

The Certifying System Operators Standard Drafting Team thanks all commenters who submitted comments on the draft Operating Personnel Credentials standard. This standard was posted for a 30-day public comment period from October 21, 2009 through November 20, 2009. The stakeholders were asked to provide feedback on the standard through a special Electronic Comment Form. There were 41 sets of comments, including comments from more than 150 different people from over 65 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received the drafting team made the following changes to the proposed Standard:

- Modified the Purpose statement to provide additional clarity.
- Modified the Effective Date from six months to twelve months.
- Modified the body of the Requirements to provide additional clarity on who should be certified and how certification is to be accomplished.
- Added a footnote to clarify that a trainee that is not NERC-certified must work under the direct supervision of a NERC-certified System Operator
- Modified the Measure to provide additional clarity as to who is being measured.
- Modified the VSLs to align with the modifications to the Requirements.

There were several minority issues that the team was unable to resolve, including the following:

- Several stakeholders object to the reference to "competencies." The team is required to address the FERC directive from Order 693 that states that the standard must identify the minimum competencies operating personnel must demonstrate to be certified. The team met with FERC staff and confirmed that the directive does intend for competencies to be identified in the standard.
- Several stakeholders want the language from PER-003-0 relative to allowing trainees to work without a NERC certificate while under the direct supervision of a NERC certified System Operator to be provided in this standard and the team declined to include this provision. The SDT explained that they believed that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. However, the SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."
- Several stakeholders want the language from PER-003 that allowed a responsible entity to operate the BES with someone other than a NERC certified System Operator during an emergency while transferring from a primary control center to a backup control center and the team declined to include this provision. The SDT explained that it believed that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if



- a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only impose a penalty if the situation truly warranted such an action.
- Several stakeholders asked for additional language to clarify the role of continuing education hours (CEHs) in maintaining a valid NERC certificate and the team declined to add a reference to CEHs in the standard. The SDT explained that they believed that a System Operator should maintain his or her certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.
- Several stakeholders want the VSLs to be gradated and the team did not change the VSLs. The VSLs proposed meet both NERC and FERC VSL Guidelines.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshueni@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

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¹ The appeals process is in the Reliability Standards Development Procedures: http://www.nerc.com/standards/newstandardsprocess.html.

Index to Questions, Comments, and Responses

| 1. | The Purpose statement of the draft standard reads "To ensure that System Operators performing the reliability-related tasks' of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System". |
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| 2. | In The effective date of the draft standard reads "In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption" |
| 3. | Requirement R1 of the draft standard reads: |
| 4. | Requirement R2 of the draft standard reads: |
| 5. | Requirement R3 of the draft standard reads: |
| 6. | Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area |
| 7. | Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area |
| 8. | Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area |
| 9. | Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area |
| 10. | In In FERC Order 693 the Commission directed the ERO to consider "grandfathering" of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows: |
| 11. | In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process |
| 12. | If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section |
| 13. | In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1 |

The Industry Segments are:

- 1 Transmission Owners
- 2 RTOs, ISOs
- 3 Load-serving Entities
- 4 Transmission-dependent Utilities
- 5 Electric Generators
- 6 Electricity Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity End Users
- 9 Federal, State, Provincial Regulatory or other Government Entities
- 10 Regional Reliability Organizations, Regional Entities

| | | Commenter | Organization | | | | Ind | ustry | Segn | nent | | | | | |
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| | | | | 1 2 3 | | | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| 1. | Group | Margaret Stambach | SERC Standards Review Group | Х | Х | Х | | Х | Х | | | Х | Х | | |
| | Additional Member | | Additional Organization | • | Region | | | | | Segment Selection | | | | | |
| 1. | Steve Fritz | | ACES Power Marketing | SERC | ; | | | | 6 | | | | | | |
| 2. | John Neagle | | AECI | SERC | ; | | | | 1, 3 | , 5 | | | | | |
| 3. | Greg Yakle | | City of Springfield IL-CWLP | SERC | ; | | | | 1, 3 | , 5, 9 | | | | | |
| 4. | David Jenkins | | Dominion VP | SERC | SERC | | | | | | | | | | |
| 5. | Jack Kerr | | Dominion VP | SERC | SERC | | | | | | | | | | |
| 6. | Devan Hoke | | Duke Energy | SERC | ; | | | | 1, 3 | , 5 | | | | | |
| 7. | Steve Jones | | Duke Energy | SERC | ; | | | | 1, 3 | , 5 | | | | | |
| 8. | Andy Burch | | EEI | SERC | ; | | | | 1, 5 | | | | | | |
| 9. | Rick Myers | | EEI | SERC | ; | | | | 1, 5 | | | | | | |
| 10. | Jim Case | | Entergy Transmission | SERC | ; | | | | 1, 3 | | | | | | |
| 11. | Robert Wayne M | litchell | Entergy Transmission | SERC 1, | | | 1, 3 | | | | | | | | |
| 12. | Brad Young | | EON-US | SERC 1, 3, 5 | | | , 5 | | | | | | | | |
| 13. | Brian Haggard | | GSOC | SERC | ; | | | | 3 | | | | | | |
| 14. | Paul Hodges | | GSOC | SERC | ; | | | | 3 | | | | | | |

| | | Commenter | Organization | | | | Ind | lustry | Segn | nent | | | | |
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| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | 9 | 10 |
| 15. | . Timmy Lejeune | | LAGen/NRG Energy | SERC | ; | | | | 1, 3 | , 5 | | | L | |
| 16. | . Dwayne Robert | | OMU | SERC | ; | | | | 1, 3 | 5, 5 | | | | |
| 17. | . Ray Gross | | PJM | SERC | ; | | | | 2 | | | | | |
| 18. | . Bill Thigpen | | PowerSouth | SERC | ; | | | | 1, 3 | 5, 5, 9 | | | | |
| 19 | . Kevin Kelly | | Progress Energy | SERC | ; | | | | 1, 3 | 5, 5 | | | | |
| 20 | . Rene Free | | Santee Cooper | SERC | ; | | | | 1, 3 | 5, 5, 9 | | | | |
| 21. | . Glenn Stephens | | Santee Cooper | SERC | ; | | | | 1, 3 | 5, 5, 9 | | | | |
| 22 | . Gene Delk | | SCE&G | SERC | ; | | | | 1, 3 | 5, 5 | | | | |
| 23. | . Steve Hebert | | SCE&G | SERC | ; | | | | 1, 3 | 5, 5 | | | | |
| 24. | . John Troha | | SERC Reliability Corp. | SERC | ; | | | | 10 | | | | | |
| 25. | . Gwen Frazier | | Southern Company | SERC | ; | | | | 1, 3 | 5, 5 | | | | |
| 26. | . Robert (Rocky) | Williamson | Southern Company | SERC | ; | | | | 1,3, | 5 | | | | |
| 27 | . Alvis Lanton | | Southern Illinois Power | SERC | ; | | | | 1,3, | 5 | | | | |
| 28. | . John Rembold | | Southern Illinois Power | SERC | ; | | | | 1,3, | 5 | | | | |
| 29. | . Doug Bailey | | TVA | SERC | ; | | | | 1,3, | 5,9 | | | | |
| 30. | . Mike Fielden | | TVA | SERC | ; | | | | 1,3, | 5,9 | | | | |
| 31. | . Edd Forsythe | | TVA | SERC | ; | | | | 1,3, | 5,9 | | | | |
| 32. | . John Kell | | TVA | SERC | ; | | | | 1,3, | 5,9 | | | | |
| 33. | . Sue Mangum | | TVA | SERC | ; | | | | 1,3, | 5,9 | | | | |
| 34. | . Annette Moore | | TVA | SERC | ; | | | | 1,3, | 5,9 | | | | |
| 35. | . David Troy | | TVA | SERC | ; | | | | 1,3, | 5,9 | | | | |
| 2. | Group | Carol Gerou | NERC Standards Review Subcommittee | | | | | | | | | | | Χ |
| | | Additional Member | Additional Organization | 1 | l | Regio | n | 1 | | Segm | ent | Selec | ction | |
| 1. | Chuck Lawrence | 9 | American Transmission Company | MRO | | | | | 1 | | | | | |
| 2. | Tom Webb | | WPS Corporation | MRO | | | | | 4, 5 | , 6 | | | | |
| 3. | Terry Bilke | | Midwest ISO Inc. | MRO | | | | | 2 | | | | | |
| 4. | Jodi Jenson | | Western Area Power Administration | MRO | | | | | 1, 6 | ; | | | | |
| 5. | Ken Goldsmith | | Alliant Energy | MRO | | | | | 4 | | | | | |

| | | Commenter | Organization | | | | Ind | lustry | Segn | nent | | | |
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| 6. | Dave Rudolph | | Basin Electric Power Cooperative | MRO | • | • | • | • | 1, 3 | 5, 5, 6 | • | | |
| 7. | Eric Ruskamp | | Lincoln Electric System | MRO | | | | | 1, 3 | 5, 5, 6 | | | |
| 8. | Joseph Knight | | Great River Energy | MRO | | | | | 1, 3 | 5, 5, 6 | | | |
| 9. | Joe DePoorter | | Madison Gas & Electric | MRO | | | | | 3, 4 | , 5, 6 | | | |
| 10. | Scott Nickels | | Rochester Public Utilties | MRO | | | | | 4 | | | | |
| 11. | Terry Harbour | | MidAmerican Energy Company | MRO | | | | | 1, 3 | 5, 5, 6 | | | |
| 3. | Group | Guy Zito | Northeast Power Coordinating Council | | | | | | | | | | Х |
| | Α | dditional Member | Additional Organization | | | Regio | n | | | Segme | ent Se | lectio | n |
| 1. | Alan Adamson | | New York State Reliability Council, LLC | NPC | | | | | 10 | | | | |
| 2. | Gregory Campoli | i | New York Independent System Operator | NPC | | | | | 2 | | | | |
| 3. | Roger Champag | ne | Hydro-Quebec TransEnergie | NPC | | | | | 2 | | | | |
| 4. | Kurtis Chong | | Independent Electricity System Operator | NPC | | | | | 2 | | | | |
| 5. | Sylvain Clermont | t | Hydro-Quebec TransEnergie | NPC | | | | | 1 | | | | |
| 6. | Chris de Graffen | ried | Consolidated Edison Co. of New York, Inc. | . NPC | | | | | 1 | | | | |
| 7. | Brian D. Evans-N | Mongeon | Utility Services | NPC | | | | | 8 | | | | |
| 8. | Peter Yost | | Consolidated Edison Co. of New York, Inc. | . NPC | | | | | 3 | | | | |
| 9. | Brian L. Gooder | | Ontario Power Generation Incorporated | NPC | | | | | 5 | | | | |
| 10. | Kathleen Goodm | an | ISO - New England | NPC | | | | | 2 | | | | |
| 11. | David Kiguel | | Hydro One Networks Inc. | NPC | | | | | 1 | | | | |
| 12. | Michael R. Lomb | ardi | Notheast Utilities | NPC | | | | | 1 | | | | |
| 13. | Randy MacDona | ld | New Brunswick System Operator | NPC | | | | | 2 | | | | |
| 14. | Greg Mason | | Dynegy Generation | NPC | | | | | 5 | | | | |
| 15. | Bruce Metruck | | New York Power Authority | NPC | | | | | 6 | | | | |
| 16. | Chris Orzel | | FPL Energy/NextEra Energy | NPC | | | | | 5 | | | | |
| 17. | Robert Pellegrini | | The United Illuminating Company | NPC | | | | | 1 | | | | |
| 18. | Saurabh Saksen | a | National Grid | NPC | | | | | 1 | | | | |
| 19. | Michael Schiavor | ne | National Grid | NPC | | | | | 1 | | | | |
| 20. | Lee Pedowicz | | Northeast Power Coordinating Council | NPC | | | | | 10 | | | | |

| | | Commenter | Organization | | | | Ind | lustry | Segn | nent | | | |
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| 21. | Gerry Dunbar | | Northeast Power Coordinating Council | NPC | | | | | 10 | | | | |
| 4. | Group | Deb Schaneman | Platte River Power Authority Operations Group | Х | | Х | | Х | | | | | |
| | | Additional Member | Additional Organization | | | Regio | on | 1 | 1 | Segm | ent Se | lectio | 1 |
| 1. T | erry Baker | | Platte River Power Authority | WEC | С | | | | 1, 3 | , 5 | | | |
| 2. J | ohn Powell | | Platte River Power Authority | WEC | С | | | | 1, 3 | , 5 | | | |
| 3. J | eff Landis | | Platte River Power Authority | WEC | С | | | | 1, 3 | , 5 | | | |
| 5. | Group | Denise Koehn | Bonneville Power Administration | Х | | Х | | Х | Х | | | | |
| | | Additional Member | Additional Organization | | | Regio | on | 1 | 1 | Segm | ent Se | lectio | 1 |
| 1. E | Bernie O'Conne | II | Transmission Dispatch | WEC | С | | | | 1 | | | | |
| 2. T | ed Snodgrass | | Transmission Dispatch | WEC | С | | | | 1 | | | | |
| 3. T | im Loepker | | Transmission Dispatch | WEC | С | | | | 1 | | | | |
| 6. | Group | Lauri Jones | WECC Operations Training Subcommittee | | | | | | | | | | |
| | | Additional Member | Additional Organization | | | Regio | on | 'I. | • | Segm | ent Se | lectio | า |
| 1. | Robert Eubank | (| WECC | WEC | С | | | | 10 | | | | |
| 2. | Steve Owen | | PSC | WEC | С | | | | | | | | |
| 3. | Brian Reich | | IPCO | WEC | С | | | | | | | | |
| 4. | Richard Krajew | <i>y</i> ski | PNM | WEC | С | | | | | | | | |
| 5. | Keith Carmen | | TSGT | WEC | С | | | | | | | | |
| 6. | Hank LuBean | | DOPD | WEC | С | | | | | | | | |
| 7. | Kristie Coco | | SRP | WEC | С | | | | | | | | |
| 8. | Rich Brock | | PSC | WEC | С | | | | | | | | |
| 9. | Warren Maxvill | | AVA | WEC | С | | | | | | | | |
| 10. | Bruce Fauvelle | | AESO | WEC | С | | | | | | | | |
| 11. | Pete Gibson | | WECC-RC | WEC | С | | | | | | | | |
| | Brett Hallborg | | ВСТС | WEC | | | | | | | | | |
| 13. | Stephanie Con | n | WAPA | WEC | С | | | | | | | | |

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| 14. | Bill Simmons | | SMUD | WEC | <u> </u> | | | • | | | • | • | | | | | |
| 15. | Robert Staten | | PSC | WEC | 2 | | | | | | | | | | | | |
| 16. | Robert Williams | | Pacific Corp | WEC | 2 | | | | | | | | | | | | |
| 7. | Group | Kenneth D. Brown | Public Service Enterprise Group Inc. Companies | Х | | Х | | | | | | | | | | | |
| | Α | dditional Member | Additional Organization | | | Regio | n | | | Segm | ent Se | lectio | n | | | | |
| 1. R | on Wharton | | PSE&G | RFC | | | | | 1, 3 | | | | | | | | |
| 2. J | im Hebson | | ER&T | RFC | | | | | 6 | | | | | | | | |
| 3. T | om Piascik | | PSEG Fossil | RFC | | | | | 5 | | | | | | | | |
| 8. | Group | Sam Ciccone | FirstEnergy | X | | Х | Х | Х | Х | | | | | | | | |
| | Α | dditional Member | Additional Organization | | | Regio | n | | | Segm | ent Se | lectio | n | | | | |
| 1. J | im Eckels | | FirstEnergy | RFC | | | | | | | | | | | | | |
| 2. J | ohn Wilson | | FirstEnergy | RFC | | | | | | | | | | | | | |
| 3. J | ohn Martinez | | FirstEnergy | RFC | | | | | | | | | | | | | |
| 4. S | teve Megay | | FirstEnergy | RFC | | | | | | | | | | | | | |
| 5. A | ndy Hunter | | FirstEnergy | RFC | | | | | | | | | | | | | |
| 6. D | ave Folk | | FirstEnergy | RFC | | | | | | | | | | | | | |
| 9. | Group | Jason L. Marshall | Midwest ISO Stakeholder Standards Collaborators | | Х | | | | | | | | | | | | |
| | Α | dditional Member | Additional Organization | | | Regio | n | | | Segm | ent Se | lectio | n | | | | |
| 1. N | lichael J Ayotte | | ITC Holdings | RFC | | | | | 1 | | | | | | | | |
| 2. B | arb Kedrowski | | We Energies | RFC | | | | | 3, 4 | , 5 | | | | | | | |
| 3. J | oe Knight | | Great River Energy | MRO | | | | | 1, 3 | , 5 | | | | | | | |
| 4. A | lisha Anker | | Prairie Power, Inc. | SERC | ; | | | | 3, 4 | | | | | | | | |
| 5. J | im Cyrulewski | | JDRJC Associates, LLC | RFC | | | | | 8 | | | | | | | | |
| 10. | Group | Ben Li | ISO RTO Council Standards Review | | Х | | | | | | | | | | | | |

| | | Commenter | Organization | | | | Ind | ustry | Segn | Segment | | | | | |
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| | | | Committee | | | | | | | | | | | | |
| | _ | Additional Member | Additional Organization | | ı | Regio | n | | II. | Segme | ent Se | lection | 1 | | |
| 1. M | lark Thompson | | AESO | WEC | 3 | | | | 2 | | | | | | |
| 2. L | ourdes Estrada- | Salinero | CAISO | WEC | 0 | | | | 2 | | | | | | |
| 3. S | teve Myers | | ERCOT | ERCC | T | | | | 2 | | | | | | |
| 4. M | latt Goldberg | | ISONE | NPCC | | | | | 2 | | | | | | |
| 5. B | ill Phillips | | MISO | MRO | | | | | 2 | | | | | | |
| 6. Ji | m Castle | | NYISO | NPCC |) | | | | 2 | | | | | | |
| 7. P | atrick Brown | | PJM | RFC | | | | | 2 | | | | | | |
| 8. C | harles Yeung | | SPP | SPP | | | | | 2 | | | | | | |
| 11. | Group | JT Wood | Southern Company Transmission | Х | | Х | | | | | | | | | |
| | | Additional Member | Additional Organization | • | | Regio | n | • | | Segme | ent Se | lection | 1 | | |
| 1. H | ugh Frances | | | SERC | ; | | | | 1 | | | | | | |
| 12. | Group | Richard J. Kafka | Pepco Holdings, Inc - Affiliates | Х | | | | | | | | | | | |
| | A | Additional Member | Additional Organization | | | Regio | n | | | Segme | ent Se | lectio | 1 | | |
| 1. D | avid Thorne | | Potomac Electric Power Company | RFC | | | | | 1 | | | | | | |
| 2. V | alerie Hildebran | d | Potomac Electric Power Company | RFC | | | | | 1 | | | | | | |
| 3. V | ic Davis | | Delmarva Power & Light | RFC | | | | | 1 | | | | | | |
| 4. Jo | ohn Keller | | Atlantic City Electric | RFC | | | | | 1 | | | | | | |
| 13. | Individual | Ted Bialy | Brookfield Renewable Power Inc | Х | | | | Х | | | | | | | |
| 14. | Individual | Sandra Shaffer | PacifiCorp | Х | | Х | | Х | Х | | | | | | |
| 15. | Individual | Kelly Blackmer | NERC PCGC | | | | | | | | | | Х | | |
| 16. | Individual | Brent Ingebrigtson | E.ON U.S. LLC | Х | | Х | | Х | Х | | | | | | |
| 17. | Individual | Mark L Bennett | Gainesville Regional Utilities | Х | | Х | | Х | | | | Х | | | |

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| 18. | Individual | Joylyn Stover | Consumers Energy Company | | | Х | Х | Х | | | | | |
| 19. | Individual | Mark Thompson | Alberta Electric System Operator | | Х | | | | | | | | |
| 20. | Individual | Kasia Mihalchuk | Manitoba Hydro | Х | | Х | | Х | Х | | | | |
| 21. | Individual | Alice Murdock | Xcel Energy | Х | | Х | | Х | Х | | | | |
| 22. | Individual | Lauri Jones | Pacific Gas and Electric Company | Х | | Х | | Х | | | | | |
| 23. | Individual | Brian Reich | IPCo | | | Х | Х | | | | | | |
| 24. | Individual | Gordon Rawlings | ВСТС | Х | Х | | | | | | | | |
| 25. | Individual | Joe O'Brien | NIPSCO | Х | | Х | | Х | Х | | | | |
| 26. | Individual | Alan Gale | City of Tallahassee (TAL) | | | Х | | Х | | | | | |
| 27. | Individual | Kathleen Goodman | ISO New England Inc. | | Х | | | | | | | | |
| 28. | Individual | Jonathan Appelbaum | Long Island Power Authority | Х | | | | | | | | | |
| 29. | Individual | Ron Gunderson | Nebraska Public Power District | Х | | Х | | Х | | | | | |
| 30. | Individual | Edward Davis | Entergy Services | Х | | Х | | Х | Х | | | | |
| 31. | Individual | James H. Sorrels, Jr. | American Electric Power (AEP) | Х | | Х | | Х | Х | | | | |
| 32. | Individual | Dan Rochester | Independent Electricity System Operator | | Х | | | | | | | | |
| 33. | Individual | James Starling | South Carolina Electric and Gas | Х | | Х | | Х | Х | | | | |
| 34. | Individual | Laura Zotter | ERCOT ISO | | Х | | | | | | | | |

July 28, 2010

| | | Commenter | Organization | Industry Segment | | | | | | | | | |
|-----|------------|-------------------------|-----------------------------------------|------------------|---|---|---|---|---|---|---|---|----|
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| 35. | Individual | Greg Rowland | Duke Energy | Х | | Х | | Х | Х | | | | |
| 36. | Individual | Scott Barfield-McGinnis | Georgia System Operations Corporation | | | Х | Х | | | | | | |
| 37. | Individual | Annette L. Moore | Transmission and Reliability (TRO), TVA | | | | | | | | | Х | |
| 38. | Individual | Roger Champagne | Hydro-Québec TransEnergie (HQT) | Х | | | | | | | | | |
| 39. | Individual | Jason Shaver | American Transmission Company | Х | | | | | | | | | |
| 40. | Individual | Martin Bauer | US Bureau of Reclamation | | | | | Х | | | | | |

1. The Purpose statement of the draft standard reads "To ensure that System Operators performing the reliability-related tasks' of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System".

