

P1865

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Type of Project: Modify Existing Approved PAR

PAR Request Date: 13-Nov-2017

PAR Approval Date: 15-Feb-2018

PAR Expiration Date: 31-Dec-2019

Status: Modification to a Previously Approved PAR

Root PAR: P1865 **Approved on:** 03-Sep-2015

1.1 Project Number: P1865

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Specifications for Maintenance and Test of Distributed Control Systems in Thermal Power Stations: General Requirements and Definitions

Changes in title: Specifications for Maintenance and ~~Testing~~Test of Distributed Control Systems in ~~Thermal Power Plants~~Stations: General Requirements and Definitions

3.1 Working Group: Specifications for Maintenance and Testing of Distributed Control Systems in Power Plants (BOG/CAG/Control Systems)

Contact Information for Working Group Chair

Name: Yiying Tong

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Contact Information for Working Group Vice-Chair

None

3.2 Sponsoring Society and Committee: IEEE-SA Board of Governors/Corporate Advisory Group (BOG/CAG)

Contact Information for Sponsor Chair

Name: Charles Simpson

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Contact Information for Standards Representative

None

4.1 Type of Ballot: Entity

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 06/2018

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2019

5.1 Approximate number of entities expected to be actively involved in the development of this project: 6

5.2 Scope: This standard specifies the general requirements and definitions that are applicable to all maintenance and test of distributed control system (DCS) in thermal power stations.

Changes in scope: This standard ~~defines~~specifies specifications, the general requirements, procedures and methods definitions for that are applicable to all maintenance and testing test of distributed control systems system in (DCS) power plants. Routine maintenance of programmable logic controllers is also specified in this thermal standard power stations.

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

5.4 Purpose: This standard includes the general requirements and definitions for DCS operation, service, maintenance, testing and management in thermal power stations. It is applicable to 1865.1, Maintenance and Testing, and 1865.2, Operational Service and Management.

Changes in purpose: This standard ~~improves~~includes the reliability general requirements and accuracy definitions for distributed DCS control operation, systems service, maintenance, testing and management in thermal power plants stations. It is applicable to 1865.1, Maintenance and Testing, and 1865.2, Operational Service and Management.

5.5 Need for the Project: A DCS is a dedicated computerized system used to control manufacturing processes in various industries. It is typically composed of functionally and/or geographically distributed digital controllers connected by networks for communication and monitoring. DCSs designed for power plants are generally integrated systems composed of computer systems and control devices for electricity-generating units. Recently, the widespread use and development of DCSs in such plants have significantly improved operational

safety and production efficiency, and have reduced unnecessary costs by supplying reliable real-time data for decision-making. Due to the severe operational environments in power plants, ensuring proper operation and maintenance of DCSs is critical to the stable production performance of power plants. As a result, it is necessary to establish standard specifications for maintaining and testing distributed control systems in power plants.

5.6 Stakeholders for the Standard: The main stakeholders expected to benefit from the proposed standard are power plant operators, authorities, engineering contractors, and/or the public.

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: The original 1865 scope is "This standard defines specifications, requirements, procedures and methods for maintenance and testing of distributed control systems in power plants. Routine maintenance of programmable logic controllers is also specified in this standard." We agreed to split the original P1865 into three after WG meeting. And the three scopes are in the same range. The new P1865 specifies the general requirements and definition. It can be a brief standard for the DCS maintenance and testing in power stations.

The P1865.1 specifies the schedule maintenance and testing of DCS of thermal power station having been put into commercial operation.

The P1865.2 specifies the operation service and management of DCS in thermal power stations after being put into commercial operation.