

Comment Report

Project Name: 2022 Periodic Review Standing Review Team - Standards Grading
Comment Period Start Date: 4/20/2022
Comment Period End Date: 6/3/2022
Associated Ballots:

There were 16 sets of responses, including comments from approximately 71 different people from approximately 60 companies representing 10 of the Industry Segments as shown in the table on the following pages.

Questions

1. For [PER-003-2](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.
2. For [PER-005-2](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.
3. For [PER-006-1](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.
4. For [TPL-007-4](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.
5. Please provide additional comments here. E.g. suggestions on improving the standards grading process, the SRT's approach to standards grading, or any other input you believe would be helpful to the SRT's final grading.

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
DTE Energy - Detroit Edison Company	Karie Barczak	3,5		DTE Energy - DTE Electric	Adrian Raducea	DTE Energy - Detroit Edison Company	5	RF
					Patricia Ireland	DTE Energy - DTE Electric	4	RF
					Karie Barczak	DTE Energy - DTE Electric	3	RF
MRO	Kendra Buesgens	1,2,3,4,5,6	MRO	MRO NSRF	Bobbi Welch	Midcontinent ISO, Inc.	2	MRO
					Christopher Bills	City of Independence Power & Light	3,5	MRO
					Fred Meyer	Algonquin Power Co.	3	MRO
					Jamie Monette	Allete - Minnesota Power, Inc.	1	MRO
					Larry Heckert	Alliant Energy Corporation Services, Inc.	4	MRO
					Marc Gomez	Southwestern Power Administration	1	MRO
					Matthew Harward	Southwest Power Pool, Inc.	2	MRO
					LaTroy Brumfield	American Transmission Company, LLC	1	MRO
					Bryan Sherrow	Kansas City Board Of Public Utilities	1	MRO
					Terry Harbour	MidAmerican Energy	1,3	MRO
					Jamison Cawley	Nebraska Public Power	1,3,5	MRO
					Seth Shoemaker	Muscatine Power & Water	1,3,5,6	MRO
Michael	Great River	1,3,5,6	MRO					

					Brytowski	Energy		
					David Heins	Omaha Public Power District	1,3,5,6	MRO
					George Brown	Acciona Energy North America	5	MRO
					Jaimin Patel	Saskatchewan Power Corporation	1	MRO
					Kimberly Bentley	Western Area Power Administration	1,6	MRO
Southern Company - Southern Company Services, Inc.	Pamela Frazier	1,3,5,6	MRO,NPCC,RF,SERC,Texas RE,WECC	Southern Company	Matt Carden	Southern Company - Southern Company Services, Inc.	1	SERC
					Joel Dembowski	Southern Company - Alabama Power Company	3	SERC
					Ron Carlsen	Southern Company - Southern Company Generation	6	SERC
					James Howell	Southern Company - Southern Company Generation	5	SERC
Northeast Power Coordinating Council	Ruida Shu	1,2,3,4,5,6,7,8,9,10	NPCC	NPCC Regional Standards Committee	Gerry Dunbar	Northeast Power Coordinating Council	10	NPCC
					Randy MacDonald	New Brunswick Power	2	NPCC
					Glen Smith	Entergy Services	4	NPCC
					Alan Adamson	New York State Reliability Council	7	NPCC
					David Burke	Orange & Rockland	3	NPCC

	Utilities		
Helen Lainis	IESO	2	NPCC
David Kiguel	Independent	7	NPCC
Nick Kowalczyk	Orange and Rockland	1	NPCC
Joel Charlebois	AESI - Acumen Engineered Solutions International Inc.	5	NPCC
Mike Cooke	Ontario Power Generation, Inc.	4	NPCC
Salvatore Spagnolo	New York Power Authority	1	NPCC
Shivaz Chopra	New York Power Authority	5	NPCC
Deidre Altobell	Con Ed - Consolidated Edison	4	NPCC
Dermot Smyth	Con Ed - Consolidated Edison Co. of New York	1	NPCC
Peter Yost	Con Ed - Consolidated Edison Co. of New York	3	NPCC
Cristhian Godoy	Con Ed - Consolidated Edison Co. of New York	6	NPCC
Nurul Abser	NB Power Corporation	1	NPCC
Randy MacDonald	NB Power Corporation	2	NPCC
Michael Ridolfino	Central Hudson Gas and Electric	1	NPCC
Vijay Puran	NYSPPS	6	NPCC
ALAN ADAMSON	New York State	10	NPCC

