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09 December 2005

Jeffrey G Gilbert  
PPL Electric Utilities Corp  
2 N 9th Street, GENN 4  
Allentown, PA 18101-1179  
jggilbert@pplweb.com

Re: PC37.105 - Standard for Qualifying Class 1E Protective Relays and Auxiliaries for Nuclear Power Generating Stations

Dear Jeffrey:

I am pleased to report that on 07 December 2005 the IEEE-SA Standards Board approved the extension request of the above-referenced project until 31 December 2007.

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

CC: [pbwinsto@southernco.com](mailto:pbwinsto@southernco.com), [susman@bechtel.com](mailto:susman@bechtel.com), [stds-pes-scc@ieee.org](mailto:stds-pes-scc@ieee.org)

# IEEE-SA Standards Board Extension Request

## Revised 23 June 2004

1. Date of Request: 28-Sep-05
2. Assigned Project Number: PC37.105
3. Project Title: Standard for Qualifying Class 1E Protective Relays and Auxiliaries for Nuclear Power Generating Stations
  - a. Name of Working Group (WG): Revision of the IEEE Standard C37.105-1987 for Class 1E Protective Relays
  - b. Name of Working Group Chair: Sahib M. Usman
  - c. Name of Sponsoring Society and Committee: Power Engineering Society, Power System Relaying Committee
  - d. Name of Sponsoring Committee Chair: Philip B. Winston
4. Contact Information (Contact should be the person who will answer any questions concerning this extension request):
  - a. Name: Jeffrey Gilbert
  - b. Telephone: 610 774 4321
  - c. FAX: 610 774 4688
  - d. EMAIL: jggilbert@ieee.org
5. 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 timeframe  
The working group completed Draft 10 of the standard (as originally scoped) for balloting. We are reviewing the negative ballots and resolving issues raised. WG members feel that the draft should be revised to adequately address qualification of the modern digital relays, and to harmonize with corresponding IEC standards . To accomplish this, an extension of the PAR is required for two years.
6. History
  - a. What date was the PAR first approved? 30-Jan-00
  - b. What date did you begin writing the first draft? 1-May-00
  - c. How many people are actively working on the project? 10
  - d. How many times a year does the working group meet:
    1. In person? 3
    2. Via teleconference? 4
  - e. How many times a year is a draft circulated to the working group via electronic means? 3
7. Document Progress
  - a. What percentage of the Draft is stable? 80%
  - b. How many significant work revisions has the Draft been through? 10

## 8. Project Plan

**(Item #8a is only for projects that have been balloted. If your draft has not yet gone to ballot, please go to Item #8b)**

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

1<sup>st</sup> Ballot Close date (or scheduled close): 2004-10-08

1<sup>st</sup> Ballot Draft Number: 10

1<sup>st</sup> Ballot results (% affirmative, %negative, %abstain): 81% affirmative, 19% negative

2<sup>nd</sup> Ballot Close date (or scheduled close):

2<sup>nd</sup> Ballot Draft Number:

2<sup>nd</sup> Ballot results (% affirmative, %negative, %abstain):

(Add additional entries for ballots as needed):

When do you estimate that the final IEEE Sponsor ballot will be completed? 1-Jul-07

When do you expect to submit the proposed standard to RevCom? 1-Dec-07

**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?

## 9. Future Adoptions

- If this is a new document, will it be adopted (in part or in whole) by another national, regional or international organization? Do Not Know 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?

## 10. 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? 12-Jun-03

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.



**Jodi Haasz**  
**<j.haasz@ieee.org>**  
06/16/2003 03:55 PM

To: m.s.sachdev@ieee.org  
cc: SXM3@nrc.gov, rick.taylor@sgswitter.com, stds-pes-scc@ieee.org  
Subject: Extension Approval of the Project PC37.105

16 June 2003

Mohindar Sachdev  
University of Saskatchewan  
243 Willoughby Cres.  
Saskatoon, SK, S7H 4W6  
CANADA  
m.s.sachdev@ieee.org

Re: PC37.105 - Standard for Qualifying Class 1E Protective Relays and  
Auxiliaries for Nuclear Power Generating Stations

Dear Mohindar:

I am pleased to report that on 12 June 2003 the IEEE-SA Standards Board  
approved the extension request of the above-referenced project until 31  
December 2005.

