event is considered two operations, since two transmission Elements were involved. Analysis would identify that the Line B operation was correct, and the Line C operation was a Misoperation.

3. A breaker(s) on Line D opens under a non-fault condition due to a failed relay. This event is considered one operation. Analysis would identify the Line D operation as a Misoperation.

4. Line faults with one breaker failure.
   
   a. No breaker failure relaying: There would be one operation associated with the line fault, and one additional operation for each required remote backup clearing operation.

   b. Breaker failure relaying with local tripping and no transfer tripping of remote ends: There would be one operation for the Fault with the breaker failure, one operation for the breaker failure local clearing, and an additional operation for each required remote back up clearing. For example, if the line fault occurred and the breaker between two lines on a breaker-and-a-half bus failed, there would be three
operations. One operation associated with the fault, one operation for the breaker failure local clearing, and one operation for the remote end trip of the second line connected to the failed breaker.

c. Breaker failure with transfer tripping of remote ends: For the example scenario in 4b, there would be two operations. One for the fault, and a second for the breaker failure protection clearing.

Why does the Voltage Class list <100kv?

Entities are only required to report Misoperations and Total operations for BES elements as defined by the BES definition. However, per that definition, there are some elements <100kv that are still required to be included as part of the BES. This voltage class choice is to accommodate those elements.

What if I missed any of the trainings?

A recording of the March 28, 2016 training on how to fill out the template and MIDAS submittal page can be found under the Protection Systems Misoperations (MIDAS) section on the WECC Website here. Likewise, the training on June 8, 2016 on Protection System Operations featuring Richard Quest from MRO is also posted in this area. There you will also find a copy of the PowerPoint slide deck presented during the webinar.

Helpful Links

- You may review the Protection System Misoperations section of the NERC 1600 DR here.
- You may download the 1600 DR excel template here.
- You may view NERC’s training videos here.
- You may access NERC’s MIDAS site here.