Do you agree with the Purpose as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt that the measures did not match the purpose. The SDT explained that it is not required to tie the measures to the purpose of the standard. The SDT further stated that the measures define how to demonstrate compliance with the Requirement and that the measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.

Several other commenters did not believe that the minimum competency needed to be a System Operator should be a part of the standard as the NERC certification program cannot guarantee System Operator competence. The drafting team agrees. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on "minimum competencies." There is a FERC Directive from Order 693 to include the necessary minimum competency within the standard, and the threshold for passing the System Operator certification exams is aimed at those "minimum competencies." A quick look at the latest exam for the Reliability Coordinator's System Operators shows that in the Emergency Preparedness and Operations section of the exam, there are 35 questions, 7 for recall, 21 for application, and 7 for analysis.

Some commenters stated that the Purpose was not clear. The SDT explained that it modified the Purpose and added the term "NERC System Operator Certification Program"

A few commenters did not like the use of the term "System Operators" because its definition contained Generator Operators. The SDT explained that it used the term: System Operator" because it was a defined term which helped to narrow who should be included in this standard. The SDT also explained that it further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority to provide additional clarity.

| Organization | Yes or No | Question 1 Comment |
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| Manitoba Hydro | No | : The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. |

Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.

However, the SDT has modified the purpose statement to include the term "NERC System Operator Certification Program process" and removed the term "competency" from the Purpose statement.

| | American Transmission Company | No | ATC is concerned that the proposed "Purpose" statement does not align with the requirements and measures as proposed. ATC believes that this standard should focus on requiring System Operators (Associated with RC, TOP and BA) to be NERC certified and should not directly address the competency issue. We are making this statement because we believe that the minimum competency issue is adequately covered in the NERC System Operator Certification program and therefore its inclusion in this standard is both duplicative and confusing. Does the SDT have any members from the NERC System Operation Certificate program or has the team reached out to that group while writing this standard? NERC's System Operation Certificate program includes a test which is developed by industry experts and overseen by NERC with a focus on specific competencies based on NERC Reliability Standards. Since those competencies are already documented and covered in the Certificate program it is duplicative to include them within this standard. Suggested Modification: (Purpose Statement)"To ensure System Operators are NERC Certified. "We suggest deleting the phrase "performing the reliability-related tasks of the RC, BA and TOP" because the definition of System Operator is descriptive enough to cover this issue. In addition, the Applicability section already identifies which entities have to comply so we did not find it necessary to repeat them in the Purpose statement. Could the SDT identify the deficiencies with the definition of System Operator which cases them to include the additional descriptive language? |
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Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.

However, the SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.

The SDT does include two members from the PCGC.

| Organization | Yes or No | Question 1 Comment |
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| The SDT does not believe that us who are not covered by this stan | | System Operator" is descriptive enough. The term "System Operator" contains Generator Operators, s definition. |
| Also, the minimum competency i | ssue has been | included in this standard in response to a FERC directive from Order 693. |
| Long Island Power Authority | No | Certification process is in capitals even though it is not a defined term in the NERC Glossary. The term should either be defined or changed to lower case. |
| Response: The SDT has modified to obtain certification. | d the purpose | statement to include the term "NERC System Operator Certification Program" to clarify how the entity is |
| IPCo | No | demonstration of competencies should not be part of of this standard. |
| Response: The minimum compet | tency issue ha | s been included in this standard in response to a FERC directive from Order 693. |
| ERCOT ISO | No | ERCOT ISO recommends the following change in wording:"To ensure that System Operators performing the functions of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain the associated valid NERC certificate." |
| Response: The SDT is trying to s include personnel that do not need | | ine who is to be certified. The SDT believes that your suggested wording could be strictly interpreted to to be certified operators. |
| Consumers Energy Company | No | In order for this to make sense, I would replace the word "when" with "prior to." |
| | | "when" to ensure that anytime a person is in that position they need to be certified. The SDT believes ted that an operator needs certification prior to filling a certain position but does not provide for |
| NIPSCO | No | Passing a NERC Operating Certification exam does not ensure competency in all listed areas since one could perform poorly in one area of the exam and still obtain a credential. At the very least the word "competency" should be replaced by "minimum competency" here. |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| Tranmission and Reliability | No | Recommend the statement be demonstrated minimum competency through the certification process. |

July 28, 2010

Operations Group

| Organization | Yes or No | Question 1 Comment |
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| (TRO), TVA | | Certification is a minimum competency and does not fully demonstrate an operator's ability and competency pertaining to real-time operations of the BES. |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| ISO RTO Council Standards Review Committee | No | The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We are concerned that the stated purpose to demonstrate "competency through the Certification Process" is not fulfilled by the proposed requirements. Demonstration of competency cannot be based solely on the NERC Operator Certification Process. The successful completion of 200 continuing education hours over a three year period does not measure two other important factors tied to competency; possessing adequate skills, and exhibiting appropriate behaviors. Demonstration of competency is mandated through PER-005-1. To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest "for the control of the Bulk" be changed to "for the real-time operation of the Bulk" AESO has also submitted its individual comments that are not a part of these joint comments. Please note their additional comments to PER-003-1. |
| Response: The minimum compet | ency issue ha | s been included in this standard in response to a FERC directive from Order 693. |
| The SDT has modified the purpose from the Purpose statement. | se statement to | o include the term "NERC System Operator Certification Program" and removed the term "competency" |
| The term "control" is used in the filed with NERC. | present stand | lard and the SDT does not know of any request for interpretation of the existing standard having been |
| Platte River Power Authority | No | The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not |

Authority system operators...Certification Process is capitalized indicating it is a defined term in the NERC Glossary of Terms which it is not. The standard drafting team (SDT) should either define the term or change it to say ...through the NERC system operator certification program.

applicable to. It should read: To ensure that Reliability Coordinator, Transmission Operator and Balancing

Response: The SDT used the term "System Operator" because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.

The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.

| Organization | Yes or No | Question 1 Comment |
|--------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Midwest ISO Stakeholder Standards Collaborators | No | The purpose of this standard as written is OK but could be made simpler. A more simple and clearer purpose is: "To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified". |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| Alberta Electric System Operator | No | The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC. |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| BCTC | No | The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC. |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| The minimum competency issue | has been incl | uded in this standard in response to a FERC directive from Order 693. |
| Pacific Gas and Electric Company | No | The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC. |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| The minimum competency issue | has been incl | uded in this standard in response to a FERC directive from Order 693. |
| WECC Operations Training Subcommittee | No | The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC. |

| Organization | Yes or No | Question 1 Comment |
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| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| US Bureau of Reclamation | No | The requirement is to obtain the certification. The purpose is to have demonstrated minimum competency in the specific areas defined in the standard. |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| Xcel Energy | No | The standard relates to operating personnel credentials. "Competencies" are addressed in the training standard as well as whatever the governing document is for the operator certification minimum criteria, not this standard.Suggested purpose: To ensure that System Operators performing the BES reliability related real time operating tasks of a Reliability Operator, Balancing Authority, or Transmission Operator possess the required level of NERC Certification. |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| Georgia System Operations Corporation | No | The term real-time operating position needs to be defined. The term system operators in the NERC glossary refer to generation operators and this standard does not. Should the glossary be changed to remove generator operators? |
| Response: The SDT used the ter further narrowed the purpose to applicable to Generator Operator | only include th | erator" because it is a defined term which helps to narrow who should be included. However, the SDT ne Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not luded in the definition. |
| The SDT has modified the purpor from the Purpose statement. | se statement to | o include the term "NERC System Operator Certification Program" and removed the term "competency" |
| Independent Electricity System Operator | No | The use of the terms "demonstrated competency" in this context is perhaps misleading and inappropriate. It is generally accepted in the industry that a person who is deemed to be competent, or has obtained competency or is able to demonstrate competency in performing a job consisting of a number of tasks |

| Organization | Yes or No | Question 1 Comment |
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| | | encompasses a combination of knowledge, skills and behavior. It is possible for any person to write and pass a NERC certification exam without ever having performed a reliability related task. The purpose of this standard is to ensure that operators performing reliability related tasks are appropriately certified. Competency in performing reliability related tasks is ensured through operator training which is addressed in Standard PER-005-01. The SDT commentary in Question #10 of this comment form seems to acknowledge the fact that obtaining NERC Certification only ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations and that passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator.Suggested alternative wording for the "Purpose" statement:"To ensure that System Operators performing the reliability-related tasks' of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain certification through the NERC Certification Process". |
| "competency" from the Purpose | statement. | statement to include the term "NERC System Operator Certification Program" and removed the term uded in this standard in response to a FERC directive from Order 693. |
| Hydro-Québec TransEnergie (HQT) | No | There is concern over the use of "control of the Bulk Electric System". Revision of the standard used "real-time operation of the Bulk Electric System". What is the definition of "control of the Bulk Electric System"? Clarify "control". "Control" implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define "control" for the RC's region. To be more complete and accurate, suggest "for the control of the Bulk" be changed to "for the real-time operation of the Bulk" Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. It is our opinion that they don't need to be certified. What is the opinion of the SDT? |

Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.

The term "control" is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.

Reliability related tasks are defined by each individual entity as covered in PER-005 which has been adopted by the NERC BOT and filed with FERC for approval.

The SDT believes that operations support personnel are not making real-time operating decisions and therefore do not need to be covered in this standard.

July 28, 2010

| Organization | Yes or No | Question 1 Comment |
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| Northeast Power Coordinating Council | No | There is concern over the use of "control of the Bulk Electric System". Revision of the standard used "real-time operation of the Bulk Electric System". What is the definition of "control of the Bulk Electric System"? Clarify "control". "Control" implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define "control" for the RC's region. To be more complete and accurate, suggest "for the control of the Bulk…" be changed to "for the real-time operation of the Bulk…" Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. The wording in the purpose of PER-003-1 does not align with the requirements or the measures outlined in PER-003-1. The purpose of PER-003-1 discusses performing reliability related tasks and demonstrating competency. The purpose of PER-003-1 is more like the PER-005 requirement to verify each operator's ability to perform reliability related tasks. The purpose of PER-003-1 should be straightforward: ensure each RC, BA, and TOP staffs their real-time operating positions responsible for control of the BES with NERC Certified System Operators. "And maintain competency and proficiency by participating in a training program that meets the requirements the System Personnel Training Reliability Standards" could be added. |

Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.

The term "control" is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.

Reliability related tasks are defined by each individual entity as covered in PER-005 which has been adopted by the NERC BOT and filed with FERC for approval.

The SDT believes that operations support personnel are not making real-time operating decisions and therefore do not need to be covered in this standard.

If the proposed addition were made, this standard would be redundant with PER-005. In addition, a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.

| ISO New England Inc. | No | To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest "for the control of the Bulk" be changed to "for the real-time operation of the Bulk" |
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Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.

The term "control" is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been

| Organization | Yes or No | Question 1 Comment |
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| filed with NERC. | | |
| Duke Energy | No | We believe the Purpose statement should be reworded to reflect that System Operators demonstrate a minimum level of competency by obtaining and maintaining NERC certification. Suggested rewording:"To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated minimum competency by obtaining and maintaining a valid NERC Certificate when filling a real-time operating position responsible for control of the Bulk Electric System." |
| Response: The SDT has modified "competency" from the Purpose | | statement to include the term "NERC System Operator Certification Program" and removed the term |
| Entergy Services | No | We do not feel that a System Operator has "demonstrated competency" simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10 that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations. In the purpose statement above, the phrase "have demonstrated competency" should be changed to: "have achieved a minimum level of knowledge". In addition, our group would like clarification on some of the terms used in the purpose statement:"real-time operating position". The Glossary of Terms Used in Reliability Standards defines "real time" as "present time as opposed to future time", but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a "real-time operating position"? If so, then the trainee would require certification before being trained in real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. "System Operator". System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers."Certification Process". This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing "Certification Process" with "system operator certification program", a more reco |

Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

Organization Yes or No Question 1 Comment

The SDT believes that the individual responsible for the operation of the BES must be certified. However, the SDT has added a footnote to the standard discussing trainees. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

The SDT used the term "System Operator" because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.

| SERC Standards Review Group | No | We do not feel that a System Operator has "demonstrated competency" simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10A. that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations." In the purpose statement above, the phrase "have demonstrated competency" should be changed to: "have achieved a minimum level of knowledge". In addition, our group would like clarification on some of the terms used in the purpose statement: "real-time operating position". The Glossary of Terms Used in Reliability Standards defines "real time" as "present time as opposed to future time", but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a "real-time operating position"? If so, then the trainee would require certification before being trained in performing real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. "System Operator". System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers." Certification Process". This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing "Certification Process" with "system operator certification progr |
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Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

The SDT believes that the individual responsible for the operation of the BES must be certified. However, the SDT has added a footnote to the standard discussing trainees. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating

Organization Yes or No **Question 1 Comment** position has ultimate responsibility for the performance of the reliability-related tasks." The SDT used the term "System Operator" because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition. American Electric Power (AEP) No While AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that this best be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual.PER-003-0 is correctly focused only on exactly who needs to be certified and what certification is necessary. The specific competencies are best elaborated in the referenced manual and articulated in PER-002 and -005. However, there are a few changes to PER-003-0 that we do recommend, which will be covered in the questions that follow. The high level identification of competencies, consistent with FERC Order 693, does not address the unintended competency training area disconnect involving credential maintenance in the System Operator Certification Program Manual. There is presently no mechanism in the certification credential maintenance process to ensure a specific type of operator is getting the necessary minimum training in the competency areas identified for his/her credential. As long as an operator acquires enough Continuing Education (CE) hours on recognized training topics in Appendix A of the System Operator Certification Program Manual, along with the minimum simulation and standards requirement, he/she can successfully renew a specific credential. For example, there is presently no mechanism or measure to stop a Reliability Coordinator operator from taking all continuing education training in the area of Interchange Scheduling and Coordination, which is more pertinent to a Balancing & Interchange operator. Even if the initial RC exam content outline covers the required competency areas stated, the CE maintenance/renewal process allows a gap to neglect training in the required areas. Therefore, the Program Manual and other PER training Standards will need to address this gap in the future to ensure compliance with FERC order 693.By passing the initial NERC certification test, an operator merely demonstrates minimum knowledge in the specific credential area, as supported by the exam content outline and related questions. The identified competencies and measure of demonstration relevant to the specific credential areas should be addressed in the System

Response: The SDT is responding to a directive from FERC Order 693 to include the minimum competencies within this standard. In addition, the issue of "minimum competencies" was included in the industry approved SAR.

applicability, to hold the appropriate valid certification credential.

Operator Certification Program Manual, and standards PER-002 and PER-005-1. PER-003-1 should simply require an operator, who is performing the real-time reliability related tasks related to the registered entity's

Maintenance of a NERC certificate using CEH is outside the scope of the industry approved SAR. In addition, a System Operator can maintain his or her certification either by participating in a training program (accumulating CEHs) or the System Operator can simply re-take the Certification Exam.

| Organization | Yes or No | Question 1 Comment |
|--------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The SDT did not want to mandate | a certain met | hod. |
| FirstEnergy | Yes | Although we agree with the Purpose statement as proposed, we ask the SDT to consider changing the phrase "Certification Process" to the official name of the program as shown on NERC's website: "System Operator Certification Program". |
| Response: The SDT acknowledge | es your affirma | ative response and thanks you for your clarifying comment. |
| The SDT has modified the purpos from the Purpose statement. | se statement to | o include the term "NERC System Operator Certification Program" and removed the term "competency" |
| NERC Standards Review Subcommittee | Yes | This "purpose" statement is clear, direct and should be the basis of this proposed NERC Standard. It simply states that a RC, BA and TOP shall ensure that all Real-time System Operator positions have a valid NERC certificate. |
| Response: The SDT acknowledge | es your affirma | ative response and thanks you for your clarifying comment. |
| The SDT has modified the purpose from the Purpose statement. | se statement to | o include the term "NERC System Operator Certification Program" and removed the term "competency" |
| Bonneville Power Administration | Yes | |
| Brookfield Renewable Power Inc | Yes | |
| City of Tallahassee (TAL) | Yes | |
| Gainesville Regional Utilities | Yes | |
| Nebraska Public Power District | Yes | |
| NERC PCGC | Yes | |
| PacifiCorp | Yes | |
| Pepco Holdings, Inc - Affiliates | Yes | |

| Organization | Yes or No | Question 1 Comment |
|------------------------------------------------|-----------|--------------------|
| Public Service Enterprise Group Inc. Companies | Yes | |
| South Carolina Electric and Gas | Yes | |
| Southern Company Transmission | Yes | |

2. In The effective date of the draft standard reads "In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption".

Do you agree with the effective date as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters did not feel that six months was enough time to implement the standard. The SDT stated that although the industry did not support the belief that six months was an inadequate amount of time to implement the standard, the SDT modified the effective date to twelve months in the event that some currently certified personnel may not hold the proper NERC certificate as defined by this standard.

