

P45.3

Submitter Email: pcbishop@bishopgroup.net

Type of Project: Modify Existing Approved PAR

PAR Request Date: 12-Sep-2011

PAR Approval Date: 09-Nov-2011

PAR Expiration Date: 31-Dec-2012

Status: Modification to a Previously Approved PAR

Root PAR: P45.3 **Approved on:** 10-Dec-2008

1.1 Project Number: P45.3

1.2 Type of Document: Recommended Practice

1.3 Life Cycle: Full Use

2.1 Title: Recommended Practice for Shipboard Electrical Installations - Systems Engineering

Changes in title: Recommended Practice for Shipboard Electrical Installations ~~on Shipboard - Systems Integration~~ **Engineering**

3.1 Working Group: Working Group for Electrical Installations on Shipboards (IAS/PCI/45_WG)

Contact Information for Working Group Chair

Name: Dwight Alexander

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Contact Information for Working Group Vice-Chair

None

3.2 Sponsoring Society and Committee: IEEE Industry Applications Society/Petroleum & Chemical Industry (IAS/PCI)

Contact Information for Sponsor Chair

Name: William McBride

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Contact Information for Standards Representative

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 05/2012

4.3 Projected Completion Date for Submittal to RevCom: 10/2012

5.1 Approximate number of people expected to be actively involved in the development of this project: 25

5.2 Scope: This document provides recommendations for systems engineering, design and integration of electric systems at the total ship level from concept design through the establishment of the design baseline prior to detail design. Recommendations for AC power systems, DC power systems, emergency power systems, shore power, quality of service, power quality and harmonics, electric propulsion and maneuvering systems, motors and drives, thrusters, and steering systems onboard ships are established by this document. These recommendations reflect the present-day technologies, engineering methods, and engineering practices. This document is intended to be used in conjunction with the IEEE 45 series of documents.

Changes in scope: This document provides recommendations ~~on~~ **for systems engineering, design and integration of electric systems at the total ship level from concept design through the establishment of the design baseline prior to detail design. The** Recommendations for AC power systems, ~~integration~~ **DC includes power systems systems, engineering emergency power systems, design shore and power, integration quality of the service, entire power electrical quality system and harmonics, fully electric integrated propulsion into and a maneuvering ship systems, from motors concept and design drives, through thrusters, production and steering systems onboard ships are established by this document. These recommendations reflect the present-day technologies, engineering methods, and engineering practices. This document is intended to be used in conjunction with the IEEE 45- series of documents.**

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: An extension of the baseline technology and methods covered in IEEE Std 45, P45.3 provides a consensus of recommended practices for systems engineering in marine electrical engineering as applied specifically to ships, shipboard systems, and equipment.

Changes in purpose: An extension of the baseline technology and methods covered in IEEE Std 45, P45.3 provides a consensus of recommended practices for systems ~~integration~~ **engineering** in marine electrical engineering as applied specifically to ships, shipboard systems, and equipment.

5.5 Need for the Project: IEEE 45 has grown due to new technology and methods. As a result, the document has been divided into a top-level base document (IEEE 45) and eight sub-documents IEEE 45.1 through IEEE 45.8.

This document addresses the recommended practice for systems engineering.

5.6 Stakeholders for the Standard: Ports, shipping companies, off-shore exploration and production facilities, U.S. Navy and other navies

Intellectual Property

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

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

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

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes (Item Number and Explanation): The terms and title needed clarification to more clearly describe the functions and differences between this project and P45.1. The proposed change clarifies the scope and brings it into agreement with terms used in the IEEE dictionary. The principal change: incorporate the term "systems engineering" into P45.3.