

Consideration of Comments

Project Name: 2015-07 Internal Communications Capabilities | COM-001-3

Comment Period Start Date: 9/25/2015

Comment Period End Date: 11/16/2015

Associated Ballots: 2015-07 Internal Communications Capabilities COM-001-3 IN 1 ST

2015-07 Internal Communications Capabilities COM-001-3 Non-binding Poll IN 1 NB

There were 54 responses, including comments from approximately 110 different people from approximately 68 different companies representing 10 of the 10 Industry Segments as shown on the following pages.

All comments submitted can be reviewed in their original format on the project page.

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 Director of Standards, Howard Gugel (via email) or at (404) 446-9693.

Questions

- 1. Do you agree that the proposed Requirements R12 and R13 in the proposed COM-001-3 address the directive in Order No. 808? If not, please explain why you do not agree and, if possible, provide specific language revisions that would make it acceptable to you.**
- 2. If you have any other comments on the proposed COM-001-3 that you haven't already mentioned above, please provide them here.**

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

1. Do you agree that the proposed Requirements R12 and R13 in the proposed COM-001-3 address the directive in Order No. 808? If not, please explain why you do not agree and, if possible, provide specific language revisions that would make it acceptable to you.

John Fontenot - Bryan Texas Utilities - 1 -

Selected Answer: Yes

Answer Comment: na

Leonard Kula - Independent Electricity System Operator - 2 -

Answer Comment: We agree with adding these two requirements to address the FERC directive, but we do not support the proposed wording for these requirements.

Requirements R12 and R13 mandate the provision of internal interpersonal communication capabilities within the same entity when performing its reliability function. Without specific wording that such capabilities are only required for communication between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, these requirements can and will result in entities not having physically separated control centers or staff perform its tasks to be non-compliant. The IESO and most of ISOs and RTOs in North America fall into this category.

The Measures for these two requirements do make reference to

physically separate control centers or staff in an example for evidence of compliance. However, the specific example only illustrates a way to comply with the requirement. Those entities that do not have physically separated control centers or deploy field staff will not be able to provide such evidence, and hence will fail the two requirements unless they incur in unnecessary expense to install internal interpersonal communication capabilities for communication within the control room, which serves no purpose and add no value at all.

To address the intent of the ERRC directive, which we interpret to be requiring internal interpersonal communication capabilities for physically separated control centers or between control center and field personnel within the same entity, we propose the following revisions to R12 and R13:

R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, and Balancing Authority shall have internal Interpersonal Communication capabilities for the exchange of information between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, that is necessary for the Reliable Operation of the BES.

R13. Each Distribution Provider shall have internal Interpersonal Communication capabilities for the exchange of information between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, that is necessary for the Reliable Operation of the BES.

Alternatively, these requirements can be rearranged as follows:

R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, and Balancing Authority shall have internal Interpersonal

Communication capabilities between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, for the exchange of information that is necessary for the Reliable Operation of the BES.

Similar rearrangement for the proposed R13.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

Jim McDougal - Public Utility District No. 1 of Snohomish County - 4 - WECC

Selected Answer: Yes

John Williams - Tallahassee Electric (City of Tallahassee, FL) - 3 -

Selected Answer: No

Answer Comment:

While TAL agrees that the new requirements address the FERC Order, we question what differentiates R12 and R13 from R1, R3, R5, R7 and R8. It appears the only addition is the word “internal” and “for the exchange of information that is necessary for the Reliable Operation of the BES”. The definition of Interpersonal Communication is “Any medium that allows two or more individuals to interact, consult, or exchange information.” This information is inherent to the reliable operation of the BES.

It seems that R12 and R13 are duplicative and do not add any clarity to the standard. What is the difference between (R12 and R13) and (R1, R3, R5, R7 and R8)? What is intended in R12 & R13 that would not be required in the existing R1, R3, R5, R7 and R8?

The additions as they stand are not clear and unambiguous, hence our Negative Vote.

Response: The FERC Order directed NERC to address specifically internal communications that are necessary for Reliable Operation of the BES. Interpersonal Communications was created as a defined term in Order No. 808. The existing approved language for Interpersonal Communication was used to ensure consistency within the COM-001 standard and succinctly address the FERC directive. The language used allows for differences among individual entities to be addressed at the entity level.

Likes: 2 Tallahassee Electric (City of Tallahassee, FL), 5, Webb Karen
Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott

Tom Haire - Rutherford EMC - 3 -

Selected Answer: No

Answer Comment:

For a small DP, field communications between control center and operating personnel (both internal to the DP and with other functional entities) may or may not necessarily flow through a control center or by means of communication that can be recorded, logged, or stored. This requirement is overly burdensome and, by that token, could result in slower response during an emergency when pace of response is paramount.

Response: The requirements and measures do not require specific types of evidence, but instead refer to the mediums and capabilities. An entity could provide evidence appropriate to its situations and acceptable to the enforcement authority on an individual basis. Based on this specific example, evidence of the physical asset may be appropriate to demonstrate compliance. If an entity keeps voice recordings to document internal Interpersonal Communications, an entity would be expected to retain the evidence as outlined in the evidence retention section of the draft standard.

Scott Williams - City Utilities of Springfield, Missouri - 3 -

Selected Answer: Yes

Karen Webb - Tallahassee Electric (City of Tallahassee, FL) - 5 -

Selected Answer: No

William Hutchison - Southern Illinois Power Cooperative - 1 -

Selected Answer: No

Answer Comment:

Comments to be provided by ACES and NRECA

Response: See response under ACES and NRCEA.

Joe O'Brien - NiSource - Northern Indiana Public Service Co. - 6 -

Selected Answer: No

Answer Comment: R12 and R13 Evidence Retention prescribes retaining voice recordings for 90 calendar days. However, M12 and M13 do not necessarily require voice recordings at all; it could be logs, transcripts, test records

Response: The requirements and measures do not require specific types of evidence, but instead refer to the mediums and capabilities. An entity could provide evidence appropriate to its situations and acceptable to the enforcement authority on an individual basis. Evidence of the physical asset may be appropriate to demonstrate compliance. If an entity keeps voice recordings to document internal Interpersonal Communications, an entity would be expected to retain the evidence as outlined in the evidence retention section of the draft standard.

Thomas Foltz - AEP - 5 -

Selected Answer: Yes

Answer Comment: While R3 is specific in regards to whom the communication capabilities are to be had ***with***, R12 and R13 provide that specificity only within the Measure and not the Requirement.

The inclusion of the word "or" within the third bullet of M12 and M13 may unintentionally imply a mutually exclusive relationship in regards to providing evidence of Interpersonal Communication capability "between geographically separate control centers within the same functional entity" ***or*** "between a control center and field switching personnel".

Response: Thank you for your comment. The SDT has revised the Standard to include the examples in the Requirements.

Matthew Beilfuss - WEC Energy Group, Inc. - 3,4,5,6 - RFC

Selected Answer: No

Answer Comment: The comments in FERC Order No. 808 addressed concerns with COM-001-2 R1.1, which is applicable to Reliability Coordinators, Transmission Operators and Balancing Authorities. The proposed changes include internal communications for Distribution Providers and Generator Operators.

R12 and R13 do not address the “adequacy” of the internal communications capabilities.

Response: FERC did not limit its directives to those functional entities. Rather, FERC stated that “pursuant to section 215(d)(5) of the FPA, we [FERC] direct NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41 (emphasis added). Note that, the NOPR on COM-001-2.1 which led to Order No. 808 stated that “internal communications can have an impact on reliability, including certain communications between a control center and a generating unit operator....” NOPR, at P 28.

In addition, note that COM-001-2.1 was expanded per Order No. 693, P 475 to include DPs and GOPs. Proposed Requirements R12 and R13 reflect that general update since COM-001-1.1.

FERC also stated in P 53 of Order No. 808 “that setting performance criteria for the email and telephonic communications at issue here is both impractical and unnecessary.”

Emily Rousseau - MRO - 1,2,3,4,5,6 - MRO

Group Name: MRO-NERC Standards Review Forum (NSRF)

Group Member Name	Entity	Region	Segments
Joe Depoorter	Madison Gas & Electric	MRO	3,4,5,6
Chuck Lawrence	American Transmission Company	MRO	1
Chuck Wicklund	Otter Tail Power Company	MRO	1,3,5
Theresa Allard	Minnkota Power Cooperative, Inc	MRO	1,3,5,6
Dave Rudolph	Basin Electric Power Cooperative	MRO	1,3,5,6
Kayleigh Wilkerson	Lincoln Electric System	MRO	1,3,5,6
Jodi Jenson	Western Area Power Administration	MRO	1,6
Larry Heckert	Alliant Energy	MRO	4
Mahmood Safi	Omaha Public Utility District	MRO	1,3,5,6
Shannon Weaver	Midwest ISO Inc.	MRO	2
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Brad Perrett	Minnesota Power	MRO	1,5
Scott Nickels	Rochester Public Utilities	MRO	4
Terry Harbour	MidAmerican Energy Company	MRO	1,3,5,6
Tom Breene	Wisconsin Public Service Corporation	MRO	3,4,5,6
Tony Eddleman	Nebraska Public Power District	MRO	1,3,5
Amy Casucelli	Xcel Energy	MRO	1,3,5,6

Selected Answer: No

Answer Comment:

1. The broad nature of the proposed requirements allows flexibility for compliance, but creates confusion when identifying evidence requirements. Entities with multiple communication options would have to consider collecting evidence on every available system to ensure they have evidence of communications in various communications system failure scenarios. While this may not be the intent, this concern could arise in an audit environment. The NSRF recommends that the SDT incorporate the newly formed “Implementation Guidance” within this updated Standard to assist entities with this compliance gap of “what types of evidence could we have to assure our internal capabilities are present and operational”.

Response: **Internal Interpersonal Communications requirements do not address alternate internal Interpersonal Communications. The RSAW is the compliance tool to assist both entities and compliance auditors on the types of evidence used to demonstrate compliance, not the draft Standard.**

2. The broad nature of the proposed requirements also contributes to a concern with the proposed Violation Severity Levels (VSL) for R12 and R13, where failure to provide evidence for a single method of internal communications could lead to a Severe VSL classification. With additional clarity added to R12 and R13, we recommend the High and Severe VSL classifications be used to address varying degrees of non-compliance, similar to other requirements in this standard.

Response: **These requirements are not amenable to being partitioned into multiple VSLs. An entity either has internal Interpersonal Communications capabilities or not, regardless of the media used.**

3. The NSRF questions why GOP is contained in R12 when in part, the last paragraph of the Background Information (page 1) states: “The proposed Requirements address internal Interpersonal Communication capabilities as directed by FERC for Reliability Coordinators, Balancing Authorities, and Transmission Operators in Requirement R12 and for Distribution Providers **and Generator Operators** in Requirement R13”. Recommend GOP be removed from R12 and moved to R13.

Response: **The narrative was incorrect and the posted version of the proposed COM-001-3 had R13 as applicable to the DP and has the GOP in R12. The DP uses a non-defined term “control center” and has a lower VRF requiring a separate Requirement.**

Louis Slade - Dominion - Dominion Resources, Inc. - 6 -

Group Name: Dominion

Group Member Name	Entity	Region	Segments
Randi Heise	NERC Compliance Policy	NPCC	5,6
Connie Lowe	NERC Compliance Policy	SERC	1,3,5,6
Louis Slade	NERC Compliance Policy	RFC	5,6
Chip Humphrey	Power Generation Compliance	SERC	5
Nancy Ashberry	Power Generation Compliance	RFC	5
Larry Nash	Electric Transmission Compliance	SERC	1,3

Candace L Marshall	Electric Transmission Compliance	SERC	1,3
Larry W Bateman	Transmission Compliance	SERC	1,3
Jeffrey N Bailey	Nuclear Compliance	SERC	5
Russell Deane	Nuclear Compliance	NPCC	5

Selected Answer: Yes

Answer Comment:

While Dominion agrees that the SDT met the directive, and could support the standard as proposed, we have seen comments indicating that many do not. We can't support the language we've seen in those posted comments and therefore offer the following for consideration.

R12. Each Reliability Coordinator, Transmission Operator, , and Balancing Authority that identifies the need to exchange information necessary for the Reliable Operation of the BES between geographically separate control centers within the same functional entity, or between a control center and field switching personnel shall have Interpersonal Communication capability addressing how this information is to be exchanged.

R13. Each Distribution Provider and Generator Operator that identifies the need to exchange of information necessary for the Reliable Operation of the BES between geographically separate control centers within the same functional entity, or between a control center and field switching personnel shall have Interpersonal Communication capability addressing how this information is to be exchanged.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

Oliver Burke - Entergy - Entergy Services, Inc. - 1 -

Selected Answer: No

Answer Comment: Entergy supports Dominion's comments on R12 and R13.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

John Falsey - Invenergy LLC - 5 - FRCC,MRO,WECC,TRE,NPCC,SERC,SPP,RFC

Selected Answer: No

Answer Comment: Agree with PJM

Comments: Suggest replacing the phrase "*internal communications*" with another phrase such as "*communications between personnel that are not physically co-located.*" This change would ensure that the new requirement(s) applies explicitly and only to internal communications:

- between geographically separate control centers within the same functional entity, or
- between a control center and field personnel.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Selected Answer: Yes

Richard Hoag - FirstEnergy - FirstEnergy Corporation - 1,3,4,5,6 - RFC

Group Name: FE RBB

Group Member Name	Entity	Region	Segments
William Smith	FirstenergyCorp	RFC	1
Cindy Stewart	FirstEnergy Corp.	RFC	3
Doug Hohlbaugh	Ohio Edison	RFC	4
Robert Loy	FirstEnergy Solutions	RFC	5
Richard Hoag	FirstenergyCorp	RFC	NA - Not Applicable
Ann Ivanc	FirstEnergy Solutions	FRCC	6

Selected Answer: No

Answer Comment:

FE Supports both PJM's and the ISO/RTO Council Standards Review Committee position.

Suggest replacing the phrase "*internal communications*" with another phrase such as "*communications between personnel that are not physically co-located.*" This change would ensure that the new requirement(s) applies explicitly and only to internal communications:

- between geographically separate control centers within the same functional entity, or
- between a control center and field personnel.

The phrase “*adequacy of internal communications capability*” is ambiguous and needs to be clarified. Is this phrase intended to refer to creation of a requirement that the hardware can adequately handle a conversation, or is it being used in the more generic sense that any new requirement must be adequate to address the two bullet points above?

PJM supports the comments submitted by the ISO/RTO Council Standards Review Committee.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

FERC stated in P 53 of Order No. 808 “that setting performance criteria for the email and telephonic communications at issue here is both impractical and unnecessary.”

Patti Metro - National Rural Electric Cooperative Association - 3 -

Selected Answer:

No

Answer Comment:

NRECA does not believe the SDT has properly addressed the directive listed within FERC Order No. 808, but has unnecessarily included Generator Operator in requirement R12 and the stand alone R13 for Distribution Providers. R12 should be modified to only include Reliability Coordinators, Balancing Authorities and Transmission Operators and R13 is not necessary

Response: FERC did not limit its directives to those functional entities. Rather, FERC stated that “pursuant to section 215(d)(5) of the FPA, we [FERC] direct NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41 (emphasis added). Note that, the NOPR on COM-001-2.1 which led to Order No. 808 stated that “internal communications can have an impact on reliability, including certain communications between a control center and a generating unit operator....” NOPR, at P 28.

In addition, note that COM-001-2.1 was expanded per Order No. 693, P 475 to include DPs and GOPs. Proposed Requirements R12 and R13 reflect that general update since COM-001-1.1.

Chris Gowder - Chris Gowder On Behalf of: Carol Chinn, Florida Municipal Power Agency, 5, 6, 4, 3
David Schumann, Florida Municipal Power Agency, 5, 6, 4, 3
Joe McKinney, Florida Municipal Power Agency, 5, 6, 4, 3
Richard Montgomery, Florida Municipal Power Agency, 5, 6, 4, 3

Selected Answer:

No

Answer Comment:

FMPA supports the Bureau of Reclamation’s comments and believes the proposed revisions go beyond the scope of the FERC directive and what is required for BES reliability by including GOP and DP in the new

requirements.

Response: FERC did not limit its directives to those functional entities. Rather, FERC stated that “pursuant to section 215(d)(5) of the FPA, we [FERC] direct NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41 (emphasis added). Note that, the NOPR on COM-001-2.1 which led to Order No. 808 stated that “internal communications can have an impact on reliability, including certain communications between a control center and a generating unit operator...” NOPR, at P 28.

In addition, note that COM-001-2.1 was expanded per Order No. 693, P 475 to include DPs and GOPs. Proposed Requirements R12 and R13 reflect that general update since COM-001-1.1.

Scott Langston - Tallahassee Electric (City of Tallahassee, FL) - 1 -

Selected Answer: No

Jay Barnett - Exxon Mobil - 7 -

Selected Answer: No

Answer Comment:

Internal Interpersonal Communications used solely to communicate within a Facility (i.e. radio communication between operators) are inherent and necessary for the safe and reliable operation of that Facility and should be excluded from COM-001-3 due to the lack of reliability benefit.

Response: FERC Order No. 808 required NERC to explicitly require internal communications as part of a modified or new standard to address identified reliability gaps.

Likes:

1 Colorado Springs Utilities, 1, Speer Shawna

Erika Doot - U.S. Bureau of Reclamation - 5 -

Selected Answer:

No

Answer Comment:

The Bureau of Reclamation appreciates the drafting team's efforts to address the reliability gap discussed in FERC Order No. 808 P 41 (Apr. 16, 2015) that was created when internal communications addressed in Requirement R1.1 of COM-001-1 were not included in COM-001-2.

As noted in P 41, Requirement R1.1 only applies to Reliability Coordinators, Transmission Operators and Balancing Authorities. However, the proposed changes in COM-001-3 go beyond the scope of FERC Order No. 808 by adding requirements for internal communications for Generator Operators and Distribution Providers. Reclamation suggests that the Generator Operator and Distribution Provider functions should be removed from requirements R12 and R13 proposed for COM-001-3.

Reclamation believes that the proposed requirement for the Reliability Coordinator, Transmission Operator, and Balancing Authority functions

fully addresses the reliability gap discussed in Order No. 808, P 41. This suggestion is consistent with FERC's acknowledgement in Order 808 of the lower impact of Generator Operator and Distribution Provider communications on the Bulk-Power System.

Response: FERC did not limit its directives to those functional entities. Rather, FERC stated that “pursuant to section 215(d)(5) of the FPA, we [FERC] direct NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41 (emphasis added). Note that, the NOPR on COM-001-2.1 which led to Order No. 808 stated that “internal communications can have an impact on reliability, including certain communications between a control center and a generating unit operator....” NOPR, at P 28.

In addition, note that COM-001-2.1 was expanded per Order No. 693, P 475 to include DPs and GOPs. Proposed Requirements R12 and R13 reflect that general update since COM-001-1.1.

