

#### 1. Purpose

The purpose of this **reliability standard** is to improve communications for the issuance of operating instructions<sup>1</sup>, including **directives**, with predefined communications protocols to reduce the possibility of miscommunication that could lead to action or inaction harmful to the **reliability** of the **interconnected electric system**.

#### 2. Applicability

This **reliability standard** applies to:

- (a) the **operator** of a **transmission facility**;
- (b) the **operator** of a **generating unit** that ~~has a maximum authorized real power greater than or equal to 5 MW;~~ is part of the **bulk electric system**;
- (c) the **operator** of an **aggregated generating facility** ~~has a maximum authorized real power greater than or equal to 5 MW~~ that is part of the **bulk electric system**;
- (d) the **operator** of an **electric distribution system** that is directly connected to the **transmission system** or to **transmission facilities** within the City of Medicine Hat; and
- (e) the **ISO**.

#### 3. Requirements

**R1** The **ISO** and each **operator** of a **transmission facility** ~~must~~ shall develop documented communication protocols for its operating personnel that issue or receive operating instructions, including **directives**. The protocols ~~must~~ shall, at a minimum:

- R1.1** require its operating personnel that issues or receives an oral or written operating instruction to use the English language;
- R1.2** require its operating personnel that issues an oral two-party, person-to-person operating instruction to take one of the following actions:
  - (a) confirm the receiver's response if the repeated information is correct;
  - (b) reissue the operating instruction if the repeated information is incorrect or if requested by the receiver; or
  - (c) take an alternative action if a response is not received or if the operating instruction was not understood by the receiver.
- R1.3** require its operating personnel that receives an oral two-party, person-to-person operating instruction to take one of the following actions:
  - (a) repeat, not necessarily verbatim, the operating instruction and receive confirmation from the issuer that the response was correct; or
  - (b) request that the issuer reissue the operating instruction;

<sup>1</sup> For the purposes of COM-002-AB-4, "operating instruction" means a command by operating personnel responsible for the real-time operation of the **interconnected electric system** to change or preserve the state, status, output, or input of a **system element**. A **directive** is a type of an **operating instruction**. (a discussion of general information and of potential options or alternatives to resolve **interconnected electric system** operating concerns is not a command and is not considered an operating instruction.)

- R1.4** require its operating personnel that issues a written or oral single-party to multiple-party burst operating instruction to confirm or verify that the operating instruction was received by at least one receiver of the operating instruction;
- R1.5** specify the instances that require time identification when issuing an oral or written operating instruction and the format for that time identification; and
- R1.6** specify the nomenclature for transmission interface **system elements** and interface **transmission facilities** when issuing an oral or written operating instruction.
- R2** The **ISO** and each **operator** of a **transmission facility** **mustshall** conduct initial training for each of its operating personnel responsible for the real-time operation of the **interconnected electric system** on the documented communications protocols developed in accordance with requirement R1 prior to that individual **operator** issuing an operating instruction, including **directives**.
- R3** Each **operator** of an **electric distribution system**, **operator** of a **generating unit**, and the **operator** of an **aggregated generating facility** **mustshall** conduct initial training for each of its operating personnel who can receive an oral two-party, person-to-person operating instruction prior to that individual **operator** receiving an oral two-party, person-to-person operating instruction, including **directives**, to either:
- (a) repeat, not necessarily verbatim, the operating instruction and receive confirmation from the issuer that the response was correct; or
  - (b) request that the issuer reissue the operating instruction.
- R4** The **ISO** and each **operator** of a **transmission facility** **mustshall** at least once every 12 months:
- R4.1** assess adherence to the documented communications protocols in requirement R1 by its operating personnel that issue or receive operating instructions, including **directives**, provide feedback to those operating personnel, and take corrective action, as deemed appropriate by the entity, to address deviations from the documented protocols; and
- R4.2** assess the effectiveness of its documented communications protocols in requirement R1 for its operating personnel that issue or receive operating instructions, include **directives**, and modify its documented communication protocols, as necessary.
- R5** The **ISO**, ~~when issuing and~~ **operator of a transmission facility that issues** an oral two-party, person-to-person **directiveoperating instructions during an emergency**, excluding written or oral single-party to multiple-party burst **directives, mustoperating instruction, shall** either:
- (a) confirm the receiver's response if the repeated information is correct (in accordance with requirement R6);
  - (b) reissue the **directiveoperating instruction** if the repeated information is incorrect or if requested by the receiver; or
  - (c) take an alternative action, if a response is not received or if the **directiveoperating instruction** was not understood by the receiver.
- R6** ~~Each~~The **ISO and each** **operator** of an **electric distribution system**, **operator** of a **generating unit**, **operator** of an **aggregated generating facility**, and **operator** of **transmission facility** that receives an oral two-party, person-to-person **directiveoperating instructions during an emergency**, excluding written or oral single-party to multiple-party burst **directives, mustoperating instruction, shall** either:
- (a) repeat, not necessarily verbatim, the **directiveoperating instruction** and receive confirmation from the issuer that the response was correct, or
  - (b) request that the issuer reissue the **directiveoperating instruction**.

**R7** The ISO ~~and each operator of a transmission facility~~ that issues a written or oral single-party to multiple-party burst ~~directive must~~ directive operating instruction during an emergency shall confirm or verify that the ~~directive~~ directive operating instruction was received by at least one receiver of the ~~directive~~ directive operating instruction.

#### 4. Measures

The following measures correspond to the requirements identified in section 3 of this **reliability standard**. For example, MR1 is the measure for requirement R1.

- MR1** Evidence of having developed documented communication protocols for operating personnel that issue or receive operating instructions, including **directives**, as required in requirement R1 exists. Evidence may include documented communication protocols or other equivalent evidence.
- MR2** Evidence of conducting initial training for each of its operating personnel for the real-time operation of the **interconnected electric system** as required in requirement R2 exists. Evidence may include initial training records, such as dated class rosters, training certificates, lesson plans, course materials, or other equivalent evidence.
- MR3** Evidence of conducting initial training for operating personnel who can receive an oral two-party, person-to-person operating instruction, including **directives**, as required in requirement R3 exists. Evidence may include initial training records, such as dated class rosters, training certificates, lesson plans, course materials, or other equivalent evidence.
- MR4** Evidence of assessing the adherence to and effectiveness of the documented communication protocols in requirement R1 as required in requirement R4 exists. Evidence may include documented assessments, dated **operator** logs or other evidence of feedback, corrective actions taken, modified documented communication protocols, or other equivalent evidence.
- MR5** Evidence of confirming receiver's response, reissuing the directive operating instruction during an emergency, or taking an alternative action as required in requirement R5 exists. Evidence may include dated and time-stamped voice recordings, dated and time-stamped transcripts of voice recordings, dated **operator** logs, or other equivalent evidence.
- MR6** Evidence of repeating the directive operating instruction during an emergency or requesting that the issuer reissue the directive operating instruction as required in requirement R6 exists. Evidence may include dated and time-stamped voice recordings, dated and time-stamped transcripts of voice recordings, dated **operator** logs, or other equivalent evidence.
- MR7** Evidence of confirming or verifying that ~~the directive~~ a written or oral operating instruction during an emergency was received by at least one receiver as required in requirement R7 exists. Evidence may include dated and time-stamped voice recordings, dated and time-stamped transcripts of voice recordings, dated **operator** logs, or other equivalent evidence.

#### Revision History

Date	Description
xxxx-xx-xx	Initial release.