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28 February 2007

Michael Wactor
Powell Electrical Systems, Inc.
8550 Mosley Drive
Houston, TX 77075
mwactor@powl.com

Re: PC37.100.1 - Standard of Common Requirements for High Voltage Power Switchgear Rated Above 1000 V

Dear Michael:

I am pleased to inform you that on 27 February 2007 the IEEE-SA Standards Board approved the above referenced project until 31 December 2008. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/C37-100-1.pdf>.

Now that your project has been approved, please forward a roster of participants involved in the development of this project. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2i under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

For your convenience, an Excel spreadsheet for your use has been posted on our website at <http://standards.ieee.org/guides/par/roster.xls>. Please forward this list to me via e-mail at s.hampton@ieee.org no later than 28 May 2007.

Please visit our website, IEEE Standards Development Online (<http://standards.ieee.org/resources/development/index.html>), for tools, forms and training to assist you in the standards development process. Also, we strongly recommend that a copy of your draft be sent to this office for review prior to the final vote by the working group to allow for a quick review by editorial staff before sponsor balloting begins.

If you should have any further questions, please contact me at +1 732 562 6003 or by email at s.hampton@ieee.org.

Sincerely,

Sherry Hampton
Administrator, Governance
Standards Activities
Phone +1 732 562 6003
FAX +1 732 875 0695
Email: s.hampton@ieee.org

CC: tburse@powl.com, stds-pes-scc@ieee.org, tburse@powl.com BCC: s.hampton@ieee.org, t.t.lee@ieee.org

PAR Request Date: 20 December 2006

PAR Approval Date: 27 February 2007

PAR Signature Page on File: Yes

Type of PAR: Modification to Approved PAR

Status: Modification to a Previously Approved PAR PC37.100.1, 07 December 2005

Root Project: New Project

1.1 Project No.: **C37.100.1**

1.2 Type of Document: Standard

1.3 Life Cycle: Full-Use

1.4 Is this document in ballot now? Yes

2.1 Title

Standard of Common Requirements for High Voltage Power Switchgear Rated Above 1000 V

3.1 Working Group Name [Administrative Subcommittee](#)

Working Group Chair

[Burse, Ted](#)

Phone: 713-948-4599

Email: tburse@powl.com

Working Group Vice Chair

3.2 Sponsor [IEEE Power Engineering Society Switchgear \(PE/SWG\)](#)

Sponsor Chair

[Burse, Ted](#)

Phone: 713-948-4599

Email: tburse@powl.com

Name of Standards Liaison Representative (if applicable)

[Wactor, Michael](#)

Phone: 713-948-4918

Email: mwactor@powl.com

3.3 Joint Sponsor

4.1 Type of Ballot: Individual

4.2 Expected Date of Submission for Initial Sponsor Ballot: March 2004

4.3 Projected Completion Date for Submittal to RevCom: March 2007

5.1 Approximate number of people expected to work on this project: 17

5.2 Scope: This standard applies to alternating current switchgear, designed for both indoor and outdoor installation and for operation at service frequencies up to and including 60 Hz on systems having voltages above 1000 V. Application of this standard shall be indicated by normative reference to C37.100.1-20xx in the relevant equipment standard on a clause-by-clause basis.

Old Scope: This standard applies to alternating current switchgear, designed for both indoor and outdoor installation and for operation at service frequencies up to and including 60 Hz on systems having voltages above 1000 V. Application of this standard shall be indicated by normative reference to C37.100.1-20xx in the relevant equipment standard on a clause-by-clause basis.

5.3 Is the completion of this document contingent upon the completion of another document? No

5.4 Purpose: In conformity with the IEC style of IEC 62271-1, this document will not have a "Purpose" clause. However, the purpose of the document is best expressed in the following material contained in the "Foreword": This is a new standard written specifically to collect into one document the requirements that are common in many IEEE Power Switchgear Standards. It follows the concept already in place in IEC 62271-1. The expected benefits of this concept is to reduce the minor inconsistencies among the various switchgear standards and, where differences must remain, to have them highlighted by exception to these common requirements. It is the intention of the IEEE Switchgear Committee that the relevant [switchgear] standards will adopt the provisions of this standard by normative reference. Specific clauses may be adopted (a) without exception (the default), (b) with exceptions, (c) with additional requirements or a combination of (b) and (c), as deemed appropriate to the relevant standard. Refer to informative annex A for specific recommendations for use with a relevant standard. Note: IEC TC17 SC17A MT34 is currently developing IEC 62271-1. When the IEC 62271-1 standard is issued, it will replace IEC 60694. In an effort to promote harmonization, this standard is formatted similar to the IEC Standard.

Old Purpose: In conformity with the IEC style of IEC 62271-1, this document will not have a "Purpose" clause. However, the purpose of the document is best expressed in the following material contained in the "Foreword": This is a new standard written specifically to collect into one document the requirements that are common in many IEEE Power Switchgear Standards. It follows the concept already in place in IEC 62271-1. The expected benefits of this concept is to reduce the minor inconsistencies among the various switchgear standards and, where differences must remain, to have them highlighted by exception to these common requirements. It is the intention of the IEEE Switchgear Committee that the relevant [switchgear] standards will adopt the provisions of this standard by normative reference. Specific clauses may be adopted (a) without exception (the default), (b) with exceptions, (c) with additional requirements or a combination of (b) and (c), as deemed appropriate to the relevant standard. Refer to informative annex A for specific recommendations for use with a relevant standard. Note: IEC TC17 SC17A MT34 is currently developing IEC 62271-1. When the IEC 62271-1 standard is issued, it will replace IEC 60694. In an effort to promote harmonization, this standard is formatted similar to the IEC Standard.

5.5 Need for the Project: The reason for this project is to collect and publish in one document the clauses which are common in Switchgear Standards. IEC60694 will be used as a guide in development of this standard, and as a means of promoting IEC harmonization.
 There are many common requirements, such as service conditions and temperature rises, that are found in each of the individual C37 switchgear standards. In many instances, they do not agree with each other, which is technically incorrect. All of these common requirements should be contained in one technical document, as is done with IEC.
 The expected benefits of this standard will be to reduce the minor inconsistencies among the various switchgear standards and, where differences must remain, to have them highlighted by exception to these common requirements. The expected result is to improve the process of developing and revising these standards. This will be a horizontal standard that will not take effect until adopted by the relevant equipments standards. Stakeholders are all the users of the IEEE Switchgear standards.

5.6 Stakeholders for the Standard: Utility and industrial users and manufacturers of high voltage switchgear equipment.

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes **Presented Date:** 2006-05-09

If no, please explain:

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? Yes

If yes, please explain: Material from IEC 60694 has been used; copywrite permission letter from IEC is on file with IEEE.

6.1.c. Is the Sponsor aware of possible registration activity related to this project? No

If yes, please explain:

7.1 Are there other standards or projects with a similar scope? No

If yes, please explain:

Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? ? No

Technical Committee Name and Number:

Contact person:

Contact person Phone Number:

Contact person Email Address:

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No

7.4 Additional Explanatory Notes:

Change made to the voltage range in the title. This change is actually a correction since HV Swgr is ranged starting above 1000 V, not at 1000 V. The change will make the title consistent with the wording in the Scope.

8.1 Sponsor Information:

Is the Scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain:

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06 December 2006

Michael Wactor
Powell Electrical Systems, Inc.
8550 Mosley Drive
Houston, TX 77075
mwactor@powl.com

Re: PC37.100.1 - Standard of Common Requirements for High Voltage Power Switchgear Rated 1000 V and Above

Dear Michael:

I am pleased to report that on 06 December 2006 the IEEE-SA Standards Board approved the extension request of the above-referenced project until 31 December 2008.

If you should have any further questions, please contact me at +1 732 562 6003 or by email at s.hampton@ieee.org.

