

nationalgrid	<b>ENGINEERING DOCUMENT</b>	Doc. # <b>PR.10.03.001</b>
	<b>Procedure: Protection Systems - Field Information</b>	Page 1 of 4
	<b>Disturbance Recording Equipment Maintenance</b>	Version 1.0 – 05/11/07

This procedure documents the maintenance of disturbance recording equipment.

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File: PR.10.03.001 Disturbance Recording Equipment Maintenance	Originating Department: Protection Standards and Support	Sponsor: Bryan J. Gwyn

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## **1.0 PURPOSE**

The North American Electric Reliability Council (NERC) Standard PRC-0018 – Disturbance Monitoring Equipment Installation and Data Reporting, and the Northeast Power Coordinating Council (NPCC) Document A-15 – Disturbance Monitoring Equipment Criteria require Transmission and Generation Owners to have a Maintenance and Testing program for Disturbance Monitoring Equipment (DME).

This document defines National Grid requirements for periodic maintenance and testing of DME and summarizes the required procedures. NPCC document B-26 – Guide for the Application of Disturbance Recording Equipment was used as a guide for development of the criteria.

## **2.0 PERIODIC MAINTENANCE**

All DME shall be called at minimum each month by Protection Standards and Support and the disturbance records shall be retrieved.

Protection Standards and Support shall document periodic maintenance of each DME.

Periodic maintenance shall consist of:

1. Verification of communications for remote access
2. Analyzing the retrieved records for:
  - a. Time Synchronization
  - b. Analog channel calibration check between phases
  - c. Digital input functions that were triggered

Reference shall be made to NPCC Document B-26 – Guide for the Application of Disturbance Recording Equipment when carrying out this maintenance.

## **3.0 PERIODIC TESTING**

Power Delivery (NY) and Relay and Telecommunications Operations Group (RTOG NE) shall check the calibration of the disturbance recorders during periodic relay maintenance testing on the same schedule as Type 1 microprocessor relays.

The calibration check shall include verification of the configuration file and analog channel accuracy. Event records may be used to check the calibration.

## **4.0 RETURN TO SERVICE REQUIREMENTS**

If a DME is found defective Protection Standards and Support shall notify the appropriate field office. Power Delivery and RTOG shall inspect and determine cause of failure within 48 hours of notification. The defective DME shall be restored to service within 30 days of determination of the failure. If this is not possible the reasons shall be documented in an agreed upon work plan, which includes the new time frame for restoring the DME to service.

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## **5.0 REFERENCE DOCUMENTS**

1. NERC Standard PRC-002-1; Define Regional Disturbance Monitoring and Reporting Requirements
2. NERC Standard PRC-018-1 Disturbance Monitoring Equipment Installation and Data Reporting
3. NPCC Document A-15 - (Draft) Disturbance Monitoring Equipment Criteria
4. NPCC Document B-26 – Guide for the Application of Disturbance Recording Equipment

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## **6.0 REVISION HISTORY**

<b><u>Version</u></b>	<b><u>Date</u></b>	<b><u>Description of Revision</u></b>
1.0	05/11/07	First version of new document

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