	Reliability Council		
Sean Cavote	PSEG - Public Service Electric and Gas Co.	1	NPCC
Brian Robinson	Utility Services	5	NPCC
Quintin Lee	Eversource Energy	1	NPCC
Jim Grant	NYISO	2	NPCC
John Pearson	ISONE	2	NPCC
Nicolas Turcotte	Hydro-Quebec TransEnergie	1	NPCC
Chantal Mazza	Hydro-Quebec	2	NPCC
Michele Tondalo	United Illuminating Co.	1	NPCC
Paul Malozewski	Hydro One Networks, Inc.	3	NPCC
Sean Bodkin	Dominion - Dominion Resources, Inc.	6	NPCC

1. For [PER-003-2](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.

Daniel Gacek - Exelon - 1,3

Answer No

Document Name

Comment

Exelon concurs with the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer No

Document Name

Comment

EEI supports the Content scoring by the RSTC, Regions and NERC.

EEI does not agree with the entirety of the review comments and scoring as provided in the Quality Review section of PER-003-2. None of the concerns or comments identified by the review teams merit modifying any part of PER-003-2 at this time and, therefore NERC should reaffirm this Reliability Standard. The following is provided to address various comments contained in the Quality Review:

1. RSTC Comments - EEI does not agree that the footnotes should be incorporated into the enforceable requirements. This change would not add any reliability benefit to the standard.
2. Regions Comments - EEI does not agree that the current language in Requirement R2 suggests that Transmission Operators could avoid compliance by tailoring their PER-005 compliance obligations under R2 of that Reliability Standard in order to specifically avoid training obligations. Moreover, we are unaware of, nor has anyone offered evidence of, this situation ever occurring.
3. NERC Comments - EEI agrees with NERC's review that no action should be taken to modify this Reliability Standard at this time, but consideration should be given to the findings of the August 2022, PCGC review.

Likes 0

Dislikes 0

Response

Karie Barczak - DTE Energy - Detroit Edison Company - 3,5, Group Name DTE Energy - DTE Electric

Answer Yes

Document Name	
Comment	
For the NERC comments, we agree that PER-003-2 should maintain the 3 requirements for the 3 real-time positions until the completion of the credential maintenance research project. We would however like to see NERC encourage the PCGC to expedite the completion of the project and make its formal recommendations. DTE is in support of one credential.	
Likes 0	
Dislikes 0	
Response	
Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF	
Answer	Yes
Document Name	
Comment	
No Comments.	
Likes 0	
Dislikes 0	
Response	
Pamela Frazier - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name Southern Company	
Answer	Yes
Document Name	
Comment	
<p>Southern Company would like to revise our answer to indicate "No" we do not agree with scoring and findings of the SRT.</p> <p>For this standard, Southern Company endorses and agrees with the comments provided by Edison Electrical Institute (EEI).</p> <p>Note that the SBS system would not allow a change to the above response via the radial buttons provided.</p>	
Likes 0	
Dislikes 0	
Response	

Carl Pineault - Hydro-Quebec Production - 1,5

Answer	Yes
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Document Name	
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Comment

No comments

Likes 0	
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Dislikes 0	
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Response

Claudine Bates - Black Hills Corporation - 1,3,5,6 - MRO,WECC

Answer	Yes
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Document Name	
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Comment

Likes 0	
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Dislikes 0	
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Response

Richard Jackson - U.S. Bureau of Reclamation - 1,5

Answer	Yes
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Document Name	
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Comment

Likes 0	
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Dislikes 0	
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Response

Kenisha Webber - Entergy - NA - Not Applicable - SERC

Answer	Yes
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Document Name	
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Comment

Likes 0

Dislikes 0

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - Public Service Company of New Mexico - 1 - WECC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

David Jendras - Ameren - Ameren Services - 1,3,6

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Kimberly Turco - Constellation - 5,6

Answer

Document Name

Comment

N/A

Likes 0

Dislikes 0

Response

Alison Mackellar - Constellation - 5,6

Answer

Document Name

Comment

N/A

Likes 0

Dislikes 0

Response

2. For [PER-005-2](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.

Casey Perry - PNM Resources - Public Service Company of New Mexico - 1 - WECC

Answer No

Document Name

Comment

For Questions 10 & 11 regarding R6:

This requirement forces the user to reference complicated language in section 4.1.5.1 to ascertain whether applicable personnel exist or not, clear identification of personnel referenced in section 4.1.5.1 should be included in the language of this requirement.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer No

Document Name

Comment

EEl does not support the Content grading for PER-005-2. Requirements R5 and R6 are clear as written.