Meghan Ferguson - Meghan Ferguson On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1

Selected Answer:

No

Answer Comment:

Reliable operation of the BES requires that generation, transmission, and load operate in synchronism. Communication between and within entities involved in generation, transmission, and distribution is an important element in ensuring reliability. We agree with the inclusion of the GOP and DP entities in the standard. However, we disagree that the VRF associated with the DP is somehow different than for the GOP or the TOP. Load shed is an integral aspect of maintaining reliability and is preferred to be implemented at the distribution level rather than the

transmission level to ensure the maximum level of reliability.

Response: In order to be consistent with the approved VRF in COM-001-2.1, the SDT chose a medium VRF for DPs. The SDT discussed revising the VRF for DPs for internal Interpersonal Communications, but were unable to define a technical justification.

Donald Lock - Talen Generation, LLC - 5 -

Selected Answer: No

Answer Comment: Talen Energy supports FERC’s objective in Order 808, but we believe that COM-001-3 R12 is presently worded so generically that interpretations by entities as to its practical meaning might miss the specific points that FERC emphasized, and might add plant-internal communications that FERC did not intend to cover. We respectfully suggest that, similar to PER-005, only Control Centers should have a compliance obligation for R12. That is, R12 should have a Generator Operator footnote stating, “This requirement applies for Generator Operators only for communications between geographically separate Control Centers and between Control Center operators and field personnel they direct. It does not apply for operators located at a generator plant site.”

Response: FERC did not state any limitations for internal Interpersonal Communications, but directed NERC “to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.”

The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

Joel Wise - Tennessee Valley Authority - 1,3,5,6 - SERC

Selected Answer: No

Answer Comment: As noted in FERC Order No. 808 P41, COM-001-1.1 Requirement R1.1 only applied to Reliability Coordinators, Transmission Operators and Balancing Authorities. However, the proposed changes in COM-001-3 go beyond the scope of FERC Order No. 808 by adding requirements for internal communications for Generator Operators. TVA suggests that the Generator Operator function should be removed from requirements R12 proposed for COM-001-3.

Response: FERC did not limit its directives to those functional entities. Rather, FERC stated that “pursuant to section 215(d)(5) of the FPA, we [FERC] direct NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41 (emphasis added). Note that, the NOPR on COM-001-2.1 which led to Order No. 808 stated that “internal communications can have an impact on reliability, including certain communications between a control center and a generating unit operator....” NOPR, at P 28.

In addition, note that COM-001-2.1 was expanded per Order No. 693, P 475 to include DPs and GOPs. Proposed Requirements R12 and R13 reflect that general update since COM-001-1.1.

William Temple - William Temple On Behalf of: Mark Holman, PJM Interconnection, L.L.C., 2

Selected Answer: No

Answer Comment:

Suggest replacing the phrase “*internal communications*” with another phrase such as “*communications between personnel that are not physically co-located.*” This change would ensure that the new requirement(s) applies explicitly and only to internal communications:

- between geographically separate control centers within the same functional entity, or
- between a control center and field personnel.

The phrase “*adequacy of internal communications capability*” is ambiguous and needs to be clarified. Is this phrase intended to refer to creation of a requirement that the hardware can adequately handle a conversation, or is it being used in the more generic sense that any new requirement must be adequate to address the two bullet points above?

PJM supports the comments submitted by the ISO/RTO Council Standards Review Committee.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

FERC stated in P 53 of Order No. 808 “that setting performance criteria for the email and telephonic communications at issue here is both impractical and unnecessary.”

Bob Thomas - Illinois Municipal Electric Agency - 4 -

Selected Answer:

No

Answer Comment:

Illinois Municipal Electric Agency (IMEA) recommends deletion of proposed Requirement 13 since it is not necessary for Reliable Operation of the BES. IMEA questions the necessity of both R12 and R3. IMEA is not aware of any communication of event analysis information indicating the lack of internal Interpersonal Communication capability is an issue, or that the lack of this capability contributed to reduced reliability of the BES. If for some reason R12 is needed, IMEA supports consideration of other survey suggestions. R13 is not needed for reliability of the BES.

Response: FERC Order No. 808 required NERC to explicitly require internal communications as part of a modified or new standard to address identified reliability gaps.

Jason Smith - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC,SERC,SPP

Group Name: SPP Standards Review Group

Group Member Name	Entity	Region	Segments
Shannon Mickens	Southwest Power Pool	SPP	2
Jason Smith	Southwest Power Pool	SPP	2
John Allen	City Utilities Springfield Missouri	SPP	1,4
Darryl Boggess	Western Farmers Electric Cooperative	SPP	1,5
James Nail	City of Independence, Missouri	SPP	3,5
Ron Gunderson	Nebraska Public Power District	MRO	1,3,5
Brandon Levander	Nebraska Public Power District	MRO	1,3,5
Ashley Stringer	Oklahoma Municipal Power Authority	SPP	4
Don Schmit	Nebraska Public Power District	MRO	1,3,5
Mahmood Safi	Omaha Public Power District	MRO	1,3,5

Scott Williams	City Utilities of Springfield Missouri	SPP	1,4
Amy Casuscelli	Xcel Energy	SPP	1,3,5,6

Selected Answer:

No

Answer Comment:

We feel that the wording of the two new measures M12 and M13 introduce several ambiguities. The first is that the Measures seem to attempt to define what “internal” Interpersonal Communication capabilities are. The wording of both measures is inconsistent as well. It seems that demonstration of “capability” is being defined in the Measures as simply providing evidence of a physical asset or evidence that documentation of previous communication was made.

Response: **The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.**

FERC stated in P 53 of Order No. 808 “that setting performance criteria for the email and telephonic communications at issue here is both impractical and unnecessary.”

There is also concern that it may not be clear to auditors that the “operating procedures” used to preserve or maintain the capability may not be the procedure or process used by operators sitting at the real-time desk. These processes or procedures may be utilized by support staff such as IT staff that may do things behind the scenes to ensure the capability is maintained.

Response: **Either type of evidence could demonstrate compliance. Operating procedures are not necessarily limited to desk procedures. The entity should work with the compliance enforcement authority to determine which type of evidence is most appropriate for their individual facts and circumstances.**

R12 and R13 may not be applicable to all registered entities mentioned. In some cases, the registered entities may have no need for “internal” communication capability since all of the personnel necessary to perform their functional obligations are in the same room. It seems the SDT intends that this is an acceptable arrangement, but we struggle to understand how internal communication capability can be demonstrated when under an audit but is not necessary for the registered entity to perform its obligations.

Response: **Under the risk based compliance and enforcement process, the scope of an audit would be determined in a cooperative manner. Face to face communications would not be considered internal Interpersonal Communications capabilities.**

We also feel the SDT has exceeded the FERC directive by including the GOP and DP in the applicability of these new requirements and should be eliminated from the applicability of R12 and R13.

Response: **FERC did not limit its directives to those functional entities. Rather, FERC stated that “pursuant to section 215(d)(5) of the FPA, we [FERC] direct NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41 (emphasis added). Note that, the NOPR on COM-001-2.1 which led to Order No. 808 stated that “internal**

communications can have an impact on reliability, including certain communications between a control center and a generating unit operator....” NOPR, at P 28.

In addition, note that COM-001-2.1 was expanded per Order No. 693, P 475 to include DPs and GOPs. Proposed Requirements R12 and R13 reflect that general update since COM-001-1.1.

We suggest that the SDT consider rewriting R12 and R13 to be explicitly applicable to situations where the single, registered entity (RC, TOP, BA, GOP, DP) is required to have “internal” communication capabilities when it has either or both geographically separated control centers or a need to communicate with field personnel in carrying out its functional responsibilities. This would remove or lessen the burden on the term “internal” being carried by the current wording. The FERC directive seems to be limited to those two specific types of scenarios that were envisioned by the original COM-001-1 language. For example:

R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, and Balancing Authority shall have internal Interpersonal Communication capabilities for the exchange of information that is necessary for the Reliable Operation of the BES *when*:

- *The RC, TOP, GOP, or BA must communicate with its personnel who are residing in geographically separated control centers, or*
- *The RC, TOP, GOP, or BA must communicate with field personnel.*

Perhaps including in the Measure another bullet such as: Evidence could include an analysis of reliability related tasks (as developed for PER-005-2) to be performed by the RC, TOP, BA, GOP, or DP that require

use of an internal communication medium. That medium is the internal communication capability that must be demonstrated. Alternatively, a definition of Internal Intercommunication Capability could be created that clarifies when internal communication capabilities are required.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

Response:

Scott Berry - Scott Berry On Behalf of: Jack Alvey, Indiana Municipal Power Agency, 1, 4

Selected Answer:

No

Answer Comment:

In requirement R12, the phrase *“for the exchange of information that is necessary for the Reliable Operation of the BES”* is ambiguous and needs to be clarified. In addition, the requirement needs to specify which parties the RC, TOP, GOP, and BA need internal Interpersonal Communication capabilities with in order to be compliant.

Response: FERC did not state any limitations for internal Interpersonal Communications, but directed NERC “to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.”

