

Individual or group. (27 Responses)

Name (15 Responses)

Organization (15 Responses)

Group Name (12 Responses)

Lead Contact (12 Responses)

IF YOU WISH TO EXPRESS SUPPORT FOR ANOTHER ENTITY'S COMMENTS WITHOUT ENTERING ANY ADDITIONAL COMMENTS, YOU MAY DO SO HERE. (5 Responses)

Comments (27 Responses)

Question 1 (20 Responses)

Question 1 Comments (22 Responses)

Question 2 (19 Responses)

Question 2 Comments (22 Responses)

Question 3 (20 Responses)

Question 3 Comments (22 Responses)

Question 4 (0 Responses)

Question 4 Comments (22 Responses)

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| Group |
| MRO NERC Standards Review Forum |
| Russel Mountjoy |
| |
| Yes |
| Yes, the NSRF agrees with the overall recommendation to "REVISE" NUC-001-2 Standard, however, it does not appear the changes proposed are properly reflected and coordinated between the three applicable documents, (1) Five-Year Review Recommendation to Revise NUC-001-2, (2) the SAR and (3) Redlined version of NUC-001-2. Examples of these are in responses to Questions #3 and #4 of the Comment Form. |
| Yes |
| Yes, however, the NSRF is concerned that the Redlined copy of NUC-001-2 does not reflect all the changes being addressed in the Five-Year Review Recommendation to Revise NUC-001-2 document nor in the SAR. (For details, see response to Questions #3 and #4. |
| No |
| We believe there are recommendations not addressed in the Redline that are listed in the SAR Information. They are the following and should be noted somehow in the Redline: 1.) Bullet #6, Modify the VSL and VRF Matrices to conform to NERC Guidelines 2.) Bullet #9, Add Time Horizons to each Requirement Included within NUC-001-2 Section E is a definition of Nuclear Plant Licensing Requirements (NPLR) which is also defined in the NERC Glossary of Terms Used in Reliability Standards. The two do not match nor do we believe that NPLR needs to be defined within the Standard. Note - Five-Year Review Recommendation to Revise NUC-001-2, Additional Questions Considered by the FYRT, addresses Clarity (No. 2) which lists several improvements. Under this, Item #5 recommends inserting "affecting the NPIRs" to R9.4.1, which is currently just "affecting NPIRs". Need to make the two match. Note - Five-Year Review Recommendation to Revise NUC-001-2, Additional Questions Considered by the FYRT, addresses Compliance Elements (No. 4) which recommends inserting "actual and proposed" before the text....changes to Nuclear Plant Design in Measures 7 and 8, as used for R7 and R8, respectively. These changes are not shown in the Redline copy of NUC-001-2. |
| Please consider the following additional recommendations/comments: 1.) The following terms, used in the NUC-001 Standard, should be considered as new defined terms for the NERC Glossary of Terms used in Reliability Standards: a. The term "electric system" is used numerous times throughout the Standard and not defined. b. The term "Protective Relay Setpoints" used several times in the Standard should be defined since identified as a subset of a "Protection System". 2.) The SAR does not list "Nuclear Plant Generator Operators" (NPGOs) as part |

of the applicable Reliability Functions, however, is clearly listed in Section 4. Applicability of the NUC-001-2 Standard. 3.) The Reliability and Market Interface Principles No. 5 should also be checked, as applicable, within the SAR since Requirement R9.4 of NUC-001-2 clearly addresses communications. 4.) The Five-year Review identified changes within the NUC-001-2 Redline in Section E, Regional Differences; however, Regional Variances was marked as N/A in the SAR. We believe that there should be something in the SAR to address the Canadian (CANDU) Nuclear Power Plant design basis which coincide with the changes made to NUC-001-2 and address Canadian jurisdictional differences.