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  
Senior Administrator  
IEEE-SA Governance and Electronic Processes  
Standards Activities  
Phone +1 732 562 6367  
FAX +1 208 460 5300  
Email: j.haasz@ieee.org

cc: SXM3@nrc.gov, rick.taylor@sgswitter.com, stds-pes-scc@ieee.org

**IEEE-SA Standards Board Extension Request**  
**Revised 6 December 2000**

1. Date of Request: 04/04/2003
2. Assigned Project Number: PC37.105
3. Project Title: Standard for Qualifying Class 1E Protective Relays and Auxiliaries for Nuclear Power Generating Stations
  - a. Name of Working Group(WG): Revision of the standard C37.105 for Class 1E Protective Relays
  - b. Name of Working Group Chair: Subinoy Mazumdar
  - c. Name of Sponsoring Society and Committee: PE/PSR
  - d. Name of Sponsoring Committee Chair: Mohindar S. Sachdev
4. Contact Information (Contact should be the person who will answer any questions concerning this extension request):
  - a. Name: Subinoy Mazumdar
  - b. Telephone: 301-415-6800
  - c. FAX: 301-415-5074
  - d. EMAIL: [sxm3@nrc.gov](mailto:sxm3@nrc.gov)
5. Statement of why an extension is required. If this is a request for an additional extension, please state why you believe that this extension request will be your final request, and the reason for this additional extension:

Our current draft is in the final stage of approval by the WG members and we expect it to go for balloting in the Fall of this year. We believe the standard will be issued much before the end of the requested extension period.
6. History
  - a. When was the PAR first approved? July 20, 1999
  - b. When did you begin writing the first draft? February 2000
  - c. How many people are actively working on the project? 8
  - d. How many times a year does the working group meet in person? 3
  - e. How frequently is a draft version circulated to the working group via electronic means? Twice a year
7. Document Progress
  - a. How much of the Draft is stable 90%
  - b. How many significant work revisions has the Draft been through?

c. Briefly describe what the development group has already accomplished, and what remains to be done. The draft is complete awaiting final approval by the WG members prior to balloting

8. Project Plan

- a. When did/will IEEE sponsor balloting begin? Fall 2003
- b. When do you estimate that the final IEEE Sponsor ballot will be completed? December 2003
- c. When do you expect to submit the proposed standard to RevCom? September 2004
- d. Do you see value in help or mentoring from the Standards Board staff to meet your projected schedule? If so, what kind of help would be useful? Final verification that the draft meets all the requirements of the IEEE Style Manual

9. Additional Extensions

- a. Is this the first request for an extension? (If yes, please do not go any further. You have completed the form.) Yes
- b. If not, when was the previous extension approved? \*\*\*\* \*
- c. How much additional time is needed to complete the project? \* years

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.

IEEE-SA Standards Board Project Authorization Request (PAR) (1999-Rev 1)

1. Sponsor Date of Request [ 7/9/99 ]
2. Assigned Project Number [PC37.105]
3. PAR Approval DATE [30 January 2000] {IEEE Staff to fill in box}  
{Copyright release must be received with appropriate signatures  
by postal mail or FAX (1-732-562-1571)}  
[ ] PAR Signature Page Received {IEEE Staff to check Box}

4. Project Title and Working Group/Sponsor for this Project  
Document type : {Place an X in only one option below}  
 Standard for [~~Qualifying Class 1E Protective Relays and Auxiliaries  
for Nuclear Power Generating Stations~~]  
[ ] Recommended Practice for {Document stressing the verb "SHOULD"}  
[ ] Guide for {Documents in which good practices are suggested}

TITLE: [~~IEEE~~ Standard for Qualifying Class 1E Protective Relays and  
Auxiliaries for Nuclear Power Generating Stations]

Name of Working Group:[ Revision of the IEEE Standard C37.105-1987 for Class 1E  
Protective Relays ]

Name of Official Reporter: Subinoy Mazumdar  
Title in WG: Chair IEEE/SA/Affiliate Member #06418537  
Company: Nuclear Regulatory Commission Telephone: 301-415-2904  
Address: Mail Stop: O-9D3, 11555 Rockville Pike FAX: 301-415-1137 or 2222  
City/State/Zip: Rockville, MD 20582 EMAIL: sxm3@nrc.gov

