



NORTHEAST POWER COORDINATING COUNCIL, INC.
1040 AVE. OF THE AMERICAS, NEW YORK, NY 10018 (212) 840-1070 FAX (212) 302-2782

July 19th, 2016

The Task Force on System Protection (TFSP) Response to Comments Received in the NPCC Open Process Posting of Directory #11 *Disturbance Monitoring Equipment Criteria*.

The TFSP would like to thank those who provided comments on the draft of Directory#11 posted from April 14th, 2016 through May 29th, 2016.

The Task Force responses to individual comments are provided below.

Comments (6) from New Brunswick Power:

NBP respectfully submits the following comments on the subject Directory for TFSP's consideration:

Comment #1:

General Comment: Has there been a review cost/benefit, actual disturbance events, etc. that would compel NPCC members to have this Directory in addition to PRC-002?

Task Force response:

Thank you for the comment.

Comment not accepted.

This document was developed to address recognized gaps between the NERC PRC-002-2 and the previously established PRC-002-NPCC-1 that was approved for retirement by NERC. There was general consensus among the PRC-002-NPCC-1 Standard Drafting Team and the TFSP that minimum DME requirements are needed to provide adequate coverage for all NPCC BPS facilities.

Comment #2:

Section 1.5 Consider including an implementation period for those existing facilities that are newly defined BPS facilities

Task Force response:

Thank you for the comment.

Comment not accepted.

There is an existing provision for an implementation period for those facilities that are newly identified BPS facilities.

In accordance with NPCC Criteria A-10, Section 4.1, “within three months of an element being added to the Bulk Power System List, a plan and schedule for achieving compliance shall be provided to TFSP for review and acceptance. TFSP may require modifications to the proposed plan and schedule.”

Comment #3:

Section 1.6.2 On first read of this paragraph it appeared that the Directory applied to all BES and BPS facilities.

For clarity suggest using the following text: “These requirements shall apply to all BPS facilities. BPS facilities that are also classified as NERC Bulk Electric System (BES) shall adhere to the more stringent.....”

Task Force response:

Thank you for the comment.

Comment accepted.

Comment #4:

Section 1.6.3 In looking at the second paragraph last sentence the text implies that all full members are subject to enforcement.

A reminder that NPCC's Criteria Compliance and Enforcement Program (CCEP) Process Document (revision 3) only sanctions Reporting Full Members (i.e., HQ Trans Énergie, IESO, ISO-NE, NBPC, NYISO, and Nova Scotia Power).

Task Force response:

Thank you for the comment.

No action is necessary.

Comment #5:

R3.4 It is not clear if the element to be monitored is the generator interconnection or the generator step up transformer. If the generator interconnection is the intended element, than further clarification may be required (i.e., what elements of the generator interconnection)

Task Force response:

Thank you for the comment.

TFSP has added a clarifying sentence: "This includes monitoring the high voltage or low voltage terminal of the generator step up transformer."

Comment #6:

R6.3 Typo: remove second "to a"

Task Force response:

Thank you for the comment.

Comment accepted.

Comments (3) from National Grid:

Comment #1:

Fault Recording: Requirement 5 includes ...Generator Owner shall provide fault recording capabilities... (data), however, it does not appear that a Generator Owner is required to have Fault Recording. Please clarify if a Generator Owner is required to have Fault Recording Capability.

Task Force response:

Thank you for the comment.

Comment accepted.

TFSP has deleted “and Generator Owner” from R5. Considering the intent of R3 and R4, this is an inadvertent error.

Comment #2:

Please align the wording of requirements, where possible, between Directory#11 and PRC-002-2. An example would be Directory 11 R5 and PRC-002-2 R4.

Task Force response:

Thank you for the comment.

The intent of many of the requirements in Directory#11 is to be aligned with the wording in PRC-002-NPCC-1. As noted in the response above, Directory#11 was developed to address recognized gaps between the NERC PRC-002-2 and the previously established PRC-002-NPCC-1 that was approved for retirement by NERC.

Comment #3:

NPCC Directory#11 as compared to NERC PRC-002-2:

Can TFSP create a Technical Review document that compares the Requirements of Directory 11 to NERC PRC-002-2? A Technical Review document will assist with the justification for Directory#11.

Task Force response:

Thank you for the comment.

All the requirements developed for Directory#11 address recognized gaps between the NERC PRC-002-2 and the previously established PRC-002-NPCC-1 that was approved for retirement by NERC.