Dixie Wells - Lower Colorado River Authority - 5 -

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Michael Shaw	LCRA	TRE	6
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5

Selected Answer: Yes

Tammy Porter - Tammy Porter On Behalf of: Rod Kinard, Oncor Electric Delivery, 1

Selected Answer: Yes

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7 - NPCC

Group Name: RSC

Group Member Name	Entity	Region	Segments
Paul Malozewski	Hydro One.	NPCC	1
Guy Zito	Northeast Power Coordinating Council	NPCC	NA - Not Applicable
Michael Forte	Con Edison	NPCC	1
Brian Shanahan	National Grid	NPCC	1
Rob Vance	New Brunswick Power	NPCC	1
Robert J. Pellegrini	United Illuminating	NPCC	1
Sylvain Clermont	Hydro Quebec	NPCC	1
Edward Bedder	Orange and Rockland Utilities	NPCC	1
Mark J. Kenny	Eversource Energy	NPCC	1
Gregory A. Campoli	NY-ISO	NPCC	2
Si Truc Phan	Hydro Quebec	NPCC	2
Randy MacDonald	New Brunswick Power	NPCC	2
Kelly Dash	Con Edison	NPCC	3
David Burke	Orange and Rockland Utilities	NPCC	3
Peter Yost	Con Edison	NPCC	4
Wayne Sipperly	New York Power Authority	NPCC	4
Connie Lowe	Dominion Resources Services	NPCC	4
David Ramkalawan	Ontario Power Generation	NPCC	4
Glen Smith	Entergy Services	NPCC	4
Brian O'Boyle	Con Edison	NPCC	5

Brian Robinson	Utility Services	NPCC	5
Bruce Metruck	New York Power Authority	NPCC	6
Alan Adamson	New York State Reliability Council	NPCC	7
Kathleen M. Goodman	ISO-New England	NPCC	2
Helen Lainis	Independent Electricity System Operator	NPCC	2

Selected Answer:

No

Answer Comment:

Communication with field personnel may be done via cellphones. The Standard should explain that it is sufficient to simply designate cellphone communications as the means to communicate and not require phone lists to be provided.

Response: The Measure allows compliance to be demonstrated by providing physical assets to demonstrate capabilities.

Does the Standard create an obligation for field personnel to be able to communicate immediately with the control center? For example, a vegetation inspector may see a potential encroachment into a transmission line, but is in a cellphone dead zone. Is being in a dead zone a violation of R13 since the internal Interpersonal Communication Capability was not capable of communicating? There needs to be guidance that dead zones are allowed for field personnel. The Requirement should recognize non-functioning capability.

Response: The requirements address capabilities, not individual unit performance. As FERC stated in Order No. 808, "NERC maintains that additional specifications are not necessary because the standard as written requires applicable entities to have the working capability needed to maintain reliability... we are satisfied that technical

specifications regarding minimum levels of performance for the mediums used to satisfy the requirements of COM-001-2.1 are not necessary at this time. “

What constitutes being “geographically separate”? How many miles? Who determines this distance?

Response: The example was meant to be illustrative and is not a specific requirement or limitation. The requirement address internal Interpersonal Communication capabilities, not just at geographically separate control centers.

We agree with adding these two requirements to address the FERC directive, but we do not support the proposed wording for these requirements.

Requirements R12 and R13 mandate the provision of internal interpersonal communication capabilities within the same entity when performing its reliability function. Without specific wording that such capabilities are only required for communication between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, these requirements can and will result in entities not having physically separated control centers or staff perform its tasks to be non-compliant. The IESO and most of ISOs and RTOs in North America fall into this category.

The Measures for these two requirements do make reference to physically separate control centers or staff in an example for evidence of compliance. However, the specific example only illustrates a way to comply with the requirement. Those entities that do not have physically separated control centers or deploy field staff will not be able to provide

such evidence, and hence will fail the two requirements unless they incur in unnecessary expense to install internal interpersonal communication capabilities for communication within the control room, which serves no purpose and adds no value at all.

To address the intent of the FERC directive, which we interpret to be requiring internal interpersonal communication capabilities for physically separated control centers or between control center and field personnel within the same entity, we propose the following revisions to R12 and R13:

“R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, and Balancing Authority shall have internal Interpersonal Communication capabilities for the exchange of information between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, that is necessary for the Reliable Operation of the BES.”

“R13. Each Distribution Provider shall have internal Interpersonal Communication capabilities for the exchange of information between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, that is necessary for the Reliable Operation of the BES.

Alternatively, these requirements can be rearranged as follows:

“R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, and Balancing Authority shall have internal Interpersonal Communication capabilities between geographically separate control centers within the same functional entity, or between a control center and field switching personnel, for the exchange of information that is necessary for the Reliable Operation of the BES.”

Similar rearrangement for the proposed R13.

Response: **The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.**

Response:

Venona Greaff - Oxy - Occidental Chemical - 7 -

Group Name: Oxy

Group Member Name	Entity	Region	Segments
Venona Greaff	Occidental Chemical Corporation	SERC	7
Michelle D'Antuono	Ingleside Cogeneration LP.	TRE	5

Selected Answer: No

Answer Comment:

Occidental Chemical Corporation (OCC) believes that the strategy taken by the Standards Drafting Team (SDT) to address FERC's directives is too open ended. Examples are provided in the associated Measures, but do not expressly limit the expansion in scope to (1) control center-to-control center and (2) control center-to-field personnel information exchange. Since the Commission only required those two additions to the standard, it seems unnecessary to open the door for other communication pathways that may happen to exist.

Response: **The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.**

FERC will see no material difference between two internal TOP Control Centers versus those operated by two separate Registered Entities – both requiring Alternative Interpersonal Communication capability. Comparatively, a Distribution Provider's internal work centers would not need this level of redundancy.

Response: **The SDT does not address Alternative internal Interpersonal Communication capabilities. Reliability Standard COM-001-2.1 does not impose requirements on DPs and GOPs regarding designation or testing of Alternative Interpersonal Communication capability. Note, Order No. 808 stated, for example, "We are persuaded by the comments of NERC and others that additional testing requirements for distribution providers and generator operators are not necessary at this time. NERC and other commenters assert that the primary Interpersonal Communication systems used by a distribution provider or generator operator will effectively be tested through routine use, and that any potential failures in a given generator operator or**

distribution provider’s external communication system will not have a substantial impact on the Bulk-Power System. In light of this explanation, as well as our recognition in Order No. 693 that telecommunication requirements for applicable entities will vary according to their roles, we decline to require any additional testing requirements for distribution providers and generator operators at this time.” P 44.

It was not easy for industry to reach consensus on COM-001-2. It took six years to reach the right balance of precision and flexibility needed to specify the Entity-to-Entity information exchange links that are necessary for reliable electric system operations. As such, we propose that the SDT leverage the standard’s existing structure to enact FERC’s directives. This entails the addition of the two new specific communication pathways as sub-requirements to the existing requirements. As an example, we suggest that R5.5 and R5.6 would be added as shown below:

R5. Each Balancing Authority shall have Interpersonal Communication capability with the following entities (unless the Balancing Authority detects a failure of its Interpersonal Communication capability in which case Requirement R10 shall apply): [Violation Risk Factor: High] [Time Horizon: Real-time Operations]

5.1. Its Reliability Coordinator.

5.2. Each Transmission Operator that operates Facilities within its Balancing Authority Area.

5.3. Each Distribution Provider within its Balancing Authority Area.

5.4. Each Generator Operator that operates Facilities within its

Balancing Authority Area.

5.5. Each Adjacent Balancing Authority.

5.6. **Each internal control center which operates two or more Facilities within its Balancing Authority Area.**

5.7. **Field personnel who execute tasks that require element switching as part of that task.**

Response: **The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.**

Response:

Michelle D'Antuono - Oxy - Ingleside Cogeneration LP - 5 -

Selected Answer: No

Answer Comment: See Occidental Chemical Corporation's comments.

Response: See response to Occidental Chemical Corporation.

Scott McGough - Georgia System Operations Corporation - 3 -

Selected Answer:

No

Answer Comment:

One of the Measurement bullets is stated as:

“Examples include, but are not limited to, geographically separate control centers within the same functional entity, or between a control center and field personnel”

This Measurement needs to be proofed, as it does not specify a “capability”. It summarizes a condition which seems meant to describe what “internal” might mean – not what constitutes a Communications capability. The Measurement bullet appropriately qualifies “geographically separate control centers” by referring to “within the same functional entity”, and could state the same with regard to “between a control center and field personnel [within the same functional entity]” to reinforce that the requirement is meant to be interpreted to “internal” communications only.

Response: **Thank you for the comment. FERC stated in P 53 of Order No. 808 “that setting performance criteria for the email and telephonic communications at issue here is both impractical and unnecessary.”**

Field personnel may be too vague for registered entities. Perhaps a reference could be made to personnel that operate or maintain Facilities (or some other term from the NERC Glossary).

Finally, because “internal” is not defined, the reference to “Including, but not limited to” may not be appropriate, because it creates an unbounded condition of an undefined term – rather than setting a

baseline (i.e., a non-exclusive list) of the types of records or evidence that would demonstrate compliance with a requirement.

Response: **FERC did not state any limitations for internal Interpersonal Communications, but directed NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System. Limiting field personnel to those that only operate or maintain Facilities could result in a reliability gap.**

Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RFC

Group Name: Duke Energy

Group Member Name	Entity	Region	Segments
Doug Hils	Duke Energy	RFC	1
Lee Schuster	Duke Energy	FRCC	3
Dale Goodwine	Duke Energy	SERC	5
Greg Cecil	Duke Energy	RFC	6

Selected Answer: Yes

Ben Li - Independent Electricity System Operator - 2 - NPCC

Group Name: ISO/RTO Council Standards Review Committee

Group Member Name	Entity	Region	Segments
Charles Yeung	SPP	SPP	2
Greg Campoli	NYISO	NPCC	2
Ali Miremadi	CAISO	WECC	2
Ben Li	IESO	NPCC	2
Kathleen Goodman	ISO-NE	NPCC	2
Mark Holman	PJM	RFC	2
Terry Bilke	MISO	MRO	2

Selected Answer: No

Answer Comment:

Although the proposed requirements “address” the stated concerns, the proposals introduce an unneeded level of ambiguity. Please see our comments and suggestions under Q2.

