NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Operating Personnel Communications Protocols
Project 2007-02

The Operating Personnel Communications Protocols Drafting Team thanks all commenters who submitted comments on the proposed draft COM-003-1 Operating Personnel Communications Protocols standard. This standard was posted for a 45-day public comment period from August 22, 2012 through September 20, 2012. Stakeholders were asked to provide feedback on the standard and associated documents through a special electronic comment form. There were 80 sets of comments, including comments from approximately 232 different people from approximately 141 companies representing all 10 Industry Segments as shown in the table on the following pages.

All comments submitted may be reviewed in their original format on the standard's 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 Vice President and Director of Standards, Mark Lauby, at 404-446-2560 or at mark.lauby@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

Summary Consideration:

The SDT agreed with the commenters from draft 2 and modified its approach to closely align COM-003-1 draft 3 with the proposal by the NERC Operating Committee that applicable entities should be required to:

a) **develop written communication protocols that address the elements in draft 2 of COM-003-1,**
b) **train on those protocols, and**
c) **develop internal controls to find and correct deviances from those protocols.**

In addition, the SDT developed the RSAW for this standard in conjunction with NERC Compliance staff, and posted it for comment along with draft 3 of COM-003-1. Most Draft 3 commenters supported this approach and many requested additional clarification and confirmation that the majority of communication protocol deficiencies will be addressed in a non-zero defect environment; and that the documented communication protocols would permit flexibility to reflect the operating environment and circumstances that an entity experiences when operating the BES.

[1] The appeals process is in the Standard Processes Manual: http://www.nerc.com/files/Appendix_3A_StandardsProcessesManual_20120131.pdf

A prevalent theme in draft 3 was questioning the necessity of the standard, specifically one that requires three part communication for routine operations. This was also a continuation of similar comments from draft 2.

During its discussion of the approval of the Interpretation of COM-002-2 R2, the NERC BOT stipulated in its approval the expedited development of a comprehensive communications program, which would address necessary communication protocols for use in the operation of the Bulk Electric System. The SDT determined that protocols concerning three part communication (when it is necessary and what is required) during normal operations was a necessary step in addressing the BOT's concern. The SDT remains resolute in its position to require three part communication in documented communication protocols.

Another theme that was repeated in draft 3 comments from draft 2 was the concern that the work of the SDT was not addressing the intentions of the SAR, related directives and orders.

The SDT disagrees and cites language from those documents. The purpose of the SAR for this project is "Require that real time system operators use standardized communication protocols during normal and emergency operations to improve situational awareness and shorten response time." Additionally, the SAR is very specific in that it also includes the term "normal" operating conditions under Applicability: "*Clear and mutually established communications protocols used during real time operations under normal and emergency conditions ensure universal understanding of terms and reduce errors.*"

Another repetitive theme was that the use of three part communications should be limited to Reliability Directives only.

A Reliability Directive, by definition, is limited to instances where action by the recipient is necessary to address an Emergency or Adverse Reliability Impact. The SDT believes that it is necessary to specify 3 part communication as a necessary communications protocol for all Operating Instructions, not just emergency situations. The OPCPSDT believes that the potential for risk to the reliability of the BES exists for all Operating Instructions.

Still others expressed a desire to combine COM-002-3 and COM-003-1 into a single standard.

The SDT does not disagree, but that is outside the scope of the SAR for this project. The purpose of the SAR for this project is "Require that real time system operators use standardized communication protocols during normal and emergency operations to improve situational awareness and shorten response time." This is a broader scope for communications than that for Project 2006-06.

Definitions: (Question 1)

> About half of the draft 3 commenters disagreed with the new proposed term Operating Instructions, introduced in Draft 3 and defined as: "*Command from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System*."

Commenters stated:

- The proposed term Operating Instruction is confusing and the large extent of operations to which it potentially applies could create an overwhelming compliance exposure due to the large number of communications described in the definition.
- The term would include general discussions and discussions on options and alternatives that take place to determine courses of action to address BES operating concerns.
- The term, Operating Instruction, and its relation to the proposed term "Reliability Directive" from COM-002-3 is unclear.

To eliminate the confusion expressed by commenters; and to clarify the scope and intent of an Operating Instruction, the SDT has revised the definition to read:

> *"Operating Instruction —A c~~C~~ommand ~~from~~ by a System Operator of a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions. "*

Requirements: *Question 2*

Requirement R1 (Issuers and receivers of Operating Instructions, RCs, BAs and TOPs) and R2(receivers only - of Operating Instructions, DPs and GOPs) *(requires entities to have documented communication protocols to use the English Language, 24 Hour Clock, and Time Zone reference, Common interface identifiers, and alpha-numeric clarifiers, three part communication, and all call communication during oral and written Operating Communication):*

- In response to Question 2 dealing with the English language, 24 hour clock and time zone reference, common interface identifiers, and alpha-numeric clarifiers, a large majority of the commenters still believe that all of subparts are too prescriptive. **The SDT acknowledges this and has defended it as necessary for this standard in drafts 1, 2and 3. When developing common communication protocols to be used for communication between entities, it is necessary to have a standard structure to build the protocols. Absent such structure it would be unlikely that protocols would be developed in a manner that would be recognizable among the communicating entities leading to greater confusion. While the Parts of R1 and R2 call for specific content, draft 3 and draft 4 Requirements permit greater latitude to create protocols that fit the environment in which an entity must operate.**
- There was a lack of agreement on requiring the use of the English language as part of a communication protocol. Some commenters support requiring the use of English, and indicated

that communicating in a language other than English would cause confusion, while others contested requiring English exclusively, stating in some areas the use of other languages in a localized environment may be effective. **The SDT believes that English should prevail in almost all cases and those situations where another language would be required by law would be a rare exception. Furthermore, this requirement only applies to communication initiated by a System Operator at one functional entity to another functional entity.**

- Commenters were also divided on the use the 24 hour clock and time zone references as part of a communication protocol. Those who indicated support stated they felt it added clarity to communications. Other commenters stated that the 24 hour clock and time zone references are too prescriptive and should be eliminated. **The SDT believes use of the 24 hour clock and time zone references, when a clock time is used, clarifies the time element of communications, which will enhance reliability by avoiding time related mistakes that could affect the reliability of the BES. The SDT points out in this response that these protocols are to be used only when a specific clock time is cited. The SDT accepts relative time such as: " in the next 10 minutes, on the hour or half hour" as clear and unambiguous and not requiring the use of the 24 hour clock and time zone references.**
- Commenters in draft 3 indicated that "alpha-numeric clarifiers" are of no value and would only lead to confusion and delays by System Operators. **The SDT has chosen to retain the inclusion of alpha-numeric clarifiers as a means of clarifying Operating Instructions. The use of such clarifiers, which an entity can develop to suit their preferences, eliminates the ambiguity of similar sounding letters and numbers. Their use, based on the experience of other organizations that use them, becomes a natural part of communication language.**
- Many commenters stated that Requirement R1 Part 1.4 is not necessary, stating that it is covered by standard TOP-002 R18. "Project 2007-03 chose to eliminate TOP-002-2a Requirement R18. Entities have existing processes that handle this issue. This is an administrative item. The bottom line is that this situation is handled by the operators as part of their normal responsibilities, and no one is aware of a switching error caused by confusion over line identifiers." **The SDT is aware that Requirement R18 is being eliminated by the RTOSDT as part of project 2007-03. P COM-003-1, while reintroducing the concept of line identifiers, limits the scope to only Transmission interface Elements or Transmission interface Facilities (e.g. tie lines and tie substations). This ensures that both parties are readily familiar with each other's interface Elements and Facilities eliminating hesitation and confusion when referring to equipment for the Operating Instruction. This shortens response time and improves situational awareness. Additionally the SDT has added the commenters' recommended language "……., unless otherwise mutually agreed,"- to permit entities to develop mutually acceptable nomenclature.**
- Many commenters indicated that the scope of Operating Instructions and the associated requirements were too broad and that the sheer numbers of Operating Instructions would

overwhelm the entities in terms of monitoring and evidence retention. They also are concerned that under these Requirements, operators would be distracted to focus more on complying with the specifications for three part communication rather than effectively responding to incidents, thereby reducing reliability. **The SDT believes universal communication protocols are critical to avoid mistakes that would result in reduced reliability on the BES, which is within the scope of the SDT's SAR. After consideration of comments in these questions, as well as question 10, the SDT modified its approach in COM-003-1, draft 3 to a control based standard where such deficiencies are corrected generally without a finding of non compliance. While there may be many such deficiencies or deviations the entity has the ability to improve performance and compliance without a potential violation for each incident. This is an equivalent approach to the one provided in the CIP version 5 standards, which was recently approved by industry.**

- Several stakeholders continue to identify potential conflicts between COM-003-1 and the recently approved COM-002-3 standard, which also addresses the use of three-part communications. Some stated that the applicability of the two standards was confusing and called for one communication standard to reduce the confusion. A few commenters continue to stress this should be limited to COM-002-3. In COM-002-3 the proposed requirements focus on the use of three part communication when issuing and receiving "Reliability Directives." As proposed in COM-002-3, a Reliability Directive is a directive issued to address an Emergency or an Adverse Reliability Impact. **The OPCP SDT believes the scope of their SAR extends during and beyond communications during emergency situations, thereby necessitating a new standard such as the proposed COM-003-1. The OPCP SDT proposes use of three-part communication for all Operating Instructions, under normal and emergency conditions, and has worked with the RCSDT to ensure that COM-002-3 and COM-003-1 are complementary to achieve this objective.**

Requirements: ***Question 3***
Requirement R3 (Issuers and receivers of Operating Instructions: RCs, BAs and TOPs) and R4 (receivers only of Operating Instructions: DPs and GOPs) *(requires entities to implement a process to identify, assess and correct deficiencies and to review and improve the process.)*

- Many commenters, even those who voted no on Question 3 supported the SDT's decision to incorporate internal controls. Some of their concerns were if regional CEAs are "onboard" with the SDT's approach. **The SDT has collaborated with NERC compliance and jointly developed the RSAW for COM-003-1. NERC Compliance and NERC executives have been speaking to industry, Regional Entities and regulators to advocate for control based standards citing the absolute need for this approach to address burdensome and unreasonable requirements and to promote a more efficient use of resources.**
- A large number of commenters, for various reasons recommended that the SDT consider using a similar format and language to emulate the CIP v.5 standards which are also nascent control based standards and to address concerns over their understanding of R3 and R4. The commenters stated that it would be more consistent and less confusing. **The SDT discussed the**

commenters' concerns and concluded that adopting the same general format for COM-003-1 would add value by improving consistency and remaining effective as a standard to improve communication and reliability on the BES.

"R1 (and R2-DP and GOP). Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"

R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW, VSLs, VRFs and Measures have been updated to reflect this change.

VRFs and VSLs

The SDT acknowledges there were many comments on draft 3 regarding VSLs and VRFs and we appreciate the contributions. **The SDT has dramatically changed draft 4 and all of the VRFs and VSLs have been adjusted to reflect those changes. The adoption of the language similar to CIP v.5 and the subsequent elimination of R3 and R4 will require another set of industry comments.**

Additional Issues addressed by the SDT:

Small numbers of commenters raised issues around:

- Some commenters questioned why the standard addressed "all call" types of communications (Requirement 1, Part 1.9 and Requirement 2, Part 2.2). ***The SDT added language to* (Requirement 1, Part 1.9 and Requirement 2, Part 2.2) *to clarify how these Requirements apply when all calls are used to communicate based on requests from many commenters in COM-003-1, draft 2.***

Outstanding Unresolved Issues:

Whether "read" receipts for written Operating Instructions should be addressed in the Measures. - **This is in reference to the parts of R1 and R2 which are applicable only to oral Operating Communication, so the SDT made no change,**

- Exclusion for Face to Face Operating Instructions in a control room, - **The SDT clarified that COM-003-1 only applies to communication between functional entities. For example, if a TOP System Operator is issuing an Operating Instruction to an individual that is internal to that TOP, three part communication is not required by this standard. If a TOP System Operator is issuing an Operating Instruction to an individual in another TOP or another functional entity (e.g. Distribution Provider, Generator Operator), then three part communication is required by this standard. If a TOP System Operator is issuing an Operating Instruction to an individual**

that is not in a functional entity, then three part communication is not required by this standard.

Index to Questions, Comments, and Responses

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

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Guy Zito	Northeast Power Coordinating Council										X

	Additional Member	Additional Organization	Region	Segment Selection
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC	10
2.	Carmen Agavriloai	Independent Electricity System Operator	NPCC	2
3.	Greg Campoli	New York Independent System Operator	NPCC	2
4.	Sylvain Clermont	Hydro-Quebec Transenergi	NPCC	1
5.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1
6.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5
8.	Kathleen Goodman	ISO - New England	NPCC	2
9.	Michael Jones	National Grid	NPCC	1
10.	David Kiguel	Hydro One Networks Inc.	NPCC	1

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

11.	Michael R. Lombardi	Northeast Utilities	NPCC	1
12.	Randy MacDonald	New Brunswick Power Transmission	NPCC	9
13.	Bruce Metruck	New York Power Authority	NPCC	6
14.	Silvia Parada Mitchell	NextEra Energy, Inc.	NPCC	5
15.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
16.	Robert Pellegrini	The United Illuminating Company	NPCC	1
17.	Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
18.	David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
19.	Brian Robinson	Utility Services	NPCC	8
20.	Michael Schiavone	National Grid	NPCC	1
21.	Wayne Sipperly	New York Power Authority	NPCC	5
22.	Donald Weaver	New Brunswick System Operator	NPCC	2
23.	Ben Wu	Orange and Rockland Utilities	NPCC	1
24.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3

2.	Group	Ben Engelby	ACES Power Marketing Standards Collaborators						X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Ashley Gonyer	East Kentucky Power Cooperative	SERC	1, 3, 5
2.	Shari Heino	Brazos Electric Power Cooperative, Inc.	ERCOT	1, 5
3.	Scott Brame	North Carolina Electric Membership Corporation	RFC	1, 3, 4, 5
4.	Megan Wagner	Sunflower Electric Power Corporation	SPP	1
5.	Susan Sosbe	Wabash Valley Power Association	RFC	3
6.	Robert Thomasson	Big Rivers Electric Corporation	SERC	
7.	John Shaver	Arizona Electric Power Cooperative/Southwest Transmission Cooperative, Inc.	WECC	1, 4, 5

3.	Group	Kent Kujala	Detroit Edison			X	X	X					

	Additional Member	Additional Organization	Region	Segment Selection
1.	Christie Wicke		RFC	3, 4, 5
2.	Al Eizans		RFC	3, 4, 5
3.	Jeffery DePriest		RFC	3, 4, 5

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
4. Dan Herring		RFC	3, 4, 5									
4. Group	Ron Sporseen	PNGC Comment Group	X		X	X				X		

	Additional Member	Additional Organization	Region	Segment Selection
1.	Joe Jarvis	Blachly-Lane Electric Cooperative	WECC	3
2.	Dave Markham	Central Electric Cooperative	WECC	3
3.	Dave Hagen	Clearwater Power Company	WECC	3
4.	Roman Gillen	Consumers Power Inc.	WECC	1, 3
5.	Roger Meader	Coos-Curry Electric Cooperative	WECC	3
6.	Bryan Case	Fall River Electric Coooperative	WECC	3
7.	Rick Crinklaw	Lane Electric Cooperative	WECC	3
8.	Annie Terracciano	Northern Lights Inc.	WECC	3
9.	Aleka Scott	PNGC Power	WECC	4
10.	Heber Carpenter	Raft River Rural Electric Cooperative	WECC	3
11.	Steve Eldrige	Umatilla Electric Cooperative	WECC	1, 3
12.	Marc Farmer	West Oregon Electric Cooperative	WECC	4
13.	Margaret Ryan	PNGC Power	WECC	8
14.	Rick Paschall	PNGC Power	WECC	3

5. Group	Gerry Beckerle	SERC OC Standards Review Group	X		X							

	Additional Member	Additional Organization	Region	Segment Selection
1.	Jeff Harrison	AECI	SERC	1, 3, 5, 6
2.	Robert Thomasson	Big Rivers	SERC	1
3.	Dan Roethemeyer	Dynegy	SERC	5
4.	Jim Case	Entergy	SERC	1, 3, 6
5.	Mark Thomas	Entergy	SERC	1, 3, 6
6.	Phil Whitmer	Georgia Power	SERC	3
7.	Brad Young	LGE-KU	SERC	1
8.	Terry Bilke	MISO	SERC	2
9.	Scott Brame	NCEMC	SERC	1, 3, 4, 5
10.	William Berry	OMU	SERC	3, 5
11.	Tim Hattaway	PowerSouth	SERC	1, 5
12.	Troy Blalock	SCANA	SERC	1, 3, 5, 6

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
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13.	John Rembold	SIPC	SERC	1
14.	Marc Butts	Southern Co. Services	SERC	1, 5
15.	Randy Hubbert	Southern Co. Services	SERC	1, 5
16.	Todd Lucas	Southern Co. Services	SERC	1, 5
17.	Joel Wise	TVA	SERC	1, 3, 5, 6
18.	Sam Austin	TVA	SERC	1, 3, 5, 6
19.	Stuart Goza	TVA	SERC	1, 3, 5, 6
20.	Steve Corbin	SERC	SERC	10

6.	Group	Greg Rowland	Duke Energy	X		X		X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Doug Hils	Duke Energy	RFC	1
2.	Lee Schuster	Duke Energy	FRCC	3
3.	Dale Goodwine	Duke Energy	SERC	5
4.	Greg Cecil	Duke Energy	SERC	6

7.	Group	Chang Choi	Tacoma Public Utilities	X		X	X		X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Travis Metcalfe	Tacoma Public Utilities	WECC	3
2.	Keith Morisette	Tacoma Public Utilities	WECC	4
3.	Chris Mattson	Tacoma Power	WECC	5
4.	Michael Hill	Tacoma Public Utilities	WECC	6

8.	Group	Thomas McElhinney	JEA	X		X		X					

	Additional Member	Additional Organization	Region	Segment Selection
1.	Ted Hobson		FRCC	1
2.	Garry Baker		FRCC	3
3.	John Babik		FRCC	5

9.	Group	James R. Keller	Wisconsin Electric Power Co.			X	X	X					

	Additional Member	Additional Organization	Region	Segment Selection
1.	Linda Horn	Wisconsin Electric Power Co.	RFC	5
2.	Tony Jankowski	Wisconsin Electric Power Co.	RFC	4

10.	Group	Connie Lowe	Dominion	X		X		X	X				

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

	Additional Member	Additional Organization	Region	Segment Selection
1.	Louis Slade		RFC	5, 6
2.	Randi Heise		MRO	5, 6
3.	Mike Garton		NPCC	5, 6
4.	Michael Crowley		SERC	1, 3, 5, 6

11.	Group	WILL SMITH	MRO NSRF	X	X	X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	MAHMOOD SAFI	OPPD	MRO	1, 3, 5, 6
2.	CHUCK LAWRENCE	ATC	MRO	1
3.	TOM BREENE	WPS	MRO	3, 4, 5, 6
4.	JODI JENSON	WAPA	MRO	1, 6
5.	KEN GOLDSMITH	ALTW	MRO	4
6.	DAVE RUDOLPH	BEPC	MRO	1, 3, 5, 6
7.	ERIC RUSKAMP	LES	MRO	1, 3, 5, 6
8.	JOE DEPOORTER	MGE	MRO	3, 4, 5, 6
9.	SCOTT NICKELS	RPU	MRO	4
10.	TERRY HARBOUR	MEC	MRO	1, 3, 5, 6
11.	MARIE KNOX	MISO	MRO	2
12.	LEE KITTELSON	OTP	MRO	1, 3, 5
13.	SCOTT BOS	MPW	MRO	1, 3, 5, 6
14.	TONY EDDLEMAN	NPPD	MRO	1, 3, 5
15.	MIKE BRYTOWSKI	GRE	MRO	1, 3, 5, 6
16.	DAN INMAN	MPC	MRO	1, 3, 5, 6

12.	Group	Sasa Maljukan	Hydro One	X									

	Additional Member	Additional Organization	Region	Segment Selection
1.	David Kiguel	Hydro One Networks Inc.	NPCC	1

13.	Group	David Dockery - NERC Reliability Compliance Coordinator	Associated Electric Cooperative Inc - JRO00088	X		X		X	X				

Additional Member	Additional Organization	Region	Segment Selection

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

1.	Central Electric Power Cooperative	SERC	1, 3
2.	KAMO Electric Cooperative	SERC	1, 3
3.	M & A Electric Power Cooperative	SERC	1, 3
4.	Northeast Missouri Electric Power Cooperative	SERC	1, 3
5.	N.W. Electric Power Cooperative, Inc.	SERC	1, 3
6.	Sho-Me Power Electric Cooperative	SERC	1, 3

14.	Group	Albert DiCaprio	ISO/RTO Standards Review Committee		X							

	Additional Member	Additional Organization	Region	Segment Selection
1.	Terry Bilke	MISO	RFC	2
2.	Greg Campoli	NYISO	NPCC	2
3.	Kathleen Goodman	ISO NE	NPCC	2
4.	Ben Li	IESO	NPCC	2
5.	Ali Miremadi	CAISO	WECC	2
6.	Stephanie Monzon	PJM	RFC	2
7.	Steve Myers	ERCOT	ERCOT	2
8.	Charles Yeung	SPP	SPP	

15.	Group	Allen Mosher	APPA, LPPC and TAPS	X		X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Joseph Tarantino	SMUD (on behalf of LPPC)		1, 3, 4, 5, 6
2.	William Gallagher	TAPS	NA - Not Applicable	1, 3, 4, 5, 6

16.	Group	Sam Ciccone	FirstEnergy	X		X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	D. Hohlbaugh	FE	RFC	
2.	L. Raczkowski	FE	RFC	
3.	J. Reed	FE	RFC	
4.	G. Pleiss	FE	RFC	
5.	B. Duge	FE	RFC	

17.	Group	Brent ingebrigtson	PPL Corporation NERC Registered Affiliates			X							

	Additional Member	Additional Organization	Region	Segment Selection
1.	Elizabeth Davis	PPL EnergyPlus LLC	WECC	6

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

2.	Annette Bannon	PPL Generation LLC	RFC	5
3.	Brenda Truhe	PPL Electric Utilities Corporation	RFC	1

18.	Group	Frank Gaffney	Florida Municipal Power Agency	X		X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Timothy Beyrle	City of New Smyrna Beach	FRCC	4
2.	Jim Howard	Lakeland Electric	FRCC	3
3.	Greg Woessner	Kissimmee Utility Authority	FRCC	3
4.	Lynne Mila	City of Clewiston	FRCC	3
5.	Joe Stonecipher	Beaches Energy Services	FRCC	1
6.	Cairo Vanegas	Fort Pierce Utility Authority	FRCC	4
7.	Randy Hahn	Ocala Utility Services	FRCC	3

19.	Group	Robert Rhodes	SPP Standards Review Group		X							

	Additional Member	Additional Organization	Region	Segment Selection
1.	Rick Brenneman	Xcel Energy	SPP	1, 3, 5, 6
2.	Michelle Corley	Cleco Power	SPP	1, 3, 5
3.	Denney Fales	Kansas City Power & Light	SPP	1, 3, 5, 6
4.	Greg Froehling	Rayburn Country Electric Cooperative	SPP	3
5.	Ron Gunderson	Nebraska Public Power District	MRO	1, 3, 5
6.	Jonathan Hayes	Southwest Power Pool	SPP	2
7.	Bo Jones	Westar Eneregy	SPP	1, 3, 5, 6
8.	Allen Klassen	Westar Energy	SPP	1, 3, 5, 6
9.	Tiffany Lake	Westar Energy	SPP	1, 3, 5, 6
10.	Greg McAuley	Oklahoma Gas & Electric	SPP	1, 3, 5
11.	Terri Pyle	Oklahoma Gas & Electric	SPP	1, 3, 5
12.	Jamie Strickland	Oklahoma Gas & Electric	SPP	1, 3, 5
13.	Bryan Taggart	Westar Energy	SPP	1, 3, 5

20.	Group	Jamison Dye	Bonneville Power Adminstration	X		X		X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Timothy	Loepker	WECC	1
2.	Theodore	Snodgrass	WECC	1

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
3. Rodney		Krauss	WECC 1										
4. Erika		Doot	WECC 3, 5, 6										
5. Deanna		Phillips	WECC 1, 3, 5, 6										
6. James		Burns	WECC 1										
7. Alfredo		Bocanegra	WECC 1										
21.	Group	David Dworzak	Edison Electric Institute										
Additional members can be found at www.eei.org													
22.	Individual	Janet Smith, Regulatory Affairs Supervisor	Arizona Public Service Company	X		X		X	X				
23.	Individual	Sandra Shaffer	PacifiCorp	X		X		X	X				
24.	Individual	Antonio Grayson	Southern Company	X		X		X	X				
25.	Individual	Scott McGough	Georgia System Operations			X	X						
26.	Individual	Daniel Duff	Liberty Electric Power, LLC					X					
27.	Individual	Robert W. Kenyon	NERC - Investigations Group										
28.	Individual	Gary Cox	Southwestern Power Administration	X								X	
29.	Individual	Martin Bauer	US Bureau of Reclamation					X					
30.	Individual	Nazra Gladu	Manitoba Hydro	X		X		X	X				
31.	Individual	Joe O'Brien	NIPSCO	X		X		X	X				
32.	Individual	Steve Alexanderson P.E.	Central Lincoln			X	X					X	
33.	Individual	Andrew Gallo	City of Austin dba Austin Energy	X		X	X	X					
34.	Individual	Chantal Mazza	Hydro-Quebec TransEnergie	X									
35.	Individual	Michelle R. D'Antuono	Occidental Energy Ventures Corp.					X		X			
36.	Individual	Greg Travis	Idaho Power Co.	X									
37.	Individual	Cristina Papuc	TransAlta Centralia Generation LLC					X					
38.	Individual	Terri Pyle	Oklahoma Gas & Electric	X		X		X					

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
39.	Individual	Jonathan Appelbaum	The United Illuminating Company	X									
40.	Individual	Anthony Jablonski	ReliabilityFirst										X
41.	Individual	Michael Falvo	Independent Electricity System Operator		X								
42.	Individual	RoLynda Shumpert	South Carolina Electric and Gas	X		X		X	X				
43.	Individual	Dale Wadding	Dairyland Power Cooperative	X		X		X					
44.	Individual	John D. Brockhan	CenterPoint Energy Houston Electric, LLC.	X									
45.	Individual	Daniel McGuire	Salt River Project	X		X		X	X				
46.	Individual	Jose H Escamilla	CPS Energy	X		X		X					
47.	Individual	Kayleigh Wilkerson	Lincoln Electric System	X		X		X	X				
48.	Individual	Brian Murphy	NextEra Energy Inc.	X		X		X	X				
49.	Individual	Laurie Williams	Public Service Company of New Mexico	X		X							
50.	Individual	Wryan Feil	Northeast Utilities	X									
51.	Individual	Kenneth A Goldsmith	Alliant Energy				X						
52.	Individual	Russ Schneider	Flathead Electric Cooperative, Inc.				X						
53.	Individual	Fred Meyer	The Empire District Electric Company	X		X		X					
54.	Individual	Melissa Kurtz	US Army Corps of Engineers					X					
55.	Individual	Bob Thomas	Illinois Municipal Electric Agency				X						
56.	Individual	Thad Ness	American Electric Power	X		X		X	X				
57.	Individual	Karen Webb	City of Tallahassee					X					
58.	Individual	Don Schmit	Nebraska Public Power District	X		X		X					
59.	Individual	Shari Heino	Brazos Elextric Power Cooperative, Inc.	X				X					
60.	Individual	David Burke	Orange and Rockland Utilities	X		X							
61.	Individual	Andrew Z. Pusztai	American Transmission company	X									
62.	Individual	Kirit Shah	Ameren	X		X		X	X				
63.	Individual	Patrick Brown	Essential Power, LLC					X					

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
64.	Individual	Don Jones	Texas Reliability Entity										X
65.	Individual	Terry Harbour	MidAmerican Energy	X		X		X	X				
66.	Individual	Kathleen Goodman	ISO New England Inc.		X								
67.	Individual	Denise M. Lietz	Puget Sound Energy Inc.	X		X		X					
68.	Individual	Michael Moltane	ITC Holdings	X									
69.	Individual	Kevin Luke	GTC	X									
70.	Individual	Lynne Mila	City of Clewiston	X									
71.	Individual	Eric Salsbury	Consumers Energy			X	X	X					
72.	Individual	Alice Ireland	Xcel Energy	X		X		X	X				
73.	Individual	John Seelke	Public Service Enterprise Group	X		X	X	X					
74.	Individual	Russell A. Noble	Cowlitz County PUD			X	X	X					
75.	Individual	Chris Scanlon	Exelon	X		X	X	X					
76.	Individual	Scott Berry	Indiana Municipal Power Agency				X						
77.	Individual	Rebecca Moore Darrah	MISO		X								
78.	Individual	David Thorne	Pepco Holdings Inc	X		X							
79.	Individual	Cheryl Moseley	ERCOT		X								
80.	Individual	Darryl Curtis	Oncor Electric Delivery Company LLC	X									

If you support the comments submitted by another entity and would like to indicate you agree with their comments, please select "agree" below and enter the entity's name in the comment section (please provide the name of the organization, trade association, group, or committee, rather than the name of the individual submitter).

Summary Consideration:

The OPCPSDT has reviewed the section and responded to Oklahoma Gas & Electric's comments. They are absorbed in the question 5 summary.

Organization	Agree	Supporting Comments of "Entity Name"
American Transmission company	Agree	ATC endorses and supports those comments submitted by the Edision Electric Institute(EEI)on behalf of ATC and other REAC members.
City of Clewiston	Agree	please see FMPA's formal comments.
Dairyland Power Cooperative	Agree	MRO NSRF and MISO
Flathead Electric Cooperative, Inc.	Agree	Central Lincoln
Illinois Municipal Electric Agency	Agree	Florida Municipal Power Agency and Indiana Municipal Power Agency
ISO New England Inc.	Agree	We agree with and support the comments submitted by NPCC, the SRC, and ERCOT.
Nebraska Public Power District	Agree	Midwest Reliability Organization (MRO) NERC Standards Review Forum (NSRF); ANDSouthwest

Organization	Agree	Supporting Comments of "Entity Name"
		Power Pool (SPP) RTO
Orange and Rockland Utilities	Agree	Consolidated Edison and Northeast Power Coordinating Council
US Army Corps of Engineers	Agree	US Bureau of Reclamation
Brazos Elextric Power Cooperative, Inc.		ACES Power Marketing
MidAmerican Energy		MidAmerican Energy supports MRO NSRF comments
Oklahoma Gas & Electric		OG&E is in support of Southwest Power Pool Comments. OG&E also had individual comments (though I am now not allowed to submit via the questionnaire; therefore, will submit here). Q1: No We prefer the use of the word "Instruction" vs "Command", though we understand that word is already part of the term being defined. Could be open to using the term "Request" or "Order" or "Direction". **Response: The SDT received many comments on draft 2 (previous version) that the word "instruction" in the body of the definition was unclear as what type of communication was covered by the definition. The word "command" is absolute and strong; leaving no doubt as to the type of communication the definition is**

Organization	Agree	Supporting Comments of "Entity Name"
		describing. Q2: No R2.1 does not read well. We would recommend changing to ""When receiving an oral two party, person-to-person Operating Instruction, the recipient is required to repeat, restate, rephrase, or recapitulate the Operating Instruction." **Response: The SDT understands your recommendation, but used this type of grammatical structure to specify to the entity that they must require the recipient to respond as specified.** Regarding R2.2, we are struggling to identify what would be considered a "one-way burst messaging system". Perhaps examples could be provided to clarify what the SDT is trying to address. **Response: These are systems several entities use to convey Operating Instructions to groups of entities for such things as requesting VARs , increases or decreases of input or output. They employ many forms of technology. The most common is a group telephone call that has an option for a receiver of an issued Operating Instruction to select a "number" to acknowledge receipt. The technologies are many and vary in functionality. Each entity would be able to customize their Communication protocols in R1 and R2 to reflect the capabilities of their system.**

Organization	Agree	Supporting Comments of "Entity Name"
		Consider adding similar language that is currently provided in TOP-001-1a R3 "...shall comply with reliability directives issued by the Transmission Operator, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the Transmission Operator, Balancing Authority or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions." to allow for those circumstances in which a Distribution Provider or Generator Operator may not be able to respond to the Operating Instruction. **Response: The SDT does not want to add repetitive language that could possibly create a double jeopardy situation. We would prefer the TOP-001-1a R3 requirement to govern this type of scenario. COM-003-1 deals with operating communication protocols, not the actions themselves.** Q3: The word "potential" in R3.1. and R4.1. could be subjective. Please remove this word such that both R3.1. and R4.1. state "Identifies deficiencies,". **Response: This language has been eliminated in the latest draft of the standard.**

Organization	Agree	Supporting Comments of "Entity Name"
		Q4: No We believe R3 and R4 should be considered Low VRF as they are establishing the process that supports R1 and R2 which are already designated as Low VRF. We do not think the subsequent process should have a higher VRF than the original requirement. **Response: The SDT believes the R3 and R4 process provides an entity great opportunity strengthen and improve their communication protocols. The Medium VRF is appropriate because a process that is dysfunctional and yields growing numbers of deficiencies is creating the atmosphere for miscommunication and undesirable impacts on the BES. The team has incorporated R3 and R4 into R1 and R2, and has assigned a medium VRF for these requirements.** Other Comments: OG&E continues to believe that the COM-003 standard, while obviously the result of significant effort and good intentions, is unnecessary. Even though we believe that three-part communication is a best practice, and we utilize it for switching and reliability-related instructions, we do not believe that it should be mandated through an enforceable standard. COM-002 addresses three-part communications during emergency conditions and we believe that is sufficient. With respect to the Paragraph 81 project, NERC should be focused on retiring

Organization	Agree	Supporting Comments of "Entity Name"
		standard requirements that meet the following criteria: (a) have little or no impact on reliability, (b) administrative, purely documentation, redundant, or hinders protection of the BES, and (c) Lower VRF/VSL, lower tier Actively Monitored Standard, etc. The industry has yet to be provided sufficient evidence that the lack of three-part communication during normal operations has been the direct cause, or even a contributing cause, to reliability failures. While a good idea in concept, the COM-003 standard is likely to take significant effort to interpret, understand and implement, at a time when industry is already overburdened with real reliability issues that we already know to be problematic. The documents referenced in the Rationale and Technical Justification document supporting the need for this standard should be made available for review if the drafting team is using them as support for the justification for COM-003. **Response: The SDT respectfully disagrees with your comment. COM-003-1 does address the human factor in communication. Human beings can and will make mistakes during verbal exchanges . These mistakes have the potential to create risk for BES operations. FERC Order 693, the Blackout Report and the SAR call for "tighter"**

Organization	Agree	Supporting Comments of "Entity Name"
		communications and that is exactly what COM-003-1 provides. The SDT cited those references from the "OC white Paper" authored by Terry Bilke which was appended to the Response to Comment for COM-003-1, draft 2 by a commenter.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
PNGC Comment Group		The PNGC Comment Group is fully in support of Central Lincoln PUD's comments.
Wisconsin Electric Power Co.		Midwest ISO

1. Do you agree with the changes made to the proposed definition "Operating Instruction" (now proposed as a "Command from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System?") to be added as a term for the NERC Glossary? If not, please explain in the comment area.

