

Report to ADSCOM

IEEE P1291/C37.xxx, St-Pete Beach, Florida, 9 May 2005

1. Meeting

The WG met on 9 May 2005; 13 members and 7 guests attended the meeting.

2. Patents

No patent issues known by participants.

3. Résumé of discussions

3.1. Status of the project

The document has been approved for reaffirmation on 20 March 2005; issues raised at reaffirmation are found in annex A. We can now submit for a new PAR for revision.

3.2. Expectations of the attendees

All attendees had the opportunity to express his expectations; follow a résumé of these:

- Better define test criteria
- Review instrumentation to cover modern equipment (digital...)
- Better define how to perform test
- Test voltages vs equipment dry voltage rated withstand
- Field, in situ, testing
- Corona (corona is a particular type of partial discharges in air); clarify

3.3. Revision

See annex A for comments raised at reaffirmation; those shall be considered during revision.

3.3.1. Guide, Recommanded Practice, Test code

The type of document have been discussed. All recommend for upgrading the document from a GUIDE to a RECOMMANDED PRACTICE. See annex B for IEEE definition of these document types.

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3.3.2. Scope and Purpose

Scope and Purpose of the document have to be reviewed. Members shall sent comments by end of May.

3.3.3. PAR

Following review of the Scope and Purpose, an new PAR will be prepared by the chair. A C37 number will be requested.

3.3.4. Documents and Bibliography

Follow a list of documents required by the WG:

- 1- IEC 60270: High-voltage test techniques –Partial discharge measurements
- 2- IEEE 1291 master file, word
- 3- PC 57.113 latest draft: **IEEE Guide for Electrical Partial Discharge Measurement in Liquid-Filled Power Transformers and Shunt Reactors**
- 4- IEEE C57.124: **IEEE Recommended Practice for the Detection of Partial Discharge and the Measurement of Apparent Charge in Dry-Type Transformers**
- 5- ASTM D1868: **D1868-93(1998) Standard Test Method for Detection and**Measurement of Partial Discharge (Corona) Pulses in Evaluation of
 Insulation Systems
- 6- ASTM D3382: **D3382-95(2001)e1 Standard Test Methods for Measurement** of Energy and Integrated Charge Transfer Due to Partial Discharges (Corona) Using Bridge Techniques
- 7- ICEA Publication J-24-380: ??
- 8- IEEE 454:
- 9- EEMAC G11.1:
- 10-CSA 21.2:

Attendees are invited to send the chairman any publication available on the matter. The chair will conduct a bibliography survey on "Switchgear and Partial Discharge".

4. WG decision list

- 1- Change title from "Guide for" to "Recommanded Practice for"
- 2- Change no from 1291 to a C37 number

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5. Course of action

- 1- Members and Guests: comments on the Scope and Purpose of the document; end of May 2005
- 2- Chair: circulate revised Scope and Purpose; end of June 2005
- 3- Chair: prepare and submit a PAR
- 4- Chair: get the listed publications (see list in 3.3.4)
- 5- Conduct bibliographic survey.
- 6- Chair: arrange presentation from Hydro-Québec Distribution on PD measurements on UG distribution system.

6. Next meeting

Next meeting will be in Montréal on first week of October 2005.

It is suggested to have a 20 minutes presentation from Hydro-Québec on partial discharge field testing on UG distribution system.

Marcel Fortin, ing 20-May-05



Annex A: Concerns raised at reffirmation

- 1. Definition of apparent charges: The actual definition have a mistake (errata issued in 1997, Olsen comment) and is not up to date with IEC.
- 2. Test circuits: Test circuits have to be reviewed (comments on 5.1, 6.1 and 6.2.1)
- 3. Instruments: Cathode ray instruments are considered outdated by 2 ballotters (6.2.5).
- 4. Calibrators and pulse generators: A negative voters consider that the pulse generators rise time and decay time, voltage amplitude and repetition shall be reviewed (no clear proposed solution).
- 5. Partial discharge tests: In reference to section 9 one negative voter ask that the design test shall be defined. He ask that design tests procedures to be added and also to refer that PD test are performed during temperature tests.
- 6. Bibliography: A comment ask that bibliography should be reviewed and updated.



Annex B: Excerpt of clause 9.1 of IEEE Standards Style Manual

The title should be exactly the same as that on the approved PAR, and in all cases shall reflect the scope of the standard in as few words as possible. All titles of IEEE drafts shall start with the word *Draft*, followed by

- a) "Standard [for]" when the standard specifies mandatory requirements
- b) "Recommended Practice [for]" when the standard provides recommendations
- c) "Guide [for]" when the standard furnishes information
- d) "Trial-Use (Standard, Recommended Practice, or Guide) [for]" when the document will be published for a limited period, no longer than two years, before it becomes an official IEEE document