Response: See response under Q2.

Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC

Group Name: Southern Company

Group Member Name	Entity	Region	Segments
Robert A. Schaffeld	Southern Company Services, Inc.	SERC	1
R. Scott Moore	Alabama Power Company	SERC	3
William D. Shultz	Southern Company Generation	SERC	5
John J. Ciza	Southern Company Generation and Energy Marketing	SERC	6

Answer Comment:

While Southern believes that the proposed requirements are a good attempt by the SDT to address the directive in FERC Order 808, we also believe that the current COM-001-2 standard already implies that the named functions should have Interpersonal Communications capabilities for the exchange of reliability information internally between such functions that are a part of the same organization, but are geographically dispersed. To add additional requirements would be duplicative in nature, would only result in an added administrative burden on the industry and would not substantially contribute to the overall reliability of the system.

Response: This issue was discussed in comments on the NOPR (see Order No. 808, P 37-39). FERC directed “[N]ERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41

Gerry Adamski - Essential Power, LLC - 5 -

Selected Answer: No

Answer Comment: Essential Power supports the comments submitted by PJM regarding this proposed standard.

Response: See response to PJM comments.

Richard Vine - California ISO - 2 -

Selected Answer: Yes

Rachel Coyne - Texas Reliability Entity, Inc. - 10 -

Selected Answer: No

Answer Comment: Although the language in new Requirements 12 and 13 appears to mirror FERC-approved language in other existing COM-001 requirements that certain functions “shall have Interpersonal Communication capability,” the new standards do not incorporate the various provisions throughout the remainder of COM-001 that appear designed to ensure those communication capabilities are also adequate. For example, under the current COM-001-3 requirements for

external communications, Transmission Operators (TOPs) are required to maintain Interpersonal Communications capability (R3), as well as Alternative Interpersonal Communication capability with certain functions as a backup (R4). In addition, TOPs are required to test Alternative Interpersonal Communications capability monthly (R9) and notify certain entities of any failure of its Interpersonal Communications capability lasting thirty minutes or longer (R10). Taken together, these additional requirements appear to be designed to ensure that a TOP's communications capabilities are reliable and adequate, particularly for communications that are necessary for BES reliability.

Texas RE recommends the SDT consider whether in the absence of these additional requirements of Alternative Interpersonal Communications, testing, and notification, Requirements 12 and 13 satisfy FERC's directive to ensure "adequate" internal communications capability. The SDT could address this issue by either: (1) incorporating appropriate requirements from the existing COM-001 requirements into Requirements 12 and 13; or (2) revising Requirements 12 and 13 to require registered entities to have "adequate" internal Interpersonal Communication capability.

Response: FERC Order No. 808 does not reference Alternative internal Interpersonal Communication capabilities. FERC directed NERC "to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System."

FERC stated in P 53 of Order No. 808 "that setting performance criteria for the email and telephonic communications at issue here is both impractical and unnecessary."

Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2 -

Selected Answer:

No

Answer Comment:

Comments: ERCOT respectfully suggests that Requirements R12 and R13 are overly broad as written, which could result in ambiguity and subjectivity regarding the communications capabilities that are necessary. While the measures attempt to better bound the expectations, ERCOT suggests that the measure is not the appropriate location for ensuring the clarity of the proposed requirement. To ensure that expectations are clear, concise, and definitive, ERCOT recommends the following revisions to Requirements R12 and R13:

R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, and Balancing Authority shall have internal Interpersonal Communication capabilities to exchange information as necessary to preserve the Reliable Operation of the BES between its:

- Geographically separate control centers
 - Geographically separate control centers and field personnel.
- [Violation Risk Factor: High] [Time Horizon: Real-time Operations]

R13. Each Distribution Provider shall have internal Interpersonal Communication capabilities to exchange information as necessary to preserve the Reliable Operation of the BES between its:

- Geographically separate control centers
 - Geographically separate control centers and field personnel.
- [Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]

Alternatively, ERCOT suggests that requirements R12 and R13 be combined as follows:

R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, Distribution Provider, and Balancing Authority shall internal Interpersonal Communication capabilities to exchange information as

necessary to preserve the Reliable Operation of the BES between its:
 • Geographically separate control centers
 • Geographically separate control centers and field personnel.
 [Violation Risk Factor: High] [Time Horizon: Real-time Operations]

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

DPs are in a separate Requirement to address the lower risk that a DP presents compared to the RC, TOP, BA or GOP. The separate Requirement also uses the non-defined term “control center” rather than the NERC defined term “Control Center” based on the current definition of the defined term. This separate Requirement for the DP is consistent with the other Requirements in COM-001-2.1.

Shawna Speer - Colorado Springs Utilities - 1 -

Group Name: Colorado Springs Utilities

Group Member Name	Entity	Region	Segments
Shawna Speer	Colorado Springs Utilities	WECC	1
Shannon Fair	Colorado Springs Utilities	WECC	6
Charles Morgan	Colorado Springs Utilities	WECC	3
Kaleb Brimhall	Colorado Springs Utilities	WECC	5

Selected Answer: No

Answer Comment:

Colorado Springs Utilities does not see a reliability gap requiring the addition of Requirements R12. and R13. Communication with field personnel is a requirement of conducting business.

Response: FERC Order No. 808 required NERC to explicitly require internal communications as part of a modified or new standard to address identified reliability gaps.

Andrew Puztai - American Transmission Company, LLC - 1 -

Selected Answer:

No

Answer Comment:

ATC has the following concerns:(as applicable to Transmission Operators in Requirement 12) and ask that the SDT consider these in the next draft of Reliability Standard COM-001:

The broad nature of the proposed requirement (**Requirements R12 in the proposed COM-001-3**) allows flexibility for compliance, but creates confusion when identifying evidence requirements. Entities with multiple communication options would have to consider collecting evidence on every available system to ensure they have evidence of communications in various communications system failure scenarios.

Response: **Internal Interpersonal Communications requirements do not address alternate internal Interpersonal Communications. The RSAW is the compliance tool to assist both entities and compliance auditors on the types of evidence used to demonstrate compliance, not the draft Standard.**

The broad nature of the proposed requirements also contributes to a concern with the proposed Violation Severity Levels (VSL) for R12,

where failure to provide evidence for a single method of internal communications could lead to a Severe VSL classification.

Response: **These requirements are not amenable to being partitioned into multiple VSLs. An entity either has internal Interpersonal Communications capabilities or not, regardless of the media used.**

Response:

Joshua Andersen - Salt River Project - 1,3,5,6 - WECC

Selected Answer:

No

Answer Comment:

This language is too vague to properly address the direction from FERC Order No. 808 to include:

(1) communications between geographically separate control centers within the same functional entity;

(2) communications between a control center and field personnel.

While the language in the measures tries to address the two aforementioned items, the measures are not an auditable portion of the standard, and it is recommended the two items be specifically addressed in R12 and R13.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable

Selected Answer:

No

Answer Comment:

- 1) We feel the SDT has not properly addressed the directive listed within FERC Order No. 808. Paragraph 41 of this Order specifically addresses a reliability gap which was created when “internal communications,” which was listed within with the previous standard, COM-001-1.1, was not incorporated into COM-001-2. The previous standard only applied to RCs, TOPs, and BAs. We understand that FERC Order No. 693, Paragraph 508 directed the expansion of the standard’s applicability to include GOPs and DPs. However, we feel that directive was already addressed in COM-001-2. Does a GOP need to

demonstrate internal communication capabilities between its operations dispatch or control center and its power plants? We also question if communications with geographically separate operational or control centers applies to DPs. Therefore, we feel the SDT should develop requirements that apply only to RCs, TOPs, and BAs to address the FERC directive. The inclusion of DPs and GOPs go beyond the scope of FERC Order No. 808.

Response: FERC did not limit its directives to those functional entities. Rather, FERC stated that “pursuant to section 215(d)(5) of the FPA, we [FERC] direct NERC to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” P 41 (emphasis added). Note that, the NOPR on COM-001-2.1 which led to Order No. 808 stated that “internal communications can have an impact on reliability, including certain communications between a control center and a generating unit operator...” NOPR, at P 28.

In addition, note that COM-001-2.1 was expanded per Order No. 693, P 475 to include DPs and GOPs. Proposed Requirements R12 and R13 reflect that general update since COM-001-1.1.

2) The measure of these proposed requirements do not align with other requirements within the standard. While an applicable entity could provide proof of compliance through demonstration of a physical asset or proof of that asset’s use, these requirements expect an entity to include examples of all

possible internal communications. How would an entity demonstrate communication between staff physically located within the same room? We recommend embedding the “Examples” criteria listed within the measures of these standards into the language of each proposed requirement.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

3) In light of our comments, we propose the SDT consider these two alternatives for the requirements:

a) “Reliability Coordinators, Transmission Operators, and Balancing Authorities, each with geographically separate control centers, shall have Interpersonal Communication capabilities between each separate control center for the exchange of information that is necessary for the Reliable Operation of the BES.”

b) “Each Balancing Authority and Transmission Operator shall have Interpersonal Communication capabilities with their field switching personnel for the exchange of information that is necessary for the Reliable Operation of the BES.”

2. *If you have any other comments on the proposed COM-001-3 that you haven't already mentioned above, please provide them here.*

John Fontenot - Bryan Texas Utilities - 1 -

Selected Answer:

Answer Comment: n/a

Leonard Kula - Independent Electricity System Operator - 2 -

Answer Comment: Communication capabilities are the basic “tools” needed for applicable entities to perform their functions. As such, they are more suited for inclusion in the Organization Certification requirements, not Reliability standards which are intended to drive the right behavior to mitigate specific risks or achieve specific reliability outcomes. We urge the SDT and NERC to consider moving the proposed additional requirements and/or the entire COM-001 to Organization Certification Requirements.