Summary Consideration:

Many commenters state the proposed definition of "Operating Instruction" is overly broad and ambiguous. System Operators engage in thousands of communications each year. Many of these are geared toward confirming system conditions, data, or information and/or gathering information in anticipation of responding to conditions observed on the Bulk Electric System. The definition's breadth and ambiguity are likely to give System Operators pause before they engage in necessary communications to determine whether or not such communications would be Operating Instructions. ***The SDT believes the draft 4 language changes, many recommended by commenters, will reduce the perceived ambiguity. The OPCPSDT has added clarifying language to the definition for draft 4 which is now:***

Operating Instruction —"A command by a System Operator of a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."

Other commenters cite this would delay necessary information and data gathering by System Operators, which would be detrimental to the reliability of the BES. "System Operators may opt to treat, as Operating Instructions, all or many communications that should not fall within the scope of this definition, resulting in every communication being subject to this standard. That because of the System Operators' caution and desire to avoid possible penalization by NERC and FERC, the net effect of this definition is detrimental to the reliability of the BES. Further, because of delays in issuing or initiating communications, there is significant potential that penalty exposure from other NERC Reliability Standards (in addition to that identified in the COM-003-1 Reliability Standard, e.g., resulting from a deficiency in implementing or failing to implement specified protocols). This result would be overly burdensome, and its inefficiency could hamper System Operators' ability to perform their necessary reliability functions." ***The SDT believes that entities should be aware that under COM-003-1, draft 3 and now draft 4 they must identify, assess and correct deficiencies with adherence to communication protocols, not absolute adherence to the protocols, with potential non-compliance for each deficiency. The emphasis is on monitoring and correction.***

The use of communication protocols, based on its history in other industries, becomes a second nature routine. The SDT believes the general level of professionalism in the ranks of BES System Operators support a routine transition to these communication protocols.

Finally there were many recommendations to change for language and terms in the definition by commenters***. The SDT used many of the recommendations provided by commenters. The suggestions added clarity and in other cases streamlined the flow of the standard. The team responded to commenters whose suggestions were not used with explanations as to why not.***

Organization	Yes or No	Question 1 Comment
ACES Power Marketing Standards Collaborators	No	The current definition of Operating Instruction, particularly "command from a System Operator" sounds like a Reliability Directive. We recommend revising the SAR of COM-003-1 to retire the definition of Reliability Directive and COM-002-3. There is no delineation between when COM-003-1 and COM-002-3 would apply, which could potentially subject registered entities to double jeopardy. For example, an Operating Instruction that occurs during an Emergency could open up the potential for a finding of non-compliance under both COM-002-3 and COM-003-1. We suggest that the SDT work with the RC SDT to clearly define when COM-002-3 and COM-003-1 would apply. A single communication should not result in multiple penalties.
Response: The OPCPSDT thanks you for your comments. There is no violation of COM-003-1 in the example provided. The requirements of COM-003-1 call for documented communication protocols implemented in a manner to identify, assess and correct deficiencies.		
SERC OC Standards Review Group	No	We do not see a significant difference between Operating Instructions and Operating Communications, and we believe neither definition is necessary.
Response: The OPCPSDT thanks you for your comments. The SDT disagrees and has used "Operating Instructions" to narrow the definition to preclude general discussion communications. The SDT believes that a definition is necessary to identify direct		

Organization	Yes or No	Question 1 Comment
commands by a System Operator that alter the configuration of the BES.		
Duke Energy	No	Duke Energy is very encouraged by the changes made by the Standard Drafting Team in the current version of COM-003-1. The shift to requiring a communications protocol and a process for identifying and correcting deficiencies is a major step in the right direction. Our concern with the definition is that additional clarity is needed to distinguish the definition of Operating Instruction from the definition of Reliability Directive so that entities know which communications COM-003-1 applies to. This could be accomplished by changing the definition of Operating Instruction; replacing the word "Command" with "Normal communication", and replacing the word "preserve" with the word "maintain". The revised definition would read as follows: "Normal communication from a System Operator to change or maintain the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System".
Response: The OPCPSDT thanks you for your comments. The SDT addressed the relationship between the definition of Operating Instruction and the definition of Reliability Directive in draft 2. The SDT believes a Reliability Directive, during an Adverse Reliability Impact or an Emergency that that requires a change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System, is a subset or a type of an Operating Instruction.		
Dominion	No	Dominion requests clarification of "Command" verses "Directive". Neither "Command" nor "Directive" is defined in the NERC Glossary of Terms - some guidance/reference is needed. The word "command" seems more forceful, how does a command differ from a directive?
Response: The OPCPSDT thanks you for your comments. Neither term is a definition and the two words are synonyms. The word command is forceful and more clearly underscores what an Operating Instruction is and what it is not. The SDT does not see a need to add it to the NERC Glossary because of the clear dictionary meaning of the term.		

Organization	Yes or No	Question 1 Comment
Associated Electric Cooperative Inc - JRO00088	No	The Operating Instruction definition is no help beyond the "existing" Operating Command definition, as the later exists neither within the NERC Glossary downloaded this morning, 9/20/2012, nor within the Clean COM-003-1 copy downloaded for final review. The proposed Operating Instruction definition would add value, were the BES Definition itself properly scoped to only those assets and functions that undoubtedly affect the reliable Operation of bulk power system. However the BES Definition is, by NERC and FERC desire and design, too broad, and so our industry must now attempt containment of compliance scope and risk within multiple standards, including COM-003-1. As a result, AECI determines this Operation Instruction definition to insufficient to responsibly exclude conversations that have little to no effect upon the BES reliability.
Response: The OPCPSDT thanks you for your comments. The SDT is not clear on the intent of your comment. The "BES definition" is out of the scope of this question and does not have a bearing on the "Operating Instruction" definition. The definition of "Operating Instruction" is a proposed definition that will not appear in the NERC Glossary until the standard is filed and approved by FERC. The SDT has not created a term named "Operating Command" and is not aware of its existence in the NERC glossary. The SDT has stated many times that general conversation or discussion of options is not an "Operating Instruction." The OPCPSDT has added clarifying language to the definition for draft 4 which is now: **Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions.*** ISO/RTO Standards Review Committee	No	The proposal to standardize the meaning of "Operating Instruction" will likely cause more problems than it solves. The concept of "to change or preserve the state, status..." is ambiguous enough for CEAs to still apply the requirement to virtually all verbal conversations. **Response: The SDT disagrees. The language is very specific and is related**

Organization	Yes or No	Question 1 Comment
		to "commands from system operators" rather than any verbal conversations. The OPCPSDT has added clarifying language to the definition for draft 4 which is now: **Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions.*** Such a proposed definition may help clarify what the SDT intends to address, however, by making such a common word a Glossary term potentially will result in the Industry having to redefine their own manuals and procedures in which they use the phrase "Operating Instruction". For years, system operators have dealt with operating instructions on a daily if not minute basis. To them, operating instructions are necessarily a communication to alter or preserve the state and status of the BES condition or BES Element/Facility. Having a defined term, and calling such communication a "Command" is totally unnecessary, and can confuse operators from what they understand to be the meaning of operating instructions. Any proposed standard must clearly limit the application of the communication protocol requirements to communications that impact reliability. As proposed, the standard does not do this. Based on the existing language and the proposed Defined term Operating Instruction, the scope could readily be interpreted to include numerous communications that have nothing to do with system reliability. To remedy this, the SDT should either revise the proposed term in accordance with Order 693's limited scope, or delete this term and focus

Organization	Yes or No	Question 1 Comment
		the standard on reliability directives, which is in line with Order 693. **Response: The SDT believes the definition is clear and the word "command" does convey an order to take an action, rather than to carry on a general conversation.** **The word command is not defined. The capital letter is there because it was the first word in the definition. The SDT reworded the sentence in draft 4 to read "A command."** **The SDT is also confident the definition is within the scope of FERC Order 693.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
FirstEnergy	No	Although we believe the definition is on the right track, the wording may inadvertently cover many conversations between operators and personnel that do not impact the reliable operation of the BES. We ask the team to consider clarification, examples, or inclusions/exclusions much like the new definition of BES. For instance, tasks that may involved transmission lines associated with IROLs or SOLs, and other critical tasks.
Response: The OPCPSDT thanks you for your comments. The SDT believes the definition is focused on reconfiguration of the BES and a command from to System Operator to initiate such a reconfiguration. The SDT believes there is a reliability risk from a mishap if the communication of a command if it is ambiguous or misunderstood. The OPCPSDT has added clarifying language to the definition for draft 4 which is now: **Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions.***

Organization	Yes or No	Question 1 Comment
PPL Corporation NERC Registered Affiliates	No	The PPL Companies do not agree with the proposed definition of Operating Instruction as the standard appears to be focused on imposing three part communications on the industry for all normal / routine operating communications. Imposing requirements for three part communication for Operating Instructions may have the effect of elevating all communications to the state of Reliability Directive (as defined in COM-002-3). **Response: The SDT believes that communications protocols for all normal / routine operating communications as well as emergency operating communication mitigate the same risks. An unintended reconfiguration of the BES due a miscommunication can be damaging under any operating condition. Three part communication is a proven and effective protocol that reduces that risk.** Splitting communications requirements across different standards introduces the potential of unnecessary confusion. Communications involving the changing of the state, status, output, or input of a facility, occur very frequently and potentially even more frequently on preserving the state of the system. Many of these communicated changes, in and of themselves, would not have an impact on reliability. However, there are times (examples could be during a DCS event, an SOL, or an IROL) when even seemingly insignificant changes to the system must be made promptly, although the system has not reached the level of emergency or instability. It is at these times, "when action must be taken", which the miscommunication of the action or inaction could lead to amplifying the risk to the system. **Response: The SDT agrees. Miscommunication transcends operating states. Universal and consistently applied protocols are proven instruments that mitigate that risk.** Further, the focus of the standard is on operations and therefore the

Organization	Yes or No	Question 1 Comment
		communications subject to the requirement should be those requiring action in the Real-time Operations Time Horizon. The definition of which is included in the NERC document located at http://www.nerc.com/files/Time_Horizons.pdf .Suggest modifying the proposed definition as follows: Operating Instruction - Command, other than a Reliability Directive, from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System in which action must be taken in the Real-time Operations Time Horizon. **Response: The SDT believes the suggested language would narrow the intended focus of the definition. The OPCPSDT has added clarifying language to the definition for draft 4 which is now:** **Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions.***
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
SPP Standards Review Group	No	We suggest changing 'command' to 'order'. The definition would then read 'An order from a System Operator...'
Response: The OPCPSDT thanks you for your comments. The SDT acknowledges that the term order adds clarity, but the term command is even more distinct.		
Southern Company	No	Southern does not agree with the definition of "Operating Instruction" as it continues to be too broad and encompass routine communications

Organization	Yes or No	Question 1 Comment
		between System Operators and other system personnel and other functional entities. While Southern agrees that 3-part communications is a good utility practice that has been used by operating entities for many years, Southern disagrees with the broadness of "Operating Instructions" as in some of these cases, 3-part communications are not required to protect the reliability of the system. In fact, this prescriptive requirement, if used on all communications that could fall under "Operating Instructions" (i.e. very general information at times), would take System Operators time from other tasks that are more critical to maintaining reliability. Please note that there are numerous (i.e. in the millions) of conversations between operating entities each year and some important tasks could be missed or delayed if required to follow a standard script for everything. **Response: The SDT believes the definition is clear and that the word command conveys an order to take an action rather than to carry on a general conversation. The SDT believes the communication protocols in COM-003-1 would not take any additional time and would become a natural part of operators' communications as they do within other industries that employ communication protocols.** If the SDT agrees with Southern's comments related to Requirements 1 and 2, then the definition of "Operating Instruction" would be unnecessary as each operating entity would define the times when 3-part are necessary, which in Southern's case, would be broader than emergency communications and reliability directives, but not so broad that it would cover general exchange of information between operating entities. **Response: The SDT is not advocating the use of three part communication to convey general information. The SDT agrees their use should be addressed in R1 and R2 in the required documented communication protocols.**

Organization	Yes or No	Question 1 Comment
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Liberty Electric Power, LLC	No	The definition of the new term, "Operating Instruction," uses the NERC Glossary term "System Operator," which is defined as "An individual at a control center...whose responsibility it is to monitor and control that electric system in real time." The lack of clarity regarding what constitutes a control center leaves doubt as to which instructions would be covered by the standard.
Response: The OPCPSDT thanks you for your comments. The SDT sees no reason to define "control center" as it is a very commonly used and understood term in the industry. The OPCPSDT has added clarifying language to the definition for draft 4 which is now: **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."***		
TransAlta Centralia Generation LLC	No	The definition of the new term, "Operating Instruction," uses the NERC Glossary term "System Operator," which is defined as "An individual at a control center...whose responsibility it is to monitor and control that electric system in real time." The lack of clarity regarding what constitutes a control center leaves doubt as to which instructions would be covered by the standard. **Response: The SDT sees no reason to define "control center" as it is a very commonly used and understood term in the industry. The SDT has made several changes to the definition in draft 4 that add additional clarification.** Another disagreement with the proposed definition of "Operating

Organization	Yes or No	Question 1 Comment
		Instruction" is that it inappropriately imposes three-part communication for routine communications of changes of generation output. Common operating communications to and from generation plants should not be considered compliance events requiring the use of alphanumeric clarifiers. Such a requirement may shift operators' focus from providing proper information under critical situations to using the specified terms for every minor communication, distracting them rather than sharpening their concentration. The standard should specify the classes of TO/TOP-to-GOP communications that constitute compliance events, the formal designations by which such communications can be recognized, and the parties authorized to issue such commands. **Response: The SDT believes the use of three part communications is a proven communication protocol that has wide spread use and is an effective means of eliminating miscommunication of commands on the BES. The SDT believes it will help sharpen the operator's concentration rather than distracting them.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ReliabilityFirst	No	ReliabilityFirst does not agree with the changes made to the proposed definition "Operating Instruction". The definition of Operating Instruction begins with the word "Command". ReliabilityFirst is unsure what the word "command" means and believes it could be mistaken as a directive. ReliabilityFirst requests further clarification on the meaning of the word "command". ReliabilityFirst recommends the following for consideration: "Communication of instruction from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System.

Organization	Yes or No	Question 1 Comment
Response: The OPCPSDT thanks you for your comments. A command is an order given by someone in authority. The SDT believes the definition is clear and that the word command means to take an action that conveys an order rather than to carry on a general conversation. The language suggested above was featured in draft 2 where commenters stated it was not clear. The word command is more focused and direct.		
Independent Electricity System Operator	No	We do not see the need to define the term "Operating Instructions" for a number of reasons: For years, system operators deal with operating instructions on a daily if not minute basis. Having a defined term, and calling such communication as "Command" is totally unnecessary, and can confuse operators from what they understand to be the meaning of operating instructions. The main intent of this standard is to ensure no miscommunication between operating personnel, a part of which is proposed to be fulfilled by exercising 3-part communication for operating instructions. Notwithstanding our disagreement to having such a requirement in this standard, such a requirement can be developed without having to define a term that adds nothing to the universal understanding of the term but which can confuse operators. For example, Requirement R1 can be revised to: R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall have documented protocols for communicating operating instructions that will change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System, which incorporate the following: 1.11.2....
Response: The OPCPSDT thanks you for your comments. The SDT believes the definition is clear and that the word "command" conveys an order to take an action rather than to carry on a general conversation. The OPCPSDT has added clarifying language to the definition for draft 4 which is now:		

Organization	Yes or No	Question 1 Comment
"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."		
NextEra Energy Inc.	No	Although NextEra Energy, Inc. (NextEra) is encouraged by the refinements made to draft COM-003-1, NextEra believes additional refinements are necessary for COM-003-1 to promote reliability, and in no way hinder reliability. Next Era's perspective is heavily influenced by the years of experience of its system operators in their role as a large Transmission Operator, Reliability Coordinator agent and Balancing Authority. Specifically with respect to the definition of Operating Instruction, NextEra recommends that the definition more closely track the syntax of the definition of Reliability Directive in COM-002-3, and, thus, read as follows: Operating Instruction - a command from a Reliability Coordinator, Transmission Operator or Balancing Authority where action by the recipient is necessary to change or preserve the state, status, output of an Element or Facility of the Bulk Electric System.
Response: The OPCPSDT thanks you for your comments. The SDT has incorporated much of your recommended language into draft 4 of COM-003-1. The OPCPSDT has added clarifying language to the definition for draft 4 which is now: **Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions.***		
Northeast Utilities	No	Operating Instruction Definition is too broad; this essentially imposes on affected entities the need to use 3-part communication all the time. Additionally the broadness of the definition may cause compliance

Organization	Yes or No	Question 1 Comment
		difficulties between COM-003-1 and COM-002 if the requirements are not looked at holistically between the two. A recommendation would be to combine the requirements into one standard.
Response: The OPCPSDT thanks you for your comments. The SDT notes your recommendation, but that is outside the scope of the SAR for this project. This Issue has been discussed at the Standards Committee.		
American Electric Power	No	While AEP would not argue against the definition of "Operating Instruction" as proposed, we object to its inclusion as we disagree with the concept of requiring three part communications for more routine operations. Our efforts in this regard should first be focused solely on Reliability Directives before expanding this work, and creating similar requirements for all other Operating Communications. Requiring three part communications for every scenario might be considered a best practice by some, but making it a mandatory practice for routine operations emphasizes the manner of communications rather than the operations themselves. In addition, requiring three part communication in such a broader scope could actually diminish the perceived urgency during more urgent situations where such communications are more appropriate. In any event, requiring three part communications for Reliability Directives will likely result in more widespread usage for more routine operating communications, without making it a requirement. **Response: The SDT believes that communications protocols for all normal / routine operating communications as well as emergency operating communication mitigate the same risks. An unintended reconfiguration of the BES due a miscommunication can be damaging under any operating condition. Three part communication is a proven protocol that is effective in preventing misunderstandings. FERC Order 693, P 532 supports communication protocols for normal as well as emergency BES**

Organization	Yes or No	Question 1 Comment
		communication. AEP believes that there should not be multiple project teams proposing concurrent changes to COM-001, COM-002, and COM-003. Unless there are overwhelming reasons for not doing so, these efforts should be consolidated and managed by a single project team. In addition, current efforts on COM-003 need to be co-located with the proposed changes to COM-002 within a single standard. Having multiple project teams proposing concurrent changes results in problems such as this, where a) changes are proposed to the same standard or b) similar changes are proposed to separate standards. AEP cannot support revisions on these matters until they are managed by a single project team. If the team believes it should still proceed in their current efforts, then there probably is no need for requiring three part communications for Reliability Directives (COM-002 R2). As a result, COM-002 R2 should be retired and this definition should include emergency situations as well. **Response: The SDT notes your recommendation, but that is outside the scope of the SAR for this project. This Issue has been discussed at the Standards Committee.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Essential Power, LLC	No	The definition of the new term, "Operating Instruction," uses the NERC Glossary term "System Operator," which is defined as "An individual at a control center...whose responsibility it is to monitor and control that electric system in real time." The lack of clarity regarding what constitutes a control center leaves doubt as to which instructions would be covered by the standard.

Organization	Yes or No	Question 1 Comment
		Response: The SDT sees no reason to define "control center" as it is a very commonly used and understood term in the industry. The OPCPSDT has added clarifying language to the definition for draft 4 which is now: **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."*** Another disagreement with the proposed definition of "Operating Instruction" is that it inappropriately imposes three-part communication for routine communications of changes of generation output. Common operating communications to and from generation plants should not be considered compliance events requiring the use of alphanumeric clarifiers. Such a requirement may shift operators' focus from providing proper information under critical situations to using the specified terms for every minor communication, distracting them rather than sharpening their concentration. The standard should specify the classes of TO/TOP-to-GOP communications that constitute compliance events, the formal designations by which such communications can be recognized, and the parties authorized to issue such commands. **Response: The SDT believes the use of three part communications is a proven communication protocol that has wide spread use and is an effective means of eliminating miscommunication of commands on the BES. The SDT believes it will help sharpen the operator's concentration rather than distracting them.**

Organization	Yes or No	Question 1 Comment
		"Operating Instructions" apply to applicable functional entities that issue and receive them to and from other applicable functional entities.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Texas Reliability Entity	No	Previous version has a description regarding Reliability Directives. This version does not address Reliability Directives and the relationship to an Operating Instruction. Is a Reliability Directive a subset of Operating Instruction? Is a "directive," as mentioned in several standards, an Operating Instruction?
Response: The OPCPSDT thanks you for your comments. The SDT advocates that a *Reliability Directive* and any other *directive* is a subset of Operating Instructions when it is a command from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System.		
MidAmerican Energy	No	MidAmerican has concerns that Operating Instructions as defined is too broad.
Response: The OPCPSDT thanks you for your comments. The OPCPSDT has added clarifying language to the definition for draft 4 which is now: **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."***		
Public Service Enterprise Group	No	The definition of "System Operator" includes BA, RC, TOP, and GOP. Because GOP is included the definition, "System Operator" should be replaced by "Balancing Authority, Reliability Coordinator, or Transmission Operator." See also Project 2010-16: Definition of System Operator.

Organization	Yes or No	Question 1 Comment
Response: The OPCPSDT thanks you for your comments. The SDT has incorporated your recommended language into draft 4 of COM-003-1. **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."***		
Exelon	No	We can accept the definition but want to bring to the attention of the Drafting Team that the description of OI in the Background section of the Comment form, "Operating Instructions more accurately define the broad class of communications that deal with changing or altering the state of the BES", does not agree with the Definition being balloted. The inclusion of the phrase "or preserve" changes the definition. Nowhere in the discussion of the need for Operating Instructions or communication protocols is there discussion of or justification for including the "or preserve" statement. Exelon can support the modified definition but we believe it will cause entities to oppose this standard at ballot and create confusion when implementing controls and auditing to the modified definition.
Response: The OPCPSDT thanks you for your comments. The word "preserve" is used to denote efforts to hold the current state or status of a BES Element or Facility; in other terms a command not to make any changes to the system to preserve the existing operating state. The SDT changed it from "maintain" because of confusion cited by draft 2 commenters stating it created a possible reference to maintenance and repair activities.		
Indiana Municipal Power Agency	No	NERC defines the term "System Operator" as "an individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time." NERC does NOT define a "control center"

Organization	Yes or No	Question 1 Comment
		which could be problematic when it comes to how an entity views a control center and how an auditor defines a control center. **Response: The SDT sees no reason to define "control center" as it is a very commonly used and understood term in the industry.** IMPA believes that there is too much ambiguity when using the words "to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System." IMPA recommends that the entity giving the Operating Instruction declares it to be one which eliminates many potential problems of applying a definition of an Operating Instruction. The receiver of the Operating Instruction immediately knows what the following instructions will be and will know to apply the proper communication protocol instead of trying to figure out if the definition of Operation Instruction applies to what the entity just said. **Response: The SDT points out the beginning of this definition sentence is "Command from a System Operator ….. " which we believe eliminates that ambiguity. The OPCPSDT has added clarifying language to the definition for draft 4 which is now:** **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."** **The SDT also believes an entity is permitted to address the declaration option by creating it in the documented communication protocols in R1**

Organization	Yes or No	Question 1 Comment
		and R2.
Response: The OPCPSDT thanks you for your comments.		
MISO	No	MISO believes that the proposed definition of "Operating Instruction" is overly broad and ambiguous. System Operators engage in thousands of communications each year. Many of these are geared toward confirming system conditions, data, or information and/or gathering information in anticipation of responding to conditions observed on the Bulk Electric System. The definition's breadth and ambiguity are likely to give System Operators pause before they engage in necessary communications to determine whether or not such communications would be Operating Instructions. This would delay necessary information and data gathering by System Operators, which delay would likely be detrimental to the reliability of the BES. Conversely, to avoid confusion regarding which communications are Operating Instructions and to avoid potential delays, System Operators may opt to treat, as Operating Instructions, all or many communications that should not fall within the scope of this definition, resulting in every communication being subject to this standard. Under either scenario, because of the System Operators' caution and desire to avoid possible penalization by NERC and FERC, the net effect of this definition is detrimental to the reliability of the BES. Further, because of delays in issuing or initiating communications, there is significant potential that penalty exposure from other NERC Reliability Standards (in addition to that identified in the COM-003-1 Reliability Standard, e.g., resulting from a deficiency in implementing or failing to implement specified protocols and/or three-way communication, a deficiency in the review process, which is now significantly expanded beyond that envisioned during the drafting of this standard) could be increased. Accordingly, System Operators are likely

Organization	Yes or No	Question 1 Comment
		to apply the protocols applicable to Operating Instructions under R1 of COM-003 to all communications, whether or not they qualify as Operating Instructions. This result would be overly burdensome, and its inefficiency could hamper System Operators' ability to perform their necessary reliability functions. **Response: The SDT believes the draft 3 language for the definition of an Operating Instruction is clear. A "command" should never be confused with or interpreted as casual or informational conversation. A command is a very distinct and forceful word where generally the only response expected is compliance. The OPCPSDT has added clarifying language to the definition for draft 4 which is now:** **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."*** **Previous commenters have cited the professionalism of the majority of System Operators. Based on those comments and the experience of the OPCPSDT as operators we are confident System Operators will be able to easily manage all of the protocols.** **The SDT also requests that MISO look at this draft standard in the context of its identify, assess and correct features that permit the entity to improve reliability by correcting deficiencies without being subject to a finding of non compliance.** As a result, MISO does not support the proposed definition of Operating

Organization	Yes or No	Question 1 Comment
		Instruction at this time.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ERCOT	No	ERCOT agrees with the SRC comments, and has these additional comments: As proposed, the term "Operating Instruction" could include communications that have nothing to do with reliability - e.g. communications that are market related and have no impact on system reliability. That outcome is inconsistent with FERC's direction in Order No. 693. FERC's discussion of this issue in Order 693 focuses on alerts and emergencies - "We adopt our proposal to require the ERO to establish tightened communication protocols, especially for communications during alerts and emergencies..." (693 at P 531)"Accordingly, we direct the ERO to either modify COM-002-2 or develop a new Reliability Standard that requires tightened communications protocols, especially for communications during alerts and emergencies." (693 at P 535)In addition, the scope of FERC's concerns is limited to communications that impact the reliability of the BPS - "We note that the ERO's response to the Staff Preliminary Assessment supports the need to develop additional Reliability Standards addressing consistent communications protocols among personnel responsible for the reliability of the Bulk-Power System." (693 at P 531)"...we believe, and the ERO agrees, that the communications protocols need to be tightened to ensure Reliable Operation of the Bulk-Power System." (693 at P 532)Simply because FERC noted the benefits to communications during normal conditions does not mean the standard has to apply to those circumstances. All FERC said was that implementing consistent protocols will likely provide benefits across all operating conditions. The focus of the concern was clearly alerts and emergencies, and limiting the application of the standard to those conditions will provide benefits to relevant communications during normal conditions.

Organization	Yes or No	Question 1 Comment
		Response: The SDT continues to believe the very documents you cite as not supporting any drafts of COM-003-1 do indeed support and sanction the requirements developed by the SDT. The SDT remains properly focused on the guidance provided by the Blackout Report, FERC order 693 and the SAR and from the agencies that developed those documents. The SDT summarizes by quoting "communications protocols need to be tightened to ensure Reliable Operation of the Bulk-Power System." The SDT has developed a standard that effectively and fairly "tightens communication". However, as written, the standard is overbroad and inconsistent with the Commission's directives in Order 693. Consistent with this discussion, the IRC believes the most effective way to remedy this issue is to eliminate the proposed term and focus the standard on conditions that actually have a reliability impact. This can be achieved focusing the requirements on Reliability Directives. **Response: The SDT will continue to develop COM-003-1 consistent with the directives and guidance contained in FERC Order 693.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Oncor Electric Delivery Company LLC	No	Oncor offers instead a new glossary term called "Operating Communication" in order to support alternate language proposed for R1 and R2:Operating Communication - Communication from a System Operator that when executed results in the change or preserves the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System
Response: The OPCPSDT thanks you for your comments. "Operating Communication" was the original term the SDT presented in draft 2. Commenters stated it was too ambiguous. The SDT has added the phrase "that when executed" to draft 4.		

Organization	Yes or No	Question 1 Comment
Brazos Elextric Power Cooperative, Inc.	No	See ACES comments.
Response: The OPCPSDT thanks you for your comments. Please see our responses to ACES comments.		
Ameren	No	See response to question 5.
Response: The OPCPSDT thanks you for your comments. Please see our responses to question 5.		
MRO NSRF	No	
Central Lincoln	Yes	Thank you for making this change. Central Lincoln believes the SDT is on the right track to limit the scope of the standard to communications originating from System Operators. This will be less burdensome for many registered entities as well as the Compliance Enforcement Authorities.
Response: The OPCPSDT thanks you for your comments.		
Occidental Energy Ventures Corp.	Yes	Occidental Energy Ventures Corp. ("OEVC") agrees that it is important to specify that the command came from a System Operator. This allows us to leverage existing recording and monitoring systems to capture the event. The previous definition was open ended - which would have required us to expend an unknowable dollar amount in an attempt to capture every conversation related to a BES Facility or Element.
Response: The OPCPSDT thanks you for your comments.		
Northeast Power Coordinating Council	Yes	
Detroit Edison	Yes	

Organization	Yes or No	Question 1 Comment
Tacoma Public Utilities	Yes	
Hydro One	Yes	
APPA, LPPC and TAPS	Yes	
Florida Municipal Power Agency	Yes	
Bonneville Power Adminstration	Yes	
Arizona Public Service Company	Yes	
PacifiCorp	Yes	
Georgia System Operations	Yes	
Southwestern Power Administration	Yes	
US Bureau of Reclamation	Yes	
Manitoba Hydro	Yes	
NIPSCO	Yes	
City of Austin dba Austin Energy	Yes	
Hydro QuÃ©bec TransÃ‰nergie	Yes	
Idaho Power Co.	Yes	
The United Illuminating Company	Yes	

Organization	Yes or No	Question 1 Comment
South Carolina Electric and Gas	Yes	
CenterPoint Energy Houston Electric, LLC.	Yes	
Salt River Project	Yes	
CPS Energy	Yes	
Lincoln Electric System	Yes	
Public Service Company of New Mexico	Yes	
Alliant Energy	Yes	
The Empire District Electric Company	Yes	
City of Tallahassee	Yes	
Puget Sound Energy Inc.	Yes	
GTC	Yes	
Cowlitz County PUD	Yes	

2. The SDT has proposed that the applicable entities have documented communication protocols that incorporate elements listed in COM-003-1, R1 and R2. Do you agree with these proposed requirements ? If not, please explain in the comment area.

Summary Consideration:

Commenters state that it must be made clear in the requirements that functional entities can incorporate exceptions (to address emergencies for example) in the protocols that are developed. **The SDT believes that there is enough flexibility in the development of the documented communication protocol documents for the entity to account for exceptions to deal with emergencies or exceptional circumstances that may exist among communicating entities.**

Other commenters note these requirements are too prescriptive. The sub-requirements drill down too deeply into the communications needed to conduct system operations. sub-parts of R1 and R2 and allow registered entities to define their own communications protocols based on internal policies and procedures; not from overly-prescriptive reliability standards. They state the registered entity should have the freedom to decide what elements are to be included in its communication protocols. R1 and R2 are administrative in nature and unnecessary. There is no need to include 9 sub-parts on how to achieve proper communications. **The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirements serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop. Beyond the framework specified in the parts, an entity has the flexibility to develop the protocols to fit their particular situation.**

There were many other comments on each of the Parts for R1 and R2. Most cited the individual need for each. The SDT responded to each comment by demonstrating the contribution each protocol makes to communication clarity, which in turn increases the level of reliability.

Some commenters disagree that the Distribution Provider is listed as an Applicable Entity. The Distribution Provider load is not considered part of a BES Element or Facility. “The SDT response to an earlier comment on this issue was that the SDT is aware of some DPs that operate BES equipment. If that is the case, then the standard should be applicable to only those DPs that operate BES Elements or Facilities - not the numerous DPs who do not.”