Sincerely,

Sherry Hampton
Administrator, Governance
Standards Activities
Phone +1 732 562 6003
FAX +1 732 875 0695
Email: s.hampton@ieee.org

CC: tburse@powl.com, stds-pes-scc@ieee.org, tburse@powl.com

IEEE-SA Standards Board Extension Request

Revised 14 September 2006

1. Date of Request: 2006-10-15
2. Assigned Project Number: PC37.100.1
3. Project Title: Standard of Common Requirements for High Voltage Power Switchgear Rated 1000 V and Above
 - a. Name of Working Group (WG): Common Clauses
 - b. Name of Working Group Chair: David T. Stone
 - c. Name of Sponsoring Society and Committee: Power Engineering/Switchgear Section
 - d. Name of Sponsoring Committee Chair: Michael D. Sigmon/Michael Wactor
4. Contact Information (Contact should be the person who will answer any questions concerning this extension request):
 - a. Name: David T. Stone
 - b. Telephone: (414) 339-2875
 - c. FAX: (414) 768-8236
 - d. EMAIL: dtstone@ieee.org
5. The current PAR is valid through 2006-12-31 (enter the expiration date of the PAR). This PAR Extension is being requested for: One Year

NOTE: The average extension request is for one or two years. NesCom will consider requests for extensions of three or four years on an exceptional basis. Such requests must be supported with sufficient detail on planned actions and activity dates to provide reasonable confidence that the project can be completed within the extended time.

6. Statement of why an extension is required. This should include a description of what the working group has accomplished and what remains to be accomplished, along with the reasons why the work was unable to be completed in the allotted time frame.

The second ballot that closed in March, 2005 had over 500 comments and 20 negative ballots. Resolution of the technical issues has been a challenging job for the WG. A recirculation ballot closed in Sept 2006 reducing the number of negatives to 5. A WG meeting was held in October 2006 (Milwaukee) and a second recirculation ballot is planned before the end of the year.

7. History

- a. What date was the PAR first approved? 2000-06-21
- b. What date did you begin writing the first draft? 2001-05-01
- c. How many people are actively working on the project? 14
- d. How many times a year does the working group meet:
 1. In person? 2
 2. Via teleconference? 0
- e. How many times a year is a draft circulated to the working group via electronic means? 3

8. Document Progress

- a. What percentage of the Draft is stable? 95%
- b. How many significant work revisions has the Draft been through? 7

9. Project Plan

(Item #9a is only for projects that have been balloted. If your draft has not yet gone to ballot, please go to Item #9b)

- a. Balloting History - Provide history of all IEEE Sponsor ballots under this project::

1st Ballot Close date (or scheduled close): 2004-07-26

1st Ballot Draft Number: 3

1st Ballot results (% affirmative, %negative, %abstain): 70%, 30%, 3%

2nd Ballot Close date (or scheduled close): 2005-03-28

2nd Ballot Draft Number: 5

2nd Ballot results (% affirmative, %negative, %abstain): 83%, 17%, 5%

(Add additional entries for ballots as needed): Recirculation ballot closed
9/15/2006; (96%, 4%, 4%)

When do you estimate that the final IEEE Sponsor ballot will be completed? 2006-12-15

When do you expect to submit the proposed standard to RevCom? 2007-01-15

- b. For projects that have not yet begun Sponsor ballot, please answer the following:**

When will IEEE sponsor balloting begin?

When do you estimate that the final IEEE Sponsor ballot will be completed?

When do you expect to submit the proposed standard to RevCom?

10. Future Adoptions

- If this is a new document, will it be adopted (in part or in whole) by another national, regional or international organization? No If yes, which organization?
- If this is a revision of an existing document, has this document been adopted by the IEC, ISO, ETSI, SCC, etc? No If yes, which organization?

11. Additional Extensions

a. Is this the first request for an extension? No (If yes, please do not go any further. You have completed the form.)

b. If not, when was the previous extension approved? 2004-12-08

After completion of this form, please e-mail this to the NesCom Administrator at nescom-admin@ieee.org. Confirmation of submittal will be sent on receipt of this request.

