pcic-12-0006-01-MMIN

PCIC Standards Subcommittee Meeting
Tuesday, September 20, 2011 – Toronto, Ontario Canada

Approved Minutes

Issued November 4, 2011, Revised August 30, 2012, Approved September 25, 2012

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Item 9.a – API SOEE Liaison Report – Roy Hamilton

Item 9.b.1 - IEC Category D Liason for IEEE to IEC 60079-15 – Paul Hamer

Item 9.c – OBIEC Slides-Tim Driscoll

Item 11.c Standards Program Update - Tricia Gerdon, IEEE SA Staff Liaison

Revisions and Reaffirmation, new process starting January 2012

MINUTES

Call to Order
The meeting was called to order at 12:45 PM by the Chair; Will McBride, at the Sheraton Centre Toronto Hotel, Ontario Canada.

1.0 Circulation of Roster – Record of Proxies
The Chair introduced the Secretary, Lorraine Padden and Vice Chair, Daleep Mohla. There were 3 officers, 44 voting members, 29 aspirant members, 2 guests, and 3 IEEE representatives present. Two voting members requested excused absences. Will McBride circulated copies of the roster for the members and guests to indicate their attendance and update their addresses, including their email address. There were no proxies.

2.0 Approval of Agenda
The Agenda was reviewed. Yuri Khersonsky requested an agenda item be added for a "Discussion of Standards Information" under New Business led by Will McBride. A motion was made, seconded and approved unanimously to accept the modified Agenda.

3.0 Approval of Minutes of Last Meeting
Rick Bried moved to accept Minutes of the last meeting September 21, 2010 as written, Rich Hulett seconded, motion approved unanimously.

4.0 IEEE Standards Association Summary
Rich Hulett, IEEE Standards Board Chair, presented information on the IEEE Standards Association Update. The information included IEEE organizational chart, External Representative (ER), Owning Board/Committee (OBC), SCC-18, Category D Liaisons to IEC Standards, Affiliation definition, and Joint Working Group development opportunities. Presentation materials are attached to the minutes.

5.0 IEEE/NFPA Arc-Flash Hazard Research
Ben Johnson, IEEE SA Past-President, presented information on the IEEE/NFPA Joint Research on Arc-Flash Hazards. A list of participating companies was provided. Wei Jen Lee of UT-Arlington is leading the research effort. A chart of predicted arc-fault current vs. actual arc-fault current was shown. Presentation materials are attached to the minutes.

6.0 Codes and Regulations Working Group – Don Voltz, Chair
At the meeting Sunday, about 35 to 40 people attended. Reports were given. NFPA/NEC Code Proposals were presented at the Codes & Regulations meeting and were supported by the Working Group. These 2014 NEC Code proposals were presented to the Standards SC: Rich Hulett moved to accept 2014 NEC proposals by Rick Bried for 501.125 and 505.20 as written, Gary Donner seconded, motion approved unanimously. Rich Holub moved to accept 2014 NEC proposals by Neal Fenster for 426.32 and 427.27 as written, Rick Bried seconded, motion approved unanimously. These proposals will be presented by Will McBride to the PCIC Executive Committee to ask for IEEE support of these proposals. If approved, the PCIC Chair will submit the final proposals submitted to NFPA to SCC-18 to ask the Chair of SCC-18

to forward the proposals to IEEE's External Representative on the respective NEC Code Making Panels so they can contact the submitter for additional information as needed. The final NEC Code proposals are attached to the minutes for reference.

7.0 Reports from Standards WG Chairs

Working Group Chair reports were submitted electronically and are attached to these minutes. A status summary was presented at the meeting and is also attached. Notable items from the Chairs:

- 45.2 – Standard approved September 2011
- 45.3 – PAR Revision submitted September 2011
- 45.7 – In Formal Ballot Process
- 303 – Reaffirmation in process. Recirculation October 2011. Submit to RevCom for Dec. 2011.
- 463 – PAR approved 2011-2015.
- 515 – Standard approved June 2011
- 515.1 PAR expires 2011
- 576 – Considering moving information to 1242
- 1068-2009/Cor 1 – PAR approved 2011-2015
- 1349 – Standard approved September 2011
- 1584 – PAR extension planned
- 1584b – Standard approved March 2011
- 1683 – PAR PAR extension planned
- 1810 – Modified PAR conditionally approved. Sponsor must confirm procedures followed
- 80005-1 – New standard number and title

8.0 Other Standards Reports

a. API SC on Electrical Equipment – Roy Hamilton's report on the API SOEE standards work is attached to the minutes.

b. IEC LiaisonReports

1. **IEC 60079- 15:** Paul Hamer, Category D liaison to IEC 60079- 15 standard which includes Ex"n" equipment updated the group. His electronic report is attached with the minutes. It was also noted that Rob Roberton was listed as a Liaison on the IEEE Web site.
2. **IEC TC18:** Kevin Peterson, Category D Liaison approved between IEC TC18 –MT 26/80005-1, refer to Working Group Report

c. OBIEC: Tim Driscoll updated the status of Objective Based Industrial Electrical Code (OBIEC). A copy of the information presented is attached to the minutes.

9.0 Old Business

a. **Sponsor Policies & Procedures –** Chair Will McBride noted that Sponsor Procedures were being updated to align with the new Sponsor Procedures on IEEE's website. The procedures will be circulated to the Standards SC voting members. Following approval by the Standards SC; the Procedures will be need to be submitted to AudCom for approval. Then IEEE will post them on their Website; PCIC can link to that page.

b. **Working Group Procedures** –Working Groups with Active PARs should immediately prepare new Working Group procedures (using the Go-By Procedures that were approved by the PCIC Standards SC and issued to the WGs) and circulate them to their WGs for approval. The approved WG procedures should be dated, then, forwarded to Standards SC officers for filing. *Note the Sponsor needs to confirm that Procedures are in place to move a proposed Standard through the IEEE standards process.* The Working Groups were reminded that officers are nominated by the Standards SC Chair and officer appointments are made by the Chair of PCIC. If you would like to nominate someone for a Working Group officer position, please contact the Standards SC Chair. Officers are required to be IEEE members and IEEE-SA members.

c. **IEEE SA Awards & Recognition Committee** – When an IEEE Standard is published, the Working Group Chair needs to complete a form to receive their Standards Plaque and recognize their Working Group members (request the form from IEEE and/or Will McBride). Standards SC Chair, Will McBride, handed out the Standards Awards at the PCIC Monday Awards Luncheon for completed standards and other standards were recognized.

1. **2011 Standards Award Recipients:**
   IEEE Std. 1580 Rudy Bright, Chair
   IEEE Std. 515 Dusty Brown, Co-Chair & Rich Hulett, Co-Chair
2. **2011 Standards Recognition:**
   IEEE Std. 1584.b Craig Wellman, Chair (Amendment)
   IEEE Std. 1458-2005 Gary Donner, Chair (Reaffirmation)
3. **WG Member - "Certificate of Appreciation"**
   Chair Will McBride reminded Working Groups Chairs, the IEEE SA has Awards and Recognition "Certificate of Appreciation" for Working Group member recognition following the publication of Standards. Working Group chairs need to fill out the form.

10.0 New Business

a. **Status: Category D Liaison to IEC 79-15 Ex"n"** non-sparking & Category D Liaison to IEC 60079-7 Ex"e" increased safety Maintenance Teams. Rich Hulett will work with Standards SC Chair, IEEE, and Liaisons to complete this process.

b. **Status of PCIC as IEC OBC (Owning Board/Committee).** Rich Hulett will work with Standards SC Chair and IEEE to complete this process.

c. **Standards Program Update** – Tricia Gerdon, IEEE SA Staff Liaison to PCIC, presented information on the new Revision and Reaffirmation process and time-frame that begins

January 2012. Attached is a summary of the new IEEE process for a 10 year cycle for standards.

d. **New PARS** (Project Authorization Request) No new PARs were identified. There was an interest in IEEE PCIC sponsored electrical standards for subsea electrical.

e. **Working Group Chair Survey** A survey of the Working Group Chairs addressed two questions. Responses received 20 out of 43 Standards.
   1. Does your Working Group need IAS Operating Support Personnel to take notes and minutes of your Working Group meetings during the PCIC Conference? Yes (1), No (19)
   2. Does your Working Group have any Standards Development problems? Yes (5), No (15)

   These results will be shared with IEEE staff. The Standards Development problems need to be addressed on an individual standard basis working immediately with Working Group Chairs and IEEE staff to address them when they arise.

f. **Standards SC Task Group (Questionnaire).** Following the 2010 PCIC Conference, a Standards Subcommittee Task Group was appointed by Chair Will McBride to Improve the IEEE IAS PCIC Standards activities associated with the PCIC Conference and update the Guide for Standards meetings during the PCIC Conference and Framework as appropriate, for the 2012 PCIC Conference. A questionnaire was sent to the Local Committee, Technical Subcommittee Chairs, and Working Group Chairs. Sixteen responses were received. The information will be used by the Task Group. At this time, one of the apparent results from this process is to add a breakfast meeting on Sunday from 7:00 am to 8:00 am for 2012 PCIC Conference for Working Group officers to get updates and assistance from IEEE staff.

g. **"Conference Call" Line and Web meeting capabilities** A request will be made by the Standards SC Chair at the PCIC Executive Committee meeting to pursue a means for a "Conference Call" Line and Web meeting capabilities for PCIC Standards Working Groups to host/hold Working Group meetings and teleconferences for Standards Development purposes.

h. **Discuss Standards Information.** A breakfast meeting is being planned for the 2012 PCIC Conference to allow Working Group officers to meet with IEEE staff to assist with Standards development and get updated information. IEEE staff should be contacted anytime there is a question for Standards Development.

11.0 . Next meeting

Next Standards SC meeting is scheduled to be held in conjunction with the 2012 PCIC meeting in September 2012 in New Orleans, LA. Confirm the date and time when PCIC 2012 technical program is issued. A reminder was given to reserve rooms early for the conference.

12.0 Adjournment

There being no other business to conduct, Daleep Mohla made a motion and Rich Hulett seconded for adjournment. The meeting was adjourned at 2:15 PM by Chair McBride.

LIST OF ATTACHMENTS

Item 5 – IEEE Standards Association Summary - Rich Hulett, IEEE Standards Board Chair
Item 6 – Arc-Flash Research Project IEEE/NFPA – Ben Johnson, IEEE SA Past- President
Item 7 – Report from Codes & Regulations – Don Volts, Chair
NFPA/NEC Code Proposals – 426.32; 427.27; 501.125; 505.20
Item 6 - PCIC Sponsored Standards – Summary
Item 6 - Annual Reports for the following Standards

IEEE PCIC Standard #	IEEE PCIC Standard #	IEEE PCIC Standard #
45, 45.1, 1580.1	515.1	1662
45.0	576	1673
45.2	841	1683
45.3	844.1, 844.2, & 844.3	1709
45.4	1017, 1018, &1019	1714
45.5	1068	1716
45.6	1242	1810
45.7	1349	1814
45.8	1458	1826
303	1566	60079-30-1/515 & -2/515
463	1580	80005-1
515	1584, 1584.a, 1584.b, 1584.1	

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- Revisions and Reaffirmation, new process starting January 2012

ITEM 5 – IEEE STANDARDS ASSOCIATION SUMMARY – RICH HULETT, IEEE STANDARDS BOARD CHAIR

IEEE STANDARDS ASSOCIATION

IEEE

IEEE Standards Association Update

IEEE PCIC Standards Subcommittee

Rich Hulett

IEEE-SA Standards Board Chair

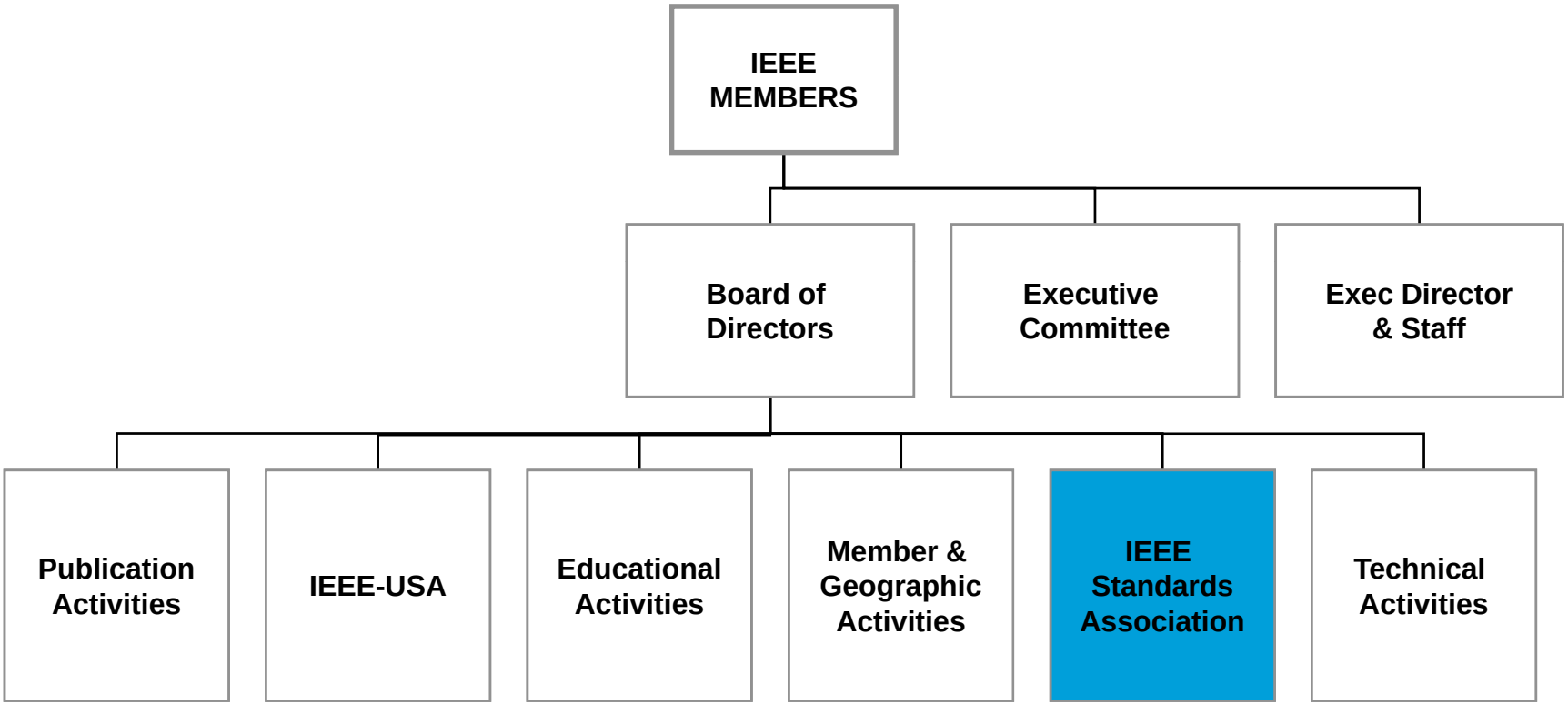
Toronto, Ontario, Canada

20 September 2011

Agenda

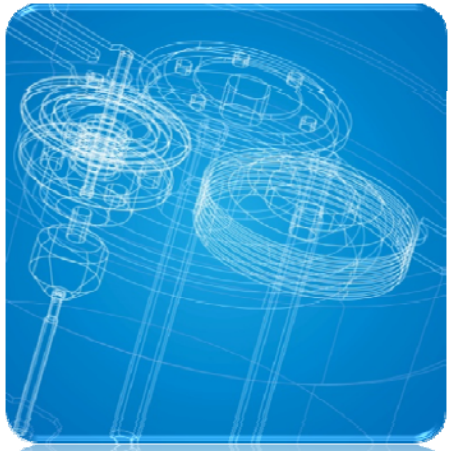
- About IEEE - SA
- IEEE-SA External Representatives
  - IEEE SCC18
  - Category D Liaisons
- Affiliation
- IEC/IEEE Joint Development Stds

