



TOGETHER WE POWER THE WORLD

Field Processing Guide

Created by a Group of
Doble Clients

Field Processing Guide Presentation for the IEEE - October 22, 2012

General Information

- *The Guide was created by a subcommittee of the Doble Client Transformers Committee.*
- *Approximately 30 Clients participated.*
- *The work took about 10 years to complete with 2 working meetings per year.*
- *E-mail communications between meetings.*
- *Completion in the year 2011.*
- *Organization of the document is as follows:*

TABLE of CONTENTS

I. Preface

II. Table of Contents

III. Introduction

A. Definitions

B. Equipment Requirements

C. Description of Tests

1. Electrical Tests

2. Oil Tests

TABLE of CONTENTS

IV. Assessing the Dryness of Cellulosic Insulation/ Drying Efficiency

A. Dew Point

B. Vapor Pressure

C. Power Factor

D. Rate of Water Collection in Cold Trap

E. Water Content in Oil

TABLE of CONTENTS

V. Oil Filling Procedure

A. Vacuum Oil Filling

B. Filling Without Vacuum

VI. Transformer Dry-Out Procedures

VII. Shortened Procedures for Miscellaneous Repairs (Not Completed due to disagreement in the scope of work allowed and procedures.)

TABLE of CONTENTS

VIII. Appendixes

A. Transformer Preparation for Vacuum

B. Vacuum Preparation

C. Precautions during Vacuum

D. Dimensional Conversion Factors

TABLE of CONTENTS

IX. References

Questions for the Working Group

- How is the information in the guide to be used?
 - Basis for clients to develop best practices within their companies
 - Training document for new employees
 - Basis for transformer specification development
 - Knowledge transfer between new and retiring employees
 - Reference for materials and technical standard development