If a DP has never or will never receive an Operating Instruction it would not be an applicable entity. If the DP has or could receive Operating Instruction it must comply with the standard. The DP would have to confirm their situation with the CEA.

Organization	Yes or No	Question 2 Comment
Northeast Power Coordinating Council	No	It must be made clear in the requirements that functional entities can incorporate exceptions (to address emergencies for example) in the protocols that are developed. Both of these requirements are too prescriptive. The sub-requirements drill down too deeply into the communications needed to conduct system operations.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language of the requirement R1 and R2 permits the entity to assess whether variations from the required protocol were valid. The exceptions referenced in your comments are TOP-001-2, R1 and IRO-001-3, R2.		
ACES Power Marketing Standards Collaborators	No	(1) The SDT should strike all sub-parts of R1 and R2 and allow registered entities to define their own communications protocols based on internal policies and procedures; not from overly-prescriptive reliability standards. The SDT stated that COM-003-1 is shifting paradigms and putting the responsibility on the registered entity to monitor, assess and correct its own deficiencies. If that is true, then the registered entity should have the freedom to decide what elements are to be included in its communication protocols. R1 and R2 are administrative in nature and unnecessary. There is no need to include 9 sub-parts on how to achieve proper communications. **Response: The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.** (2) The standard, as currently written, does not allow a registered entity to implement superior practices, such as multi-modal communication (multiple mediums of communicating) or other superior communication methods and technologies. There are other ways to achieve efficient and accurate operating communications and the drafting team should modify the requirements to allow the registered entity to determine the best method of communication. There will be a disincentive for registered entities to seek out new technologies to improve

Organization	Yes or No	Question 2 Comment
		communication if the standard remains with the current sub-parts. More discussion on each sub-part below. **Response: The SDT believes there is nothing in the standard that precludes an entity from embracing technology or incorporating best practices. The language of R1 and R2 states [an entity] "shall have documented communication protocols for Operating Instructions that incorporate the following." If technology supplants or improves communication accuracy it can be incorporated in the documented communication protocol.** (3) R1, part 1.1, use of the English language. The SDT should not require use of the English language because the vast majority registered entities in North America speak English, except for a small number of entities in Canada and Mexico. If anything, the requirement should be modified to state that, "If the English language is not used by System Operators, there must be a legal justification, such as another language is mandated by law or regulation." Not using the English language is a much greater risk to reliability. The majority of companies that speak English should not have to maintain compliance policies to reaffirm something that everyone knows that they are doing. The real issue here is if an entity does not use English language, auditors should verify how they communicate internally and what controls are in place when the non-English speaking entity communicates with English-speaking neighbors. The SDT should not put the burden of compliance on English speakers. The team should focus on the entities that pose a risk to the BES by not using the English language and the increased potential for miscommunications from translation errors. **Response: The SDT believes the language of the requirement requires the use of the English language among functional entities which is consistent with COM-001-1.1, R4, which will be replaced by COM-003-1.** (4) R1, part 1.2, the 24-hour clock, daylight/standard time. This sub-part does not take into account real time, such as "perform an action in 5 minutes." The purpose statement of the SAR is to provide System Operators with uniform communications

Organization	Yes or No	Question 2 Comment
		protocols that reduce the possibility of miscommunication that could lead to action or inaction harmful to the reliability of the BES. Requiring an operator to use the 24-hour clock for an action that is about to occur could cause more confusion and increase the possibility of miscommunication. The SDT should consider either inserting exceptions for the 24-hour clock for real time activities, or strike the 24-hour clock from the requirements. **Response: The SDT believes the language of the requirement allows the entity to determine the use of the 24 hour clock time only if they state an *actual clock time* or to use relative time periods if they chose to use relative time consistent with your example.** (5) R1, part 1.3, Standard or Daylight Savings. This sub-part also poses a risk for actions performed during real time operations and could increase the likelihood for error. For example, if WECC RC (daylight) was trying to communicate to a registered entity located in Arizona (no daylight savings time) to open a breaker. What is more effective, asking the entity to open a breaker in 5 minutes or at 11:05? In that scenario, 11:05 may be an hour difference because WECC RC is on daylight and Arizona is not, and the operators would be focusing on whether they accounted for the time changes and could potentially lose focus of the task at hand - opening the correct breaker. The SDT should consider either inserting exceptions for daylight savings/standard time for real time activities, or strike daylight savings/standard time from the requirements. **Response: The SDT believes the language of the requirement allows the entity to determine the use of a time zone *if* you use a clock time or to use relative time periods if they chose to use relative time as your example demonstrates. The SDT does not want to dictate the "how" under this format. The protocol should be uniform, clear and must increase reliability.** (6) R1, part 1.4, Transmission interface Element or Facility. As discussed above, this sub-part is unnecessary and should be struck from the standard. A registered entity

Organization	Yes or No	Question 2 Comment
		should be able to define its own communication protocol and the associated internal controls to ensure effective operating communications. Further, the Real-time Transmission Operations SDT (Project 2007-03) eliminated TOP-002 R18 which referred to the same concept as part 1.4, "uniform line identifiers when referring to transmission facilities." The reason the Real-time TOP SDT removed the language from the new standard was because the "requirement adds no reliability benefit. ...There has never been a documented case of the lack of uniform line identifiers contributing to a System reliability issue." Project 2007-03 was approved by the NERC Board of Trustees on May 9, 2012. Why is the OPCP SDT introducing language that the NERC Board has approved to remove from the requirements? There needs to be more awareness of the other projects and actions by the NERC Board. To be consistent, we recommend striking this sub-part in its entirety. **Response: The OPCPSDT is aware of the disposition of TOP-002 R18. The OPCPSDT, in the context of communication clarity and to tighten communications, believes that a common naming convention for interface BES Facilities and Elements of neighboring entities reduces response time and enhances situational awareness.** (7) R1, part 1.5, Alpha-numeric Clarifiers. As discussed above, this sub-part is unnecessary and should be struck from the standard. A registered entity should be able to define its own communication protocol and the associated internal controls to ensure effective operating communications. **Response: The requirement does allow an entity to develop its own protocol around alpha numeric clarifiers. The protocol should be uniform, clear and must increase reliability.** (8) R1, part 1.6 and 1.7, Three-part Communication. As discussed above, these sub-parts are unnecessary and should be struck from the standard. There are more effective methods of communicating besides using three-part communication. Multi-modal communication utilizes several mediums (verbal, visual and other sensory cues) to enhance communication and may include three-part, but could also include

Organization	Yes or No	Question 2 Comment
		other equally efficient and effective methods to communicate, such as through interactive smart phones and other remote communication devices. Different strategies may be needed for different utilities and their communication objectives. For instance, strategies and tools may be combined to meet a wide variety of communication functions to meet the needs of system operations, including utilizing new technologies to improve human performance when performing day-to-day operations. Three-part communications could be a part of the protocol, but three-part should not be in the requirements because it limits utilities from employing other methodologies are equally effective or superior to three-part communications. A registered entity should be able to define its own communication protocol and the associated internal controls to ensure effective operating communications. **Response: There is flexibility in R1 and R2 to incorporate technology that will enhance human performance. The SDT believes that until technology that can absolutely ensure that communications are clear and accurate proliferate throughout the BES; most Operating Instructions will be exchanged human to human. Three part communication is an effective tool that is used to increase the accuracy of verbal communication.** (9) R1, part 1.8 and 1.9, One-way Burst Messaging. As discussed above, these sub-parts are unnecessary and should be struck from the standard. An all call communication that is incorrect has just a big of an impact on reliability than one that is not understood. Also, the SDT does not take into account all the various technologies that exist in the marketplace; what does an entity do for an "all call conference call" where there are numerous humans on the line? R1, part 1.6 refers to "two party, person to person" and part 1.8 is limited to "one-way" communication. There is a gap here - does the SDT intend to exclude the "all call conference call" from the requirements? **Response: The "all call conference call" would not be subject to the requirements if it only deals with general information. If the "all call conference call" results in "Operating Instructions" those "Operating Instructions" would be subject to an**

Organization	Yes or No	Question 2 Comment
		entity's communication protocols. What happens if there are errors in the sent message? Would internal controls be the remedy? If the all call communication is not understood and there was no request for clarification, would an internal control resolve this issue or would the auditor find a PV? Also, sub-part 1.8 only requires confirmation from one party, even though the burst message could have been a request for eight parties to reply. There is a gap in reliability if all parties do not reply in that example. These sub-parts need additional information for clarity. Same comment for DP/GOP below. **Response: The standard only addresses communication protocols not human performance errors. Managing human performance is the responsibility of the entity's organization. The protocols exist to prevent the error.** **The reason to have one recipient reply is to confirm to the issuer that the Operating Instruction was sent. There are many diverse technologies over many communication medias that the entity can reflect their in their own documented communication protocols.** (10) R2 should allow DPs and GOPs to define their own communications protocols based on internal policies and procedures and there should not be a requirement to include sub-parts 2.1 and 2.2. **Response: Our responses above address this comment.** (11) R2, part 2.1, Receiving a Three-part Communication. As discussed above, this sub-part is unnecessary and should be struck from the standard. There are more effective methods of communicating besides using three-part communication. Multi-modal communication utilizes several mediums (verbal, visual and other sensory cues) to enhance communication and may include three-part, but could also include other equally efficient and effective methods to communicate, such as through interactive smart phones and other remote communication devices. Different

Organization	Yes or No	Question 2 Comment
		strategies may be needed for different utilities and their communication objectives. For instance, strategies and tools may be combined to meet a wide variety of communication functions to meet the needs of system operations, including utilizing new technologies to improve human performance when performing day-to-day operations. Three-part communications could be a part of the protocol, but three-part should not be in the requirements because it limits utilities from employing other methodologies are equally effective or superior to three-part communications. A registered entity should be able to define its own communication protocol and the associated internal controls to ensure effective operating communications. **Response: If those technologies exist and are acquired and provide absolute clarity among Functional Entities, the entity can employ them and redraft their protocol to reflect more effective functionality of the system.** (12) R2, part 2.2, One-way burst messaging for DP and GOP. As discussed above, this sub-part is unnecessary and should be struck from the standard. Please see (9) above for more discussion of one way burst messaging. **Response: The SDTs response to (9) covers the SDTs position. The SDT thanks you for a very comprehensive review.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
SERC OC Standards Review Group	No	We support having a documented communications protocol, but do not support prescriptive elements. Below is an example of language we could support. All the subparts of R1 and R2 need to be rewritten along these lines. ”R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall have documented communication protocols for Operating Instructions that address the following: ....1.6. The conditions under which an issuer is expected to: o Confirm that the response from the recipient of the Operating Instruction was

Organization	Yes or No	Question 2 Comment
		accurate, or o Reissue the Operating Instruction to resolve a misunderstanding."
Response: The OPCPSDT thanks you for your comments. The SDT replaced the word incorporate" with "include" which we believe is consistent with your suggestion.		
Duke Energy	No	1) In Requirements R1 and R2, the word "incorporate" should be changed to "address". This change will align the language of the requirements with the language of the RSAW, providing flexibility to entities in how their communications protocols will be structured. This change will also help to alleviate some of the following concerns. **Response: The SDT replaced the word incorporate" with "include" which we believe is consistent with your suggestion.** 2) In R1.1, 1.3 and 1.4 clarify the meaning of the phrase "between functional entities". Do these sub-requirements apply to Operating Instructions between individuals located in the same functional entity? **Response: As stated in the sub requirements they apply to Operating Instructions between functional entities. They do not apply to individuals in the same functional entity. The SDT recommends that they should, but will leave that to the entity.** 3) In R1.7, the phrase "repeat, restate, rephrase, or recapitulate" seems excessive. Suggest changing to just "repeat or rephrase". **Response: The SDT used the same language as COM-002-3 because the industry believes the different language of the requirements originally used in each standard was confusing.** 4) R1.6 and 1.7 are describing 3-part communication. Suggest combining 1.6 and 1.75) R1.8 and 1.9 address "one-way burst messaging", but it's not clear whether, or to what extent, 3-part communication is required.

Organization	Yes or No	Question 2 Comment
		Response: Part 1.6 and 1.7 are separate in order to fairly divide the requirements for the issuer and for the receiver. **"All calls" or "one-way burst messaging" are not subject to three part communication because the SDT believes that it would be impractical for many receiving parties to acknowledge receipt and repeat the message. The acknowledgement by one or more receiving entity is a confirmation to the issuer that the all call message went out.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Dominion	No	We appreciate the SDT's response to stakeholder comments in the previous draft, but still find sub-requirements R1.1, R1.2, R1.3 to be too prescriptive. We agree that these entities should mutually agree on (1) the language they will use to communicate and (2) the manner in which they will communicate time (24 hour, zone, zulu, etc). **Response: The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.** Below are some additional suggestions; Dominion also disagrees that Distribution Provider is listed as an Applicable Entity. Distribution Provider load is not considered part of a BES Element or Facility. The SDT response to an earlier comment on this issue was that the SDT is aware of some DPs that operate BES equipment. If that is the case, then the standard should be applicable to only those DPs that operate BES Elements or Facilities - not the numerous DPs who do not. **Response: The SDT also is aware that many DPs are receivers of load shedding instructions which are Operating Instructions. They are subject to communication**

Organization	Yes or No	Question 2 Comment
		protocols on that basis. R2 should be clarified to read as follows: "For Distribution Providers, and Generator Operators that operate BES Elements shall have documented communication protocols for Operating Instructions that incorporate the following: R1.1 - In lieu of the English language requirement, Dominion recommends defining the use of a common language for verbal or written communications for Operation Instruction(s). English shall be the default language unless otherwise mandated by the entity's document or mandated by law, regulation, or mutual agreement. **Response: The SDT believes that the language of the requirement allows the entity to develop the communication protocol in terms that are more effective for reliability in the entity's own operating environment.** Under R.1.2 and R1.1.3, It doesn't matter (and may not be exactly clear) in what time zone the action will occur. A transmission line can cross time zone boundaries. What is important is that all operators involved have the same understanding of what is going to happen, when, and who is to do it. If a TOP that operates in two different time zones already has a protocol that establishes one zone or the other as their time standard, will they have to revise their protocol and use two different zones? **Response: No, as long as they include that time zone in the Operating Instruction.** Dominion would recommend the following language to read as follows: Clock-time communications shall be precise and include the following: Use of a 24-hour format or 12-hour format with AM/PM designation Specification of the applicable Time-Zone when multiple Time-Zones are covered Specification of Standard Time or Daylight Saving Time for Operating Instructions that will be implemented beyond the present/current day **Response: The SDT believes that the standard permits an entity to develop the**

Organization	Yes or No	Question 2 Comment
		language you suggested above in the entity's protocols required in R1 and R2. **The only concern the SDT has with what you suggest is the use of a 12-hour format with AM/PM designation. The SDT believes this can easily be misunderstood creating increased potential for a miscommunication The SDT knows of no entity that uses an 'am – pm' term for critical communications.** R1.4 - This requirement is overly redundant as it is also covered by TOP-002 R18. **Response: The SDT believes neighboring entities should have a clear understanding of each other's BES Elements and BES Facilities to increase situational awareness and to shorten response time. TOP-002 R18 will be eliminated by the RTOSDT.** Under R.1.8 and R.1.9, Dominion feels this would create an unnecessary burden to document routine notifications that rely on a burst messaging system and do not have any effect on the Bulk Power System. A one-way burst messaging system is typically used to quickly inform/advise. It is designed as one-way to provide efficiency and should not be used for Operating Instructions. It would be much simpler to state that, "for the communications of Operating Instructions (regardless of the technology employed)(apply above comments), the message must be repeated or confirmed by the recipient, and validated by the sender." This approach focuses on "Operating Instructions" and not the technology employed. The requirement as currently written does not allow for exceptions due to routine or informative communications. (Example: NERC Alerts to the Industry based are based on severity level and do not always require receipt of message by the Registered Entity). **Response: The SDT does not want to document routine notifications. The requirement requires develop communication protocols for "Operating Instructions."** **It would be unwieldy for a large number of all call recipients to all respond to an all call "Operating Instruction" which is why the SDT called for confirmation from at**

Organization	Yes or No	Question 2 Comment
		least one (if an entity wants more it can request it) recipient to ensure transmission of the "Operating Instruction." R2 - Why not simply include DP and GOP in R1? R4 - Why not simply include DP and GOP in R3? **Response: The SDT points out that R1 and R3 are applicable to entities that issue and receive Operating Instructions, while R2 and R4 are applicable to entities that only receive Operating Instructions. The SDT did not want to stipulate that entities that do not issue Operating Instructions must have protocols that only apply to issuance.** Dominion also recommends defining 3 Part Communication in the NERC glossary as a result of this standard to help eliminate confusion. We need to have the System Operator maintain a focus on reliability through precise communications without unduly adding unnecessary requirements that create a burden without adding value. The mandatory use of Time-Zones for parties communicating within the same Time-Zone, or the use of Standard/Daylight Savings Time for current day activities adds an administrative burden with no value to reliability. **Response: The SDT defined three part communication in draft 1 of the standard. Industry comment was universally against the definition.** **The addition of accurate time information is not administrative. The time element of an Operating Instruction is critical and should be clearly conveyed and understood so it does not result in a compromised system due to an unexpected operation at the wrong time.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Hydro One	No	ï€ We request clarification on the rationale for limiting communication protocol requirements for DPs and GOPs. We believe that the communication protocol should contain essentially the same elements regardless of the function an entity performs.

Organization	Yes or No	Question 2 Comment
		Consequently, we recommend combining R1 and R2 to state: "Each responsible entity (BA, RC, TOP, DP, and GOP) shall have documented communication protocols for the communication of Operating Instructions. This protocol should contain following elements: ..." **Response: R1 and R3 are applicable to entities that issue and receive Operating Instructions, while R2 and R4 are applicable to entities that only receive Operating Instructions. Combining the requirements would cause the DP and GOPs to develop protocols they would never use.** ï€ In order to improve readability we recommend that the Sub-Requirements R1.1 through R1.9 be re-arranged and grouped. For example, R1.7 and R1.9 deal with information receiving. They should be combined into one with two sub-requirements or bullets. The same can be done with R1.3, R1.6 and 1.8 which deal with issuing Operating Instructions. **Response: The SDT respectfully prefers the order it created in draft 3 keeping three part communication and all call together.** ï€ Requirement 1.6: We suggest that for clarity purposes the SDT rewords the first bullet as follows: "Confirm that the recipient's response of the Operating Instruction as per R1.7 was accurate, or" **Response: The SDT adopted the language for 1.6 and 1.7 from COM-002-3 due to comments from industry on draft 2 of the standard that expressed confusion over different language for three part communication requirements.** ï€ Requirement 1.9: The requirement asks the recipient to request clarification when the communication is not understood. We believe that the requirement is not measurable and as such it should be deleted. Additionally, it represents common sense because in any type of communication if one party does not understand all or part of the conversation, it is natural that he/she will ask for clarification. **Response: The SDT believes it is measureable and agrees that it is common sense to**

Organization	Yes or No	Question 2 Comment
		ask for clarification. ï€ Requirement 2.2: Hydro One recommends deleting this section for the same reasons mentioned in our comment for Requirement 1.9 (measurability). **Response: Please refer to our response to 1.9** ï€ It must be made clear in the requirements that functional entities can incorporate exceptions in their protocols, for example, to address emergencies. As proposed, both of these requirements are too prescriptive. The sub-requirements drill down too deeply into the communications needed to conduct system operations. **Response: The SDT believes the language of the requirement allows the entity to address exceptions.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Associated Electric Cooperative Inc - JRO00088	No	AECI believes the sub-parts of this requirement to be overly prescriptive, whereas communication clarity should be the stated requirement. The sub-parts should appear only as examples of elements to be considered for improving clarity. Less is better, as evidenced by additional qualifiers already necessary to sub-requirement R1.1. (see suggested language in comment 5 below.)
Response: The OPCPSDT thanks you for your comments. The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.		
ISO/RTO Standards Review Committee	No	The SRC fully supports the concept that certain aspects of our business are better viewed based on the internal controls used by the entity. The SRC recognizes that the intention of the SDT is to be flexible. However, the nature of a standard is to eliminate that flexibility by not addressing how compliance will be monitored in the

Organization	Yes or No	Question 2 Comment
		controls approach and by prescribing specific items for inclusion in the protocols. **Response: The SDT simultaneously considered and changed the RSAW for COM-003-1 as it developed draft 3 and believes the two documents do address how compliance will be monitored. The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.** An entity is less likely to create a highly sophisticated best practice protocol if the RSAW subjects that entity to penalties for implementing that protocol. While presenters at the COM-003 Webinar presentation stated that violations are not based on implementing the steps of the protocols, the draft RSAW (dated July 2012) states: If the CEA finds in subsequent, follow up audits or other compliance monitoring activities that the same or similar deficiencies continue to occur after the entity was provided the feedback by the CEA, the CEA will seek to understand what changes the entity made to their process based on prior recommendations. If changes to the entity's process are not implemented to identify, assess and correct deficiencies, the Auditors may make a determination of possible non â€ compliance with Requirement 3, Part 3.4. **Response: The Webinar also addressed the RSAW language you reference. An entity that does not improve a deficient process, (R3.4 or R4.4) after a considerable amount of opportunity in a non PV environment, and chooses to ignore modification which would be required to improve that process; or does not provide justification to why the entity decided not to modify the process may and should be subject to a finding of non compliance.** (The proposed requirements R1 and R2) are a significant improvement from the previous postings. Requirement R1 is still too prescriptive. The elements within R1 make the requirement a checklist of rules and do not add to the reliability of the power system and do not address the reliability needs requested in Recommendation

Organization	Yes or No	Question 2 Comment
		26 and Order 693. The reliability need for clear protocols was in reference to "situational awareness" issues (i.e. when is the system in jeopardy and who makes that decision to respond - See references provided below). The reliability need was not related to common verbal mistakes. The proposed requirements do not address those needs. The SRC believes that IRO-016-1 does address those issues and needs. **Response: The SDT has read IRO-016-1 (To ensure that each Reliability Coordinator's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations) and view it as a requirement for RCs to work together to preserve system stability. COM-003-1 is being developed to tighten communications. The SDT does not discern the linkage.** *2003 Blackout Report Section:* *Data Exchanged for Operational Reliability (pages 50-51)* *Voice Communications: Voice communication between control area operators and reliability is an essential part of exchanging operational data. When telemetry or electronic communications fail; some essential data values have to be manually entered into SCADA systems, state estimators, energy scheduling and accounting software, and contingency analysis systems. Direct voice contact between operators enables them to replace key data with readings from other systems' telemetry, or surmise what an appropriate value for manual replacement should be. Also when operators see spurious readings or suspicious flows, direct discussions with neighboring control centers can help avert problems like those experienced on August 14, 2003.* SRC COMMENT - This is clearly focused on establishing communications where they potentially may not occur. It is not focused on prescribing particular terminology or protocols based on the belief that existing practices are inadequate. **Response: The SDT interprets this as data entry under contingency operations and**

Organization	Yes or No	Question 2 Comment
		does not discern linkage to Communication protocols. *Page 109 Effectiveness of Communications Under NORMAL conditions, parties with reliability responsibility NEED TO COMMUNICATE important and prioritized information to each other in a timely way, to help preserve the integrity of the grid. This is especially important in emergencies. During emergencies, operators should be relieved of duties unrelated to preserving the grid. A common factor in several of the events described above was that information about outages occurring in one system was not provided to neighboring systems.* SRC COMMENT - The above discussion is not related to terminology or repeating information. The concern focuses on the failure to provide appropriate information, which, as discussed above, as well as in Order 693, is focused on "important" and "prioritized" information. This is a limited set of communications that the proposed standard's new term Operating Instruction exceeds in scope. **Response: The SDT agrees with the remarks from page 109, but fails to discern the linkage to Operating Personnel Communications Protocols. The SDT believes the important and prioritized information in an Operating Instruction is critical and must be addressed.** *Pages 161-16226. Tighten communications protocols, especially for communications during alerts and emergencies. Upgrade communication system hardware where appropriate. NERC should work with reliability coordinators and control area operators to improve the EFFECTIVENESS of internal and external communications during alerts, emergencies, or other critical situations, and ENSURE that all key PARTIES, including state and local officials, RECEIVE timely and accurate information. NERC should task the regional councils to work together to develop communications protocols by December 31, 2004, and to assess and report on the adequacy of emergency communications systems within their regions against the protocols by that date.* *On August 14, 2003, reliability coordinator and control area communications*

Organization	Yes or No	Question 2 Comment
		REGARDING CONDITIONS in northeastern Ohio were in some cases ineffective, unprofessional, and confusing. INEFFECTIVE COMMUNICATIONS contributed to a LACK OF SITUATIONAL AWARENESS and PRECLUDED EFFECTIVE ACTIONS to prevent the cascade. Consistent application of effective communications protocols, particularly during alerts and emergencies, is essential to reliability. Standing hotline networks, or a functional equivalent, should be established for use in alerts and emergencies (as opposed to one-on-one phone calls) to ensure that all key parties are able to give and receive timely and accurate information.[SRC COMMENT: Recommendation 26 is clearly about communicating information about "conditions" and not about communicating the commands to a particular "asset". The proposed standard is unresponsive to the issues raised in the Blackout and by FERC. By not addressing the core reliability issues raised by the very report that drove this Project, the SDT is jeopardizing the reliability of the power system. The SRC strongly urges the SDT to reconsider this posting and to either rescind the Project and accept that IRO-016-1 has adequately responded to the Blackout Report, or to revise its proposal to directly address the issues noted above. If R1 is not rescinded as suggested above, then the prescriptive subparts 1.1 thru and including 1.6 should be removed. **Response: The SDT believes Recommendation 26 is about tightening communications by consistent application of effective communication protocols. This is further amplified by FERC order 693 and is memorialized in the SAR. The project was initiated with the approval of the Standards Committee.** **The SDT, respectfully, will not reconsider this posting and will not rescind the Project and will not accept that IRO-016-1 has adequately responded to the Blackout Report. The SDT does not have the authority or the inclination to do either. The SDT requests that you consider our positions and assist us in making this an effective and fair standard.**

Organization	Yes or No	Question 2 Comment
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
FirstEnergy	No	We support many of the protocols as a minimum to standardize communications across the industry. However, we believe some of the sub-parts of R1 contain language which may be too prescriptive and in some cases language is missing for special situations. ï,§ 1.2 - We understand the importance of knowing the time of day but an operator can specify “am” or “pm” instead of using the 24 clock format. The requirement should be less prescriptive to allow this. ï,§ 1.3 - This requirement as written may confuse the parties communicating. We suggest it be reworded in a simple fashion as follows: “Assure both parties understand the correct time being used in the communication.” ï,§ When the receiver of an operating instruction is unable to comply they should be allowed to notify the operator of the restriction (e.g. based on safety, loss of life, or damage to equipment) so that the operator is able to implement other actions to perform the desired operation. This should be added in the language requiring three-part communication in requirements R1 and R2.
Response: The OPCPSDT thanks you for your comments. The only concern the SDT has with what you suggest is the use of a 12-hour format with AM/PM designation. The SDT believes this can easily be misunderstood, creating increased potential for a miscommunication The SDT knows of no entity that uses an ‘am – pm’ term for critical communications. The SDT, based on the revised format of draft 3 of the standard, believes an entity would have the flexibility to incorporate your suggestions for emergency situations into the entity’s documented communication protocols (R1 and R2).		
PPL Corporation NERC Registered Affiliates	No	The PPL Companies do not agree with the proposed requirements as they are administrative in nature. **Response: The SDT notes having documented communication protocols (R1 and R2) may appear to be administrative in nature, but they represent a preliminary**

Organization	Yes or No	Question 2 Comment
		element for the process to identify, assess and correct deficiencies for adherence to documented communication protocols. Should the requirements remain, we suggest the following be considered: R.1. Each Responsible Entity shall implement, in a manner that identifies, assesses and corrects deficiencies, one or more documented communication protocols that address each of the following Requirements. R1.1 through R1.3 applicable to such Responsible Entity: R1.1. When a Reliability Coordinator, Transmission Operator or Balancing Authority requires actions to be executed pursuant to an Operating Instruction, the Reliability Coordinator, Transmission Operator or Balancing Authority shall identify the communication as an Operating Instruction to the recipient. R1.2. Each Balancing Authority, Transmission Operator, Generator Operator, and Distribution Provider that is the recipient of an Operating Instruction shall repeat, restate, rephrase or recapitulate the Operating Instruction. R1.3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority that issues an Operating Instruction shall either: o Confirm that the response from the recipient of the Operating Instruction (in accordance with Requirement R1.2) was accurate, or o Reissue the Operating Instruction to resolve any misunderstandings. For purposes of clarity, the term “implement” in Requirement R1 does not mean that there were no failures to follow the protocol in specific cases. The following language is suggested for the measures related the proposed R1.1 through R1.3: Measures: The Responsible Entity shall have documented communications protocols developed for Requirements R1.1 through R1.3.Additional examples of evidence may

Organization	Yes or No	Question 2 Comment
		include, but are not limited to, the Responsible Entity: o trained or otherwise educated the affected personnel about the protocols o established controls to identify failures to follow the protocols o assessed identified failures to follow the protocols o took appropriate actions to correct the identified failures **Response: The SDT has considered your recommendations but believes the draft 3 language more comprehensively covers communication protocols.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
SPP Standards Review Group	No	The wording in R2.1 is awkward, we suggest the following: When receiving an oral two party, person-to-person Operating Instruction, the recipient is required to repeat, restate, rephrase, or recapitulate the Operating Instruction. **Response: The wording is the same language as the requirements in COM-002-3. The OPCPSDT incorporated this language into the standard based on industry comment on draft 2 stating that the different language for the two standards caused confusion.** The one-way burst messaging in R1.9 and R2.2 is confusing to us in that we don't understand how you request clarification over a one-way messaging system. **Response: It the obligation of the recipient to contact the issuer if the recipient does not understand the Operating Instruction.** As written there is no 'out' for an entity that cannot perform the Operating Instruction as given. An entity has the option of not performing a Reliability Directive if that directive violates regulatory, safety, equipment, or statutory requirements (TOP-001, R3). A similar exemption needs to be incorporated into COM-003.

Organization	Yes or No	Question 2 Comment
		Response: COM-003-1 covers communication protocols not the action required. TOP-001-1, R3 and IRO-001 R1 govern the obligation to act.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Bonneville Power Adminstration	No	In R1.5, BPA disagrees with the mandatory use of alpha numeric communication protocols for internal communications. BPA believes that these communication protocols should apply only to external communications between system operators for the TOP, GOP, and BA. BPA suggests that the drafting team update R1.5 to specify that "Transmission Operators and Balancing Authorities may adopt methods other than alpha-numeric clarifiers to ensure accurate communication of Operating Instructions for internal operations." **Response: The SDT agrees that these communication protocols apply only to external communications between system operators for the TOP, GOP, and BA. It would only make sense to have them apply internally but that is the entity's option. Most entities use all or some of these communication protocols already.** **The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.** BPA suggests that R1.1 should be modified to make clear that the use of English should be mandated for communications between entities in separate regions where the common language in one of the regions may not be English. In response to Draft 2, Essential Power LLC commented that "The use of English should be mandated for communications between entities in separate regions where the common language in one of the regions may not be English. Allowing an entity to use a language other than English when communicating with regions where English is the required language is counter to the purpose of the Standard and could in fact jeopardize

Organization	Yes or No	Question 2 Comment
		reliability through miscommunication." The SDT stated that it "agreed with (Essential Power, LLC's) comments (shown below) and clarifies that is the intent of the requirement", but this intent is not clear in the requirement as written because it does not specify that the language mandate needs to apply to both entities. Additionally, there is no expressed limitation that the language(s) acceptable in these circumstances be limited to only the language(s) specified by such law or regulation. To resolve these issues, we propose that COM-003-1 R1.1 be modified to read as follows: Use of the English language when issuing an oral or written Operating Instruction between functional entities, unless another language is mandated by law or regulation FOR BOTH ENTITIES; IN WHICH CASE, ACCCEPTIBLE USE IS EXPANDED TO INCLUDE THOSE SPECIFIED LANGUAGES. Transmission Operators and Balancing Authorities may use an alternate language for internal operations. **Response: The SDT appreciate your proposed recommendation but believes the language in draft 3 is clear and unambiguous. The English language is required with appropriate exceptions.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
PacifiCorp	No	PacifiCorp does not feel that the requirements listed in R1.5 regarding the use of alpha-numeric clarifiers when issuing an oral Operating Instruction is warranted. The requirements listed in R1.6, and R1.7 requiring the strict used of three-way communication should alleviate any possibility of miscommunication, which PacifiCorp understands to be the drafting team's intent in the development of separate Requirement R1.5. Also, implementing the use of alpha-numeric clarifiers poses additional risk due to the introduction of ambiguous language.
Response: The OPCPSDT thanks you for your comments. The SDT believes alpha-numeric clarifiers are important tools for entities conveying information that contains alpha-numeric identifiers. The SDT also believes they reduce ambiguity.		