IEEE Organization



IEEE Standards Association (IEEE-SA)

- Globally recognized standards
- Over 900 active standards
- More than 500 standards under development
- 7,000 individual members
- 200 corporate members
- Over 20,000 standards developers worldwide



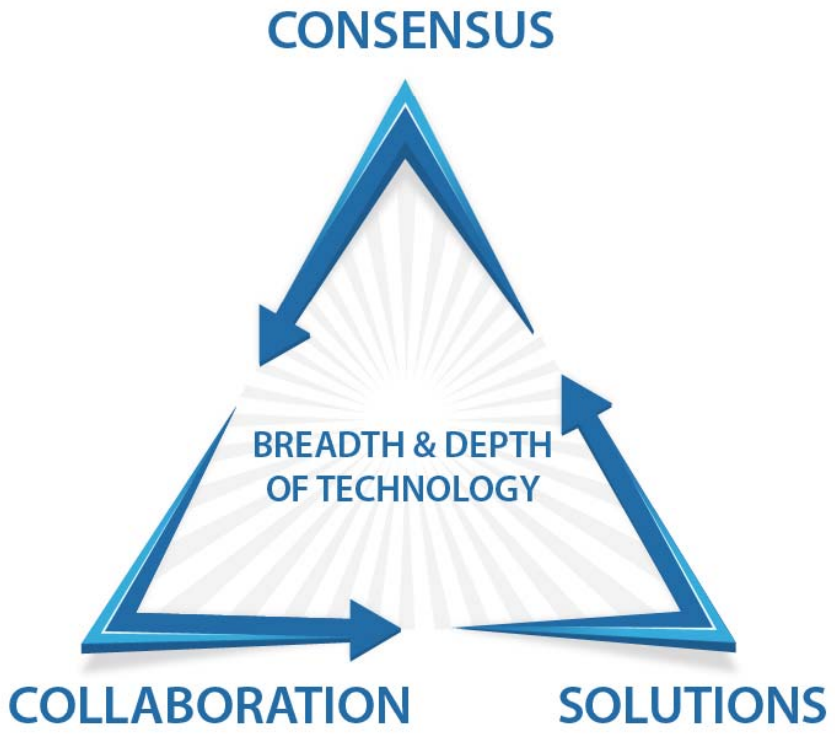
Complete Business Lifecycle

IEEE-SA provides industry a framework of solutions to ensure rapid introduction of new technologies to market

IEEE-SA Rigorous Standards Process

- Consensus
- Due Process
- Openness
- Right of Appeal
- Balance

The widely respected IEEE-SA standards-development process produces results that reflect the collective, consensus view of participants and enables industry to achieve specific objectives and solutions



IEEE-SA Global Presence: MOUs, Events, Workshops

What is an ER?

Definitions

- An External Representative (ER) is a volunteer who has been appointed by the IEEE-SA to represent the IEEE on standards matters to an organization, committee, or entity external to the IEEE.
  - An ER is not a volunteer who serves as a liaison between an IEEE-SA committee and an external committee acting only as an information conduit.
- An Owning Board/Committee (OBC) is an IEEE-SA board, an IEEE-SA committee, or standards Sponsor responsible for ensuring that positions taken by an ER represent consensus views of the OBC and the IEEE-SA.
  - E.g., SCC18 is an OBC

Rationale for the ER Policy

- IEEE is a very large and prominent organization in its fields of interest.
- It is also very complex, with hundreds of entities and sub-entities.
- Groups outside of the IEEE, from every category (e.g., academia, government, trade associations, and professional and technical organizations) seek and obtain representation from the IEEE for specific purposes.
- To meet the challenges associated with enabling the IEEE to "speak with one voice," particularly when multiple entities are stakeholders in an area of interest that involves IEEE representation, the IEEE Board of Directors directed the Standards Association to develop and approve a policy on External Representatives.

IEEE-SA External Representatives

- In accordance with IEEE Bylaw I-304.6, the IEEE-SA is the only body authorized to represent IEEE on matters concerning IEEE standards activity.

Requirement

- The ER shall act in the interest of the IEEE-SA at all times.

Appointments

- Each ER shall be appointed for a term of no less than one year, and may be reappointed at the discretion of the OBC.
- Before an individual can serve as an ER, the IEEE-SA Board of Governors (BoG) shall confirm their appointment, or reappointment, to that position.
- Any other approvals from the organization an ER is participating on follow IEEE-SA BoG approval
  - E.G., NFPA Standards Council for IEEE Representatives on NFPA Panels after BoG approval

IEEE SCC18 ER Update

- All IEEE SCC18 members who will serve as IEEE External Representatives to NFPA codes and standards committees (NEC, NFPA 70E, etc.) were approved by the IEEE-SA Board of Governors (Bog) at the June 2011 BoG meeting
  - All required documentation was submitted and reviewed by staff/BoG
- Next step for IEEE SCC18 ERs is for the NFPA Standards Council to review and approve the IEEE nominations at the October 17-18 2011 NFPA Standards Council meeting

IAS/PCIC IEC Category D Liaisons: ERs

- IAS/PCIC P1713: IEC TC18 Electrical Installation of Ships and of mobile and fixed floating offshore units/MT26 Maintenance of IEC 60092-51 – Kevin Peterson
- IAS/PCIC TC31 Electrical Apparatus for Explosive Atmospheres Maintenance for IEC 60079-7 and IEC 60079-15 – Paul Hamer and Rob Roberton

For More ER Information

- http://standards.ieee.org/faqs/ers.html
- IEEE-SA Operations Manual
  - Clause 7, Relationships with Other Organizations
  - http://standards.ieee.org/develop/policies/sa_opman/sect7.html

What Is Affiliation and Why Needed?

Definition of Affiliation

- Defined in the *IEEE-SA Standards Board Bylaws*, 5.2.1.5 as:
- "An individual is deemed "affiliated" with any individual or entity that has been, or will be, **financially or materially supporting that individual's participation in a particular IEEE standards activity**. This includes, but is not limited to, his or her employer and any individual or entity that has or will have, **either directly or indirectly, requested, paid for, or otherwise sponsored his or her participation**."

Declaration of Affiliation

- Each participant's affiliation shall be disclosed at any working group or project meeting and declared in every standards project ballot

Why is recording affiliation required?

- Standards development meetings are open to all interested parties and are not to be dominated by any particular entity or interest category.
- It is consistent with the IEEE Code of Ethics requirement to disclose conflicts of interest.
- Industry participants and users of the standard will benefit from an open and transparent development process.
  - The disclosure of this information adds to openness and transparency.

What if I am a Consultant

- The general answer is in the definition. **It is the person or entity that is financially or materially supporting your participation.**
- See Declaration of Affiliation FAQ
  http://standards.ieee.org/faqs/affiliationFAQ.html

PCIC Sponsored IEEE Standards

P45.1-8	RP for Electrical Installations on Shipboard - 1. Design, 2. Controls and Automation, 3. Systems Integration, 4. Marine Sectors and Mission Systems, 5. Safety Considerations, 6. Electrical Testing, 7. Switchboards, 8. Cable Systems
303	RP for Auxillary Devices for Rotating Electrical Machines in Class 1, Div 2 and Zone 2 Locations
463	Std for Electrical Safety Practices in Electrolytic Cell line Working Zones
P515	Std for the Testing, Design, Installation, & Maintenance of Electrical Resistance Heat Tracing for Industrial Applications
P515.1	Std for the Testing, Design, Installation, & Maintenance of Electrical Resistance Heat Tracing for Commercial Applications
P576	RP for Installation, Termination, & Testing of Insulated Power Cable as Used in Industrial and Commercial Applications
841	Std for Petroleum and Chemical Industry Severe Duty TEFC Squirrel Cage Induction Motors - Up to and Including370 kW (500 HP)
844	RP for Electrical Impedance, Induction, & Skin Effect Heating of Pipelines & Vessels
P1017	RP for Field Testing Electric Submersible Pump Cable
P1018	RP for Specifying Electric Submersible Pump Cable - Ethylene Propylene Rubber Insulation
P1019	RP for Specifying Electric Submersible Pump Cable - Polypropylene Insulation
1068	Standard for the Repair & Rewinding of AC Electric Motors in the Petroleum, Chemical, and Process Industries
1242	Guide for Specifying & Selecting Power, Control, and Special-Purpose Cable for Petrochemical Plants
P1349	Guide for Application of Electric Motors in Class I Division 2, & Class I Zone 2 Hazardous Locations
1458	RP for the Selection, Application, Field Testing, and Life Expectancy of Molded Case Circuit Breakers for Industrial Applications
P1566	Standard for Performance of Adjustable Frequency Drives Rated at 375 kW & Larger

P1580	Recommended Practice for Marine Cable for use on Shipboard and Fixed or Floating Platforms
P1580.1	Recommended Practice for Insulated Bus Pipe for Use on Shipboard and Fixed or Floating Platforms
P1584	Guide for Performing Arc Flash Hazard Calculations
1584a	Guide for Performing Arc Flash Hazard Calculations Amendment 1
P1584b	Guide for Performing Arc Flash Hazard Calculations Amendment 2
P1584.1	Guide for the Specification of Scope and Deliverable Requirements for an Arc-flash Hazard Calculation Study in Accordance With IEEE 1584
1662	Guide for the design and application of Power Electronics in Electrical Power Systems on Ships
P1673	Standard for Requirements for Conduit & Cable Seals for Field Connected Wiring to Equipment in Petroleum and Chemical Industry Exposed to pressures Above Atmospheric (1.5 kilopascals, 0.22 psi)
P1683	Guide for Specifying Motor Control Centers Rated Up To 600 V AC or 1000 V DC With Features Intended to Reduce Electrial Hazards While Performing Defined Operations
P1709	RP for 1 to 35 KV Medium Voltage DC Power Systems on Ships
P1713	RP for Electrical Shore-to-Ship Connections
P1714	RP for Industrial Uninterruptible (UPS) Systems
P1716	RP for Managing Natural Disaster Impact on key electrical systems and installation in Petroleum and Chemical Facilities

P1810	Guide for the Selection and Installation of Fire-Rated, Circuit Integrity Cables for Safety, Critical, and Emergency Shutdown Systems in Petroleum and Chemical Industries
P1814	Recommended Practice for Electrical System Design Techniques to Improve Electrical Safety
P1826	Standard for Power Electronics Open System Interfaces in Zonal Electrical Distribution Systems Rated Above 100 kW
P60079-30-1/515	Standard for Explosive Atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements for Industrial Applications
P60079-30-2/515	Standard for Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance for Industrial Applications
P60092-510	Electrical Installations in Ships - Part 510: High Voltage Shore Connection Systems (HVSC)

Joint Working Group Opportunities

- There is an approved process for IEEE and IEC joint development if the technical committees on the same technical subject want to bring their standards together in one publication = **One Standard Worldwide**
  - P60079-30-1/515 Standard for Explosive Atmospheres – Part 30-1: Electrical resistance trace heating – General and testing requirements for Industrial Applications – Joint with IEC TC 31, Equipment for explosive atmospheres
  - P60079-30-2/515 Standard for Explosive Atmospheres – Part 30-2: Electrical resistance trace heating – Application guide for design, installation, and maintenance for Industrial Applications - Joint with IEC TC 31, Equipment for explosive atmospheres
  - P60092-510 – Electrical Installations in Ships – Part 510: High Voltage Shore Connection Systems (HVSC) – Joint with IEC TC 18 MT26, Electrical installations of ships and of mobile and fixed offshore units

Summary

- About IEEE - SA
- IEEE-SA External Representatives
  - IEEE SCC18
  - Category D Liaisons
- Affiliation
- IEC/IEEE Joint Development

Questions?

ITEM 6 – ARC-FLASH RESEARCH PROJECT IEEE/NFPA – BEN JOHNSON, IEEE SA PAST- PRESIDENT

IEEE/NFPA Collaboration on Arc Flash Research

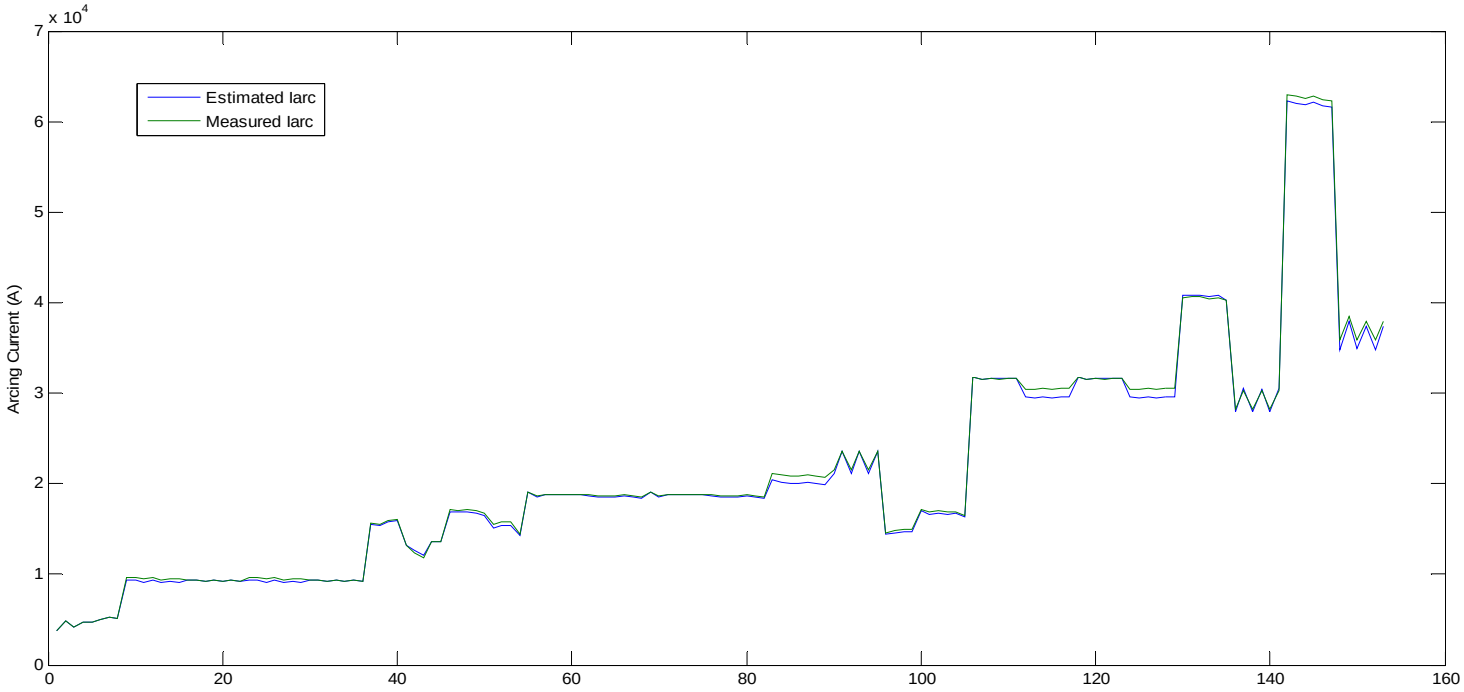
Update for IEEE IAS PCIC

Standards Subcommittee

2011

Acknowledgement

- Platinum
  - Underwriters Laboratories
  - Bruce Power
  - Cooper Bussmann
  - Ferraz Shawmut
  - Square D/Schneider Electric
  - Eaton
- Gold
  - Hydro One
  - Procter & Gamble, Inc
- Silver
  - Inter-National Electrical Testing Association
  - Duke Energy Foundation
  - Salisbury
  - NFPA
  - Arc Wear
  - Cadick Corporation
  - e-Hazard
  - DCM Electrical Consulting Services
  - SKM System Analysis, Inc.
  - McSquared Electrical Consulting, LLC
  - Powell Electric


x 10^4
7
6
5
4
3
2
1
0
Arcing Current (A)
Estimated Iarc
Measured Iarc
0
20
40
60
80
100
120
140
160

ITEM 7 – REPORT FROM CODES & REGULATIONS – DON VOLTS, CHAIR

NFPA/NEC CODE PROPOSALS – 426.32; 427.27; 501.125; 505.20

**See 2014 NEC Code Proposals,
Annual Report, and Roster.**

Click attachments for Report attachments:
1) NFPA 70E 2012 report
2) 2010 Codes and Regulations Meeting Minutes
3) SCC-18 report for 2010
4) HazLoc Product Standards summary 2010
5) USCG Subchapter J report 2010

FORM FOR PROPOSALS FOR 2014 NATIONAL ELECTRICAL CODE®

INSTRUCTIONS — PLEASE READ CAREFULLY

Type or print **legibly** in **black** ink. Use a separate copy for each proposal. Limit each proposal to a **SINGLE** section. All proposals **must be received by NFPA by 5 p.m., EST, Friday, November 4, 2011**, to be considered for the 2014 National Electrical Code. Proposals received after 5:00 p.m., EST, Friday, November 4, 2011, will be returned to the submitter. If supplementary material (photographs, diagrams, reports, etc.) is included, you may be required to submit sufficient copies for all members and alternates of the technical committee.