A couple commenters questioned the need for two different implementation time periods. The SDT explained that the language used in the effective date is used in every standard and that it had been approved for use by the Standards Committee. The SDT further explained that different dates were necessary due to the fact that there are multiple jurisdictions, those governed by FERC (United States entities) and those not governed by FERC (Canadian entities).

| Organization | Yes or No | Question 2 Comment |
|-----------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydro-Québec TransEnergie (HQT) | No | As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System. |
| different dates is necessary due t | to the fact that nadian entities | date is used in every standard and has been approved by the Standards Committee. The issue of the there are more than one jurisdiction. Those being governed by FERC (United States entities) and the s). Since the standard does not include any real-time tasks, an implementation plan that is different in meal-time operations. |
| Northeast Power Coordinating Council | No | As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System. |

| Organization | Yes or No | Question 2 Comment |
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| | nadian entities | there are more than one jurisdiction Those being governed by FERC (United States entities) and the). Since the standard does not include any real-time tasks, an implementation plan that is different in real-time operations. |
| Platte River Power Authority Operations Group | No | Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and 5 the implementation of this standard should not take effect until PER-005-1 is effective. |
| | | certified and what certification is necessary – it addresses minimum competencies applicable on a ne the training aspects for operating personnel and addresses full competence for all reliability-related |
| ISO RTO Council Standards Review Committee | No | If compliance does not require extensive training and/or documentation changes from existing available training, then six months is appropriate. However, we reserve our right to change the response to this question dependent upon the final version of the proposed requirements. |
| | | nded; however, the SDT revised the implementation plan because some currently certified personnel v standard and more time may be needed to obtain it. |
| Brookfield Renewable Power Inc | No | Uncertain if my Operators need certification. If they do the timelines are too short to meet the standard. |
| | ie etandard ie | tied to the organization compliance registry and any associated delegation agreements. For more |
| information please refer to Section | on 500 of the R | ules and Procedures. Entities that identify a need to become compliant can begin preparing their for the standard to be approved. |
| information please refer to Section | on 500 of the R | ules and Procedures. Entities that identify a need to become compliant can begin preparing their |
| information please refer to Section System Operators now, there is now there is now there is now the section of | on 500 of the R no need to wait | ules and Procedures. Entities that identify a need to become compliant can begin preparing their for the standard to be approved. If any existing certifications are significantly modified or if additional certifications are added in the future, |

| Organization | Yes or No | Question 2 Comment |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it. | | |
| Alberta Electric System Operator | Yes | Please see the RTO/ISO SRC comments. |
| Response: The SDT acknowledge | es your affirma | ative response and thanks you for your clarifying comment. |
| | | ver, the SDT revised the implementation plan because some currently certified personnel may not hold d more time may be needed to obtain it. |
| Midwest ISO Stakeholder Standards Collaborators | Yes | These changes do not represent a significant change from what industry currently practices so a long implementation is not necessary. |
| Response: The SDT acknowledge | es your affirma | ative response and thanks you for your clarifying comment. |
| | | ver, the SDT revised the implementation plan because some currently certified personnel may not hold d more time may be needed to obtain it |
| NERC Standards Review Subcommittee | Yes | N/A |
| ВСТС | Yes | |
| Bonneville Power Administration | Yes | |
| City of Tallahassee (TAL) | Yes | |
| Consumers Energy Company | Yes | |
| Duke Energy | Yes | |
| Entergy Services | Yes | |
| ERCOT ISO | Yes | |
| FirstEnergy | Yes | |

| Organization | Yes or No | Question 2 Comment |
|------------------------------------------------|-----------|--------------------|
| Gainesville Regional Utilities | Yes | |
| Georgia System Operations Corporation | Yes | |
| Independent Electricity System Operator | Yes | |
| IPCo | Yes | |
| ISO New England Inc. | Yes | |
| Long Island Power Authority | Yes | |
| Manitoba Hydro | Yes | |
| Nebraska Public Power District | Yes | |
| NERC PCGC | Yes | |
| NIPSCO | Yes | |
| Pacific Gas and Electric Company | Yes | |
| PacifiCorp | Yes | |
| Pepco Holdings, Inc - Affiliates | Yes | |
| Public Service Enterprise Group Inc. Companies | Yes | |
| SERC Standards Review Group | Yes | |

| Organization | Yes or No | Question 2 Comment |
|----------------------------------------|-----------|--------------------|
| South Carolina Electric and Gas | Yes | |
| Southern Company Transmission | Yes | |
| Tranmission and Reliability (TRO), TVA | Yes | |
| US Bureau of Reclamation | Yes | |
| WECC Operations Training Subcommittee | Yes | |
| Xcel Energy | Yes | |

3. Requirement R1 of the draft standard reads:

- R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate.
 - 1.1 Areas of Competency
 - 1.1.1 Resources and Demand Balancing
 - 1.1.2 Transmission Operations
 - 1.1.3 Emergency Preparedness and Operations
 - 1.1.4 System Operations
 - 1.1.5 Protection and Control
 - 1.1.6 Voltage and Reactive
 - 1.1.7 Interchange Scheduling and Coordination
 - 1.1.8 Interconnection and Reliability Operations and Coordination

Do you agree with Requirement R1 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the "Areas of Competency" came from and suggested that they should not be included within the standard. The SDT explained that the "Areas of competency" were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The SDT also explained that the expectation was that the registered entity would use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

A few commenters felt there should be an exception within the standard for trainees. The SDT explained that, for reliability-related reasons, the entity responsible for the operation of the BES has to be certified. However, the SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if an entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

| Organization | Yes or No | Question 3 Comment | |
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| Public Service Enterprise Group Inc. Companies | No | 1.1.4 System Operations. This term needs to be specifically defined, either in this Standard or the NERC Glossary. Absent a clear definition, this term introduces a vagueness into the proposed standard that will make both compliance and enforcement problematic. The definition should be vetted in an open process so that industry comment can be obtained. | |
| Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. | | | |
| IPCo | No | No Area of compentencies are not part of the certification. | |
| Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program and serve as the basis for the certification exams. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. | | | |
| Independent Electricity System Operator | No | As stated in question #1, the use of the terms "demonstrated competency" is not appropriate. However, those terms have now been combined with the word "minimum", which now poses the question, how does one define minimum competency? The areas of competency listed simply reflect the grouping and organization of NERC Standards which the Reliability Coordinator Certification exam is based upon. If this standard is really intended to prescribe which NERC Standards each certification exam is to be based upon perhaps it should | |

| Organization | Yes or No | Question 3 Comment |
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| | | simply state that. |
| | | Suggested alternative wording of R1:R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC Reliability Operator certificate through the NERC Certification Process. The Reliability Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:1.1 Areas of Knowledge 1.1.1 Resources and Demand Balancing 1.1.2 Transmission Operations 1.1.3 Emergency Preparedness and Operations 1.1.4 System Operations 1.1.5 Protection and Control 1.1.6 Voltage and Reactive 1.1.7 Interchange Scheduling and Coordination 1.1.8 Interconnection and Reliability Operations and Coordination |
| Response: The SDT believes that an operator's minimum competer | | requires verification by obtaining and maintaining a NERC Certificate which provides for verification of |
| Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate". | | |
| Hydro-Québec TransEnergie (HQT) | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator guizer suggest tying the requirements to decision making authority."Minimum competency" must be defined, and how it relates to continuing education. Requirement R1, item 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will b |

| Organization | Yes or No | Question 3 Comment |
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| | | "Transmission Operations" (1.1.2) and "System Operations" (1.1.4) are listed. Clarify the terms "System Operations" in 1.1.4, and "Transmission Operations", and clarify the differences between them. Also, in R2 and R3 there are items 2.2 and 3.2 which list the certificates. Wouldn't it be appropriate to have an item Â<1.2 Certificates» for R1 as well? |
| positions performing Reliability | Coordinator re | he requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas IC Reliability Operator certificate". |
| accomplished within the System competency" to be included in a | Operator Cert training progra alysis and sub | ne individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is ification Program. PER-005 requires an entity to identify the reliability-related tasks within the "areas of am. The expectation is that the registered entity will use a systematic approach to training process to sequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that |
| Order 693 which states that mini FERC jurisdictional the SDT is re | mum competer equired to resp | m the NERC System Operator Certification Program. The SDT is responding to a directive from FERC ncies be included within this standard. Although the SDT understands that Canadian entities are not ond to FERC directives. For further clarification regarding these competencies listed within the Operator Certification Manual and Content Outline. |
| Only one certificate can be used | to meet compl | iance for Requirement R1, the Reliability Operator certificate. |
| ISO New England Inc. | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard. |
| Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate". | | |
| Northeast Power Coordinating Council | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which |

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| Organization | Yes or No | Question 3 Comment |
|--------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requries definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. The party responsible for adminstering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? Requirement R1, sub-requirement 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.Both "Transmission Operations" (1.1.2) and "System Operations" (1.1.4) are listed. Clarify the terms "System Operations" in 1.1.4, and "Transmission Operations", and cl |

Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.

| Nebraska Public Power District | No | Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten |
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| | | to read:R1. "Each Reliability Coordinator shall staff its real-time operating positions responsible for the control |

| Organization | Yes or No | Question 3 Comment |
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| | | of the Bulk Electric System with System Operators that have a valid NERC Reliability Operator certificate which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position."NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. |
| | | 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. |
| | | 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. |
| | | 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. |
| | | 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. |
| | | 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase "responsible for the control of the Bulk Electric System" after "real-time operating positions" to better align with the purpose of the standard. "Real-time operating positions" is not a clear and consise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC |

| Organization | Yes or No | Question 3 Comment |
|--------------|-----------|-----------------------|
| | | Certified individual. |

Response: The SDT has modified the purpose and body of the requirement. These now read:

- Purpose: "to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System".
- Requirement: "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.

| MRO NERC Standards Review Subcommittee | No | Concerning this Requirement, the MRO NERC Standards Review Subcommittee (NSRS) has the following concerns and request that the requirement is rewritten to read: |
|----------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | R1. "Each Reliability Coordinator shall staff its real-time operating positions with System Operators that have obtained a valid NERC Reliability operator certificates which contain competencies as defined by the NERC System Operator Certification Program. The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. |
| | | 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a certification process. In other words, Real-time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. |
| | | 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted. |

| Organization | Yes or No | Question 3 Comment |
|--------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test than to update a NERC Standard. |
| | | 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program. |
| | | 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. |

- Purpose: "to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System".
- Requirement: "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

| Platte River Power Authority Operations Group | No | Demonstration of minimum competency for the Reliability Operator and maintaining certification is covered under PER-005-1. The requirement should read: Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system |
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| Organization | Yes or No | Question 3 Comment |
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| | | operator certification program in the areas listed to obtain a valid NERC Reliability Operator certificate. |
| positions performing Reliability | Coordinator re | he requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas IC Reliability Operator certificate". |
| Brookfield Renewable Power Inc | No | Do not believe it applies to us. |
| Response: The applicability of the information please refer to Section | | tied to the organization compliance registry and any associated delegation agreements. For more ules and Procedures. |
| ERCOT ISO | No | ERCOT ISO doesn't agree that competencies should be defined in the standard since they are already defined in the certification process. |
| Response: The minimum compe | tency issue ha | s been included in this standard in response to a FERC directive from Order 693. |
| Georgia System Operations Corporation | No | Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Reliability Coordinator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain a valid NERC Reliability Operator Certificate. |
| competencies assessed in the ce | ertification exa | s been included in this standard in response to a FERC directive from Order 693. The minimum ms were identified and verified through the application of a job and task analysis that was administered in just recall of knowledge. The latest certification exams focus more heavily on application of |
| Long Island Power Authority | No | LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possesing a valid certificate. We suggest alternative phrasing: "Each Reliability Coordinator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess a valid and current NERC Reliability Operator Certificate." |
| | | the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas |

| Organization | Yes or No | Question 3 Comment |
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| listed by obtaining and maintain | ing a valid NER | C Reliability Operator certificate". |
| It is the entity's responsibility to compliance. | provide docum | nentation showing that it has complied with the requirement. The measures define how to demonstrate |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| E.ON U.S. LLC | No | Operators must successfully complete the NERC Reliability Operator certification process. Thus, adding "Areas of Competency" in the requirement is redundant and only confuses what is needed for compliance. If "demonstration of minimum competency" is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R1 be revised to: Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate. |
| positions performing Reliability | Coordinator rel | he requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas CC Reliability Operator certificate". |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| American Electric Power (AEP) | No | Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R1 should merely state that each registered applicable Reliability Coordinator (RC) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R1 to allow operators |

Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES.

| Organization | Yes or No | Question 3 Comment |
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| American Transmission Company | No | Please see are specific comments in question 4. Proposed Modification: Each RC shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate.ATC suggest that the list of minimum competency be deleted. |
| Response: The minimum compet | tency issue ha | s been included in this standard in response to a FERC directive from Order 693. |
| NIPSCO | No | R1 should be replaced by "Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have a valid NERC Reliability Operator certificate". Then the "Reliability Operator Certificate" and certification process should be defined in the Glossary of Terms or described within the standard. |
| positions performing Reliability (| Coordinator re | he requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas IC Reliability Operator certificate". |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| The NERC System Operator Cert | ification Progr | am is a defined program in both the Rules & Procedure Section 600 & Appendix 6. |
| US Bureau of Reclamation | No | The certification should be specific in the citation by referring to the certification as N/RA/RC certification as appropriate for Reliability Coordinators. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambigous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requriement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included. |
| Response: While we understand designate the type of certificate. | your concern | that the lettering within the certificate number does not designate the type of certificate, the title does |
| The standard only references the Certification Program is guided by | NERC Systen by Rules & Pro | Operator Certification Program in the purpose statement. The operation of the NERC System Operator cedure Section 600. The requirement only states that the entity must have a valid NERC certificate. |
| ISO RTO Council Standards Review Committee | No | The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. As stated in the response to Question #1, we believe "competency" extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency. The inclusion of the Areas of Competency should not be included in this requirement. There are no measures for this The inclusion of |

| Organization | Yes or No | Question 3 Comment |
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| | | this list in the standard adds confusion and uncertainty in the demonstration of compliance with requirement R1.As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard. |
| Response: The minimum compet | tency issue ha | s been included in this standard in response to a FERC directive from Order 693. |
| The SDT believes that the measu operator's minimum competency | | rification by obtaining and maintaining a NERC Certificate which provides for verification of an |
| | or reliability-re | ent which now reads "Each Reliability Coordinator shall staff its Real-time operating positions lated tasks with System Operators who have demonstrated minimum competency in the areas listed by lity Operator certificate". |
| Consumers Energy Company | No | The extra verbiage under "Areas of Competency" is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process. |
| positions performing Reliability (| Coordinator rel | ne requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas C Reliability Operator certificate". |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| Pepco Holdings, Inc - Affiliates | No | The language in the Requirement doesn't match the language in the Measure. The sentence in R1 should read "by obtaining and maintaining a valid NERC Reliability Operator certificate." Not "to obtain and maintain." |
| positions performing Reliability (| Coordinator re | ne requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas IC Reliability Operator certificate". |

| Yes or No | Question 3 Comment |
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| No | The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table. |
| ency issue ha | s been included in this standard in response to a FERC directive from Order 693. |
| dinator shall s | on the ERO which is not plausible. However, the SDT has modified the body of the requirement which staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with imum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator |
| No | The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. |
| | red to tie the measures to the purpose of the standard. The measures define how to demonstrate e for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. |
| he purpose sta | atement to include the term "NERC System Operator Certification Program" and removed the term |
| No | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. |
| | No ency issue hat requirement dinator shall sonstrated min No it is not requit. The measur |

positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

| Organization | Yes or No | Question 3 Comment |
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| The minimum competency issue | has been inclu | ided in this standard in response to a FERC directive from Order 693. |
| The SDT believes that the measu operator's minimum competency | | ification by obtaining and maintaining a NERC Certificate which provides for verification of an |
| The SDT does not believe that an be a Certified System Operator o reads "Non-NERC certified personners." | y "trainee" sho n duty that is in nnel learning o coperating pos | ptions. The SDT believes that the individual responsible for the operation of the BES must be certified. build be left in control of the BES. If an entity has a trainee in an applicable operating position, there must n control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote or observing the tasks of a real-time operating position must be under the direct supervision of a NERC ition; the NERC Certified System Operator at that operating position has ultimate responsibility for the |
| ВСТС | No | The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. |
| positions performing Reliability (| Coordinator rel | ne requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating iability-related tasks with System Operators who have demonstrated minimum competency in the areas C Reliability Operator certificate". |
| The minimum competency issue | has been inclu | ided in this standard in response to a FERC directive from Order 693. |
| The SDT does not believe that an be a Certified System Operator o reads "Non-NERC certified personness" | ny "trainee" sho n duty that is in nnel learning o coperating pos | ptions. The SDT believes that the individual responsible for the operation of the BES must be certified. build be left in control of the BES. If an entity has a trainee in an applicable operating position, there must n control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote or observing the tasks of a real-time operating position must be under the direct supervision of a NERC ition; the NERC Certified System Operator at that operating position has ultimate responsibility for the |
| NERC PCGC | No | The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certificate. This certificate demonstrates competencies through the NERC certification process." Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and |

| Organization | Yes or No | Question 3 Comment |
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| | | American National Standard Institute (ANSI) guidelines. |
| positions performing Reliability C | Coordinator rel | ne requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating iability-related tasks with System Operators who have demonstrated minimum competency in the areas C Reliability Operator certificate". |
| The minimum competency issue | has been inclu | ided in this standard in response to a FERC directive from Order 693. |
| Pacific Gas and Electric Company | No | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. |
| positions performing Reliability C | Coordinator rel | ne requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating iability-related tasks with System Operators who have demonstrated minimum competency in the areas C Reliability Operator certificate". |
| The minimum competency issue | has been inclu | ided in this standard in response to a FERC directive from Order 693. |
| The SDT believes that the measu operator's minimum competency | | ification by obtaining and maintaining a NERC Certificate which provides for verification of an |
| The SDT does not believe that an be a Certified System Operator or reads "Non-NERC certified perso | y "trainee" sho n duty that is in nnel learning o operating pos | ptions. The SDT believes that the individual responsible for the operation of the BES must be certified. build be left in control of the BES. If an entity has a trainee in an applicable operating position, there must necessary control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote or observing the tasks of a real-time operating position must be under the direct supervision of a NERC lition; the NERC Certified System Operator at that operating position has ultimate responsibility for the |
| WECC Operations Training Subcommittee | No | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. |

Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating

Organization Yes or No Question 3 Comment

positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator's minimum competency.

The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| Midwest ISO Stakeholder Standards Collaborators | No | The standard as written requires minimum competency. "At least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate." As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels. |
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Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The words, "at least" don't seem necessary given the revision to the requirement.

With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.

| Organization | Yes or No | Question 3 Comment |
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| Tranmission and Reliability (TRO), TVA | No | The standard as written requires minimum competency. Suggest "at least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate." While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard. |
| positions performing Reliability (| Coordinator re | he requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas RC Reliability Operator certificate". |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| Entergy Services | No | To "obtain and maintain a valid NERC Reliability Operator certificate" (as stated in R1) a System Operator is required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has "demonstrated minimum competency" in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate". |
| positions performing Reliability Clisted by obtaining and maintaini The SDT believes that the measu | Coordinator rel ng a valid NER re requires vel | he requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the areas IC Reliability Operator certificate". |
| operators minimum competency. of a job and task analysis that wa | | competencies assessed in the certification exams were identified and verified through the application d on a continent-wide basis. |
| SERC Standards Review Group | No | To "obtain and maintain a valid NERC Reliability Operator certificate" (as stated in R1) a System Operator is |

| Organization | Yes or No | Question 3 Comment |
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| | | required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has "demonstrated minimum competency" in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate". |

Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.

| FirstEnergy | No | We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states " who have demonstrated minimum competency in the areas listed to obtain and maintain". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: " who have demonstrated minimum competency in the areas listed by obtaining and maintaining" |
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Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 3 Comment | |
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| The minimum competency issue | The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| Duke Energy | No | We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. Suggested rewording:"Each Reliability Coordinator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator Certificate:" | |
| Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate". | | | |
| Bonneville Power Administration | Yes | | |
| City of Tallahassee (TAL) | Yes | | |
| Gainesville Regional Utilities | Yes | | |
| South Carolina Electric and Gas | Yes | | |
| Southern Company Transmission | Yes | | |

4. Requirement R2 of the draft standard reads:

- R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NFRC certificate.
 - 2.1 Areas of Competency
 - 2.1.1 Transmission Operations
 - 2.1.2 Emergency Preparedness and Operations
 - 2.1.3 System Operations
 - 2.1.4 Protection and Control
 - 2.1.5 Voltage and Reactive
 - 2.2 Certificates
 - Reliability Operator
 - Balancing, Interchange and Transmission Operator
 - Transmission Operator"

Do you agree with Requirement R2 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the "Areas of Competency" came from and indicated that they should not be included within the standard. The SDT explained that the "Areas of competency" were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. As envisioned, the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

A few commenters felt there should be an exception within the standard for trainees. The SDT explained that they believed that the entity responsible for the operation of the BES had to be certified. The SDT further explained that they did not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if an entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

| Organization | Yes or No | Question 4 Comment | |
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| IPCo | No | area of compentencies should not be included in this standard. | |

Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives and Canadian System Operators participated in the job and task analysis used to identify the minimum competencies addressed in the certification exams. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.

| Hydro-Québec TransEnergie (HQT) | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. |
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ISO New England Inc.