Response: FERC directed NERC “to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.”

Likes: 1 Tallahassee Electric (City of Tallahassee, FL), 5, Webb Karen

Karen Webb - Tallahassee Electric (City of Tallahassee, FL) - 5 -

Answer Comment: Please see social survey

Response:

William Hutchison - Southern Illinois Power Cooperative - 1 -

Answer Comment: None

Thomas Foltz - AEP - 5 -

Answer Comment: While AEP is supportive of the overall efforts of this project team, AEP has chosen to vote negative due to our concerns regarding R12 and R13. As stated previously, while R3 is specific in regards to whom the communication capabilities are to be had *with*, R12 and R13 provide that specificity only within the Measure and not the Requirement.

Response: See previous AEP response above.

Matthew Beilfuss - WEC Energy Group, Inc. - 3,4,5,6 - RFC

Answer Comment: R12 and R13 as written do not meet the tenants of a results based standard. Specifically they do not focus on required actions or results (the "what"), but rather focus on the methods by which to accomplish actions or results (the "how"). Results based standards require "each requirement to identify a clear and measurable expected outcome, such

as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk (prevention), or c) a necessary competency.”

It is difficult to contemplate a situation where a functional entity would be meeting existing reliability standards **and not** have an internal Interpersonal Communication capability between control centers or to field personnel necessary for the Reliable Operation of the BES. The existing standards are the measures of entities Reliable Operation of the BES, not the existence of an internal communications capability. The activity required as part of the R12 and R13 is the documentation associated with the measure. As such, both requirements as written qualify under Paragraph 81 Criterion:

A. Overarching Criterion: “The Reliability Standard requirement requires responsible entities (“entities”) to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.”

B1. Administrative: “The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.” In the case of R12 and R13 the requirement is purely documentation, having something in line with the measures.

B3. Documentation: “The Reliability Standard requirement requires responsible entities to develop a document (*e.g.*, plan, policy or procedure) which is not necessary to protect BES reliability. This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated

with or required by the document.

Response: FERC directed NERC “to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” R12 and R13 address reliability gaps identified in Order No. 808 and are consistent with the approved Requirements in COM-001-2.1.

FERC also stated in P 53 of Order No. 808 “that setting performance criteria for the email and telephonic communications at issue here is both impractical and unnecessary.”

Emily Rousseau - MRO - 1,2,3,4,5,6 - MRO

Group Name: MRO-NERC Standards Review Forum (NSRF)

Group Member Name	Entity	Region	Segments
Joe Depoorter	Madison Gas & Electric	MRO	3,4,5,6
Chuck Lawrence	American Transmission Company	MRO	1
Chuck Wicklund	Otter Tail Power Company	MRO	1,3,5
Theresa Allard	Minnkota Power Cooperative, Inc	MRO	1,3,5,6
Dave Rudolph	Basin Electric Power Cooperative	MRO	1,3,5,6
Kayleigh Wilkerson	Lincoln Electric System	MRO	1,3,5,6
Jodi Jenson	Western Area Power Administration	MRO	1,6
Larry Heckert	Alliant Energy	MRO	4

Mahmood Safi	Omaha Public Utility District	MRO	1,3,5,6
Shannon Weaver	Midwest ISO Inc.	MRO	2
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Brad Perrett	Minnesota Power	MRO	1,5
Scott Nickels	Rochester Public Utilities	MRO	4
Terry Harbour	MidAmerican Energy Company	MRO	1,3,5,6
Tom Breene	Wisconsin Public Service Corporation	MRO	3,4,5,6
Tony Eddleman	Nebraska Public Power District	MRO	1,3,5
Amy Casucelli	Xcel Energy	MRO	1,3,5,6

Answer Comment:

Measure M9 in COM-001-2 contains guidance (also included in RSAW guidance) pertaining to evidence requirements for R9 that conflict with the R9 requirement scope. Recommend that conflicting guidance be deleted or clarified to indicate that one applicable entity can be contacted to verify that an entity's Alternative Interpersonal Communication capability works. Requiring each entity to contact all other entities is redundant and wasteful under the Paragraph 81 concepts. Since COM-001-2 or COM-001-3 R9 doesn't state that "each" Alternative Interpersonal Communication capability path will be tested with "each" identified entity, then testing one Alternative Interpersonal Communication capability is acceptable under the R9 requirement scope. NERC auditors should not expand the scope of a requirement through measures or through the RSAW process.

Response: Thank you for your comment, but the scope of the SDT did not include addressing requirement R9.

Oliver Burke - Entergy - Entergy Services, Inc. - 1 -

Answer Comment:

Entergy has no additional comments.

Response:**Patti Metro - National Rural Electric Cooperative Association - 3 -****Answer Comment:**

The following are comments about how the term “capability” is used in the relationship of the term in the Requirements and the Measurement for R12 and R13:

- The Requirement and Measurement establish that the registered entity must have internal Interpersonal Communications “capability”. The Measurement bullet reading “Examples include, but are not limited to, between geographically separate control centers within the same functional entity, or between a control center and field switching personnel” does not specify a “capability”. It summarizes a condition which seems meant to describe what “internal” might mean. It does not appear to constitute a Communications capability.
- The Measurement bullet appropriately qualifies “geographically separate control centers” by referring to “within the same functional entity”. Suggest modifying the requirements to state the same with regard to “between a control center and field personnel [within the same functional entity]” to reinforce that the requirement is meant to be interpreted to “internal” communications only.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the

Requirement and has addressed this in the current draft of COM-001-3.

The SDT does not feel limiting the field personnel to within the same functional area is appropriate based on the diverse models used throughout North America.

Assuming that R12 and R13 are modified because of the overreach of including the Generator Operators and Distribution Providers the following revised R12 is provided for consideration:

- R12 - Reliability Coordinators, Transmission Operators, and Balancing Authorities, each with geographically separate control centers, shall have Interpersonal Communication capabilities between each separate control center and with their field switching personnel for the exchange of information that is necessary for the Reliable Operation of the BES.

R12 and R13 are vague because “internal” is not clearly defined, therefore, the reference to “Including, but not limited to” may not be appropriate, because it creates an unbounded condition of an undefined term. A list of the types of records or evidence that would demonstrate compliance with a requirement should be included in the measure.

The six-month implementation time frame is not adequate to incorporate the infrastructure needed to demonstrate compliance with this standard which may include conducting training, developing procedures with internal controls and possibly installation of new equipment to monitoring capability. Suggest modifying the implementation to 12 to 18 months.

Response: **COM-001-2.1 requires GOPs and DPs to be able to demonstrate compliance with Interpersonal Communication capabilities. Expanding the requirement to internal Interpersonal Communication capabilities should require minimal additional monitoring capability. The SDT agrees that some investment may be required and is expanding the implementation period to 9 months.**

It is unclear whether it is necessary to demonstrate internal communication capabilities between control center and power plants. If it is necessary, it should be stated as such in the requirements.

Response: **Yes, because FERC did not state any limitations for internal Interpersonal Communications, but directed NERC “to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” Communications between control centers and power plants that fall under the definition of Interpersonal Communications are included.**

An explanation of what constitutes an “Alternative Interpersonal Communication” is required. It is unclear whether this form of communication is a “different medium” or a “different infrastructure”.

Response: **The SDT does not address interpretations or revisions to the definition of Alternative Interpersonal Communications as that would be outside the scope of this project.**

Jay Barnett - Exxon Mobil - 7 -

Answer Comment: No other comment.

Erika Doot - U.S. Bureau of Reclamation - 5 -

Answer Comment: Reclamation suggests that the drafting team develop a guidelines and technical basis section to clarify the scope of evidence required under normal and communications failure scenarios. Reclamation notes that the broad nature of Requirements R12 and R13 allows flexibility for compliance, but also creates confusion when identifying evidence requirements. Registered entities with multiple communication options would have to consider collecting evidence on all of them to ensure they have evidence of communication capability in various communications system failure scenarios. While this may not be the intent of the drafting team, this concern could arise in an audit environment, and could be mitigated by a clarifying guidelines and technical basis section.

Response: The SDT does not address interpretations or revisions to the definition of Alternative Interpersonal Communications as that would be outside the scope of this project.

Bob Thomas - Illinois Municipal Electric Agency - 4 -

Answer Comment: NA

Dixie Wells - Lower Colorado River Authority - 5 -

Group Name:

LCRA Compliance

Group Member Name	Entity	Region	Segments
Michael Shaw	LCRA	TRE	6
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5

Answer Comment:

In Order No. 808, P 38, ITC comments that when communications are handled between functional entities within the same organization “face-to-face,” that the requirements in COM-001-2 would not apply. While not a directive, in Order No. 808, P 40, the Commission states “requirements concerning Alternative Interpersonal Communication only apply when those communications are performed by means other than direct, face-to-face situations.” For multi-registered entities that communicate face-to-face, we feel the standard should address those situations.

Additionally, while version 3 is being drafted, we feel the SDT should also review the associated RSAW. Most notably under the “Evidence Requested” section of R9, it appears to require that entities must test their Alternative Interpersonal Communication capability with all applicable entities under R2, R4, or R6 respectively. The requirement only states that the entity must test their Alternative Interpersonal Communication capability at least once per calendar month and the measure clarifies the testing to “its Alternative Interpersonal Communication capability designated in Requirements R2, R4, or R6.”

Response: The scope of the project is narrowly defined by the FERC directive and does not include addressing Alternative Communication Capabilities or reviewing or revising Requirements R2, R4, or R6.

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7 - NPCC

Group Name: RSC

Group Member Name	Entity	Region	Segments
Paul Malozewski	Hydro One.	NPCC	1
Guy Zito	Northeast Power Coordinating Council	NPCC	NA - Not Applicable
Michael Forte	Con Edison	NPCC	1
Brian Shanahan	National Grid	NPCC	1
Rob Vance	New Brunswick Power	NPCC	1
Robert J. Pellegrini	United Illuminating	NPCC	1
Sylvain Clermont	Hydro Quebec	NPCC	1
Edward Bedder	Orange and Rockland Utilities	NPCC	1
Mark J. Kenny	Eversource Energy	NPCC	1
Gregory A. Campoli	NY-ISO	NPCC	2
Si Truc Phan	Hydro Quebec	NPCC	2
Randy MacDonald	New Brunswick Power	NPCC	2
Kelly Dash	Con Edison	NPCC	3
David Burke	Orange and Rockland Utilities	NPCC	3
Peter Yost	Con Edison	NPCC	4
Wayne Sipperly	New York Power Authority	NPCC	4
Connie Lowe	Dominion Resources Services	NPCC	4
David Ramkalawan	Ontario Power Generation	NPCC	4

Glen Smith	Entergy Services	NPCC	4
Brian O'Boyle	Con Edison	NPCC	5
Brian Robinson	Utility Services	NPCC	5
Bruce Metruck	New York Power Authority	NPCC	6
Alan Adamson	New York State Reliability Council	NPCC	7
Kathleen M. Goodman	ISO-New England	NPCC	2
Helen Lainis	Independent Electricity System Operator	NPCC	2

Answer Comment:

Suggest a Guidelines and Technical Basis Section be added in COM-001-3 to address the following:

A guideline and technical basis or specific Requirement language for Requirements R12 and R13 to explain and incorporate the FERC Directive that the concern is communication between “(1) communications between geographically separate control centers within the same functional entity; and (2) communications between a control center and field personnel.”

This Standard requires that an Entity establishes the *capability* to exchange information. The Standard intentionally requires the *capability* for Interpersonal Communication and not the *ability* for engaging in Interpersonal Communication. Capability represents only a potential to engage in communication. By using the word capability the Standard allows for the communication medium to be non-functioning from time to time.

Interpersonal Communication is defined in the NERC Glossary as “Any medium that allows two or more individuals to interact, consult, or

exchange information.” There is no restriction on the types of medium that can be used. Common types are phone system, wireless, radio, written (paper and electronic) and in-person.

For R1 thru R8 the Interpersonal Communication capability is established between functional entities and not based on corporate affiliation. For example if Company A is registered as a TOP and RC. The TOP function and RC function operate from different rooms in the same building. Then Interpersonal Communication capability is required and an alternate Interpersonal Communication capability is designated.

The Standard does not require that Interpersonal Communication capability is functioning 100% of the time. When the primary Interpersonal Communication capability fails the entity switches to the designated alternate Interpersonal Communication capability with recognition that there will be a point in time when no designated capability is available.

This Standard does not require the bailout of a specific type of communication infrastructure.

Communication capabilities are the basic “tools” needed for applicable entities to perform their functions. As such, they are more suited for inclusion in the Organization Certification requirements, not Reliability standards which are intended to drive the right behavior to mitigate specific risks or achieve specific reliability outcomes. We urge the SDT and NERC to consider moving the proposed additional requirements and/or the entire COM-001 to Organization Certification Requirements.

Please provide a Guidance Section with the following wording and provide the answers to the following questions:

QUESTION: An open question under this proposed standard is whether both alternate technologies AND alternate forms of communications can serve as back-up?

Same Type - That is, can alternate technology substitute voice for voice; i.e., digital phone Voice Over IP (VOIP) is a viable alternative for dedicated analog land lines or light-pipe lines?

Response: **This question is outside the scope of the project. Alternate forms of communication and back-ups were not included in the FERC directive or SAR scope.**

QUESTION: May we assume that an acceptable Alternative Interpersonal Communications capability is not necessarily the same type in the form of an alternate technology?

May a different types of communications serve as back-up; i.e., can cell phone voice be used as a substitute for or be backed-up by internet-based e-mail communications?

Response: **This question is outside the scope of the project. Alternate forms of communication and back-ups were not included in the FERC directive or SAR scope.**

We suggest that the SDT, for the sake of clarification, add a Technical and Guidance Section of the Standard. For example, add the following suggested wording:

Guidance Section

Requirement R4:

Same Type, Different Technologies - Alternative Interpersonal Communication capabilities are many and evolving with the changing technology. Current examples of viable Alternative Interpersonal Communication capabilities could include digital phone (Voice Over IP), Satellite phone, and/or a Cell Phone network that could individually or collectively serve as a viable alternate/back-up for a dedicated landline fiber-optics voice connection.

Different Types, Different Technologies - A viable Alternative Interpersonal Communication capability for a dedicated direct-digital computer communications protocol might include internet-based e-mail communications. Different types and technologies may be mixed in communicating with different entities. GOP back-up could be cell phone, while the RC back-up could be e-mail.

Requirement R9 – Each Reliability Coordinator, Transmission Operator, and Balancing Authority must test its Alternative Interpersonal Communication capability at least once each calendar month. If the test is unsuccessful, the responsible entity must initiate action to repair or designate a replacement Alternative Interpersonal Communication capability within **2 hours**.

QUESTIONS:

• Is the expectation that the repair be “initiated” within two (2) hours and is this realistic?

• What is “initiate action to repair?” If the system operator sends an e-mail repair request to IT, is that sufficient to “initiate action to repair?”

• If action cannot be initiated within two (2) hours, is this a

reportable event?

• What happens if the system operator must take other specific actions to follow an RC or TOP reliability directive, e.g., to protect system reliability, then does the entity get an exception, a free “pass,” on the two (2) hour requirement?

• Would the SDT accept a longer initiation time, e.g., four (4) hours?

• Would the SDT accept an exception clause for reliability directives and system emergencies, i.e., add the wording to R9 “... initiate action to repair within 2 hours, except during a declared system emergency or unless required to follow RC, BA or TOP directive(s) to protect, maintain or restore system reliability.”

There is an error in the R9 and R10 VSL table that has been carried over from the COM-001-2 version. In the R9 Lower VSL column, it states “...but failed to initiate action to repair or designate a replacement Alternative Interpersonal Communication in more than 2 hours and less than or equal to 4 hours upon an unsuccessful test”. The RC, TOP, BA did not fail to initiate the action, they did the action, but not within the time required. The VSL should be rephrased to remove the word “failed”. The same comment applies to R9 Moderate, High and Severe VSL.

A similar comment applies to the R10 VSL. The RC, TOP and BA did not fail to notify the entities identified in R1, R3 and R5, they did it, just not in the time required. It should read “...notified the entities in R1, R3 and R5 respectively upon detection of a failure of its Interpersonal Communication capability, but in a delay of more than 60 minutes and less than or equal to 70 minutes). The same comment applies to R10

Moderate, High and Severe VSL.

Response: These questions are outside the scope of the project. Alternate forms of communication and back-ups were not included in the FERC directive or SAR scope.

Venona Greaff - Oxy - Occidental Chemical - 7 -

Group Name: Oxy

Group Member Name	Entity	Region	Segments
Venona Greaff	Occidental Chemical Corporation	SERC	7
Michelle D'Antuono	Ingleside Cogeneration LP.	TRE	5

Answer Comment:

OCC does not agree that the statutory term “Reliable Operation”, which relates to the Bulk Power System, should be used in the context of requirements applicable to the Bulk Electric System. They are not the same and are inconsistent with the principles of clarity that are fundamental to reliability compliance oversight.

Additionally, OCC believes that the proposed new requirements apply to two individuals located in the same work center. Registered Entities with a large multi-function work center may choose to include those forms of communication, but that should be their choice. However, M12 and M13 leave open the possibility that CEA’s will be second-guessing the Operating Entity’s choice of applicable communications – which we do not believe is the SDT’s intent.

Response: Reviewing the defined term “Reliable Operations” is outside the scope of this project.

The requirements and measures do not require specific types of evidence, but instead refer to the mediums and capabilities. An entity could provide evidence appropriate to its situations and acceptable to the compliance enforcement authority on an individual basis.

The Measures of the proposed R12 and R13 leave the entity flexibility for the medium that best fits their facts and circumstances.

Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RFC

Group Name: Duke Energy

Group Member Name	Entity	Region	Segments
Doug Hils	Duke Energy	RFC	1
Lee Schuster	Duke Energy	FRCC	3
Dale Goodwine	Duke Energy	SERC	5
Greg Cecil	Duke Energy	RFC	6

Answer Comment:

Duke Energy requests confirmation from the drafting team that the intent of this standard is to address only that an entity have the capabilities to exchange information that is necessary for the Reliable Operation of the BES, and not individual instances where field personnel may lose communication capability depending on geographic situation. For example, an entity may have the physical capability (via SAT Phone, etc) to communicate with field personnel, but said field personnel enters into an area where communication is limited based on mountainous terrain. It is our interpretation that this momentary interruption is not an instance of non-compliance, and that as long as a permanent capability to communicate exists (existence of the SAT

phone), the entity would be considered compliant. Is this interpretation accurate?

Response: **Yes.**

Duke Energy suggests the removal of the term “switching” from the phrase “field switching personnel” found in the measure of both requirements. We feel that the removal of the term promotes greater flexibility for entity interpretation, and more closely aligns with the language that exists in FERC Order 808.