For technical assistance, please call NFPA at 1-800-344-3555.

FOR OFFICE USE ONLY

Log #:

Date Rec'd:

Please indicate in which format you wish to receive your ROP/ROC ☐ **electronic** X **paper** ☐ **download**
(Note: If choosing the download option, you must view the ROP/ROC from our website; no copy will be sent to you.)

Date 9/15/11 **Name** Neal Fenster **Tel. No.** 216-292-8250

Company Thermo Systems Technology, Inc. **Email** neal@thermosys.com

Street Address 2000 Auburn Drive, Suite 200 **City** Beachwood **State** OH **Zip** 44122

Please indicate organization represented (if any)

1. **Section/Paragraph** 426.32

2. **Proposal Recommends (check one):** ☐ new text X revised text ☐ deleted text

3. **Proposal (include proposed new or revised wording, or identification of wording to be deleted):** [Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

"Unless protected by ~~a ground-fault circuit-interrupter protection for personnel~~ ground fault equipment protection, the secondary winding of the isolation transformer connected to the pipeline or vessel being heated shall not have an output voltage greater than 30 volts ac.

Where ~~ground-fault circuit-interrupter protection for personnel~~ ground fault equipment protection and protection against unqualified personnel reaching the system is provided, the voltage shall be permitted to be greater than 30 but not more than 80 volts.

4. **Statement of Problem and Substantiation for Proposal:** (Note: State the problem that would be resolved by your recommendation; give the specific reason for your Proposal, including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)

1) These metallic piping systems are thermally insulated and mechanically protected against physical damage.

2) The higher operating current levels of electrical Impedance heating systems are not compatible with a Class A type protection system.

3). Impedance systems are low voltage (relatively), high current systems. The systems consist of a steel pipe insulated with a thermal insulation that also provides electrical insulation, and a protective jacket. This insulation prevents any contact to the pipeline by personnel.

These systems run at currents from 150 – 1000 amps. These lines act as an insulated conductor. As with all unshielded conductors, there is some capacitive and inductive coupling to ground. Normally the leakage to ground due to the coupling can be ignored; however because of the high currents involved the total leakage to ground can be significant when considering a ground fault system.

The leakage to ground at any point along the pipeline is small, but the cumulative leakage is what the ground fault system reacts to. In all but a few trivial cases, the leakage will exceed the 5 ma allowed by Personnel level ground fault systems. This will result in the system tripping off and not staying warm.

While it can be argued that the users will determine the problem and change the system, it is more probable that the end user will determine that there is nothing wrong with the heating system, and will place the blame on the ground fault device. This will result in the ground fault device being jumped out of the system, removing any protections afforded by the device.

When the exception to the voltage limit in the code was proposed, 80 volts was chosen so as to offer limited danger to personnel, but it was recognized that an arcing fault would generate heat, and could cause both equipment damage and danger to personnel. For this reason ground fault equipment was specified. It should be noted that this predated the 5 ma code requirement for personnel level ground fault protection. Ground fault protection could be set at a level that would prevent false tripping, and still prevent arcing.

When the code definition of personnel level ground fault was added, this section was changed to use the 5 ma level protection, and made it impossible to build a system that would work if the ground fault system was properly designed and installed.

I am suggesting that the code be changed to recognize the physical limitations of an Impedance system, and increase the safety by preventing the bypassing of safety systems.

We already have recognized the requirement for higher level trip ground fault in other heat tracing systems, and changing this would not compromise safety.

I have added the requirement that the systems be guarded to prevent unauthorized personnel from working on the systems to further increase safety.

If you have any questions, I would be pleased to answer them.

5. Copyright Assignment

(a) X I am the author of the text or other material (such as illustrations, graphs) proposed in this Proposal.

(b) ☐ Some or all of the text or other material proposed in this Proposal was not authored by me. Its source is as follows (please identify which material and provide complete information on its source)**:**

I agree that any material that I author, either individually or with others, in connection with work performed by an NFPA Technical Committee shall be considered to be works made for hire for the NFPA. To the extent that I retain any rights in copyright as to such material, or as to any other material authored by me that I submit for the use of an NFPA Technical Committee in the drafting of an NFPA code, standard, or other NFPA document, I hereby grant and assign all and full rights in copyright to the NFPA. I further agree and acknowledge that I acquire no rights in any publication of the NFPA and that copyright and all rights in materials produced by NFPA Technical Committees are owned by the NFPA and that the NFPA may register copyright in its own name.

Signature (Required)

FORM FOR PROPOSALS FOR 2014 NATIONAL ELECTRICAL CODE®

INSTRUCTIONS — PLEASE READ CAREFULLY

Type or print **legibly** in **black** ink. Use a separate copy for each proposal. Limit each proposal to a **SINGLE** section. All proposals **must be received by NFPA by 5 p.m., EST, Friday, November 4, 2011**, to be considered for the 2014 National Electrical Code. Proposals received after 5:00 p.m., EST, Friday, November 4, 2011, will be returned to the submitter. If supplementary material (photographs, diagrams, reports, etc.) is included, you may be required to submit sufficient copies for all members and alternates of the technical committee.

For technical assistance, please call NFPA at 1-800-344-3555.

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(Note: If choosing the download option, you must view the ROP/ROC from our website; no copy will be sent to you.)

Date 9/15/11 **Name** Neal Fenster **Tel. No.** 216-292-8250

Company Thermo Systems Technology, Inc. **Email** neal@thermosys.com

Street Address 2000 Auburn Drive, Suite 200 **City** Beachwood **State** OH **Zip** 44122

Please indicate organization represented (if any)

1. **Section/Paragraph** 427.27

2. **Proposal Recommends (check one):** ☐ new text X revised text ☐ deleted text

3. **Proposal (include proposed new or revised wording, or identification of wording to be deleted):** [Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

"Unless protected by ~~a ground-fault circuit-interrupter protection for personnel~~ ground fault equipment protection, the secondary winding of the isolation transformer connected to the pipeline or vessel being heated shall not have an output voltage greater than 30 volts ac.

Where ~~ground-fault circuit-interrupter protection for personnel~~ ground fault equipment protection and protection against unqualified personnel reaching the system is provided, the voltage shall be permitted to be greater than 30 but not more than 80 volts.

4. **Statement of Problem and Substantiation for Proposal:** (Note: State the problem that would be resolved by your recommendation; give the specific reason for your Proposal, including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)

1) These metallic piping systems are thermally insulated and mechanically protected against physical damage.

2) The higher operating current levels of electrical Impedance heating systems are not compatible with a Class A type protection system.

3). Impedance systems are low voltage (relatively), high current systems. The systems consist of a steel pipe insulated with a thermal insulation that also provides electrical insulation, and a protective jacket. This insulation prevents any contact to the pipeline by personel.

These systems run at currents from 150 – 1000 amps. These lines act as an insulated conductor. As with all unshielded conductors, there is some capacitive and inductive coupling to ground. Normally the leakage to ground due to the coupling can be ignored; however because of the high currents involved the total leakage to ground can be significant when considering a ground fault system.

The leakage to ground at any point along the pipeline is small, but the cumulative leakage is what the ground fault system reacts to. In all but a few trivial cases, the leakage will exceed the 5 ma allowed by Personnel level ground fault systems. This will result in the system tripping off and not staying warm.

While it can be argued that the users will determine the problem and change the system, it is more probable that the end user will determine that there is nothing wrong with the heating system, and will place the blame on the ground fault device. This will result in the ground fault device being jumped out of the system, removing any protections afforded by the device.

When the exception to the voltage limit in the code was proposed, 80 volts was chosen so as to offer limited danger to personnel, but it was recognized that an arcing fault would generate heat, and could cause both equipment damage and danger to personnel. For this reason ground fault equipment was specified. It should be noted that this predated the 5 ma code requirement for personnel level ground fault protection. Ground fault protection could be set at a level that would prevent false tripping, and still prevent arcing.

When the code definition of personnel level ground fault was added, this section was changed to use the 5 ma level protection, and made it impossible to build a system that would work if the ground fault system was properly designed and installed.

I am suggesting that the code be changed to recognize the physical limitations of an Impedance system, and increase the safety by preventing the bypassing of safety systems.

We already have recognized the requirement for higher level trip ground fault in other heat tracing systems, and changing this would not compromise safety.

I have added the requirement that the systems be guarded to prevent unauthorized personnel from working on the systems to further increase safety.

If you have any questions, I would be pleased to answer them.

5. Copyright Assignment

(a) X I am the author of the text or other material (such as illustrations, graphs) proposed in this Proposal.

(b) ☐ Some or all of the text or other material proposed in this Proposal was not authored by me. Its source is as follows (please identify which material and provide complete information on its source):

I agree that any material that I author, either individually or with others, in connection with work performed by an NFPA Technical Committee shall be considered to be works made for hire for the NFPA. To the extent that I retain any rights in copyright as to such material, or as to any other material authored by me that I submit for the use of an NFPA Technical Committee in the drafting of an NFPA code, standard, or other NFPA document, I hereby grant and assign all and full rights in copyright to the NFPA. I further agree and acknowledge that I acquire no rights in any publication of the NFPA and that copyright and all rights in materials produced by NFPA Technical Committees are owned by the NFPA and that the NFPA may register copyright in its own name.

Signature (Required)

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(Note: If choosing the download option, you must view the ROP/ROC from our website; no copy will be sent to you.)

Date October 5, 2011 **Name** Frededrick Bried **Tel. No.** 281-288-7515

Company _____ **Email** rbried@yahoo.com

Street Address 27523 E. Benders Landing Blvd. **City** Spring **State** TX **Zip** 77386-2801

******If you wish to receive a hard copy, a street address MUST be provided. Deliveries cannot be made to PO boxes.***

Please indicate organization represented (if any) _____

1. Section/Paragraph 501.125 (B) Informational Note No. 3

2. Proposal Recommends (check one): ☐ new text ☒ revised text ☐ deleted text

3. Proposal (include proposed new or revised wording, or identification of wording to be deleted): [Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

For further information on the application of electric motors in Class I, Division 2 hazardous (classified) locations, see IEEE Std. 1349-20~~0~~11, *IEEE Guide for the Application of Electric Motors in Class I, Division 2 and Class I, Zone 2 Hazardous (Classified) Locations.*

4. Statement of Problem and Substantiation for Proposal: (Note: State the problem that would be resolved by your recommendation; give the specific reason for your Proposal, including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)

IEEE 1349-2001, which originally addressed the application of electric motors in Class I, Division 2 hazardous (classified) locations, has been revised, updated and expanded to include the application of electric motors in Class I, Zone 2 hazardous (classified) locations.

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(b) ☒ **Some or all of the text or other material proposed in this Proposal was not authored by me. Its source is as follows:** (please identify which material and provide complete information on its source)

IEEE P 1349 Working Group

I hereby grant and assign to the NFPA all and full rights in copyright in this Proposal and understand that I acquire no rights in any publication of NFPA in which this Proposal in this or another similar or analogous form is used. Except to the extent that I do not have authority to make an assignment in materials that I have identified in (b) above, I hereby warrant that I am the author of this Proposal and that I have full power and authority to enter into this assignment.

Signature (Required) Frederick Bried

PLEASE USE SEPARATE FORM FOR EACH PROPOSAL

Mail to: Secretary, Standards Council · National Fire Protection Association
1 Batterymarch Park · Quincy, MA 02169-7471 OR
Fax to: (617) 770-3500 OR Email to: proposals_comments@nfpa.org 8/5/2010

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1. Section/Paragraph 505.20 (C) Exception No. 4 Informational Note No. 3

2. Proposal Recommends (check one): ☒ new text ☐ revised text ☐ deleted text

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Signature (Required) Frederick Bried

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Mail to: Secretary, Standards Council · National Fire Protection Association
1 Batterymarch Park · Quincy, MA 02169-7471 OR
Fax to: (617) 770-3500 OR Email to: proposals_comments@nfpa.org 8/5/2010

IEEE • IAS
Petroleum and Chemical Industry Committee

November 3, 2011

Please address reply to:
Donald A. Voltz
BP Ecpolration & Production Inc
501 WestLake Park,
WL-1, 12.125C
Houston, TX 77079
Phone: 281-366-8026
FAX: 281-366-0496
Email: don.voltz@bp.com

To: Lorraine Padden, PE
Standards Subcommittee Secretary

RE: ***PCIC CODES AND REGULATIONS WORKING GROUP ANNUAL REPORT FOR 2010 – 2011.***

The following are the specific details of the Working Group:

1. Since this is mainly a discussion Working Group that reports on Industry Codes and Standards, such as API, IEC, NEC (NFPA 70), NFPA 70E, UL the United States Coast Guard (USCG) etc., no PAR is required
2. The Chair of the Working Group is Don Voltz, Vice-Chair is Craig Wellman
3. One of the main purposes of the Working Group is to provide input (i.e. proposals or comments) to the National Electrical Code. At the meeting this year, there was none presented.
4. The procedures for the Working Group are in place and have been followed
5 One meeting of the Working Group was held and that occurred at the 2010 PCIC in San Antonio, TX. The minutes are attached
6. Please review the minutes as there are many noteworthy items especially concerning the IEEE SCC 18 External Representatives' duties and procedures, review of the 2011 Report on Proposals, Changes/Revisions to NFPA 70E and a report on USCG Activities
7. As previously mentioned, the minutes of the 2010 meeting in San Antonio are attached.
8. The roster of the membership is attached.
9. The Working Group does not have any funding and as such does not have an IEEE bank account.

If you should have any questions or concerns on this report, please do not hesitate to contact me.

