

Lesson Learned

CIP Version 5 Transition Program

CIP-002-5.1 Requirement R1: Impact Rating of Relays (Far-End Relay)

Version: January 16, 2015

Authorized by the Standards Committee for posting as a supporting reference pursuant to section 11 of the Standard Processes Manual on February 18, 2015

This document is designed to convey lessons learned from NERC's various CIP version 5 transition activities. It is not intended to establish new requirements under NERC's Reliability Standards, to modify the requirements in any existing reliability standards nor provide an Interpretation under Section 7 of the Standard Processes Manual. Additionally, there may be other legitimate ways to fulfill the obligations of the requirements that are not expressed within this supporting document. Compliance will continue to be determined based on language in the NERC Reliability Standards as they may be amended from time to time. Implementation of this lesson learned is not a substitute for compliance with requirements in NERC's Reliability Standards.

Purpose

The purpose of this Lesson Learned is to clarify to Responsible Entities that line protection relays at each end of a transmission line connecting two substations may have different BES Cyber System impact ratings under Reliability Standard CIP-002-5.1. More specifically, in applying Reliability Standard CIP-002-5.1, Attachment 1, Criterion 2.5, relays located at Transmission stations or substations described in Criterion 2.5 should be categorized as "medium impact" BES Cyber Systems, while relays located at Transmission stations or substations that do not meet the characteristics described in Criterion 2.5 (and do not otherwise satisfy any other high or medium impact rating criteria) may be categorized as "low impact" BES Cyber Systems.

Background Information

Under Reliability Standard CIP-002-5.1, Responsible Entities must consider each transmission station or substation to identify each of the high, medium, or low impact BES Cyber Systems at each transmission station or substation. CIP-002-5 R1.2 directs the use of Attachment 1, Section 2 for the identification of medium impact BES Cyber Systems. According to Attachment 1, Section 2, a medium impact rating applies to "Each BES Cyber System [not considered high impact] associated with any of the following...." The section for the application of the impact rating criteria to relays at adjacent substations is Criterion 2.5.

"2.5. Transmission Facilities that are operating between 200 kV and 499 kV at a single station or substation, where the station or substation is connected at 200 kV or higher voltages to three or more other Transmission stations or substations and has an "aggregate weighted

value" exceeding 3000 according to the table below. The "aggregate weighted value" for a single station or substation is determined by summing the "weight value per line" shown in the table below [omitted] for each incoming and each outgoing BES Transmission Line that is connected to another Transmission station or substation. For the purpose of this criterion, the collector bus for a generation plant is not considered a Transmission Facility, but is part of the generation interconnection Facility."

The Guidelines and Technical Basis (Guidelines) section of the Reliability Standard also discusses Transmission Facilities described in Attachment 1 which states: "In most cases, the criteria refer to a group of Facilities in a given location that supports the reliable operation of the BES. For example, for Transmission assets, the substation may be designated as the group of Facilities." According to the Guidelines, "The Transmission Facilities at the station or substation must meet both qualifications [i.e., the connection specifications described above] to be considered as qualified under criterion 2.5."