EEl does not support the review comments and scoring as provided within the Quality Review of PER-005. PER-005-2 should be reaffirmed without additional changes or modifications. The following is provided to address various comments contained in the Quality Review:

1. RSTC Comments - EEl does not agree with the suggestion to incorporate R2 and R6 into R1. There is no reliability improvement that would be achieved by this change. EEl also does not support adding GOs to Requirements R3, R4, R5 because the duties identified are not part of the duties assigned to GOs. EEl also does not agree that there is a need to align the training requirements for GOPs under R6 with those of the RC, BA, TOP and TOs because their tasks and training needs are different.
2. Regions Comments - While EEl understands the RE's concern related to the periodicity of reviews under R3, there is not a sufficient reliability concern to merit modifying PER-005 at this time because we are unaware of, nor has any been offered, any reliability issue or concern that has occurred as a result.

Likes 0

Dislikes 0

Response

Alison Mackellar - Constellation - 5,6

Answer No

Document Name**Comment**

Q1: Comment from the RSTC on R6 states considering aligning the responsibilities of Generator Operators more in line with other applicable entities (RC, BA, TOP, TO). Training should be commensurate to the impact to the reliable operations of the BES - a GO does not have the same impact as the other functional entities.

C3 - Comment from the RE that training should be an "on the job function"? How will "emergency operations" be training "on the job"? This is an unrealistic expectation.

Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0

Dislikes 0

Response

Kimberly Turco - Constellation - 5,6

Answer

No

Document Name**Comment**

Q1: Comment from the RSTC on R6 states considering aligning the responsibilities of Generator Operators more in line with other applicable entities (RC, BA, TOP, TO). Training should be commensurate to the impact to the reliable operations of the BES - a GO does not have the same impact as the other functional entities.

C3 - Comment from the RE that training should be an "on the job function"? How will "emergency operations" be training "on the job"? This is an unrealistic expectation.

Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1,3

Answer

No

Document Name**Comment**

Exelon concurs with the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF

Answer

No

Document Name

Comment

• R1 & R2: Q1: RSTC: Might benefit to incorporate R2 and R6 within R1

The only difference between PER-005-2, R1 & R2 is the Functional Entity that the requirement is applicable to. The MRO NSRF believes that the Standards Drafting Team may have made this distinction due to the differing personnel at each Functional Entity whom would require this training as specified in the requirements. The MRO NSRF does not believe that this comment warrants a standards project.

The MRO NSRF does not believe incorporating PER-005-2 R6 within R1 is justifiable. The MRO NSRF notes that PER-005-2 R6 was specifically developed for Generator Operators (GOPs) due to different training needs based on a GOPs function in the reliability of the BES as compared to Reliability Coordinators (RCs), Transmission Operators (TOPs), Balancing Authorities (BAs) & Transmission Owners (TOs). The MRO NSRF believes that R6, as written, is sufficient to for a GOPs function in the BES. The MRO NSRF offers the following reasoning:

• RCs, TOPs, BAs and TOs have a wide-area view and responsibility operating the interconnected electrical system in a reliable manner.

• RCs, TOPs, BAs and TOs run situational awareness tools such as State Estimators (SE), Real Time Contingency Analyses (RTCA), voltage stability and angular stability tools.

• GOPs responsibilities are focused on generation facility operations and coordination with Functional Entities with wide area views, which are the RCs, TOPs, BAs and TOs.

• System Operator personal have very different responsibilities related to BES Reliability then do dispatch personnel of a GOP. GOPs have a small set of Real-time reliability-related tasks as compared to the RCs, TOPs, BAs and TOs.

• R3, R4 & R5: Q6: RSTC: Might benefit to add Generator Owner

The MRO NSRF disagrees with this comment. The purpose of PER-005-2 is "To ensure that personnel performing or supporting Real-time operations on the Bulk Electric System are trained using a systematic approach." According to the NERC RoP, Appendix 5B, Generator Owners (GOs) are an "Entity that owns and maintains generating Facility(ies)." GOs are not responsible for the operation of generating Facilities.

