PC57.91

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Type of Project: Revision to IEEE Standard C57.91-2011
PAR Request Date: 26-Jul-2017
PAR Approval Date: 28-Sep-2017
PAR Expiration Date: 31-Dec-2021
Status: PAR for a Revision to an existing IEEE Standard
Root Project: C57.91-2011

1.1 Project Number: PC57.91
1.2 Type of Document: Guide
1.3 Life Cycle: Full Use

2.1 Title: Guide for Loading Mineral-Oil-Immersed Transformers and Step-Voltage Regulators

Changes in title: This guide provides recommendations for loading mineral-oil-immersed transformers and step-voltage regulators with insulation systems rated for a 65 °C average winding temperature rise at rated load. This guide applies to transformers manufactured in accordance with IEEE Std C57.12.00 and tested in accordance with IEEE Std C57.12.90, and step-voltage regulators manufactured and tested in accordance with IEEE Std C57.15. Because a substantial population of transformers and step-voltage regulators with insulation systems rated for 55 °C average winding temperature rise at rated load are still in service, recommendations that are specific to this equipment are also included.

3.1 Working Group: Insulating Life - Loading Guide Working Group (PE/TR/InsLife-WGC57.91)
Contact Information for Working Group Chair
Name: David Wallach
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Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Transformers (PE/TR)
Contact Information for Sponsor Chair
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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: 11/2020
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: 110

Changes in scope: This guide provides recommendations for loading mineral-oil-immersed transformers and step-voltage regulators with insulation systems rated for a 65 °C average winding temperature rise at rated load. This guide applies to transformers manufactured in accordance with IEEE Std C57.12.00 and tested in accordance with IEEE Std C57.12.90, and step-voltage regulators manufactured and tested in accordance with IEEE Std C57.15. Because a substantial population of transformers and step-voltage regulators with insulation systems rated for 55 °C average winding temperature rise at rated load are still in service, recommendations that are specific to this equipment are also included.

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

5.4 Purpose: Applications of loads in excess of nameplate rating involve some degree of risk. It is the purpose of this guide to identify these risks and to establish limitations and guidelines, the application of which will minimize the risks to an acceptable level.
5.5 Need for the Project: This document is being updated to reflect current industry practices and present the latest state-of-the-art in transformer loading practices. Some specific areas that will be addressed are updated approaches to avoid free gas evolution, include the impact of transformer condition impact to the ability to endure increased loading, and the need for coordination of maintenance practices with increased loading. Experience in these areas has been ongoing since the previous revision, and it is the intention of this revision to incorporate the significant findings of this recent industry feedback. This revision effort is intended to make this guide more complete, providing equipment users with practical information that can be applied in the field.

5.6 Stakeholders for the Standard: Transformer manufacturers, owners and users.

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: Referenced IEEE Stds

IEEE Std C57.12.00
IEEE Standard for General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers

IEEE Std C57.12.90

IEEE Std C57.15