Organization	Yes or No	Question 2 Comment
Southern Company	No	Southern supports having a documented communications protocol, but we do not support the prescriptive elements of this version of the standard. The protocols should give the entity the flexibility to define the conditions where they expect 3-part communications and the verbal cues they use to tell the recipient they expect 3-part communication or that action is required. Southern suggest the following changes to R1 and R2 and could support these changes in future drafts of this new standard.
Response: The OPCPSDT thanks you for your comments. The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop. Beyond the frame specified in the parts an entity has the flexibility to develop the protocols to fit their particular situation.		
Liberty Electric Power, LLC	No	The SDT shift from a zero-tolerance standard to a procedure required standard is admirable. Thank you for the open-mindedness and willingness to change direction after much hard work went into the original proposal. However, the requirements for specific content in the required procedure still goes beyond the proper role of the standard. Suggested revision - eliminate R1 and R2, replace with new R1:"Each (covered entity) shall have documented procedure(s) for communications with other users of the Bulk Power System. Such procedure(s) shall have provisions which, in the judgment of the registered entity, reduce the opportunity for miscommunications."This lowers the chances of miscommunications without dictating the content of business practices.
Response: The OPCPSDT thanks you for your comments. The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.		
NERC - Investigations Group	No	Requirement R1.6 provides inadequate protection against a misunderstanding when directives are issued. Granted, the Requirement does obligate the party receiving the directive to repeat back the directive. However, if the recipient repeats the directive

Organization	Yes or No	Question 2 Comment
		back to the person issuing the directive, and the "repeat back" indicates the recipient has misunderstood the directive, this Requirement merely obligates the person issuing the directive to state the directive again. The Requiremnt places no obligation on the person issuing the directive, who knows he has been misunderstood, to explicitly and clealy bring to the attention of the recipient that the recipient has misunderstood. All the party issuing the directive has to do is repeat what he has already said. The party issuing the directive is under no obligation to make it clear that there has been a misunderstanding. With respect, I suggest having the person issuing the directive merely repeat it if he's been misunderstood, with no explicit statement that there has been a mistake, leaves open the potential for the recipient to be unaware he has misunderstood and to execute a misunderstood directive. As an example, consider the following exchange. Transmission Operator to Field Operator: "Jim, open Breaker 104-696". Field Operator repeats back "I understand open Breaker 104-699". Transmission Operator, noting the error, states "Open Breaker 104-696". The field operator, having not been explictly made aware there has been an error, opens Breaker 104-699. (Presumably, he would not do so had the Transmission Opeartor made him aware of the misunderstaing with an exlicit statement that there has been an error.)Suggestion: Add verbiage to R1.6 obligating the person issuing the directive to make an explicit statement to the recipient that there has been an error if the recipient repeats the order back incorrectly. Presently, the standard imposes no such obligation on the person issuing the directive. One possibe way to re-word the standard might be: " ...shall ensure the recipient of the directive repeats the information back correctly; and, if the repeat back is correct, shall acknowledge the response as correct. If the repeat back is incorrect, the person issuing the directive will state "You are wrong and have misunderstood the directive". The person issuing the directive will then repeat the directive correctly. This process will continue until the recipient repeats the directive back correctly.
Response: The OPCPSDT thanks you for your comments. The SDT has used the same three part communication requirement language as contained in COM-002-3 because of industry comments on draft 2 citing confusion between the two standards caused		

Organization	Yes or No	Question 2 Comment
by different language for the same requirement. The SDT refers you to R1.1.7- it requires the repetitive process until the correct information is communicated. The entity could account for this in their documented communication protocols (R1 and R2).		
Hydro Quebec TransÃ‰nergie	No	It must be made clear in the requirements that functional entities can incorporate exceptions (to address emergencies for example) in the protocols that are developed. Both of these requirements are too prescriptive. The sub-requirements drill down too deeply into the communications needed to conduct system operations.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language of the requirement R1 and R2 permits the entity to assess whether variations from the required protocol are valid.		
TransAlta Centralia Generation LLC	No	Clarification is needed regarding what GOP procedures are to cover, ref. our comments to question #1 above.
Response: The OPCPSDT thanks you for your comments. The GOP is a receiver of Operating Instructions and is subject to R2 and R4 which are focused on the requirements for entities who only receive Operating Instructions.		
ReliabilityFirst	No	Requirements R1 and R2 require the responsible entities to have documented communication protocols for Operating Instructions, but does not require the responsible entity to implement the protocols. Absent implementation of the protocols, there is no need for the protocols themselves if the responsible entity is not required to follow them. ReliabilityFirst recommends the following wording as an example for Requirement R1: "Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall have and implement a documented communication protocols for Operating Instructions..."
Response: The OPCPSDT thanks you for your comments. The SDT has changed the standard. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities**		

Organization	Yes or No	Question 2 Comment
that include the following:" **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
Independent Electricity System Operator	No	We disagree with the need to repeat and confirm operating instructions (Part 1.6 to 1.9 and R2) meant to be used for normal operating system conditions. As indicated in our previous comment, the term Reliability Directives and the recently approved COM-002-3 cover instructions not only emergency conditions but also conditions that can result in Adverse Reliability Impact. Requiring operating entities to exercise 3-part communications (repeating and confirming) for routine operating instructions that maintain the states or do not change the status of the BES Facilities, or simple actions such as removing a transmission line which has no impact on the BES, or simple switching, or adjusting a small amount of generation output, is totally unnecessary, and can in fact overburden System Operators and harm reliability. And we respectfully disagree with the SDT's response to our previous comment regarding the applicability of the term "Reliability Directive" in which the SDT claims that the term "Reliability Directive" in the approved version of COM-002-3, "...in the context of COM-002-3, is specifically for Emergency operating conditions" and "...covers a very narrow band of low frequency, high impact events. The definition covers not only emergency, but also Adverse Reliability Impacts" Further, the definition does not explicitly indicate, nor is it implied, that such conditions are "of low frequency, high impact events."To address the BoT's concerns expressed when approving the interpretation of COM-002-2, the term Reliability Directive now defined in COM-002-3 together with the NERC Operating Committee's guideline on System Operator Verbal Communication fully cover the condition under which 3-part communication need to be (to address Adverse Reliability Impacts) or should be (where deemed

Organization	Yes or No	Question 2 Comment
		appropriate) exercised. We do not see the need for having a standard requirement for 3-part communication for conditions other than when Reliability Directives are issued. Regarding the other parts in Requirement R1, i.e. 1.1 to 1.5, these are good operating practices but are not absolutely necessary the "must follow" protocols that rise up to a continent-wide reliability standard level.
Response: The OPCPSDT thanks you for your comments. The SDT respectfully disagrees that COM-003-1, based on your comments, is not needed. The interpretation of COM-002-2a, 2R combined with COM-002-3 as a replacement leave a gap that was covered by COM-002-2a, R2 before the Interpretation. COM-003-1 will cover the gap. Three part communication is an effective protocol that reduces miscommunication. Removing the wrong transmission line at the wrong time because of a miscommunication reduces reliability under any operating condition.		
Lincoln Electric System	No	LES requests the drafting team provide additional clarification regarding R2.1 as it relates to "oral two party, person-to-person" communication occurring between the System Operators and field crews. Does the drafting team intend for the communication protocols to be used for all communications between the System Operators and field crews (such as for normal day-to-day switching of distribution elements) or only as it occurs between defined functional entities? Within the Draft 2 consideration of comments under "Outstanding Unresolved Issues", the drafting team states that "The SDT clarified that COM-003-1 only applies to communication between functional entities. For example, if a TOP System Operator is issuing an Operating Instruction to an individual that is internal to that TOP, three part communication is not required by this standard". Although LES supports this clarification, it's incorporation into the requirement is not obvious. Recommend the drafting team modify R2.1 as follows to ensure this clarification remains evident within the standard going forward: R2.1. When receiving an oral two party, person-to-person Operating Instruction between functional entities, the recipient is required to repeat, restate, rephrase, or recapitulate the Operating Instruction.

Organization	Yes or No	Question 2 Comment
Response: The OPCPSDT thanks you for your comments. The SDT has added language to R1 and R2 clarify that they are applicable to Operating Instructions between Functional Entities.		
NextEra Energy Inc.	No	NextEra opposes any communication protocol in COM-003-1 that is not mirrored in COM-002-3. NextEra views the implementation of two different communication protocols -- one for Reliability Directives and one for Operating Instructions as problematic and not consistent with the promotion of a reliable Bulk Electric System. This concern is heightened by the fact that there are more specific protocols for Operating Instructions which are lower in the communication hierarchy when compared to Reliability Directives. Such a model is counterintuitive. If implemented, this model will also likely be counterproductive, increase confusion among System Operators and may unnecessarily cause a risk to the Bulk Electric System. The inherent risk caused by the lack of synergy and consistency between COM-003-1 and COM-002-3 could be resolved by combing the Standard Development projects and having the SDTs work together to produce one uniform work product. Therefore, NextEra urges the COM-003-1 SDT to request that the Standards Committee join the COM-002-3 and COM-003-1 efforts, so that one uniform three-way communication protocol can be developed and implemented that promotes reliability. **Response: The SDT does not disagree, but that is outside the scope of the SAR for this project The OPCPSDT has adopted the exact language for three part communication for COM-003-1 as COM-002-3 to reduce confusion. The documented communication protocols apply to Reliability Directives that change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System.** Further, in addition to comments that NextEra has previously submitted, it asks that the following changes be made: R1.1 Delete “between functional entity” as unnecessary and delete the second sentence altogether (or clarify it), because it is unclear and may add confusion. In the

Organization	Yes or No	Question 2 Comment
		context of an Operating Instruction, it is best that English be used between Transmission Operators and Balancing Authorities for external and internal communications related to Operating Instruction. To allow for alternative languages to be used internally when an Operating Instruction is given will likely result in difficult transitions between internal and external conversations which may unintentionally result in a risk to the Bulk Electric System via an external miscommunication using a language other than English. Thus, NextEra prefers that English be promoted and used for internal and external communications related to Operating Instructions. **Response: The SDT believes if an entity is externally communicating to you in a language other than English that entity would be deficient. The receiving entity should request the issuer use the English language, based on requirement R2. The SDT added "between functional entities" to the body of both requirements.** R1.4 Add a comma after "Facility" in the fourth line. The R1.8 Use the term "entities" instead of "parties" in the second line. Entities is a more widely recognized term than parties in the context of the Reliability Standards. Also, for clarity, re-write the end of 1.8 to read ". . . confirm receipt from each entity." The current wording states "confirmed receipt from one or more receiving parties" seems to miss the point that what the sender needs is confirmation from each entity that was sent the message.R1.9 Similarly, replace the term "parties" in line two with "entities". **Response: The SDT added the comma and will retain the term "parties" as some addressees may not be functional entities.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Northeast Utilities	No	R1.2 Prescribed use of a 24 hour clock format seems over-bearing **Response: The SDT believe it provides clarity to the time element.**

Organization	Yes or No	Question 2 Comment
		R1.3 The use of "functional entities"- includes more entities than the applicability section and uses terms from the functional model which goes beyond registered entities, may be some confusion here. **Response: The SDT has deleted the term "functional entities" from R1.3 and has incorporated it in R1 and R2.** R1.4 Transmission interface Element Transmission interface Facility These terms may need to be defined. They may be ambiguous to some entities as to what is intended **Response: The SDT believes these are commonly used terms in the electric utility industry.** R1.5 Use of alpha-numeric clarifiers in some instances inhibit efficient communication, without increasing the effectiveness of the communication or reducing the risk to the BES. In keeping with the requirement of entities to document its protocols, it should be left to the entities of regions to define this. **Response: The SDT believes alpha-numeric clarifiers are important tools for entities conveying information that contains alpha-numeric identifiers. The SDT also believes they reduce ambiguity.** R2 Is missing a sub-requirement that requires a clarification of two party communications that is not understood. **Response: R2.2 contains the clarification language you have referenced.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
American Electric Power	No	AEP disagrees with the concept of requiring three part communications for more routine operations, and as a result, also disagrees with requiring that entities have documented communication protocols as proposed.
Response: The OPCPSDT thanks you for your comments. The SDT believes three part communication is a proven, effective tool		

Organization	Yes or No	Question 2 Comment
that prevents mistakes caused by miscommunication.		
Brazos Elextric Power Cooperative, Inc.	No	See ACES comments. Additionally, if it is determined that all of the elements need to be kept in the standard, the list of elements needs to be improved. Some of the elements are noun phrases (e.g., 1.1 and 1.2) and some are instruction statements. All elements should be noun phrases. It is grammatically improper for a list to have more than one type of phrase and, more significantly, may lead to confusion about compliance obligations. Instruction statements could be construed to require perfect performance of those elements, but that does appear to be the intent of the SDT.
Response: The OPCPSDT thanks you for your comments. The SDT agrees and has changed the wording of the subparts.		
Ameren	No	See response to question 5.
Response: The OPCPSDT thanks you for your comments. Please see our responses to question 5.		
Essential Power, LLC	No	Clarification is needed regarding what GOP procedures are to cover, ref. our comments to question #1 above.
Response: The OPCPSDT thanks you for your comments. Please see our response to your comments in question one.		
Texas Reliability Entity	No	This Standard does not address electronic Operating Instructions, thus creating a possible gap. For example, ERCOT (acting as the BA) uses ICCP links to issue electronic dispatch instructions to generators (ERCOT Protocol 6.5.7.4). The recipient of the electronic dispatch instruction must acknowledge receipt of the dispatch instruction to ERCOT electronically, within one minute and must include the receiving operator's identification with the electronic acknowledgement (ERCOT Protocol 6.5.7.8(5)). ERCOT regional rules have similar language as current NERC standards regarding compliance with dispatch instructions, which include electronic dispatch instructions (ERCOT Protocol 6.5.7.9).Consider adding "Reliability Coordinator" or "Functional

Organization	Yes or No	Question 2 Comment
		Entities" in 1.1 statement where TOPs and BAs are singled out: "Transmission Operators and Balancing Authorities may use an alternate language for internal operations."
Response: The OPCPSDT thanks you for your comments. COM-003-1 deals with people to people not people to machine or machine to machine communication.		
Consumers Energy	No	We believe this is a standard that requires procedures or documents but has nothing to do with performance. These types of standards lead to auditors making a wide range of interpretations.
Response: The OPCPSDT thanks you for your comments. The SDT disagrees; it has to do with establishing a process to correct deficiencies and to improve the effectiveness of an entity's communications to improve reliability. It permits an entity to correct deficiencies in an environment without a finding of non compliance for every deficiency.		
Xcel Energy	No	See comments under question # 5.
Response: The OPCPSDT thanks you for your comments. Please see our responses to question 5.		
Public Service Enterprise Group	No	There should not be a requirement for entities in R1 and R2 to have documented communications protocols. The subparts specify the protocol requirements. R1 should merely state: "Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall use the following communication protocols for Operating Instructions:" R2 should be similar involving DP and GOP functions
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 accomplishes this. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as**		

Organization	Yes or No	Question 2 Comment
developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency. **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
Cowlitz County PUD	No	This requirement will be burdensome to small Distribution Providers where communications from a System Operator will not ever occur. Requiring entities to prepare for nonexistent reliability gaps is not acceptable. DPs should be allowed to document via RC, TO, and BA letters of agreement that establishes System Operator communication protocol is not required. These small DPs can only shed load in a reliability emergency, and in some cases would need to do so manually. Further, such load would be more effectively dropped by the TOP functioning as the DP's Transmission Service Provider.
Response: The OPCPSDT thanks you for your comments. If a DP has never or will never receive an Operating Instruction it would not be an applicable entity. If the DP has or could receive Operating Instruction it must comply with the standard. The DP would have to confirm their situation with the CEA.		
Exelon	No	Exelon agrees with all requiremnts except R1.1.3 and R1.1.4.We disagree that R1.1.3, "include time zones" when issuing operating instructions is necessary. Operating instructions are typically issued in real time; an instruction to do something "now" or at the "top of the hour" does not require the use of time zones. 1.1.4 has the effect of requiring verbatim use of a specified name; this should not be a requirement as long as the transmitter and receiver use three way communications effectively to assure understanding of the element to be operated. Additionally, TOP-002-R18 already requires use of "uniform line identifiers when referring to transmission facilities of an interconnected network". The statement to use the TO specified name or a mutually agreed to name is not necessary in light of TOP-002.
Response: The OPCPSDT thanks you for your comments. The SDT believes that if an entity uses a clock time a time zone reference		

Organization	Yes or No	Question 2 Comment
must be included if entities are in different time zones. Times designated on a relative basis (execute in five minutes) would not require a time zone. **TOP-002 R18 is being eliminated by another project. The SDT believes neighboring entities should have a clear understanding of each other's BES Elements and BES Facilities to increase situational awareness and to shorten response time.**		
Indiana Municipal Power Agency	No	IMPA believes it should be made clear that Operating Instructions and the use of documented communication protocols are required by these two requirements for when Operating Instructions are given by a Balancing Authority, Reliability Coordinator, or Transmission Operator to a Distribution Provider or Generator Operator. The current requirements could apply to a generator station (Generator Operator) who receives Operating Instructions from its Market Operations (also the same Generator Operator entity). The Market Operations would not need to follow the communication protocol since it is issuing the Operating Instructions, but the generator station would have to follow the communication protocol since it is receiving the Operating Instruction. IMPA does not believe that the SDT intended to include communications between a Generator Operator's Market Operations and its remote power plant.
Response: The OPCPSDT thanks you for your comments. The GOP is subject to the standard and must comply with applicable requirements. The SDT believes that is specified in the standard. Market Operations that are not acting as a GOP are not an applicable entity so communications with its Market Operations is not subject to standard.		
MISO	No	MISO does not agree with the proposed requirements of COM-003-1, R1 and R2. Although MISO agrees that clear communications are important to system reliability, it respectfully submits that any requirement for System Operators to have a communication protocol should allow the subject System Operators to define when and how the protocol would apply. In addition, MISO respectfully submits that System Operators should retain greater flexibility in deciding which elements to include in their respective protocols. For instance, the protocols should allow the System Operator to outline how and when to use blast calls and messaging systems.

Organization	Yes or No	Question 2 Comment
		Thus, despite its conceptual support for a communication protocol for System Operators, MISO is concerned that the requirements currently set forth in COM-003-1 are, in many cases, overly-prescriptive, and, rather than enhancing system reliability, could actually undermine it. As explained above, because the definition of the term "Operating Instruction" is overly broad and ambiguous, System Operators may treat most, if not all, communications as Operating Instructions. Applying the required elements of the communication protocols for Operating Instructions to most communications would be inefficient and could adversely affect the ability of System Operators to perform their reliability functions. Indeed, while MISO agrees that clear communications in system operations are important, an excessive reliance on the three-way communications protocols detailed in the proposed standard can be an unnecessary distraction for personnel operating the Bulk Electric System, hampering as opposed to enhancing overall system reliability. **Response: The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.** **The SDT believes an entity has great flexibility with creating the documented communication protocols in R1 and R2 to address its own particular situation. The SDT believes use of the protocols will become natural for System Operators and will result in consistent, universal communication protocols that will promote reliability on the BES. The new language in draft 4 addresses your concerns.** MISO's primary point of disagreement with the current Standard is therefore one of scope. MISO recommends that the SDT replace "Operating Instruction" with the existing proposed definition for the term "Reliability Directive" in Project 2006-06, Reliability Coordination. Limiting the scope of applicability for utilization of the communication protocol required by COM-003-1, R1 and R2 would prevent System Operators from applying the communication protocol to virtually all communications out of an abundance of caution and, unlike the current draft of COM-003-1, would not be an undue distraction from the reliability functions performed by these

Organization	Yes or No	Question 2 Comment
		operators. **Response: The SDT's intention is for entities to develop these protocols for all communications that command changes on the BES. The command to change BES configuration carries some risk no matter what operating state exists. The SDT believes such protocols will become routine for operators as they are for pilots, the military and air traffic controllers.** Further, as explained in its comments on Draft 2 of COM-003, MISO does not support including certain of the proposed required elements in the communication protocol for Operating Instructions and does not believe these issues have been sufficiently addressed by Draft 3. First, MISO does not agree with the proposed requirement to indicate time zone and Standard or Daylight Saving Time when issuing an oral or written Operating Instruction between functional entities in different time zones. This requirement would result in the expenditure of significant time, resources and attention by System Operators for a minimal benefit to reliability. Accordingly, this modification appears to place upon operators an unjustified, onerous requirement. MISO respectfully requests that the SDT reconsider this requirement. **Response: The SDT believes the time element of an Operating Instruction is a critical component. Switching at the wrong time could create a disastrous event. The SDT believes such protocols will become routine for operators as they are for pilots, the military and air traffic controllers.** Second, MISO continues to believe that the requirement to use alpha-numeric clarifiers when issuing Operating Instructions to or Facilities and Elements in instances where the nomenclature of Facilities or Elements is in alpha-numeric format is ambiguous and could lead to unintended compliance burdens. MISO respectfully submits that if alpha-numeric clarifiers are to be required, NERC should adopt a uniform set of clarifiers to ensure that all System Operators communicate efficiently and effectively. However, MISO reiterates its belief that mandating the use of alpha-numeric clarifiers will have, at most, a minimally beneficial impact on

Organization	Yes or No	Question 2 Comment
		reliability while requiring Registered Entities to expend substantial additional resources. **Response: The SDT believes the use of clarifiers is important because of human voice differentiation such as acuity, accents, volumes, pitch and others. Also communication equipment often has degraded performance that creates misunderstandings. The SDT originally proposed the NATO radiotelephony phonetic alphabet which was widely disapproved as too prescriptive by draft 1 commenters.** Finally, MISO disagrees with the proposed requirement that Operating Instructions reference the name specified by the owner for a Transmission interface Element or Transmission interface Facility. To date, System Operators have identified equipment by to/from station and voltage level. Such identification has been sufficient to ensure the accurate identification of Transmission interface Elements and Facilities. Additionally, MISO notes that internal identifiers utilized by owners may result from internal coding or naming conventions that would not be known by or comprehensible to external entities. Hence, MISO cannot support this requirement, based on the potential adverse impacts to reliability that could result. **Response: A provision for a separate mutual agreement is contained in R1.1.4.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ERCOT	No	The overarching premise of NERC standards is that they typically establish the "what" and not the "how" (Order 672 at P 260). The proposal to mandate specific communication protocols contravenes that approach and undermines the value inherent therein. Allowing entities to establish their own protocols to meet a desired end result facilitates means that best suit particular entities and also allows for improvements based on experience. Prescribing specific protocols would preclude such benefits. The proposed requirements are better suited as non-binding illustrative approaches / best practices. These could be presented as suggested approaches, for example, in an attachment to a standard that establishes a general

Organization	Yes or No	Question 2 Comment
		requirement to have communication protocols in place, but they should not be mandated. FERC did state that in some cases it may be appropriate to prescribe specific implementation rules in the standards if the how is inextricably linked to the standard and may need to be specified by the ERO to ensure the enforcement of the Reliability Standard. The Commission went on to note that for some standards leaving out implementation features could: (1) sacrifice necessary uniformity in implementation of the Reliability Standard; (2) create uncertainty for the entity that has to follow the Reliability Standard; (3) make enforcement difficult; and (4) increase the complexity of the Commission's oversight and review process. None of these conditions apply to communication protocols. For this matter, a general requirement relative to reliability directives is adequate with implementation left to the functional entities. This is already addressed in COM-002 R2, and, therefore, COM-003 is not needed. Communication protocols are more appropriately addressed by an entity's internal controls rather than a Reliability Standard, because this approach provides the benefits described above (i.e. 1) application of suitable protocols based on an entity's structure and relationships and other relevant rules and 2) flexibility for improvement of such protocols over time). The proposed standard eliminates these benefits by prescribing specific items for inclusion in the protocols. Again, the scope of the proposed standard is askew relative to the reliability concern at issue. The proposed standard is unresponsive to the issues raised in the Blackout and by FERC. By not addressing the core reliability issues raised by the very report that drove this Project, the SDT is jeopardizing the reliability of the power system. **Response: The SDT believes the 4 criteria ERCOT has listed above justify the inclusion of the elements in R1 and R2. There must be a high degree of communication uniformity and consistency among applicable entities for**

Organization	Yes or No	Question 2 Comment
		communication to be effective. The standard's draft 3 format permits great flexibility in developing those protocols and to add more content to accommodate their own particular circumstance, if entity chooses. **Response: The SAR and 2003 Blackout Report specified consistent and uniform communication protocols. The parts to the requirement serve as a frame to sustain a basis for standardizing the type of protocol the entity should develop.** Accordingly, the focus of the proposed standard is misplaced and, if approved, will do nothing to address the reliability concerns identified in the blackout report and Order 693, but rather will do nothing but impose ineffective and inappropriate obligations that will create liability risk with no corresponding reliability benefit. ERCOT strongly urges the SDT to reconsider this posting and to either rescind the Project and accept that IRO-016 has adequately responded to the Blackout Report, or to revise its proposal to directly address the issues noted above. If R1 is not rescinded as suggested above then the prescriptive subparts 1.1 thru and including 1.6 should be removed, and R1 should be revised to include "applicable communication protocols". **Response: The SDT believes it is addressing reliability concerns raised by the Blackout Report, Recommendation 26 and is tightening communications by consistent application of effective communication protocols. This is further amplified by FERC order 693 and is memorialized in the SAR. The project was initiated with the approval of the Standards Committee.** **The SDT, respectfully, will not reconsider this posting and will not rescind the Project and will not accept that IRO-016-1 has adequately responded to the Blackout Report. The SDT does not have the authority or the inclination to do either. The SDT requests that you consider the importance of the standard and assist us in making this an effective and fair standard.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		

Organization	Yes or No	Question 2 Comment
Oncor Electric Delivery Company LLC	No	According to the 2003 Black Out Report, "Ineffective communications contributed to a lack of situational awareness and precluded effective actions to prevent the cascade. Consistent application of effective communication protocols, particularly during alerts and emergencies, is essential to reliability" Oncor is not aware of any evidence to support the position that lack of communication protocols contributed to the NE Black Out of 2003, the 2008 Florida Black Out or the more recent SW Black Out. Oncor also takes the position that many of the ideas prescribed within the standard are already being effectively implemented as industry Best Practice. Oncor is concerned that implementing the specific elements as prescribed in the standard will result in confusion, and could compromise personnel safety. Oncor offers the following alternative language. R1 "When a Reliability Coordinator, Transmission Operator or Balancing Authority requires actions to be executed as an Operating Communication, the Reliability Coordinator, Transmission Operator or Balancing Authority shall identify the action as an Operating Communication to the recipient. " Oncor also offer the following alternative language for R2" R2. Each Balancing Authority, Transmission Operator, Generator Operator, and Distribution Provider that is the recipient of an Operating Communication shall repeat, restate, rephrase or recapitulate the Operating Communication."

Response: The OPCPSDT thanks you for your comments. The SDT believes the excerpt you cite from the 2003 Black Out Report regarding "Ineffective communications" indicates there is a major concern over communications that requires a higher degree of communication discipline.

The SDT believes the standard encourages the use of best practices and the entity has the flexibility to include them in its documented communication protocols.

The SDT believes that communication protocols will eliminate confusion and mistakes.

Thank you for the suggested language, but the OPCPSDT has added clarifying language to the definition for draft 4 which is now:

Organization	Yes or No	Question 2 Comment
Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions.*		
City of Austin dba Austin Energy	No	
CenterPoint Energy Houston Electric, LLC.	No	
Pepco Holdings Inc	No	
Central Lincoln	Yes	We appreciate the work the SDT has done to ensure the standard is not about having zero communication defects, and is more about process.
Response: The OPCPSDT thanks you for your comments.		
Occidental Energy Ventures Corp.	Yes	Although in general, OEVC does not believe that process documents should be the primary reliability consideration, it is the appropriate strategy in this case. Clearly, all of us want to eliminate Operator miscommunications - which make up nearly 20% of all BES mishaps - but it is impossible to assure 100% compliance over the course of thousands of System Operator communications. Furthermore, the effort required to capture the evidence needed by audit teams would overwhelm our resources, as well as those of the Regional compliance organizations. In our view, the path chosen by the drafting team is consistent with NERC's Risk-based Compliance program. It drives attention in areas that reliability data shows to be deficient, but recognizes that the benefit of COM-003-1 must outweigh the costs and resources required to implement it.

Organization	Yes or No	Question 2 Comment
Response: The OPCPSDT thanks you for your comments.		
Idaho Power Co.	Yes	It will require us to write a communications protocol.
Response: The OPCPSDT thanks you for your comments.		
The United Illuminating Company	Yes	R1.3 should allow the use of prevailing time in addition to Daylight Savings and Standard time. Prevailing time eliminates the need to differentiate between daylight savings or standard time in notices and reduces confusion since the clocks are changed at a scheduled time by the US Government.
Response: The OPCPSDT thanks you for your comments.		
Detroit Edison	Yes	
Tacoma Public Utilities	Yes	
MRO NSRF	Yes	
APPA, LPPC and TAPS	Yes	
Florida Municipal Power Agency	Yes	
Arizona Public Service Company	Yes	
Georgia System Operations	Yes	
Southwestern Power	Yes	

Organization	Yes or No	Question 2 Comment
Administration		
US Bureau of Reclamation	Yes	
Manitoba Hydro	Yes	
NIPSCO	Yes	
South Carolina Electric and Gas	Yes	
Salt River Project	Yes	
CPS Energy	Yes	
Public Service Company of New Mexico	Yes	
Alliant Energy	Yes	
The Empire District Electric Company	Yes	
City of Tallahassee	Yes	
MidAmerican Energy	Yes	
Puget Sound Energy Inc.	Yes	
GTC	Yes	

3. The SDT has proposed requirements (COM-003-1, R3 and R4) for appicable entities to implement a process to identify, assess and correct deficiencies related to the entity's documented communication protocols; and to evaluate that process based on deficiencies found externally from the process. Do you agree with the proposed requirements? If not, please explain in the comment area of the last question.

Summary Consideration:

Many commenters, even those who voted no on Question 3 supported the SDT's decision to incorporate internal controls. Some of their concerns were if regional CEAs are "onboard" with the SDT's approach. **The SDT has collaborated with NERC compliance and jointly developed the RSAW for COM-003-1. NERC compliance and NERC executives have been speaking to industry, Regional Entities and regulators to advocate for control based standards citing the absolute need for this approach to address burdensome and unreasonable requirements and to promote a more efficient use of resources.**

A large number of commenters, for various reasons recommended that the SDT consider using a similar format and language to emulate the CIP v.5 standards and to address concerns over their understanding of R3 and R4. The commenters stated that it would be more consistent and less confusing. **The SDT discussed the commenters' concerns and concluded that adopting the same general format for COM-003-1 would add value by improving consistency and remaining effective as a standard to improve communication and reliability on the BES.**

"R1 (and R2-DP and GOP). Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"

R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.

Organization	Yes or No	Question 3 Comment
Northeast Power Coordinating Council	No	It is unclear what identified reliability gap this Standard's development project is intending to fulfill given the recent adoption of the new COM-002-3 along with the OC white paper on communications protocols.
Response: The OPCPSDT thanks you for your comments. The reliability gap is the coverage of communication protocols that cover Operating Instructions during normal operating levels. COM-002-3 is only applicable to Adverse Reliability Impacts and Emergencies. The OC White Paper cites studies that put communication mistakes as a significant contributor to BES mishaps.		
ACES Power Marketing Standards Collaborators	No	(1) We support the concept of internal controls that the SDT has proposed. We agree that finding a violation for each instance is burdensome and unreasonable and evaluating internal controls is a more efficient use of resources. However, we are concerned about the evaluation of internal controls from Regional audit staff. How is NERC planning to train the Regional auditors to ensure consistency during compliance audits? There is too much room for auditor subjectivity, especially when evaluating whether a single communication was deficient. There are so many communications that could occur on a daily basis and there is not clear guidance when the Regions will find or not find a possible violation in an audit. **Response: During the September 6, 2012 Webinar representatives of the EROs Compliance group cited ERO's hiring of career auditors, increased training and reaching out to industry with the development of the RSAW and the standard simultaneously.** (2) In the webinar, SDT chair stated that a registered entity that catches a high percentage of deficiencies, then their process is working, but if the entity is only catching 50% then the entity needs to correct the process. There is currently no percentage or other guideline or metric to determine if an entity's process is sufficient. If this is the SDT's intent, please provide further detail. **Response: The SDT did not address the degree of disparity. The auditor does have some subjectivity. The SDT points out there is not generally a finding of non**

Organization	Yes or No	Question 3 Comment
		compliance even when the number of deficiencies is deemed excessive by a CEA. The entity then must evaluate its process for effectiveness and make modifications or demonstrate why no modification is necessary. (3) We recommend the SDT provide additional information in the Rationale and Technical Justification document to include a guideline to show how the Regional auditors would assess compliance with a control-based standard. It seems that the trend in both COM-003-1 and CIP v5 is to find the errors and fix them without the need to self-report. How are the Regions going to determine when a PV is to be issued? The Technical Justification and the RSAW do not provide enough information when a communication deficiency crosses the threshold of becoming a violation. How does a registered entity know when to self-report? **Response: The SDT believes there is enough information in the standard and the RSAW to demonstrate when a PV would be issued. A finding of non compliance will generally occur when an entity fails to implement the modifications it developed during the evaluation of its process or has not provided a compelling reasoning why they determined modification was not required.** (4) We recommend adding more detail, perhaps including an application guidelines section as other risk-based standards, for acceptable remediation of deficient communications. For example, if an operator failed to use the 24-hour clock during an Operating Instruction, would a simple reminder be sufficient or would the operator need to attend a full-blown training session? What documentation would be required? It seems that a reminder would remedy the deficiency, but then that would have to be documented. The internal controls used to remedy deficiencies could turn into another documentation exercise instead of focusing on effective communication. We recommend the SDT consider ways of satisfying remediation without creating an unnecessary administrative burden for maintaining compliance. **Response: The SDT leaves this up to the entity as it develops its process. If a simple reminder to use the 24 hour clock proves effective in eliminating or reducing the**

Organization	Yes or No	Question 3 Comment
		deficiency that is acceptable. It would have to be documented but generally most contemporary performance and training programs have the necessary elements to determine what internal remedies are required to train individuals to improve individual performance. (5) Please clarify R3, part 3.4, "deficiencies found external to Part 3.1." Does the SDT mean that there would be deficiencies found in an audit? Who is the external entity finding these deficiencies? Does the SDT intend for registered entities to hire external consultants? Is this the RC notifying the DP that it has not communicated appropriately? Would these externally found deficiencies result in audit report recommendations? **Response: Generally CEA would be the source of externally found deficiencies. Neither the SDT nor the standard specify a requirement to hire outside auditors. Many entities hire outside auditors to provide a third party review of its processes and for compliance issues. Other entities have separate specialized internal audit groups that survey a wide range of corporate and operational processes and activities on behalf of the executive leadership or their board. These would all be sources external to the entity's internal processes. The standard requires the entity to evaluate its process if external deficiencies are found outside the process. The discovery of externally found deficiencies could possibly result in audit report recommendations.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Detroit Edison	No	All actions that result in a potential violation must be reviewed and analysed to identify and correct deficiencies. Communication issues are no different. Requirements 3 and 4 are not required.
Response: The OPCPSDT thanks you for your comments. The SDT points out in COM-003-1 that the deficiencies that are identified, assessed and corrected by the entity are not potential violations.		

