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02 November 2006

Kimberly Eastwood
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Re: P1709 - Recommended Practice for 1 to 35 kV Medium Voltage DC Power Systems on Ships

Dear Kimberly:

I am pleased to inform you that on 02 November 2006 the IEEE-SA Standards Board approved the above referenced project until 31 December 2010. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/1709.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 s.hampton@ieee.org no later than 31 January 2007.

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 +1 732 562 6003 or by email at s.hampton@ieee.org.

Sincerely,

Sherry Hampton
Administrator, Governance
Standards Activities
Phone +1 732 562 6003
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CC: ykhersonsky@ieee.org

PAR Request Date: 27 September 2006**PAR Approval Date:** 02 November 2006**PAR Signature Page on File:** Yes**Type of PAR:** New IEEE Standard**Status:** PAR for a New IEEE Standard**Root Project:****1.1 Project No.:** **P1709****1.2 Type of Document:** Recommended Practice**1.3 Life Cycle:** Full-Use**1.4 Is this document in ballot now?** No**2.1 Title**

Recommended Practice for 1 to 35 kV Medium Voltage DC Power Systems on Ships

2.1 Amendment/Corrigenda Title**3.1 Working Group Name**[DC Power Systems on Ships](#)**Working Group Chair**[Khersonsky, Yuri](#)

Phone: 714-488-0690

Email: ykhersonsky@ieee.org

Working Group Vice Chair[Ericsen, Terry](#)

Phone: 703-696-7741

Email: ericset@onr.navy.mil

3.2 Sponsor[IEEE Industry Applications Society Petroleum & Chemical Industry \(IAS/PCI\)](#)**Sponsor Chair**[Eastwood, Kimberly](#)

Phone: 512 396 5880

Email: kimeastwood@ieee.org

Name of Standards Liaison Representative (if applicable)[McBride, William E](#)

Phone: 907-265-6496

Email: mcbrid@mail.aai.arco.com

3.3 Joint Sponsor**4.1 Type of Ballot:** Individual**4.2 Expected Date of Submission for Initial Sponsor Ballot:** December 2008**4.3 Projected Completion Date for Submittal to RevCom:** February 2010**5.1 Approximate number of people expected to work on this project:** 20**5.2 Scope:** This standard is based on current electrical engineering methods and practices for applying 1 to 35 kV Medium Voltage DC Power Distribution and DC Power Delivery Systems on Ships. Recommendations are made for analytical methods, preferred interconnection interfaces and performance characteristics for reliable integration of Medium Voltage DC Electrical components into the Ship electrical power systems.**5.3 Is the completion of this document contingent upon the completion of another document?** No

5.4 Purpose: The purpose of this document is to recommend a methodology for analysis and specifications parameters for 1 to 35 kV Medium Voltage DC Power Systems on Ships. It will describe impact of Medium Voltage DC on all electrical components and will formulate requirements on proper interfaces, sizing, life cycle cost, weight, efficiency and risk reduction of Medium Voltage DC Power Systems implementation. It will compliment the IEEE 45-2002: IEEE Recommended Practice for Electric Installations on Shipboard.

5.5 Need for the Project: Increase of the use of electric power and need for electric energy storage on ships created demand for Medium Voltage DC Distribution Power Systems and development of the new standard for applying contemporary technology to convert and distribute shipboard electrical power with improved reliability, survivability, and power quality. Application of the established practices in Low Voltage DC or Medium voltage AC Power Systems are not productive due to unique ships grounding practices and absence of clear definitions for zonal interfaces. For example, the fault level in concept designs for ships with DC distribution systems can exceed the breaking capability of the current range of circuit-breakers. The alternatives, such as embedding fault clearance within power electronic converters or using dedicated solid state or hybrid switchgear, bring their own disadvantages such as increased losses and more complex converter topology. The proposed standard will address all aspects of the optimum and safe use of the Medium Voltage DC Distribution Power Systems on Ships.

5.6 Stakeholders for the Standard: Stakeholders for this standard are evaluators and designers of electrical power systems for commercial marine and navy applications, Commercial and Navy ship end-users, shipbuilders, port operators, classification societies, machinery and equipment manufacturers, research institutes, universities.

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes **Presented Date:** 2006-09-15

If no, please explain:

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? No

If yes, please explain:

6.1.c. Is the Sponsor aware of possible registration activity related to this project? No

If yes, please explain:

7.1 Are there other standards or projects with a similar scope? No

If yes, please explain:

Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? ? Do not know at this time

Technical Committee Name and Number:

Contact person:

Contact person Phone Number:

Contact person Email Address:

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

7.4 Additional Explanatory Notes:

IEEE 45-2002: "IEEE Recommended Practice for Electric Installations on Shipboard"

8.1 Sponsor Information:

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

If no, please explain: