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26 September 2005

Jose A Marrero
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Re: P450 - Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications

Dear Jose:

I am pleased to inform you that on 22 September 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/450.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 21 December 2005.

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: Revision PAR
PAR Approval Date: 2005-09-22
PAR Signature Page on File: Yes

1. Assigned Project Number: P450

2. Sponsor Date of Request: 2005-06-28

3. Type of Document: Recommended Practice for

4. Title of Document:

Draft: Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications

5. Life Cycle: Full-Use

6. Type of Project:

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

6b. The Project is a: Revision of Std 450-2002

7. Working Group Information:

Name of Working Group: Working Group for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications

Approximate Number of Expected Working Group Members:45

8. Contact information for Working Group Chair:

Name of Working Group Chair: Mark S. Clark

Telephone: 361-972-8234 **FAX:** 361-972-8049

Email: sclark@stpegs.com

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 Stationary Batteries Committee

Name of Sponsoring Committee Chair: Samuel Norman

Telephone: +1 919 563 6610 **FAX:** +1 919 563 6620

Email: snorman@ieee.org

Name of Liaison Rep. (if different from the Sponsor Chair): Jose A Marrero

Telephone: 912-537-5887 **FAX:** 912-367-0653

Email: jamarrer@southernco.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: April 2007

12. Projected Completion Date for Submittal to RevCom: September 2007

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 document provides recommended maintenance, test schedules, and testing procedures that can be used to optimize the life and performance of permanently-installed, vented lead-acid storage batteries used for standby power applications. It also provides guidance to determine when batteries should be replaced. This recommended practice is applicable to full-float stationary applications where a battery charger normally maintains the battery fully charged and provides the dc loads. However, specific applications, such as emergency lighting units and semi-portable equipment, may have other appropriate practices that are beyond the scope of this recommended practice. Sizing, installation, qualification, other battery types, and application are also beyond the scope of this recommended practice. The maintenance and testing programs described in this recommended practice represent the best program based on the information available at the time this document was developed. The user should evaluate these practices against their operating experience, operating conditions, manufacturers recommendations, resources, and needs in developing a maintenance program for a given application. These maintenance and testing recommendations were developed without consideration of economics, availability of testing equipment and personnel, or relative importance of the application. Development of a maintenance and testing program for a specific application requires consideration of all issues, not just the technical issues considered in this document. This recommended practice does not include any other component of the dc system, or inspection and testing of the dc system, even though the battery is part of that system. Pre-operational and periodic dc system tests of chargers and other dc components may require that the battery be connected to the system. Details for these tests depend on the requirements of the dc system and are beyond the scope of this recommended practice.

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

Yes

P1188 to bring the sections on rate adjusted testing into agreement between the documents.

P1578 to include references to spill identification and cleanup.

14. Purpose of Proposed Project:

The purpose of this recommended practice is to provide the user with information and recommendations concerning the maintenance, testing, and replacement of vented lead-acid batteries used in stationary applications. Incorporate errata sheet.

15. Reason for the Proposed Project:

Incorporate revisions to existing information based on operating experience and changes in technology as well as additional information to better support document users including: additional information on post seal maintenance, record keeping and data analysis, single cell preparation, testing, equalizing and impact on capacity test, ohmic measurements, specific gravity testing and adjustments, plate polarization, half cell readings, tafel curves, remote monitoring, spill identification and response, inspection checklist, spare cell maintenance, replacement cell preparation, testing, installation, and impact on capacity testing, impact of depolarizing agents on replacement cells, use of thermography during capacity testing, end of life for high rate applications, float current measurement and trending, individual cell charging and high rate equalization, adjusting maintenance requirements based differences in flooded battery technologies, and service life verses design life verses warranty life and the parameters that impact service life. The stakeholders for the project are the telecom industry, data centers, and the electric power industry and the battery service industry.

16. Intellectual Property:

- a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR?** Yes 2005-06-27
- 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? Do not know at this time

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? Yes

If yes, please explain:

Clause 4 identifies the recommended personal protective equipment and precautions to be taken

when working on stationary lead-acid batteries.

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)

Items 13 and 14 are directly copied from 450-2002. There is no change to the scope or purpose of the document.