Organization	Yes or No	Question 3 Comment
The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
SERC OC Standards Review Group	No	We would suggest changing R3 and R4 to align with our suggestions for R1 and R2: "R3. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement a process for identifying deficiencies with adherence to their documented communication protocols that each entity developed in accordance with Requirement R1 that:"
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		

Organization	Yes or No	Question 3 Comment
Dominion	No	No, Dominion does not agree that these requirements are needed. As part of any certification to R1 and R2, we would expect the entity to perform some sort of analysis to determine whether its communication protocols meet the intent of the purpose stated for this standard. We do not believe imposing a mandatory requirement to perform this analysis inherently increases reliability.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
Hydro One	No	ï€ It is unclear what identified reliability gap this Standard development project is intending to address, given the recent adoption of the new COM-002-3 along with the OC white paper on communications protocols. ï€ Hydro One believes that, as written, the requirements are too prescriptive. We think that the SDT should concentrate and focus on specifying WHAT is required to achieve the reliability objective of the standard rather than on HOW to go about achieving such objective. With this in mind, we recommend deleting R3.1 through R3.4 and R4.1 through R4.4. **Response: The reliability gap is the coverage of communication protocols that cover Operating Instructions during normal operating levels. COM-002-3 is only applicable to Adverse Reliability Impacts and Emergencies. The OC White Paper cites studies**

Organization	Yes or No	Question 3 Comment
		that put communication mistakes as a significant contributor to BES mishaps. The SDT believes the language changes to draft 4 will address your concern. "R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:" This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency. R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change. Additionally, in line with our comment regarding R1 and R2 we believe that these two requirements should be combined as well. We would like to propose following wording: "Each responsible entity shall develop and implement a process for identifying and addressing deficiencies found in the adherence to the documented communication protocol specified in Requirements R1 and R2." Response: The SDT believes that the separated requirements are necessary because it is the only manner in which to clearly define requirements R1 and R2 for issuer-receivers and for receivers only. It also reduces the opportunity for double jeopardy if one entity cannot or is not able to comply with the requirement they are responsible for executing.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		

Organization	Yes or No	Question 3 Comment
ISO/RTO Standards Review Committee	No	The SRC fully supports the concept that functional entities' internal controls be used to monitor the effectiveness of their own protocols. The SRC suggests that any requirement to implement a plan may significantly reduce the incentives to create more effective protocols because of the Compliance uncertainty related to measuring effective internal controls. Requirement 3 requires entities to implement their process and to identify deficiencies with adherence to the protocol. The less complex a plan is the lower the number of deficiencies and therefore the lower the number of reports. Moreover, the RSAW states that the applicable entity could be found non-compliant if the entity did not follow an auditors suggested changes to remedy those deficiencies. Thus this standard would incent writing simple protocols.
Response: The OPCPSDT thanks you for your comments. The entity has full discretion on how to develop the process required in R3 and R4. The CEA will gauge effectiveness based on results of the process. **The finding of non compliance can only exist if the entity totally disregards improving its process. The SDT anticipates entities collectively possess a high level of professionalism and will develop a robust process and strive to continually improve it.**		
PPL Corporation NERC Registered Affiliates	No	The PPL Companies agree with the concept of internal controls and/or the elimination of zero defect requirements. However, the concept of internal controls to identify, assess, and correct deficiencies related to documented communications protocols should be imbedded in R1 as proposed in our response to question 2. We do not agree with the specific details in the internal controls/elimination of zero defect language that is currently included in R3.1 - R3.4 and R4.1 - R4.4. Incorporating the new language proposed by the PPL Companies in R1 makes COM-003 more consistent with the approach being followed in the NERC CIP Version 5 standards. The added language proposed by the SDT in R3 and R4 creates uncertainty as to whether COM-003 is imposing greater requirements than CIP Version 5 regarding identifying, assessing, and correcting deficiencies and the documentary evidence that is required.

Organization	Yes or No	Question 3 Comment
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
SPP Standards Review Group	No	Delete 'potential' in R3.1 and R4.1.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
Bonneville Power Adminstration	No	BPA supports the move to the identify, assess, and correct deficiencies approach that eliminates the need for the entity to report each deficiency as a potential violation. BPA believes that based on the current R1 and R2, it is not reasonable to expect

Organization	Yes or No	Question 3 Comment
		entities to review all communications in order to be compliant with R3 and R4. BPA suggests that the drafting team update R3.1 and R4.1 to state that entities shall implement a process that "identifies potential deficiencies through sampling".
Response: The OPCPSDT thanks you for your comments. R1 and R2 do not stipulate that entities review all communications in order to be compliant with R3 and R4. The SDT developed the standard with the intention of sampling and for the entity to determine the sample size as a means of identifying potential deficiencies. **The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
PacifiCorp	No	PacifiCorp supports the addition of non-zero defect language which follows the CIP model. [model PacifiCorp suggests that the language in Requirement R3 be modified and simplified as follows: "R3. Each Balancing Authority, Reliability Coordinator, and Tranmission Operator shall implement R1 in a manner that identifies potential deficiencies, assesses deficiencies found, and corrects those deficiencies."
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities**		

Organization	Yes or No	Question 3 Comment
that include the following:" **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
Liberty Electric Power, LLC	No	There is no statement of periodicity in R4, leaving entities guessing until the time of audit regarding the criteria for sufficient review. R4 also would appear to require a great deal of review of communications in order to satisfy the requirement to identify potential defects. One of the suggestions on the NERC Webinar for COM-003 was to review a "half-hour of communications" every week. This is especially intrusive on smaller entities with a single compliance individual, as more than an hour of that person's work-week would be spent randomizing, retrieving and listening to routine communications. This effort would reduce the reliability of the bulk power system as efforts with greater effect are reduced to comply with this requirement. Suggest requiring an annual review of communications procedures with staff instead.
Response: The OPCPSDT thanks you for your comments. The SDT in draft 3, believes the entity should determine the frequency, sample size and methodology. The SDT believes the entities should create robust controls to reduce deficiencies and reduce miscommunication on the BES.		
Hydro Quebec Trans Energie	No	It is unclear what identified reliability gap this Standard's development project is intending to fulfill given the recent adoption of the new COM-002-3 along with the OC white paper on communications protocols.
Response: The OPCPSDT thanks you for your comments. The gap is a need to tighten communication protocols in all operating levels. COM-002-3 is only applicable to Adverse Reliability Impacts and Emergencies. The OC White Paper cites studies that put communication mistakes as a significant contributor to BES mishaps.		

Organization	Yes or No	Question 3 Comment
Occidental Energy Ventures Corp.	No	OEVC supports the concept underlying R3 and R4, but believe that far more detail must be provided in the measures and/or the RSAW. In general, we read these requirements as pertaining to System Operator monitoring and feedback processes that take place either in real-time or after the fact through the review of recordings. However, there may be other suitable options such as comprehensive Operator logging or even regular awareness training. Our concern is that without further clarification, auditors may choose to interpret these requirements to mean that 100% of all conversations must be monitored and assessed. This would result in a cost-prohibitive situation, with little incremental improvement in reliability. Every effective quality program relies on statistically significant sample assessments - and there must be an acceptable sample size defined. **Response: The CEA, by direction in the RSAW is supposed to understand the process, but is limited to the results of the process and testing the effectiveness of the process. This is all accomplished in a non zero defect environment.** **The SDT does not believe it has stipulated that 100% of all conversations must monitored and assessed. It is not stated as such in the standard and the webinar on September 6, 2012 where the need for suitable sampling models were discussed.** Furthermore, OEVC would like to see the Cost Effective Analysis Process (CEAP) used in this initiative. Our initial assessment is that at least one resource will need to be added at our four generation facilities in order to supplement our Operator quality monitoring program to accommodate COM-003-1. However, this is based upon our assumptions of a statistical monitoring method - which is very sensitive to the number of samples required. If other industry stakeholders come to the same conclusion, the result could drive upward pressure on electricity rates - and should be compared to the expected benefits of the initiative. **Response: The SDT does not contemplate applying CEAP to this standard. The SDT also believes the entity has much license to develop the Identify, Assess and Correct process including sample sizes based on statistical modeling. Based on the**

Organization	Yes or No	Question 3 Comment
		resources most entities have for training and auditing the SDT believes the incremental costs to be minimal.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
TransAlta Centralia Generation LLC	No	There is no statement of periodicity in R4, leaving entities guessing until the time of audit regarding the criteria for sufficient review. **Response: The entity is to determine the sample size and frequency of review. The auditor will understand the entity's process, but will only validate the results, not the entities controls.** R4 is also open-ended regarding scope, potentially requiring review of every voice communication for every plant for the audit period. Everyday communications do not merit such scrutiny, which would reduce rather than improve the attention that can be given to matters of significance. All standards (not just COM-003-1) should clearly specify pass/fail criteria and the associated evidence requirements. **Response: The SDT disagrees. It is up to the entity to develop the process. The CEA will audit against the results, not the process.** R4 should be split into DP and GOP sections, with the GOP requirement being: R4. Each Generator Operator shall conduct in each calendar year a review session with the operations function for registered entities, regarding the documented communication protocols specified in Requirement 2. Corrective action shall be implemented and documented for any potential deficiencies coming to light as a result of this review. **Response: The SDT believes the DP and GOP are properly classified under the same requirements. They are both receivers of Operating Instructions and are subject to the same communication protocols.** **The SDT believes the entity will determine the frequency and sample size under**

Organization	Yes or No	Question 3 Comment
		draft 3 of the requirement. More robust controls will reduce deficiencies.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ReliabilityFirst	No	ReliabilityFirst believes the words "identifying deficiencies" (within R3 and R4) is ambiguous and could be open to interpretation. ReliabilityFirst believes the drafting team should further clarify the deficiencies in which will be required to be identified in Requirement R3 and R4.
Response: The OPCPSDT thanks you for your comments. Deficiencies are instances where System Operators do not adhere to the entities documented communication protocols specified in R1 and R2.		
Independent Electricity System Operator	No	We do not see the need for these two requirements at all. Assuming Requirements R1 and R2 were to stay (which we disagree), Responsible Entities need to comply with these requirements to develop documented communication protocols for Operating Instructions that incorporate all parts in R1 and R2. Any deficiencies with adherence to the documented communication protocols specified in R1 and R2 will be assessed non-compliance, and sanction and remedial actions will be imposed to correct such deficiencies. Having two requirements to obligate entities that already violated the standard is totally unnecessary, and redundant and may result in double jeopardy.
Response: The OPCPSDT thanks you for your comments. No, you are incorrect. There is no finding of non compliance if the entity identifies, assesses and corrects the deficiency. **The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as**		

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developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency. **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
NextEra Energy Inc.	No	Although NextEra supports Reliability Standards that are more risk and result based and provide for a corrective bandwidth or prosecutory discretion for possible violations, as drafted, R3 and R4 need refinement to meaningfully and clearly implement any of the above concepts. Therefore, NextEra recommends that R3 and R4 both be re-written to read as follows: R3 Absent a possible violation that resulted in (or could have resulted in) a significant risk to the Bulk Electric System, no violation of R1 and its subrequirements shall be found, provided that the Balancing Authority, Reliability Coordinator, and Transmission Operator has implemented a process for identifying deficiencies with adherence to the documented communication protocols specified in Requirement R1 that: . . . R4 Absent a possible violation that resulted in (or could have resulted in) a significant risk to the Bulk Electric System, no violation of R2 and its subrequirements shall be found, provided that the Distribution Provider and Generator Operator shall implement a process for identifying deficiencies with adherence to the documented communication protocols specified in Requirement R2 that: . . .
Response: The OPCPSDT thanks you for your comments. **The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as**		

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Northeast Utilities	No	R3 & R4 As written are confusing and do not convey the intent of the SDT. Below is recommended re-write: Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement a process that assesses conformance and performance to the R1 documented protocols. This process shall include identifying deficiencies, assessing the deficiencies and correcting the deficiencies when feasible. R3.4 & R4.4 This should be removed as a sub-requirement and made its own requirement. Below is recommended re-write: Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall [insert time period] evaluate its process required by R3 (R4) for deficiencies. Identified deficiencies shall be assessed and corrected when feasible. If no deficiencies found this is to be documented.
Response: The OPCPSDT thanks you for your comments. The SDT appreciates your recommended language. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1**		

Organization	Yes or No	Question 3 Comment
RSAW has been updated to reflect this change.		
Alliant Energy	No	COM-003 cannot be a zero defect standard. We propose rewording R3 to state: "Each Reliability Coordinator, Transmission Operator and Balancing Authority shall implement the requirements in R1 in a manner that identifies, assesses, and corrects deficiencies, if any. Where the entity is identifying, assessing and correcting deficiencies, the entity is satisfactorily meeting the requirements or COM-003."If there is no leeway given, requirement 1 of this standard will generate a very large number of violations and in our opinion it would become one of the most violated standards very quickly.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
The Empire District Electric Company	No	This is redundant with the continual improvement methodologies that the NERC process already has in place. If a company finds, through a self assessment or NERC audit, that they are not meeting a requirement in a standard, then the NERC process is to either self report, or be found in violation. In either case the entity must complete their defficiency in the standard in order for the mitigation to be approved by their regional entity. To have to have written process for this in order to meet R3 and R4 is redudant with the requirements on how NERC views the elements of a

Organization	Yes or No	Question 3 Comment
		successful compliance program. Smaller entities do not have the man power for redundancies such as this. I would rather see R3 and R4 dropped from the standard for the reasons above. Most if not all companies will correct issues through the self report process and mitigation plan approval process.
Response: The OPCPSDT thanks you for your comments. This is different from the program you described. This is a new approach to reliability standards that requires entities to develop a process that identifies, assesses and corrects deficiencies in a non zero defect environment. **The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
American Electric Power	No	AEP disagrees with the concept of requiring three part communications for more routine operations, and as a result, also disagrees with R3 and R4 which require that the entity shall implement a process for identifying deficiencies with adherence to the documented communication protocols specified in Requirement R1 and R2.
Response: The OPCPSDT thanks you for your comments. The SDT believes three part communications is a proven, effective protocol that prevents grave operations errors that could compromise the reliability of the BES.		
Brazos Elextric Power Cooperative, Inc.	No	See ACES comments.

Organization	Yes or No	Question 3 Comment
Response: The OPCPSDT thanks you for your comments. Please see our responses to ACES comments.		
Ameren	No	See response to question 5.
Response: The OPCPSDT thanks you for your comments. Please see our responses to question 5.		
Essential Power, LLC	No	There is no statement of periodicity in R4, leaving entities guessing until the time of audit regarding the criteria for sufficient review. **Response: The entity is to determine the sample size and frequency of review. The auditor will understand the entity's process, but will only validate the results, not the entities controls.** R4 is also open-ended regarding scope, potentially requiring review of every voice communication for every plant for the audit period. Everyday communications do not merit such scrutiny, which would reduce rather than improve the attention that can be given to matters of significance. All standards (not just COM-003-1) should clearly specify pass/fail criteria and the associated evidence requirements. **Response: The SDT disagrees. It is up to the entity to develop the process. The CEA will audit against the results, not the process.** R4 should be split into DP and GOP sections, with the GOP requirement being: R4. Each Generator Operator shall conduct in each calendar year a review session with the operations function for registered entities, regarding the documented communication protocols specified in Requirement R2. Corrective action shall be implemented and documented for any potential deficiencies coming to light as a result of this review. **Response: The SDT believes the DP and GOP are properly classified under the same requirements. They are both receivers of Operating Instructions and are subject to the same communication protocols.**

Organization	Yes or No	Question 3 Comment
		The SDT believes the entity has the discretion to set the frequency and sample size under draft 3 of the requirement. More robust controls will reduce deficiencies.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Texas Reliability Entity	No	If a deficiency is identified and then training is provided to attempt to correct it, what happens if the same deficiency is identified again? Is the entity considered to have failed to correct its identified deficiency? Does the entity need to file a self report when the second deficiency occurs? Texas RE agrees with the premise of having a process for identifying issues, but at some point if a pattern of deficiencies continues, when does a violation occur?
Response: The OPCPSDT thanks you for your comments. As long as the entity is identifying assessing and correcting the deficiency there is no need to self report. If the deficiency continues as a result of the entity not evaluating its process or not making modifications it has identified; or not providing documented justification why modifications are not required, a finding of non compliance may be awarded, based on specific circumstances.		
GTC	No	The current wording necessitates creating a process to evaluate a process that evaluates protocols. We believe this is unnecessarily cumbersome and confusing. The addition of extra controls from the last version to this version lends nothing to improving reliability or improving the function of the standard. Accordingly, the NERC SC recently approved the SAR for the Paragraph 81 initiative to eliminate certain requirements from the Reliability Standards with little effect on reliability. The SAR identifies criteria to be used to identify those requirements that could easily be identified for removal. It would seem that the draft R3 and R4 would meet the criteria identified for P81. GTC recommends the deletion of R3 and R4. **Response: The SDT believes the protocols and the required process improve reliability by creating universal and consistent communication protocols that prevent miscommunication of Operating Instructions on the BES. The SDT believes the requirements of COM-003-1 are not trivial or administrative.**

Organization	Yes or No	Question 3 Comment
		Alternatively, at a minimum, we suggest improvements to requirements R3 and R4 as currently drafted. We suggest changing all instances of the word "process" to "protocols" in both part 4s and also removing "found external to Part 4.1" from both part 4s. Finally we suggest removing parts 2 and 3 simply to keep the requirements from becoming redundant with the changes made to their respective part 4s. **Response: The SDT appreciates the alternative language but implementing it would preclude the standard from being able to improve communication protocols outside of a zero defect environment.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Public Service Enterprise Group	No	These questions apply equally to R3 and R4. In R4.1, what is a "potential" deficiency? **Response: The SDT believes the initial designation of "potential" should describe the deficiency until the "assessment" confirmed it.** In R4.3, how can one correct a deficiency since that happened in the past? **Response: The SDT intends for the entity to assess and correct the deficiency. The SDT believes to correct a deficiency means to take measures to correct the cause of the deficiency in a manner that it is not repetitive. Examples of which are, but not limited to, training, process change, performance documentation evaluation, counseling and other measures that would prevent future occurrences.** In R4.4, how does one evaluate the process based on deficiencies identified that are "external to Part 4.1"? (Part 4.1 is the process for identifying deficiencies.) **Response: The entity compares the deficiencies found externally to determine why they were not identified by the entities internal process. The entity then makes proper modifications to its process to improve its performance for finding deficiencies.** We are also concerned about the draft RSAW for R3 and R4. The RSAW has two

Organization	Yes or No	Question 3 Comment
		bullets for R3 and R4. One states "*Where the auditor can verify that the entity is identifying, assessing, and correcting its own deficiencies, the auditor will not have a finding of nonâ€compliance.*" The second bullet states "*If an auditor cannot verify that the entity is adequately identifying, assessing, and correcting its own deficiencies due to limitations in its process, the auditor will not have a finding of nonâ€compliance.*" The auditor will provide the entity with recommendations as necessary." Per the RSAW for R3 or R4, how will an auditor verify that an entity is not "adequately identifying, assessing, and correcting its own deficiencies due to limitations in its process"? In other words, what evidence will be required by the auditor, and how many months of communications records should be kept? **Response: the auditor for draft 3, R3 and R4 will require the results of the process and the evidence requirement is 90 days. This is articulated in draft 3 of COM-003-1. The RSAW was posted and comments for the RSAW were to be entered there.** Because of the volume of communications, sampling may be required. Unless one listens to 100% of communications recording, one cannot be sure one is identifying all deficiencies. Is 100% deficiency detection the goal? Furthermore, M3 or M4, which only require the entity to provide the results of its process in R3 and R4, are not mentioned in the RSAW. Measures are supposed to represent one acceptable from of compliance and should be acceptable in the RSAW. **Response: The standard does not specify a goal. The goal should be a function of the entities desire to eliminate mistakes caused by miscommunication.** **The Measures, M3 or M4, are the results of the process as stated in the standard.** Finally, if R1 and R2 are changed as recommended in #2 above (i.e., remove the requirement for an entity to have documented communications protocols and just require it to adhere to protocols n R1 and R2), incidents of non-compliance with the

Organization	Yes or No	Question 3 Comment
		protocols will be detected via R3 and R4. We first recommend that M1 and M3 have the same measures - M1 and M2 would both read "Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall provide the results of its process developed for Requirement R3." The same would apply for M2 and M4, which would both read "Each Distribution Provider and Generator Operator shall provide the results of its process developed for Requirement R4." If this were done, the draft RSAWs two bullets discussed should have these phrases modified for R3 and R4, with the modification shown in capital letters: o In R3, modify "the auditor will not have a finding of nonâ€compliance FOR EITHER R1 OR R3" in two bullets. o In R4, modify "the auditor will not have a finding of nonâ€compliance FOR EITHER R2 OR R4" in two bullets. **Response: The SDT believes the language changes to draft 4 may address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**

Organization	Yes or No	Question 3 Comment
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Cowlitz County PUD	No	See response to question two.
Response: The OPCPSDT thanks you for your comments. Please see our responses to question 2.		
Indiana Municipal Power Agency	No	IMPA recommends adding clarification to the words “deficiencies found external to Part 3.1 (4.1)" so that entities and auditors know that these requirements allow defeciencies found outside of the entitie’s process including deficiencies that had previously passed the entity’s process) will be able to go through the entity’s process of assessing and correcting without the auditor giving a finding of non-compliance, since the entity itself failed to identify the potential deficiency in R3.1. or R4.1. The clarity can be added in the standard itself or in the RSAW- it currently is not stated in the standard and it is especially absent in the RSAW under Section 2 on page 4 of 5 or Section 2 page 5 of 5.It is also not clear how many times an entity will be allowed to identify, assess, and correct the same deficiency or similar deficiencies before an auditor can find an enitiy in non-compliance with R3 and R4 (including subrequirments of each). It appears that the SDT is saying that as long as an entity is making the changes provided in the feedback by the CEA to its process to identify, assess and correct that it will not be found non-compliant for all same or similar deficiencies that continue to occur - there is no set number as long as the entity is trying to improve its process or communication protocols, is this correct? If so, IMPA supports this practice and would like to see clarity added.
Response: The OPCPSDT thanks you for your comments. Your comments referring to 3.1 to 3.3 and 4.1 to 4.3 are correct. R3.4 and R4.4 require the entity to evaluate its process if deficiencies are discovered externally. The entity must implement modifications if the entity determines modifications are required or justify why the entity determines no modification is required. If the entity does not comply with these subrequirements it may be subject to a finding of non compliance. The SDT believes the standard draft3 and the RSAW convey this.		

Organization	Yes or No	Question 3 Comment
MISO	No	MISO respectfully submits that COM-003-1, R3 and R4 require clarification in two regards. MISO first notes that requirements R3.4 and R4.4, which require Registered Entities to evaluate "the process based on deficiencies found external to [R3.1/R4.1]," are written in a confusing manner. More specifically, it is not clear what the phrase "found external to" means and, therefore, Registered Entities cannot know or understand when their compliance obligations under these requirements are applicable. **Response: The SDT has changed the language changes to draft 4.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.** In addition, MISO respectfully submits that the SDT must add clarifying language to COM-003-1 to clarify that an individual failure to execute elements of a System Operator's communication protocol is not, on its own, a compliance violation, provided that the System Operator evaluates adherence to its protocol as required by Requirements R3 and R4. **Response: The SDT believes that is stated in the standard and supported in the RSAW.**

Organization	Yes or No	Question 3 Comment
		MISO is concerned that the current draft of COM-003-1 could give rise to double penalties for individual failures to execute one of the elements of a communication protocol. Without clarifying language in the Reliability Standard itself, any Registered Entity that fails to adhere to its communication protocol required by COM-003-1, R1 and R2 would likely self-report this failure, and would subsequently complete a mitigation plan that addresses -- and implements new processes to prevent the repetition of -- the failure. An additional requirement to evaluate adherence to the communication protocol would be redundant and would not increase or bolster reliability - and, further, would only increase the potential for Registered Entities to violate yet another requirement of a Reliability Standard. Thus, unless COM-003-1 is revised to clarify that a Registered Entity's failure to implement an element of its communication protocol for Operating Instructions is not a compliance violation in and of itself and, therefore, is not subject to self-reporting under NERC and Regional Entities Compliance Monitoring and Enforcement Program ("CMEP"), MISO cannot support proposed Requirements R3 and R4 at this time. **Response: The SDT believes the language changes to draft 4 may address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-**

Organization	Yes or No	Question 3 Comment
		003-1 RSAW has been updated to reflect this change.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ERCOT	No	ERCOT agrees with the SRC comments, and has these additional comments: ERCOT fully supports the concept that functional entities' internal controls be used to monitor the effectiveness of their own protocols. However, these matters are not suitable for reliability standards. Imposition of mandatory controls applicable to all functional entities is inappropriate because of the wide variety of organizational structures that necessarily requires flexibility with respect to developing appropriate controls for each entity's specific circumstances. **Response: The SDT believes the draft standard provides great flexibility to all of the applicable entities and believes that the standard focuses on the results of an entity's process for identifying, assessing and correcting deficiencies all in the interests of improving reliability.** Furthermore, entities' internal controls are beyond the scope of the Section 215 reliability purview generally, and they are inconsistent with the risk based initiative being pursued by NERC because they do not impact/are not related to actual reliability impacts. **Response: The SDT disagrees and does not discern the linkage to Section 215 and points out the standard is not focused on internal controls, but on improving communication clarity to avoid problems on the BES which has a dramatic impact on reliability.** Furthermore, this deficiency review process is ambiguous and, accordingly, lends itself to inefficient and ineffective CMEP results. As an initial matter, what constitutes a deficiency will be an issue that is vulnerable to subjective disagreements. Even assuming there is agreement on that issue, what constitutes an appropriate remedy for a deficiency in terms of assessment and correction will

Organization	Yes or No	Question 3 Comment
		similarly be susceptible to subjective disagreements. **Response: The SDT does not believe the evaluation process is ambiguous and believes the implementation of this standards approach to standard development will enhance the effectiveness of NERC's CMEP program.** Finally, with respect to the obligation to evaluate the deficiency identification process itself, again, the potential for the introduction of subjective compliance review will be problematic n practice in terms of reviewing whether the decision whether to implement a modification or not, and, if a modification is implemented, whether the revision is adequate. **Response: The SDT believes there has to be a level of accountability for an entity that cannot or will not take measures to improve its process. The SDT believes the requirements that require the evaluation are clear and fair. The entity can make any decision to modify or not to modify; the later requires documented justification.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Oncor Electric Delivery Company LLC	No	Oncor also takes the position that all of the ideas prescribed within these requirements including the implementation, assessment, evaluation and correction of communication protocols, are already being effectively implemented as industry Best Practice. In addition, Oncor requests that NERC substitute the CIP v.5 'zero defects' (Each Responsible Entity shall implement, in a manner that identifies, assesses, and corrects deficiencies, one or more documented processes) language in COM-003 in order to minimize potential confusion. **Response: The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies,**

Organization	Yes or No	Question 3 Comment
		documented communication protocols for Operating Instructions between Functional Entities that include the following:" **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** Oncor offers the following substitute language for R3 and R4. R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority that issues an Operating Communication shall either: o Confirm that the response from the recipient of the Operating Communication (in accordance with Requirement R2) was accurate, or • Reissue the Operating Communication to resolve any misunderstandings. **Response: R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Georgia System Operations	No	
Center Point Energy Houston Electric, LLC.	No	
Associated Electric Cooperative Inc - JRO00088	Yes	This could work, were wording per concepts already suggested per questions 1 & 2 and question 5, such that the documented evidence of an effective program, precludes violations of any individual requirement. In interest of providing our industry with greater consistency in wording and format throughout future standards, AECI strongly suggests that this SDT review the current draft release of CIP

Organization	Yes or No	Question 3 Comment
		Version 5's draft (for ballot), and similarly format these requirements. However please see AECI's general observations concerning COM-003-1 in comment 5 below.
Response: The OPCPSDT thanks you for your comments. The SDT will respond to AECI's comments and observations in 5 below.		
FirstEnergy	Yes	FirstEnergy supports this new concept being introduced by NERC. It allows entities to sharpen their internal controls while not being penalized for minor non-compliance situations that do not impact the BES. The only question we raise is how this will be implemented in the CEAP. The draft RSAW for COM-003-1 is silent on this issue and we ask that NERC give more guidance on it as this paradigm develops.
Response: The OPCPSDT thanks you for your comments. CEAP at this writing is still under development and to the best of the SDT's knowledge is not deployable yet.		
Florida Municipal Power Agency	Yes	we commend the SDT for doing a good job of writing a difficult standard and avoiding the "zero-defect" problem (the problem of just having just one violation in tens of thousands be punishable by fines) and we support the approach taken. If we think of managing operations, we think of the process: Step 1 - Vision, goals, policies - what do we want to accomplish? Step 2 - Protocols, plans, procedures, programs, processes, methodologies - how will we do it and who will do what? Step 3 - Do it Step 4 - Measure, monitor - did we accomplish what we set out to do? Step 5 - Learn, adjust, back to 1. The problem with the prior draft of COM-003, before this latest draft, is that the standard essentially micromanaged industry by causing auditors to monitor actual communications, e.g., the auditors would be doing step 4, which ends up with the zero-defect problem. We have seen other standards that have this zero defect

Organization	Yes or No	Question 3 Comment
		problem, e.g., PRC-005 has a requirement for step 2 of the process above, to have a program, and then for step 3 of the process, to do it in accordance with the program, which results in the zero-defect problem. We've seen still other standards avoid the zero defect problem by only requiring step 2, but with no requirement to actually do it, e.g., the currently enforceable CIP-001 has requirements for step 2 of the process above for sabotage reporting procedures, but, has no requirement to actually follow those procedures if a sabotage event occurs, which leaves questions of accountability. The SDT for COM-003 is doing the appropriate thing and backing up one level to measure how effectively we are managing our own operations, and this is the first time I've seen a standard developed in this clever fashion of developing requirements for Step 2 (protocols) and Steps 4 & 5 (measure, monitor, learn, adjust) of the process above, but not Step 3 of the process. However, Step 3 would need to be performed for the entity to comply with Steps 4&5, meaning we are still accountable for "doing it". The method that the SDT is using to ensure we have the appropriate operations management mechanisms in place seems a clever and pragmatic approach. We have one suggestion to improve R3. R3 requires entities to “implement” a process for identifying deficiencies. Use of the word “implement” implies that all deficiencies must be identified, which means that the auditors would need to independently identify deficiencies and compare notes, which reintroduces the "zero-defect" problem. FMPA recommends replacing "implement" with “institute”.
Response: The OPCPSDT thanks you for your comments. The SDT believes the word implement means to develop and initiate the process. The “how to” of that process will be determined by the entity. We believe R3 provides latitude to determine the means and methodologies to develop how it will identify, assess and correct deficiencies and does not specify or even imply a 100% identification of deficiencies. A robust sampling of Operating Instructions based on statistical modeling would be a more efficient and effective means of developing controls for identifying deficiencies.		
Southern Company	Yes	Provided that the SDT incorporate the changes suggested for R1 and R2, Southern generally agrees with the concept of implementing a process to identify and correct

Organization	Yes or No	Question 3 Comment
		deficiencies without compliance exposure for each deficiency. However, this is a new concept and we do have questions as to how it will be implemented. For example, how many discrepancies would it take for an entity to identify before requiring a self report rather than waiting to present the log of deficiencies found and corrected during an audit?
Response: The OPCPSDT thanks you for your comments. As long as the entity is identifying, assessing and correcting deficiencies and evaluating its process (R3.4 and R4.4) and improving it to reduce deficiencies there is generally not a finding of non compliance. The entity must evaluate its process if deficiencies are discovered externally. The entity must implement modifications if the entity determines modifications are required or justify why the entity determines no modification is required. If the entity does not comply with these sub requirements it may be subject to a finding of non compliance. The SDT believes the standard draft3 and the RSAW convey this.		
NIPSCO	Yes	These appear to be Internal Controls and they look good.
Response: The OPCPSDT thanks you for your comments.		
The United Illuminating Company	Yes	United Illuminating supports the language in COM-003 R3 and R4. Since the quantity of Operating Instructions will be very large it is more important to have a process to monitor the communication protocols and correct deficiencies.
Response: The OPCPSDT thanks you for your comments.		
CPS Energy	Yes	The proposed requirements (COM-003-1, R3 and R4) are in line with Risk-Based Reliability Compliance Monitoring.
Response: The OPCPSDT thanks you for your comments.		
Exelon	Yes	Exelon agrees with the proposed requiremnt but thinks it could be improved before final adoption. The Requirement as written is confusing. For example, R3 is to identify deficiencies with respect to the entities protocols. R3.1 addresses “potential”

Organization	Yes or No	Question 3 Comment
		deficiencies. It is unclear what a potential deficiency is. We suggest using deviations from the entities protocol in place of deficiencies or potential deficiencies. Similarly we question how an entity will demonstrate that modifications to their program are not required in light of the assessment being done in response to deviations from the protocol. We believe R3.4 should be clarified. We believe its purpose is to direct an entity to take action if an external entity (auditor) identifies a deviation from the entity protocol. We do not think the response to identifying a deviation / deficiency should vary based on how it was identified. Once identified (R3.1), a deviation / deficiency should be assessed (3.2) Corrected (3.3) and when necessary (3.4) the program should be modified to account for the deficiency. Since a similar effort to utilize an internal controls approach is underway in the CIP Version 5 drafting, it may be valuable for COM-003 to also utilize the same language of "in a manner that identifies, assesses, and corrects deficiencies."Exelon supports the effort to utilize an internal controls approach but remains concerned compliance auditing and the potential for interpretations related to the requirement. We urge NERC, in collaboration with the Regional Entities to develop a clear roll out plan prior to implementation of COM-003 so that stakeholders and auditors understand the compliance obligations for this new approach.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 may address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1**		

Organization	Yes or No	Question 3 Comment
RSAW has been updated to reflect this change.		
Duke Energy	Yes	
Tacoma Public Utilities	Yes	
MRO NSRF	Yes	
APPA, LPPC and TAPS	Yes	
Arizona Public Service Company	Yes	
Southwestern Power Administration	Yes	
US Bureau of Reclamation	Yes	
Manitoba Hydro	Yes	
Central Lincoln	Yes	
City of Austin dba Austin Energy	Yes	
Idaho Power Co.	Yes	
South Carolina Electric and Gas	Yes	
Salt River Project	Yes	

Organization	Yes or No	Question 3 Comment
Lincoln Electric System	Yes	
Public Service Company of New Mexico	Yes	
City of Tallahassee	Yes	
MidAmerican Energy	Yes	
Puget Sound Energy Inc.	Yes	
Xcel Energy	Yes	

4. Do you agree with the VRFs and VSLs for Requirements R1, R2, R3 and R4?

Summary Consideration: The Structure of COM-003-1, draft 4 has changed dramatically. There are now two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates industry input on this question for draft 3.