Best Regards,

Donald A. Voltz
Chair - PCIC Codes and Regulations Working Group

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY

IEEE PCIC CODES AND REGULATIONS WG MEETING

Sunday, September 18, 2011
3:30 to 5:00 pm,
Sheraton Centre, Kent Room
Toronto, Ontario, Canada

AGENDA

- **Call to order, Introductions and Sign-in – Don Voltz, Chair**
- **Approval of Agenda – Don**
- **Minutes of previous meeting – Don**
- **Standards and Regulations Activity of Interest to Codes and Regulations WG – All**
    - ✓ **API - Report from Dave Burns**
    - ✓ **UL-IEC**
    - ✓ **NFPA/NEC 70/IEEE SCC 18 - Report from Mel Sanders/S. Vogel (attached)**
    - ✓ **USCG - Gary Savage/Akhter.M.Hossain?**
    - ✓ **Others**
- **Discussion on the Proposals for the 2014 National Electrical Code**
    - ✓ **NEC Proposal - 501.125a - Rick Bried (IEEE 1349)**
    - ✓ **NEC Proposal - 501.125a - Rick Bried (IEEE 1349)**
    - ✓ **Others**
- **Next meeting – New Orleans, 2012**
- **Adjournment**

PCIC Codes Regulations Working Group Roster - 2011

	Last Name	First Name	MI	Company	E-mail Address	Phone No	2009	2010	2011
1	**CHAIR** Voltz	Donald	A	BP Exploration & Production Inc.	don.voltz@bp.com	281 366 8029	XX	XX	
2	**VICE-CHAIR** Wellman	Craig	M	Retired - Dupont	c.m.wellman@ieee.org	302 695 0088	XX	XX	
MEMBERS									
3	Adam	James	R	BICC General Pyrotienax	jadam@bicccables-na.com	780 434 7417 x229			
4	Averill	N. Chris		Prysmian Cables & Systems	chris.averill@prysmian.com				
5	Barrios	Louis		Shell Global Solutions	louis.barrios @shell.com	281 544 8054			
6	Becker	Henry	A	Thermo Systems Technology	hank@thermossys.com	216 292 8250	XX	XX	
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10	Boynton	Charles		DuPont	charles.l.boynton@usa.dupont.com	409 886 9668	E		
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12	Bright	Rudy		AmerCable	mrbright@amercable.com	713-896-5841	XX	XX	
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15	Contreras	Eli		The Okonite Company	contreras@okonite.com	281-869-5407	XX		
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21	Fenster	Neal	S	Thermo Systems Technology, Inc.	neal@thermosys.com	216 292 8250	XX	XX	
22	Fredericks	Carl	J	The Dow Chemical Company	cfredericks@dow.com	713 978 2316	E	E	
23	Gerdon	Tricia		IEEE Standards	p.gerdon@ieee.org	732-5623811	XX		
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27	Hulett	Richard	H	Thermon Industries	rhulett@ieee.org	916 939 0394	XX	XX	
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29	Johnson	Mike	S	Kindermorgan	mike_johnson@kindermorgan.com	678 762 2443	XX		
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33	Kuczka	Joe		Killark Electric Manufacturing Co.	jkuczka@hep.hubbell.com	314 531 0460			
34	Larsen	Ed		Square D/Schneider Electric	ed.larsen@ieee.org	319 369 6422			
35	Madden	Wayne		The Okonite Co.	maddeb@okonite.com	713-817-6011	XX		
36	Mahl, III	George	J	Mahl & Associates, Inc.	gmahl@aol.com	504 733 8050			

37	Martin	M. Andy		Colonial Pipeline Company	mmartin@colpipe.com	678 762 2327			
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41	McNeil	Mike		FMC Biopolymer	michael.mcneil@fmc.com	207 226 3272			
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45	Pack	Arthur		The Oknoite Co.	pack@okonite.com	201-825-0300	XX		
46	Neubauer	Art		Arseal Technologies	neubaueras@aol.com	678 387 1200	XX		
47	Priemer	Dustin			dustin.priemer@cooperindustries.com		XX		
48	Padden	Lorraine	K	Padden Engineering, LLC	paddeneng@aol.com	281 579 6550	XX	XX	
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50	Propst	John		Retired - Shell	j.e.propst@ieee.org	304 275 4666			
51	Rafferty	Nicholas	R	Shiprock Consulting, LLC	bob.rafferty@verizon.net				
52	Sandberg	Chet		Self	chetsandberg@ieee.org	415-806-4600	XX	XX	
53	Sanders	Melvin	K	Teco, Inc.	sanders.m.k@ieee.org	515 240 6974	E	XX	
54	Saporita	Vince		Cooper Bussmann	vince.saporita@cooperindustries.com	636 527 1608			

55	Savage	Gary		Draka Marine, Oil & Gas	gary.savage@draka.com	281 645 7388	XX	XX	
56	Seitz	Robert		ASRC Energy Services	rseitzak@aol.com	907 339 6274	XX	XX	
57	Sengupta	Sukanta		FMC Corp.	Sukanta_Sengupta@FMC.com	609 963 6322	XX		
58	Shaw	Tom		Watlow Electric	tshaw@watlow.com	918 496 2826			
59	Shoshani	Gil		RSCC	gil.shoshani@r-scc.com	860 653 8465		XX	
60	Stehling	Larry		Nelson Heat Trace	larry.stehling@emerson.com	713 213 3550			
61	Turner	John		Swansea Consulting	john.turner@ieee.org	416 763 6776	XX	XX	
62	Vasser	Sandy	G	Exxon Mobil Development Co.	sandy.g.vasser@exxonmobil.com	281 654 4247			
63	Veerkamp	Bill		The Dow Chemical Company	bveerkamp@dow.com	479 238 4983			
64	Vogel	Sue		IEEE Standards	s.vogel@ieee.org	732 562 3817	XX		
65	White	Ken		Olin Corp	kpwhite@olin.com	716 278 6414			
66	Wicks	Jerry		The Okonite Company	wicks@okonite.com	504 982 5824			
67	Wong	Stan		Worley Parsons	stanley.wong@worleyparsons.com	626 294 3495	XX	XX	
68	Wynn	Johnny		The Okonite Company	wynn@okonite.com	281 869 5404			
69	Yarbrough	Garrett	S	EGS Electrical Group	gary.yarbrough@egs-eg.com	847 763 6319			
70	Yocom	Bud		ASRC Energy Services	bud.yocom@ieee.org	907 339 6278			

ITEM 6 - PCIC SPONSORED STANDARDS – SUMMARY

PCIC Standards Working Groups

19-Oct-2011

	Title	Current Officers	Status	Action
45	RP for Electric Installations on Shipboard	Moni Islam, Chair		
45	RP for Electric Installations on Shipboard	Dwight Alexander, Chair		No Action
P45.1	RP for Electrical Installations on Shipboard- .1 Design	Moni Islam, Chair	PAR 2008 - 2012	WG in Progress
P45.2	RP for Electrical Installations on Shipboard- .2 Controls and Automation	David Cartes, Chair	PAR 2008 - 2012	Standard Approved September 2011
P45.3	RP for Electrical Installations on Shipboard- .3 Systems Integration	Paul Bishop, Chair	PAR 2008 - 2012	PAR Revision Submitted September 2011
P45.4	RP for Electrical Installations on Shipboard- .4 Marine Sectors and Mission Systems	Paul Bishop, Chair	PAR 2008 - 2012	WG in Progress
P45.5	RP for Electrical Installations on Shipboard- .5 Safety Considerations	Dennis Neitzel , Chair	PAR 2008 - 2012	WG in Progress
P45.6	RP for Electrical Installations on Shipboard- .6 Electrical Testing	Don Chambers, Chair	PAR 2008 - 2012	WG in Progress
P45.7	RP for Electrical Installations on Shipboard- .7 Switchboards	Steve Liggio, Chair	PAR 2009 - 2013	Recirculation closed September 2011
P45.8	RP for Electrical Installations on Shipboard- .8 Cable Systems	Gary Savage, Chair	PAR 2009 - 2013	WG in Progress
303	RP for Auxillary Devices for Rotating Electrical Machines in Class 1, Div 2 and Zone 2 Locations	Travis Griffith, Temporary Chair Lorraine Padden, Co-Chair	Published 2004	Recirculation closed October 2011 Submitted to RevCom
463	Std for Electrical Safety Practices in Electrolytic Cell line Working Zones	Ken White, Chair	Published 2006 PAR 2011-2015	June 2011 PAR Approval
515	Std for the Testing, Design, Installation, & Maintenance of Electrical Resistance Heat Tracing for Industrial Applications	Dusty Brown, Co-Chair Rich Hulett, Co-Chair	Published 2004 Approved 2011	Award PCIC 2011
515.1	Std for the Testing, Design, Installation, & Maintenance of Electrical Resistance Heat Tracing for Commercial Applications	Wayne Williams, Chair John Turner, Secretary	Published 2005 PAR 2007 - 2011	PAR Extension Planned
576	RP for Installation, Termination, & Testing of Insulated Power Cable as Used in Industrial and Commercial Applications	Bill Taylor, Chair	Published 2000 PAR 2008-2012	Plan to move information to 1242
841	Std for Petroleum and Chemical Industry Severe Duty TEFC Squirrel Cage Induction Motors - Up to and Including370 kW (500 HP)	David C Rains, Chair Bill Veerkamp, Vice Chair Dennis Bogh, Secretary	Published 2001 Published 2009	New PAR is planned
844	RP for Electrical Impedance, Induction, & Skin Effect Heating of Pipelines & Vessels	Roy Barth, Chair	Published 2000 Reaffirmed March 2006	Moving/Updating information to: 844.1, 844.2, 844.3
P844.1	Standard for the Construction, Testing, and Marking for Skin Effect Heating Systems for Pipelines and Vessels	Roy Barth, Chair	PAR 2011-2015	WG in Progress
P844.2	Standard for the Construction, Testing, and Marking for Impedance, Induction, and Inductions Susceptor Heating Systems for Pipelines and Vessels	Roy Barth, Chair	PAR 2011-2015	WG in Progress
P844.3	RP for Electrical Impedance, Induction & Skin Effect Heating Systems for Pipelines & Vessels	Roy Barth, Chair	PAR 2011-2015	WG in Progress
1017	RP for Field Testing Electric Submersible Pump Cable	Robert Durham, Chair	Published 2005 PAR 2010-2013	WG in Progress
1018	RP for Specifying Electric Submersible Pump Cable - Ethylene Propylene Rubber Insulation	Robert Durham, Chair	Published 2005 PAR 2010-2013	WG in Progress
1019	RP for Specifying Electric Submersible Pump Cable - Polypropylene Insulation	Robert Durham, Chair	Published 2005 PAR 2010-2013	WG in Progress
1068	Standard for the Repair & Rewinding of AC Electric Motors in the Petroleum, Chemical, and Process Industries	Travis Griffith, Chair	Published 1996 Published 2009	Award PCIC 2010
1068-2009/Cor 1	IEEE Standard for the Repair and Rewinding of AC Electric Motors in the Petroleum, Chemical, and Process Industries - Corrigendum 1	Travis Griffith, Chair	PAR 2011-2015	PAR Approved Feb 2011
1242	Guide for Specifying & Selecting Power, Control, and Special-Purpose Cable for Petrochemical Plants	Don Voltz, Chair	Published 1999 Reaffirmed 2005 PAR 2010-2014	PCIC/ICC Joint Standard
1349	Guide for Application of Electric Motors in Class I Division 2, & Class I Zone 2 Hazardous Locations	Lorraine Padden, Chair Paul Anderson, Vice Chair Rick Bried, Secretary	Published 2001 PAR 2005- 2009 PAR Extension 2009-2011	Standard Approved September 2011
1458	RP for the Selection, Application, Field Testing, and Life Expectancy of Molded Case Circuit Breakers for Industrial Applications	Gary Donner, Chair	Published 2005 Reaffirmation 2010	Recognized PCIC 2011

PCIC Standards Working Groups

19-Oct-2011

	Title	Current Officers	Status	Action
P1566	Standard for Performance of Adjustable Frequency Drives Rated at 375 kW & Larger	Rick Paes, Chair Robert Hanna, Vice Chair Roger Lawrence, Secretary	Published 2006 PAR 2008-2012	WG in Progress
P1580	Recommended Practice for Marine Cable for use on Shipboard and Fixed or Floating Platforms	Rudy Bright, Chair T. S. Bhat, Vice Chair/Secretary	Published 2001 Published 2010	Award PCIC 2011
P1580.1	Recommended Practice for Insulated Bus Pipe for Use on Shipboard and Fixed or Floating Platforms	Rudy Bright, Chair T. S. Bhat, Vice Chair/Secretary	PAR 2009 - 2013	WG in progress
1584	Guide for Performing Arc Flash Hazard Calculations	Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary	Published 2002 PAR 2003 - 2007 PAR Extension 2008-2011	PAR Extension Planned
1584a	Guide for Performing Arc Flash Hazard Calculations Amendment 1	Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary	Published 2004	Roll into 1584 revision
P1584b	Guide for Performing Arc Flash Hazard Calculations Amendment 2	Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary	Approved 2011	Standard Approved March 2011
P1584.1	Guide for the Specification of Scope and Deliverable Requirements for an Arc-flash Hazard Calculation Study in Accordance With IEEE 1584	Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary	PAR 2009 - 2013	Ballot Closed April 2011 in Resolution Stage
1662	Guide for the design and application of Power Electronics in Electrical Power Systems on Ships	Yuri Khersonsky, Chair	Published 2008	
P1673	Standard for Requirements for Conduit & Cable Seals for Field Connected Wiring to Equipment in Petroleum and Chemical Industry Exposed to pressures Above Atmospheric (1.5 kilopascals, 0.22 psi)	Marty Cole, Chair Daleep Mohla, Vice Chair	PAR 2005 - 2009 PAR Extension 2009-2013	Invitation to Ballot October 2011
P1683	Guide for Specifying Motor Control Centers Rated Up To 600 V AC or 1000 V DC With Features Intended to Reduce Electrial Hazards While Performing Defined Operations	Marcelo Valdes - Chair David Pace - Vice Chair Craig Wellman - Secretary	PAR 2005 - 2009 PAR Modified 2009-2011	PAR Extension Planned
P1709	RP for 1 to 35 KV Medium Voltage DC Power Systems on Ships	Yuri Khersonsky, Chair	Published 2010	Award PCIC 2010
P1714	RP for Industrial Uninterruptible (UPS) Systems	Donald Dunn, Chair Robert Spiewak, Secretary	PAR 2006 - 2010 PAR Extension 2012	WG in Progress
P1716	RP for Managing Natural Disaster Impact on key electrical systems and installation in Petroleum and Chemical Facilities	Ed Thornton - Chair Larry Stahl - Vice Chair Daleep Mohla - Secretary	PAR 2006 - 2010 PAR Extension 2012	WG in Progress
P1810	Guide for the Selection and Installation of Fire-Rated, Circuit Integrity Cables for Safety, Critical, and Emergency Shutdown Systems in Petroleum and Chemical Industries	Gil Shoshani, Chair Don Smith, Vice Chair	PAR 2009 - 2013	Modified PAR Conditionally Approved - Confirm P&Ps Followed
P1814	Recommended Practice for Electrical System Design Techniques to Improve Electrical Safety	Bruce McClung- Chair, Gary Donner Vice Chair, Dennis Hill - Secretary	PAR 2009 - 2013	WG in Progress
P1826	Standard for Power Electronics Open System Interfaces in Zonal Electrical Distribution Systems Rated Above 100 kW	Yuri Khersonsky, Chair	PAR 2010 - 2014	Forming New WG
P60079-30-1/515	Standard for Explosive Atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements for Industrial Applications	Ben Johnson, Convener Rich Hulett, 515 Chair	PAR 2010 - 2014	WG in Progress IEC/IEEE Joint Effort; TC-31
P60079-30-2/515	Standard for Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance for Industrial Applications	Ben Johnson, Convener Rich Hulett, 515 Chair	PAR 2010 - 2014	WG in Progress IEC/IEEE Joint Effort; TC-31
P80005-1	Cold Ironing Part 1: High Voltage Shore Connection (HVSC) Systems – General Requirements	Kevin Peterson, Chair Dev Paul, Vice Chair Scott Baird, Secretary	PAR 2009 - 2013	WG in Progress Joint development with IEC/ISO

Projects on SA site - myProject™ >> Manage Activity Profile; Join "Interest Area", Check Boxes, complete "affiliation"

*** WGs with IEEE bank account must submit Form L-50S to Standards Chair by February 1 for previous fiscal year**

ITEM 6 - ANNUAL REPORTS PCIC SPONSORED STANDARDS

45	**RP for Electric Installations on Shipboard**	**Moni Islam, Chair**
P45.1	**RP for Electrical Installations on Shipboard-.1 Design**	**Moni Islam, Chair**
P1580.1	**Recommended Practice for Insulated Bus Pipe for Use on Shipboard and Fixed or Floating Platforms**	**Rudy Bright, Chair T. S. Bhat, Vice Chair/Secretary**