No

| Organization | Yes or No | Question 4 Comment |
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| Requirement R2, item 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-C and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it breat down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operation is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. | | |
| | | Both "Transmission Operations" (2.1.1) and "System Operations" (2.1.3) are listed. Clarify the terms "System Operations" in 2.1.3, and "Transmission Operations", and clarify the differences between them. |
| Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| competencies assessed in the on a continent-wide basis. Moreliability-related tasks within | he certification examination examinations acconing the "areas of comining to complete its | ne individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum ms were identified and verified through the application of a job and task analysis that was administered emplished within the System Operator Certification Program. PER-005 requires entities to identify the appetency" to be included in a training program. The expectation is that the registered entity will use a training needs analysis and subsequently develop, deliver and evaluate the training of its System encies are addressed. |
| Order 693 which states that FERC jurisdictional the SDT Requirement please refer to evolving thing. It is continuately | minimum competer is required to respo the NERC System (ally undergoing scr | In the NERC System Operator Certification Program. The SDT is responding to a directive from FERC included within this standard. Although the SDT understands that Canadian entities are not cond to FERC directives. For further clarification regarding these competencies listed within the Operator Certification Manual and Content Outline. The SDT believes that the Certification Exam is an outling and modification. It is expected that the training that is to be developed and given to System cessary mechanism to alleviate any differences between older exams and the current competencies |
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As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple

desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with

| Organization | Yes or No | Question 4 Comment |
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| | | TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard. |
| positions performing Transmissi | on Operator re | he requirement which now reads "Each Transmission Operator shall staff its Real-time operating eliability-related tasks with System Operators who have demonstrated minimum competency in the of the following valid NERC certificates". |
| Northeast Power Coordinating Council | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. |
| | | The real-time operating positions need to be staffed with qualified (certified) System Operators requries definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. |
| | | "Minimum competency" must be defined, and how it relates to continuing education. The party responsible for adminstering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? |
| | | Requirement R2, sub-requirement 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. |
| | | Both "Transmission Operations" (2.1.1) and "System Operations" (2.1.3) are listed. Clarify the terms "System |

| Organization | Yes or No | Question 4 Comment |
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| | | Operations" in 2.1.3, and "Transmission Operations", and clarify the differences between them. |

Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires entities to identify the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.

The "Areas of competency" were extracted from the NERC System Operator Certification Program. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. The SDT believes that the Certification Exam is an evolving thing. It is continually undergoing scrutiny and modification. It is expected that the training that is to be developed and given to System Operators through PER-005 will provide the necessary mechanism to alleviate any differences between older exams and the current competencies referenced.

To see the distinction between the competencies associated with the "Transmission Operations" and "System Operations" topics please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf

| Nebraska Public Power District | No | Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read:R2. "Each Transmission Operator shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.2.1 Certificates Reliability Operator Balancing, Interchange and Transmission Operator Transmission Operator "NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. |
|--------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. |

| Organization | Yes or No | Question 4 Comment |
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| | | 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. |
| | | 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. |
| | | 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. |
| | | 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase "responsible for the control of the Bulk Electric System" after "real-time operating positions" to better align with the purpose of the standard. "Real-time operating positions" is not a clear and consise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual. |

Response: The SDT has modified the purpose and body of the requirement. These now read:

- Purpose: "to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System".
- Requirement: "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Organization | Yes or No | Question 4 Comment |
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| Organizacion | | Question 4 Comment |

Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires and entity to identify the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| MRO NERC Standards Review Subcommittee | No | Concerning this Requirement, the MRO NSRS has the following concerns and request that the requirement is rewritten to read: |
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| | | R2. "Each Transmission Operator shall staff its real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. |
| | | 2.2 Certificates |
| | | o Reliability Operator |
| | | o Balancing, Interchange and Transmission Operator |
| | | o Transmission Operator |
| | | The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. |
| | | 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real- time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. |
| | | 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement |

Platte River Power Authority

Operations Group

No

| Organization | Yes or No | Question 4 Comment |
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| | | and we recommend that it be deleted. |
| | | 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test then to update a NERC Standard. |
| Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard ho | | SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the |
| | | 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. |
| Response: The SDT has modified the purpose and body of the requirement. These now read: | | |
| Purpose: "to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System". | | |
| Requirement: "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program. | | |

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Demonstration of minimum competency and maintaining certification for the Transmission Operator is

covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates.

| Organization | Yes or No | Question 4 Comment | | |
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| positions performing Transmissi | on Operator re | ne requirement which now reads "Each Transmission Operator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the of the following valid NERC certificates". PER-005 does not include any requirements to maintain | | |
| ERCOT ISO | No | ERCOT ISO doesn't agree that competencies should be defined in the standard since they are already defined in the certification process. | | |
| Response: The minimum compet | tency issue ha | s been included in this standard in response to a FERC directive from Order 693. | | |
| Entergy Services | No | For the reasons stated in question #3 above, we suggest R2 be changed to the following: "Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator" | | |
| positions performing Transmissi | Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| SERC Standards Review Group | No | For the reasons stated in question #3 above, we suggest R2 be changed to the following: "Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator" | | |
| positions performing Transmissi | Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| Georgia System Operations Corporation | No | Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. | | |
| | | Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates:1. Reliability Operator2. Balancing, Interchange, and Transmission Operator3. Transmission Operator4. Balancing and Interchange Operator | | |

Transmission Operator.

| Organization | Yes or No | Question 4 Comment |
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| Response: The minimum comp | petency issue ha | s been included in this standard in response to a FERC directive from Order 693. |
| US Bureau of Reclamation No It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requirement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included. | | |
| Response: Please refer to the System Operator Certification Manual for an explanation of the different certificates and to which operating position they apply. There are four different types of system operator certifications (1. Reliability Operator, 2. Balancing and Interchange Operator, 3. Transmission Operator, and Balancing, Interchange, and 4. Transmission Operator), and of the four, the Reliability Coordinator certificate is the most comprehensive. The Reliability Coordinator certificate addresses the competencies required for the Transmission Operator certificate as well as the competencies required for the Balancing and Interchange Operator certificate and the Transmission Operator certificate as well as the certificate required for the Balancing and Interchange Operator certificate. Thus, if a System Operator has earned a Reliability Coordinator certificate or a | | |

The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate.

Balancing, Interchange and Transmission Operator certificate, that System Operator has demonstrated competencies beyond those needed for the

| Long Island Power Authority | No | LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possesing a valid certificate. We suggest alternative phrasing: "Each Transmission Operator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:" |
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Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

It is the entities responsibility to provide documentation of how you comply with the requirement. The measures define how to demonstrate compliance.

| Organization | Yes or No | Question 4 Comment |
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| The minimum competency issue | has been inclu | ided in this standard in response to a FERC directive from Order 693. |
| E.ON U.S. LLC | No | Operators must hold one of the listed NERC certificates. Thus, adding "Areas of Competency" in the requirement is redundant and only confuses what is needed for compliance. If "demonstration of minimum competency" is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R2. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R2 be revised to:Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R2.2. |
| Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| American Electric Power (AEP) | No | Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R2 should merely state that each registered applicable Transmission Operator (TO) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Transmission Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R2 to allow operators without a valid |

Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| Organization | Yes or No | Question 4 Comment |
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| Public Service Enterprise Group Inc. Companies | No | Please see response to question 3 with respect to the need to define System Operations. |
| Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. To see the competencies associated with the "System Operations" topic please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf | | |
| NIPSCO | No | R2 should be replaced by "Each Transmission Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:" and leave the contents of 2.2. (listing the certificates is a nice addition to the standard). Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard. |
| positions performing Transmissi | on Operator re | he requirement which now reads "Each Transmission Operator shall staff its Real-time operating eliability-related tasks with System Operators who have demonstrated minimum competency in the of the following valid NERC certificates". |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| The NERC System Operator Cert | ification Progr | am is a defined program in both the Rules & Procedure Section 600 & Appendix 6. |
| Independent Electricity System Operator | No | Same comments as in question #4.Suggested alternative wording of R2:R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Transmission Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:2.1 Areas of Knowledge 2.1.1 Transmission Operations 2.1.2 Emergency Preparedness and Operations 2.1.3 System Operations 2.1.4 Protection and Control 2.1.5 Voltage and Reactive2.2 Valid Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator |

Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.

Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Organization | Yes or No | Question 4 Comment |
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| ISO RTO Council Standards Review Committee | No | The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. As stated in the response to Question #1, we believe "competency" extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency. As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard. |

Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on "minimum competencies" and those competencies were identified by administering a continent-wide job and task analysis.

The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.

The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Consumers Energy Company | No | The extra verbiage under "Areas of Competency" is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities |
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| | | worry about their staff being certified in accordance with that process. |

Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. | Organization | Yes or No | Question 4 Comment | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". Xcel Energy No The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Transmission Operator. For simplicity, all of the minimum competency issue has been included in this standard in response to a FERC directive from Order 693. Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". Manitoba Hydro No The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior. This leaves it open for yet undersored to appear to be any linkage to the measures for skills and behaviors. This leaves it open for yet guardines and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. Response: The SDT believes that it is not required | The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. | |
| positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". Xcel Energy No The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Transmission Operator. For simplicity, all of the minimum competency is sue has been included in this standard in response to a FERC directive from Order 693. Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". Manitoba Hydro No The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with | Pepco Holdings, Inc - Affiliates | No | read "by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and | |
| not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Transmission Operator. For simplicity, all of the minimum competency issue has been included in this standard in response to a FERC directive from Order 693. Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". Manitoba Hydro No The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. | positions performing Transmissi | on Operator re | eliability-related tasks with System Operators who have demonstrated minimum competency in the | |
| Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". Manitoba Hydro No The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. | Xcel Energy | No | not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Transmission Operator. For simplicity, all of | |
| now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". Manitoba Hydro No The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. | Response: The minimum compet | tency issue ha | s been included in this standard in response to a FERC directive from Order 693. | |
| "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. | now reads "Each Transmission C System Operators who have dem | now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC | | |
| compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. | Manitoba Hydro | No | "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential | |
| Agree that NERC certification alone does not guarantee competency - no paper-and-pencil test can accurately assess the level of competence required | compliance with the Requiremen | t. The measur | e for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. | |

to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply

| Organization | Yes or No | Question 4 Comment | |
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| fundamental knowledge of dynar requirements in PER-003-1 focus | | to real-life operating scenarios to assess some aspects of the individual's competence. The individual's competence. | |
| However, the SDT has modified t "competency". | he purpose sta | atement to include the term "NERC System Operator Certification Program" and removed the term | |
| Alberta Electric System Operator No The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing Interchange and Transmission Operator o Transmission OperatorAdd sub-requirement 2.1 as an exception to R2 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0 | | | |
| positions performing Transmissi | on Operator re | ne requirement which now reads "Each Transmission Operator shall staff its Real-time operating cliability-related tasks with System Operators who have demonstrated minimum competency in the of the following valid NERC certificates". | |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. | |
| The SDT believes that the measu operators minimum competency. | | rification by obtaining and maintaining a NERC Certificate which provides for verification of an | |
| The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision or a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | | | |
| BCTC | No | The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. | |
| | | ne requirement which now reads "Each Transmission Operator shall staff its Real-time operating Hiability-related tasks with System Operators who have demonstrated minimum competency in the | |

| Organization | Yes or No | Question 4 Comment | |
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| areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| The minimum competency issue | The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| The SDT does not believe that an must be a Certified System Opera footnote reads "Non-NERC certified System Opera footnote reads" | y "trainee" sho ator on duty th ied personnel or at that opera | ptions. The SDT believes that the individual responsible for the operation of the BES must be certified. ould be left in control of the BES. If an entity has a trainee in an applicable operating position, there at is in control of the BES. The SDT has added a footnote to the standard to address this issue. The learning or observing the tasks of a real-time operating position must be under the direct supervision of a ting position; the NERC Certified System Operator at that operating position has ultimate responsibility ks." | |
| NERC PCGC No The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read "Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC TO Certificate. This certificate demonstrates competencies through the NERC certification process." Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines. | | | |
| positions performing Transmission | on Operator re | ne requirement which now reads "Each Transmission Operator shall staff its Real-time operating diability-related tasks with System Operators who have demonstrated minimum competency in the of the following valid NERC certificates". | |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. | |
| Company does not provide a definition of competencies, nor is there a reference in how one would prove somed competent by taking and passing an exam. Remove the reference to maintaining the certificate and c hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as ar | | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. | |
| Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |

| | Organization | Yes or No | Question 4 Comment |
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| Ī | The minimum competency issue | has been inclu | ided in this standard in response to a FERC directive from Order 693. |
| | The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. | | |
| | The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of | | |

must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| WECC Operations Training Subcommittee | No | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. |
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Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.

The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| American Transmission Company No The proposed language could be read to have multiple compliance obligations and should be re-written to have single compliance obligations. The two compliance obligations: | | No | |
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| Organization | Yes or No | Question 4 Comment |
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| | | A) Transmission Operators have NERC Certified System Operators |
| | | B) Transmission Operators have to demonstrate minimum competency in specific areas. |
| | | Item (A)Based on the proposed measures entities can demonstrate that they have NERC Certified System Operators by producing valid NERC certificates. |
| | | Item (B)ATC believes that the phrase "demonstration of minimum competency" can be deleted because having NERC Certified System Operators means having System Operators that have these minimum competencies. Does this phrase require us to show evidence above and beyond the NERC Certificate? If so, then the Measures do not provide any information on the types of evidence that could be used for compliance. If not, then it is our suggestion that the SDT deleted the minimum competency list from the requirement because it is duplicative with having NERC Certified System Operators. It's our understanding that the team is including this language "demonstrate minimum competency" to address a FERC directive but we believe that the best approach is to provide FERC with a description of the NERC Certification program and exclude the minimum competency list from this standard. We proposed the following modifications: Transmission Operators shall staff its real-time operating positions with System Operators that have one of the following valid NERC Certification. Reliability Operator Balancing, Interchange and Transmission Operator Transmission Operator |
| | | ATC also recommends the removal of the phrase "obtain and maintain" because the requirement requires a valid NERC Certificate. All NERC Certificates have an effective period, and is therefore redundant to require System Operators to "obtain and maintain" their NERC Certificate because an entity would be non-compliant with this Standard if they allow an individual to work the real-time desk without a valid NERC Certificate. |
| competency. The requirement no | ow reads "Eaclem Operators v | ne requirement to more clearly state that having a valid NERC certificate will demonstrate minimum in Transmission Operator shall staff its Real-time operating positions performing Transmission Operator who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of |
| The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| The drafting team believes that the phrase, 'obtain and maintain' adds clarity to the required performance. | | |
| Midwest ISO Stakeholder Standards Collaborators | No | The standard as written requires minimum competency. "At least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: "Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate." As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from |

| Organization | Yes or No | Question 4 Comment |
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| | | obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. |
| | | While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels. |
| positions performing Transmissi | on Operator re | ne requirement which now reads "Each Transmission Operator shall staff its Real-time operating liability-related tasks with System Operators who have demonstrated minimum competency in the of the following valid NERC certificates". |
| The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, "at least" are needed. | | |
| With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process. | | |
| Tranmission and Reliability (TRO), TVA | No | The standard as written requires minimum competency. Suggest "at least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant.Recommend the requirement be rewritten to: "Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate."While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard. |
| Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| The minimum competency issue not believe that the additional wo | | ided in this standard in response to a FERC directive from Order 693. As revised, the drafting team does are needed. |
| FirstEnergy | No | We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator |

| Organization | Yes or No | Question 4 Comment | |
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| | | Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states " who have demonstrated minimum competency in the areas listed to obtain and maintain". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: " who have demonstrated minimum competency in the areas listed by obtaining and maintaining" | |
| Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| The minimum competency issue | The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| Duke Energy | No | We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording:"Each Transmission Operator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:" | |
| Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| Brookfield Renewable Power Inc | Yes | I believe our internal testing is enough for our small transmission system. | |
| Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment. | | | |
| Bonneville Power Administration | Yes | | |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 4 Comment |
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| City of Tallahassee (TAL) | Yes | |
| Gainesville Regional Utilities | Yes | |
| PacifiCorp | Yes | |
| South Carolina Electric and Gas | Yes | |
| Southern Company Transmission | Yes | |

5. Requirement R3 of the draft standard reads:

R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

3.1 Areas of Competency

- 3.1.1 Resources and Demand Balancing
- 3.1.2 Emergency Preparedness and Operations
- 3.1.3 System Operations
- 3.1.4 Interchange Scheduling and Coordination

3.2 Certificates

Reliability Operator

Balancing, Interchange and Transmission Operator

Balancing and Interchange Operator"

Do you agree with Requirement R3 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the "Areas of Competency" came from and that they should not be included within the standard. The SDT explained that the "Areas of competency" were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard.. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The SDT also explained that the expectation was that the registered entity would use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

A few commenters felt there should be an exception within the standard for trainee's. The SDT explained that they believed that the entity responsible for the operation of the BES had to be certified. However, the SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if a entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

| Organization | Yes or No | Question 5 Comment |
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| IPCo | No | area of competencies should not be part of this standard |
| Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. | | |
| Hydro-Québec TransEnergie (HQT) | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority."Minimum competency" must be defined, and how it relates to continuing education. Requirement R3, item 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC |

| Organization | Yes or No | Question 5 Comment |
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| | | Competencies will be addressed since the exam coverage areas are not the same. What is the difference between these certificates? Balancing, Interchange and Transmission Operator and Balancing and Interchange Operator |
| | eliability-relate | ne requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions ed tasks with System Operators who have demonstrated minimum competency in the areas listed by valid NERC certificates". |
| Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed. | | |
| Order 693 which states that minimum FERC jurisdictional the SDT is re | mum competer quired to resp | In the NERC System Operator Certification Program. The SDT is responding to a directive from FERC included within this standard. Although the SDT understands that Canadian entities are not cond to FERC directives. For further clarification regarding these competencies listed within the Operator Certification Manual and Content Outline. |
| ISO New England Inc. | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard. |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| Northeast Power Coordinating Council | No | As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed |

City of Tallahassee (TAL)

No

| Organization | Yes or No | Question 5 Comment |
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| | | with qualified (certified) System Operators requries definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. |
| | | "Minimum competency" must be defined, and how it relates to continuing education. The party responsible for adminstering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? |
| | Requirement R3, sub-requirement 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. | |
| | hority reliability-relate | he requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions ed tasks with System Operators who have demonstrated minimum competency in the areas listed by valid NERC certificates". |
| accomplished within the Scompetency" to be included | System Operator Cert led in a training progr s and subsequently d | ne individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is ification Program. PER-005 requires an entity to identify the reliability-related tasks within the "areas of am. The expectation is that the registered entity will use a systematic approach to training to complete evelop, deliver and evaluate the training of its System Operators, thereby ensuring that these |
| Order 693 which states th | at minimum compete | m the NERC System Operator Certification Program. The SDT is responding to a directive from FERC ncies be included within this standard. For further clarification regarding these competencies listed C System Operator Certification Manual and Content Outline. |
| The SDT believes that pos | ssessing a valid NERO | C certificate provides for verification of minimum competency. |

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Response: The knowledge of "Voltage and Reactive Control" you referenced is covered in the list of competencies associated with the System

BA's should have knowledge of Voltage and Reactive Control.

| Organization | Yes or No | Question 5 Comment | |
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| Operations topic. | | | |
| Nebraska Public Power District | No | Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read:R3. "Each Balancing Authority shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.3.1 Certificates Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange Operator" | |
| | | NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. | |
| | | 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. | |
| | | 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. | |
| | | 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. | |
| | | 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. | |
| | | 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are | |

| Organization | Yes or No | Question 5 Comment |
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| | | trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase "responsible for the control of the Bulk Electric System" after "real-time operating positions" to better align with the purpose of the standard. "Real-time operating positions" is not a clear and consise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual. |

Response: The SDT has modified the purpose and body of the requirement. These now read:

- Purpose: "to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System".
- Requirement: "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.

