

## **MRO Guideline for PRC-002-1, Disturbance Monitoring and Reporting**

**NOTE:** The following is an MRO guideline to be used until a mandatory standard for disturbance monitoring equipment is developed by NERC and approved by the NERC Board of Trustees (NERC BOT), the Federal Energy Regulatory Commission (FERC or Commission), and the Canadian Provincial regulators. PRC-002-1 and PRC-018-1 are presently being revised (in 2013) and will be combined into one mandatory standard for disturbance monitoring and reporting. This interim guideline replaces the MRO Procedure for Disturbance Monitoring and Reporting Requirements dated January 15, 2008.

**This guideline is not mandatory and instead should be followed as good engineering practice.**

**Effective date:** Upon MRO Board Approval on September 26, 2013

**Applicable Entities:** MRO Regional Entity, Transmission Owners, Generator Owners

### **Background History of PRC-002-1, PRC-002-2 and PRC-018-1**

NERC Standard PRC-002-1, titled “Define Regional Disturbance Monitoring and Reporting Requirements” and its accompanying Standard PRC-018-1 titled “Disturbance Monitoring Equipment Installation and Data Reporting” were both adopted by the NERC BOT on August 6, 2006. PRC-002-1, a fill-in-the-blank standard that is presently applicable to the eight Regional Reliability Organizations (RROs), requires the Regional Entities to establish criteria on where sequence of event recording, fault recording, and dynamic disturbance recording equipment shall be located. PRC-018-1 is a regulatory-approved standard that requires the applicable registered entities (Transmission Owners and Generator Owners) to meet the disturbance monitoring and reporting criteria that are established by the RROs in PRC-002-1.

In 2007, the MRO Protective Relay Subcommittee (PRS) developed an MRO Procedure for PRC-002-1, establishing criteria for where disturbance monitoring equipment should be installed. This regional procedure/criteria was not mandatory and instead was to be followed as good engineering practice since compliance with PRC-002-1 was not mandatory.

In 2009, NERC Project 2007-11 combined PRC-002-1 and PRC-018-1 into one proposed mandatory standard called PRC-002-2 which would be applicable to the registered entities. This proposed mandatory standard PRC-002-2 established locational criteria for disturbance monitoring equipment that was considerably different than what the MRO procedure for PRC-002-1 had recommended. It was decided by the MRO PRS that the best course of action would be to withdraw the MRO procedure for PRC-002-1 to avoid any confusion since NERC had now developed PRC-002-2. However, NERC’s proposed standard PRC-002-2 never received NERC BOT approval or Commission approval.

In January 2013, NERC decided to again proceed with a mandatory standard for disturbance monitoring and reporting. Using the latest version of PRC-002-2 from 2011 as a starting point,

the new standard drafting team will make the revisions necessary to reflect the goal of collecting sufficient Bulk Electric System disturbance data. The emphasis will not be on what equipment should be used to capture this data, but on ensuring that the requisite data is captured. PRC-002-2 will also include the pertinent requirements of PRC-018-1 that will allow that Standard to be retired.

### **Interim Guideline for PRC-002-1**

This document will serve as an interim guideline for PRC-002-1 until PRC-002-1 is retired and replaced with a NERC mandatory standard for disturbance monitoring and recording, PRC-002-X. This guideline does not contain criteria that establish what BES locations should have disturbance monitoring and recording equipment installed. Those criteria will be determined in the mandatory standard that is still being developed by the NERC drafting team for PRC-002-X.

### **Locations of Disturbance Monitoring Equipment**

In the interim period, the MRO PRS has developed a regional list of generating stations and transmission substations that are judged to be key locations for having disturbance recording devices. This list of generating stations and substations will be sent to the respective owners with a request to identify what types of disturbance recording equipment and their capabilities exist at these locations. These entities can also submit disturbance recording capabilities of any other stations/substations that contain disturbance recording equipment that could prove to be helpful during event analysis. This list will be used for the following:

- i. In the event of a system disturbance, it will provide a list of locations where disturbance recording data can be expected to be recovered and used for event analysis.
- ii. It will provide a baseline list of disturbance recording locations and their equipment capabilities that can be compared to the locations that will ultimately be identified in the pending PRC-002-X standard.

This list of locations and their disturbance recording capabilities will be considered confidential information and not publicly posted. The list will be maintained by the MRO PRS and MRO staff.

### **Periodic Review Process**

The MRO PRS will annually review the list of locations for completeness and accuracy. The MRO PRS will maintain this guideline until its retirement.

### **Retirement of Guideline**

This guideline for PRC-002-1 will be retired once the pending NERC standard PRC-002-X is approved by the NERC BOT and Commission. The MRO PRS and MRO staff will then implement and maintain the requirements within the new mandatory standard.