

P2421

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Type of Project: New IEEE Standard

PAR Request Date: 12-Feb-2016

PAR Approval Date: 12-May-2016

PAR Expiration Date: 31-Dec-2020

Status: PAR for a New IEEE Standard

1.1 Project Number: P2421

1.2 Type of Document: Guide

1.3 Life Cycle: Full Use

2.1 Title: Guide for Designing and Developing Computer-Based Displays for Monitoring and Control of Nuclear Facilities

3.1 Working Group: Human Factors Applications and Methods Working Group (PE/NPE/WG_5.1)

Contact Information for Working Group Chair

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Contact Information for Working Group Vice-Chair

None

3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Nuclear Power Engineering (PE/NPE)

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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: 06/2019

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2020

5.1 Approximate number of people expected to be actively involved in the development of this project: 10

5.2 Scope: This document provides guidance for designing and developing Computer-Based Displays (CBDs) for monitoring and control of nuclear facilities. The guide applies to the form, functions, and formats of CBDs to be used in nuclear facilities. The guidance applies to displays used within or outside of the Main Control Room (MCR). Note that guidance is not provided for the technical content of the display pages created.

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

5.4 Purpose: This document leverages knowledge gained from recent industry experience developing CBDs to provide detailed guidance for applying the general design process recommended in IEEE Std 1023-2004 to the development of CBDs in order to support an efficient and effective design process.

5.5 Need for the Project: IEEE 1289-1998 includes standard Human Factors Engineering (HFE) technical guidelines for computer-based displays and their content, but little practical guidance on the display design process. This proposed new document will provide detailed guidance for applying the general design process recommended in IEEE Std. 1023-2004 to the development of CBDs with more detailed guidance on functions and formats of such displays than is available in those other standards. Following this guidance will result in displays that better support the monitoring and control of nuclear facilities.

5.6 Stakeholders for the Standard: nuclear power plants, utilities, vendors, designers, system architects

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 5.4: IEEE- 1023-2004 IEEE Recommended Practice for the Application of Human Factors Engineering to Systems, Equipment, and Facilities of Nuclear Power Generating Stations and Other Nuclear Facilities
Item 5.5: IEEE - 1289-1998 IEEE Guide for the Application of Human Factors Engineering in the Design of Computer-Based Monitoring and Control Displays for Nuclear Power Generating Stations