• R6: Q1: RSTC: Might benefit to align the responsibilities of Generator Operators more in line with other Applicable Entities listed in the standard (RC, BA, TOP, TO)

The MRO NSRF disagrees with this comment. As previously mentioned, System Operator personal have very different responsibilities related to BES Reliability then do dispatch personnel of a GOP. GOPs have a small set of Real-time reliability-related tasks as compared to the RCs, TOPs, BAs and

TOs. PER-005-2 R1, R2, R3, R4 & R5 are collectively cumbersome and administrative in nature. Accounting for a GOP's minimal responsibilities as it relates Real-time reliability-related tasks the MRO NSRF does not believe it is justifiable to require a training program beyond what is currently required in R6.

• R3: Q6: RE: Is verifying only once enough if no changes are made? Is this issue addressed in R1 and R2.

The MRO NSRF is unclear on this comment. However, the NSRF believes that R1.4 evaluation that occurs once a calendar year is sufficient.

• R4 & R5: C3: RE: Training on impacts of the personnel's job function(s) to the BES. Believe training should be on the job function.

The MRO NSRF is unclear on this comment. However, the MRO NSRF believes that Functional Entities inherently have to provide training to personnel on their job function.

• General

The MRO NSRF would also like to mention that PER-005-2 R6 and PER-006-1 R1 can possibly place GOPs in a 'Double Jeopardy' situation. For example, if a GOP has potential non-compliance with PER-006-1 R1 the GOP could also be considered having a potential non-compliance of PER-005-2 R6. This situation should be considered further in light of this possibility.

Likes 0

Dislikes 0

Response

Richard Jackson - U.S. Bureau of Reclamation - 1,5

Answer

No

Document Name

Comment

Reclamation does not support the suggestion to add Generator Owner to requirement R4. Emergency operations training is already required for Generator Owners by EOP-005. Reclamation recommends modifying existing requirements in EOP-005 that are already applicable to Generator Owners to contain any additional desired training content.

Reclamation does not support the suggestion to add Generator Owner to requirement R5. Similar training is already required by PER-006. Reclamation recommends the modifying the existing requirement in PER-006 to contain any additional desired training content.

Reclamation does not see value in the suggestion to incorporate requirements R2 and R6 into requirement R1.

Likes 0

Dislikes 0

Response

Karie Barczak - DTE Energy - Detroit Edison Company - 3,5, Group Name DTE Energy - DTE Electric

Answer No

Document Name

Comment

We are of the opinion that training requirements do not belong as part of PER-005-2 and support the opposite thinking in that all training requirements existing in other standards (ie, COM-002, EOP-005, etc.) would be better suited to be incorporated into PER-006

Likes 0

Dislikes 0

Response

Carl Pineault - Hydro-Qu?bec Production - 1,5

Answer Yes

Document Name

Comment

No comments

Likes 0

Dislikes 0

Response

Pamela Frazier - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name Southern Company

Answer Yes

Document Name

Comment

Southern Company would like to revise our answer to indicate "No" we do not agree with scoring and findings of the SRT.

For this standard, Southern Company endorses and agrees with the comments provided by Edison Electrical Institute (EEI).

Note that the SBS system would not allow a change to the above response via the radial buttons provided.

Likes 0

Dislikes 0

Response

David Jendras - Ameren - Ameren Services - 1,3,6

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee

Answer Yes

Document Name

Comment	
Likes 0	
Dislikes 0	
Response	
Kenisha Webber - Entergy - NA - Not Applicable - SERC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Claudine Bates - Black Hills Corporation - 1,3,5,6 - MRO,WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

3. For [PER-006-1](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.

Richard Jackson - U.S. Bureau of Reclamation - 1,5

Answer No

Document Name

Comment

Reclamation does not support the suggestion to incorporate PER-006 into PER-005. PER-006 was developed out of PRC-001 to provide continuity of the objective of ensuring familiarity with the purpose and limitation of applied Protection System schemes. Reclamation recommends the existing requirement in PER-006 should be modified to contain any additional desired training content and any additional desired applicable personnel.

Likes 0

Dislikes 0

Response

Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF

Answer No

Document Name

Comment

• R1: Q5: RSTC: Based on the purpose statement, it is not clear whether support personnel should be trained as part PER-006.

The MRO NSRF believes that the applicability section outlines the Generator Operator's (GOP's) personnel whom require the training specified in R1.