The new draft 4 language is:

"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"

R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.

Organization	Yes or No	Question 4 Comment
ACES Power Marketing Standards Collaborators	No	(1) We agree with the VRF classifications. (2) We agree with the VSLs for R1 and R2. We note that there is a typo in Severe VSL for R2 - there is no part 2.3 in the standard. **Response: Thank you, the SDT has corrected the error.** (3) We disagree with the Time Horizons for R1 and R2. Developing documented communications protocols are not long term planning, these activities are operations planning. **Response: The SDT believes Long Term Planning is the proper Time Horizon based**

Organization	Yes or No	Question 4 Comment
		on the NERC guidance document. (4) We disagree with the VSLs for R3 and R4. In particular, the binary nature of implementing communication protocols needs to be reconsidered. During the September 6 webinar, both Gerry Cauley and Mike Moon stated that internal controls should focus on fixing deficiencies and auditors were not to find PVs for single instances of noncompliance. Based on these statements, the VSLs should not be binary if the auditors are not to find PVs for single instances. Also during the webinar, Mike Moon stated that the auditors are to make recommendations in their audit reports to improve their processes, and not to be an "enforcement hammer" for each individual deficiency. The way the VSLs are drafted, each instance will be severe. We recommend that the SDT revise the VSLs to allow for auditors to make recommendations instead of findings of potential noncompliance. **Response: The SDT believes that the Standard language supports the correction of deficiencies rather than finding PVs. The entire identify, assess and correct process is the core emphasis of the standard.** **The finding of non compliance and the commensurate Severe VSLs only occur after an entity that does not improve its process when it has demonstrated that improvement is required. This sets the stage for creating a risk for miscommunication to cause errors on the BES. The SDT believes this will be an unlikely exception because it would occur only if the entity disregards the poor performance of their process and their own findings to improve it. To reach this point would be the result of a long chain of failures and a near complete disregard of the requirement on the part of the entity.** (5) R3 VSL, "The Responsible Entity did not demonstrate that no modificiation to the process was necessary to address the deficiencies found external to Part 3.1." This is a documentation issue and should not result in a severe VSL classification.

Organization	Yes or No	Question 4 Comment
		Response: The SDT does not believe it is a documentation issue. An entity, which does not improve its process when the process is unable to identify deficiencies, is creating a risk for miscommunication that will cause errors on the BES. If the entity disregards or refuses without justification to make those modifications the CEA must have the authority to elevate level of compliance. (6) There was a lot of discussion in the webinar about Regional auditors not finding a violation, but there needs to be clear guidelines describing when an auditor will find a PV. The VSLs currently describe a violation when a deficiency is not remediated, but that same instance could result in no finding at all, depending on how the individual auditor interprets the situation. This level of subjectivity is too high; the SDT needs to revise the VSL table to reflect a more reasonable approach, perhaps by including more information and examples of situations that might be viewed as non-compliance (communication breakdown) but because of internal controls, there should be no finding of non-compliance. In the alternative, the SDT could develop a guidance document outlining when an auditor is to find a PV and include examples to ensure consistency. The RSAW does not provide any additional clarity. **Response: The SDT refers to its responses to 4 and 5 above. The SDT does not believe the level of subjectivity is high. The identify, assess and correct aspect of the requirement is at the core of the standard. If an entity does this and has a strong process and controls that capture deficiencies in a manner that can be verified by external agents, there are generally no findings of non compliance. *If an entity does not make modifications to their process that they have identified or do not make modifications and do not justify why they believe modifications are not required they have approached a status where they could be subject to a finding of non-compliance.* This is an area where an entity with a compromised internal process which the entity is not improving and, therefore, is not realistically managing the risk of miscommunication that could impact the BES.** (7) In the webinar, there were several references to "systemic or chronic" communication deficiencies. The VSLs do not reference any types of trends, but that

Organization	Yes or No	Question 4 Comment
		seems to be the focus of compliance. We suggest revising the VSLs to focus on broader issues, such as systemic deficiencies that remain unresolved. **Response: The SDT believes Requirements R part 3.4 and R part 4.4 will be instrumental in revealing systemic or chronic communication deficiencies. To the extent an entity modifies the process and strengthens their controls, improvements to the process and corrections of deficiencies can be generally be accomplished without a finding of non compliance.**
Response: The OPCPSDT thanks you for your comments. The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.		
Detroit Edison	No	Analysis during Annual Review of work procedure for R1 and R2 automatically includes an analysis of the process and development of corrective actions.
Response: The OPCPSDT thanks you for your comments. The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.		
Duke Energy	No	1) Consistent with our comment to Question 2 above regarding changing the word "incorporate" to "address" in Requirements R1 and R2, this change should also be made in the VSLs for R1 and R2, changing the word "include" to "address".2) The Severe VSL for R2 incorrectly references a Part 2.3, whereas it should just refer to both Parts 2.1 and 2.2
Response: The OPCPSDT thanks you for your comments. The SDT changed the word to "include" in all cases. There has to be a level of uniformity of communication protocols among functional entities to create universal communication protocols. **The SDT has corrected the error you indicated.** *(R2 incorrectly references a Part 2.3, whereas it should just refer to both Parts 2.1 and*		

Organization	Yes or No	Question 4 Comment
2.2) **The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.**		
Dominion	No	For the reasons cited in the comments above
Response: The OPCPSDT thanks you for your comments.		
Associated Electric Cooperative Inc - JRO00088	No	It could be appropriate, were the expectations properly bounded similar to the wording outlined for Question 5 below.
Response: The OPCPSDT thanks you for your comments.		
ISO/RTO Standards Review Committee	No	The SRC does not agree with the VSLs of R3 and R4 . The SRC feels that it is not binary and actually fits the Requirements with Parts that Contribute Unequally to the Requirement in the VSL guideline document. While part 3.3 is the most critical, an entity would certainly not get any reliability benefit if you don't do parts 3.1 - 3.3 or 3.3 in itself, which could be a severe VSL. But if an entity performs parts 3.1 - 3.3 and does not perform part 3.4, it should not be a severe VSL because you are getting a substantial amount and majority of the reliability benefit from performing 3.1-3.3. Failure to do part 3.4 should be a high VSL perhaps, but it is not all binary. If an entity fails to do 3.2, it may be a medium only.
Response: The OPCPSDT thanks you for your comments. The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.		
SPP Standards Review Group	No	The Severe VSL for R2 contains a typo and should be reworded to read: 'The

Organization	Yes or No	Question 4 Comment
		responsible entity did not include Parts 2.1 to 2.2 of Requirement 2...'We would suggest that the VRFs for R3 and R4 be reduced to Low. The VRFs for R1 and R2 are Low. R3 and R4 are processes that monitor R1 and R2; therefore, they should not be treated more severely than R1 and R2.
Response: The OPCPSDT thanks you for your comments. Thank you for pointing out the error. We have corrected it. **The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.**		
Bonneville Power Adminstration	No	BPA does not agree with the VRFs and VSLs. R3 & R4 should include a range of VSLs. A documentation error such as a failure to record that modification of a process was not necessary would not merit a severe VSL if training was implemented as an appropriate solution to an identified deficiency.
Response: The OPCPSDT thanks you for your comments. The SDT believes it is not just a documentation issue. An entity that does not improve its process when it has demonstrated that improvement is required is creating a risk for miscommunication that would contribute to errors on the BES. **The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.**		
PacifiCorp	No	It is not clear to PacifiCorp why the VSLs are so much higher for R2 when R1 applies to Balancing Authorities, Reliability Coordinators, and Transmission Operators, and thus has a potentially broader application than R2. R2 applies to Distribution Providers and Generator Operators. **Response: There are more parts in R1 – nine, as opposed to two in R2.** Also, it is not clear why the R2 VSL R2.3, as there is no R2.3 in the current draft.

Organization	Yes or No	Question 4 Comment
		Response: Thank you for pointing out the error. We have corrected it.
Response: The OPCPSDT thanks you for your comments.		
Independent Electricity System Operator	No	We do not agree with the need for most if not all of these requirements, and therefore do not agree with the proposed VRFs and VSLs.
Response: The OPCPSDT thanks you for your comments. The SDT notes your comments. The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.		
NextEra Energy Inc.	No	NextEra does not support VSLs that are checklist or document related. Rather NextEra favors VSLs that balance results and performance against reliability risk. As drafted, the current VSLs are a checklist approach to measuring reliability risk and compliance, which is not particularly helpful or meaningful. Thus, NextEra suggests that VSLs be re-drafted to measure whether the entity posed an actual risk to the Bulk Electric System based on how it delivered or received an Operating Instruction.
Response: The OPCPSDT thanks you for your comments. **The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.**		
Northeast Utilities	No	VRF R3 & R4 NERC VRF Discussion: R3 (4) is a requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of the requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures. The VRF for this

Organization	Yes or No	Question 4 Comment
		requirement is “Medium” which is consistent with NERC guidelines. The violation of R3 (R4) does not result in informal communication; it results in not identifying it. It is not a failure to identify that poses the risk to the BES, but the actual communication. The process implemented in R3 (R4) identifies, assesses, and attempts to correct deficient communication practices in an attempt to make future communications better. The process in R3 (R4) has no real-time impact on the BES, it aims at having real-time impact on operators who have real-time impact on the BES. For these reasons the VRF should be “Low” **Response: The SDT disagrees. The purpose of the process is not just to identify non adherence to protocols, but ultimately to correct it to reduce the opportunity for a miscommunication which can lead to unintended consequences in the operation of the BES. The SDT believes the process will have an ultimate effect on real time communication and elects to maintain the medium VRF.** FERC VRF G1 Discussion: Discussion references wrong FERC Recommendation; should have referenced Recommendation 26 rather than 24. **Response: The SDT has corrected the error. Thank you for bringing it to our attention.** Additionally, the SDT wrongly implies that Recommendation 26 applies to COM-003-1. Recommendation 26 “Tighten communications protocols, especially for communications during alerts and emergencies...” applies to COM-002, thus removing it from FERC VRF G1 allowing for a VRF of “Low” to be assigned. **Response: The SDT believes Recommendation 26 does apply to tightening communications and that is what COM-003-1 does – it tightens communications.** FERC VRF G3 Discussion: Though analogous to R2 of COM-002-2 they are not the same. One can argue that

Organization	Yes or No	Question 4 Comment
		the importance of "directive" to the BES is greater than the importance of an "Operating Instruction" to the BES and thus the risk to the BES is less for R3 (R4) of COM-003-1, and accordingly should be assigned a lower VRF than R2 of COM-002-2 to promote consistency between the standards, while also elevating the importance of COM-002-2 over COM-003-2. Said another way (Though each requirement addresses communication protocol, the potential effects of the failure to follow the protocol are different in that one deals with Directives and Emergency conditions and the other with Normal operations. So the VRF's shouldn't necessarily be the same.) **Response: The SDT disagrees. The risk of the same miscommunication either during an emergency (COM-002 family) or during normal operations can negatively impact BES reliability. If the issuer of a directive, "Reliability Directive" or "Operating Instruction" states: "*Open switch RA50*" and the receiver hears "*Open switch RA15*" because "50" and "15" sounded the same and no protocols were utilized, the resulting impact to the BES would be the similarly disastrous, no matter if the system was operating under normal, emergency or alert conditions.** FERC VRF G4 Discussion: The violation of R3 (R4) does not result in informal communication; it results in not identifying it. It is not a failure to identify that poses the risk to the BES, but the actual communication. The process implemented in R3 (R4) identifies, assesses, and attempts to correct deficient communication practices in an attempt to make future communications better. The process in R3 (R4) has no real-time impact on the BES, it aims at having real-time impact on operators who have real-time impact on the BES. For these reasons the VRF should be "Low" **Response: The COM-003 standard proposes to reduce the risk to the BES by ensuring operators use communication protocols that clarify important elements of an Operating Instruction. If operators are not conditioned to utilize the protocols properly they will not use them properly in a Real Time environment. The SDT has elected to maintain the medium VRF.** FERC VRF G5 Discussion: The SDT has argued that R3 & R4 each contain only one

Organization	Yes or No	Question 4 Comment
		objective (identification of deficiencies).An Alternative read suggests the R3 & R4 as written each have six objectives: 1.Identify deficiencies in 3-part communication as defined by protocols in R1 2.Assess identified deficiencies in 3-part communication 3.Correct identified deficiencies in 3-part communication 4.Identify deficiencies in process implemented in R3 (R4) 5.Assess identified deficiencies in process implemented in R3 (R4) 6.Correct identified deficiencies in process implemented in R3 (R4)VSL Justification R3 (R4) The SDT has argued that R3 & R4 each contain only one objective (identification of deficiencies).An Alternative read suggests the R3 & R4 as written each have six objectives:1.Identify deficiencies in 3-part communication as defined by protocols in R12.Assess identified deficiencies in 3-part communication3.Correct identified deficiencies in 3-part communication4.Identify deficiencies in process implemented in R3 (R4)5.Assess identified deficiencies in process implemented in R3 (R4)6.Correct identified deficiencies in process implemented in R3 (R4) Because there are multiple objectives in R3 (R4) there is an opportunity for more granularities to the proposed VSL. **Response: The SDT sees only the one objective of reducing communication errors on the BES.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above. **The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.**		

Organization	Yes or No	Question 4 Comment
The Empire District Electric Company	No	See comments from SPP
Response: The OPCPSDT thanks you for your comments. Please see our responses to comments from SPP.		
American Electric Power	No	AEP disagrees with the concept of requiring three part communications for more routine operations, and as a result, has no comment at this time on the proposed VRFs and VLSs.
Response: The OPCPSDT thanks you for your comments.		
Brazos Elextric Power Cooperative, Inc.	No	See ACES comments.
Response: The OPCPSDT thanks you for your comments. Please see our responses to ACES comments.		
Ameren	No	See response to question 5.
Response: The OPCPSDT thanks you for your comments. Please see our responses to question 5.		
Essential Power, LLC	No	The VRFs and VSLs are divided into long-term planning and operation planning categories. These terms are not explained in the standard, so the difference between them is unclear. They do suggest however that, in accordance with our comment #1 above, this standard is not meant to apply to routine transmission system operator-to-plant communications.
Response: The OPCPSDT thanks you for your comments. The terms are contained on the NERC website. The only way the standard could be made Real Time is in a zero defect environment. Please see our response to your comments on Question 1.		
Texas Reliability Entity	No	R2 Severe VSL references “Parts 2.1 to 2.3 (3)” when a “2.3” does not exist (this issue is also in the VRF/VSL Justification document). The VSLs for R3 and R4 say nothing

Organization	Yes or No	Question 4 Comment
		about assessing and correcting identified deficiencies per 3.2, 3.3, 4.2 and 4.3.
Response: The OPCPSDT thanks you for your comments. The SDT has corrected the error. **The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.** **"R1 (and R2 – DP and GOP). Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
GTC	No	The VSLs for requirements R3 and R4 are too severe. We understand that they were designated as binary, which led them to automatically be designated as severe VSLs. However, it is our position that these requirements are no more binary than requirements R1 or R2 and that their VSLs should be rewritten. We propose: Moderate VSL: The responsible entity did not include one (1) of the four (4) parts of Requirement R3 in its implementation of a process for identifying deficiencies with adherence to documented communication protocols specified in Requirement R1.High VSL: The responsible entity did not include two (2) of the four (4) parts of Requirement R3 in its implementation of a process for identifying deficiencies with adherence to documented communication protocols specified in Requirement

Organization	Yes or No	Question 4 Comment
		R1.Severe VSL: The responsible entity did not include three (3) or more of the four (4) parts of Requirement R3 in its implementation of a process for identifying deficiencies with adherence to documented communication protocols specified in Requirement R1 or did not have such a process.
Response: The OPCPSDT thanks you for your comments. The Structure of COM-003-1, draft 4 has changed dramatically there are only two requirements and the scope of each is different enough to warrant significant changes to the VRFs and VSLs in draft 4. The SDT will post draft 4 and request new comments on the VRFs and VSLs. The SDT appreciates your input on this question for draft 3.		
MISO	No	MISO appreciates the changes that the SDT has made to the VRFs and VSLs in response to comments and to ensure that the VRFs and VSLs are consistent with FERC and NERC guidelines. However, MISO cannot support either the VRF or the VSLs for R3 and R4 as it does not agree: (1) that there is a direct impact on reliability that result from an entity's internal self-assessment and (2) with the expressed rationale. Further, MISO notes that COM-003-1, R3 and R4, primarily require internal administrative processes or documentation thereof. MISO respectfully submits that internal administrative processes have not previously been linked to direct impacts on the reliability of the BES.
Response: The OPCPSDT thanks you for your comments. The SDT believes there is a very direct impact on BES reliability from improved operating communication because there is a reduced opportunity for miscommunication that would harm the BES. The BES does not see COM-003-1 as simply an administrative process. It is a mechanism to condition and develop System Operators to a uniform and consistent level of communication discipline utilizing their documented communication protocols. The additional feature of this standard is that it can be managed normally in a "non-zero defect" environment. The SDT believes the process is pre-emptive in nature which means an entity develops measures that reduce the risk of mistakes that harm the BES.		

Organization	Yes or No	Question 4 Comment
ERCOT	No	ERCOT agrees with the SRC comments.
Response: The OPCPSDT thanks you for your comments. Please see our responses to SRC comments.		
Pepco Holdings Inc	No	
Georgia System Operations	No	
CenterPoint Energy Houston Electric, LLC.	No	
Liberty Electric Power, LLC	No	
Oncor Electric Delivery Company LLC	No	
SERC OC Standards Review Group	Yes	We could agree within the context of our comments listed above.
Response: The OPCPSDT thanks you for your comments. Please see our responses to your previous comments.		
Manitoba Hydro	Yes	VSLs for R3 and R4: There is no contemplation of the entity failing to assess deficiencies (3.2 and 4.2) or failing to correct deficiencies (3.3, 4.3).
Response: The OPCPSDT thanks you for your comments. The SDT has changed the language of the R3 and R4 to mirror that of CIP v.5 and no longer uses parts 3.2, 3.3, 4.2 and 4.3 in draft 4. **"R1 (and R2 – DP and GOP). Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as**		

Organization	Yes or No	Question 4 Comment
developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency. **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
Lincoln Electric System	Yes	The Severe VSL for R2 should be modified to instead state "The responsible entity did not include Parts 2.1 to 2.2 of Requirement R2, in their documented communication protocols". The current VSL incorrectly references Part 2.3 of R2 which does not exist.
Response: The OPCPSDT thanks you for your comments. The SDT has corrected the error.		
Tacoma Public Utilities	Yes	
Hydro One	Yes	
FirstEnergy	Yes	
Arizona Public Service Company	Yes	
Southern Company	Yes	
Southwestern Power Administration	Yes	
US Bureau of Reclamation	Yes	
Central Lincoln	Yes	

Organization	Yes or No	Question 4 Comment
City of Austin dba Austin Energy	Yes	
Occidental Energy Ventures Corp.	Yes	
Idaho Power Co.	Yes	
The United Illuminating Company	Yes	
ReliabilityFirst	Yes	
South Carolina Electric and Gas	Yes	
Salt River Project	Yes	
CPS Energy	Yes	
Public Service Company of New Mexico	Yes	
Alliant Energy	Yes	
City of Tallahassee	Yes	
MidAmerican Energy	Yes	
Puget Sound Energy Inc.	Yes	

Organization	Yes or No	Question 4 Comment
Xcel Energy	Yes	
Public Service Enterprise Group		We did not evaluate these.
Indiana Municipal Power Agency		no comment

5. Do you have any other comments or suggestions to improve the draft standard?

Summary Consideration:

The SDT refers the reader to the consolidated summary where the key items to Question five covered.

Organization	Yes or No	Question 5 Comment
Texas Reliability Entity		(1) Requirements R2 and R4 should also apply to Load-Serving Entities (TOP-001-2 R1, VAR-001-3 R5), Purchasing-Selling Entities (VAR-001-3 R5), and Generator Owners (VAR-001-3 R11, VAR-002-1.1b R5) so that all entities receiving Operating Instructions are covered. For M3 and M4 the process should be included as well as results. **Response: The originating SAR did not include LSEs, GOs and PSEs. The SDT discussed their inclusion and could not justify applicability for them.** (2) Capitalize "responsible entity" in VSL language for R1 and R2 as was done in R3 and R4. **Response: Thank you for pointing that out. We have corrected the error.**

Organization	Yes or No	Question 5 Comment
		(3) RELIABILITY GAP: We believe a reliability gap exists because no standard generally requires compliance with Operating Instructions, Reliability Directives and other valid instructions. We realize this issue may be considered to be outside of the scope of this project, but we are quite concerned that reliability is compromised because operating entities can elect to ignore valid instructions for economic or other reasons, and that much more attention is being given to the form of the instructions than to requiring that they be obeyed. **Response: The SDT believes the standard language and the definition do make it mandatory for applicable entities to comply with Operating Instructions.** VRF/VSL JUSTIFICATION: (4) In the VRF/VSL Justification document there is only reference to 3 requirements in the COM-003-1 Standard (page 5). There are 4 requirements. **Response: The SDT has corrected the error. Thank you for finding it.** (5) The "Low" VRF rating for R1 and R2 seems unjustified based on the following points: 1) In the VRF/VSL Justification document there is the following statement at the top of page 5: "Requirements R1, R2 and R3 were assigned a "Medium" VRF." **Response: Thank you, that was part of the same error you indicated previously. The SDT has corrected the error. It now reads:** ***"R1 and R2 are assigned a "Low" VRF, and R3 and R4 are assigned a "Medium" VRF."*** 2) In the Rationale and Technical Justification document there is the following statement: "Because Operating Instructions affect Facilities and Elements of the Bulk Electric System, the communication of those Operating Instructions must be understood by all involved parties,

Organization	Yes or No	Question 5 Comment
		especially when those communications occur between functional entities. An EPRI study reviewed nearly 400 switching mishaps by electric utilities and found that roughly 19% of errors (generally classified as loss of load, breach of safety, or equipment damage) were due to communication failures. This was nearly identical to another study of dispatchers from 18 utilities representing nearly 2000 years of operating experience that found that 18% of the operators' errors were due to communication problems." If there is not a process, would there not be more errors? **Response: The SDT believes there would most likely be more errors without the process. The SDT believes that R1 and R2 should be assigned a "Low" VRF, and R3 and R4 should be assigned a "Medium" VRF based on NERC and FERC guidelines.** 3) In the VRF/VSL Justification document there is the following statement: "In the VSL Order, FERC listed critical areas (from the Final Blackout Report) where violations could severely affect the reliability of the Bulk-Power System" and "Communication protocol and facilities" is listed. R1 and R2 attempt to address this issue. **Response: The SDT agrees that when integrated into the process, R1 and R2 attempt to address the issue. The SDT believes the low VRF is appropriate for R1 and R2 because it calls for having Response: The SDT has corrected the error. a document(s). R3 and R4 fit the criteria for a medium VRF based on NERC and FERC guidelines.** (6) In the VRF and VSL Justification document, at page 15 and page 20, the FERC VRF Guideline 3 Discussion is inconsistent with R3 and R4 language respectively (R3 and R4 do not call for "use of formal three part communication"). **Response: The SDT has corrected the error. Thank you for bringing it our attention.**

Organization	Yes or No	Question 5 Comment
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ACES Power Marketing Standards Collaborators		(1) If the Regional auditor is to make recommendations to registered entities on how to improve the COM-003-1 internal controls, would the Regions allow an initial safe harbor to assess the entity's program? If Regional auditors find PVs on the initial audit, that practice would go against the spirit of self-correcting and would stifle the entity's actions to monitor, assess, and correct deficiencies. The SDT should consider this sort of initial assessment in the implementation plan. **Response: The SDT does not believe there will be a need for a safe harbor based on how the requirements are structured. It would be unlikely the CEA would find PVs on the initial audit if the entity is identifying, assessing and correcting deficiencies. If the process was weak the entity would still have an opportunity to evaluate it and improve it without a finding of non compliance.** (2) If there is discussion of combining COM-002 and COM-003 in the future, why not combine them now? It would be a better use of the ERO's resources to produce a single communication standard while both SDT projects are in development instead of going back through the entire process at some point in the future. **Response: The SDT does not disagree with your comment, but that is outside the scope of the SAR for this project. Combining the two standards has been formally proposed at Standards Committee meetings.** (3) A Reliability Directive appears to be a subset of the Operating Instruction definition, which is basically an Operating Instruction that occurs during an Emergency. We suggest collaborating with the RC SDT to clarify the bounds of each definition to avoid overlap. As discussed above, it would be appropriate to combine the COM-002 and COM-003 and associated definitions to avoid confusion. **Response: The OPCPSDT has coordinated with the RCSDT and has defined those boundaries in two webinars and two postings.**

Organization	Yes or No	Question 5 Comment
		(4) There is no requirement for data retention for R1 or R2. Again, we recommend striking these requirements. **Response: The entity must have the documented communication protocols. The evidence is the entity's documented communication protocols.** Thank you for the opportunity to comment.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Ameren		(1)We believe the drafting team has made some great strides to get this to be a useful standard for industry. The idea that we have a process for self-correction instead of self-reporting is a good concept. However, the reasons for our "No" vote is that the current wordings in the latest draft still need some changes to provide clarification. In this regard, we agree in principle with alternate language provided by NextEra (which we have modified slightly) and have also provided additional clarifying comments and recommendations. (R1) When a Reliability Coordinator, Transmission Operator or Balancing Authority requires actions to be executed as an Operating Instruction, the Reliability Coordinator, Transmission Operator or Balancing Authority shall identify the action as an Operating Instruction to the recipient. (R2) Each Balancing Authority, Transmission Operator, Generator Operator, and Distribution Provider that is the recipient of an Operating Instruction shall repeat, restate, rephrase or recapitulate the Operating Instruction. (R3) Each Reliability Coordinator, Transmission Operator, and Balancing Authority that issues an Operating Instruction shall either: (a)Confirm that the response from the recipient of the Operating Instruction (in accordance with Requirement (R2) was accurate, or (b) Reissue the Operating Instruction to resolve any misunderstandings.

Organization	Yes or No	Question 5 Comment
		Response: The SDT appreciates your recommendation but adopting it would dramatically alter the standard making it less effective as an opportunity for improving communication protocols. (2)Along with the revised language proposed above, we request the drafting team to clarify the concept of what constitutes an Operating Instruction (or command) because the current understanding is too broad. We strongly believe that it should focus only on instructions related directly to BES reliability and which are not considered Reliability Directives covered under COM-002, and that it should not include normal or routine dispatching instructions of generators. **Response: The SDT believes Operating Instructions are very specific as defined. A command from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System is very explicit. It is focused on actions that dictate changes to the BES that if misunderstood undermine the reliability of the BES. Also see our response to your comment below. We have changed the language to achieve more specificity.** (3)Given the revised language proposed in comment (1) above, the definition of Operating Instruction should be revised to replace the term 'System Operator' with 'Reliability Coordinator, Transmission Operator, or Balancing Authority', since these functions are the ones who will initiate the Operating Instruction. **Response: The SDT received many comments and Quality Review recommendations to include the defined term System Operator. The SDT changed the proposed wording as follows:** **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not***

Organization	Yes or No	Question 5 Comment
		considered Operating Instructions. **The italicized portion highlights the proposed changes which the SDT believes will address Ameren's comments.** (4)"Transmission interface Element" and "Transmission interface Facility" both are not in the NERC glossary as defined terms and they need to be added to the NERC glossary or clearly defined in the standard. **Response: The SDT believes all of those terms, except for "interface," are in the NERC glossary. The term "interface" describes the population of Transmission system Elements and Facilities that are immediately adjoining between neighboring functional entities and that both entities must refer to when issuing or receiving "Operating Instructions." The SDT believes the dictionary definition for "interface" is clear and unambiguous.** (5)We suggest a 24 month Implementation Plan upon approval of COM-003. This would allow Registered Entities time to develop their compliance processes. **Response: The SDT has already extended it to 12 months. 24 months is too long.** (6)We request that the drafting team consider the possibility of substituting the CIP v.5 'zero defects' language in COM-003 in order to minimize potential confusion. **Response: The SDT did evaluate that and has made that change in order to create consistent language among standards.** (7)We request that any of the "violations" shown in the VSL table on pages 7, 8, and 9 should not qualify for a high or severe level and at the most these should either be categorized as low or, but no more than, moderate level. **Response: The SDT considered your recommendation but believes the binary nature of some of the requirements' parts warrants a severe VSL. There would have to be a very high disregard by an entity to improve their process to achieve the "Severe" VSL.**

Organization	Yes or No	Question 5 Comment
		(8)In the VSL table for R2, in the column under Severe VSL, it states that "The responsible entity did not include Parts 2.1 to 2.3 (3) of Requirement R2..." Requirement R2 does not have a Part 2.3, only 2.1 and 2.2. **Response: Thank you for pointing this out. The SDT has corrected the error.** (9)If the drafting team retains the current language we are concerned about the prescriptive language in R1 and R2. We request that the drafting team in both R1 and R2 have the word “incorporate” changed to “consider” or “address”, thereby making the requirements less prescriptive. **Response: The SDT considered your recommendation, but used the word include” to make it less prescriptive, and to also maintain uniformity. The SDT believes consistency to be a key element of effective communications**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Central Lincoln		1) We note that per the proposed definition of Operating Instruction, only commands regarding the states of BES Elements or Facilities are covered. We also note that per the Statement of Compliance Registry Criteria, Distribution Providers need not own or operate BES Elements or Facilities in order to be registered as DPs. This puts DPs without these facilities in the position of documenting protocols for and processes for finding deficiencies for communications that don’t occur. We note the SDT stated in the last Consideration of Comments “DPs that operate BES Facilities or BES Elements and receive Operating Instructions are subject to the need for clear communication to avoid misunderstandings that could impact the BES”, and we agree. We suggest: “4.1.2 Distribution Provider that operates Bulk Electric System Facilities or Elements and receives Operating Instructions” **Response: The SDT considered your suggested language and has elected not to incorporate it. The SDT believes that DPs who shed load would also be subject to**

Organization	Yes or No	Question 5 Comment
		the standard's Requirements R2 and R4. Those DPs that do not own or operate BES facilities; do not shed load or would not receive an Operating Instruction would not be subject to COM-003-1. 2) The references to Part 3.1 in Sub-requirement 3.4 and Part 4.1 in Sub-requirement 4.4 make no sense, since the standard has no such sections. We assume the SDT meant Sub-requirements 3.1 and 4.1 respectively, and suggest that "Part" be replaced by "Sub-requirement." **Response: The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.** 3) We agree with the SDT's attempt to move away from zero defect compliance, and Requirements 1 and 2 and the RSAW all support this. We're afraid the CEA may still be able to find non-compliance for a single defect based on the language of R3 or R4. For example a CEA finds a single OI that referred to a 12 hour clock time in violation of the entity's protocol developed under R1.2. This is not a violation, but the CEA goes on to discover that the entity failed to identify the deficiency under R3.1. While

Organization	Yes or No	Question 5 Comment
		the entity can show they have a process that has in fact identified and corrected deficiencies, the CEA maintains they failed to implement the process for this one instance and finds a violation. When the entity points to the RSAW that states the CEA should make recommendation rather than finding a violation, the CEA states they audit to the language of the standard requirement as stated in Footnote 1 of the very same RSAW. **Response: The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
American Electric Power		AEP does not agree with the perceived necessity of this standard, but does support the overall concept of the drafting team's building controls into the standards as well as proposing RSAWs during the comment that perpetuate the ideas and concepts of the drafting team.
Response: The OPCPSDT thanks you for your comments. The SDT believes COM-003-1 is an important element to improve BES		