IEEE-45 DOT STANDARD
ANNUAL REPORT
SEPTEMBER 2011

BY: MONI ISLAM

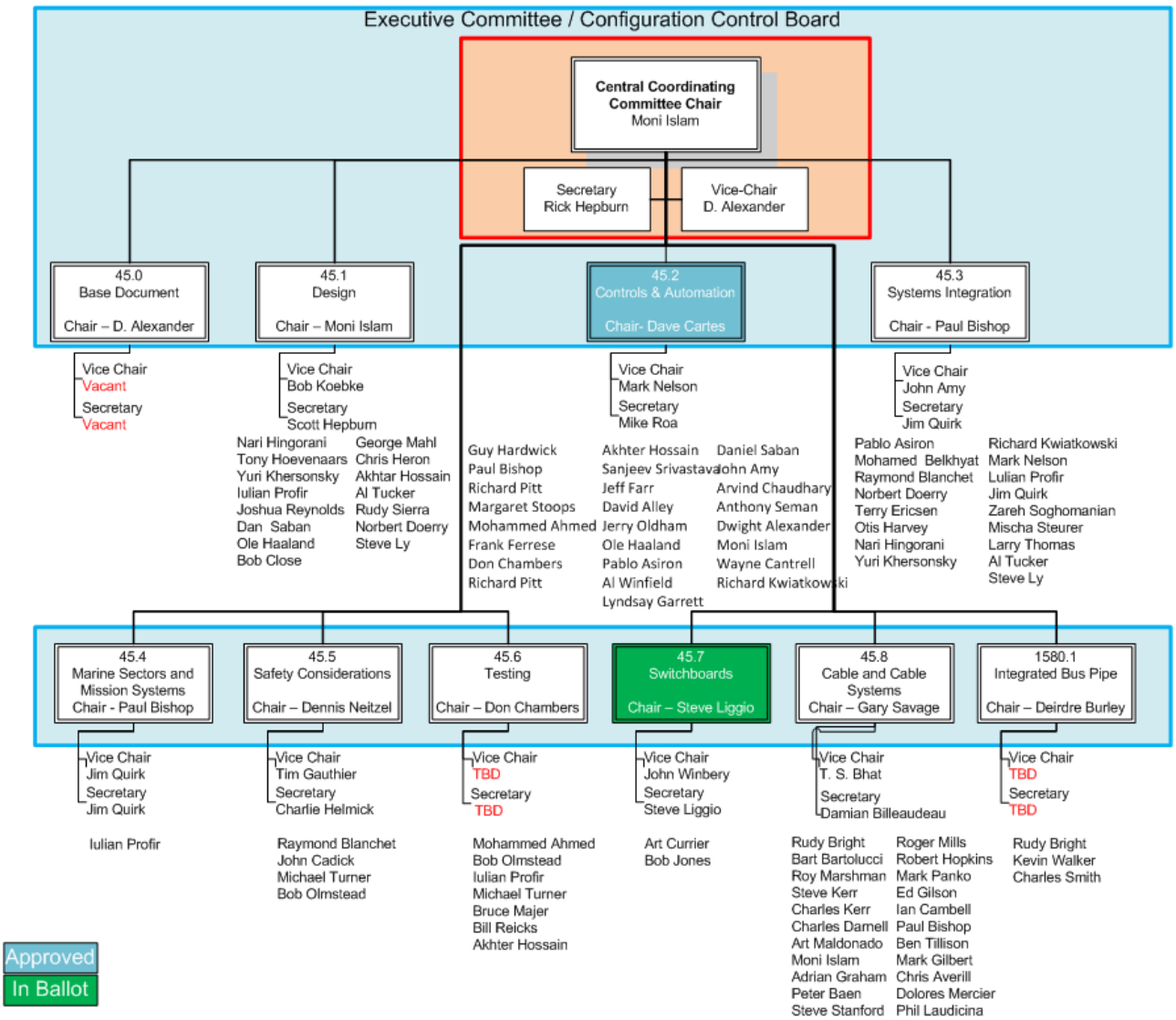
M&R Global

Moni.islam@ieee.org

504-333-5004

PAR STATUS

ORGANIZATION CHART FOR THE IEEE-45 DOT STANDARD ACTIVITIES:



CURRENT ACTION OF WORKING GROUP

45.0 Base Document – No new activity to report

45.1 Design – Met in July 2011 and assigned a list of challenge activities to WG Members.

45.2 Controls - RevCom reported that IEEE 45.2 was APPROVED by the IEEE-SA Standards Board Review Committee on Sept. 10, 2011. Dr. Dave Cartes will provide additional details.

45.3 System Integration – (Paul Bishop has submitted the report directly)

45.4 Marine Sector Mission Systems – (Paul Bishop has submitted the report directly)

45.5 Electrical Safety –Dennis Neitzel - The 45.5 WG is still working on the assembly of the standard.

45.6 Testing and Safety – No report at this time

45.7 Switchboard - Re-Circulation Ballot submitted to IEEE for approval to proceed

45.8 Cable Installation - No new activity to report

1580.1 Insulated Bus Pipe

IEEE 1580.1 (Insulated Bus Pipe) Report:

By-Dierdre Birley-Chair

Paul Bishop will be the Vice Chair. Veronica McPherson and Wolfgroey joined the working group and will be the technical support and liaison for the technical information provided by Norbert Pressinger. Dierdre Burley will be the liaison for technical information provided by Richard of Northrop Grumman. Charles Smith will be the acting secretary until someone permanent takes the position.

The working group is in the process of modifying the outline to tailor the IEEE 1580.1 outline to insulated bus pipe standard and applications which differ from cable. The PAR for the IEEE-1580.1 is required to be revised. There will be a working group meeting October (time and place –TBD), and a meeting in December, time TBD.

Reported by Moni Islam

There were two meeting with all working groups in 2011. One meeting was in Washington DC in February and one meeting was in Houston in July. The DC meeting attendance was 35 and Houston meeting attendance was 40.

The next meeting has been scheduled for February 2012 in DC.

LIST OF MEETINGS HELD

IEEE 45 held editing meetings on 13 March 2007 in New Orleans, LA; 24 May 2007 in Crystal City, VA; 21 August 2007 in New Orleans, LA; 9 November 2007 in Ballston, VA; 11 – 12 February 2008 in New Orleans, LA; 22 February 2008 in Ballston, VA; 11 – 12 August 2008 in Round Rock, TX; 20 September 2008 in Cincinnati, OH; July 2011 Meeting in Houston Texas; September 18, 2011 PCIC Conference in Toronto Canada.

PROBLEMS AND NOTEWORTHY ACTIVITES

Due to the size of IEEE 45, the standard has been divided into separate chapters. IEEE 45 has six vacancies for management positions. These chapters and corresponding vacancies are listed below:

DOT	Subject	Title	First	Last
P45.0	Base Document	Chair	Dwight	Alexander
		Vice-Chair	Vacant	
		Secretary	Vacant	
P45.1	Design	Chair	Moni	Islam
		Vice-Chair	Bob	Koebke
		Secretary	Scott	Hepburn
P45.2	Controls	Chair	Dave	Cartes
		Vice-Chair	Mark	Nelson
		Secretary	Mike	Roa
P45.3	Utilization Equipment	Chair	Paul	Bishop
		Vice-Chair	John	Amy
		Secretary	Jim	Quirk
P45.4	System Integration	Chair	Paul	Bishop
		Vice-Chair	Jim	Quirk
		Secretary	Jim	Quirk
P45.5	Marine Sector Mission Systems	Chair	Dennis	Neitzel
		Vice-Chair	Tim	Gauthier
		Secretary	Charlie	Helmick
P45.6	Testing and Safety	Chair	Don	Chambers
		Vice-Chair	Vacant	
		Secretary	Vacant	
P45.7	Switchboard	Chair	Steve	Liggio
		Vice-Chair	John	Winbery
		Secretary	Steve	Liggio
P45.8	Cable Installation	Chair	Gary	Savage
		Vice-Chair	T.S.	Bhat
		Secretary	Damian	Billeaudeau
P1580.1	Bus Pipe	Chair	Deirdre	Burley
		Vice-Chair	Vacant	
		Secretary	Vacant	

IEEE-45 ROSTER (As of July 2011)

Ed	Aberbach	General Cable Corp.	(860) 465-8767
Mark	Adamiak	GE	
Alf-Kare	Adnanes		47-22-87-2525
Mohammed	Ahmed	ABS Americas	(281) 877-6479
Dwight	Alexander	Northrup Grumman	(408) 594-1051
S. David	Alley	Anna, Inc.	(410) 353-4976
Roxanna	Amaya		

John	Amy	ASN (RD&A) Sys Eng Office	(202) 781-0714
Paul	Anderson	Toshiba Corporation	(713) 466-0277 ext 2331
Jesse	Artiaga	Sperry Marine	
Pablo	Asiron	Summit Operational Systems	
Thomas	Baldwin	FSU	(850) 644-5677
John	Barker	General Cable Corp.	(916) 632-9295
E.J. (Bart)	Bartolucci	Okonite	(201) 825-0300
Mohamed	Belkhayat	HHI - Newport News	
T.S.	Bhat	Rockbestos Surprenant Cable Corp.	(860) 653-8300
Damian	Billeadeau	Draka Marine, Oil, & Gas	
Paul	Bishop	The Bishop Group	(850) 271-8877
George	Bitar	Helix Energy	281-848-6683
Raymond	Blanchet	USN-MSFSC	(757) 443-2708
David	Blevins	Sperry Marine	(434) 974-2614
Rudy	Bright	Amercable	(713) 896-5841
Darrell	Broussard	GE	(713) 880-7457
Micheal	Brown	Reynolds, Smith and Hills, Inc.	(321) 269-8110
Deirdre	Burley	Wink Design Group	(504) 610-1183
Charlie	Butcher	Mason Construction	(510) 412-8326
Jeff	Butler	SEL	
John	Cadick	Cadick Corp.	(972) 240-1594
Ian	Campbell	Transport Canada	
James	Campe		
Darryl	Candilora	Okonite	(504) 467-1920
Wayne	Cantrell	Siemens Energy & Automation, Inc.	(423) 262-2214
David	Cartes	FSU-IESES	(850) 645-1184
Don	Chambers	Converteam, Inc.	(940) 393-6079
Chris	Chaney	Mustang Engineering	(713) 215-8333
Lawrence	Charette		(585) 214-0207
Arvind	Chaudhary	HHI - Ingalls	(228) 872-5272
Carl	Chowaniec	Alion	
Chryssostomos	Chryssostomidis	MIT	(617) 253-7131
Julia	Ciliberti	USCG	202-284-5101
Bob	Close	Teal Electronics	(805) 294-2291
Ferdinand	Coccia	U.S. Coast Guard	(410) 762-6223
Cameron	Craig	ENSCO International	(214) 397-3182
Chris	Crick	Powell Electrical Systems	(225) 756-4972 ext 102
Arthur	Currier	Carolina Power Systems	(860) 204-9366
Leszek	Czarnecki	Louisiana State University	(225) 578-5239
Steinar	Dale	FSU-CAPS	(850) 645-1183
Tom	Dalton	U.S. Navy	(202) 781-3772
Charles	Darnell	kVA Strategies	(985) 386-9265
Tom	Davey		(919) 961-4926
Norbert	Doerry	U.S. Navy	(202) 781-2520
Dolores	Mercier	USCG	(202) 372-1485
Daniel	Erb	Siemens Energy & Automation, Inc.	(724) 334-6238
Terry	Ericsen	ONR	(703) 696-7741
Daniel	Evans	NSWCCD	(215) 897-8484
Jeff	Farr	Converteam, Inc.	(412) 967-7666
Frank	Ferrese	Navy	
Thomas	Field	IEEE IAS New Orleans Chapter	(504) 576-5120
Partha	Ganguly	MTC Houston	281-222-4239
Kamal	Garg	Schweitzer Engineering Laboratories, Inc.	
Lyndsay	Garrett	The Bishop Group	(850) 271-8877
Paul	Gemin	GE Aviation	(513) 243-0298
Mark	Gilbert	Gilbert Sales Resources	
Bob	Gonzalez	GHMR	(225) 751-6744
Lukas	Graber	FSU	(850) 645-1186
Adrian	Graham	Houston Wire and Cable	
Ole	Haaland	Anna, Inc.	(410) 703-9002
Soheni	Haque	ABS -Houston	(281) 877-6471
Aaron	Hancock	Northrup Grumman	(434) 974-2077
Mand	Harbhajan	L-3 Communications	(310) 523-4443 Ext. 660
Guy	Hardwick	L-3 Communications	(504) 739-7222
Otis	Harvey	U.S. Coast Guard ELC	(410) 762-6825
Charlie	Helmick		
Rick	Hepburn	Hepburn and Sons LLC	(703) 409-8344
Scott	Hepburn	Hepburn and Sons LLC	(571) 475-4017
Chris	Heron	TWMC	(512) 218-7534
Jim	Hewitt	NSOEM, Inc.	(281) 500-8940
Nari	Hingorani	Consultant	(650) 344-9872

Tony	Hoevenaars	Mirus International	(905) 494-1120 ext. 229
Akhter	Hossain	U.S. Coast Guard	(202) 475-3367
Moni	Islam	Electrical Consultant	(504) 333-5004
David	Johnson	Converteam, Inc.	
Bob	Jones	Carolina Power Systems	(803) 773-2409
Rick	Kaun		
Paul	Kelly	Underwriters Laboratory, Inc.	(847) 664-2326
Steve	Kerr	Exxon Mobil	(281) 654-4270
Yuri	Khersonsky	Consultant	(714) 488-0690
Robert	Koebke	Manager - Electrical/Electronics	(202) 608-8457
Milt	Korn		
Hans	Krattiger	ABB	(262) 785-8596
Ken	Krause	Shallbetter, Inc.	(248) 808 6253
Troy	Kunas	L-3 Communications	
Richard	Kwiatkowski	Sperry Marine	(434) 974-2623
Rocco	Lafaro	IEC Contact	703-408-5759
Rene'	Langlois		(504) 754-5242
Amanda	Lapouble	Emerson Network Power	713-600-8708
John T. (Jack)	Laturell		
Steve	Liggio	Point Eight Power	(504) 391-6828
Erik	Limpaecher	Princeton Power Systems, Inc.	609-955-5390 ext 105
Steven	Ly	NSWC CD Philidelphia	(215) 897-7904
STEPHEN R	MAHER	Chevron	
George	Mahl	Mahl & Associates, Inc.	(504) 733-8050
Michal	Maier	Boeing	(256) 464-4757
Arthur	Maldonado	A&M Technology Group, LLC	(239) 877-7657
Roy	Marshman	Tyco Electronics - Raychem	(512) 658-9479
Michael	Mcclelland	GD	619-602-3374
Tim	McCoy	Navy PEO Ships - Electric Ship Office	
Mike	McGraw	NSOEM, Inc.	(281) 500-8940
Brian	Meadowcroft	U.S. Coast Guard	(425) 420-6979
Rick	Meeker	FSU CAPS	(850) 645-1711
Rafael	Monzon	M S Benbow and Associates	(504) 836-8972
Dennis	Neitzel	AVD Training Institute	(214) 331-7315
Mark	Nelson	HII - Newport News	(757) 534-4774
Peter	Nguyen		
Jerry	Oldham	Cadick Corp.	(850) 712-8338
Robert	Olmstead	Northrup Grumman SS	(504) 466-5182
Arthur	Pack	Okonite	(201) 825-0300
Sergio	Panetta	I-GARD Corp.	(416) 319-5413
David	Parkinson	Teco Westinghouse	(512) 218-7155
Joseph E.	Payne		
Lynn	Peterson	Navy PEO Ships - Electric Ship Office	
Kevin	Peterson	P2S Engineering	(562) 497-2999
Joe	Piff	MCR, LLC	(571) 227-6940
Richard	Pitt	Governer Control Systems	(954) 462-7404
Stefan	Preissinger		
Iulian	Profir	Rockwell Automation	(519) 740-4765
Jim	Quirk	The Bishop Group	(850) 271-8877
Terry	Rainey	Chevron	(281) 206-6585
Joshua	Reynolds	USCG	(202) 372-1375
Mike	Roa	ABS	(703) 519-9240
Dennis	Robichaux		
Dan	Rodriguez	ICC Cable Corp	(281) 240-3562
Eduardo	Saa	SBM Atlantia	281-679-2466
Dan	Saban	DDS	(562) 293-1365
Gary	Savage	Draka Marine, Oil, & Gas	(281) 799-8630
Eric	Schriber	ABB-USA	954-319-2287
Thomas	Schubert	Gibbx & Cox	(703) 416-3646
Gil	Shoshani	Rockbestos Surprenant Cable Corp.	(860) 653-8465
Rudy	Sierra	USCG	(202) 372-1381
Charles	Smith	HII - Newport News	(757) 380-2340
Zareh	Soghomanian	BMT Syntek	(703) 247-5619
Sanjeev	Srivastava	FSU CAPS	(850) 645-1197
Lames	St. John		
Mischa	Steurer	FSU	(850) 644-1629
Greg	Stevens	GD-BWI	(207) 442-5870
Margaret	Stoops	Converteam, Inc.	
Roger	Szabo	ABS	703-519-9890
Timothy R.	Tedrow		
Larry	Thomas	HHI - Newport News	(757) 688-6084