[Email This Letter](#)

12 December 2005

M. Dean Sigmon
ABB Inc.
2300 Mechanicsville Road
Florence, SC 29501-0524
michael.d.sigmon@us.abb.com

Re: PC37.100.1 - Standard of Common Requirements for High Voltage Power
Switchgear Rated 1000 V and Above

Dear M. Dean:

I am pleased to inform you that on 07 December 2005 the IEEE-SA Standards Board approved the above referenced project until 31 December 2006. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/C37-100-1.pdf>.

Now that your project has been approved, please forward a roster of participants involved in the development of this project. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2i under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

For your convenience, an Excel spreadsheet for your use has been posted on our website at <http://standards.ieee.org/guides/par/roster.xls>. Please forward this list to me via e-mail at j.haasz@ieee.org no later than 07 March 2006.

Please visit our website, IEEE Standards Development Online (<http://standards.ieee.org/resources/development/index.html>), for tools, forms and training to assist you in the standards development process. Also, we strongly recommend that a copy of your draft be sent to this office for review prior to the final vote by the working group to allow for a quick review by editorial staff before sponsor balloting begins.

If you should have any further questions, please contact me at 732-562-6367 or by email at j.haasz@ieee.org.

Sincerely,

Jodi Haasz
Program Manager
International Stds Programs and Governance
Standards Activities
Phone +1 732 562 6367
FAX +1 732 875 0695
Email: j.haasz@ieee.org

CC: jeffnelson@ieee.org, dtstone@ieee.org, stds-pes-scc@ieee.org

PAR FORM

PAR Status: Modified New PAR

PAR Approval Date: 07 December 2005

PAR Signature Page on File: Yes

1. Assigned Project Number: PC37.100.1

2. Sponsor Date of Request: 2005-06-23

3. Type of Document: Standard for

4. Title of Document:

Draft: Standard of Common Requirements for High Voltage Power Switchgear Rated 1000 V and Above

5. Life Cycle: Full-Use

6. Type of Project:

6a. Is this an update to an existing PAR? Yes

If Yes: Indicated PAR number/approval date: C37.100.1 - 2000-06-21

If Yes: Is this Project in Ballot now? Yes

6b. The Project is a: New Standard

7. Working Group Information:

Name of Working Group: Common Clauses Working Group

Approximate Number of Expected Working Group Members:14

8. Contact information for Working Group Chair:

Name of Working Group Chair: David Stone

Telephone: 414-768-8247 **FAX:** 414-768-8236

Email: dtstone@ieee.org

9. Contact information for Co-Chair/Official Reporter, Project Editor or Document Custodian if different from the Working Group Chair:

Name of Co-Chair/Official Reporter, Project Editor or Document Custodian:

Telephone: FAX:

Email:

10. Contact information for Sponsoring Society or Standards Coordinating Committee:

Name of Sponsoring Society and Committee: IEEE Power Engineering Society Switchgear

Name of Sponsoring Committee Chair: Jeffrey H Nelson

Telephone: 423 751 8275 **FAX:** 423 751 6238

Email: jeffnelson@ieee.org

Name of Liaison Rep. (if different from the Sponsor Chair): M. Dean Sigmon

Telephone: 843-413-4707 **FAX:** 843-413-4850

Email: michael.d.sigmon@us.abb.com

Name of Co-Sponsoring Society and Committee:

Name of Co-Sponsoring Committee Chair:

Telephone: FAX:

Email:

Name of Liaison Rep. (if different from the Sponsor Chair):

Telephone: FAX:

Email:

11. The Type of ballot is: Individual Sponsor Ballot

Expected Date of Submission for Initial Sponsor Ballot: March 2004

12. Projected Completion Date for Submittal to RevCom: March 2006

Target Extension Request Information for a Modified PAR whose completion date is being extended past the original four-year life of the PAR:

13. Scope of Proposed Project:

This standard applies to alternating current switchgear, designed for both indoor and outdoor installation and for operation at service frequencies up to and including 60 Hz on systems having voltages above 1000 V. Application of this standard shall be indicated by normative reference to C37.100.1-20xx in the relevant equipment standard on a clause-by-clause basis.