Group

PPL Corporation NERC Registered Affiliates

Stephen J. Berger

Yes

These comments are submitted on behalf of the following PPL NERC Registered Affiliates (PPL): Louisville Gas and Electric Company and Kentucky Utilities Company; PPL Electric Utilities Corporation, PPL EnergyPlus, LLC; and PPL Generation, LLC; PPL Montana, LLC; and PPL Susquehanna, LLC. The PPL NERC Registered Affiliates are registered in six regions (MRO, NPCC, RFC, SERC, SPP, and WECC) for one or more of the following NERC functions: BA, DP, GO, GOP, IA, LSE, PA, PSE, RP, TO, TOP, TP, and TSP. The PPL NERC Registered Affiliates agree with proposed revisions to the standard, especially revision #3. We believe that "Protection Systems" should be omitted from R7 and R8. The intent of the NUC-001 standards was not to tie in PRC-005 compliance obligations of maintenance and testing of Relays, CTs & PTs, D.C. Circuitry, Communication Devices and Batteries, but instead was to coordinate major changes to overall protections systems and protection system settings for those systems that could possibly impact the protection system interface at the GO/TO interconnection. The PPL NERC Registered Entities agree with proposed change #4. The proposal of revising R9 to clarify that all the agreements do not have to discuss each element of R9 is helpful for nuclear generators that have multiple agreements with transmission entities. This proposed revision may also be helpful for any GO/GOP's that have obligations in agreements that are necessary to meet a sub requirements of NUC-001 R9 to meet a NPIR with nuclear generators or transmission entities. This allows the agreement to cover only what is applicable to the specific entity and removes the responsibility to document unnecessary elements of R9 in cases where the entity involved in the agreement does not perform all the functions required of R9. For example, an agreement between the blackstart facility and the associated NPGO and/or TO could be required documentation necessary to meet R9.2.2 if the blackstart facility is identified as a facility necessary for meeting a NPIR. This blackstart facility would not be required to include in the agreement documentation of other R9 subrequirements such as R9.4.1, provision of communication between the NPGO and Transmission Entities, if it had been established that the NPGO will communicate with the TO and not directly with the blackstart generator. Therefore the amendment to the standard would allow agreements to meet the NPIR to be limited to only the relevant R9 subrequirements of the applicable entity. Currently, the standard is written ambiguously and an auditor could interpret that all R9 requirements must be included in an agreement regardless if the entity is required or even able to perform the function as stated in R9.

Yes

Given the compliance uncertainties now that "Protection Systems" is a formalized definition in NERC's glossary intended for PRC-005 maintenance and testing intervals, it is necessary to exclude the use of this term from the standard. The NUC-001 standard would allow for PRC-005 standard creep and could find nuclear generators and transmission owners in double jeopardy under the standards NUC-001 R7, R8 and PRC-005 for any "Protection System" related potential violations.

Yes

Individual

Silvia Parada Mitchell

NextEra Energy

Yes

NextEra generally agrees with the revisions to NUC-001-2; however, NextEra does not find that there is an immediate need to make the changes, which are minor, and, therefore, requests that any SAR or proposed revisions to NUC-001-2 be given a low priority in the Standards development process.

Group

Northeast Power Coordinating Council

Guy Zito

Yes

Yes

Yes

Individual

Winnie Holden

PSEG

Yes

Yes

Yes

Individual

Thomas Foltz

American Electric Power

Yes

Yes

Yes

Group

ACES Standards Collaborators

Ben Engelby

No

We agree with the Five Year Review team that there are areas that could be refined within NUC-001. However, we question the format of Requirement R9, in particular using sub-requirements. The proposed redline text states that some of these elements may not apply, and therefore, each section should not be a sub-requirement.

Yes

We generally agree with the proposed revisions. However, we would like the Five Year Review Team to consider the "Standards Independent Experts Review Project," which stated that the NUC standards were considered to be "steady state" with high content and quality scores. With this feedback, we recommend that this project receive a low priority ranking if it is determined that these proposed revisions meet the threshold of creating a new standards development project.

Yes

The SAR and the redlined standard provide a reasonable approach to the revision. As stated earlier, if it is determined that NUC-001 should be revised, we recommend this project receive a low priority based on the Industry Expert Review report that concluded that the NUC standards are considered to be "steady state" with high content and quality scores.

(1) We believe the proposed changes to R7 and R8 (deleting lowercase "protection systems" and adding "protective setpoints" and "relay setpoints") creates ambiguity and confusion. What is the drafting team trying to distinguish by using different terms such as relay setpoint and protective setpoint? This proposed revision may create additional confusion. We suggest using the same example for both requirements, adding clarity for each example, or leaving the requirements as currently worded. (2) Thank you for the opportunity to comment.