The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| MRO NERC Standards Review Subcommittee |
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| Organization | Yes or No | Question 5 Comment |
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| | | recommendations outlined in FERC Order 693 for the following reasons. |
| | | 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real-time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. |
| | | 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted. |
| | | 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test then to update a NERC Standard. |
| | | 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program. |
| | | 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. |

Response: The SDT has modified the purpose and body of the requirement. These now read:

- Purpose: "to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System".
- Requirement: "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Organization | Yes or No | Question 5 Comment | |
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| Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed. | | | |
| Platte River Power Authority Operations Group | No | Demonstration of minimum competency and maintaining certification for the Balancing Authority is covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates. | |
| performing Balancing Authority r | Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| ERCOT ISO | No | ERCOT ISO doesn't agree that competencies should be defined in the standard since they are already defined in the certification process. | |
| Response: The minimum compet | Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| Entergy Services | No | For the reasons stated in question #3 above, we suggest R3 be changed to the following: "Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator" | |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| SERC Standards Review Group | No | For the reasons stated in question #3 above, we suggest R3 be changed to the following: "Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator" | |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by | | | |

| Organization | Yes or No | Question 5 Comment | |
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| obtaining and maintaining one of the following valid NERC certificates". | | | |
| Georgia System Operations Corporation | No | Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates:1. Reliability Operator2. Balancing, Interchange, and Transmission Operator3. Balancing and Interchange Operator4. Transmission Operator | |
| Response: The minimum compet | ency issue ha | s been included in this standard in response to a FERC directive from Order 693. | |
| US Bureau of Reclamation | No | It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambigous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requriement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included. | |
| Response: Please refer to the System Operator Certification Manual for an explanation of the different certificates and to which operating position they apply. There are four different types of system operator certifications (1. Reliability Operator, 2. Balancing and Interchange Operator, 3. Transmission Operator, and Balancing, Interchange, and 4. Transmission Operator), and of the four, the Reliability Coordinator certificate is the most comprehensive. The Reliability Coordinator certificate addresses the competencies required for the Transmission Operator certificate as well as the competencies required for the Balancing and Interchange Operator certificate and the Transmission Operator certificate as well as the certificate required for the Balancing and Interchange Operator certificate. Thus, if a System Operator has earned a Reliability Coordinator certificate or a Balancing, Interchange and Transmission Operator certificate, that System Operator has demonstrated competencies beyond those needed for the Balancing Authority. | | | |
| The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate. | | | |
| Long Island Power Authority | No | LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possesing a valid certificate. We suggest alternative phrasing: "Each Balancing Authority shall staff | |

| Organization | Yes or No | Question 5 Comment | | |
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| | | its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:" | | |
| performing Balancing Authority | Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| It is the entity's responsibility to compliance. | provide docun | nentation of how it complies with the requirement. The measures define how to demonstrate | | |
| E.ON U.S. LLC | No | Operators must hold one of the listed NERC certificates. Thus, adding "Areas of Competency" in the requirement is redundant and only confuses what is needed for compliance. If "demonstration of minimum competency" is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R3. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R3 be revised to: Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R3.2. | | |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | | |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. | | |
| American Electric Power (AEP) | No | Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R3 should merely state that each registered applicable Balancing Authority (BA) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Balancing and Interchange Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believes that language from Version 0 (Measure M1) and its submeasures should be maintained by establishing a sub-requirement or notation in R1 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position. | | |

| Organization | Yes or No | Question 5 Comment | |
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| Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | | |
| The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | | | |
| American Transmission Company | No | Please see are specific comments in question 4. Proposed Modification: Each BA shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate. Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange Operator. ATC suggest that the list of minimum competency be deleted. | |
| performing Balancing Authority r obtaining and maintaining one of | Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| Public Service Enterprise Group Inc. Companies | No | Please see response to question 3 with respect to the need to define System Operations. | |
| Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies referenced within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. | | | |
| NIPSCO | No | R3 should be replaced by "Each Balancing Authority Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:" and leave the contents of 3.2. (listing these certificates is a nice addition to the standard) Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard. | |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| The NERC System Operator Certification Program is a defined program in both the Rules & Procedure Section 600 & Appendix 6. | | | |

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| Organization | Yes or No | Question 5 Comment |
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| Independent Electricity System Operator | No | Same comments as in question #4.Suggested alternative wording of R3:R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Balancing and Interchange Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:3.1 Areas of Knowledge 3.1.1 Resources and Demand Balancing 3.1.2 Emergency Preparedness and Operations 3.1.3 System Operations 3.1.4 Interchange Scheduling and Coordination3.2 Valid Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator |

Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.

Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| ISO RTO Council Standards No Review Committee | The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. As stated in the response to Question #1, we believe "competency" extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency. As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard. |
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Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.

The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Organization | Yes or No | Question 5 Comment | |
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| Pepco Holdings, Inc - Affiliates | No | The language in the Requirement doesn't match the language in the Measure. The sentence in R3 should read "by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and maintain." | |
| performing Balancing Authority r | Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| Xcel Energy | No | The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. Balancing Authority This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each could be condensed into a table. | |
| Response: The minimum compet | Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| The real-time System Operators working for Balancing Authorities and Transmission Operators play a critical role in support of reliability and having these System Operators obtain a certification relevant to their job duties is a "defense in depth" strategy in support of reliability. | | | |

| Manitoba Hydro | No | The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. |
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| | | hindrance to improving the competence of System Operating personnel across the industry. |

Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.

Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-andpencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator - this level of competence

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| Organization | Yes or No | Question 5 Comment |
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| is addressed in PER-005-1-System were identified by administering a | | raining. The requirements in PER-003-1 focus on "minimum competencies" and those competencies de job and task analysis. |
| However, the SDT has modified the "competency". | he purpose sta | atement to include the term "NERC System Operator Certification Program" and removed the term |
| Alberta Electric System Operator | No | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each BA shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator Add sub-requirement 3.1 as an exception to R3 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. | | |
| The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | | |
| BCTC | No | The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. |

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performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by

| Organization | Yes or No | Question 5 Comment | |
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| obtaining and maintaining one of | obtaining and maintaining one of the following valid NERC certificates". | | |
| The minimum competency issue | he minimum competency issue has been included in this standard in response to a FERC directive from Order 693. | | |
| The SDT does not believe that an must be a Certified System Operation footnote reads "Non-NERC certified System Operation NERC Certified System Operation of the State of the | The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | | |
| NERC PCGC | No | The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC BA Certificate. This certificate demonstrates competencies through the NERC certification process." Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines. | |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| The minimum competency issue | nas been men | uded in this standard in response to a FERC directive from Order 693. | |
| Pacific Gas and Electric Company | No | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid the wording read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. | |
| | | he requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions | |

Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

| Organization | Yes or No | Question 5 Comment | |
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| The SDT believes that the measur operators minimum competency. | The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. | | |
| The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | | | |
| WECC Operations Training Subcommittee | No | The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0. | |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| The minimum competency issue | has been inclu | ded in this standard in response to a FERC directive from Order 693. | |
| The SDT believes that the measur operators minimum competency. | The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. | | |
| The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | | | |
| Consumers Energy Company | No | The role the individual has within the company may not be consistent with the registration of the company. For example, Consumers Energy is registered has a BA, however the role of Controllers may make TO certification more applicable in making them proficient at their job. The activity, not the company registration, should determine the appropriate certification. The extra verbiage under "Areas of Competency" is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has | |

| Organization | Yes or No | Question 5 Comment |
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| | | control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process. |

Response: The SDT feels that it is better to tie certification to registration to provide clarity and remove any ambiguity.

You have the option to upgrade your certification.

The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Midwest ISO Stakeholder Standards Collaborators No | The standard as written requires minimum competency. "At least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: "Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate." As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels. |
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Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, "at least" are needed.

With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.

| Organization | Yes or No | Question 5 Comment |
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| Tranmission and Reliability (TRO), TVA | No | The standard as written requires minimum competency. Suggest "at least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant.Recommend the requirement be rewritten to: "Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate."While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard. |

Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, "at least" are needed.

| FirstEnergy | No | We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states " who have demonstrated minimum competency in the areas listed to obtain and maintain". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: " who have demonstrated minimum competency in the areas listed by obtaining and maintaining" |
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Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 5 Comment |
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| Duke Energy | No | We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording:"Each Balancing Authority shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:" |
| Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| Bonneville Power Administration | Yes | |
| Brookfield Renewable Power Inc | Yes | |
| Gainesville Regional Utilities | Yes | |
| PacifiCorp | Yes | |
| South Carolina Electric and Gas | Yes | |
| Southern Company Transmission | Yes | |

6. Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters did not believe that the purpose matched the measures. The standards process does not require that the measures tie to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is evidence that the responsible entity's System Operators have obtained and maintained a valid NERC Certificate.

Some commenters did not believe that the documentation required to show compliance should be stated in the measure or stated that the measure was not clear on what was needed to reflect compliance. The SDT explained that for these requirements, some of the evidence isn't "flexible" and must be clearly stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.

Some commenters indicated that it is not necessary to have a copy of each System Operator's NERC certificate on file. The SDT modified Measure M1.3 to provide greater flexibility in how to demonstrate compliance. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date".

A few commenters indicated that there should be some allowance within the measure for transition to a back-up control center. The SDT explained that it believed that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.

| Organization | Yes or No | Question 6 Comment |
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| Manitoba Hydro | No | : The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. If the intent to ensure Operating personnel has the proper certification then this is all that should be in this standard and no mention of competency. |

Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.

However, the SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term

July 28, 2010

| Organization | Yes or No | Question 6 Comment |
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| "competency". | | |
| The minimum competency issue | has been inclu | uded in this standard in response to a FERC directive from Order 693. |
| Xcel Energy | No | A copy of an operator's NERC certificate is not strong evidence of certification and leads organizations to keep track of vitrually worthless pieces of paper or files. Is there something (seal, hologram, mag strip) on the certificate itself that would indicate its authenticity? A more robust method is to verify the individual has an active ceritificate as listed in the NERC database. In general, the measures should not limit the methods for demonstrating compliance to those methods listed. It should indicate that other methods may be acceptable. |
| Response: The SDT believes that | t evidence of o | compliance must come from the responsible entity. |
| The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date". | | |
| BCTC | No | Add measures section from PER-003-0 regarding when in transit to backup center. |
| Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group wqould take the situation under consideration and only issue a violation if the situation truly warranted such an action. | | |
| American Transmission Company | No | ATC agrees with the measure as written but believe that the requirements and purpose statement need to be modified to match. See our comments to Questions 1, 3, 4 and 5 |
| Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is evidence that the responsible entity's System Operators have obtained and maintained a valid NERC Certificate. | | |

However, the SDT has modified the purpose and body of the requirement. These now read:

- Purpose: "to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System".
- Requirement: "Each (RC TO BA) shall staff its Real-time operating positions performing (RC TO BA) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Organization | Yes or No | Question 6 Comment |
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| Hydro-Québec TransEnergie (HQT) | No | Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the requirement R1.1 in the existing Version 0 Standard"Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft. |
| | | A copy of each of the real-time operating personnel's NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database. |
| | | The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005). The measures need to clearly state that they only apply to those operators who have primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System. |
| Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any | | |

Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity.

The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date".

The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator's minimum competency. A System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.

| Northeast Power Coordinating Council | No | Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard"Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft. |
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| | | A copy of each of the real-time operating personnel's NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database. |
| | | The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of |

| Organization | Yes or No | Question 6 Comment | |
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| | | the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005)The measures need to clearly state that they only apply to those operators who have primary responsibility. | |
| Response: The industry has stat ambiguity. | ed that the V0 | standard was ambiguous. The standard has been modified to provide clarity and remove any | |
| The SDT modified Measure M1.3 certificate number with expiratio | | ater clarity. The measure now reads "A copy of its System Operator's NERC certificate or NERC | |
| operators minimum competency | The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. A System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method. | | |
| ERCOT ISO | No | ERCOT ISO suggests the measures be revised to say "Each Reliability Coordinator, Transmission Operator and Balancing Authority shall show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate. Evidence may include:" | |
| | | ovide for evidence of compliance the documentation required should be stated in the measure. This articipants need and what the audit teams will be looking for to reflect compliance. | |
| Long Island Power Authority | No | LIPA points out that similar to our prior comment the measurement does not speak to the phrase of "demonstrating minimum competencies required to obtain and maintain a valid NERC Certificate", rather only the possesion of a valid NERC certificate is indicated. Since NERC Auditors utilize the Standard's requirement and not the Standard's measurement as the benchmark for compliance, LIPA suggests that the measurement be utilized to refine the phrasing of the requirement. Similar to the previous comment, the measurement should be specific to those real time operating positions responsible for the control of the BES. We suggest the following: Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its real-time operating positions responsible for the control of the BES with System Operators that have an appropriate, valid NERC certificate". | |
| | ability-related | he requirement which now reads "Each (operating entity) shall staff its Real-time operating positions tasks with System Operators who have demonstrated minimum competency in the areas listed by valid NERC certificates". | |

| Organization | Yes or No | Question 6 Comment |
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| Duke Energy | No | Measure M1.3 should be revised to only require a list of NERC-certified personnel with their NERC certification numbers and expiration dates. The actual certificates reside with NERC. |
| Response: The SDT modified Me certificate or NERC certificate nu | | provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC iration date". |
| NERC maintains the database wi | th certificate re | ecords but the actual certificate resides with the entity. |
| FirstEnergy | No | Regarding M1.3, the entity may not specifically have copies of every operator's certification. We feel that all that is necessary is to show evidence of valid certificate numbers. |
| Response: The SDT modified Me certificate or NERC certificate nu | | provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC iration date". |
| Entergy Services | No | The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing "shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:" to "shall have evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate that may include:". |
| Response: Compliance for these | three requirer | ments is measured in the same way and therefore, it is more efficient to only state the measure once. |
| | | vidence of compliance, the documentation required should be stated in the measure. This provides ts need and what the audit teams will be looking for to reflect compliance. |
| Midwest ISO Stakeholder Standards Collaborators | No | The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing "shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:" to "shall have evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate that may include:". |

| Organization | Yes or No | Question 6 Comment | |
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| Response: Compliance for these three requirements is measured in the same way and therefore, it is more efficient to only state the measure once. | | | |
| | The SDT believes that in order to provide for evidence compliance, the documentation required should be stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance. | | |
| IPCo | No | The measure should be what is required to show compliance. | |
| Response: The SDT feels that the | e measures ref | lect what is necessary to show compliance with the requirement(s). | |
| Alberta Electric System Operator | No | The measurements do not address competencies as stated in the requirements. However, this in not an issue if the list of competencies is removed from the standard. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center. | |
| | Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. | | |
| The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group wqould take the situation under consideration and only issue a violation if the situation truly warranted such an action. | | | |
| Pacific Gas and Electric Company | No | The measurements do not address competencies as stated in the requirements. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center. | |
| | Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. | | |
| The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action. | | | |
| WECC Operations Training | No | The measurements do not address competencies as stated in the requirements. There is also no allowance | |

| Organization | Yes or No | Question 6 Comment |
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| Subcommittee | | for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center. |
| Response: The SDT believes tha an operators minimum competer | | requires verification by obtaining and maintaining a NERC Certificate which provides for verification of |
| that do not warrant straying from | the intent of t | Intain exceptions since including exceptions could allow entities to violate the standard during times the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, consideration and only issue a violation if the situation truly warranted such an action. |
| ISO RTO Council Standards Review Committee | No | The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard"Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft. There are no measures for the sub-requirements of areas of competency. These should be removed from the requirement. |
| | | standard was ambiguous. The standard has been modified to provide clarity and remove any he requirements were all modified for greater clarity. |
| The SDT believes that the measu operators minimum competency | | rification by obtaining and maintaining a NERC Certificate which provides for verification of an |
| Platte River Power Authority Operations Group | No | The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not applicable to. It should read:with Reliability Coordinator, Transmission Operator and Balaancing Authority system operators that have an appropriate, valid NERC certificate (R1, R2, R3): |
| | only include th | perator" because it is a defined term which helps to narrow who should be included. However, the SDT the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not luded in the definition. |
| Pepco Holdings, Inc - Affiliates | No | The wording in the Measures paragraph should be changed to match the language in the requirements " staffed its real-time operating positions with System Operators who have demonstrated the appropriate |

| Organization | Yes or No | Question 6 Comment |
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| | | competencies by obtaining the appropriate valid NERC Certificate." |
| Response: The SDT disagrees the an entity is to prove that they we | | e should mimic the language in the Requirement. The SDT believes that the Measure should state how rith the requirement. |
| Nebraska Public Power District | No | These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position. |
| | | In addition, measures 1.1, 1.2 & 1.4 should include the phrase "responsible for the control of the Bulk Electric System" to modify the term real-time operating positions to better align with the purpose. The term "real-time operating positions" is unclear and ambiguous and not defined. There needs to be clarity on which positions fall under this standard. |
| be certified. The SDT does not be position, there must be a Certifie this issue. The footnote reads "I | elieve that any d System Ope Non-NERC cert rtified System | ow for exceptions. The SDT believes that the individual responsible for the operation of the BES must "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating rator on duty that is in control of the BES. The SDT has added a footnote to the standard to address iffied personnel learning or observing the tasks of a real-time operating position must be under the Operator at that operating position; the NERC Certified System Operator at that operating position has he reliability-related tasks." |
| | ed tasks with S | ent which now reads "Each (operating entity) shall staff its Real-time operating positions performing system Operators who have demonstrated minimum competency in the areas listed by obtaining and rtificates". |
| The SDT disagrees that the Meas prove that they were compliant w | sure should min | mic the language in the Purpose The SDT believes that the Measure should state how an entity is to ment. |
| MRO NERC Standards Review Subcommittee | No | These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its Real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. |

| Organization | Yes or No | Question 6 Comment |
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| Response: The SDT disagrees th state how an entity is to prove th | | e is supposed to explain what the requirement is requesting. The SDT believes that the Measure should ompliant with the requirement. |
| American Electric Power (AEP) | No | While AEP agrees with the measure and sub-measures that are identified in the revised standard, we are concerned with the loss of the content from Measure M1 of the last version. As previously described, AEP believes that the M! language should be maintained, but as a requirement rather than as a measure. Correspondingly, we suggest either the former measure be added as a sub-requirement or notation in requirements R1, R2, and R3, or the former measure be added as an additional requirement in the following format:R4. Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall have NERC-certified operating personnel on shift in required positions at all times with thefollowing exceptions: R4.1 While in training, an individual without the proper NERC certification credential maynot independently fill a required operating position. Trainees may perform criticaltasks only under the direct, continuous supervision and observation of the NERC certifiedindividual filling the required position. R4.2 During a real-time operating emergency, the time when control is transferred from aprimary control center to a backup control center shall not be included in thecalculation of non-compliance. This time shall be limited to no more than four hours. |

s that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.

The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| | City of Tallahassee (TAL) | Yes | However, What are the auditors going to look for me to prove? Are they going to ask me to prove that each certificate issued (or renewed)asked questions from the applicable competencies? This would be above the Measures as written, so how do we get Compliance to acknowledge this? This information will need to come from the Certification Process and that record keeping. |
|--|---------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.

The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator's minimum competency.

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Brookfield Renewable Power Inc

Yes

| Organization | Yes or No | Question 6 Comment | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| ISO New England Inc. | Yes | The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard"Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft. | |
| Response: The SDT acknowledge | es your affirma | ative response and thanks you for your clarifying comment. | |
| | | as ambiguous. The standard has been modified to provide clarity and remove any ambiguity. Each of irrement for the Reliability Coordinator was changed to read as follows: | |
| who have demonstrated mini | Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate:. (followed by a list of topics that serve as the basis for the relevant certification exam) | | |
| South Carolina Electric and Gas | Yes | While we do agree with the Measure for the requirements of this standard, we do NOT agree with removal of the exceptions (M1.1 and M1.2) from the Measure in PER-003-0. These exceptions involve trainees (M1.1) and transferring control from a PCC to a BCC(M1.2). | |
| Response: The SDT acknowledge | es your affirma | ative response and thanks you for your clarifying comment. | |
| The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action. | | | |
| The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | | | |
| Bonneville Power Administration | Yes | | |
| | | | |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 6 Comment |
|------------------------------------------------|-----------|-------------------------|
| Consumers Energy Company | Yes | |
| Gainesville Regional Utilities | Yes | |
| Georgia System Operations Corporation | Yes | |
| Independent Electricity System Operator | Yes | |
| PacifiCorp | Yes | |
| Public Service Enterprise Group Inc. Companies | Yes | |
| SERC Standards Review Group | Yes | |
| Southern Company Transmission | Yes | |
| Tranmission and Reliability (TRO), TVA | Yes | |
| US Bureau of Reclamation | Yes | |
| E.ON U.S. LLC | | |
| NIPSCO | | No comment at this time |
| NERC PCGC | | No opinion |

7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt the "High" VRF rating was too high and that it should be no higher than Medium. The SDT explained that the current standard contains a High VRF. The SDT believes that this is appropriate with the definition of a high VRF:

High Risk Requirement

A requirement that, if violated, **could** directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

The SDT also stated it was not saying that non-compliance **would** necessarily lead to instability, separation or cascading outages. However, in the event of an emergency an unqualified System Operator may not know what to do and therefore the System Operator's actions or inactions **could** directly cause or contribute to BES instability, separation, or cascading outages, or could place the BES at an unacceptable risk of instability, separation or cascading outages.

