

## **10.6 Insulating Fluids Subcommittee – F. J. Gryszkiewicz, Chair; R.K. Ladroga, Vice-Chair**

### **10.6.1 Introduction/Attendance**

The Insulating Fluids Subcommittee and its Working Groups met in Raleigh, North Carolina on Tuesday and Wednesday, March 18 and 19, 2003. The Subcommittee started its meeting at 11:00 a. m. on Wednesday. There were 20 members and 20 guests present.

### **10.6.2 Approval of Meeting Minutes**

The minutes of the October Oklahoma City, Oklahoma meeting were approved as printed.

### **10.6.3 Old Business**

#### **10.6.3.1 C57.106 – IEEE Guide for Acceptance and Maintenance of Insulating Oil in Equipment.**

This document was approved by the IEEE Standards Board in June of 2002 and was printed in November of 2002.

A Working Group has been formed to review the information in Tables 4 and 5 of this document. These tables, which contain test values based on dynamic and equilibrium moisture in oil parameters, resulted in two negative ballots being cast for the Recirculation Ballot of C57.106. Since the Recirculation Ballot resulted in a 97% approval (IEEE bylaws require a 75% approval for consensus to be met.), the document was submitted to Revcom for approval. Revcom approved the revision of this document at their June 2002 meeting.

Jim Thompson and T.V. Oommen are the Co-Chairs of the Working Group. The Working Group will meet at the next meeting in Pittsburgh to further discuss what action should be taken.

#### **10.6.3.2 C57.104 – IEEE Guide for the Interpretation of Gases Generated in Oil – Immersed Transformers**

This Working Group is chaired by Frank Heinrichs. This document recently completed a Standards Association Ballot. Several negative ballots were received. The negative ballots will be resolved and/or rebutted. A Recirculation Ballot is in the process of being conducted.

#### **10.6.3.3 C57.130 – IEEE Guide for the Use of Dissolved Gas Analysis During Factory Temperature Rise Tests for the Evaluation of Oil- Immersed Transformers and Reactors.**

This Working Group is co-chaired by Frank Heinrichs and Frank Gryszkiewicz. This document has been sent to IEEE for a Standards Association Ballot.

#### **10.6.3.4 C57.111 – IEEE Guide for Acceptance of Silicone Insulating Fluid and Its Maintenance in Transformers.**

Kent Haggerty and Jim Goudie are the Working Group Co-Chairs. Kent and Jim reported that this guide still contains state of the art information. In view of this, the Subcommittee decided to send the document out for a Standards Association Reaffirmation Ballot.

#### **10.6.3.5 C57.139 – IEEE Guide for Dissolved Gas Analysis in Load Tap Changers.**

Rick Ladroga is the Working Group Chair for this project. The Working Group met on Tuesday, March 18, 2003 with 47 in attendance.

In the past, the Working Group had a difficult time agreeing on dissolved gas analysis(DGA) limits for the different design type load tap changers. The Working Group Chair formulated a

table containing ranges of the combustible gases of interest for the various design types of load tap changers. This table was discussed at the Working Group meeting.

As a result of the discussions, the Working Group was advised that this Guide also contain information on the use of ratios of the various combustible gasses in determining whether the DGA data is indicative of a tap changer problem.

The Working Group will prepare a new draft which will be discussed at the next meeting in Pittsburgh.

#### **10.6.3.6 C57.146 – IEEE Guide for the Interpretation of Gases Generated in Silicone Immersed Transformers.**

This document previously carried the IEEE designation P1258. This has been changed to the IEEE designation C57.146 to be consistent with the other standards in the C57 collection.

Jim Goudie and Bill Bartley are the Working Group Co-Chairs of the document. A Standards Association Recirculation Ballot is in the process of being conducted.

#### **10.6.3.7 IEEE STD 637 – IEEE Guide for the Reclamation of Insulating Oil and Criteria for Its Use.**

A successful Reaffirmation Ballot was recently conducted on this document. The IEEE Standards Board approved this document at their meeting in December of 2002.

#### **10.6.3.8 C57.XXX – IEEE Guide for the Acceptance and Maintenance of Natural Ester Based Fluids.**

A Working Group, consisting of the following, has been formed to work on this project:

Patrick McShane – Chair  
T.V. Oommen  
Alan Wilks  
Kent Haggerty

The Working Group will obtain a PAR and prepare Draft 1 for discussion at the next meeting in Pittsburgh.

#### **10.6.4 Adjournment**

The Subcommittee adjourned at 12:20 p.m.

#### **10.6.5 Next Meeting**

The Insulating Fluids Subcommittee and its Working Groups will next meet in Pittsburgh, Pennsylvania, October 5-9, 2003.