Organization	Yes or No	Question 5 Comment
reliability.		
Northeast Utilities		Applicability Section: Functional Entities Section may not be broad enough to capture all entities participating in communication for example a TO may have a switchman receiving Operating Instructions from a TOP; the way the standard is written the TO would not be required to participate in 3-part communication making it difficult for the TOP to fully implement its Communication Protocols. **Response: There is much flexibility in how entities may construct their documented communication protocols to account for arrangements with their own internal operations as well other entities they must work with to communicate BES operations. There is nothing to stop an entity from making the document communication protocols effective internally.** M3 & M4 impose more requirements on the registered entity than are required in R3 & R4 respectively. For example R3 requires the implementation of a process, the measure looks for the results of the process, and the measure should be measuring the implementation not the result of the process. **Response: The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication**

Organization	Yes or No	Question 5 Comment
		protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change. **M3 and M4 have been eliminated.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ERCOT		As discussed above, the proposed standard is not consistent with the reliability issue/concern raised in the blackout report, and, therefore, in Order 693, given that the 693 discussion was relative to the concern raised in the blackout report. The mandates in the proposed standard do not provide reliability value. COM-002 and other standards that address situations that pose actual reliability risks already requires appropriate entities to communicate with each other during emergencies, which is the real focus of the blackout report and Order 693. In those circumstances 3-part communications are required in a clear, concise and definitive manner. This effectively ensures that the recipient understands the communication, which practically obviates the need for specific, mandatory terminology, practices and protocols. Accordingly, for these reasons and the reasons discussed above, the need for COM-003 is suspect. In fact, it is arguable that it provides marginal to nil reliability value, but yet presents potential liability exposure to the relevant functional entities. The SDT should consider another approach to addressing the concerns in the blackout report and Order 693. Specifically, any responsive effort should focus on ensuring communications occur relative to specific system conditions that truly reflect reliability concerns, and any such communications should be appropriately distributed to ensure dissemination is only to appropriate entities that may be impacted and/or can assist in remedying the situation. In the alternative, the proposed standard should be revised consistent with these comments, and in accordance with the principle that a reliability standard should establish the what, not the how. **Response: The SDT has addressed this comment in the last two postings. These**

Organization	Yes or No	Question 5 Comment
		documents and the originating agencies that developed them actually sanction the development of COM-003-1. Additionally the ERO's governing bodies (the Board of Trustees and the Standards Committee) have directed the OPCPSDT to proceed with COM-003-1. The SDT does not have the authority or the inclination to rescind the standard. In addition, the ERCOT offers the following specific comments. As noted above, as drafted the term Operating Instruction is overly broad relative to the scope intended by FERC and the Blackout Report, and, in fact, could include purely market related discussions that have no reliability impact. Yet, the proposed standard requires 3-part communication for all such interactions. There is no reliability value to 3-part communications for such interactions. Accordingly, this requirement should be removed. **Response: The SDT believes the definition is not broad and that the Applicability section precludes market related discussions as the definition describes a command from a System Operator.** The proposed standard also requires entities issuing an all-call, or similar multiple party communication, to receive confirmation, electronic or verbal, from at least one of the recipients that the message was received. The nature of all calls provides a structural means to distribute messages to a host of recipients. The mediums used for this purpose ensure that the messages are delivered. There is no need to require confirmation as proposed in the standard. Furthermore, there is little reliability benefit. Accordingly, for these types of communications confirmation should not be required. **Response: All call messages feature diverse media and technology. The entity has the flexibility to develop and account for those differences with system functionality within its documented communication protocols described in COM-003-1, draft 3.** Finally, 1.9 requires recipients of multi-party communications to ask for clarification if

Organization	Yes or No	Question 5 Comment
		they do not understand the message. It is difficult to understand how compliance with this requirement will be reviewed, and what value it will have. For example, if an entity never asks for clarification but an audit determines the entity failed to follow a directive, the CEA staff may question whether the entity complied with the obligation to request clarification, but the entity may believe that clarification was not necessary and failure to follow the instruction was due to some other reason. As with other aspects of the proposed standard, this lends itself to subjective disagreements in practice. Furthermore, it is unnecessary, because an entity that does not understand a directive will ask for clarification. **Response: The SDT believes that whether the receiving entity did or did not request clarification the CEA at worst case would cite it as a deficiency found external to the process. If the entity identified, assessed and corrected the deficiency there would generally not be a finding of non compliance.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
The Empire District Electric Company		As stated drop requirements R3 and R4 as they seem redundant with the overall NERC program of reporting and mitigation plan approval.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address your concern. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1**		

Organization	Yes or No	Question 5 Comment
RSAW has been updated to reflect this change.		
CenterPoint Energy Houston Electric, LLC.		CenterPoint Energy appreciates the revisions made to the current draft of COM-003 based on stakeholder feedback; however, the company maintains a negative vote based on the following: Requirements 1.1 through 1.5 are overly prescriptive. We recommend deletion of stated sub requirements as an effort to move away from detailed micro requirements. Additionally, CenterPoint Energy recommends deletion of R3 and R4. The "internal controls" concept can be incorporated into the remaining requirements. CenterPoint Energy would vote affirmative if the SDT revised the proposed standard as indicated below: R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses, and corrects deficiencies, documented communication protocols for Operating Instructions that incorporate the following: 1.1 When issuing an oral two party, person-to-person Operating Instruction, require the issuer to: o Confirm that the response from the recipient of the Operating Instruction was accurate, or o Reissue the Operating Instruction to resolve a misunderstanding 1.2. When receiving an oral two party, person-to-person Operating Instruction, require the recipient to repeat, restate, rephrase, or recapitulate the Operating Instruction. 1.3. When issuing an oral Operating Instruction through a one-way burst messaging system used to communicate a common message to multiple parties in a short time

Organization	Yes or No	Question 5 Comment
		period (e.g. an all call system), verbally or electronically confirm receipt from one or more receiving parties. 1.4. When receiving an oral Operating Instruction through a one-way burst messaging system used to communicate a common message to multiple parties in a short time period (e.g. an all call system), request clarification from the initiator if the communication is not understood. R2. Each Distribution Provider and Generator Operator shall implement, in a manner that identifies, assesses, and corrects deficiencies, documented communication protocols for Operating Instructions that incorporate the following.[Violation Risk Factor: Low] [Time Horizon: Long-term Planning] 2.1 When receiving an oral two party, person-to-person Operating Instruction, require the recipient to repeat, restate, rephrase, or recapitulate the Operating Instruction. 2.2 When receiving an oral Operating Instruction through a one-way burst messaging system used to communicate a common message to multiple parties in a short time period (e.g. an all call system), request clarification from the initiator if the communication is not understood.
Response: The OPCPSDT thanks you for your comments. The SDT believes the language changes to draft 4 will address some of your recommendations. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1**		

Organization	Yes or No	Question 5 Comment
RSAW has been updated to reflect this change.		
FirstEnergy		ï,§ To have clear communication protocols NERC must develop clear and concise standards that include non-prescriptive language that provides entities with the latitude to operate their systems as they are accustomed to while requiring a heightened awareness of the importance of clear communications while operating those systems. From discussions in various industry forums, there seems to be much confusion as to the intent of COM-003 versus COM-002. For instance, is a Reliability Directive as defined by the Project 2006-06 team in COM-002-3 a subset of an Operating Instruction as defined in COM-003-1? If so, then we recommend the retirement of COM-002-3 as a standard since COM-003-1 covers all communications. One standard that requires 3-part communication is sufficient and no reliability gap would exist if COM-002-3 is retired. FE and the industry want to contribute to effective reliability and believe tight standardized communication protocols are critical. But if confusion and needlessly burdensome requirements result from the development of these COM standards, we believe this could have an adverse affect on reliability. In COM-002-3, requiring an operator to pause to determine if he or she should utter the phrase “this is a Reliability Directive” can escalate an emergency situation and not help alleviate it. Regardless of the situation, when the Operator issues a command it must be carried out by the receiver with confirmation that the receiver has understood what needs to be done and when it needs to be done. COM-003-1, with some wording adjustments, accomplishes this reliability goal. We support COM-003-1 Draft 3, on its own without COM-002-3, along with some adjustment to requirement language to relieve prescriptiveness and needless language while adding some clearer guidance on the internal control requirements detailed in R3 and R4. **Response: The SDT does not disagree with your comments, but it is beyond the scope of the SAR for this project.** ï,§ The measures as proposed simply reiterate the requirement and provide no useful information. We suggest they either be removed or be elaborated to include

Organization	Yes or No	Question 5 Comment
		useful examples of evidence and possibly incorporate some of the information found in the RSAW. **Response: The SDT believes the Measures are suitable for each requirement and adequately support the requirements. Requirement R1 and R2 call for the entity's documented communication protocols.** **The SDT believes the language changes to draft 4 will address some of your concerns.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change. M3 and M4 are eliminated.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Indiana Municipal Power Agency		IMPA believes the best quality of evidence for proving compliance to most of the sub-requirements under R1 and for requirement 2.1 will be voice recordings. IMPA agrees with keeping this evidence for 90 days, but to keep these voice recordings for potential 6 years (back to our last audit date) will be very costly when it comes to storage. We understand that other evidence can be used to show compliance back to our last audit date, but what other quality evidence besides voice recordings will

Organization	Yes or No	Question 5 Comment
		be acceptable to prove compliance to these requirements? IMPA recommends making the data retention of this standard just 90 days regardless of the last audit date. Performance should be focused on the short past time of 90 days and not what the entity did five or six years ago, which is irrelevant when one is forward looking or wanting to improve.
Response: The OPCPSDT thanks you for your comments. The SDT set the standard retention period for the most recent 90 days. The entity would always have its documented communication protocols required for M1 and M2. Training records, performance evaluations, disciplinary records, employee counseling records that address deficiencies and corrections would also provide evidence that would substantiate corrections.		
Dominion		Implementation plan - page 1; Revisions or Retirements to Approved Standard - Proposed Replacement Requirement(s), states; "COM-003-1 Requirement R1 Part 1.1.1 R1. Each Balancing Authority, Distribution Provider, Generator Operator, Reliability Coordinator, and Transmission Operator shall have documented communications protocols that incorporate the following:"Distribution Provider and Generator Operator needs to be removed, also after communications protocols, 'for Operating Instructions' needs to be added (to match the R1 Requirement, if accepted as written). **Response: Thank you for pointing out the errors. The SDT has corrected them.** Mapping document, Page 1; Comments, states: "R1 Each Balancing Authority, Distribution Provider, Generator Operator, Reliability Coordinator, Transmission Operator, and Transmission Owner shall have documented communications protocols that incorporate the following: [Violation Risk Factor: Low] [Time Horizon: Long-term Planning]" Distribution Provider and Generator Operator needs to be removed. Also after communications protocols, 'for Operating Instructions' needs to be added (to match the R1 Requirement, if accepted as written). **Response: Thank you for pointing out the errors. The SDT has corrected them.**

Organization	Yes or No	Question 5 Comment
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Associated Electric Cooperative Inc - JRO00088		In general, AECI believes that NERC and FERC should completely reevaluate the necessity of COM-003-1. COM-003 still appears to overreach the cited 2003 blackout recommendation #26, whereas industry-approved changes to COM-002 do meet the expectation, pertaining to verbal communication protocols: “Tighten communications protocols, especially for communications during alerts and emergencies..." **Response: The SDT has previously addressed this same comment in previous postings. The SDT disagrees with the comments and believes COM-003-1 will properly tighten communication protocols.** However AECI also offers the following observations: 1) Recommendation #26 is hardly top of the list. (Lessons-learned is that future industry recommendations really must be careful in what they recommend for improvements, because those can and will be extrapolated into future requirements.) **Response: The SDT respectfully disagrees.** 2) Recommendation #26 "especially" highlights alerts and emergencies, not normal operational communications, yet the scope of COM-003 pertains to any normal communication that would alter the state of anything BES, including mundane operational conditions that have questionable effect upon the BES reliability. **Response: The SDT believes there is nothing mundane about actions to reconfigure the BES. Miscommunication during normal BES operations can create an unintended risk to reliability.** 3) In AECI's opinion, there is greater risk of non-compliance with this standard for the industry, than non-compliance with the NERC BOT in their insistence to move it forward. The EEI suggested wording, recited below, helps to mitigate this risk, but still at cost of additional and often unnecessary communication overhead. Specific to the wording of COM-003-1 draft, AECI does believe the direction of EEI's wording,

Organization	Yes or No	Question 5 Comment
		submitted in comment response to this draft, could help the industry with mitigating some risk of non-compliance to the proposed standard. In lieu of our being able to view EEI's posted comments, we recite them below:: ========Begin the EEI draft as circulated in emails earlier this week========= R1. When a Reliability Coordinator, Transmission Operator or Balancing Authority requires actions to be executed as an Operating Communication, the Reliability Coordinator, Transmission Operator or Balancing Authority shall identify the action as an Operating Communication to the recipient. R2. Each Balancing Authority, Transmission Operator, Generator Operator, and Distribution Provider that is the recipient of an Operating Communication shall repeat, restate, rephrase or recapitulate the Operating Communication. R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority that issues an Operating Communication shall either: o Confirm that the response from the recipient of the Operating Communication (in accordance with Requirement R2) was accurate, or o Reissue the Operating Communication to resolve any misunderstandings. R4 Absent a possible violation that resulted in (or could have resulted in) a significant risk to the Bulk Electric System, no violation of R1 or R3 and its sub requirements shall be found, provided that the Balancing Authority, Reliability Coordinator, and Transmission Operator has implemented a process for identifying deficiencies with adherence to the documented communication protocols specified in Requirement R1 and R3 that: 4.1. Identifies potential deficiencies, 4.2. Assesses the deficiencies found, 4.3. Corrects the deficiencies, and 4.4. Evaluates the process based on deficiencies found external to Part 3.1 and either

Organization	Yes or No	Question 5 Comment
		â^™ implements modifications to the process when the evaluation determines that modification of the process is necessary to address the deficiencies found; or â^™ demonstrates that no modification to the process is necessary to address the deficiencies. R5 Absent a possible violation that resulted in (or could have resulted in) a significant risk to the Bulk Electric System, no violation of R2 and its subrequirements shall be found, no violation of R2 and its subrequirements shall be found, provided that the Distribution Provider and Generator Operator shall implement a process for identifying deficiencies with adherence to the documented communication protocols specified in Requirement R2 that: 5.1. Identifies potential deficiencies, 5.2 Assesses the deficiencies found, 5.3. Corrects the deficiencies, and 5.4. Evaluates the process based on deficiencies found external to Part 3.1 and either râ^™ implements modifications to the process when the evaluation determines that modification of the process is necessary to address the deficiencies found; or â^™ demonstrates that no modification to the process is necessary to address the deficiencies. ========End the EEI draft as circulated in emails earlier this week========= **Response: The SDT believes many elements of the EEI draft mirror COM-003-1, draft3. Draft 3 has more parts that not only deal with three part communication but also deal with communication protocols that provide additional clarity and uniformity.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		

Organization	Yes or No	Question 5 Comment
APPA, LPPC and TAPS		In response to comments received during the last comment period and in an effort to draft a standard that focuses on risk control rather than zero tolerance metrics, the drafting team has taken a new approach to COM-003-1. This version requires responsible entities to establish communication protocols and then implement a process for identifying, assessing, and correcting deficiencies with adherence to those communication protocols. This new standard is drafted such that the entity is to ensure that its process is working, rather than requiring the demonstration of absolute compliance with communication protocols at all times and identifying each deficiency as a possible violation. In addition, this version of the standard was drafted in conjunction with the development of the Reliability Standard Audit Worksheet (RSAW). The parallel development of the standard and the RSAW provided the opportunity for the drafting team to consider the compliance implications of the language in the standard and to offer input into the language of the RSAW. APPA staff, LPPC and TAPS have reviewed the proposed standard and have not identified any material concerns and support the drafting team's new approach. We of course urge the drafting team to give full consideration to all substantive comments on the proposed standard and RSAW. We do anticipate that commenters will identify editorial changes that will clarify the proposed standard. Such changes are unlikely to affect our support for the standard.
Response: The OPCPSDT thanks you for your comments. The comments accurately frame the intent of the standard changes.		
PPL Corporation NERC Registered Affiliates		It appears the SDT may be basing the perceived need for communication protocols during normal operations on a misunderstanding of the findings in an EPRI report. The SDT responded to multiple comments questioning the need for communication requirements during normal operations by quoting a paper (Bilke, T., Cause and prevention of human error in electric utility operations, Colorado State University, 1998) that cited an EPRI study. The SDT stated, "[w]e believe the more relevant and significant conclusion to be that, of 400 switching mishaps, 19% were caused [by] communication failures."It is concerning that the SDT may be basing their conclusions

Organization	Yes or No	Question 5 Comment
		on erroneous data. The EPRI report in fact indicates only 14.5% were "cited" as "faulty communication", not necessarily "due to" or "caused" as the SDT response would indicate. Nearly half of those 58 (14.5%) of the 399 incidents reviewed resulted from most commonly not communicating "critical information", i.e. failing to "call in" or communicate in the first place. The EPRI report reads as follows: "Faulty communications were cited [emphasis on "cited"] in 58 (14.5%) of the 399 incidents reviewed. The most common kind of communication error was failure to communicate critical information, which occurred in 22 (39%) of the 58 cases. Examples are: failure to conduct a thorough pre-job briefing, failure to call in before operating a switch, failure to communicate about equipment problems, or failure to question some unusual aspect of an order. "Mandating "how" communications occur will not address the failure of "what" critical information needs to be communicated. Furthermore, it is concerning that the SDT "believes that the potential for risk" necessitates requirements applicable to all operating communications as stated in their response to comments during draft 2. It is impossible to eliminate the potential for risk in all circumstances. What is important is that the SDT assess risk to the BES as a result of certain actions or inactions and that the Reliability Standard reduce that risk in an efficient and cost effective manner.
Response: The OPCPSDT thanks you for your comments. The OPCPSDT cited those figures from a commenter who appended an Industry white paper (by the same author) to the draft comment form. The SDT responded after reading it. Even if the mishap rate for communication issues is 14.5% that is a significant impact on BES reliability that will be addressed by COM-003-1.		
The United Illuminating Company		It is not clear whether the protocols in COM-003 apply to Reliability Directives in Com-002. It can be reasoned that a Reliability Directive is a form of Operating Instruction. A double jeopardy situation is created. **Response: the SDT included exclusionary language in draft 2 of COM-003-1 to separate the two terms. The SDT presented a Webinar that focused on the applicability and the relationship between the two terms and standards. The moment an RC declares a "Reliability Directive" the requirements of COM-002-3 are**

Organization	Yes or No	Question 5 Comment
		applicable. The functional entity would at that time be subject to a zero tolerance set of requirements to be compliant with the protocols of COM-002-3. When the Emergency or ARI ceases COM-003-1 is applicable. Also the COM-003 R3 and R4 requirements would be inappropriately applied to Reliability Directives. UI believes there is a difference between Reliability Directives and Operating Instructions and the difference should be maintained. A Directive occurs during an Emergency and has a higher risk than an Operating Instruction. Directives should be limited in occurrences and therefore is not conducive to sampling or error correction as opposed to Operating Instructions which occur multiple times in a day and are numerous. **Response: If R3 and R4 are applied to "Reliability Directives" because the entity created a documented communication protocol to manage the relationship between the two standards and specified circumstances when each would be used, consistent with the two standards, that would be acceptable.** **Is your use of the capitalized word "Directive" to be understood as "Reliability Directive?" There is no glossary term "Directive" nor is it referenced in a standard.** **It would also be acceptable to include Operating Instructions that happened to be a Reliability Directive in sampling for R3 and R4. For example, if an RC omitted three part communication as specified in COM-002-3 during a Reliability Directive with another functional entity they would likely be found to be non compliant under COM-002-3. There would be no double jeopardy with COM-003-1 because the same incident would be a deficiency that would be addressed (identify, assess, correct) by the process in R3.** The data retention requirement of 90 days is reasonable. But UI is concerned with the approach to monitoring requiring an inventory of every conversation that occurred in that 90 day period to identify it as an Operating Instruction. **Response: The entity can select its own sample size to identify deficiencies related**

Organization	Yes or No	Question 5 Comment
		to Operating Instructions. Finally UI suuports EEI's comment. **Response: The SDT believes many elements of the EEI draft mirror COM-003-1, draft3. Draft 3 has more parts that not only deal with three part communication but also deal with communication protocols that provide additional clarity and uniformity.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Lincoln Electric System		LES believes additional clarification is needed to more clearly delineate who is considered to be the Generator Operator (the power plant operator vs. system operator) responsible for compliance with COM-003-1. As currently drafted, the Generator Operator, as the recipient of Operating Instruction, must have and utilize documented communication protocols per R2. In the event generation re-dispatch were to be requested, is it the power plant operator performing the task or the system operator requesting the execution of the task responsible for using the documented communication protocols?
Response: The OPCPSDT thanks you for your comments. The definition specifies a System Operator. R1 and R2 have added language to specify Operating Instructions between functional entities. The entity may reflect what communication protocols would be applicable internally.		
MidAmerican Energy		MidAmerican would recommend the following changes to R3 as a primary consideration to allow COM-003-1 to move forward. COM-003 is only acceptable as a non-zero defect standard. R3 should be rewritten as follows: Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement R1 in a manner that identifies, assesses, and corrects deficiencies if any. Where the entity is identifying, assessing, and correcting deficiencies, the entity is

Organization	Yes or No	Question 5 Comment
		satisfactorily performing the requirement. Make similar changes to R4. **Response: The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.** R3 as posted requires implementing a deficiency process, which puts the focus of R3 on a deficiency process and not on implementing R1. The proposed language changes focus the requirement to implement R1 and does not require a specific process for deficiencies. This is consistent with CIP standards Version 5 draft 3 and Generally Accepted Government Auditing standard strategies (the yellow book or GAGAS). The proposed second sentence provides clarity on satisfactory performance expectations in the requirement. **Response: The process is similar, but the need to have protocols developed by the entity necessitates the difference in language with CIP v.5.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		

Organization	Yes or No	Question 5 Comment
Georgia System Operations		Modify R1 accordingly... R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall have and follow documented communication protocols for Operating Instructions that incorporate the following: R3 & R4 Delete R3 and R4 and M3 and M4 and associated VRFs and VSLs. Although R1 and R2 provide for better communications, R3 & R4... o Have little or no impact to the protection or reliable operation of the BES in the event that no responsible entity performed the requirement o Have little, if any, value as a reliability requirement Are requirements for monitoring and enforcing Reliability Standards and do not provide for Reliable Operation... o Including without limiting the foregoing, requirements for the operation of existing Facilities o Including cyber security protection, and o Including the design of planned additions or modifications to such Facilities to the extent necessary for Reliable Operation M1 should read... o M1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator, shall provide its documented communications protocols developed for Requirement R1 and results of their internal compliance program's processes which assure that deficiencies with adherence to the documented communication protocols are identified, assessed, and corrected. M2 should read o M2. Each Distribution Provider and Generator Operator shall provide its documented communications protocols developed for Requirement R2 and results of

Organization	Yes or No	Question 5 Comment
		their internal compliance program's processes which assure that deficiencies with adherence to the documented communication protocols are identified, assessed, and corrected. In addition, we recommend revision to the RSAW to be reflective of the removal of both R3 and R4. **Response: The SDT believes the language changes to draft 4 will address your concern.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
NextEra Energy Inc.		NextEra proposes the following as an alternative approach that more closely mirrors COM-0002-3 and includes the internal controls language in R4 and R5. R1. When a Reliability Coordinator, Transmission Operator or Balancing Authority requires actions to be executed as an Operating Communication, the Reliability Coordinator, Transmission Operator or Balancing Authority shall identify the action as

Organization	Yes or No	Question 5 Comment
		an Operating Instruction to the recipient. R2. Each Balancing Authority, Transmission Operator, Generator Operator, and Distribution Provider that is the recipient of an Operating Instruction shall repeat, restate, rephrase or recapitulate the Operating Instruction. R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority that issues an Operating Instruction shall either: o Confirm that the response from the recipient of the Operating Instruction (in accordance with Requirement R2) was accurate, or o Reissue the Operating Instruction to resolve any misunderstandings. R4 Absent a possible violation that resulted in (or could have resulted in) a significant risk to the Bulk Electric System, no violation of R1 or R3 and its subrequirements shall be found, provided that the Balancing Authority, Reliability Coordinator, and Transmission Operator has implemented a process for identifying deficiencies with adherence to the documented communication protocols specified in Requirement R1 and R3 that: 4.1. Identifies potential deficiencies, 4.2. Assesses the deficiencies found, 4.3. Corrects the deficiencies, and 4.4. Evaluates the process based on deficiencies found external to Part 3.1 and either o implements modifications to the process when the evaluation determines that modification of the process is necessary to address the deficiencies found; or o demonstrates that no modification to the process is necessary to address the deficiencies. R5 Absent a possible violation that resulted in (or could have resulted in) a significant risk to the Bulk Electric System, no violation of R2 and its subrequirements shall be found, no violation of R2 and its subrequirements shall be found, provided that the Distribution Provider and Generator Operator shall implement a process for identifying deficiencies with adherence to the documented communication protocols specified in

Organization	Yes or No	Question 5 Comment
		Requirement R2 that: 5.1. Identifies potential deficiencies, 5.2. Assesses the deficiencies found, 5.3. Corrects the deficiencies, and 5.4. Evaluates the process based on deficiencies found external to Part 3.1 and either o implements modifications to the process when the evaluation determines that modification of the process is necessary to address the deficiencies found; or o demonstrates that no modification to the process is necessary to address the deficiencies.
Response: The OPCPSDT thanks you for your comments. The SDT believes this is similar to a draft of language proposed by EEI. The SDT believes the language changes to draft 4 will address some of your concerns. **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.**		
ITC Holdings		Nowhere in the Blackout Report, Order 693, nor the SAR does it indicate that communication protocols used during normal and emergency operations need to be identical - only that there are standardized communications for normal operations and standardized protocols for emergency communications. **Response: The SDT believes all of those documents do support the SDT's requirements in COM-003-1 for both normal and emergency operations.** The term Operating Instruction as included in the requirements of the draft standard does not take into consideration that communications during alert or emergency

Organization	Yes or No	Question 5 Comment
		conditions have a heightened need to be effective (Blackout Report Recommendation 26). A much better approach is to rely on operating personnel to determine when an Alert or Emergency condition exists to change from standardized communication used for normal operation to a different standard protocol for emergency operation. Operating personnel have substantial training requirements, including explicit requirements for training on emergency operations, which provide the basis for allowing operating personnel to make this determination. A standard phrase to identify that protocols for Alert or Emergency conditions are to be used (such as "I am issuing a Reliability Directive") would trigger the need to switch from protocols for normal operation to protocols for emergency conditions. This approach also addresses concerns that complacency will set in if identical protocols are used for normal and emergency communications. Active listening is much more likely when using a protocol that is used only for emergency conditions which occur much less frequently than normal operations. **Response: The SDT believes that the same communication protocols used during normal operations enable a focused transition to communications in an emergency. The comments on page 161 of the 2003 Blackout Report support this.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Pepco Holdings Inc		Operating Instructions are issued in real time and are expected to be implemented promptly. Including the “time zone” in oral communications is not necessary. COM-003 and COM-002 need to fully coordinate.
Response: The OPCPSDT thanks you for your comments. The SDT contends that the time zone reference must be used when an actual clock time (e.g. 2255 or 0800) is referenced when the communicating functional entities are issuing or receiving Operating Instructions across two different time zones.		
Public Service Enterprise Group		PSEG fully supports the use of 3-part communications. In our previous comments, we stated “This standard (COM-003-1) should be combined with COM-002-3 and issued

Organization	Yes or No	Question 5 Comment
		as one standard to require ONE 3-part communications protocol for both Reliability Directives and non-Reliability Directives." We reiterate that request and believe that the SDTs should be combined into a single SDT and develop one standard. COM-002-3 addresses Reliability Directive communications, while COM-003-1 addresses Operating Instructions communications. The same Registered Entities are subject to both standards. Both require 3-part communications (a "protocol"), but COM-003-1 has more extensive requirements. Having two standards is harmful for these reasons: o The lack of a common protocol would result in communications confusion among these entities for this reason: some Operating Instructions are Reliability Directives, but not all Reliability Directives are Operating Instructions. o Finally, without a common communications protocol, entities would need to be concerned about what protocol they are using for compliance purposes; this would hinder the efficiency of communications and therefore reliability. The single SDT should be charged with the following tasks: 1. Both draft standards have pluses and minuses listed below, and the SDT shall consider these and take the best from each to develop a single standard with a common protocol. a. Both standards require 3-part communications (a "protocol"), but COM-003-1 has more extensive requirements, such as the use of alpha-numeric clarifiers and a 24-hour clock format. [PSEG prefers the COM-002-1 simplified protocol.] b. Reliability Directive communications need to be identified as such by the sender as part of its protocol; Operating Instructions do not contain a similar requirement. [PSEG prefers that both Reliability Directives and Operating Instructions be identified by the sender.] c. The protocol for Operating Instructions explicitly addresses both written and oral communications; the protocol for Reliability Directives is not specific. [If identified as

Organization	Yes or No	Question 5 Comment
		such by the sender, PSEG does not object to written and oral communications being addressed in a single standard; however, only oral communications should require the use of 3-part communications.] d. The protocol for Operating Instructions exempts "one-way burst messaging" from a requirement for 3-part communications with one practical exception - the receivers must request clarification from the sender if the communication in not understood; the protocol for Reliability Directives does not address explicitly exempt such communications, implying that 3-part communications is required for them. [PSEG prefers the "one-way burst" language in COM-003-1 for both Reliability Directives and Operating Instructions.] e. The Operating Instructions protocol must be separately documented by each entity; no such documentation is required for Reliability Directives. If documentation is required in a posted standard developed by the SDT, the SDT shall explain the reliability benefits of documentation and why the protocols in the standard, which are themselves communications performance requirements, are insufficient as "documentation." [PSEG prefers no documentation of protocols since they are performance requirements in the standard.] **Response: The SDT does not disagree with PSEG that the standards should be combined. The SDT has collaborated and cooperated with the RCSDT. The OPCPSDT believes that both standards can coexist and be mutually supportive.** 2. COM-003-1 requires a process for identifying and correcting deficiencies." COM-002-3 does not. [Instead of the COM-003-1 language, PSEG prefers a requirement that adopts the CIP version 5 language: "R#. Each applicable entity shall have a process that identifies, assesses, and corrects deficiencies in the use of communication protocol."] **Response: The SDT believes the language changes to draft 4 will address some of your concerns.**

Organization	Yes or No	Question 5 Comment
		"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:" **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change.** 3. The SDT shall describe the potential measure or criteria for success for determining the successful implementation of the single standard. **Response: The SDT believes it does that presently.** 4. "Generator Operator" is included the Glossary definition of "System Operator," which in turn is used in the Operating Instruction definition. "System Operator" shall be replaced by "Balancing Authority, Reliability Coordinator, or Transmission Operator" in the Operating Instruction definition. Generator Operators receive Operating Instructions but do not issue them. See also Project 2010-16: Definition of System Operator - the goal of this project is to remove Generator Operator from the definition of System Operator. **Response: The SDT has changed the language of the definition to read:** **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status,**

Organization	Yes or No	Question 5 Comment
		output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions."* **The new language is italicized.** **This change is consistent with your recommendation.** (The Standards Committee should consider increasing the priority of this project so that this problem is addressed systematically in the System Operator definition.)
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Puget Sound Energy Inc.		Puget Sound Energy appreciates the opportunity to submit comments on the proposed standard, as well as the work of the standards drafting team in developing a workable approach to the implementation of operating communication protocols. The purpose statement in the proposed standard uses the term "System Operators". As defined in the NERC Glossary, System Operators include individuals who work for Balancing Authorities, Transmission Operators, Generator Operators and Reliability Coordinators. However, the standard also applies to Distribution Providers, an entity not covered by the term System Operator. As a result, I recommend that the standard drafting team expand the purpose statement to accurately reflect the applicability of the standard. Perhaps the statement could be revised to begin "To provide individuals who may issue or receive Operating Instructions with uniform communications protocols...".
Response: The OPCPSDT thanks you for your comments. Some Distribution Providers do own and operate BES Facilities and Elements and a significant number have load shedding obligations making them subject to Operating Instructions. The SDT has changed the language of the definition to read: **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential***		

Organization	Yes or No	Question 5 Comment
options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions." **The new language is italicized.** **This change is consistent with your recommendation. Note the reference to: "*where action must be taken by the recipient.*"**		
City of Austin dba Austin Energy		Regarding Q2, Austin Energy (AE) believes that parts 1.1 through 1.5 of R1 are unnecessary. Three-part communication, as described in parts 1.6 through 1.9, is the preferred method for ensuring that both parties understand an Operating Instruction. It provides a sufficient mechanism for clear, concise and accurate communication. AE believes that creating a protocol that requires System Operators to essentially relearn the way to speak (specifically using alpha-numeric identifiers) will only create confusion as operators try to follow protocol and catch/correct themselves. Additionally, the constant use of alpha-numeric identifiers in transmission switching orders that contain many, many steps will become burdensome. AE believes that its current use of three-part communication during these switching orders is more effective. **Response: The SDT agrees with your use of three part communication , but also believes other protocols that contribute to clarifying communications should be part of a comprehensive communication standard.** Regarding Q4, the phrase "Parts 2.1 to 2.3 (3)" in the Severe VSL for R2 should be "Parts 2.1 and 2.2" **Response: Thank you for pointing out the error. The SDT has corrected it.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
South Carolina Electric and Gas		Regarding R1.4, drafting team should clarify whether "interface" means interfaces between neighboring entities or between functional entities. **Response: The SDT has added "between functional entities" to R1 and R2 to encompass Part 1.4.** Regarding R1.8, does the drafting team have an appropriate response time-frame for

Organization	Yes or No	Question 5 Comment
		the confirmation to occur from recipients? **Response: The SDT believes that would be too prescriptive. The entities can address that in their documented communication protocols.** Regarding R1.9 and R2.2, these requirements seem unnecessary and unauditable. An audit team can evaluate whether the documented communications protocol contains language to address these requirements; however, evaluating the actual execution would be subjective. It is not possible to determine whether a recipient understood a message clearly and whether clarification was required. **Response: The industry asked the OPCPSDT to address all calls in several postings of previous drafts. The SDT believes it is auditable.** Further, it will be difficult for entities to identify deficiencies with this requirement, as required by R3, for the same reasons. **Response: The SDT disagrees. Most entities to varying degrees are monitoring the performance of operators. There are operating guidelines developed by industry that can provide guidance and develop best practices that support reliability.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
ReliabilityFirst		ReliabiltiyFirst thanks the SDT for their work but has a question related to the Implementation Plan. The SDT indicated in the consideration of comments report (from the draft 2 posting) the standard's six calendar month implementation time frame has been extended 12 calendar months to provide an adequate amount of time for training and implementation. As noted above, there is a conflict since the draft standard does not require implementation of the protocols. ReliabilityFirst believes absent any implementation requirement, the six calendar month implementation time frame is adequate for an entity to have documented communication protocols for Operating Instructions.

