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09 December 2005

Bill Chiu
Southern California Edison
501 South Marengo Avenue
Alhambra, CA 91802
bill.chiu@sce.com

Re: PC57.151 - Sound Level Measurement Guide for Liquid Filled and Dry Type Transformers and Reactors

Dear Bill:

I am pleased to inform you that on 07 December 2005 the IEEE-SA Standards Board approved the above referenced project until 31 December 2009. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/C57-151.pdf>.

Now that your project has been approved, please forward a roster of participants involved in the development of this project. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2i under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

For your convenience, an Excel spreadsheet for your use has been posted on our website at <http://standards.ieee.org/guides/par/roster.xls>. Please forward this list to me via e-mail at j.haasz@ieee.org no later than 07 March 2006.

Please visit our website, IEEE Standards Development Online (<http://standards.ieee.org/resources/development/index.html>), for tools, forms and training to assist you in the standards development process. Also, we strongly recommend that a copy of your draft be sent to this office for review prior to the final vote by the working group to allow for a quick review by editorial staff before sponsor balloting begins.

If you should have any further questions, please contact me at 732-562-6367 or by email at j.haasz@ieee.org.

Sincerely,

Jodi Haasz
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PAR FORM

PAR Status: New PAR

PAR Approval Date: 07 December 2005

PAR Signature Page on File: Yes

1. Assigned Project Number: PC57.151

2. Sponsor Date of Request: 2005-10-10

3. Type of Document: Guide for

4. Title of Document:

Draft: Sound Level Measurement Guide for Liquid Filled and Dry Type Transformers and Reactors

5. Life Cycle: Full-Use

6. Type of Project:

6a. Is this an update to an existing PAR? No

6b. The Project is a: New Standard

7. Working Group Information:

Name of Working Group: Audible Sound and Vibration Subcommittee

Approximate Number of Expected Working Group Members:24

8. Contact information for Working Group Chair:

Name of Working Group Chair: Jeewan L Puri

Telephone: 704-821-6638 **FAX:**

Email: manopuri@worldnet.att.net

9. Contact information for Co-Chair/Official Reporter, Project Editor or Document Custodian if different from the Working Group Chair:

Name of Co-Chair/Official Reporter, Project Editor or Document Custodian:

Telephone: **FAX:**

Email:

10. Contact information for Sponsoring Society or Standards Coordinating Committee:

Name of Sponsoring Society and Committee: IEEE Power Engineering Society Transformers

Name of Sponsoring Committee Chair: Kenneth S Hanus

Telephone: 972-273-3638 **FAX:** 972-273-3603

Email: ken.hanus@ieee.org

Name of Liaison Rep. (if different from the Sponsor Chair): Bill Chiu

Telephone: 626-308-6086 **FAX:** 626-308-6930

Email: bill.chiu@sce.com

Name of Co-Sponsoring Society and Committee:**Name of Co-Sponsoring Committee Chair:****Telephone: FAX:****Email:****Name of Liaison Rep. (if different from the Sponsor Chair):****Telephone: FAX:****Email:****11. The Type of ballot is:** Individual Sponsor Ballot**Expected Date of Submission for Initial Sponsor Ballot:** March 2007**12. Projected Completion Date for Submittal to RevCom:** March 2008**Target Extension Request Information for a Modified PAR whose completion date is being extended past the original four-year life of the PAR:****13. Scope of Proposed Project:**

This user guide provides supporting information to help both manufacturers and purchasers apply the measurement techniques described in IEEE C57.12.90 and IEEE C57.12.91. The sources and characteristics of transformer and reactor sound are described. Practical guidance on making measurements is given, and factors that may influence the accuracy of the methods are discussed. This user guide also clarifies those factors which should be agreed between manufacturer and purchaser when specifying a transformer or reactor, and indicates why values measured in the factory may differ from those measured on site. Guidance is also given on the interpretation of sound level measurements when demonstrating compliance with customer specifications. The information given in this user guide is applicable to transformers and reactors together with their associated cooling auxiliaries.

Is the completion of this document contingent upon the completion of another document?

No

14. Purpose of Proposed Project:

This guide provides an understanding of sound power radiation and measurement principles. The measurement methods and the measurement environment can have a major influence on the accuracy of the results. Recognizing the nature of sound producing sources in transformers and reactors, this document provides guidance toward optimizing the accuracy of sound level measurements according to test procedures of IEEE C57.12.90 and C57.12.91 test codes. The relationship between factory measurements and the resulting sound levels at far-field locations is also discussed.

15. Reason for the Proposed Project:

This introduction provides some background to aid in the understanding and usage of this guide. The proximity of transformers to residential areas and prevalence of local ordinances specifying sound levels at property lines has made the accurate determination of sound levels a matter of increasing importance. It is therefore appropriate that a good understanding of sound power radiation and its measurement principles be developed for appropriately specifying and measuring sound levels in transformers. A good understanding of these principles can be helpful

in minimizing community complaints regarding the present and future installations of transformers. This information will help the manufacturers and the users of the transformers.

16. Intellectual Property:

- a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR? Yes 2005-03-13**
- b. Is the sponsor aware of copyright permissions needed for this project? No**
- c. Is the sponsor aware of trademarks that apply to this project? No**
- d. Is the sponsor aware of possible registration activity related to this project? No**

17. Are there other documents or projects with a similar scope? No

Similar Scope Project Information:

18. Is there potential for this document (in part or in whole) to be adopted by another national , regional or international organization? No

If yes, the following questions must be answered:

Organization Name?

Technical

Committee

International

Contact

Information?

19. Will this project result in any health, safety, or environmental guidance that affects or applies to human health or safety? No

If yes, please explain:

20. Sponsor Information

a. Is the scope of this project within the approved/scope/definition of the Sponsor's Charter? Yes

If no, please explain:

b. The Sponsor's procedures have been accepted by the IEEE-SA Standards Board Audit Committee? Yes

21. Additional Explanatory Notes: (Item Number and Explanation)

Item #13 - Reference is made to IEEE Std C57.12.90 - Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers and IEEE Std C57.12.91 - Standard Test Code for Dry-Type Distribution and Power Transformers.