

## Industry Advisory

### COM-002-2 – Communications and Coordination

Initial Distribution: July 15, 2009 *(revised July 24, 2009)*

**This issue has resulted in diminished operational effectiveness and reduced reliability for the Bulk Power System.**

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**Distribution:** **Primary Distribution: Primary Compliance Contacts**  
Reliability Coordinators, Balancing Authorities, Transmission Operators, Generation Operators, Distribution Providers, and Regional Entities.

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**Primary Interest Groups:** System Operators, Transmission and Generation Operations Engineers, Operating and Field personnel operating or maintaining protection and control facilities on the Bulk Power System (BPS).

**Advisory:** Reliability Coordinators, Balancing Authorities, Transmission Operators, Generation Operators, and Distribution Providers are encouraged to review their processes and procedures for issuing verbal directives and reinforce the use of proper three-way communication protocols while conducting operations on the BPS.

Issuing clear and concise directives by stating the directive, requiring the recipient of the directive to repeat the information back correctly, and then acknowledging the response as correct or repeating the original statement to resolve any misunderstandings is commonly referred to as "three-way communication."

**Advisory:**  
(continued)

The effective use of three-way communication is essential to the reliable operation of the BPS.

As further guidance, NERC advises entities in receipt of this notice to conduct a thorough review of the COM-002-2 requirements with their operations personnel and ensure adherence to the proper exercise of the three-way communication protocol in real-time operations. Additionally, entities are advised to consider including a segment on proper three-way communication protocol in the next practical operator training cycle, including emergency procedure and system restoration drills.

**Background:**

NERC has identified a trend of system operator communication deficiencies during the course of event analyses and compliance violation investigations on events that have taken place during the past year. Evidence has shown that involved system operators did not issue clear and concise directives or adhere to the use of three-way communication protocols as required by Reliability Standard COM-002-2. These deficiencies reveal a potential risk to reliability of the BPS.

**Three-Way Communication**

Three-way communication is the universally accepted communications protocol used by the military, air traffic controllers, nuclear operators, system operators, etc. Use of this protocol is required by NERC Reliability Standards for all Reliability Coordinators, Transmission Operators, Balancing Authorities and Generator Operators for two primary purposes: to ensure personnel safety and maintain system reliability.

The COM-002-2 Reliability Standard requires three-way communications in which the system operator shall issue directives in a clear, concise and definitive manner; the recipient of the directive shall repeat the information back correctly; and the system operator shall acknowledge the response as correct or shall repeat the original statement to resolve any misunderstandings. This communications protocol is used to ensure there is no misunderstanding with respect to the directive.

**Clear and Concise Directives**

An important aspect of reliable and efficient real-time operation is to have clear and unambiguous communications when directives are issued. To that end, BPS equipment involved in a directive should be specifically identified by unique name or system designator for operation (such as: "Open 345 kV breaker number 123.") instead of being referred to in generic or less-determinate terms (such as: "Let's get that breaker open."). Requirement 2 in COM-002-2 stipulates that the use of clear, concise and definitive three-way communication is required in all circumstances where a directive is issued. Therefore, system operators should always use specific equipment designations when issuing directives.

# NERC

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