• R1: Q1: RSTC: Might benefit to incorporate this standard into PER-005-2 instead of having a separate standard.

The MRO NSRF is unclear on this comment. However, if the intention is to merely add an additional requirement to PER-005-2 that contains verbatim language from PER-006-1 R1, the MRO NSRF would be able to support this. For example: PER-006-1 R1 transitions to PER-005-2 new requirement R7 containing verbatim language. The MRO NSRF does not believe that this comment warrants a standards project.

• R1: C4: RE: No time frame for training.

The MRO NSRF has no comments.

• General

The MRO NSRF would also like to mention that PER-005-2 R6 and PER-006-1 R1 can possibly place GOPs in a 'Double Jeopardy' situation. For example, if a GOP has potential non-compliance with PER-006-1 R1 the GOP could also be considered having a potential non-compliance of PER-005-

2 R6. This situation should be considered further in light of this possibility.

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1,3

Answer

No

Document Name

Comment

Exelon concurs with the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Kenisha Webber - Entergy - NA - Not Applicable - SERC

Answer

No

Document Name

Comment

Recommend support personnel to not be included in this standard. The scores appear a little too high. Due to RAS not common in power plants, it should include an if then statement; same recommendation for communication systems.

Likes 0

Dislikes 0

Response

Kimberly Turco - Constellation - 5,6

Answer

No

Document Name

Comment

Q5: Comment from the RSTC that the Standard is not clear on whether support personnel should be trained. Constellation believes that it should be up

to the GOP to decide the job functions required to be trained as this may be different depending on the type and size of generating unit and organizational structure. The Standard is clear as written in that it applies to plant personnel responsible for real-time control of a generator. Support personnel will likely be directed by plant operators.

Q1: Comment from the RSTC on PER-005-1 to consider combining PER-005-2 with PER-006-1. Constellation does not agree with this comment given PER-006-1 was created to replace PRC-001-1.1(i) and applies to training GOP personnel on the operational functionality of Protection Systems and Remedial Action Schemes (RAS). PER-006-1 is currently only applicable to GOPs that have dispatch personnel at a centrally located dispatch center. Combining the two Standards will in affect expand the scope of training under PER-005-2 to GOPs that do not have dispatch personnel or a dispatch center.

Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0

Dislikes 0

Response

Alison Mackellar - Constellation - 5,6

Answer

No

Document Name

Comment

Q5: Comment from the RSTC that the Standard is not clear on whether support personnel should be trained. Constellation believes that it should be up to the GOP to decide the job functions required to be trained as this may be different depending on the type and size of generating unit and organizational structure. The Standard is clear as written in that it applies to plant personnel responsible for real-time control of a generator. Support personnel will likely be directed by plant operators.

Q1: Comment from the RSTC on PER-005-1 to consider combining PER-005-2 with PER-006-1. Constellation does not agree with this comment given PER-006-1 was created to replace PRC-001-1.1(i) and applies to training GOP personnel on the operational functionality of Protection Systems and Remedial Action Schemes (RAS). PER-006-1 is currently only applicable to GOPs that have dispatch personnel at a centrally located dispatch center. Combining the two Standards will in affect expand the scope of training under PER-005-2 to GOPs that do not have dispatch personnel or a dispatch center.

Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer	No
Document Name	
Comment	
<p>EEI does not agree with many of the comments and suggestions contained in the Content and Quality Scores provided for PER-006-1, and we disagree with the RSTC comment that suggests that there would be efficiencies in integrating the enforceable requirements of this Reliability Standard into PER-005 for the reasons listed below. We recommend that PER-006-1 be reaffirmed without additional changes or modifications.</p> <p>1. RSTC Comment - EEI does not agree that PER-005 and PER-006 should be aligned or otherwise combined for the following reasons:</p> <p>a. TOP system operators require a wide area view in order to maintain system stability, voltage stability and other situational awareness duties; while Generator Operators (GOPs) system operators are more narrowly focused on individual plants, plant forecasting and plant operations.</p> <p>b. GOP support personnel should not be added to PER-006 because they do not perform the functional duties as described in the Applicability section of PER-006.</p> <p>c. PER-006 fills a special training role that requires a degree of flexibility for GOPs given the unique role of GOP system operators. Removing flexibility may result in less effective training for GOP system operators.</p>	
Likes	0
Dislikes	0
Response	
<p>Karie Barczak - DTE Energy - Detroit Edison Company - 3,5, Group Name DTE Energy - DTE Electric</p>	
Answer	Yes
Document Name	
Comment	
<p>We are of the opinion that all training requirements existing in other standards (ie, COM-002, EOP-005, etc.) would be better suited to be incorporated into PER-006.</p>	
Likes	0
Dislikes	0
Response	
<p>Pamela Frazier - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name Southern Company</p>	
Answer	Yes
Document Name	
Comment	

Southern Company would like to revise our answer to indicate "No" we do not agree with scoring and findings of the SRT.