Group

US Bureau of Reclamation

Erika Doot

No

The Bureau of Reclamation (Reclamation) recommends that Generator Owners (GOs) and Generator Operators (GOPs) should be removed from the Applicability section of NUC-001-3. Reclamation does not believe that GOs or GOPs should be considered "Transmission Entities" subject to the standard. Reclamation believes that coordination among generators should be facilitated by Balancing Authorities (BAs) and Transmission Operators (TOPs) rather than between generators directly. Reclamation believes that NPIRs should be proposed to BAs and TOPs, and BAs and TOPs should develop necessary secondary agreements with generators within their footprints. Therefore, Reclamation recommends that the review team add removal of GOs & GOPs from the standard to the scope of the SAR and proposed revision. The team might also consider whether Distribution Providers (DPs) and Load Serving Entities (LSEs) should be considered "Transmission Entities" or should be removed from the Applicability section.

Yes

No

As described in Question 1, Reclamation believes that the recommendation is incomplete because Generator Owners, Generator Operators, and perhaps other entities should be removed from the Applicability section's list of possible "Transmission Entities."

Individual

Michael Falvo

Independent Electricity System Operator

Yes

We do not feel strongly one way or the other since many of the proposed changes are intended to add clarity without much material impact on the intent of the standard or compliance implications other than the removal of the term "Protection Systems" from R7 and R8. We can support a revision at this time via the usual standard development process or the Errata process, or to simply keep it the same with a declaration that the standard has been reviewed and found to be valid and appropriate for another 5 years or when changes occur that warrant a revision.

Yes

We generally support the marked changes. It is comforting to know that "any changes will be made through the formal standards development process" as this is important that standard changes be managed by the

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| established formal process. |
| This is perhaps preemptive or premature but there are draft standards recently posted that propose effective dates and implementation plan that may conflict with the Ontario regulation with respect to making NERC standards effective in Ontario. We therefore kindly remind the SDT to ensure that in the Effective Dates Section of the standard, as well as in the implementation plan, to clearly state that: In those jurisdictions where regulatory approval is required, this standard shall become effective on the xxx day of the yyy calendar quarter after applicable regulatory approval, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities. In those jurisdictions where no regulatory approval is required, this standard shall become effective on the xxx day of the yyy calendar quarter after Board of Trustees approval. |
| Individual |
| RoLynda Shumpert |
| South Carolina Electric and Gas |
| Agree |
| The SERC OC Standards Working Group |
| Individual |
| RoLynda Shumpert |
| South Carolina Electric and Gas |
| Agree |
| SERC OC Standards Working Group |
| Individual |
| Tiffany Lake |
| Westar Energy |
| |
| Yes |
| |
| Yes |
| |
| Yes |
| |
| Individual |
| John Bee |
| Exelon and its' affiliates |
| |
| Yes |
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| Yes |
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| Yes |
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| While reviewing the Draft, Exelon feels that R9 needs to be reworded. The requirement is applicable to NPGO and applicable Transmission Entities but the comment regarding "...the Agreements, in aggregate, must address all R9 elements." Is something that Transmission Entities cannot control or implement. Exelon believes if the wording really applies only to the NPGO as they have the "Agreements, in aggregate", not the Transmission Entities. Either make the "...in aggregate" statement separate and only applicable to the NPGO or state that the Transmission Entities will approve the Agreement with NPGO that includes applicable R9 items. |
| Group |
| NAGF Standards Review Team |
| Patrick Brown |