There was a general consensus among the PRC-002-NPCC-1 Standard Drafting Team and the TFSP that minimum DME requirements are needed to provide adequate coverage for all NPCC BPS facilities.

Comments (1) from Hydro One:

Comment #1:

Hydro One Networks Inc. thanks the NPCC for providing us with an opportunity to comment on the revised Directory.

In general, Hydro One is in agreement with the revised version of Directory#11.

For completeness and although this does not pertain to Hydro One, we would like to respectfully point out that requirement R5 may have been erroneously made applicable to Generator Owners. R5 is a continuation of R2 through R4, none of which are applicable to Generator Owners.

Task Force response:

Thank you for the comment.

TFSP agrees and has removed the Generator Owner from this requirement.

Comments (2) from ORU:

Comment #1:

The purpose of the newly developed Directory #11 meant to close the gaps between the Regional DME Standard (PRC-002-NPCC-01) and the continent wide NERC DME Standard (PRC-002-2) when the NPCC Regional DME Standard retires when the NERC DME Standard becomes effective. In this newly developed Directory (D-11), it contains a combination of Requirements from both Regional and NERC DME Standards. Redundant requirements should be removed. NERC Standard becomes effective on July 1, 2016. However, Registered Entities are allowed to be 50 percent compliant within four (4) years of the effective date of PRC-002-2 and fully compliant within six (6) years of the effective date according to the implementation plan. The issue here is that in D-11, the effective date is “Immediately upon approval of the NPCC Full Members”, which could be in the Fall, this year. That means all of the Requirements were allowed to have a four or six year grace period from NERC Standard (not part of the Regional Standard) will have to comply at least four years ahead of time.

Task Force response:

Thank you for the comment.

Directory#11 is only applicable to BPS facilities which is consistent with PRC-002-NPCC-1. PRC-002-NPCC-1 was FERC approved in October 2011 with a four-year implementation plan to be completed by October 2015. There are no requirements in Directory 11 that are more stringent than PRC-002-NPCC-1. Therefore, no implementation period is necessary.

Certain requirements are duplicated between PRC-002-2 and Directory#11 as necessary due to differences in facility applicability. (See Applicability Section 1.6.2.)

Comment #2:

Also, another issue is that the purpose of D-11 has additional Requirement(s) added besides closing the gaps between the two approved DME Standards. For example, Requirement R6 - R6.3 Loss of time synchronization shall be monitored and alarmed to a to a control center staffed 24 hours a day, 7 days a week (24/7). This Requirement is not neither in NPCC Regional DME Standard, nor in the continent wide NERC DME Standard. This newly added Requirement could cause an additional tremendous amount of work for some Entities. I am not sure if this is the NPCC TFSP's intention.

Task Force response:

Thank you for the comment.

Comment accepted.

R6.3 has been modified to align with the previous PRC-002-NPCC-1, R14.4 to include the option of monthly verification of time synchronization. It is not TFSP's intent to establish new requirements in Directory# 11.

Comments (10) from Central Maine Power:

The following comments extracted from marked version of Directory#11:

<https://www.npcc.org/Standards/SitePages/Comments.aspx?DevDocumentId=130&CommentPeriodId=228>

Comment #1:

R1.3.1:

By this wording, can we assume cap bank/reactor bank breakers are excluded? Additionally, breaker vs. switcher is not clear here. Appendix B section 3.1 specifically states breaker and switcher status being required, but the appendices are not requirements.

Task Force response:

Thank you for the comment.

Requirements in Directory# 11 apply to BPS elements per Applicability Section 1.6.3.

The wording in Appendix B, Section 3.2 has been clarified to include circuit switcher positions “(as required to interrupt fault current.)”

Comment #2:

R1.3.2

Protective relay from the NPCC glossary of terms is: “A relay that detects a power system fault or abnormal condition and initiates appropriate control system action”.

I believe we received verbal confirmation that overvoltage trips for cap bank protection is excluded from this definition.

Task Force response:

Thank you for the comment.

If the overvoltage protection is for an abnormal system condition and not an equipment condition (e.g. overload condition, low gas, low oil pressure) then the associated relay protection operation should be monitored.

This is consistent with the NPCC Glossary of Terms for a protective relay and a disturbance.

Comment #3:

R1.3.2

For some hardware solutions, this will require the mixing of A and B DC on the same device or same vertical section.