Some commenters stated that they felt there should be differentiation between small and large entities due to the differing impacts on the reliability of the BES. The SDT explained that they believed that due to the fact that an entity was registered as one of the applicable entities implied that you could have an effect on the reliability of the BES. The size of an entity is one factor that the Compliance Enforcement Authority may consider when determining the size of a penalty or sanction for noncompliance.

A few of the commenters felt there should be an exception for trainees. The SDT explained that the individual responsible for the operation of the BES must be certified and that this standard was not allowing for exceptions. The SDT further explained that allowing exceptions within the standard could allow for violation of the requirement during conditions that did not warrant said actions. Instead, the SDT believes that if the conditions warranted violating a requirement, the audit group would consider all of the pertinent information regarding the violation prior to assessing a violation. However, the SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| Organization | Yes or No | Question 7 Comment |
|----------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ERCOT ISO | No | Failure to have a certified System Operator on a single shift does not necessarily lead directly to cascading outages, blackout, etc. A high Violation Risk Factor (VRF) presumes incorrectly that the System Operator hasn't been trained and that no other System Operators are involved in making decisions. ERCOT ISO recommends a low or medium VRF for each of the requirements. |
| saying that non-compliance will | necessarily lea | th VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not ad to cascading outages. However, in the event of an emergency an unqualified operator may not know a action s or inactions could result in BES instability, separation, or cascading outages. |
| City of Tallahassee (TAL) | No | High VRF is too high. Faillure to be certified in and of itself does not pose the threat to the BES. The ACTIONS, and the results of those actions, by the System Operator is the threat. Those threats are covered by other standards VRF's. |
| unqualified operator may not know | ow what action | that it is the actions, or possibly inactions, is the threat. However, in the event of an emergency and is to take and therefore incorrect actions or lack of action could result in BES instability, separation, or undard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. |
| Gainesville Regional Utilities | No | I disagree with the violation risk factors unless they are applied based on the affect of the Bulk Electric System, not aan individual system. In other wordsa 10,00 Mw stystem may have a higher vsl due to magnitude alone as compared to a 100 Mw system. |
| | | you are registered as one of the applicable entities implies that you have an effect on reliability. The rement Authority the authority to consider the size of an entity as a factor in determining the size of a |
| Brookfield Renewable Power Inc | No | It does not consider a small transmission system inside a large system. Our system is basically a tap into HQ grid. |
| | | you are registered as one of the applicable entities implies that you have an effect on reliability. The rement Authority the authority to consider the size of an entity as a factor in determining the size of a |
| Tranmission and Reliability (TRO), TVA | No | It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. Because it presents an indirect risk, we |

| Organization | Yes or No | Question 7 Comment | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | | recommend a low or medium VRF for the requirements. | |
| saying that non-compliance will i | Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions could result in BES instability, separation, or cascading outages. | | |
| Manitoba Hydro | No | It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don't match the requirements will not hit the target for improving reliability. | |
| saying that non-compliance will I | Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions could result in BES instability, separation, or cascading outages. | | |
| | The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date". | | |
| The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| ВСТС | No | Not defined. | |
| Response: The SDT does not have | e sufficient in | formation to understand your concern as you have stated it. | |
| IPCo | No | Risk factors should include levels of non-compliance in current PER-003 in this standard | |
| Response: The SDT believes that you may have confused VRFs with VSLs. The VRF measures the affect non-compliance could have on the BES. The VSL measure hw significantly the requirement was violated. | | | |
| Nebraska Public Power District | No | The Bulk Electric System will not necessarily fail if a non-certified System Operator is operating the system. Conversely there could be a cascading, uncontrolled separation and instability if a certified System Operator was on-shift. If other standards are followed, having certified personnel won't lead to a collapse of the Bulk Power System (we operated for years without certified operators). The Violation Risk Factor should be no higher than Medium. | |

| Organization | Yes or No | Question 7 Comment |
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| saying that non-compliance wil | I necessarily lea | h VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not ad to BES instability, separation, or cascading outages. However, in the event of an emergency an and therefore the System Operator's actions or inactions could result in BES instability, separation, or |
| US Bureau of Reclamation | No | The lack of certification may not be the same as competency. Certification is not same as competency based on the current process for achieving certification. If the certification was tied to known failures to follow procedures, an argument could be made that a risk for that operator is higher. Otherwise, there is no immenent threat by the operator who failed to report on hour of training needed to keep certification current. |
| saying that non-compliance wil | I necessarily lea | h VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not ad to BES instability, separation, or cascading outages. However, in the event of an emergency an and therefore the System Operator's actions or inactions could result in BES instability, separation, or |
| be certified. The SDT does not | believe that any | ow for exceptions. The SDT believes that the individual responsible for the operation of the BES must "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating rator on duty that is in control of the BES. The SDT has added a footnote to the standard to address |
| this issue. The footnote reads | "Non-NERC cert ertified System | ified personnel learning or observing the tasks of a real-time operating position must be under the Operator at that operating position; the NERC Certified System Operator at that operating position has |

Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions could result in BES instability, separation, or cascading outages.

In addition, the proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

| Organization | Yes or No | Question 7 Comment |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Platte River Power Authority Operations Group | No | The Violation Severity Levels are included in the draft of the standard, however, we weren't able to find the Violation Risk Factors. |
| Response: The VRF is located | at the end of eac | ch of the requirements. |
| Midwest ISO Stakeholder Standards Collaborators | No | The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained. |
| | | Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements. |
| saying that non-compliance will | I necessarily lea | yh VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not ad to BES instability, separation, or cascading outages. However, in the event of an emergency an and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or |
| be certified. The SDT does not position, there must be a Certif this issue. The footnote reads | believe that any ied System Ope "Non-NERC cer ertified System | low for exceptions. The SDT believes that the individual responsible for the operation of the BES must y "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating rator on duty that is in control of the BES. The SDT has added a footnote to the standard to address tified personnel learning or observing the tasks of a real-time operating position must be under the Operator at that operating position; the NERC Certified System Operator at that operating position has he reliability-related tasks." |
| | | ent that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a the bulk electric system at an unacceptable risk of instability, separation, or cascading failures " |
| Xcel Energy | No | The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained. |

| Organization | Yes or No | Question 7 Comment |
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| | | Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements. |
| current standard contains a high compliance will necessarily lead | VRF. The SDI to BES instabi | ents of the potential risk to the BES associated with a violation of the associated requirement. The believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-lity, separation, or cascading outages. However, in the event of an emergency an unqualified operator tem Operator's actions or inactions <i>could</i> result in BES instability, separation, or cascading outages. |
| | | ent that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a the bulk electric system at an unacceptable risk of instability, separation, or cascading failures " |
| Entergy Services | No | This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs for R1, R2 & R3 should be shown as LOW. |
| saying that non-compliance will | necessarily lea | h VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not d to BES instability, separation, or cascading outages. However, in the event of an emergency an and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or |
| | | ent that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a the bulk electric system at an unacceptable risk of instability, separation, or cascading failures " |
| SERC Standards Review Group | No | This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs for R1, R2 & R3 should be shown as LOW. |
| saying that non-compliance will | necessarily lea | h VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not d to BES instability, separation, or cascading outages. However, in the event of an emergency an and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or |

| Organization | Yes or No | Question 7 Comment |
|--------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cascading outages. | | |
| | | ent that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a the bulk electric system at an unacceptable risk of instability, separation, or cascading failures " |
| MRO NERC Standards Review Subcommittee | No | |
| American Electric Power (AEP) | Yes | |
| Bonneville Power Administration | Yes | |
| Duke Energy | Yes | |
| FirstEnergy | Yes | |
| Hydro-Québec TransEnergie (HQT) | Yes | |
| Independent Electricity System Operator | Yes | |
| Long Island Power Authority | Yes | |
| Northeast Power Coordinating Council | Yes | |
| Pacific Gas and Electric Company | Yes | |
| PacifiCorp | Yes | |
| Pepco Holdings, Inc - Affiliates | Yes | |
| South Carolina Electric and Gas | Yes | |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 7 Comment |
|--------------------------------------------------------------|-----------|------------------------------------------|
| WECC Operations Training Subcommittee | Yes | |
| Southern Company Transmission | | There is no VRF matrix in this standard. |
| Response: The VRF is located at the end of each requirement. | | |
| NIPSCO | | No comment at this time. |
| NERC PCGC | | No opinion |

8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt that there should be lower VSL's and not just "severe" and that there could be circumstances that would not allow for compliance to the standard. The SDT explained that they believed the Real-time operation of the power system was dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times. If there is ever a situation where there is not a certified System Operator in a real-time position that has demonstrated the minimum competencies needed for a NERC certificate, then the intent of this requirement has been missed – and this meets the criteria for assignment of a Severe VSL and the SDT has implemented a binary approach to the VSLs.

The SDT believes this approach is conducive to encouraging the appropriate behavior and meets the intent of NERC's VSL Guidelines and FERC's VSL Guidelines.

Some commenters indicated that the VSLs should be linked to a specific incident occurring, and the team noted that the Sanction Guidelines provide the Compliance Enforcement Authority the latitude to consider mitigating and aggravating factors when determining the size of a penalty or sanction, looking at the complete situation at the time of the violation and intent of the entity regarding staffing.

A few entities stated that they believed there should be varying VSLs dependent upon an entity's registration. The Sanction Guidelines give the Compliance Enforcement Authority the latitude to consider the size of an entity as a factor when determining the size of a penalty or sanction associated with noncompliance. The SDT also believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. The SDT further explained that while the Reliability Coordinator's System Operators have the highest level of operating authority to take whatever action is necessary to preserve reliability of the BES, the Transmission Operator's System Operators and the Balancing Authority's System Operators are the first line of defense and also play a critical role in taking preventive and corrective actions.

| Organization | Yes or No | Question 8 Comment |
|-------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| American Electric Power (AEP) | No | AEP believes that the functional model and Standard hierarchy, with the Reliability Coordinator being the ultimate authority issuing directives, may suggest different violation severity levels. Although it is definitely understood that each registered applicable entity could have a significant impact in the reliability of the BES, there are inherently differently levels of potential impact related to the specific reliability related job tasks. Therefore, the SDT should reconsider the VSLs based on these differences. |

Response: The SDT believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. While the Reliability Coordinator's System Operators have the highest

| Organization | ganization Yes or No Question 8 Comment | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| level of operating authority to take whatever action is necessary to preserve reliability of the BES, the Transmission Operator's System Operators and the Balancing Authority's System Operators are the first line of defense and also play a critical role in taking preventive and corrective actions. | | | | | | |
| Platte River Power Authority Operations Group | No | No Although we understand that FERC is most likely not in agreement, it would seem appropriate to have criteria for Lower, Medium and High Severity Levels opposed to an all or nothing approach. | | | | |
| Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL. | | | | | | |
| Pacific Gas and Electric Company | No | Comments: The VSL should take into consideration various levels of non-compliance, such as those in PER-003-0. PER-003 listed four levels of non-compliance in which the entity did not meet the requirement for a total time between 0-72 hours during a one month period. Certain circumstance may warrant situations in which an entity may not be able to comply with the staffing requirements. | | | | |
| possible to quantify the acceptal approach is conducive to encour replaced with VSLs. A VSL draft | ole level of con aging the appring team devel | er system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not inpliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this repriate behavior. The levels of non-compliance in PER-003 are no longer in effect. These were loped a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were y do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe | | | | |
| In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing. | | | | | | |
| ERCOT ISO | No ERCOT ISO thinks that Violation Severity Levels (VSLs) should be based on the number of System Operators that don't have the proper NERC certification. | | | | | |
| possible to quantify the acceptal approach is conducive to encour | ole level of con aging the app | er system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not inpliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this ropriate behavior. In addition, FERC's VSL Guidelines don't allow modifying VSLs in a way that would the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with | | | | |

July 28, 2010

| Organization | Yes or No | Question 8 Comment | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Hydro-Québec TransEnergie (HQT) | No | Everything is a "Severe." While we agree with the principle of having a NERC certified operator present at al times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual. | | |
| | ole level of con | er system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not inpliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this ropriate behavior. | | |
| In terms of a specific incident oc violation and the intent of the en | | forcement and the appeals process would have to look at the complete situation at the time of the staffing. | | |
| Northeast Power Coordinating Council | No | Everything is a "Severe." While we agree with the principle of having a NERC certified operator present at all times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual. | | |
| Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. | | | | |
| In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing. | | | | |
| SERC Standards Review Group | No | For the reasons stated in question # 7 above, a violation of these requirements should not be considered severe. However, we are aware of the drafting team's constraint to assign only a Severe VSL to standard requirements that are binary in nature. | | |
| Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. | | | | |
| Entergy Services | No | For the reasons stated in question # 7 above, if a violation is found, the VSL should be shown as LOWER VSL to MEDIUM VSL. | | |
| Page and the Deal time angusti | sponse: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not | | | |

Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. In addition, FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with

| Organization | Yes or No | Question 8 Comment | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Requirement R1 a Severe VSL. | | | | |
| Midwest ISO Stakeholder Standards Collaborators | No | In Paragraph 27 of the June 19, 2008 Order on Violation Severity Levels Proposed by the Electric Reliability Organization, the Commission expressed "as a general rule, gradated Violation Severity Levels, wherever possible, would be preferable to binary Violation Severity Levels". Based on the Commission's preference, we suggest VSLs could be based on the number of System Operators that don't have the proper certification. Four levels should be created. | | |
| possible to quantify the acceptable approach is conducive to encour levels of VSLs where appropriate | Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. Note that while the VSL Order referenced does indicate a preference for multiple levels of VSLs where appropriate, FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL. | | | |
| Manitoba Hydro | No | It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don't match the requirements will not hit the target for improving reliability. | | |
| Response: The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date". | | | | |
| The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | | |
| The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. | | | | |
| встс | No | RC should have a higher severity level than TO or BA. | | |
| would have a greater impact vers | Response: The SDT believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL. | | | |
| Tranmission and Reliability | No | Recommend a gradation of severity levels be developed. A severe VSL for all violations does not | | |

| Organization | Yes or No | Question 8 Comment | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| (TRO), TVA | | appropriately reflect the degree by which an entity has failed to meet the requirement. | | | |
| possible to quantify the acceptable approach is conducive to encour | Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL. | | | | |
| US Bureau of Reclamation | No | The lack of certification may not be the same as competency. As such the severity level should be consistent with those associated with documentation. | | | |
| | ability-related | he requirement which now reads "Each (operating entity) shall staff its Real-time operating positions tasks with System Operators who have demonstrated minimum competency in the areas listed by valid NERC certificates". | | | |
| | The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date". | | | | |
| The VSL focuses on the requirem | nent – which is | to staff with System Operators who have valid NERC certificates. | | | |
| Georgia System Operations Corporation | No | The violation severity levels should be high if the operator does not have a NERC certificate at all. A medium violation severity level should be set if the operator has an improper NERC certificate. | | | |
| Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL. | | | | | |
| WECC Operations Training Subcommittee | | | | | |
| Response: The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL. | | | | | |

| Organization | Yes or No | Question 8 Comment | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. | | | | | |
| In terms of a specific incident occurred violation and the intent of the ent | | forcement and the appeals process would have to look at the complete situation at the time of the staffing. | | | |
| Xcel Energy | No | The VSLs appear to be incomplete. | | | |
| Response: The SDT does not have | e enough info | rmation to provide a response to your comment. | | | |
| E.ON U.S. LLC | No | The VSLs assume all RT operating positions are staffed at all times - this may not always be true. For example, during off-peak periods RT operating positions may be combined and covered by fewer individuals. The standard should not dictate that all potential RT operating positions need to be staffed at all times. The entity will determine adequate staffing levels with the standard requiring that such positions be staffed by certified personnel. | | | |
| Response: The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | | | |
| The VSLs were revised to use the same language as the revised requirements – as shown with the VSL for R1: | | | | | |
| R1 Severe VSL: The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with an individual having a valid NERC certificate as defined in Requirement R1. | | | | | |
| The SDT disagrees that the VSL is assuming that all Real-time operating positions are filled at all times. The SDT believes that the VSL is stating that if a Real-time operating position is being filled it must be filled with a NERC Certified System Operator. | | | | | |
| Brookfield Renewable Power Inc | No | Ther is not time to have operators trained first. | | | |
| Response: The SDT has modified the timeline to have operators certified to twelve months after FERC approval. | | | | | |
| City of Tallahassee (TAL) | No | There is no caveat for the old "emergency clause" for transitioning to a Back Up Facility. The current Version 0 includes this in Measure M.1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." | | | |

| Organization | Yes or No | Question 8 Comment | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| during times that do not warrant | Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action. | | | | |
| Nebraska Public Power District | No | There should be differing severity levels based on the amount of time a non-certified operator worked unsupervised. Having a non-certified operator work one shift is much less severe than having all non-certified operators. The matrix should reflect the differing severity. | | | |
| possible to quantify the acceptable | Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. | | | | |
| IPCo | No | violation factors should include levels of non-compliance in current PER-003 in this standard | | | |
| Response: The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL. The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is | | | | | |
| conducive to encouraging the appropriate behavior. | | | | | |
| Gainesville Regional Utilities | nesville Regional Utilities No | | | | |
| NERC Standards Review Subcommittee | No | | | | |
| Bonneville Power Administration | Yes | | | | |
| Duke Energy | Yes | | | | |
| FirstEnergy | Yes | | | | |
| Independent Electricity System Operator | Yes | | | | |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 8 Comment | |
|----------------------------------|-----------|--------------------|--|
| Long Island Power Authority | Yes | | |
| NIPSCO | Yes | | |
| PacifiCorp | Yes | | |
| Pepco Holdings, Inc - Affiliates | Yes | | |
| South Carolina Electric and Gas | Yes | | |
| Southern Company Transmission | Yes | | |
| NERC PCGC | | No opinion | |

9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area.

Summary Consideration: A few commenters did not agree with the six month window for compliance with the standard. The SDT explained that they believed that due to lack of negative comments received the industry was in support of our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental authority acceptance.