Is the completion of this document contingent upon the completion of another document?

No

14. Purpose of Proposed Project:

In conformity with the IEC style of IEC 62271-1, this document will not have a "Purpose" clause. However, the purpose of the document is best expressed in the following material contained in the "Foreword": This is a new standard written specifically to collect into one document the requirements that are common in many IEEE Power Switchgear Standards. It follows the concept already in place in IEC 62271-1. The expected benefits of this concept is to reduce the minor inconsistencies among the various switchgear standards and, where differences must remain, to have them highlighted by exception to these common requirements. It is the intention of the IEEE Switchgear Committee that the relevant [switchgear] standards will adopt the provisions of this standard by normative reference. Specific clauses may be adopted (a) without exception (the default), (b) with exceptions, (c) with additional requirements or a combination of (b) and (c), as deemed appropriate to the relevant standard. Refer to informative annex A for specific recommendations for use with a relevant standard. Note: IEC TC17 SC17A MT34 is currently developing IEC 62271-1. When the IEC 62271-1 standard is issued, it will replace IEC 60694. In an effort to promote harmonization, this standard is formatted similar to the IEC Standard.

15. Reason for the Proposed Project:

The reason for this project is to collect and publish in one document the clauses which are common in Switchgear Standards. IEC60694 will be used as a guide in development of this

standard, and as a means of promoting IEC harmonization.

There are many common requirements, such as service conditions and temperature rises, that are found in each of the individual C37 switchgear standards. In many instances, they do not agree with each other, which is technically incorrect. All of these common requirements should be contained in one technical document, as is done with IEC.

The expected benefits of this standard will be to reduce the minor inconsistencies among the various switchgear standards and, where differences must remain, to have them highlighted by exception to these common requirements. The expected result is to improve the process of developing and revising these standards. This will be a horizontal standard that will not take effect until adopted by the relevant equipments standards. Stakeholders are all the users of the IEEE Switchgear standards.

16. Intellectual Property:

- a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR? Yes 2006-05-09**
- b. Is the sponsor aware of copyright permissions needed for this project? No**
- c. Is the sponsor aware of trademarks that apply to this project? No**
- d. Is the sponsor aware of possible registration activity related to this project? No**

17. Are there other documents or projects with a similar scope? No

Similar Scope Project Information:

18. Is there potential for this document (in part or in whole) to be adopted by another national, regional or international organization? No

If yes, the following questions must be answered:

Organization Name?

Technical

Committee

International

Contact

Information?

19. Will this project result in any health, safety, or environmental guidance that affects or applies to human health or safety? No

If yes, please explain:

20. Sponsor Information

a. Is the scope of this project within the approved/scope/definition of the Sponsor's Charter? Yes

If no, please explain:

b. The Sponsor's procedures have been accepted by the IEEE-SA Standards Board Audit Committee? Yes

21. Additional Explanatory Notes: (Item Number and Explanation)

Item #4 - The old title was "Standard of Common Requirements for Switchgear". The title has been changed to add quantitative range of voltage - "High Voltage.... Above 1000 V".

Items #13 and #14 - The answers are now taken verbatim from the document, whereas the original PAR format did not require exact copies. The scope and purpose of the document have never changed, but rather, the changes are needed to bring the data in the PAR form up-to-date with the changing definitions used in the PAR forms.

Item #14 - In conformity with the IEC style of IEC 62271-1, this document will not have a "Purpose" clause. However, the purpose of the document is best expressed in the material contained in the "Foreword" of the document (which has been entered as the "Purpose" of the PAR).

Item #15 - The reason contains the original scope and purpose (items 6 and 7) from the original PAR.