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| Yes |
| 1. We agree with proposed revisions to the standard, especially revision #3. We believe that "Protection Systems" should be omitted from R7 and R8. The intent of the NUC-001 standards was not to tie in PRC-005 compliance obligations of maintenance and testing of Relays, CTs & PTs, D.C. Circuitry, Communication Devices and Batteries, but instead was to coordinate major changes to overall protection systems and protection system settings for those systems that could possibly impact the protection system interface at the GO/TO interconnection. 2. We also agree with proposed change #4. The proposal of revising R9 to clarify that all the agreements do not have to discuss each element of R9 is helpful for nuclear generators that have multiple agreements with transmission entities. This proposed revision may also be helpful for any GO/GOP's that have obligations in agreements that are necessary to meet a sub-requirement of NUC-001 R9 to meet an NPIR with nuclear generators or transmission entities. This allows the agreement to cover only what is applicable to the specific entity and removes the responsibility to document unnecessary elements of R9 in cases where the entity involved in the agreement does not perform all the functions required of R9. For example, an agreement between the blackstart facility and the associated NPGO and/or TO could be required documentation necessary to meet R9.2.2 if the blackstart facility is identified as a facility necessary for meeting an NPIR. This blackstart facility would not be required to include in the agreement documentation of other R9 subrequirements such as R9.4.1, provision of communication between the NPGO and Transmission Entities, if it had been established that the NPGO will communicate with the TO and not directly with the blackstart generator. Therefore the amendment to the standard would allow agreements to meet the NPIR to be limited to only the relevant R9 subrequirements of the applicable entity. Currently, the standard is written ambiguously and an auditor could interpret that all R9 requirements must be included in an agreement regardless if the entity is required or even capable to perform the function as stated in R9. |
| Yes |
| Given the compliance uncertainties now that "Protection Systems" is a formalized definition in NERC's glossary intended for PRC-005 maintenance and testing intervals, it is necessary to exclude the use of this term from the standard. The NUC-001 standard would allow for PRC-005 standard creep and could find nuclear generators and transmission owners in double jeopardy under the standards NUC-001 R7, R8 and PRC-005 for any "Protection System" related potential violations. |
| Yes |
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| Individual |
| Oliver Burke |
| Entergy Services, Inc. |
| Agree |
| SERC OC Review Group comments. |
| Group |
| SERC OC Review Group |
| Stuart Goza |
| |
| Yes |
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| Yes |
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| Yes |
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| SAR: We recommend consideration of adding "Resource Planner" to the "Reliability Functions" section due to the importance of area generation in providing offsite power. The 5YR Review Team is requested to review to ensure that there are no redundant standards. An example may be EOP-005-2, R1.2 and NUC-001-2, R9.3.5. NUC-001-2: We recommend the 5YR Review Team consider removing R9.4.5 as training is already covered in PER-005 standard. Further, the group recommends that M5, M7 & M8 should be updated to reflect the changes to the |

requirements. Additionally, we recommend the 5YR Review Team review to ensure that the NPLR definition in the standard is consistent with the Glossary. The comments expressed herein represent a consensus of the views of the above named members of the SERC OC Review Group only and should not be construed as the position of the SERC Reliability Corporation, or its board or its officers.

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| Individual |
| Andrew Gallo |
| City of Austin dba Austin Energy |
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| Yes |
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| Yes |
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| Yes |
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Austin Energy (AE) believes the response to Q4 in the NUC Five-Year Review Recommendation should be "No" to match the narrative response provided to that question.

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| Individual |
| David Thorne |
| Pepco Holdings Inc |
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| Yes |
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| Yes |
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| Yes |
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| Group |
| Dominion |
| Mike Garton |
| |
| Yes |
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| Yes |
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| Yes |
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M5, M7 and M8 need to be updated to reflect changes made in R5, R7 and R8.

Five-Year Review Recommendation; Page 4, Question 4; the comment to Question 4 is in conflict with the answer, "Yes". The comment supports a "NO" response based on the comments provided. Dominion believes that the formatting of this standard does require a change in order to include the text of the Measure subsequent to the text of the related Requirement. Better alignment between Requirement and Measure is needed for R5/M5; specifically R5 ..."operate the nuclear plant to meet the NPIRs" and M5 ..."operated consistent with the Agreements..." Better alignment between Requirement and Measure is needed for R7/M7; specifically R7 ..."ability of the electric system to meet the NPIRs" and M7 ..."ability of the Transmission Entities to meet the NPIRs" Better alignment between Requirement and Measure is needed for R8/M8; Specifically R8 ..."ability of the electric system to meet the NPIR" and M8 ..."ability of the Nuclear Plant Generator Operator to meet the NPIRs" While the proposed red-line seeks to remedy Version 2.1 errata change (i.e. Capitalization of Protection System) Dominion agrees with the SAR suggestion to "make errata changes where warranted," provided that such errata change does not change the intent of the standard as was previously done with Version 2.1.