Name of WG Chair (if different than Reporter): [ ]  
IEEE/Affiliate Memb # [ ]{Required}  
Company: [ ] Telephone: [ ]  
Address: [ ] FAX: [ ]  
City/State/Zip: [ ] EMAIL: [ ]

Name of Sponsoring Society and Committee:[ Power Engineering Society]  
Name of Sponsoring Committee Chair: Miriam Sanders (Standards Liaison)  
[IEEE/SA/Affiliate Member # 07653439](#)  
Company: [ Pulsar Technologies. Inc ]  
Telephone: [954-344-9822 x 215 ]  
Address: [4050 NW 121 Ave ] FAX: [954-340-6676 ]  
City/State/Zip: [Coral Springs, FL 33065 ] EMAIL: [ miriam.sanders@pulsartech.com ]

5. Describe this Project by answering each of five questions below:

- 5a. Update an existing PAR? {Yes/No} [ No ]  
If YES: Indicated PAR number/approval date [ ]  
If YES: Attach cover letter indicating changes/rationale for changes.  
If YES: Is this project in ballot now? [ ] {Yes/No}
- 5b. Choose one from the following:

b1 -[ ] New Standard

b2 -[ x ] Revision of existing standard [C37.105-1987 ]

b3 -[ ] Amendment (Supplement) to existing standard {number and year} [ ]

b4 -[ ] Corrigenda to existing standard {number and year} [ ]

5c. Choose one from the following:

c1 -[ x ] Full Use (5-year life cycle)

c2 -[ ] Trial Use (2-year cycle)

5d. Choose one from the following:

d1 -[ X ] Individual Sponsor Ballot Process

d2 -[ ] Entity (not Individual) Sponsor Ballot Process

5e. Fill in Target Completion Date to IEEE RevCom [September 2003 ]

6. Scope of Proposed Project

{what is being done, including technical boundaries on the work}

[ ] {This should be brief (less than 5 lines recommended)}

~~o—Revise the standard incorporating the current requirements of the nuclear industry and the Nuclear Regulatory Commission~~

~~o—Incorporate the lessons learned from field experiences~~

~~o—Update with the progress made in the relay technology including digital relays~~

~~o—Update the references~~

~~o—Reformat with the requirements of the current guidelines for IEEE Standards~~

~~Determine procedures for pre-conditioning relays to the end of their qualified life prior to seismic testing for nuclear power facilities and revise the existing standard.~~

7. Purpose of Proposed Project:

{why it is being done, including intended users, and benefits to users}

[ ] {This should be brief (less than 5 lines recommended)}

The IEEE C37.105 for qualifying Class 1E protective relays for nuclear plants was issued in 1987 and reaffirmed in December 1990. The standard need be reviewed completely to verify its applicability for all types of relays with the current requirements of the nuclear industry, incorporate the lessons learned from field experience, and update with the progress made in the protective relay technology. Specifically, the Working Group needs to review the requirements for digital relays and seismic qualifications for all relays.

8. Intellectual Property {Answer each of the questions below}

8a. Are you aware of any patents relevant to this project?

[ No ] {Yes, with detailed explanation below/ No}

[ ] {Explanation}

8b. Are you aware of any copyrights relevant to this project?

[ No ] {Yes, with detailed explanation below/ No}  
[ ] {Explanation}

8c. Are you aware of any trademarks relevant to this project?  
[ No ] {Yes, with explanation below/ No}  
[ ] {Explanation}

8d. Are you aware of any registration of objects or numbers relevant to this project?  
[ No ] {Yes, with explanation below/ No}

9. Are you aware of other standards or projects with a similar scope?  
[ No ] {Yes, with explanation below/ No}  
[ ] {Explanation}

#### 10. International Harmonization

Is this standard planned for adoption by another international organization?