Ben	Tillison	Det Norsk Veritas	
X	Tran	ABS -Houston	
Albert	Tucker	Consulatant	(410) 741-9127
Micheal	Turner	Cadick Corp.	(206) 300-7522
Kevin	Walker	NSWC	(215) 897-1239
Kevin	Warren	Schweitzer Engineering Laboratories, Inc.	(509) 334-5043
Lew	Weingarth	Transocean	
Jerry	Wicks	Okonite	(504) 982-5824
James	Williams	Military Sealift Command	
John	Winbery	Winbery & Associates	(985) 845-4682
Al	Winfield	Cadick Corp.	(607) 648-3764
Johnny	Wynn	Okonite	(281) 369-5404
Rui	Zhou	GE	(513) 552-6029
Roger	Mills	Converteam, Inc.	(228) 209-1215
Mark	Panko	Zero Ground	(630) 719-1900
Bob	Hopkins	Zero Ground	(630) 719-1900
Phil	Laudicina	Amercable	(713) 896-5810
Tim	Gauthier	AVO Training Institute	(214) 330-3567
Bill	Byrd	Columbia Corrosion Control	
Michael	Bayer	KBR	(281) 721-2497

IEEE 1580.1 (Insulated Bus Pipe) Report:

By-Dierdre Birley-Chair

Paul Bishop will be the Vice Chair. Veronica McPherson and Wolfgroey joined the working group and will be the technical support and liaison for the technical information provided by Norbert Pressinger. Dierdre Burley will be the liaison for technical information provided by Richard of Northrop Grumman. Charles Smith will be the acting secretary until someone permanent takes the position.

The working group is in the process of modifying the outline to tailor the IEEE 1580.1 outline to insulated bus pipe standard and applications which differ from cable. The PAR for the IEEE-1580.1 is required to be revised. The IEEE-1580.1 standard will provide the required information which is provided in IEEE 1580. There will be a working group meeting October (time and place –TBD), and a meeting in December, time TBD.

Paul Bishop's E-mail:

Lorraine,

I submitted a PAR revision for P45.3 which modified the name, scope and purpose. I did not change the number because I thought that might be a little more difficult, and perhaps somewhat confusing.

That change will go to NesCom at their 28 Oct 2011 meeting.

I think we are good for now.

Regards,

Paul Bishop

Submitted by: Moni Islam September 18, 2011

45	RP for Electric Installations on Shipboard	Dwight Alexander, Chair

No Report

P45.2	**RP for Electrical Installations on Shipboard-.2 Controls and Automation**	**David Cartes, Chair**

Subj: **RE: PCIC Standards WG Annual Reports**
Date: 10/17/2011 10:18:35 A.M. Central Daylight Time
From: dave@ieses.fsu.edu
To: PaddenEng@aol.com
CC: will.mcbride@bp.com, willE.mcbridepe@ieee.org

1) PAR Status
    a. Success fully balloted
    b. Passed RevCom
    c. In editing and publishing
2) List Officers/Officer changes
    a. Chair – David Cartes, Florida State University
    b. Vice Chair – Mark Nelson, Newport news Shipbuilding and Drydock Co.
    c. Secretary – Mike Roa, American Bureau of Shipping
3) Current Action of Working Group (eg. WG in progress, Balloting, plan to issue new PAR, no action)
    a. Complete
4) Note status of WG Procedures
    a. None.
5) List meetings held
    a. Sept. 20-22, 2010, PCIC Ana Antonio
    b. Oct. 26-27, 2010, Arlington, VA
    c. February 8-9, Arlington, VA
    d. July 19-20, Houston
6) Note items of possible problems/noteworthy activities
    a. Successful balloting
7) Attach minutes of meetings
    a. See IEEE p45 minutes, all meetings were joint meetings
8) Attach Working Group roster
    a. David Cartes
    b. Mark Nelson
    c. Michael Roa
    d. Guy Hardwick
    e. Paul Bishop
    f. Richard Pitt
    g. Margaret Stoops
    h. Mohammed Ahmed
    i. Frank Ferrese
    j. Don Chambers
    k. Richard Pitt
    l. Lyndsay Garrett
    m. Wayne Cantrell
    n. Richard Kwiatkowski
    o. Akhter Hossain
    p. Sanjeev Srivastava
    q. Jeff Farr
    r. David Alley
    s. Jerry Oldham
    t. Ole Haaland
    u. Pablo Asiron
    v. Al Winfield
    w. Daniel Saban
    x. John Amy
    y. Arvind Chaudhary
    z. Anthony Seman
    aa. Dwight Alexander
    bb. Moni Islam
9) Note if the WG has an IEEE Bank Account & note if Form L-50S will be sent to Standards SC Chair (in Spring)
    a. None.

Sorry that this took so long.

Dave

David Cartes, Ph.D.
Director, Institute for Energy Systems, Economics and Sustainability (IESES)
Program Lead, Control and Automation, Center for Advanced Power Systems
Professor, Department of Mechanical Engineering

Florida State University
2000 Levy Ave., Suite 360
Tallahassee, FL 32310
Phone: (850) 645-1184
Fax: (850) 645-9209
Email: dave@ieses.fsu.edu
www.ieses.fsu.edu

P45.3	**RP for Electrical Installations on Shipboard-.3 Systems Integration**	**Paul Bishop, Chair**

See Attached Report

RECOMMENDED PRACTICE FOR ELECTRICAL INSTALLATIONS ON SHIPBOARD - SYSTEMS INTEGRATION
(IEEE P45.3)
ANNUAL REPORT
September 2010

PAR STATUS

The PAR was approved on 10 December 2008 and expires on 31 December 2012. The working group recently reviewed the PAR and compared it with the PAR for P45.1. As a result of a detailed review of both IEEE P45.1 and IEEE P45.3 it was decided that the title of the document, its Scope and its Purpose be revised to more clearly delineate the differences between Detailed Design and Systems Engineering.

On September 12, 2011 a revision to the IEEE P45.3 PAR was submitted. The revision modified paragraph *2.1 Title*, *5.2 Scope*, and *5.4 Purpose*. A copy of the revised PAR is attached. Additional information is provided under NOTEWORTHY ACTIVITIES below.

OFFICERS

Chair: Paul Bishop
Vice Chair: John Amy
Secretary: Jim Quirk

CURRENT ACTION OF WORKING GROUP

The working group is currently meeting to complete the document and send it to balloting. As noted above, a modification to the PAR has been submitted.

The working group is currently conducting web meetings monthly and expects to continue this with occasional meetings in person.

STATUS OF WORKING GROUP PROCEDURES

A Working Group Roster and Attendance Excel workbook has been developed to track attendance and prepare reports as required by IEEE-SA. Two versions exist: one for groups up to 50 members and a second version for groups of up to 300 members. Both are in use on projects supported by The Bishop Group.

Working Group Policy and Procedures have been received and responded to. Current concerns are the clarity of attendance and member status and gathering affiliation information appears across the standards domain. Very few understand it and few of those enforce it without significant difficulty.

MEETINGS HELD

Nine meetings have been held in the last 12 months:

Meeting 8 - Net Meeting - October 22, 2010
Meeting 9 - Net Meeting - November 19, 2010
Meeting 10 - Net Meeting - December 3, 2010 - Cancelled due to proximity of Holiday Season.
Meeting 11 - Net Meeting - March 17, 2011
Meeting 12 - MRCI, Ballston, VA - April 13, 2011
Meeting 13 - Net Meeting - May 19, 2011
Meeting 14 - Net Meeting - June 2, 2011
Meeting 15 - Net Meeting - June 15, 2011
Meeting 16 - Net Meeting - August 24, 2011
Meeting 17 - Net Meeting - September 15, 2011

POTENTIAL PROBLEMS AND NOTEWORTHY ACTIVITIES

Relationship Between P45.3 and P45.1

At the IEEE P45 Series, Meeting 4 - MCRI Ballston, VA - October 26-27, 2010, there was much discussion about the differences between *IEEE P45.1 - Recommended Practice for Electrical Installations on Shipboard - Design* and *IEEE P45.3 - Recommended Practice for Electrical Installations on Shipboard - Systems Integration.*

Subsequently, the IEEE P45.3 Chair presented research showing terms recognized in the IEEE Dictionary which were relevant to issue under consideration. After a significant discussion between the Chairs of P45.1 and P45.3 the actions below were taken.

Addition of a New Subclause

A new subclause *1.4 Relationship between IEEE 45.3 and IEEE 45.1* was developed, reviewed and added to the P45.3 document. The new clause defines key terms in the engineering process and provides definitions for systems engineering, detailed design, system life cycle, product baseline, and design baseline. The terms were also added to *3.1 - Definitions*.

Addition of New Figure

A new *Figure 2 - Relationship between IEEE 45.3 and IEEE 45.1* was developed, reviewed and inserted in P45.3 to replace the existing *Figure 1 - Rat's Nest Diagram*. This figure still needs work.

Addition of a New Annex

A new normative annex *"Annex B - Design Baseline Deliverables"* was reviewed and accepted.

Name Change of P45.3 and P45.3

The names of the two documents have been discussed extensively in recent meetings of P45.3 and P45.1. Several alternatives have been discussed. As a result of the attempt to clarify the two documents the following was proposed:

1. Change the name of P45.3 to *"IEEE P45.3 RECOMMENDED PRACTICE FOR ELECTRICAL INSTALLATIONS ON SHIPBOARD - SYSTEMS ENGINEERING"*

2. Change the name of P45.1 to *"IEEE P45.1 RECOMMENDED PRACTICE FOR ELECTRICAL INSTALLATIONS ON SHIPBOARD - DETAILED DESIGN"*

This was presented to the P45.1 Working Group for further discussion and resolution. If accepted, this could also be the appropriate time to swap numbers.

MINUTES OF MEETINGS

Minutes of meetings 8 through17 are attached.

ROSTER

The current roster is attached.

IEEE BANK ACCOUNT

The working group does not have an IEEE Bank Account.

Prepared by: Paul Bishop, P.E.
Chair, IEEE P45.3 Working Group

P45.4	**RP for Electrical Installations on Shipboard-.4 Marine Sectors and Mission Systems**	**Paul Bishop, Chair**

See Attached Report

RECOMMENDED PRACTICE FOR ELECTRICAL INSTALLATIONS ON SHIPBOARD - MARINE SECTORS AND MISSION SYSTEMS (IEEE P45.4)
ANNUAL REPORT
September 2011

PAR STATUS

The PAR was approved on 10 December 2008 and expires on 31 December 2012. No PAR changes are anticipated.

OFFICERS

Chair: Paul Bishop
Vice Chair: Jim Quirk
Secretary: vacant

CURRENT ACTION OF WORKING GROUP

The working group has been mostly dormant this year while focusing on P45.3. It is anticipated that the working group will become more active in 2011. The Secretary position is currently vacant.

The draft outline prepared February 2010 has been updated several times based on information that has come to light while preparing IEEE P45.3. The most recent update was made in September 2011.

STATUS OF WORKING GROUP PROCEDURES

A Working Group Roster and Attendance Excel workbook has been developed to track attendance and prepare reports as required by IEEE-SA. Two versions exist: one for groups up to 50 members and a second version for groups of up to 300 members. Both are in use on projects supported by The Bishop Group.

Working Group Policy and Procedures have been received and responded to. Current concerns are the clarity of attendance and member status and gathering affiliation information appears across the standards domain. Very few understand it and few of those enforce it without significant difficulty.

MEETINGS HELD

One meeting has been held in the past 12 months:

Meeting 1 - Net Meeting - September 15, 2011

POTENTIAL PROBLEMS AND NOTEWORTHY ACTIVITIES

Ship users and shipbuilders are currently being sought for membership in the working group.

MINUTES OF MEETINGS

Minutes of meeting 1 are attached.

ROSTER

The current membership list is attached.

IEEE BANK ACCOUNT

The working group does not have an IEEE Bank Account.

Prepared by: Paul Bishop, P.E.
Chair, IEEE P45.4 Working Group

P45.5	**RP for Electrical Installations on Shipboard- .5 Safety Considerations**	**Dennis Neitzel , Chair**

2011 Annual Report

IEEE Std P45.5, Recommended Practice for Electrical Installations on Shipboard – Safety Considerations

1) PAR Status – PAR Expiration Date: 31-Dec-2012
2) List Officers/Officer changes
   a. Dennis K. Neitzel – WG Chair
   b. Tim Gauthier – WG Vice Chair
   c. Charlie Helmick – WG Secretary
3) Current Action of Working Group – WG work in progress
4) Note status of WG Procedures – what is being asked with this?????
5) List meetings held – e-mail only at this point in the development
6) Note items of possible problems/noteworthy activities – unable to get full participation from WG members; doing most work myself
7) Attach minutes of meetings – none available
8) Attach Working Group roster – sent under separate e-mail
9) Note if the WG has an IEEE Bank Account & note if Form L-50S will be sent to Standards SC Chair – none needed

Working Group Member for IEEE P45.5

Recommended Practice for Electrical Installations on Shipboard – Safety Considerations

Dennis K. Neitzel, CPE – WG Chair
AVO Training Institute, Inc.
4271 Bronze Way
Dallas, TX 75237
Office – 214-331-7315
Cell – 214-914-6850
E-Mail – dennis.neitzel@avotraining.com

Tim Gauthier – WG Vice Chair
AVO Training Institute, Inc.
4271 Bronze Way
Dallas, TX 75237
Office – 214-330-3567
Cell – 214-603-8972
E-Mail – tim.gauthier@avotraining.com

Charlie Helmick – WG Secretary
AVO Training Institute, Inc.
4271 Bronze Way
Dallas, TX 75237
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Mike Turner
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Moni Islam
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Personal E-Mail – rjvw@q.com

Sergio Panetta
E-Mail - spanetta@i-gard.com

P45.6	**RP for Electrical Installations on Shipboard-.6 Electrical Testing**	**Don Chambers, Chair**

No Report

P45.7	**RP for Electrical Installations on Shipboard-.7 Switchboards**	**Steve Liggio, Chair**

ANNUAL REPORT

FOR

IEEE P45.7

Recommended Practice for Electrical Installations on Shipboard- AC Switchboards

Presented By: Steve Liggio Date: September 2, 2011

- PAR Status – Re-Circulation Ballot submitted to IEEE for approval to proceed
- List of Officers
    - Chair- Steve Liggio
    - Vice Chair- John Winbery

- No meeting have been held in the last 12 months
- No issues to note
- Working Group Roster:
    - Steve Liggio, John Winbery, Arthur Currier and Bob Jones

P45.8	**RP for Electrical Installations on Shipboard-.8 Cable Systems**	**Gary Savage, Chair**

See Attached Report

IEEE • IAS
Petroleum and Chemical Industry Committee

Please address reply to:
Gary Savage - Chair
IEEE-P45.8 Working Group
281-645-7388 Ph.
774-235-2527 Fax
e-mail: savage@ieee.org

September 20, 2011

IEEE-P45.8 WORKING GROUP ANNUAL REPORT

Draft Recommended Practice For Electrical Installations on Shipboard-Cable Systems

1) PAR Status

The current PAR is in effect through December 2013

2) List Officers/Officer changes

Chair- Gary Savage

Vice Chair- T.S. Bhat

Secretary- Damian Billeaudeau

3) Current Action of Working Group -.

