

P2809

Submitter Email: odessgwr@westinghouse.com

Type of Project: New IEEE Standard

PAR Request Date: 28-Jan-2019

PAR Approval Date: 21-May-2019

PAR Expiration Date: 31-Dec-2023

Status: PAR for a New IEEE Standard

1.1 Project Number: P2809

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Nuclear Power Plants - Instrumentation, Control and Electrical Power Systems Important to Safety - Common Cause Failure Systems Analysis and Diversity

3.1 Working Group: Programmable Digital Computers to Safety Systems Working Group (PE/NPE/WG_6.4)

Contact Information for Working Group Chair

Name: Warren Odess-Gillett

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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)

Contact Information for Sponsor Chair

Name: Daryl Harmon

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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: 02/2021

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2021

5.1 Approximate number of people expected to be actively involved in the development of this project: 15

5.2 Scope: This standard establishes the principles of analysis for and the documentation of the defenses provided against Common Cause Failure (CCF) of Electrical, Instrumentation and Control systems in nuclear facilities. It covers CCF from hazards and also from systematic faults.

The standard does not provide requirements on detailed design or of acceptance criteria for the adequacy of CCF defense.

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

5.4 Purpose: An international standard is needed to respond to an International Atomic Energy Agency (IAEA) requirement to optimize the protection of nuclear facilities by providing defense in depth against faults that might result in serious consequences. This standard will address how the active provisions of the electrical, instrument and control systems in the different levels of defense can be assured as being effective against, and potentially free from Common Cause Failure (CCF).

5.5 Need for the Project: There is a need for further development of a standard on this topic as having an internationally accepted approach to the provision of defense against CCF and documentation of the defenses has the potential to greatly assist suppliers to demonstrate the adequacy of the measures, and for operators to maintain the effectiveness of the measures and for both to provide documented evidence to regulators in a consistent manner.

5.6 Stakeholders for the Standard: Nuclear power industry including operators, vendors and regulators

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?: Yes

Organization: International Electrotechnical Commission (IEC)

Technical Committee Name: Instrumentation, control and electrical power systems of nuclear facilities

Technical Committee Number: SC45A

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8.1 Additional Explanatory Notes: