

P1865.1

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Type of Project: New IEEE Standard

PAR Request Date: 13-Nov-2017

PAR Approval Date: 15-Feb-2018

PAR Expiration Date: 31-Dec-2022

Status: PAR for a New IEEE Standard

1.1 Project Number: P1865.1

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: Maintenance and Testing

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 basic principles, contents, methods, performance indicators and acceptance requirements for scheduled maintenance and testing of distributed control systems.

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

5.4 Purpose: This standard, based on the engineering principles, methods, procedures, and field experience having been demonstrated in many power plants, specifies the contents, methods and technical requirements of maintenance and test after technical modification, temporary or time-based maintenance of DCS of thermal power plant, with a view to standardizing the maintenance and inspection, performance test, functional test and acceptance of DCS, and providing guidance and basis for I&C personnel of power plants to confirm DCS maintenance and test quality, and eliminate defects impairing the operation reliability of units after such maintenance and test.

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