WG in progress

4) Note status of WG Procedures-

Out for vote to WG 20Sept11. Will submit result ASAP

5) List meetings held

April 13-14, 2010

June 29, 2010

September 29, 2010

October 26-7, 2010

January 26, 2011

IEEE 45.8 WG Annual Report (p.2)

5) Meetings Held (cont.)

February 8-9, 2011

July 13, 2011

July 19-20, 2011

September 18, 2011

6) Items of possible problems/noteworthy activities

Difficulty in attaining a quorum in some meeting locations (e.g. Washington, D.C.)

7) Minutes of meetings attached

8) Working Group roster attached

9) Working Group does not have an IEEE Bank Account

END OF REPORT

303	**RP for Auxillary Devices for Rotating Electrical Machines in Class 1, Div 2 and Zone 2 Locations**	**Travis Griffith, Temporary Chair Lorraine Padden, Co-Chair**

Subj: **P303 report**
Date: 9/3/2011 11:57:53 A.M. Central Daylight Time
From: travis.griffith@att.net
To: willE.mcbridepe@ieee.org, d.c.mohla@ieee.org, PaddenEng@aol.com
CC: p.gerdon@ieee.org

303-2004 (IAS/PCI) IEEE Recommended Practice for Auxiliary Devices for Rotating Electrical Machines in Class I, Division 2 and Zone 2 Locations

1) **PAR Status:**
   RevCom action of 15 June 2011: Disapprove reaffirmation
   PAR expired

2) **List of officers:**
   Temporary chair: Travis Griffith
   Other officers: None

3) **Current Action of Working Group:**
   Inactive: WG development was subject to reaffirmation acceptance

4) **Status of WG Procedures:**
   WG inactive

5) **List meetings held:**
   None

6) **Note items of possible problems/noteworthy activities:**
   Reaffirmation Ballot: 100% approve, 0% disapprove.
   4 approve with comment (editorial)
   RevCom action of 15 June 2011: Disapprove reaffirmation

7) **Attach minutes of meetings:**
   None

8) **Attach Working Group roster:**
   WG development was subject to reaffirmation acceptance.

9) **IEEE Bank Account:**
   No bank account or assets.

463	**Std for Electrical Safety Practices in Electrolytic Cell line Working Zones**	**Ken White, Chair**

Subj: **RE: PCIC Standards SC Meeting Tues, Sept 20, 12:45 pm**
Date: 9/14/2011 7:36:37 P.M. Central Daylight Time
From: KPWhite@olin.com
To: PaddenEng@aol.com

Lorraine
Sorry for the late replay, WG 463 has not had a meeting yet, The PAR is approved as shown on the attached sheet. I have requested approval of D. Ray Crow ad vice chair and Paul Buddingh as secretary. I am waiting approval from PCIC for the officers**.**
Right now all of the old members are wanting to be in the working group.
David Pace
John Hus
Paul Buddingh
Ray Crow
Rich Holcomb
Kent Givens

The plan for the meeting at PCIC is to review the standard and add items about arc flash in an electrolytic cell line.
We have no bank account
Let me know if you have any questions and I will see you next week.
Thanks
Ken White

From: PaddenEng@aol.com [mailto:PaddenEng@aol.com]
Sent: Monday, August 22, 2011 3:12 PM
To: PaddenEng@aol.com; c.m.wellman@ieee.org; White, Ken P NIAG; d.c.mohla@ieee.org; paul.anderson@tic.toshiba.com; t.griffith@ieee.org; Dennis.Bogh@ge.com; rich.hulett@thermon.com; travis.griffith@ge.com; l.b.mcclung@ieee.org; Dev.Paul@aecom.com; mcole@hubbell-canada.com; donald.dunn@ieee.org; bob.rafferty@verizon.net; ben.johnson@thermon.com; rbried@yahoo.com; GLdonner@ieee.org; MRBright@AmerCable.com; ykhersonsky@ieee.org; ed.thornton@usa.dupont.com; kevin.peterson@p2seng.com; john.turner@ieee.org; rdurham@d2ts.com; rhpaes@ra.rockwell.com; gil.shoshani@r-scc.com; don.voltz@bp.com; Dennis.Hill@wgint.com; bveerkamp@dow.com; dennis.neitzel@avotraining.com; larryastahl@eaton.com; pcbishop@bishopgroup.org; gary.savage@draka.com; dustybrown2010@gmail.com; dcrains@ieee.org; moni.islam@ieee.org; roy.barth@thermon.com; wltaylor1@mmm.com; dwight.alexander@ngc.com; dave@ieses.fsu.edu; don.chambers@converteam.com; SLiggio@pointeightpower.com; wayne.williams@ieee.org; jturner@idirect.com; rahanna@rpm-eng.com; rogerlawrence@rglsolutions.com
Cc: Will.McBride@bp.com; willE.mcbridepe@ieee.org; p.gerdon@ieee.org
Subject: PCIC Standards SC Meeting Tues, Sept 20, 12:45 pm

Working Group Chairs,
Reminder...the annual meeting for the PCIC Standards Subcommittee will be on Tuesday, Sept. 20 at the Sheraton Hotel, Toronta, at **12:45 to 2:15**...all WG Chairs should attend...
ASAP... To expedite this meeting...a summary of the Status of each Standard will be shown...please provide us updates to the summary status as shown on the attachment....
In addition, each WG needs to submit an **annual report** to the Standards officers so the reports can be included with the minutes...Please submit your annual reports to Will, Daleep, and myself...
The annual report should include:
1) PAR Status
2) List Officers/Officer changes
3) Current Action of Working Group (eg. WG in progress, Balloting, plan to issue new PAR, no action)
4) Note status of WG Procedures
5) List meetings held
6) Note items of possible problems/noteworthy activities
(can't get quorum,raised $1 million for standards tests)
7) Attach minutes of meetings

8) Attach Working Group roster
9) Note if the WG has an IEEE Bank Account & note if Form L-50S will be sent to Standards SC Chair (in Spring)
Please submit your annual reports via e-mail by Tuesday, September 20.
Thank you for all the hours you dedicate to PCIC Standards work..
Hope everyone enjoys the Conference.
Best regards, Lorraine K. Padden, PE
PCIC Standards SC Secretary

Lorraine K. Padden, PE
President
Padden Engineering, LLC
PO Box 5745
Katy, TX 77491
281-579-6550
paddeneng@aol.com

515	**Std for the Testing, Design, Installation, & Maintenance of Electrical Resistance Heat Tracing for Industrial Applications**	**Dusty Brown, Co-Chair** **Rich Hulett, Co-Chair**

August 25, 2011

TO: PCIC Standards Subcommittee
FROM: Dusty Brown/Rich Hulett
SUBJECT: 2011 Annual Report

RE: IEEE 515 Standard for the Testing, Design, Installation, and Maintenance of Electrical Resistance Heat Tracing for Industrial Applications

The 4th revision of IEEE 515 is completed. Publication date is set for September 9, 2011. Other pertinent inputs are listed below:

Officers: Dusty Brown and Rich Hulett Co-Chairs. There have been no changes.

Sponsor balloting went thru a second cycle to be certain all were comfortable with changes made from initial ballot.

Working Group Procedures: WG 515 follows PCIC Stds Subcom approved WG P&Ps

Meetings held (last 12 months):

None

Financial: WG 515 has no bank account and has made no transactions on behalf of IEEE

The current roster is attached.

Sincerely,

Dusty Brown

Co-Chair
WG 515

Attachments:
Roster of WG 515

Dusty	Brown	dusty.brown@emerson.com
Rich	Hulett	Rich.Hulett@Thermon.com
Ben	Johnson	ben.johnson@thermon.com
Andrew	Lozinski	andrew.lozinski@fmglobal.com
John	Turner	john.turner@ieee.org
Wayne	Williams	wwilliams@tycothermal.com
Larry	Stehling	larry.stehling@emerson.com
Wolfgang	Dlugas	Wolfgang.Dlugas@hew-kabel.com
Peter	Schmidt	Pschmidt@eltherm.de
Jason	O'Connor	Jason.OConnor@heat-trace.com
Rudolf	Pommé	rudolf.pomme@kema.com
Erik	Stephens	erik.stephens@emerson.com
Robert	Seitz	robert.seitz@asrcenergy.com
Satish	Parikh	satish.parikh@wgint.com

Future membership possibilities

Todd	Hamden	Todd.Hamden@csa-international.o
Paul	Kelly	UL

CORRESPONDENCE ONLY

Pam	Gold	pam.gold@thermon.com
Peter	Baen	peter.baen@thermon.com
Chet	Sanberg	Chet.Sandberg@ieee.com
Frank	von der Heyden	FvonderHeyden@eltherm.de
Duane	Leschert	Duane.Leschert@WorleyParsons.c
Neil	Malone	
Paul	House	
Will	McBride	WillE.McBridePE@ieee.org
Bob	Rafferty	bob.rafferty@verizon.net
Doug	Brooks	brooksd@bantrel.com
Tim	Driscoll	tim.driscoll@shell.ca

515.1	**Std for the Testing, Design, Installation, & Maintenance of Electrical Resistance Heat Tracing for Commercial Applications**	**Wayne Williams, Chair** **John Turner, Secretary**

IEEE 515.1 Working Group Annual Report - PCIC 2011

The following are the highlight from the IEEE 515.1 Working Group

The working group members consist of:

- Working Group
    - Wayne Williams – Chair
    - John Turner – Secretary
    - Pam Gold
    - Andy Lozinski
    - Clinton Veit
    - Joel Hawk
    - Rich Hulett
    - Shriram Pathak
    - Todd Hamden
    - Umesh Sapory
    - Kerry Bell

- There were no physical meetings for the past year.
- All work was carried out by correspondence
- A final working group draft has been circulated for review
- Comments are due by the 23rd of Sept.
- Work has begun on the editing with IEEE staff

We are applying for an extension to the existing PAR in order to allow for any issues raised during the balloting process, the PAR expires at the end of this year.

Changes since last PCIC include:

- Add text to document to address concerns from UL on the fire sprinkler applications in Section 4.6 with regard to obstruction to the spray pattern of the sprinkler head for upright “sprigs”.
- Adding a figure showing one method of tapering the insulation at the base of the sprinkler head. Referencing the controlling Standard NFPA 13
- Clarify monitor and control requirements and recommendations
- The recommended changes were reviewed by invited exerts from the fire protection sprinkler industry with valuable input from Kerry Bell of UL.
- This was an iterative process which delayed our hoped for ballot date.

576	**RP for Installation, Termination, & Testing of Insulated Power Cable as Used in Industrial and Commercial Applications**	**Bill Taylor, Chair**

Subj: **Re: PCIC Standards WG Annual Reports**
Date: 10/14/2011 8:37:05 A.M. Central Daylight Time
From: wltaylor1@mmm.com
To: PaddenEng@aol.com
Lorraine,

For IEEE-576, we had a meeting in September and it was agreed to let the standard expire. All of the information in the standard will be transferred to IEEE-1242, which is a joint standard between the ICC and the PCIC and IEEE-1185, which is owned by the ICC. I'm involved with the ICC and will make sure all of the information in IEEE-576 will be included in the other two standards. Last September was the last meeting for 576.

Thanks,
Bill

From: PaddenEng@aol.com
To: don.chambers@converteam.com, dave@ieses.fsu.edu, wltaylor1@mmm.com, dcrains@ieee.org, mcole@hubbell-canada.com, donald.dunn@aramcoservices.com, ed.thornton@usa.dupont.com, gil.shoshani@r-scc.com, l.b.mcclung@ieee.org, GLdonner@ieee.org, Dennis.Hill@wgint.com, larryastahl@eaton.com, d.c.mohla@ieee.org
Cc: will.mcbride@bp.com, willE.mcbridepe@ieee.org
Date: 10/13/2011 05:26 PM
Subject: PCIC Standards WG Annual Reports

Working Group Officers,
As part of being an officer for IEEE Standards, an annual report is due before the annual Standards SC meeting during the PCIC Conference.
I have either not received your report, or only received a partial report from the following:

45.2 - David Cartes - no report, minutes, or roster
45.6 - Don Chambers - no report, minutes, or roster
576 - Bill Taylor - no report, minutes, or roster
841 - David Rains - your report noted that you were sending updated roster (please send roster)
1673 - Marty Cole - no report, minutes, or roster
1714 - Donald Dunn - no report, minutes, or roster
1716 - Ed Thornton - no report, minutes, or roster
1810 - Gil Shoshani - received minutes & roster - no report (please respond to questions below)
1814 - Bruce McClung - received report - no minutes or roster

Please send the missing reports soon. If you already sent it in, please resend.
I have received a lot of emails and it may have gotten misplaced.
Thank you for a prompt response...I hope to issue the draft minutes in the near future.

Resending request from August 2011.....
ASAP... In addition, each WG needs to submit an **annual report** to the Standards officers so the reports can be included with the minutes...Please submit your annual reports to Will, Daleep, and myself...
The annual report should include:
1) PAR Status
2) List Officers/Officer changes
3) Current Action of Working Group (eg. WG in progress, Balloting, plan to issue new PAR, no action)
4) Note status of WG Procedures
5) List meetings held
6) Note items of possible problems/noteworthy activities
(can't get quorum,raised $1 million for standards tests)
7) Attach minutes of meetings

8) Attach Working Group roster
9) Note if the WG has an IEEE Bank Account & note if Form L-50S will be sent to Standards SC Chair (in Spring)

Please submit your annual reports via e-mail by ***Tuesday, September 20***.

Thank you for all the hours you dedicate to PCIC Standards work..
Hope everyone enjoys the Conference.
Best regards, Lorraine K. Padden, PE
PCIC Standards SC Secretary

Lorraine K. Padden, PE
President
Padden Engineering, LLC
PO Box 5745
Katy, TX 77491
281-579-6550
paddeneng@aol.com

841	**Std for Petroleum and Chemical Industry Severe Duty TEFC Squirrel Cage Induction Motors - Up to and Including370 kW (500 HP)**	**David C Rains, Chair** **Bill Veerkamp, Vice Chair** **Dennis Bogh, Secretary**

Subj: **IEEE 841**
Date: 9/19/2011 6:46:31 A.M. Central Daylight Time
From: david.c.rains@schneider-electric.com
To: paddeneng@aol.com

1) PAR Status

Under development - discovery stage to establish definition for next revision

2) List Officers/Officer changes

WG Chair; David C. Rains

WG Vice Chair; Bill Veerkamp

Secretary; Dennis Bogh

3) Current Action of Working Group (eg. WG in progress, Balloting, plan to issue new PAR, no action)

Plan for IEEE PCIC 2011 meeting is to assign the identified tasks and discussion subjects to leaders of sub groups in order to develop accurate PAR.

Areas identified and agreed to date include but not limited to; Fan material, 'nominal' voltage, efficiency levels, Synthetic lubricants, vibration, IEC, data sheet.

4) Note status of WG Procedures

Going out for vote

5) List meetings held

Multiple sub group meetings / teleconferences: Chair, vice chair and Secretary

6) Note items of possible problems/noteworthy activities (can't get quorum,raised $1 million for standards tests)

None

7) Attach minutes of meetings

8) Attach Working Group roster

9) Note if the WG has an IEEE Bank Account & note if Form L-50S will be sent to Standards SC Chair (in Spring)

N.A.