A few of the commenters appeared to be confusing PER-003 with PER-005. The SDT explained that PER-005 addressed training and was not to be confused with this standard which addresses certification.

| Organization | Yes or No | Question 9 Comment | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Platte River Power Authority Operations Group | No | Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and 5 the implementation of this standard should not take effect until PER-005-1 is effective. | |
| Response: PER-005 addresses tr | aining and is r | not to be confused with this standard which addresses certification. | |
| | | omments received the industry is in support our original timeline. However, the SDT modified the . The effective date has been changed to 12 months after FERC or other governmental acceptance. | |
| Hydro-Québec TransEnergie (HQT) | No | If all control room operators need to be certified whatever their functions, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC certified. It should be only those that are primarily responsible, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.(i.e. give directives). | |
| Response: The requirements, measure and VSLs in the standard were all revised to clarify that only those System Operators who are in Real-time operating positions performing reliability-related tasks need to have the associated NERC certification. | | | |
| The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental acceptance. | | | |
| Northeast Power Coordinating Council | No | If all control room operators need to be certified, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC | |

| Organization | Yes or No | or No Question 9 Comment | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| | | certified. It should be only those that are primarily responsible (i.e. give directives). | | |
| | | Ls in the standard were all revised to clarify that only those System Operators who are in Real-time ed tasks need to have the associated NERC certification. | | |
| The SDT has modified the effecti FERC acceptance. | ve date to allo | w entities additional time to become compliant. The effective date has been changed to 12 months after | | |
| Brookfield Renewable Power Inc | No | It is too quick to implement plan. | | |
| | | f negative comments received the industry is in support our original timeline. However, the SDT stry concerns. The effective date has been changed to 12 months after FERC acceptance. | | |
| NERC PCGC | No | PCGC feels it is unclear as to what the full ramifications this standard may have on the certification process. A full study will be needed if this standard does cause changes to the certification process, and therefore could drastically affect the implementation plan. | | |
| Response: This standard suppor cause a change to the certification | | ation process by requiring that entities use the process, but there is nothing in this standard that should | | |
| | | comments received the industry is in support our original timeline. However, the SDT modified the . The effective date has been changed to 12 months after FERC acceptance. | | |
| Long Island Power Authority | No | The implementation Plan allows 6 to 9 months after approval for a Registered Entity to obtain certification for System Operators. LIPA is utilizing this comment to remind NERC to have the facilities to provide certification to those System Operators in a timely manner. | | |
| Response: The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance. | | | | |
| American Transmission Company | Yes | ATC does agree with the proposed effective date if the evidence to demonstrate compliance is limited to showing that our System Operators have a valid NERC Certificate. | | |
| Response: The SDT believes that Certificate (M1.3) – but also have | | ble entities need to have evidence that shows not only that all System Operators have a valid NERC 11.1, M1.2, and M1.4 | | |
| , | | comments received the industry is in support our original timeline. However, the SDT modified the | | |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 9 Comment |
|--------------------------------------------|----------------|-------------------------------------------------------------------------|
| timeline to respond to some indu | stry concerns. | The effective date has been changed to 12 months after FERC acceptance. |
| Alberta Electric System Operator | Yes | |
| American Electric Power (AEP) | Yes | |
| ВСТС | Yes | |
| Bonneville Power Administration | Yes | |
| City of Tallahassee (TAL) | Yes | |
| Duke Energy | Yes | |
| Entergy Services | Yes | |
| ERCOT ISO | Yes | |
| FirstEnergy | Yes | |
| Gainesville Regional Utilities | Yes | |
| Georgia System Operations Corporation | Yes | |
| Independent Electricity System Operator | Yes | |
| IPCo | Yes | |
| Nebraska Public Power District | Yes | |
| NERC Standards Review Subcommittee | Yes | |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 9 Comment | | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--|--|
| NIPSCO | Yes | | | |
| Pacific Gas and Electric Company | Yes | | | |
| PacifiCorp | Yes | | | |
| Pepco Holdings, Inc - Affiliates | Yes | | | |
| SERC Standards Review Group | Yes | | | |
| South Carolina Electric and Gas | Yes | | | |
| Southern Company Transmission | Yes | | | |
| Tranmission and Reliability (TRO), TVA | Yes | | | |
| US Bureau of Reclamation | Yes | | | |
| WECC Operations Training Subcommittee | Yes | | | |
| Xcel Energy | Yes | | | |
| Manitoba Hydro | | As long as the comments for standard are reviewed and standard resubmitted for review. | | |
| Response: The SDT has modified | Response: The SDT has modified the proposed standard and the standard will be posted for an additional comment period. | | | |

10. In In FERC Order 693 the Commission directed the ERO to consider "grandfathering" of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows:

Do you agree with the proposed concept that "grandfathering" not be allowed? If not, please explain in the comment area.

Summary Consideration: A few of the commenters disagreed with the SDT and felt that "grandfathering" of System Operators should be allowed. The SDT explained that it believes that due to the lack of negative comments received the industry is in support of not allowing grandfathering. The SDT believes that an experienced operator should have the knowledge level to pass an exam as demonstrated by the SDT's research shown in the comment form:

| System Operator Passing Rates | | | | | | |
|-----------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--|--|--|
| Operators that took a NERC Certification Exam | Operators that successfully passed a NERC Certification Exam | Operators that required more than one attempt to pass a NERC Certification Exam | Operator with previous experience operating the BES unable to pass a NERC Certification Exam | | | |
| 200 | 196 | 14 | 0 | | | |

In addition, passing a certification exam is the only way NERC can document that the individual at least had the minimum competency level necessary.

One commenter stated that there were labor issues that would need to be settled. The SDT does not have any evidence that this is a widespread industry issue and the timeline for implementing this standard. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on "minimum competencies" and those competencies were identified by administering a continent-wide job and task analysis.

In addition, the implementation plan has been lengthened (from six months to twelve months) and should allow time to address these issues.

| Organization | Yes or No | Question 10 Comment |
|------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| South Carolina Electric and Gas | No | Grandfathering should be allowed under this standard. If an individual has been performing their job for years as a system operator, We don't believe taking a certification exam will make them any more competent than they were prior to the exam. We don't believe there will be any benefits in terms of reliability of the BES or knowledge level. Operators that have been performing a system operator job for years obviously have a "minimum" knowledge level and forcing them to take and pass an exam would provide little or no benefit. We would agree to phasing out the "grandfathering" over a period of years, however we feel that the funds needed for this training and certification can be better utilized elsewhere. |
| | | ed operator should have the knowledge level to pass an exam as demonstrated by the SDT's research ertification exam is the only way NERC can document that the individual at least has the minimum |
| The SDT also believes that due to | the lack of ne | egative comments received the industry is in support not allowing grandfathering. |
| Brookfield Renewable Power Inc | No | I believe the standard to which our operators were trained was to the same level as the HQ operation staff. |
| Response: The SDT feels that en | ough informat | ion was not provided to be able to respond to your comment. |
| E.ON U.S. LLC | No | If the proposed no "grandfathering" applies only to individuals pursuing initial certification then the approach seems appropriate. However, individuals seeking re-certification via the CEH process should not also be subject to overall/comprehensive certification exams. The re-certification process requires exams to earn CEH credits. This should suffice |
| Response: The SDT believes that proposed, as you suggest, only f | | k of negative comments received the industry is in support not allowing. Grandfathering was ertification. |
| | ard does, howe | scope of the industry approved SAR on which this standard is based, and is not being considered ever, require System Operators to "maintain" their certification – and the CEH process is the mechanism |
| NIPSCO | No | We generally agree with sections B & D above. |
| | | In A. we disagree with the last sentence: "Passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator". PER-005 requires that operators be trained in what they do. Through audits, spot checks and self certification compliance to this will be reviewed by the regions and NERC. |
| | | In Section C. We disagree with the sentence: "Overall labor relations issues that arose due to the NERC |

| Organization | Yes or No | Question 10 Comment |
|--------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | System Operator Certification requirements have, for the most part, already been settled." This is still a major issue that has not yet been resolved. |
| | | I think it's interesting to note that the word "competency" does not appear in the above items A-D however "knowledge" is used numerous times. Should "knowledge" be used in the standard in place of competency? |
| Response: The SDT thanks you f | or your agreer | nent on B & D. |
| | nation is NERC | on as the only available method for NERC to ensure minimum knowledge. We should have stated that C's only available method to verify the initial minimum competency level of a system operator. In to the initial process. |
| With regards to Section C the SD standard has been adjusted base | | ve evidence that this is a widespread industry problem. However, the timeline for implementing this ts received. |
| in this standard. While the origin complex and now include fewer ' | nal Certification 'recall" type qu | It where the term knowledge was used in place of competency. Competency is the correct word for use in exams focused solely on recall-type questions, as the exams have evolved they have become more uestions and more "application" and "assessment" type questions where the candidate must set of scenarios, which is testing competencies. |
| The SDT believes that due to the | lack of negative | ve comments received the industry is in support of not allowing grandfathering. |
| Gainesville Regional Utilities | Yes | At this juncture I agree since to operate a system the certification that came about was "required" and all System Operators took the tests and received their certification in their respective areas. I believe at the time some individuals could have been grandfathered in. Not anymore, due to no apparent reason. |
| Response: The SDT acknowledge | es your affirma | ative response and clarifying comment. |
| American Transmission Company | Yes | ATC agrees that grandfathering should not be allowed as a replacement for a valid NERC Certification. |
| Response: The SDT acknowledge | es your affirma | ative response and clarifying comment. |
| City of Tallahassee (TAL) | Yes | However, paragraph B is not entirely correct. When Version 0 standards were adopted, we had three senior operators retire after they were unsuccessful in completing NERC Certification. |
| Response: The SDT acknowledg | | ative response and clarifying comment. The SDT was not implying that this couldn't happen, only that |

| Organization | Yes or No | Question 10 Comment |
|-----------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NERC Standards Review Subcommittee | Yes | The MRO NSRS agrees that grandfathering should not be allowed as a replacement for a valid NERC certification. |
| Response: The SDT acknowledge | es your affirma | ative response and clarifying comment. |
| Hydro-Québec TransEnergie (HQT) | Yes | The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue as it relates to reliability. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing any FERC Orders. |
| Response: The SDT acknowledge | es your affirma | ative response and clarifying comment. |
| Northeast Power Coordinating Council | Yes | The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing FERC Orders. |
| Response: The SDT acknowledge | es your affirma | ative response and clarifying comment. |
| ISO New England Inc. | Yes | We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach. |
| Response: The SDT acknowledge | es your affirma | ative response and clarifying comment. |
| ISO RTO Council Standards Review Committee | Yes | We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach. |
| | | We would like to comment on the Passing Rates - a better sample of data should have been obtained. This data reflects a 2% failure rate. Considering normal distribution, the data presented reflects either that statistical analysis was inadequate for the sample or the cutoff score for the exam may need to be changed. |

| Organization | Yes or No | Question 10 Comment |
|----------------------------------------------------|----------------|--------------------------------------------------------------------------------|
| The SDT realizes that the sample | was insufficie | nt for a representative accounting. The SDT was limited in its access to data. |
| Alberta Electric System Operator | Yes | |
| American Electric Power (AEP) | Yes | |
| встс | Yes | |
| Bonneville Power Administration | Yes | |
| Consumers Energy Company | Yes | |
| Duke Energy | Yes | |
| Entergy Services | Yes | |
| ERCOT ISO | Yes | |
| FirstEnergy | Yes | |
| Georgia System Operations Corporation | Yes | |
| Independent Electricity System Operator | Yes | |
| IPCo | Yes | |
| Long Island Power Authority | Yes | |
| Manitoba Hydro | Yes | |
| Midwest ISO Stakeholder Standards Collaborators | Yes | |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 10 Comment |
|--------------------------------------------------|-----------|---------------------|
| Nebraska Public Power District | Yes | |
| NERC PCGC | Yes | |
| Pacific Gas and Electric Company | Yes | |
| PacifiCorp | Yes | |
| Pepco Holdings, Inc - Affiliates | Yes | |
| Platte River Power Authority Operations Group | Yes | |
| SERC Standards Review Group | Yes | |
| Southern Company Transmission | Yes | |
| Tranmission and Reliability (TRO), TVA | Yes | |
| US Bureau of Reclamation | Yes | |
| WECC Operations Training Subcommittee | Yes | |
| Xcel Energy | Yes | |

11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process.

Do you agree with the method the SDT has used to meet the FERC directive? If not, please explain in the comment area.

Summary Consideration: Some commenters did not feel that minimum competencies should be included within a standard and that including them would be a violation of the PCGC charter. The SDT explained that it was responding to FERC Order 693 which contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states "......the Commission directs the ERO to develop these modifications to the Reliability Standard". The SDT further explained that it did not have sufficient information concerning the comment about "violation of Personnel Certification Governance Committee (PCGC) Charter" to satisfactorily address the issue.

Some commenters questioned how "minimum competency" would be verified. The measure requires verification by obtaining and maintaining a NERC Certificate.

A few commenters tried to provide other means of demonstrating minimum competency rather than including them within a Standard. The methods suggested by commenters did not identify an equally effective and efficient alternative to that proposed by the SDT.

A few commenters also expressed a desire for a standard for the ERO to guarantee competency. The development of a standard applying to the ERO is outside the scope of the industry approved SAR - if stakeholders feel a need for the development of such a standard, they can submit a SAR through the Standards Development Process.

A couple of commenters felt that the functional entity had no responsibility or recourse for the design of the certification process and therefore should not be held accountable for anything they could not control. The certification program is under the governance of the PCGC which is composed of representatives from the functional entities. The STD further explained that the actual exam questions were written by the Exam Working Group which is also composed of representatives from the functional entities.

| Organization | Yes or No | Question 11 Comment |
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| FirstEnergy | No | Although we agree that the SDT has done everything they can to meet the FERC directive, we do not agree that minimum competencies must be spelled out in the standard since obtaining a NERC Certificate already proves you demonstrate the minimum competencies. Please refer to our comments in Questions 3, 4, and 5. |
| Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the | | |

| Organization | Yes or No | Question 11 Comment | | |
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| Commission states "the Con | Commission states "the Commission directs the ERO to develop these modifications to the Reliability Standard". | | | |
| Gainesville Regional Utilities | No | I can't agree as to how specifically addressed competencies should be addressed. If a systm operator can perform the necessary functions to keep s specific company reliable, how are these proposed competencies going to be investigated as to what depth of "competency? Who's decision will that be, The Entity, NERC, FERC, IEEE? Clarification may be in order | | |
| | | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". | | |
| minimum competency. The "Are and serve as the basis for the cer | as of compete rtification exan | rification by obtaining and maintaining a NERC Certificate which provides verification of an operator's ncy" referenced in the standard were extracted from the NERC System Operator Certification Program ns. The competencies assessed in the certification exams were identified and verified through the administered on a continent-wide basis. | | |
| American Electric Power (AEP) | No | In brief, while AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that the competencies be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual.Please reference the comments provided in Question 1 for the basis for this belief. | | |
| | | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". | | |
| Nebraska Public Power District | No | In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and | | |
| | | (2) identifies the minimum competencies operating personnel must demonstrate to be certified. | | |
| | | FERC has not stated that competencies must be a NERC Standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC Certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program adjust competencies as required to meet changing demands without the time needed to go through the standards development process. We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the | | |

| Organization | Yes or No | Question 11 Comment |
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| | | SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies. |

Response: We disagree that the FERC directive did not mandate the addition of minimum competencies. In Order 693 paragraph 1408 the Commission states ".....the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.

| MRO NERC Standards Review Subcommittee | No | In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified .FERC has not stated that competencies must be a NERC standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program to adjust competencies as required to meet changing demands without the time needed to go through the standards development process.We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies. |
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Response: We disagree that the FERC directive did not mandate the addition of minimum competencies. In Order 693 paragraph 1408 the Commission states ".....the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.

| Brookfield Renewable Power Inc | No | It does not recognize other training |
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| | | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". |
| The topic of additional training is | covered in PE | ER-005. |
| Pepco Holdings, Inc - Affiliates | No | No, if the language change is not adopted. Yes, provided the changes to the language in the requirements and the measures statements is adopted as we proposed. |
| | ability-related | ne requirement which now reads "Each (operating entity) shall staff its Real-time operating positions tasks with System Operators who have demonstrated minimum competency in the areas listed by valid NERC certificates". |
| Entergy Services | No | Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator's skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency. |
| | | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". |
| Operator Certification test was for evolved there are more "applicated dynamic operations to real-life of assess the level of competence of System Personnel Training. The | ocused on reca ion" and "asse perating scena required to ass requirements | do provide confirmation of a minimum set of competencies. While the first version of the System III or knowledge questions, and focused primarily on recall of Operating Policies, as the test has essment" type questions that do assess a System Operator's ability to apply fundamental knowledge of rios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately ume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-in PER-003-1 focus on "minimum competencies" that are applicable on a continent-wide basis and tering a continent-wide job and task analysis. |
| SERC Standards Review Group | No | Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator's skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency through experience in operating the system. |
| Response: FERC Order 693 cont | ained a directiv | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the |

| Organization | Yes or No | Question 11 Comment | | |
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| Commission states "the Con | Commission states "the Commission directs the ERO to develop these modifications to the Reliability Standard". | | | |
| Operator Certification test was for evolved there are more "applicat dynamic operations to real-life of assess the level of competence r System Personnel Training. The | Agree – however the NERC Certification exams do provide confirmation of a minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" and "assessment" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on "minimum competencies" that are applicable on a continent-wide basis and those competencies were identified by administering a continent-wide job and task analysis. | | | |
| Independent Electricity System Operator | No | Rather than state FERC's requirement as an obligation of the individual operator to demonstrate minimum competency in each topical area, the requirement should be stated as an obligation of NERC to ensure the certification exams reflect the stated topical areas. See our responses to Q3, Q4 and Q5. | | |
| | ability-related t | ne requirement which now reads "Each (operating entity) shall staff its Real-time operating positions tasks with System Operators who have demonstrated minimum competency in the areas listed by valid NERC certificates". | | |
| "Each (operating entity) shall sta | Your comment places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| Xcel Energy | No | Recommend development of a standard that applies to the ERO on what the certification process must demonstrate and contain. The areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels. | | |
| Response: The development of a standard applying to the ERO is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. | | | | |
| NERC PCGC | No | Section 600 of the Rules of Procedure of the North American Electric Reliability Corporation states "the System Operator Certification Program provides the mechanism to ensure system operators are provided the education and training necessary to obtain the essential knowledge and skills and are therefore qualified to operate the bulk electric system. NERC, as the ERO, will ensure skilled, trained, and qualified system operators through the System Operator Certification Program. NERC shall develop and maintain a personnel certification program to evaluate individuals and to issue credentials to individuals who demonstrate the required level of competence."4. The personnel certification program governing body shall have control over | | |

| Organization | Yes or No | Question 11 Comment |
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| | | the matters related to the personnel certification and recertification programs listed below, without being subject to approval by any other body.4.1 Policies and procedures, including eligibility requirements and application processing.4.2 Requirements for personnel certification, maintaining certification, and recertification.4.3 Examination content, development, and administration.4.4 Examination cut score. This standard should only ensure that reliability related tasks are being performed by NERC Certified System Operators. |
| | | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". |
| FERC staff confirmed that the ex | pectation is th | afting team met with FERC staff to ensure a clear understanding of the intent of this directive – and at the standard will reference competencies. Your comments do not appear to have identified an od other than that proposed by the SDT to address the FERC Order 693 directive. |
| Georgia System Operations Corporation | No | The areas of competency are not needed in the standard since they are already in the NERC certification program. The standard should refer to the System Operator Certification program and not list the areas of competency. The NERC System Operator Certification Program states that it "awards certification credentials to those individuals who demonstrate that they have attained sufficient knowledge relating to NERC reliability standards and the basic principles of bulk power system operations by passing one of four specialty examinations." The System Operator Certification mission is to "ensure that employers have a workforce of system operators that meet minimum qualifications." |
| Commission states "the Con | nmission direc | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC ent of this directive – and FERC staff confirmed that the expectation is that the standard will reference |
| IPCo | No | the Competecies should not be part of this standard. |
| Commission states "the Con | nmission direc | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". The drafting team met with the intent of this directive – and FERC staff confirmed that the expectation is that the standard will |
| Consumers Energy Company | No | The functional entities have no responsibility and no recourse to the design of the certification process. They cannot determine what is demonstrated by an operator passing a certification examination. They cannot be |

| Organization | Yes or No | Question 11 Comment |
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| | | held responsible for anything they cannot control. |

Response: The governance of the certification program is done by the PCGC which is composed of representatives from the functional entities. The actual exam questions are written by the Exam Working Group which is also composed of representatives from the functional entities. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.

The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

| Long Island Power Authority | No | The term "minimum competencies" will be difficult to demonstrate compliance to. The term is very open to conflicting interpretation. |
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| | | A possible alternative is reference to the System Operator Certification Program manual. The demonstration and measurement of System Operator competencies is better suited to the Standard PER-005, and is another reason why the requirement should be limited to the possession of a current and valid NERC certificate. |

Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.