For this standard, Southern Company endorses and agrees with the comments provided by Edison Electrical Institute (EEI).

Note that the SBS system would not allow a change to the above response via the radial buttons provided.

Likes 0

Dislikes 0

Response

Carl Pineault - Hydro-Qu?bec Production - 1,5

Answer

Yes

Document Name

Comment

No comments

Likes 0

Dislikes 0

Response

David Jendras - Ameren - Ameren Services - 1,3,6

Answer

Yes

Document Name

Comment

1. The Standards Grading Process only found one minor issue – that the Standard does not specify a period for retraining.
 - a. We agree that is not sufficient to create a SAR.
 - b. Especially with the large number of major Standard Drafting Teams now working on MOD-025, -026, -027, PRC-019, Cold Weather Standard changes, etc.
2. Therefore, I agree with the Grading for the Standard there is little justification for a Standard Drafting Team to review.

Likes 0

Dislikes 0

Response

Claudine Bates - Black Hills Corporation - 1,3,5,6 - MRO,WECC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - Public Service Company of New Mexico - 1 - WECC

Answer Yes

Document Name

Comment

Likes 0	
Dislikes 0	
Response	

4. For [TPL-007-4](#), do you agree with the scoring and findings of the SRT? If not, please comment on which tool question(s) the comment applies to and provide a supporting explanation.

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

R6/R10

Q1: BPA agrees

Q9: BPA believes that it might also benefit the industry to include the rationale for specifying 75 A or greater per phase for the benchmark event.

C1, Q9: BPA believes that additional research is valuable, but it must also be incorporated into the software (EPRI ETTM) with guidance on how to utilize the new research. (i.e., research papers are good but how to use the research is even better). The ETTM user manual should be updated to incorporate and discuss these new findings and research.

R7/R11

Q1: Even if incorporated, BPA does not believe it makes sense to develop CAPs for a supplemental GMD event (the extreme of extreme events) which is the extreme of the 100 year event.

R12/R13

NERC Q2: BPA does not agree with the comments pertaining to R12/R13, since actual data is always a little different than modeled data. Until there is a big GMD event, the values will not get near the 70 or so Amps that the models show. Since the adoption of the standard, the industry has not yet completed the first vulnerability assessment. BPA believes that the industry needs to gain some experience on vulnerability assessments for benchmark and supplemental GMD events before validating models becomes a standard.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer No

Document Name

Comment

EEI does not fully support many of the comments, concerns and suggestions developed by the 2022 Periodic Review team. While we acknowledge that there may be some justification to reevaluate the current draft based on ongoing research by both EPRI and the science community, such a decision should be based on the review findings of an industry team of SMEs, such as the GMD WG, who could present their findings to industry for review and comment. Additionally, EEI notes that while TPL-007-4 is now in effect, some Requirements of this Reliability Standard will not be in effect until 2023 (Requirement R3, R4 and R8) and 2024 (Requirement R7 & R11). This argues against further modification until an assessment can be made

on the effectiveness of the entirety of this Reliability Standard. Therefore, until that happens, EEI asks NERC to reaffirm the current TPL-007-4 Reliability Standard without additional changes or modifications.

Likes 0

Dislikes 0

Response

Alison Mackellar - Constellation - 5,6

Answer

No

Document Name

Comment

C1, Q9: Applicable to TPL-007-4 R6 & R10: NERC suggests that updated transformer models should be factored into the thermal screening criteria. The industry is generally aware that GMD affects transformers differently depending on the core type. However, it would be challenging to incorporate individual screening criteria for all of the various core types into the standard. This would also add complexity to complying with the standard since the core type of in-service units may not be known. The 75A threshold was considered sufficiently conservative to be used as a screening criteria for all types which simplifies this requirement.

Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0

Dislikes 0

Response

Kimberly Turco - Constellation - 5,6

Answer

No

Document Name

Comment

C1, Q9: Applicable to TPL-007-4 R6 & R10: NERC suggests that updated transformer models should be factored into the thermal screening criteria. The industry is generally aware that GMD affects transformers differently depending on the core type. However, it would be challenging to incorporate individual screening criteria for all of the various core types into the standard. This would also add complexity to complying with the standard since the core type of in-service units may not be known. The 75A threshold was considered sufficiently conservative to be used as a screening criteria for all types which simplifies this requirement.

Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1,3

Answer

No

Document Name

Comment

Exelon concurs with the comments submitted by the EEI.

Additionally, with regard to R6 & R10, the industry is generally aware that GMD affects transformers differently depending on the core type. However, it would be challenging to incorporate individual screening criteria for all of the various core types into the standard. This would also add complexity to complying with the standard since the core type of in-service units may not be known. The present thresholds are considered sufficiently conservative to be used as a screening criteria for all core types which simplifies these requirements.

Likes 0

Dislikes 0

Response

Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF

Answer

No

Document Name

Comment

• RSTC: Q1: Might benefit to incorporate R10 into R6

• The MRO NSRF does not see the value in joining R10 with R6. Joining R10 into R6 at a minimum looks to increase the complexity of the requirement. More likely, combining R10 into R6 appears to increase the burden on transmission planning entities.

• The MRO NSRF suggests revised wording for R6 that if transformers are identified as impacted by benchmark event (at 75A / phase), then only they would be required to be further evaluated in R10 the Supplemental event (at 85A / phase).

• NERC: Q2. GMD data (such as required by R12 and R13) provides entities with the ability to validate models and assess the accuracy of studies performed for GMD Vulnerability Assessments. In the time since the adoption of the standard, technical guidance for performing validations has been developed for industry use. The approved requirements (R12 and R13) should be revisited, and developed into a results-based requirement by an SDT. (e.g., TPs shall use actual measurement data [under certain criteria] to assess the accuracy of GIC models and system models required by R2.) At the time of TPL-007-4's drafting, such an objective was not attainable due to lack of technical guidance.

• While the MRO NSRF understands the comment to incorporate actual measurement data into benchmarking GIC models, we believe that GIC models aren't sufficiently developed to warrant benchmarking them against actual events in a mandatory, zero defect NERC standards, rather GIC models and benchmarking should continue with the research community under the Section 1600 data request process.

Likes 0

Dislikes 0

Response

David Jendras - Ameren - Ameren Services - 1,3,6

Answer

Yes

Document Name

Comment

- 1. Again the Standard Grading Process only found several minor issues.
 - a. The lowest Standard Content Score was ¾, with 4 being no problem.
 - b. The lowest Quality Score was 11/13, with 13 being no problem.
 - c. In spite of these relatively high scores, there were several Comments recommending a Standard Drafting Team be created to review several of the Requirements

Likes 0

Dislikes 0

Response

Carl Pineault - Hydro-Qu?bec Production - 1,5

Answer

Yes

Document Name

Comment

No comments

Likes 0

Dislikes 0

Response

Pamela Frazier - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name Southern Company

Answer

Yes

Document Name

Comment

Southern Company agrees with scoring and findings of the SRT for this standard.

Southern Company's agreement with the grading is reinforced by the NERC Standards Grading FAQ document, which states that the grades do not "determine the timing or prioritization of which standards undergo Periodic Review."

Likes 0

Dislikes 0

Response

Richard Jackson - U.S. Bureau of Reclamation - 1,5

Answer

Yes

Document Name

Comment

Reclamation supports the suggestions to incorporate requirement R8 into R4, requirement R9 into R5, requirement R10 into R6, and requirement R11 into R7. These incorporations will help streamline the standard and eliminate redundancy.

Likes 0

Dislikes 0

Response

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Kenisha Webber - Entergy - NA - Not Applicable - SERC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Claudine Bates - Black Hills Corporation - 1,3,5,6 - MRO,WECC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Karie Barczak - DTE Energy - Detroit Edison Company - 3,5, Group Name DTE Energy - DTE Electric

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

5. Please provide additional comments here. E.g. suggestions on improving the standards grading process, the SRT's approach to standards grading, or any other input you believe would be helpful to the SRT's final grading.

Karie Barczak - DTE Energy - Detroit Edison Company - 3,5, Group Name DTE Energy - DTE Electric

Answer

Document Name

Comment

none, thank you.

