Project 2007-02 Operating Personnel Communications Protocols
Unofficial Comment Form for Standard COM-003-1 Operating Personnel Communications Protocols

Please **DO NOT** use this form to submit comments. Please use the electronic comment form to submit comments on the proposed draft COM-003-1 Operating Personnel Communications Protocols standard. Comments must be submitted by 8 p.m. ET **December 13, 2012**.

If you have questions please contact Joseph Krisiak at Joseph.Krisiak@nerc.net or by telephone at 609-651-0903.


Background Information
Effective communication is critical for real time operations. Failure to successfully communicate clearly can create misunderstandings resulting in improper operations increasing the potential for failure of the Bulk Electric System (BES).

The Standard Authorization Request (SAR) for this project was initiated on March 1, 2007 and approved by the Standards Committee on June 8, 2007. It established the scope of work to be done for Project 2007-02 Operating Personnel Communications Protocols (OPCP). The scope described in the SAR is to establish essential elements of communications protocols and communications paths such that operators and users of the North American BES will efficiently convey information and ensure mutual understanding. The August 2003 Blackout Report, Recommendation Number 26, calls for a tightening of communications protocols. FERC Order 693 paragraph 532 amplifies this need and applies it to all Operating Instructions. This proposed standard’s goal is to ensure that effective communication is practiced and delivered in clear language and standardized format via pre-established communications paths among pre-identified operating entities.

The SAR indicated that references to communication protocols in other NERC Reliability Standards may be moved to this new standard. The SAR instructed the standard drafting team to consider incorporating the use of Alert Level Guidelines and three-part communications in developing this new standard to achieve high level consistency across regions. The OPCP Standards Drafting Team (SDT) believes the Alert Level Guidelines, while valuable, belong in a separate standard and has petitioned the Standards Committee to approve the transfer to another standard or to start a separate project.

The upgrade of communication system hardware where appropriate is not included in this project (it is included in NERC Project 2007-08 Emergency Operations).
The standard will be applicable to Transmission Operators, Balancing Authorities, Reliability Coordinators, Generator Operators (GOPs), and Distribution Providers (DPs). These requirements ensure that communications include essential elements such that information is efficiently conveyed and mutually understood for communicating changes to real-time operating conditions and responding to directives, notifications, directions, instructions, orders, or other reliability related operating information.

The Purpose statement of COM 003-1 states: “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.”

1. **New NERC Glossary terms:** The SDT has changed the definition of “Operating Instructions” proposed in the Standard version 3 and added additional language to clarify its meaning and intent.

   Operating Instructions differentiates the broad class of communications that deal with changing or altering the state of the BES from general discussions of options or alternatives. Changes to the BES operating state with unclear communications create increased opportunities for events that could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures.

   This term is proposed for addition to the NERC Glossary to establish meaning and usage within the electricity industry.

2. **R3 and R4 are eliminated, there is proposed new language for R1 and R2:** “Implement, in a manner that identifies, assesses and corrects deficiencies, documented communication protocols for Operating Instructions between Functional Entities that include the following:” The OPCP SDT is proposing this language change because of strong industry comment requesting it, because it is consistent with language in other control based standards and because it conveys the same approach to identifying, assessing and correcting deficiencies. The SDT would also note the reference to “for Operating Instructions between Functional Entities” for additional industry comment.

3. **Documented Communication Protocols:** The OPCP SDT has incorporated a requirement for an applicable entity to implement documented communication protocols that incorporate the following elements:

   a) **English language:** 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.
b) **24 hour clock R1 Part 1.2 and Time zone reference R1 Part 1.3:** Use the 24-hour clock format when referring to clock times when issuing an oral or written Operating Instruction.

Use of the time, the time zone where the action will occur and indication of whether the time is daylight saving time or standard time when issuing an oral or written Operating Instruction that refers to clock times between Functional Entities in different time zones.

The OPCP SDT proposed this change to address comments by industry while adhering to the recommendations of the August 14th, 2003 task force report.

c) **Line and Equipment Identifiers:** Use of the name specified by the owner(s) for each Transmission interface Element or Transmission interface Facility when referring to a Transmission interface Element or a Transmission interface Facility (when issuing) in an oral or written Operating Instruction, unless another name is mutually agreed to by the Functional Entities.

d) **Alpha-numeric clarifiers:** Use of alpha-numeric clarifiers when issuing an oral Operating Instruction for Facilities and Elements in instances where the nomenclature of Facilities or Elements are in alpha-numeric format (e.g. if an entity designated a circuit breaker “12B”, 12B – one two bravo – would need alpha-numeric clarifiers if used in an oral Operating Instruction).

e) **Three-part Communication:**

   **When issuing** an oral two party, person-to-person Operating Instruction, require the issuer to:
   
   • Confirm that the response from the recipient of the Operating Instruction was accurate, or
   • Reissue the Operating Instruction to resolve a misunderstanding.