The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date".

| | Alberta Electric System Operator | No | There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators. |
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Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states ".....the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method

| Organization | Yes or No | Question 11 Comment |
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| other than that proposed by the S | SDT to address | s the FERC Order 693 directive. |
| ERCOT ISO | No | There is an established process in place which defines the minimum competencies for NERC Certification. This meets the Commission's directive in FERC Order 693. |
| Commission states "the Con | nmission direc | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC ent of this directive – and FERC staff confirmed that the expectation is that the standard will reference |
| | that directive. | DT does not meet the directive as proposed, the SDT must provide an equally efficient and effective. Your comments do not appear to have identified an equally effective and efficient alternative method he FERC Order 693 directive. |
| NIPSCO | No | These specific competencies should be covered in the new PER-005 Standard and not in the certification standard. |
| Commission states "the Con | nmission direc | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC ent of this directive – and FERC staff confirmed that the expectation is that the standard will reference |
| ВСТС | No | This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators. |
| | | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". |
| The SDT does not have sufficient directing a change to the PCGC (| | rom you comment to address "violation of PCGC Charter". There is nothing in this standard that is be certification exams. |
| | ed tasks with S | ent which now reads "Each (operating entity) shall staff its Real-time operating positions performing system Operators who have demonstrated minimum competency in the areas listed by obtaining and rtificates". |
| Pacific Gas and Electric | No | This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System |

| Organization | Yes or No | Question 11 Comment | | |
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| Company | | Operators. | | |
| Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states "the Commission directs the ERO to develop these modifications to the Reliability Standard". | | | | |
| | The SDT does not have sufficient information from you comment to address "violation of PCGC Charter". There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams. | | | |
| (operating entity) reliability-relate | The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| WECC Operations Training Subcommittee | No | This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators. | | |
| | | ve to include minimum competencies within this standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". | | |
| The SDT does not have sufficient information from you comment to address "violation of PCGC Charter". There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams. | | | | |
| (operating entity) reliability-relate | The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | | |
| E.ON U.S. LLC | No | Topical areas required to demonstrate minimum competencies should be (and are) addressed in the NERC certification process - they should not part of a requirement in a Reliability Standard | | |
| Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states "the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. | | | | |
| American Transmission Company | No | We believe that the inclusion of the minimum competency list is unnecessary because the NERC System Operator Certificate program already addresses these competencies. The SDT should work with the NERC System Operator Certification group to develop a summary of the NERC Certification program in order to address FERC's concern. | | |

| Organization | Yes or No | Question 11 Comment |
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| Commission states "the Co | mmission direc | ve for including of minimum competencies within the standard. In Order 693 paragraph 1408 the cts the ERO to develop these modifications to the Reliability Standard". The drafting team met with the intent of this directive – and FERC staff confirmed that the expectation is that the standard will |
| Midwest ISO Stakeholder Standards Collaborators | No | While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels. |

Response: With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.

The SDT thanks you for your comment. However, your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive. The proposed standard requires that certain System Operators pass certain NERC exams. These NERC Certification exams do test for the existence of a minimum set of competencies. A System Operator who passes the applicable test has demonstrated that he or she has that minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on "minimum competencies" and those competencies were identified by administering a continent-wide job and task analysis.

| Tranmission and Reliability (TRO), TVA | No | While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. |
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Response: The SDT thanks you for your comment. However, your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive.

The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC

| Organization | Yes or No | Question 11 Comment |
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| certificate number with expiration | n date". | |
| The SDT believes that the meast operators minimum competency | | rification by obtaining and maintaining a NERC Certificate which provides for verification of an |
| Hydro-Québec TransEnergie (HQT) | No | With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should "drill down" to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved. |
| | | Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency. |

Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states ".....the Commission directs the ERO to develop these modifications to the Reliability Standard".

Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" and "assessment" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on "minimum competencies" and those competencies were identified by administering a continent-wide job and task analysis.

The SDT also believes that identifying what constitutes an approved course for continuing education is outside of the industry approved SAR for this project. The SDT feels that this standard deals with the topic of who needs to be certified and what certification is needed for a particular position.

The SDT believes that these areas of competency existed prior to 2007 within the certification program.

With regard to your comment concerning a requirement to participate in continuing education or a training program the SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.

| Organization | Yes or No | Question 11 Comment | |
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| Northeast Power Coordinating Council | No | With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should "drill down" to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved.Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency. | |
| | | ve for including of minimum competencies within the standard. In Order 693 paragraph 1408 the ts the ERO to develop these modifications to the Reliability Standard". | |
| recall of Operating Policies, as the ability to apply fundamental know No paper-and-pencil test can accompetence is addressed in PER | e test has evo vledge of dyna urately assess -005-1-System | Operator Certification test was focused on recall or knowledge questions, and focused primarily on lived there are more "application" and "assessment" type questions that do assess a System Operator's amic operations to real-life operating scenarios to assess some aspects of the individual's competence, the level of competence required to assume all the responsibilities of a System Operator – this level of Personnel Training. The requirements in PER-003-1 focus on "minimum competencies" and those a continent-wide job and task analysis. | |
| | The SDT also believes that identifying what constitutes an approved course for continuing education is outside of the industry approved SAR for this project. The SDT feels that this standard deals with the topic of who needs to be certified and what certification is needed for a particular position. | | |
| The SDT believes that these area | The SDT believes that these areas of competency existed prior to 2007 within the certification program. | | |
| With regard to your comment concerning a requirement to participate in continuing education or a training program the SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method. | | | |
| City of Tallahassee (TAL) | Yes | Although this could have been better addressed through the NERC System Operator Certification Program and that process. The performance standard (PER-003) could have remained the Version 0, and only required that they be certified at the appropriate level. | |

July 28, 2010

Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum

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| competencies within the standard modifications to the Reliability St | | 3 paragraph 1408 the Commission states "the Commission directs the ERO to develop these |
| ISO RTO Council Standards Review Committee | Yes | The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (e.g., using differing tools and systems), depending on the organizational structures. |
| | | It is our understanding that the initial exam requirement is intended to assess conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach. |
| Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states "the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. | | |
| recall of Operating Policies, as the fundamental knowledge of dynamic pencil test can accurately assess | e test has evo nic operations the level of co m Personnel T | Operator Certification test was focused on recall or knowledge questions, and focused primarily on lived there are more "application" type questions that do assess a System Operator's ability to apply to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-ompetence required to assume all the responsibilities of a System Operator – this level of competence raining. The requirements in PER-003-1 focus on "minimum competencies" and those competencies de job and task analysis. |
| ISO New England Inc. | Yes | We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (i.e. using differing tools and systems), depending on the organizational structures. It is our understanding that the initial exam requirement is intended to conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to |

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

| Organization | Yes or No | Question 11 Comment |
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| | | take the same approach. |

Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states "......the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" and "assessment" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on "minimum competencies" and those competencies were identified by administering a continent-wide job and task analysis.

| Bonneville Power Administration | Yes | |
|--------------------------------------------------|-----|--|
| Duke Energy | Yes | |
| Manitoba Hydro | Yes | |
| PacifiCorp | Yes | |
| Platte River Power Authority Operations Group | Yes | |
| South Carolina Electric and Gas | Yes | |
| Southern Company Transmission | Yes | |
| US Bureau of Reclamation | Yes | |

12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section.

Summary Consideration: A couple of the commenters felt there was a conflict in the use of the term System Operator. The SDT explained that they used the term "System Operator" because it was a defined term which helped to narrow who should be included. The SDT narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators and Generator Operators are included in the definition of "System Operator".

A couple of commenters also stated that they felt there was a conflict between FERC Order 693 and the NERC Rules of Procedure Section 600 as well as the Personnel Certification Governance Committee (PCGC) Charter. The SDT does not have sufficient information to address this suggested conflict. The standard does not mandate any changes to the PCGC Charter or to the process used to develop or administer the certification exams.

| Organization | Question 12 Comment | |
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| Platte River Power Authority Operations Group | We believe the standard as writtenshall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed could infer that registered entities be in compliance with PER-005-1 when in reality the intent of the Standard is to assure registered entities have staffed real-time operating positions with System Operators that have an appropriate, valid NERC certificate. | |
| Response: The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| NERC PCGC | Yes. There is a conflict between FERC Order 693 and the ROP, section 600, which were approved post FERC Order 693. See comment for #11 | |
| Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states "the Commission directs the ERO to develop these modifications to the Reliability Standard". | | |
| With regards to your comment concerning a conflict between FERC Order 693 and the Rules of Procedure Section 600, this is beyond the scope of this project. | | |
| Entergy Services | A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require | |

| Organization | Question 12 Comment |
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| | System Operator certification and should therefore be removed from the System Operator definition in the Glossary. |
| further narrowed the purpose to | m "System Operator" because it is a defined term which helps to narrow who should be included. However, the SDT only include the entities registered as Reliability Coordinators, Transmission Operators, and Balancing Authorities able to entities registered as Generator Operators, and thus is not applicable to those System Operators who work |
| SERC Standards Review Group | A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require System Operator certification and should therefore be removed from the System Operator definition in the Glossary. |
| further narrowed the purpose to | m "System Operator" because it is a defined term which helps to narrow who should be included. However, the SDT only include the entities registered as Reliability Coordinators, Transmission Operators, and Balancing Authorities able to entities registered as Generator Operators , and thus is not applicable to those System Operators who work |
| IPCo | conflicts with PCGC charter |
| | ained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the nmission directs the ERO to develop these modifications to the Reliability Standard". |
| The SDT does not have sufficient | t information from you comment to address "violation of PCGC Charter". |
| Long Island Power Authority | LIPA believes the proposed Standard "shall staff its real-time operating positions with System operators who have demonstrated minimum competency in the areas listed" could infer that Registered Entities be in compliance with PER-005-1 prior to the effective date of PER-005-1, when the intent of PER-003 is to assure that the Registered Entity has staffed ots real-time operating positions with System Operators possessing a valid Nerc Certificate. |
| performing (operating entity) reli | the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions ability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by f the following valid NERC certificates". |
| American Electric Power (AEP) | No known regulatory conflicts. |
| South Carolina Electric and Gas | Not aware of any. |

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| Organization | Question 12 Comment |
|-----------------------------------------------|------------------------------------|
| Independent Electricity System Operator | We are not aware of any conflicts. |
| Duke Energy | None |
| ISO RTO Council Standards Review Committee | None |
| NIPSCO | None |
| PacifiCorp | None |
| Northeast Power Coordinating Council | None. |
| Tranmission and Reliability (TRO), TVA | None. |
| Consumers Energy Company | No |
| Hydro-Québec TransEnergie (HQT) | No |
| ISO New England Inc. | No. |
| NERC Standards Review Subcommittee | N/A |
| Georgia System Operations Corporation | N/C |

13. In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Summary Consideration: Some of the commenters stated that there should be an exception within the proposed standard to allow for trainees. The SDT explained that the individual responsible for the operation of the BES must be NERC certified and that this proposed standard was not allowing for exceptions.

Some of the commenters re-stated their belief that minimum competencies should not be a part of this standard. The SDT is responding to FERC Order 693 which contains a directive to include minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states ".....the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

Some additional commenters re-stated their question as to how minimum competency would be verified. The requirements were modified to clarify that competence is demonstrated "by" obtaining and maintaining a NERC Certificate.

One commenter questioned whether the ISO/RE could impose stricter standards that those imposed by NERC. The ISO/RE had the authority to develop and implement qualification and/or certification processes in addition to the NERC certification program. However, the Compliance Enforcement Authority is only responsible for enforcing compliance with standards that have been developed and approved either with NERC's Standards Development Procedure or through a NERC-approved Regional Standards Development Procedure.

| Organization | Question 13 Comment |
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| Georgia System Operations Corporation | A section on training of operators that was in the old standard still should be addressed in the updated standard. If not, an interpretation of this standard would not allow a trainee, working on achieving his NERC certification, to gain operating experience working under the direct supervision of a certified system operator. |
| Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." | |
| ERCOT ISO | ERCOT ISO believes that minimum competencies do not belong in this standard. The terms "competent" and "competencies" are not interchangeable. Competent is a measure of a person's ability to perform. Competencies are, generally speaking, the knowledge and skills a person must have in order to develop or achieve competence. Some |

| Organization | Question 13 Comment |
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| | competencies (a minimum body of knowledge) can be demonstrated by the current NERC certification process. Other competencies that are not demonstrated by the current NERC certification process are defined and evaluated by the individual Registered Entities. When combined with the knowledge competencies, the Registered Entity then verifies that the individual is competent to perform its assigned tasks. Each ISO or RE should be allowed to establish qualification criteria for operating within its region. Furthermore, there is more flexibility within the existing process by going through the Personnel Certification Governance Committee for changing minimum competencies than there would be to change minimum competencies if they were added into the NERC standards. |
| | ained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the nmission directs the ERO to develop these modifications to the Reliability Standard". |
| The SDT believes that the ISO/RE certification program. | has the authority to develop and implement qualification and/or certification processes in addition to the NERC |
| The proposed standard only ider identify the detailed competencies | ntifies the topical areas where competence must be demonstrated through certification – the standard does not es. |
| NERC PCGC | It is suggested that we leave the competencies with PER-005 and leave them out of this standard. |
| Commission states "the Con | ained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the nmission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with erstanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will |
| Long Island Power Authority | LIPA suggests consideration of a requirement to require each RC/TOP/BA to have at least one position staffed with a System Operator possessing a valid NERC Certificate, 24 hours a day, seven days a week, responsible for the control of the bES munder R1/R2/R3. This requirement will eliminate the ambiguity of the definition of real-time operating positions responsible for the control of the BES. |
| | 2.Consideration for a requirement that clearly states the requirement of possessing a valid NERC certificate before a System Operator can fill a real-time operating position responsible for the control of the BES. |
| | It is our opinion that the phrase "demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate" can be interpreted as not requiring the possession of a valid NERC Certificate prior to staffing a real-time operating position. For example, minimum competency (which is undefined) can be demonstrated by a test given by the Registered Entity to a System Operator prior to the System Operator completing the NERC Certification process. If the pupose of this Standard is to demonstrate competency via the NERC certification process then the requirements should clearly state so. |

| Organization | Question 13 Comment |
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| performing (operating entity) relia | the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions ability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by the following valid NERC certificates". |
| The SDT believes that the measu operators minimum competency. | re requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an |
| Independent Electricity System Operator | PER-003-0 (Version 0) M1.1 provided for or stated that it was permissible for an operator-in-training without proper NERC certification to perform reliability related tasks while under direct and continuous supervision. PER-003-1 is now silent in this regard. Does this mean that it is still permissible for O-I-T's or other uncertified operations staff to perform these tasks under direct and continuous supervision and that it was deemed unnecessary to specifically mention this fact? To avoid compliance uncertainty in the future, we recommend reinstating the wording of PER-003-0 M1.1 or equivalent. |
| must be certified. The SDT does operating position, there must be to address this issue. The footnot under the direct supervision of a | and does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard one reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating ity for the performance of the reliability-related tasks." |
| NIPSCO | R1.2 from the existing PER-003-0 "Positions directly responsible for complying with NERC standards" was removed; the word "both" in R1 tied this to the real time operations. This is a key change to the standard that I think should be questioned and noted. In determining who should be NERC certified some entities can presently exclude people who are not familiar at all with complying to NERC Standards however they may be operating the BES. |
| | Another issue that came up during a proposed interpretation discussion a few years ago was that if a real time operator can act "independently", like shed load without asking a supervisor, then that person should be certified. This excluded switchmen and local dispatch center personnel who would ask for direction from a certified operator before acting on the BES. I think both these issues should be addressed or at least brought to the attention of people commenting. |
| Response: The SDT has modified | the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions |

Response: The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity.

By including the defined term, "System Operator" in the requirement, the SDT has already provided clarity with respect to which personnel need a

| Organization | Question 13 Comment |
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| NERC certificate. The definition of System Operator is: An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, and Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time. Thus, by definition, a switch person is not a System Operator - and a person working an operating position in a control room for an entity that is not registered as a Balancing Authority, Transmission Operator, Generator Operator, or Reliability Coordinator is not required to have a NERC certificate. Note that through other exclusions in the applicability section of the standard, personnel working in control rooms for an entity registered solely as a Generator Operator are not required to obtain a NERC certification. | |
| Duke Energy | The "Reliability Operator" certificate is for Reliability Coordination. The name of the certificate should be made consistent with the task. |
| Response: The SDT thanks you for approved SAR. | or your comment. However, your comment suggests something that is outside the scope of the industry |
| Xcel Energy | The current version of PER-003 addresses the allowability of non-NERC certified individuals (trainees) performing tasks of an RC, BA, or TOP under direct supervision of a certified individual and we believe there should be a requirement that explicitly allows that to occur. The current version of PER-003 addresses the allowable time that non-NERC certified personnel may staff positions when transitioning to an alternate control center. We believe this should be addressed in the requirements and also be consistent with the allowable transition time specified in EOP-008. |
| must be certified. The SDT does operating position, there must be to address this issue. The footnounder the direct supervision of a | rd does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard of the reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating ity for the performance of the reliability-related tasks." |
| that do not warrant straying from | should not contain exceptions since including exceptions could allow entities to violate the standard during times the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal database the situation under consideration and only issue a violation if the situation truly warranted such an action. |
| IPCo | The PCGC issues the credentials for the Operator Certification, How Does the ERO audit the PCGC for NERC compliance for issuing the certificates? |
| Response: The SDT thanks you for approved SAR. | or your comment. However, your comment suggests something that is outside the scope of the industry |

| Organization | Question 13 Comment | | |
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| FirstEnergy | The phrase "real-time" used in the standard should be capitalized (Real-time) since it is a NERC Glossary term. | | |
| performing (operating entity) relia | Response: The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates". | | |
| Pacific Gas and Electric Company | The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard. | | |
| Commission states "the Com FERC staff to ensure a clear undo reference competencies. The mi | Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states "the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. | | |
| The SDT believes that the measu operator's minimum competency | re requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an | | |
| WECC Operations Training Subcommittee | The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard. | | |
| Commission states "the Com FERC staff to ensure a clear undo reference competencies. The mi | ained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the minission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with erstanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will nimum competencies assessed in the certification exams were identified and verified through the application of a liministered on a continent-wide basis. | | |
| The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. | | | |
| American Electric Power (AEP) | There are potential gaps and conflicting information in the NERC CE Program and System Operator Certification Program Manual with respect the demonstrated competencies and Appendix A for recognized training topics. As explained in Section 600 - Personnel Certification of the Rules of Procedure of the NERC, these gaps and conflicting information will need to be addressed by the PCGC. The PCGC, in coordination with the NERC Personnel Subcommittee, should continue to manage the demonstrated competency areas and measuring thereof going forward. | | |

| Organization | Question 13 Comment |
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| | PER-005-1 should be modified to identify the company-specific reliability-related tasks of the identified competency areas to be addressed with a systematic training approach. |
| | for your comment. However, your comment suggests something that is outside the scope of the industry at any issues you have with the PS PCGC should be taken up with them. |
| American Transmission Company | This SDT should look at the new PER-005 standards as an additional source to show that the minimum competency list is being addressed. |
| Response: The SDT is not sure a | s to the point you are trying to make. The SDT agrees that PER-005 would be helpful with regards to training. |
| ISO New England Inc. | We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion. We believe the Standard need to be clarified to make it more clear for the industry. |
| tasks of the Reliability Coordinat | d the purpose statement which now reads "To ensure that System Operators performing the reliability-related or, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Real-time operating position responsible for the control of the Bulk Electric System". |
| | Operator should maintain their certification by the method that the Personnel Certification Governance Committee the control of the control o |
| performing (operating entity) reli | of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions ability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by f the following valid NERC certificates". |
| The SDT modified Measure M1.3 NERC certificate number with ex | to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or piration date". |
| ISO RTO Council Standards Review Committee | We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion. We believe the Standard needs to be clarified to make it more clear for the industry. |
| | d the purpose statement which now reads "To ensure that System Operators performing the reliability-related or, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification |

Organization Question 13 Comment

Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System".

The SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.

The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".

The SDT modified Measure M1.3 to provide greater clarity. The measure now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date".

| Alberta Electric System Operator We do not feel that competencies belong in this standard. Competencies are addressed in PER005 by requiring programs to be developed based on the entity's BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability standards, the task list will identify relevant competencies. From Four entities are addressed in PER005 by requiring programs to be developed based on the entity's BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability standards, the task list will identify relevant competencies. From Four entities are addressed in PER005 by requiring programs to be developed based on the entity's BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability standards, the task list will identify relevant competencies. From Four entities are addressed in PER005 by requiring programs to be developed based on the entity's BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability standards, the task list will identify relevant competencies. From Four entities are addressed in PER005 by requiring programs to be developed based on the entity's BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability related task list. Since each entity is required to be compliant with the appropriate NERC Reliability related task list. Since each entity is required to be competencies. From Four entities are addressed in PER005 by requiring programs to be developed based on the entity's BES reliability-related task list. Since each entity is required to be competencies. From Four entities are addressed in PER005 by requiring programs to be developed based on the entity is required to be competencies. |
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Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states ".....the Commission directs the ERO to develop these modifications to the Reliability Standard". The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.

| NERC Standards Review Subcommittee | N/A |
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| Entergy Services | None not already stated above. |
| SERC Standards Review Group | None not already stated above. |
| Consumers Energy Company | None |
| PacifiCorp | None |

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| South Carolina Electric and Gas | None |
| Transmission and Reliability (TRO), TVA | None. |