Organization	Yes or No	Question 5 Comment
Response: The OPCPSDT thanks you for your comments. The SDT agrees, but wanted to give the industry adequate time to implement the entire standard. Previous commenters stated that six months was not long enough.		
CPS Energy		Requirement R1.5 should be an optional step to assist in resolving any misunderstanding found in requirement R1.6. Alpha-numeric clarifiers, Requirement R1.5, in every three part communication of an operating instruction is an activity that adds little if anything to promote the protection of the BES and can hinder/distract from the reliable operation of the BES.
Response: The OPCPSDT thanks you for your comments. The SDT believes identifying and accurately communicating nomenclature of the Facilities and Elements prevents mishaps that compromise the BES.		
Manitoba Hydro		Section C. Measures: The measures are unclear as to what exactly the requirement to 'provide' entails? Would this be upon request or periodically? Please clarify. **Response: Normally, an entity would provide the results of its process during an audit, but it could be part of an investigation or a spot check.** Section D. Compliance: Compliance Enforcement Authority is defined as CEA and then the full term Compliance Enforcement Authority is continually used throughout. The acronym or words should be used consistently. **Response: The SDT acknowledges your comments.** Section D. Compliance: There is no specification for R1 and R2 retention. **Response: An entity would have to have documented communication protocols in force in perpetuity. Many entities have those in their existing operations procedure manuals.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Wisconsin Electric Power Co.		The definition of Operating Instruction introduces a "Command" as opposed to COM-

Organization	Yes or No	Question 5 Comment
		002 that defines and requires identification of a "Reliability Directive", yet there is no obligation to follow a Command nor to identify the communication as containing a Command. Fatal flaw with the proposed definition. **Response: The SDT believes when a definition stipulates a command that its context within a requirement means that a command must be obeyed.** **Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions.*** The requirement to have a protocol is likely an ok approach with an objective to achieve well understood communications and without the laundry list of things that must be in the document. Then given the RC-BA-TOP have stringent training requirements in PER-005, duplicating the requirements for good training and personnel proficiency evaluation lends itself to mandate a how to accomplish this for a specific task. In addition, the type of oversight implied in COM-003 is overreaching by NERC. **Response: The parts of the requirement are stipulated in order to ensure entities have a frame to build protocols that address communications in a uniform and consistent manner.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Public Service Company of New Mexico		The issuance of a draft RSAW in combination with the draft standard helped clarify the audit approach for some of the more subjective requirements such as R3 and R4 and how instances of deficiency will not be considered violations of the standard.

Organization	Yes or No	Question 5 Comment
		PNMR, Inc. and its two utility subsidiaries operating in TRE, SPP and WECC would like to encourage other SDTs to follow the lead of this SDT with respect to understanding that the RSAW is a critical piece of the Standards Development process.
Response: The OPCPSDT thanks you for your comments. The SDT agrees with your comments.		
Liberty Electric Power, LLC		The need for a prescriptive standard remains in doubt. The SDT has responded to comments questioning this need with a cite of a single study. The applicability of this study to GOPs is unclear. **Response: The SDT believes it has dramatically reduced the prescriptive nature of draft 2. The GOP receives Operating Instructions so it is an applicable entity.** We do not know the details, and question the number of cited miscommunications which involved GOPs. Further, we are unclear as to the number of miscommunications which involved two entities, as opposed to an entity giving direction to their own field operator. Such single-entity communications would not be covered by the proposed standard. Lowering miscommunications is an admirable goal, and again the SDT deserves commendation for their willingness to rethink the direction of the proposed standard. However, the standard, if needed, should be limited to requiring an entity to have communications procedures, and to reinforce those procedures on a periodic basis. The content of those procedures should properly be left to the best judgement of the individual entity. **Response: The SDT appreciates your encouragement and believes there is a need for a collective set of protocols for entities to communicate on the BES which has become and continues to become more tightly interwoven.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
MRO NSRF		The NSRF would like to thank the SDT for allowing entities to identify, assess, and correct deficiencies per R3 and R4. The proposed COM-003-1 uses the verb of

Organization	Yes or No	Question 5 Comment
		"issuing" in R1.1, 1.2, 1.3, 1.4, 1.5, 1.6, and 1.8, and uses the verb of "receiving" in R1.7, 1.9, 2.1, and 2.2. Since these are real-time actions and FERC Order 693, section 532 states in part, "This will eliminate ambiguities in communications during normal, alert, and emergency conditions", The NSRF recommends that the proposed definition of Operating Instruction have the words "in Real-time" at the end of the definition. The definition of System Operator also uses the term in real time in its definition. **Response: The SDT believes some "Operating Instructions" can be issued outside as well as in the Real Time horizon.** **The SDT has changed the language of the definition to read:** **"Operating Instruction —*A* command by a System Operator of *a Reliability Coordinator, or of a Transmission Operator, or of a Balancing Authority, where the recipient of the command is expected to act* to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. *Discussions of general information and of potential options or alternatives to resolve BES operating concerns are not commands and are not considered Operating Instructions*."** **The new language is italicized.** **This change is consistent with your recommendation.** R1.3 Some entities already have an agreed upon time zone standard such as MISO. MISO operates on Eastern Standard Time (EST) and has a business practice manual stating that. Suggest the requirement be modified to state: "that unless the operating entities already have an agreed upon operating time zone" then operations occurring across time zone boundaries should include a time-zone designation. **Response: The SDT believes an entity can accommodate these type of arrangements within its documented communication protocols.** R1.5 Naming conventions for terminal equipment can be long. For example, switch,

Organization	Yes or No	Question 5 Comment
		P2ZDQEN. In a switching order, this switch name may be mentioned several times and with each communication there is a required echo. The Alpha-numeric requirement is a one-size fits all solution and is not needed in all situations. Recommend the following as an alternative to the above language; The risk of unclear communication is addressed by R1.6 and R1.7. R1.5 should be reworded to require alpha-numeric clarifiers when reissuing an Operating Instruction to resolve a misunderstanding (per R1.6). **Response: The SDT believes the use of proper clarifiers leaves no doubt as to the content in an Operating Instruction. This would be especially true with switch Papa – two - Zulu-Delta-Quebec-Echo-November.** R1.4 The SDT has not made the case for the reliability benefit of the requirement for standardized names. Again, this requirement is being retired from TOP-002. "TOP-002-2a Requirement R18 on the basis that "This requirement adds no reliability benefit. Entities have existing processes that handle this issue." This requirement creates a compliance process where one is not needed. Each entity will be required to document and maintain each facility name and who is the responsible owner for the facility name. Suggest this requirement be removed. A list would be required for "every" element of the BES between entities to assure that the proper names are used in all Operating Instructions. The NSRF does not see the reliability benefit of using this naming convention since TOP-002 is already enforceable. **Response: TOP-002, R18 is being eliminated by the RTOSDT. The OPCPSDT believes that an entity' familiarity with its neighbor's Facilities and Elements increases situational awareness and reduces response times.** R.1.8 and R.1.9, The NSRF feels this would create an unnecessary burden to document routine notifications that rely on a burst messaging system and do not have any effect on the Bulk Power System. A one-way burst messaging system is typically used to quickly inform/advise. It is designed as one-way to provide efficiency and should not be used for Operating Instructions. It would be much

Organization	Yes or No	Question 5 Comment
		simpler to state that, "for the communications of Operating Instructions (regardless of the technology employed), the message must be repeated or confirmed by the recipient, and validated by the sender." This approach focuses on "Operating Instructions" and not the technology employed. The requirement as currently written does not allow for exceptions due to routine or informative communications. (Example: NERC Alerts to the Industry based are based on severity level and do not always require receipt of message by the Registered Entity). R1.8 states in part, " When issuing an oral Operating Instruction through a one-way burst messaging system...". The NSRF does not understand how an oral Operating Instruction can be made through a one-way messaging system? Unless, the Operating Instruction was captured on an answering machine or on an un-listened to voice mail message system. The NSRF views this as an electronic source to electronic source, as explained in the "note to auditor" within the proposed RSAW states, "Communication that is generated by an electronic source to another electronic source is not to be included as "oral or written Operating Instruction". If the NSRF is correctly assuming this, then no verbal or electronic confirmation is required. Please clarify. **Response: Many entities use all call for "Operating Instructions". Protocols would not apply to casual notifications and helpful information. The fact that in some cases it would be difficult, if not detrimental, to wait for responses from multiple parties. Some all call systems are an automated telephone call that is "shot gunned" to receivers. Your comments about electronic to electronic (machine to machine) communication not being addressed in this standard are correct. COM-003-1 deals with human to human communication.** R2. As stated in the Purpose statement, "To provide System Operators uniform communications protocols that reduce the possibility of miscommunication that could lead to action or inaction harmful to the reliability of BES." The NSRF concurs with this statement but questions why "all" DPs and GOPs are included in COM-003-1, Applicability section? The NSRF recommends that the Applicability section have

Organization	Yes or No	Question 5 Comment
		4.1.2 updated to read "For Distribution Providers, and Generator Operators that operate BES Elements shall have documented communication protocols for Operating Instructions that incorporate the following". **Response: GOPs and DPs are receivers of Operating Instructions and are applicable entities. If a DP or GOP do not have BES equipment or BES obligations such as load shedding the requirement would not apply.** On page 7, under Severe VSL it states: "The responsible entity did not include Parts 2.1 to 2.3 (3) of Requirement R2, in their documented communication protocols", part 2.3 does not exist; please clarify if this is to mean "part 2.2"? **Response: Thank you for pointing this out. The SDT has corrected the error.** The NSRF recommends R3 to be updated to state: "Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement R1 in a manner that identifies, assesses, and corrects deficiencies, if any. Where the entity is identifying, assessing, and correcting deficiencies, the entity is satisfactorily performing the requirement. **Response: The SDT recognizes the language from CIP v.5. The SDT believes the language changes to draft 4 will address some of your concerns.** **"R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:"** **This change was made to use standard language and methodology for control based standards. It is the same language as developed in the CIP v.5 standards. The SDT received many comments from industry requesting the CIP format for consistency.** **R3 and R4 are eliminated, but the CEA still follows the same guidance with regard to deficiencies and the quality of an entity's implementation of the communication**

Organization	Yes or No	Question 5 Comment
		protocols in a manner that identifies, assesses and corrects deficiencies. The COM-003-1 RSAW has been updated to reflect this change. Justification for R3. The above rewrite requires implementing a deficiency process, which puts the focus of R3 on a deficiency process and not on implementing R1. The proposed language changes says to implement R1 and does not require a specific process for deficiencies. This is consistent with CIP standards Version 5 draft 3 and Generally Accepted Government Auditing standard strategies (the yellow book or GAGAS). The proposed second sentence provides clarity on satisfactory performance expectations in the requirement. Note this proposed language should also be applied to R4. **Response: The SDT intends that the entity needs to "have" communication protocols as directed in R1 and R2. The process to identify, assess and correct is the mechanism for adherence to those protocols. Also see the comment above.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
SPP Standards Review Group		The processes outlined in R3 and R4 would be sufficient in themselves but with the requirements of PER-005 regarding identifying gaps and training to eliminate those gaps, it would appear that R3 and R4 add unnecessary duplication. Why do we need to have the same requirements in two different standards? Do some of the issues that are being addressed in the Paragraph 81 project come into play here? **Response: The SDT does not believes the context of training gaps is synonymous with deficiencies based on adherence to communication protocols. The standard does not specify how the entity corrects the deficiency. This is where PER-005 may come into play.** **The Paragraph 81 Project is still a work in progress. The SDT believes COM-003-1 and its elements would be retained after any paragraph 81 review. The opportunities for mistakes on the BES due to miscommunication are tremendous. A**

Organization	Yes or No	Question 5 Comment
		commenter on the COM-003-1, draft 2 posting calculated, after some assumptions that 35 million Operating Instructions per year occur on the BES. The exposure to risk should not be trivialized by suggesting these protocols and the process required in COM-003-1, draft 3 are only administrative and would be grist for elimination. Given the approval of COM-002-3 which places requirements on the DP and GOP when receiving a Reliability Directive, there appears to be the possibility of confusion regarding specific requirements on the DP and GOP in COM-003. During the COM-003 webinar, the comment was made that if COM-003 is approved, there may be a new project that would attempt to more efficiently coordinate the two standards. We would be supportive of that effort. **Response: The SDT will not disagree that there is an opportunity to combine the two standards.** The papers referenced in the Rationale and Technical Justification document supporting the need for this standard should be made available for review if the drafting team is using them as support for the justification for COM-003. **Response: The reference the SDT used was contained in a industry white paper initiated by a member of the OC and was appended in its entirety to the COM-003-1, draft 2 comments which is posted on the NERC website for project 2007-02.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Florida Municipal Power Agency		The RSAW seems to re-introduce the “zero-defect” problem by directing auditors to sample actual recordings of communications to see if the entity identified all deficiencies. The RSAW ought to be changed to get away from sampling actual voice communications altogether and simply review the evidence of the entity doing its own internal monitoring. For instance, the entity might decide to randomly sample a few hours a month itself and identify deficiencies in those hours, that should be the only voice recorded evidence required and not any other hours that the entity did not

Organization	Yes or No	Question 5 Comment
		randomly sample. In addition, the evidence for correction of deficiencies is not more voice recordings, but rather evidence of revised protocols, processes, procedures, or evidence of disciplinary action. So, FMPA believes the RSAW needs a lot of work.
Response: The OPCPSDT thanks you for your comments. The SDT believes that there has to be a test of the entity's process to make sure it is functioning effectively. It makes perfectly good sense for the CEA to sample the evidence over the same period to see if similar results are obtained. If the CEA discovers many deficiencies are not identified the standard requires the entity to evaluate its process to improve it. Possible non compliance can only result if the entity does not implement its own identified modifications or cannot justify why no modifications are required.		
MISO		The RSAW states that the applicable entity could be found non-compliant if the entity did not follow an auditor's suggested changes to remedy those deficiencies. This requirement is not found in COM-003-1 itself, and the RSAW therefore includes requirements that are beyond the scope of the Standard it supports. **Response: Please reference 3.4 and 4.4. The entity can only be found non compliant when the entity does not implement its own identified modifications or cannot justify why no modifications are required. For an entity not to legitimately address these elements it would be a violation.** The draft RSAW also introduces subjective concepts that place uncontrolled discretion in the hands of auditors. For instance, the RSAW states that the size of the sample of the entity's communication activities reviewed to verify whether the entity is identifying, assessing, communicating and correcting deficiencies "will be based on the auditor's confidence in the entity's ability to identify, assess, and correct its deficiencies." MISO submits that sample size should be determined mathematically and in a manner that can itself be audited. Indeed, NERC's own Sampling Methodology Guidelines and Criteria states that "Statistical sampling helps ensure a high confidence level of compliance for the larger population of documents when a smaller population is statistically sampled . . . Statistical sampling should be employed when auditing all processes, procedures and any documentationâ€related evidence

Organization	Yes or No	Question 5 Comment
		(documents, logs, voice recordings, etc.) when a sample is required because the entire population cannot be audited." Allowing an auditor to determine sample size based on an abstract concept such as confidence is contrary to NERC's own sampling methodology; would prevent Registered Entities from challenging such sample sizes; and could allow auditors to make such decisions punitively. **Response: A statistical modeling approach is what the SDT contemplated in developing these requirements. NERC compliance and auditing professionals understand and would welcome such an approach. The SDT does not want to dictate the process controls but believe the structure you propose is sensible and if it was found to be effective, could be developed as a best practice by the industry. The OC has developed operating guidelines that could serve as an incubator for best practices.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Essential Power, LLC		The SDT received many comments questioning the need for the standard. They are relying on a single EPRI study that claims 19% of 400 studied switching errors (76 events) resulted from miscommunication, but this statistic is meaningless without context. Specifically:-Did any of these 76 events involve GOPs? If not, is it appropriate to make COM-003-1 applicable to these entities at all, much less for routine communications of minor importance? -How many events involved oral communication, vs. written miscommunication? Of the oral miscommunications, how many involved miscommunication between separate entities, as opposed to internal entity miscommunication? After all, internal miscommunications, which may be the vast majority of the events, will not be covered by the standard.
Response: The OPCPSDT thanks you for your comments. There were two studies cited by the SDT. Both studies were contained in the OC White Paper which a commenter appended to the COM-003-1, draft 2 industry comments. The passage discussing the studies did not go into the detail you request in your comments. The SDT believes any entity is susceptible to communication errors and that the general percentages over the cases study are clear indicators that communication is a significant factor		

Organization	Yes or No	Question 5 Comment
impacting reliability.		
SERC OC Standards Review Group		The SERC OC Standards Review Group does not agree that the mandatory/prescriptive procedure for three part communications in essentially all oral communications will improve reliability of the BES. The standard needs to be changed to better reflect industry comments from this comment period and the previous ballot. The comments expressed herein represent a consensus of the views of the above named members of the SERC OC Standards Review Group only and should not be construed as the position of SERC Reliability Corporation, its board, or its officers.
Response: The OPCPSDT thanks you for your comments. The SDT believes communication errors reduce reliability on the BES. The SDT has changed the standard dramatically to reflect industry comments.		
ISO/RTO Standards Review Committee		The SRC requests that the SDT include a milestone in the implementation plan that requires NERC and the industry to reach agreement on how internal controls will be monitored by the CEAs BEFORE this standard is effective. **Response: The SDT has integrated the RSAW review to the process. This is a transparent outreach to industry to create a better standard.** The SRC believes that this standard could be improved by modifying the subparts of R1 and R2 to include parts that are communication protocols directly relevant to the improving situational awareness and shortening response time. **Response: The SDT believes most of the protocols do just that. The SDT would appreciate any recommendations for additional or supplementary protocols from the ISO/RTO Standards Review Committee.** Requirements R1.1, 1.2 in theory shorten response time by providing a commonly understood language and clock format for Operating Instructions but are unnecessary in practice.

Organization	Yes or No	Question 5 Comment
		Response: These may be basic protocols but they are important. They should be relatively easy to implement. The modification includes the removal of: o R1.3 as it does not improve situational awareness or shorten response time. This is such a small population of Operating Instructions and any real time Operating Instructions will be immediate. This is overly prescriptive and provides little if any reliability benefit. This is not a documented reliability concern in any investigation, FERC Order, Blackout report, etc. that the SRC is aware of. **Response: The SDT realizes the population may be small but the time element of an event is critical to an Operating Instruction.** o R1.4 as it does not improve situational awareness or shorten response time. It may actually confuse entities that have established practices that may have to make changes to accommodate this requirement part. This is overly prescriptive and provides little if any reliability benefit. This is not a documented reliability concern in any investigation, FERC Order, Blackout report, etc. that the SRC is aware of. **Response: The SDT believes familiarity with a neighboring entity's Facilities and Elements shortens response time and improves situational awareness.** o R1.5 as it does not improve situational awareness or shorten response time. It may actually confuse entities that have established practices that may have to make changes to accommodate this requirement part. This is overly prescriptive and provides little if any reliability benefit. This is not a documented reliability concern in any investigation, FERC Order, Blackout report, etc. that the SRC is aware of. **Response: Clarifiers ensure an accurate issuance and reception of alpha-numeric information contained in an Operating Instruction. The benefit of which is reduced errors operating the BES.** o R1.6 and R1.7, and 2.1 as it does not improve situational awareness or shorten response time. It actually lengthens response time and does not improve situational

Organization	Yes or No	Question 5 Comment
		awareness as it does not address the content of the communication. This is already addressed through COM-002-3 and will only add to confusion for entities to have a COM-003-1 requirement in the overlap it creates. This is not a documented reliability concern in any investigation, FERC Order, Blackout report, etc. that the SRC is aware of where lack of 3 part communication directly contributed to a adverse reliability impact on the BES. The NERC OC established guidelines that outline best practices for industry and are sufficient to communicate such best practices. As the drafting team has communicated in its previous white paper, a significant amount of industry already employs 3 part communication during normal and emergency situations. **Response: The SDT believes three part communication is an effective and proven tool that ensures communications are clear and unambiguous.** Requirements R1.8, 1.9, and 2.3 could shorten response time by providing a protocol for quickly disseminating information from one to multiple parties. The drafting team should craft the standard to address communication between functional entities and not within entities to properly address FERC Order and Blackout Recommendation that clearly speaks to communication protocols between entities. To not do so is expanding upon the scope of the SAR, creates confusion, and is not focusing on the reliability concerns cited in the FERC Order 693 and Blackout Report Recommendation #26. **Response: The SDT has changed the language to Requirement R1 and R2 adding "to between functional entities" which is consistent with your comment.** The draft RSAW introduces subjective concepts as well as a new requirement. An auditor is to: o The CEA is to ... o Understand the process .... o The CEA is to review a sample of the entity's communication activities to verify

Organization	Yes or No	Question 5 Comment
		whether the entity is identifying, assessing, communicating and correcting deficiencies. If the entity had implemented corrections, the sample is to be pulled from activities conducted after any corrections to the entity's process were implemented or, if the correction had been recently implemented, the CEA is to consider the impact the correction will have when reviewing the samples. This sample size will be based on the auditor's confidence in the entity's ability to identify, assess, and correct its deficiencies. o Where the auditor ... o If an auditor cannot verify that the entity is adequately identifying [SRC: suggest changing "is" to "is not"], assessing, and correcting its own deficiencies due to limitations in its process, the auditor will not have a finding of non-compliance. The auditor will provide the entity with recommendations as necessary. If the CEA finds in subsequent, follow up audits or other compliance monitoring activities that the same or similar deficiencies continue to occur after the entity was provided the feedback by the CEA, the CEA will seek to understand what changes the entity made to their process based on prior recommendations.["same or similar deficiencies" is subjective and opens the compliance to CEA vision of what is "similar".] New Requirement: If the CEA finds in subsequent, follow up audits or other compliance monitoring activities that the same or similar deficiencies continue to occur after the entity was provided the feedback by the CEA, the CEA will seek to understand what changes the entity made to their process based on prior recommendations. If changes to the entity's process are not implemented to identify, assess and correct deficiencies, the Auditors may make a determination of possible non-compliance with Requirement 3, Part 3.4. **Response: The SDT does not interpret this as a new Requirement. It is guidance for the CEA on how to professionally audit Requirement 3, Part 3.4. This RSAW was developed in collaboration with the SDT and both parties believe the guidance provides the auditor specific instructions that actually reduce subjectivity.**

Organization	Yes or No	Question 5 Comment
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Northeast Power Coordinating Council		The white paper written by the OC addressed the issues covered by this Standard.
Response: The OPCPSDT thanks you for your comments. The SDT believes those documents, while relevant and well written do not carry the authority of an approved standard.		
Hydro One		The white paper written by the OC addressed the issues covered by this Standard.
Response: The OPCPSDT thanks you for your comments. The SDT believes those documents, while relevant and well written do not carry the authority of an approved standard.		
Hydro Quebec TransEnergie		The white paper written by the OC addressed the issues covered by this Standard. Also the requirements 1.6, 1.7 and 2.1, 2.2 seem to be redundant with the requirement R2 of COM-002-2. Both touch on the issue of ensuring misunderstandings by requiring the parties to repeat, restate, rephrase or recapitulate the information transmitted/received. If adhering to the philosophy of Project 2013-02 Paragraph 81 of FERC, we should remove unnecessary requirements as part of NERC,s Find, Fix and Track Process
Response: The OPCPSDT thanks you for your comments. The SDT believes those documents, while relevant and well written do not carry the authority of an approved standard. COM-002-2a, 2R will be retired when COM-002-3 and COM003-1 are approved by FERC. Paragraph 81 is still under development and will likely not apply to COM-003-1.		
Consumers Energy		This is an attempt to make a requirement for 3 way communication for all operating communications. Not all operating conversations avail themselves to that format. The concept is good but allowances must be made for other situations.
Response: The OPCPSDT thanks you for your comments. The SDT has pointed out that these protocols are targeted only for		

Organization	Yes or No	Question 5 Comment
Operating Instructions that command direct changes to the BES, not all operating communications and casual conversations.		
JEA		We beleive that three-part communications should only be necessary for directives. Also COM002 and COM003 should be merged into one standard.
Response: The OPCPSDT thanks you for your comments. The term Operating Instruction is a directive in nature. Its definition uses the term "command" which is a strong form of a directive.		
Independent Electricity System Operator		We do not see the need for this standard. We feel that Reliability Standards should have performance based objectives, rather than prescriptive requirements that outline "how" to meet an objective. This draft is not consistent with this approach. If the majority of the industry also express a similar view, we urge the SDT to bring this to the Standards Committee's attention, and seek its advice on way forward, including stopping this project altogether.
Response: The OPCPSDT thanks you for your comments. The SDT stands by this draft of the standard and has not received any disapproval from the Standards Committee. The Standards Committee has reaffirmed the present course of the standard at its October 10, 2012 meeting.		
NIPSCO		We want to see COM-002 and COM-003 combined, therefore we voted Negative. The Internal Controls in R3 & R4 are workable.
Response: The OPCPSDT thanks you for your comments. The SDT cannot disagree with combining the two standards, but it is outside the scope of the SAR for this project.		
Exelon		We would like to point out that the OI definition includes another defined term, "System Operator". In the Glossary, this is defined as is an individual at a control center, including a Generator Operator. Control center is not currently defined but has a proposed definition in CIP version 5 that puts limits on which generator operators (# of units) work in "control centers". If approved as part of CIP version 5, this definition of Control Center is likely to cause confusion when applying this and

Organization	Yes or No	Question 5 Comment
		other standards. Will OI apply to all Generator Operators or just those working in "Control Centers" as defined by CIP ver. 5. In spite of our concerns with the current draft, Exelon intends to vote affirmative on this ballot for COM-003. Significant improvements have been made but there is opportunity to make additional changes before the final ballot.
Response: The OPCPSDT thanks you for your comments. GOPs that receive Operating instructions from other Functional Entities would be subject to the protocols .		
Southern Company		While Southern agrees that 3-part communications is a good utility practice that has been used by operating entities for many years, Southern disagrees with the broadness of the types of communications the SDT is suggesting for requiring 3-part communications. In some of these cases, 3-part communications are not required to protect the reliability of the system. In fact, this prescriptive requirement, if used on all communications that could fall under "Operating Instructions" (which can be very general information at times), would take System Operators time away from other tasks that are more critical to maintaining reliability. **Response: Based on the definition of Operating Instructions the SDT cannot see any remote reference to general information. The SDT has responded to comments in the last 3 drafts that it applies to a command from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. The term command is very clear and distinct in meaning and strength. A command is not a discussion of general information. The definition has been modified to add clarity.** Please note that there are numerous (i.e. in the millions) of conversations between operating entities each year and some important tasks could be missed or delayed if required to follow a standard script for everything. **Response: The SDT believes just the opposite will happen. Communications will be more structured and focused on a professional exchange of commands to operate**

Organization	Yes or No	Question 5 Comment
		the BES reliably.
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
City of Tallahassee		While TAL is voting affirmative, we still have some reservations that Compliance Enforcement will cite specific instances of non-3-way communications as violations. However, we are ready to codify the need for standardized communications as defined in the purpose of the standard and Blackout recommendation #26 and thank the drafting team for their hard work in avoiding a "zero-defect" standard.
Response: The OPCPSDT thanks you for your comments. The SDT believes that CEA is supportive of this form of standard and is confident it will be a superior alternative to zero defects.		
Xcel Energy		Xcel Energy feels this new draft of COM-003-1 is greatly improved than prior versions. We are especially in favor of the internal controls approach the team has taken. However, while we have identified several areas of concern with this latest draft, our issue with R1.5 is the single item that is preventing us from voting affirmative. As indicated in our previous comments, our issue is that we do not believe alpha-numeric identifiers should be required for all oral Operating Instructions. Instead, we feel this should be an optional tool that the operator may use where clarity in the Operating Instruction is needed or anticipated. (For example, the operator may use alpha-numeric clarifiers to restate the original Operating Instruction, when it was apparent from the receiver's repeat back that the details of the Operating Instruction were not accurately understood.) **Response: The SDT intends for alpha numeric clarifiers only to be used only when alpha-numeric information is contained in the "Operating Instruction." The SDT believes that use of these clarifiers prevent miscommunication that would negatively impact the BES. e.g. switch 15 R vs.50 R, "15 and 50" sound alike and could easily be miscommunicated.** Below are additional issues and modifications Xcel Energy would like to see

Organization	Yes or No	Question 5 Comment
		addressed: 1)Since a Distribution Provider may issue Operating Instructions that would impact the BES, we feel they should be added to the applicability under R1 and R3. 2) We recommend that the term "functional entities" be capitalized in R1.1, and a reference added to Section A4 of the standard. This way it is clear that the term includes all entities under the standard (Section 4) and not just the entities under R1. **Response: The SDT believes the DP is a receiver of Operating Instructions. The SDT would appreciate if you could provide examples of issued Operating Instructions by a DP the SDT would like to consider the proposal.** **The SDT made corrections to R1.1. Thank you for bringing it to our attention.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		
Arizona Public Service Company		no
Response: The OPCPSDT thanks you for your comments.		
Southwestern Power Administration		No additional comments.
Brazos Elextric Power Cooperative, Inc.		See ACES comments.
Response: The OPCPSDT thanks you for your comments. Please see our responses to ACES Comments.		
Edison Electric Institute		EEI generally supports the proposed COM-003 structure and content. We believe that COM-003 will provide a good response to both FERC Order No. 693 (P. 540) and Blackout Recommendation #26 in the U.S./Canada joint Blackout Report. EEI

Organization	Yes or No	Question 5 Comment
		commends the drafting team for its work and for laying out a pragmatic framework for tightened communications protocols. Since the new proposed draft marks a significant change from the previous direction, EEI understands that some issues need to be considered. Some can be addressed by the drafting team and others are likely beyond the scope of the team. In general, companies seek to ensure that mandatory requirements when applied in the future will avoid causing confusion in real-time. For example, the definition of "Operating Instruction" in draft COM-003-1[(2)] may need some clarification to make sure that it sufficiently differentiates such communications from a "Reliability Directive" issued under COM-002-3. [(3)] **Response: The SDT believes the requirements of COM-002-3 define the circumstances when a Reliability Directive becomes active. The Functional Entity announces it when an Emergency or Adverse Reliability Impact is occurring or has occurred. COM-003-1 is focused on having an entity having a process that it uses to ensure it adheres to its own documented communication protocols by identifying, assessing and correcting deficiencies.** Clarification may be needed to synchronize the COM-003 process requirements with protocols in already-approved COM-002-3[(4)]. We view these as relatively minor changes that would not require substantial changes to the draft COM-003 language. **Response: The OPCPSDT has adopted the same language for three part communication as written in COM-002-3, R2 and R3 to be consistent and to avoid**

[2] Proposed COM-003-1: http://www.nerc.com/docs/standards/sar/COM-003-1__20120821_Clean.pdf

"**Operating Instruction** — Command from a System Operator to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System."

[3] Pending COM-002-3: http://www.nerc.com/docs/standards/sar/COM-002-3_Standard_20120607_Clean.pdf

[4] "**Reliability Directive:** A communication initiated by a Reliability Coordinator, Transmission Operator, or Balancing Authority where action by the recipient is necessary to address an Emergency or Adverse Reliability Impact."

Organization	Yes or No	Question 5 Comment
		confusion. In addition, companies also have questions regarding language referred to as 'internal controls' or 'zero defects' language, and how NERC and the regions will apply various judgments on potential violations under this new and untested concept. While both CIP v.5 and draft COM-003 take aim at certain symptoms, it is difficult for companies to see how NERC will actually perform these tasks since no field experience has been tested or broadly communicated with stakeholders. Instead of this piecemeal approach, EEI has strongly believed for several years that NERC should address this issue as a strategic matter and develop a comprehensive plan that would set both compliance and enforcement on a more sustainable foundation. The resources being applied to compliance and enforcement across the electric industry need to be efficiently applied. EEI continues to urge NERC to make commitments to develop a comprehensive framework that will redesign the program. **Response: NERC leadership has been communicating the need and intent of control based standards and is advocating it through CIP v.5 and COM-003-1. The SDT will pass your comments to NERC executive leadership for further action.**
Response: The OPCPSDT thanks you for your comments. Please see our responses above.		

END OF REPORT