   **When receiving** an oral two party, person-to-person Operating Instruction, require the recipient to repeat, restate, rephrase, or recapitulate the Operating Instruction.

f) **One-way burst messaging system to multiple parties (all call):** 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.

g) **Three-part Communication: For DPs and GOPs:** When receiving an oral two party, person-to-person Operating Instruction, require the recipient to repeat, restate, rephrase, or recapitulate the Operating Instruction.

h) **One-way burst messaging system to multiple parties (all call): For DPs and GOPs:** 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.
4. **Violation Severity Level (VSL) and Violation Risk Factor (VRF) Changes from version three**: The OPCP SDT reviewed the VRFs and VSLs associated with R1, R2, and made changes to more closely conform to NERC and FERC guidelines.

**The SDT is proposing to retire Requirement** R4 from COM-001 and incorporate it into Requirement R2 of this draft COM-003-1. Since Requirement R4 from COM-001-1 carries over essentially unchanged there is no specific question related to it in this Comment Form.

The choice of VRFs was made on the basis of the potential impact on the Bulk Electric System of a miscommunication during Operating Instructions. Requirements R1 and R2 are assigned a Medium Violation Risk due to their potential direct impact on BES reliability.

Time Horizons were selected to reflect the period within which the requirements applied. Requirements R1 and R2 must be implemented in long term planning operations and therefore were assigned a Time Horizon of Long Term Planning.
Questions:

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a “check” mark in the appropriate boxes by double-clicking the gray areas.

Please review the request for an interpretation, the associated standard, and the draft interpretation and then answer the following questions.

1. Do you agree with the changes made to the proposed definition “Operating Instruction” (now proposed as a “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.”) to be added as a term for the NERC Glossary? If not, please explain in the comment area of the last question.

☐ Yes
☒ No

Comments: The proposed definition as worded can be misconstrued to mean a command made by System Operator to a Reliability Coordinator, or to a Transmission Operator, or to a Balancing Authority. Propose to change the wording to the following:

Operating Instruction —A command by a Reliability Coordinator System Operator, a Transmission Operator System Operator, or a Balancing Authority System Operator, 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.

2. The SDT has proposed new language in COM-003-1, R1 and R2: “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 from draft 3 are eliminated. Do you agree with these proposed requirement changes? If not, please explain in the comment area of the last question.

☒ Yes
☐ No
Comments:

3. **Do you agree with the VRFs and VSLs for Requirements R1 and R2?**
   - Yes
   - No

Comments:

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

   Comments: Functional entity is capitalized throughout the Standard, yet functional entity is not a defined term in the NERC Glossary.

   Propose changing the wording in Requirement R1 to the following:

   R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall have documented communication protocols that include identification, assessment, and correction of deficiencies for Operating Instructions between functional entities that include the following:
   [Violation Risk Factor: Medium [Time Horizon: Long-term Planning ]]

   The Sub-requirements introduce too much detail into the Standard. This detail dictates “how” something is to be done, rather than “what” is to be done. Following are comments to be considered on the sub-requirements should they remain in the Standard.

   Propose changing the wording in Sub-requirement 1.1 to the following:

   1.1. Use of the English language when issuing or responding to an oral or written Operating Instruction, unless another language is mandated by law or regulation or agreement.

   Propose changing the wording in Sub-requirement 1.3 to the following:

   1.3. Use of the time, the time zone where the action will occur and indication of whether the time is daylight saving time or standard time when issuing an oral or written Operating Instruction that refers to clock times between functional entities in different time zones, unless time protocols are defined in written agreements between the functional entities.

   Regarding Sub-requirement 1.5, the use of alpha-numeric clarifiers should be no more than a best practice. In case of uncertainty, 3 part communication as specified in Sub-requirement 1.6 would catch any ambiguities.

   Propose changing the wording in Sub-requirement 1.8 to the following:

   1.8. 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 period (for example an all call system), verbally or electronically confirm receipt or that communications paths were established to receive the message from one or more receiving parties.
Regarding the Time Horizons for Requirements R1 and R2, they should be Real-time Operations since the communications are occurring in real time, and the implementation of the protocol is the intent of R1 and R2.

Suggest that the Standard be further clarified so that the intended purpose is to ensure that an entity has implemented a communications protocol with various core attributes, such as three part communication. We believe that it is not the SDT's intent that an entity will be found out of compliance for instances when an operating instruction was given which did not conform to its implemented protocol. Compliance will only be assessed if the Protocol procedure itself was not formally implemented and not to individual violations of such procedure which will be handled by internal controls to track and address any deficiency. In the context of implementation, sufficient implementation as used in this Standard could be demonstrated by management approved protocol procedures issued to the appropriate individuals in the organization and documented training. The Standard is not envisioned to be a zero-defect Standard however, and unless entities and audit staff have clear understandings of what "implement" means there may be instances when an auditor may find non-compliance beyond the intent of the Standard's Purpose and the Reliability Assurance Initiative concept being brought forward with this Standard. Suggest clarification to the word implement as it is used in the Standard and what activities in the compliance area will ensure proper audit expectations are set.