

1. Purpose

The purpose of this **reliability standard** is to improve communications for the issuance of operating instructions¹, 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;
- (c) the **operator** of an **aggregated generating facility** has a **maximum authorized real power** greater than or equal to 5 MW;
- (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 develop documented communication protocols for its operating personnel that issue or receive operating instructions, including **directives**. The protocols must, 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;
- 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;

¹ 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.)

- R1.5** 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 **system elements** when issuing an oral or written operating instruction.
- R2** The **ISO** and each **operator** of a **transmission facility** must 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** must 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** must 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 an oral two-party, person-to-person **directive**, excluding written or oral single-party to multiple-party burst **directives**, must either:
- (a) confirm the receiver's response if the repeated information is correct (in accordance with requirement R6);
 - (b) reissue the **directive** 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 **directive** was not understood by the receiver.
- R6** 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 **directive**, excluding written or oral single-party to multiple-party burst **directives**, must either:
- (a) repeat, not necessarily verbatim, the **directive** and receive confirmation from the issuer that the response was correct, or
 - (b) request that the issuer reissue the **directive**.
- R7** The **ISO** that issues a written or oral single-party to multiple-party burst **directive** must confirm or verify that the **directive** was received by at least one receiver of the **directive**.

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**, 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** or requesting that the issuer reissue the **directive** 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** 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.