[ No ] {Yes/No/?? if you don't know at this time}

If Yes: Which International Organization [ ]

If Yes: Include coordination in question 13 below

If No: Explanation [ ]

11. Is this project intended to focus on health, safety or environmental issues?

[ Yes ] {Yes/No/?? if you don't know at this time}

If Yes: Explanation? [ ]

Related to Class 1E equipment in Nuclear Power Generating Stations

#### 12. Proposed Coordination/Recommended Method of Coordination

##### 12a. Mandatory Coordination

SCC 10 (IEEE Dictionary) by DR

IEEE Staff Editorial Review by DR

SCC 14 (Quantities, Units and Letter symbols) by DR

##### 12b. Coordination requested by Sponsor and Method:

[ ] by [ ] {circulation of DRafts/Llaison memb/COmmon memb}

[ ] by [ ] {circulation of DRafts/Llaison memb/COmmon memb}

[ ] by [ ] {circulation of DRafts/Llaison memb/COmmon memb}

[ ] by [ ] {circulation of DRafts/Llaison memb/COmmon memb}

{Choose DR or LI or CO for each coordination request}

##### 12c. Coordination Requested by Others:

[ ] {added by staff}

Additional Explanation Notes: {Item Number and Explanation}

[ ] {If necessary, these can be continued on additional pages}

**CC:** GATED.nrcsmtp("wpwaudby@cmsenergy.com")

To: miriam.sanders@pulsartech.com  
From: Jodi Haasz <j.haasz@ieee.org>  
Subject: PC37.105 Standard for Qualifying Class 1E Protective Relays and Auxiliaries for Nuclear Power Generating Stations  
Cc: sxm3@nrc.gov  
Bcc:  
X-Attachments: :Macintosh HD:1631:C37-105.pdf:

31 January 2000

Ms. Miriam Sanders  
Pulsar Technologies, Inc.  
4050 NW 121 Avenue  
Coral Springs, FL 33065

Re: PC37.105 Standard for Qualifying Class 1E Protective Relays and Auxiliaries for Nuclear Power Generating Stations

Dear Ms. Sanders:

I am pleased to inform you that on 30 January 2000 the IEEE-SA Standards Board approved the above referenced project, using the scope from the previous PAR, which is as follows:

*Determine procedures for pre-conditioning relays to the end of their qualified life prior to seismic testing for nuclear power facilities and revise the existing standard.*

A copy of the file is attached in .pdf format.

At the bottom of this e-mail, please find URLs which you may find useful in the development of your proposed standard and in submitting your final draft for approval. Written responses from all committees/organizations listed on the PAR as proposed coordination must be included with the final draft when it is submitted.

If coordination is effected by common membership, i.e., a person on the standard's developing committee who is also a member of the committee/organization specified on the PAR for coordination, there must be a document included with the final draft from that coordinating body which states that person is authorized to represent it. We strongly recommend that a copy of your draft be sent to this office for review prior to the final voting by the working group to allow for a quick review by the editorial staff before sponsor balloting.

If you should have any further questions or would like to receive this information in paper, please contact me at 732-562-6367 or by email at j.haasz@ieee.org

Sincerely,

Jodi Haasz

Administrator, Standards Process Support  
NesCom Administrator

cc: S. Mazumdar

PS - The information in the .pdf file is viewable in Adobe Reader, version 3.0 or higher. If you do not have this software, please go to <http://www.adobe.com/prodindex/acrobat/readstep.html#reader> to download the free version.

\*\*\*\*\*

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Standards Process-at-a-Glance

<http://standards.ieee.org/resources/glance.html> - A quick-reference site useful to any standards developer.

IEEE Standards Style Manual

<http://standards.ieee.org/guides/style/index.html> - Guidelines that establish style and format requirements for the preparation of proposed IEEE standards.

IEEE Standards Companion

<http://standards.ieee.org/guides/companion/index.html> - An overall view of the standards process; what to do, what to avoid, lessons learned, and sample forms.

Implement Plan for Metric Policy 9.20

<http://standards.ieee.org/announcements/metric.html> - Information on when, why and how the plan will be implemented and what exceptions exist.

Leading a Standards Development Group

<http://standards.ieee.org/faqs/ltpres.html#q1> - A free training session offered by staff to make the most of the standards process. After attending, you will have a great understanding of:

- the need for due process and consensus
- how to submit PARs and Drafts
- the "legal" aspects (copyrights, trademarks, patents)
- how staff can help you

Standards Coordinating Committee 10

<http://standards.ieee.org/faqs/SCC10.html> - An explanation of the importance of coordinating with the IEEE Dictionary (SCC10) as is mandated on the PAR form.

Balloting Information

[http://standards.ieee.org/resources/glance\\_at\\_balloting.html](http://standards.ieee.org/resources/glance_at_balloting.html)