Likes 0

Dislikes 0

Response

Richard Jackson - U.S. Bureau of Reclamation - 1,5

Answer

Document Name

Comment

None

Likes 0

Dislikes 0

Response

Kendra Buesgens - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF

Answer

Document Name

Comment

• The NERC SRT approach needs more emphasis on finding administrative issues and reducing them. Even though many of the original FERC order changes have been addressed, FERC and NERC continue to change NERC standards and expectations rapidly to match changing grid conditions. Therefore NERC needs to prioritize what is critical and eliminate what isn't.

• The MRO NSRF supports reducing purely administrative requirements from the standards including:

• Excess required periodic reporting when not demonstrating or resulting an improvement in reliability or when not explicitly needed by the ERO or designated receiver.

• Arbitrary time limits or intervals. (does it really represent a risk to reliability if an entity performs something a day late or in some cases a minute late?)

• Any quantitative values that do not have a sound technical basis and if violated do not represent a demonstrated risk to reliability.

• The NERC SRT needs to consider the changing nature of generation and move NERC standards from binary “zero defect” (meaning you are perfect or non-compliant) to more of a statistics-based compliance approach. Generation is changing from a relatively few number of large generators to tens of thousands of small wind and solar resources. This changes the fundamental nature of auditing to require a statistics-based approach, somewhat related to six sigma versus “zero defect”.

Likes 0

Dislikes 0

Response

Pamela Frazier - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name Southern Company

Answer

Document Name

Comment

No additional comments

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1,3

Answer

Document Name

Comment

Exelon concurs with the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Kenisha Webber - Entergy - NA - Not Applicable - SERC

Answer

Document Name

Comment

There are benefits in incorporating some of the other functional entities in using a systematic approach to training and maintaining a task list of BES critical tasks. However, the additional workload and resources needed could possibly be extensive.

Likes 0

Dislikes 0

Response

Carl Pineault - Hydro-Qu?bec Production - 1,5

Answer

Document Name

Comment

No comments

Likes 0

Dislikes 0

Response

Kimberly Turco - Constellation - 5,6

Answer

Document Name

Comment

None

Likes 0

Dislikes 0

Response

Alison Mackellar - Constellation - 5,6

Answer

Document Name

Comment

None

C1, Q9: Applicable to TPL-007-4 R6 & R10: NERC suggests that updated transformer models should be factored into the thermal screening criteria. The industry is generally aware that GMD affects transformers differently depending on the core type. However, it would be challenging to incorporate individual screening criteria for all of the various core types into the standard. This would also add complexity to complying with the standard since the core type of in-service units may not be known. The 75A threshold was considered sufficiently conservative to be used as a screening criteria for all types which simplifies this requirement.

Likes 0

Dislikes 0

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC Regional Standards Committee

Answer

Document Name

Comment

NPCC RSC supports the scoring and findings of the SRT.

Likes 0

Dislikes 0

Response

Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC

Answer

Document Name

Comment

This comment is in regards to Quality Question Q13 - "Does the requirement language support the least cost solution that achieves the reliability objective?"

Additional documentation to support Q13 is recommended. Q13 is a Periodic Review Standing Review Team (PRSRT) - Standard Grading, "yes or no" question. If the PRSRT is to use their own judgement as a parameter to determine if the requirement language supports the least cost solution, in the spirit of transparency and consistency, it is recommended that Q13 state this parameter.

If additional "Cost Effective Analysis Process (CEAP)" criteria is imbedded into Q13, then a brief disclosure statement is recommended to be included in Q13. The CEAP does not need to be included in Q13, however, a reference or footnote indicating where the CEAP background information and screening questions are located, is recommended.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer

Document Name

Comment

EI appreciates the opportunity to provide input into the 2022 Period Review. While this process affords the industry an opportunity to provide input on the grading process, it may be time to reassess the process to ensure it is still providing the benefits (i.e., clear, concise and sustainable body of Reliability Standards) that were intended when it was first created by the Independent Experts back in 2013. It is unclear how the process is informing whether a Reliability Standard needs to be affirmed, revised, or retired and the degree of consideration given to the comments rather than the grades themselves. We encourage NERC to work with the Standards Committee and industry to reassess this process to ensure it is effective and efficient.

Likes 0

Dislikes 0

Response

David Jendras - Ameren - Ameren Services - 1,3,6

Answer

Document Name

Comment

None

Likes 0

Dislikes 0

Response