Response: **The SDT agrees and has modified the Requirement to include field personnel as one of the examples.**

Duke Energy recommends the drafting team consider the following term and definition to be used in place of “internal Interpersonal Communication”:

Intrapersonal Communication:

Any medium that allows two or more individuals to interact, consult, or exchange information within the same functional entity or between a control center and field personnel.

We feel that this definition fits the context with which the drafting team was intending, and helps bring clarity to an area that may be considered confusing to some in the industry.

Response: **The current revision to the requirements to add clarity to what internal Interpersonal Communication capabilities include should eliminate the need for a separate defined term.**

Ben Li - Independent Electricity System Operator - 2 - NPCC

Group Name: ISO/RTO Council Standards Review Committee

Group Member Name	Entity	Region	Segments
Charles Yeung	SPP	SPP	2
Greg Campoli	NYISO	NPCC	2
Ali Miremadi	CAISO	WECC	2
Ben Li	IESO	NPCC	2
Kathleen Goodman	ISO-NE	NPCC	2
Mark Holman	PJM	RFC	2
Terry Bilke	MISO	MRO	2

Answer Comment:

The SRC recommends:

- that the SDT offer the Industry the option (and FERC the alternative) to make this capability a certification requirement rather than a relativity standard requirement that the SDT

Response: **FERC directed NERC “to develop modifications to COM-001-2.1, or to develop a new standard, to address our concerns regarding ensuring the adequacy of internal communications capability whenever internal communications could directly affect the reliable operation of the Bulk-Power System.” R12 and R13 address reliability**

gaps identified in Order No. 808 and are consistent with the approved Requirements in COM-001-2.1.

- the phrase “information that is necessary for the reliable operation of the BES” be replaced by “Operating Instructions.” The phrase “necessary for reliable operation of the BES” is unnecessary; not addressed in the measures; and creates unneeded ambiguity.

Response: **“Information necessary for the Reliable Operation of the BES” go beyond an Operating Instruction. FERC used the phrase “could directly affect the Reliable Operation of the BPS” in P 41, and the SDT concluded that using the proposed language is consistent with the language in the FERC Order.**

- the SDT revise Requirements 12 & 13 to clarify what “internal” communications means so that the Requirements are clear about the applicability of these requirements. This issue could be addressed by moving the language from the 3rd bullet of Measures 12 & 13 which reads – “Geographically separate control centers within the same functional entity” – into the Requirements such that R12 and R13 will read:

R12. Each Reliability Coordinator, Transmission Operator, Generator Operator, and Balancing Authority shall have internal Interpersonal Communication capabilities for the exchange of information between geographically separate control centers within the same functional entity that is necessary for the Reliable Operation of the BES.

R13. Each Distribution Provider shall have internal Interpersonal Communication capabilities for the exchange of information between geographically separate control centers within the same functional entity that is necessary for the Reliable Operation of the BES.

The 3rd bullet of Measures M12 & M13 needs to be deleted or corrected. The “example” provided in the 3rd bullet does not give an example of communications “capability”. It provides an illustration of what “internal” means, and as noted above, that should be in the Requirement itself.

- If the 3rd bullet of Measures M12 & M13 is kept, then fixing the bullet so that the references to communications between a control center and field switching personnel refer to such communications as occurring within the same Registered Entity (i.e., “internal”).
- If the 3rd bullet in Measures M12 and M13 are kept, clarify the references to “field switching personnel” by including a reference to the NERC Glossary, so that the Measures are not relying on an undefined term. Perhaps the Measures could refer to “personnel that operate or maintain Facilities” (or some other term from the NERC Glossary).

Response: **The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.**

Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC

Group Name:

Southern Company

Group Member Name	Entity	Region	Segments
Robert A. Schaffeld	Southern Company Services, Inc.	SERC	1
R. Scott Moore	Alabama Power Company	SERC	3
William D. Shultz	Southern Company Generation	SERC	5
John J. Ciza	Southern Company Generation and Energy Marketing	SERC	6

Answer Comment:

Southern recommends that the proposed requirements be modified as follows:

R12. Each Reliability Coordinator, Transmission Operator, and Balancing Authority that identifies the need to exchange information necessary for the Reliable Operation of the BES between geographically separate control centers within the same functional entity, or between a control center and field switching personnel shall have Interpersonal Communication capability addressing how this information is to be exchanged.

R13. Each Distribution Provider and Generator Operator that identifies the need to exchange information necessary for the Reliable Operation of the BES between geographically separate control centers within the same functional entity, or between a control center and field switching personnel shall have Interpersonal Communication capability addressing how this information is to be exchanged.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

Gerry Adamski - Essential Power, LLC - 5 -

Answer Comment:

Essential Power supports the comments submitted by PJM regarding this proposed standard.

Response: See response to PJM comments.

Richard Vine - California ISO - 2 -

Answer Comment:

The California ISO suggests that the drafting team consider removing the R5.3 requirement for interpersonal communications between the Balancing Authority (BA) and Distribution Provider (DP) since this relationship doesn't always occur in practice. In particular, in the ISO's Balancing Authority Area communications with the Distribution Provider would occur through the Transmission Operator function, and as such there is no need for Interpersonal Communication between the BA and DP.

This same reasoning might apply to requirement R7.1 as well.

Response: R5.3 and R7.1 are outside the scope of the project.

Rachel Coyne - Texas Reliability Entity, Inc. - 10 -

Answer Comment:

Texas RE is still concerned about the use of the term Transmission Operator Area (which appears in R3.2, R3.3, R3.4, R4.2, and M4) and what that may introduce in terms of a responsible entity obligations. Please see Texas RE's comments submitted for the Initial

Ballot of Project 2007-06.2. While those requirements are not within the scope of this Standard Authorization Request, Texas RE is concerned there will be misunderstandings regarding the applicability of other requirements due to the use of the term.

Response: Reviewing the term Transmission Operator Area is outside the scope of this project.

Texas RE noticed the third bullet point in both Measure 12 (M12) and Measure 13 (M13) does not follow the same pattern as the previous two bullets. Texas RE recommends eliminating the third bullet in both M12 and M13 or, alternatively, move them into the language of the Requirements themselves.

Response: The SDT reviewed the FERC Order and concluded that the two scenarios were intended to serve as examples and not limitations. The SDT agrees that the examples are more appropriate in the Requirement and has addressed this in the current draft of COM-001-3.

M12 lists types of evidence that a Reliability Coordinator, Transmission Operator, Generation Operator, and Balancing Authority “shall have and provide upon request,” including evidence of “physical assets” or “dated evidence, such as equipment specifications and installation documentation, operating procedures, test records, operator logs, voice recordings, transcripts of voice recordings, or electronic communications.” M13 contains identical language regarding forms of evidence for Distribution Providers.

In contrast to these evidentiary examples, the third bullet point in M12 and M13 does not list types of evidence necessary to demonstrate compliance. Rather, it lists two examples, presumably taken from FERC

Order No. 808, of situations in which internal Interpersonal Communication capability for the exchange of information could be necessary for the reliable operation of the Bulk Electric System (BES). As such, it is confusing to include these elements in the list of evidence Registered Entities should retain to demonstrate compliance with Requirements 12 and 13.

To address this, Texas RE recommends eliminating the third bullet point in M12 and M13. In the alternative, the third point in these two measures should be moved to the text of Requirements 12 and 13, as well as clarified such that it refers to examples of situations in which adequate internal Interpersonal Communications are necessary for the reliable operation of the BES by revising it to read as follows: “Examples *of situations in which the exchange of information could be necessary for the Reliable Operation of the BES* include, but are not limited to, *communications* between geographically separate control centers within the same functional entity, or between a control center and field switching personnel.”

Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2 -

Answer Comment:

Comments: ERCOT proposes the above revisions to the proposed requirements to ensure that there is clarity regarding the expectations and to allow those entities that are most familiar with their operating configuration to identify, determine, and establish the Interpersonal Communication capabilities that are most appropriate for its structure and operating characteristics. Without clarity and the ability of entities to identify what communications capabilities best facilitate its operations, it is possible that significant cost and ongoing maintenance will be expended with little or no benefit to reliability.

Response: See previous response to Q1.

Joshua Andersen - Salt River Project - 1,3,5,6 - WECC

Answer Comment:

None

Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable

Answer Comment:

1) We are concerned that the changes proposed in Reliability Standard COM-001-3 are too vague and provide a wide range of interpretations for auditors. We feel the SDT's approach to addressing the FERC Order No. 808 directive could be handled through modification of existing requirements.

Response: **The SDT concluded that the two additional proposed Requirements addressed the FERC directives in Order No. 808 in the most efficient and effective manner.**

2) The VSLs for Requirements R12 and R13 currently have only a Severe VSL identified. We believe the VSL criteria for these requirements should focus less on the ability to possess Interpersonal Communication capabilities and more on how they will be used within a specific timeframe. We feel this shift would move these requirements more towards human performance improvements and situational awareness for System Operators and supporting staff.

Response: **These requirements are not amenable to being partitioned into multiple VSLs. An entity either has internal Interpersonal Communications capabilities or not, regardless of the media used.**

3) We feel the six-month time frame listed within the implementation plan is too short for smaller entities, like DPs, to incorporate the infrastructure needed to demonstrate compliance with this standard. We recommend a 18-month time frame to better prepare all entities, as this allow entities time to budget and allocate resources that support the documentation of internal communications.

Response: **The SDT agrees and has proposed extending the implementation period to 9 months.**

- 4) We thank you for this opportunity to comment on this standard.

End of Report