Is this the acceptable?

Task Force response:

Thank you for the comment.

Yes, provided Directory# 4, Section 5.2.2.1 is adhered to.

Comment #4:

R5.3.1

Is the intention that all FR will trigger for either an overcurrent event or a protective relay trip? Or is the TO/GO allowed to choose one (e.g. triggering for just overcurrent)

Task Force response:

Thank you for the comment.

Yes.

Comment #5:

R5.3.1

If utilizing a separate device to capture FR data this will require mixing DC from the A and B system on the same device.

Is this the intent?

Task Force response:

Thank you for the comment.

See response to Comment #3 above.

Comment #6:

R6.3:

What is the intent behind the continuous monitoring?

If it's to provide a means to immediately detect time sync failures, could this be accomplished through other means such as auto-messaging?

If a relay were to lose sync, what is the corrective action requirement? (See R8 comment)

Task Force response:

Thank you for the comment.

Accurate time synchronization of DME is essential to meaningful post event analysis.

The intent of R6.3 is to know that you have a sustained loss of synchronization in order to initiate corrective action. R6.3 has been revised in response to a comment received regarding monthly verification.

Comment #7:

R8:

I don't interpret this as including time sync failures. A time sync failure would not inhibit recording capability. The records would still be created with FR/SOE capabilities under sections R1 through R5 just the same. The timestamp data, however, may or may not meet the 2ms UTC requirement.

Task Force response:

Thank you for the comment.

R8 has been updated to include time synchronization.

Comment #8:

R8:

This implies that the corrective action plan must be completed within the 90 day window. If that is the intent, how does this differ from the first bullet?

Task Force response:

Thank you for the comment.

R8 requires that equipment failures are mitigated within 90 days of detection or a corrective action plan is documented and implemented.

Comment #9:

Appendix A Section 7.0:

Who is responsible for implementing this? (i.e. development of MID's, setting minimum stock locations and levels, etc.)

Task Force response:

Thank you for the comment.

This is up to the entity to decide.

Comment #10:

Appendix B Section 3.2:

Requiring the output contact to be the SOE point for tripping is too restrictive. Many of CMPs relays use one common protection latch bit to cover multiple trip outputs in the SER.

Luckily this is not a true requirement of Dir 11 since it appears in the appendix only.

Task Force response:

Thank you for the comment.

TFSP does not view this as a comment that requires a response.

Comments (4) from the IESO:

The IESO respectfully submits the following comments on the subject directory for TFSP's consideration.

Comment #1:

Applicability

The Reliability Coordinator is included in the Applicability Section, but there are no requirements assigned to the Reliability Coordinator. Please review and revise the Applicability Section as appropriate.

Task Force response:

Thank you for the comment.

Comment accepted.

Comment #2:

Requirement R6:

It is our general understanding that NPCC Directories stipulate requirements or criteria that are more stringent or more specific than the NERC standards. However, it appears that R6.1 and R6.2 are already covered by the NERC PRC-002-2 standard, Requirement 10, Parts 10.1 and 10.2.

We suggest TFSP review the need to include these two requirements in Directory 11, and remove or revise them as appropriate.

Task Force response:

Thank you for the comment.

Certain requirements are duplicated between PRC-002-2 and Directory# 11 as necessary due to differences in facility applicability. (See Applicability Section 1.6.2.)

Comment #3:

Requirement R8

Similar to R6, Requirement R8 is already covered by Requirement R12 of the NERC PRC-002-2 standard.

We suggest TFSP review the need to include this requirement in Directory# 11, and remove or revise it as appropriate.

Task Force response:

Thank you for the comment.

See response to Comment #2 above.

Comment #4:

Requirement R9

Similar to R6 and R8, Requirement R9 is already covered by Requirement R11 of the NERC PRC-002-2 standard.

We suggest TFSP review the need to include this requirement in Directory# 11, and remove or revise it as appropriate.

Task Force response:

Thank you for the comment.

See response to Comment #2 above.

Comments (Multiple) from NPCC:

Comments:

Please see marked version of Directory#11:

<https://www.npcc.org/Standards/SitePages/Comments.aspx?DevDocumentId=130&CommentPeriodId=228>

Task Force response:

Thank you for the comment.

NPCC Staff suggested edits have been incorporated where appropriate.

TFSP Response to Comments on Directory#11 *Disturbance Monitoring Equipment Criteria*