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| Individual |
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| Kathleen Goodman |
| ISO New England Inc. |
| Agree |
| NPCC RSC |
| Group |
| DTE Electric |
| Kathleen Black |
| |
| Yes |
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| Yes |
| |
| Yes |
| |
| No additional comments |
| Group |
| Duke Energy |
| Michael Lowman |
| |
| Yes |
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| Yes |
| Duke Energy agrees with the changes made by the 5-year Review Team. |
| Yes |
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| Duke Energy believes that the term "electric systems" should be changed to Bulk Electric System (BES) to better align this standard and requirements with the NERC Glossary of Terms. However, if this is not the proper definition, we seek clarification from the 5-year Review Team on the term "electric systems" used in NUC-001. NUC-001 should address coordination, between the Nuclear Plant Generator Operator and the applicable Transmission Entities, of power system design & operation required to support nuclear site emergency preparedness/response. Transmission entities need to ensure they are not doing things that purposely disable facilities relied on to mitigate site events. |
| Group |
| Florida Municipal Power Agency |
| Frank Gaffney |
| |
| Yes |
| Yes, FMPA agrees with the overall recommendation to "REVISE" NUC-001-2 Standard, however, it does not appear the changes proposed are properly reflected and coordinated between the three applicable documents, (1) Five-Year Review Recommendation to Revise NUC-001-2, (2) the SAR and (3) Redlined version of NUC-001-2. Examples of these are in responses to Questions #2-4 of the Comment Form. |
| Yes |
| Yes, however FMPA is concerned that the Redlined copy of NUC-001-2 does not reflect all the changes being addressed in the Five-Year Review Recommendation to Revise NUC-001-2 document nor in the SAR. (For details, see response to Questions #3 and #4. |
| No |
| FMPA believes there are recommendations not addressed in the Redline that are listed in the SAR Information. They are the following and should be noted somehow in the Redline: 1.) Bullet #6, Modify the VSL and VRF Matrices to conform to NERC Guidelines 2.) Bullet #9, Add Time Horizons to each Requirement |

FMPA has the following additional recommendations/comments: 1.) The following terms, used in the NUC-001 Standard, should be considered as new defined terms for the NERC Glossary of Terms used in Reliability Standards: a. The term "Protective Relay Setpoints" used several times in the Standard should be clarified since identified as a subset of a "Protection System". 2.) The SAR does not list "Nuclear Plant Generator Operators" (NPGOs) as part of the applicable Reliability Functions, however, is clearly listed in Section 4. Applicability of the NUC-001-2 Standard. 3.) The Reliability and Market Interface Principles No. 5 should also be checked, as applicable, for this SAR since Requirement R9.4 of NUC-001-2 addresses communications. 4.) The Five-year Review identified changes within the NUC-001-2 Redline in Section E, Regional Differences; however, Regional Variances was marked as N/A in the SAR. FMPA believes that there should be something in the SAR to address the Canadian (CANDU) Nuclear Power Plant design basis which coincide with the changes made to NUC-001-2 and address Canadian jurisdictional differences.

Individual
Chris de Graffenried
Consolidated Edison Co. of NY, Inc.

No
See reply to Question 4

See reply to Question 4

No
See reply to Question 4

We are concerned that material changes in the NUC-001 Standard requirements could lead to continent-wide revisions of the individual plant Nuclear Plant Interface Requirements (NPIR) agreements. Knowing that there is FERC action underway to retire Requirement 9.1, we recommend leaving this Standard essentially as is. Two minor changes recommended are: • R7. Change "(e.g., protective setpoints)" to "(including protective setpoints)". • R8. Change "(e.g., relay setpoints)" to "(including relay setpoints)".

Group
Southern Company: Southern Company Services, Inc.; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing

Marcus Pelt

Individual
Andrew Z. Pusztai
American Transmission Company, LLC

Agree
ATC supports and agrees with the "MRO NERC Standards Review Forum (NSRF)" comments that were submitted.

Individual
Tammy Porter
Oncor Electric Delivery

Yes

Yes

Yes

