

Working Group on Switching & Overcurrent Protection
2009 IEEE/Joint Technical Meeting
January 12th, 2009
Minutes
Atlanta, GA

Charlie Williams, *Chair*, (cwilliams@sandc.com) called the meeting to order at 1:00 PM with 27 members and guests present.

1. The IEEE required slides for Working Groups were presented. A presentation on these requirements will be scheduled for the next Distribution SC meeting in July.
2. The minutes of the July 22, 2008 WG meeting were approved.
3. The Network Tutorial will be presented at the 2009 IEEE PES GM in Calgary.
4. A draft Scope and Purpose was developed during the meeting.

Application Guide for Placement of Overhead and Underground Switching and Overcurrent Protection Equipment

Scope & Purpose

The purpose of this guide is to provide criteria for switching and protective device placement for distribution circuits.

The scope will cover feeder and branch line equipment. Drivers for device placement, such as reliability and operational considerations will be identified. All types of switching and OC equipment will be covered including:

- Manual switches
- Automated switches
- Load break vs. non-load break
- Reclosers / Sectionalizers
- Fuses
 - Overcurrent
 - Current limiting
- DA device control

A section on predictive reliability calculations for feeders will be included to provide a guideline for predicting reliability of circuits vs. device placement and number or frequency of devices. Issues such as fault rate, exposure miles, customer density will be discussed and their impact on reliability and device placement addressed. The impact of Distribution Automation equipment and automated sectionalizing equipment and the impact on feeder reliability will also be addressed. The net result is to provide means and methodologies for proper placement of switches and protective devices to achieve the desired performance characteristics for a distribution circuit.

5. A draft Outline was developed during the meeting. Several members volunteered in the meeting to draft text for several of the sections. Please send an e-mail to cwilliams@sandc.com if you would like to contribute material to the guide.

Application Guide for Placement of Overhead and Underground Switching and Overcurrent Protection Equipment

1. Introduction
 - a. Scope
 - b. Equipment types and definitions
 - c. Nomenclature
2. Reasons for Installing SW & OC equipment (Jim Bouford)
 - a. Feeders
 - b. Branchlines
 - c. Reach Limitations
3. Feeder Predictive Reliability
 - a. Terms and Concepts
 - b. Analysis
 - c. Optimization
4. Guidelines for Quantity and Location of Equipment (Val Werner, Lee Taylor, Charlie Williams)
 - a. Reliability
 - b. Geography & Others
 - c. Feeder Level Devices
 - d. Branch Line Devices

6. Please send any comments on Draft Scope and Purpose / Outline to cwilliams@sandc.com by February 28.

7. A conference paper has been submitted by Ryan Melbard of We Energies, "Application of Customer Exposure Ratio to Distribution Circuits", for the Calgary Meeting. It will be presented in a combination session with our Working Group meeting.

8. Charlie Williams provided an abbreviated presentation on "Feeder Reliability".

The meeting was adjourned at 1:50 PM.

Submitted by:
Frank Lambert