IEEE 841

TEFC Squirrel Cage Induction Motors, ≤ 500 HP

Working Group Meeting Minutes – September 19, 2010

Room 12, Marriott Rivercenter Hotel – San Antonio Texas

1. Meeting was called to order at 10.00 AM by David C. Rains Working Group Chair
2. Travis Griffith moved adoption of the agenda, seconded by Daleep Mohla; Passed
3. 39 individuals in attendance full time; +2 part time. See attached
4. The IEEE SA Patent Policy slides were presented and discussed. (Also 2 copies circulated).
5. Status of the standard – Published
6. Discussion session subjects:
    a. Fan material
        i. Discussion on aluminum versus bronze – possible concerns on larger frames; stock motors, coatings on fans.
    b. Nominal versus rated voltage
        i. Discussion on consistency with NEMA MG-1. Up to 5,000 VAC. 'Rated voltage'. IEC ratings at the voltage. Tutorial paragraph.
    c. Efficiency levels
        i. Levels for 8 pole motors to be updated in the future. Levels are changing – future update will be appropriate.
    d. Synthetic lubricants
        i. Compatibility issues still exist
    e. Balancing
        i. Open discussion on existing levels; API 547, 541
    f. IEC
        i. Dual or separate IEEE Standard; Part A & B documents?
    g. Survey
        i. Next step; survey or small work groups
    h. Data Sheet
        i. Own data sheet – no copyright issues
    i. Usual versus Unusual conditions
        i. General discussion
7. The meeting adjourned at 11.00 AM

Attachments:
Attendance Record

Adobe Acrobat Document

2010 PCIC IEEE 841 meeting slide set

Adobe Acrobat Document

1) PAR Status
No PAR at this time - New PAR to be developed - in 'discovery' at this time.

2) List Officers/Officer changes
WG Chair; David C. Rains, Vice Chair; New Nomination - Bill Veerkamp, Secretary; New Nomination - Dennis Bogh

When completed, please e-mail this roster to nescom-admin@ieee.org.

Name	MI	LastName	Company	Email
Voting				
Paul	A	Anderson	Toshiba	paul.anderson@tic.toshiba.com
Ron		Blankenhorn	BP America Inc	blanrk@BP.com
Dennis		Bogh	GE	dennis.bogh@indsys.ge.com
Robert	B	Boteler	Emerson	rob.boteler@emotors.com
Charles	L	Boynton	Du Pont	charles.l.boynton@usa.dupont.com
Gabe	F	D'alleva	ExxonMobil	gabe.f.d'alleva@exxonmobil.com
John		Vroom	ConocoPhillips	John.j.vroom@conocophillips.com
Bill	E	Lockley	Lockley Engineering Ltd	lockleyb@telusplanet.net
John		Malinowski	Baldor	jmalinowski@baldor.com
Daleep	C	Mohla	DCM Consulting	d.c.mohla@ieee.org
Jason		Obermeyer	Siemens	jason.obermeyer@siemens.com
Wayne		Paschall	Rockwell	wpaschall@powersystems.rockwell.com
John	E	Propst	Shell (retired)	j.e.propst@ieee.org
David	C	Rains	Schneider	dcrains@ieee.org
John		Rama	Synchrony, Inc.	john.rama@ieee.org
Joe		Rammage	Valero	joe.rammage@valero.com
Richard		Romero	Stanley Electric	rromero@stanleyelectric.com
Charles	A	Straub	Marathon Electric	chuck.straub@rbcmtg.com'
Barry		Wood	Chevron	barrywood@chevronTexaco.com
Frank		Peter	Linde	peter.frank@limdebocpp.com
Tom		Dale	Emerson	thomas.daler@emerson.com
Steve		Givens	Argo Intenational	sgivens@argointl.com
Mike		Noonan	Suncor Energy	mnoonan@suncor.com
Bill		Veerkamp	DOW	bveerkamp@dow.com
Mark	K	Zawadzki	International Paper	mark.zawadzki@ipaper.com
Dale		Basso	WEG	dbasso@weg.net
Austin		Bonnett	Emerson (retired)	austin.bonnett@hotmail.com
Lorraine	K	Padden	Padden Engineering	paddeneng@aol.com
Dan	W	Eaton	Marathon Rtd	dweaton@ieee.org
Non Voting				
Richard		Holub	DuPont	richard.a.holub@usa.dupont.com
Jim		Bonifas	Emerson	jim.bonifas@emotors.com
Mike		Costello	Chevron	michaelcostello@chevrontexaco.com
Dan		Delaney	GE	daniel.delaney@ge.com
Jerry		Ernsky	Emerson	jerry.ernsky@emotors.com
Travis		Griffiths	GE	t.griffith@ieee.org
Tom		Herman	Emerson	tom.herman@emotors.com
Charles	L	McDonald	BP America Inc	mcdonacl@bp.com
Mike		Melfi	Rockwell	mjmelfi@powersystems.rockwell.com
Tim		Rahill	Rockwell	tsrahill@powersystems.rockwell.com
Sukanta		Sengupta	FMC Corp	sukanta_sengupta@fmc.com
Jim		Sicard	Shell Global Solutions	jim.sicard@shell.com
Wayne		Slaughter	Stanley Electric	wslaughter@stanleyelectric.com
Tucker		Woodson	Rockwell	wtwoodson@powersystems.rockwell.com
McKinney		Andy	Baldor	houston_sales@baldor.com
JP		Silva	WEG	jsilva@wegelectric.com
Ryan		Maynus	Siemens	ryan.maynus@siemens.com
Pat		Fox	Siemens	
John		Rydeski	Marathon	
Laura		Collins	Marathon	
Carl		Fredericks	DOW	cfredericks@dow.com

844	**RP for Electrical Impedance, Induction, & Skin Effect Heating of Pipelines & Vessels**	**Roy Barth, Chair**
P844.1	**Standard for the Construction, Testing, and Marking for Skin Effect Heating Systems for Pipelines and Vessels**	**Roy Barth, Chair**
P844.2	**Standard for the Construction, Testing, and Marking for Impedance, Induction, and Inductions Susceptor Heating Systems for Pipelines and Vessels**	**Roy Barth, Chair**
P844.3	**RP for Electrical Impedance, Induction & Skin Effect Heating Systems for Pipelines & Vessels**	**Roy Barth, Chair**

17 September 2011

Will McBride
Chair, PCIC Standards Subcommittee
7200 Lake of the Hills Circle
Anchorage, AK 99516
Wille.McBridePE@ieee.org

Subject: 2011 Annual Report –

IEEE844 Working Group

Dear Lorriane, Daleep and Will:

IEEE 844 has been proposed to be divided into 3 parts and consequently 3 PARS.

These PARS are as follows:

IEEE844.1-Standard for the Construction ,Testing, and Marking for Skin Effect Heating of Pipelines and Vessels
IEEE844.2- Standard for the Construction, Testing, and Marking for Impedance, Induction, and Induction Susceptor Heating Systems for Pipelines and Vessels
IEEE844.3- Recommended Practice for Electrical Impedance, Induction, and Skin Effect Heating Systems for Pipelines and Vessels

These PARS were approved in June at NESCOM. Officers have been established as follows:

Roy Barth- Chair
Franco Chakkalakal- Vice Chair
Derek Polk- Secretary

.Our first meeting since the PAR approvals will be on September 18 at the PCIC in Toronto. This officially kicks off our work activity. A complete roll of working group members has yet to be finalized. Working group procedures have not been adopted as yet but will be circulated for vote after the final roll has been firmed up.

Respectfully submitted,

Roy Barth

Working Group Chair

1017	**RP for Field Testing Electric Submersible Pump Cable**	**Robert Durham, Chair**
1018	**RP for Specifying Electric Submersible Pump Cable - Ethylene Propylene Rubber Insulation**	**Robert Durham, Chair**
1019	**RP for Specifying Electric Submersible Pump Cable - Polypropylene Insulation**	**Robert Durham, Chair**

IEEE IAS Petroleum and Chemical Industry Committee
Submersible Cable Working Group

Report to the Standards Subcommittee
PCIC Conference
2010-09-21

Current Officers

- Chair **Dr. Robert Durham, THEWAY**
- Vice-Chair **Bob Schuermann, General Cable**
- Secretary **Cameron Chung, Baker Hughes**

PARStatus

Working on PARS for three RPs.
PAR 2010-2013 for RP1017
PAR 2010-2014 for RP1018
PAR 2010-2015 for RP 1019

Current Action of Working Group

The working group is in progress. Several editorial revisions to the current standard writeup have been addressed. The WG has completed final revisions on PAR2010-2014 (RP 1018) and will be submitting for editorial review. The other two PARS will be finalized by Q1 2012.

Status of Working Group Procedures

The Submersible Cable Working Group has formally adopted the PCIC Working Group Policies and Procedures without modification.

Meetings Held

Approximately 11 meetings were held over the previously year, including a face to face meeting in Toronto during PCIC 2011.

Current Working Group Roster

- Chair Dr. Robert Durham - THEWAY
- Vice-Chair Bob Schuermann - General Cable
- Secretary Cameron Chung - SunCorp
- Dave Burns – Shell North America
- Nicole Fenyo – General Cable
- David Neuroth – Baker Hughes
- Dr. Marcus Durham – Pedocs, Inc. – Past Chair
- Tim Waters – General Cable
- Larry Dalrymple – Baker Hughes

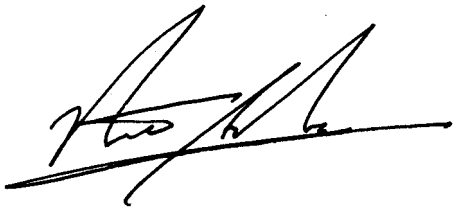
Pending Members

- Sufail Bairagi
- Subrota Bairagi
- Dave Modos IMCORP

Financial Status

The working group does not have a bank account, does not anticipate funding and will not be filing an L-50 report.

Respectively submitted,



Dr. Robert A Durham, PhD, PE
Chair
Submersible Cable Working Group

1068	**Standard for the Repair & Rewinding of AC Electric Motors in the Petroleum, Chemical, and Process Industries**	**Travis Griffith, Chair**
1068-2009/COR 1	**IEEE Standard for the Repair and Rewinding of AC Electric Motors in the Petroleum, Chemical, and Process Industries - Corrigendum 1**	**Travis Griffith, Chair**

Subj: **1068-2009 report**
Date: 9/3/2011 12:10:51 P.M. Central Daylight Time
From: travis.griffith@att.net
To: willE.mcbridepe@ieee.org, d.c.mohla@ieee.org, PaddenEng@aol.com
CC: p.gerdon@ieee.org

1068-2009 (IAS/PCI) IEEE Standard for the Repair and Rewinding of AC Electric Motors
in the Petroleum, Chemical and Process Industries

1) **PAR Status:**
Not active at this time (Standard published 17 March 2010)

2) **List of officers:**
Chair: **Travis Griffith**
Secretary: **Royce King**

3) **Current Action of Working Group:**
Not currently active.

4) **Status of WG Procedures:**
WG not currently active

5) **List meetings held:**
None

6) **Note items of possible problems/noteworthy activities:**
WG not currently active

7) **Attach minutes of meetings:**
WG not currently active

8) **Attach Working Group roster:**
Last, pre-publication roster attached

9) **IEEE Bank Account:**
No bank account or assets.

IEEE 1068 - Motor Repair Working Group

Name	MI	LastName	Company
Austin		Bonnett	Emerson Motor Co
Rob		Boteler	Emerson Motor Co
Travis		Griffith	GE Oil & Gas
Jim	B	Kelley	Rockwell Automation
Paul	T	Kelly	Underwriters Laboratories
Royce	M	King	ConocoPhillips Co
Bryan	W	Klontz	Integrated Power Services
Bill		Lockley	Lockley Engineering
Ben		McClung	American Electric Power
Alan		Mixon	Southwest Electric Co
Jerry		Pittman	Valero
Richard		Romero	Stanley Electric
Bill	G	Stewart	Targa Resources, Inc
Barry		Wood	ChevronTexaco Energy Technology Co
Charles	A	Yung	Electrical Apparatus Service Asso

1242	**Guide for Specifying & Selecting Power, Control, and Special-Purpose Cable for Petrochemical Plants**	**Don Voltz, Chair**

IEEE • IAS
Petroleum and Chemical Industry Committee

September 20, 2011

Please address reply to:
Art Maldonado - Chair
AM Technology Group LLC
Ph. 239-877-7657
E-mail: art@amtechnologygroup.com

To: Lorraine Padden, Will McBride, Daleep Mohla

From: Art Maldonado – Chair -P1242

ANNUAL REPORT
IEEE-P1242

Draft Guide for Specifying and Selecting Power, Control, and Special-Purpose Cable for Petroleum and Chemical Plants

Meeting Place: 2010 PCIC, San Antonio, TX
Date: Saturday September 18, 2010

1) PAR Status – Approved: 08 December 2010
Expires: 31 December 2014

2) List Officers/Officer changes – New Chair – Art Maldonado
New Vice-Chair - Joseph Deegan - Tesoro

3) Current Action of Working Group - WG in progress

4) Note status of WG Procedures-Nothing to report.

5) Last meetings held – September 18, 2010

6) Note items of possible problems/noteworthy activities – Need user participation. Request that announcement be made at Standards Committee Mtg.

7) Attach minutes of meetings- Attached to e-mail.

8) Attach roster – Attached to e-mail.

9) Note if the WG has an IEEE Bank Account & note if Form L-50S sent to Standards SC Chair (in Spring) – Nothing to report.

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY

IEEE • IAS
Petroleum and Chemical Industry Committee

Please address reply to:
Don Voltz - Chair
BP Exploration and Production
Ph. 281-366-8029
E-mail: don.voltz@bp.com

IEEE-P1242 WORKING GROUP MEETING

Draft Guide for Specifying and Selecting Power, Control, and Special-Purpose Cable for Petroleum and Chemical Plants

September 18, 2010, San Antonio, TX

MEETING MINUTES

Scope This guide provides information on the specification and selection of power, control, and special-purpose cable, as typically used in petroleum, chemical, and similar plants. It addresses materials, design, testing, installations, and applications. More recent developments such as fire-rated circuit integrity cables have been included. This guide is not intended to be a design document, although many of the problems associated with the specification and selection of power, control, and special-purpose cable for petroleum and chemical plant applications can be avoided by considering the information presented in this guide. It is recognized that there may be other types of cable used in the petroleum and chemical industries, especially considering the global marketplace. This guide should not be interpreted as precluding the use of such cables
.
Working Group met on Saturday, 18 September 201 at the San Antonio Marriott Rivercenter, Conference Room 8, San Antonio, TX with 22 members and guests in attendance.

AGENDA

1. Introduction of Officers	D. Voltz
2. Meeting Agenda Review	D. Voltz
3. Circulation of Working Group Roster for Attendance	A. Maldonado
4. Approval of 2008 WG Minutes, Cincinnati, OH	D. Voltz
5. Review of Draft 1 Revisions (from ICC)	A. Maldonado
6. Suggested Revisions/Action Item Results	All
7. Break into Groups to Review Respective Clauses	All
8. Adjourn	All

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY

Attendance based on signing the roster was as follows:

Last Name	First Name	Affiliation	Email	Voice Phone
Barker	Richard	General Cable	rbarker@generalcable.com	916-632-9295
Bartolucci	Bart	Okonite	bartolucci@okonite.com	201-825-0300
Bough	Jim	Houston Wire and Cable	jbough@houwire.com	713-301-0955
Candilora	Darryl	Okonite	candilora@okonite.com	504-467-1920
Contreras	Eli	Okonite	contreras@okonite.com	281-869-5407
Dougherty	Kevin	Dekoron W&C	kevin@dekoroncable.com	513-553-1242
Gerdon	Tricia	IEEE-SA	p.gerdon@ieee.org	732-562-3811
Gilson	Ed	BP Exploration & Production	gilsonel@bp.com	281-366-2590
Graham	Adrian	Houston Wire and Cable	agraham@houwire.com	281-935-8750
Johnston	David	Okonite	johnston@okonite.com	713-818-6010
Longacre	Hugh	Georgia Gulf	longacreh@ggc.com	225-685-2838
Madden	Wayne	Okonite	madden@okonite.com	713-818-6011
Maldonado	Art-Vice Chair	AM Technology Group	art@amtechnologygroup.com	239-877-7657
McAlhaney	John	Savannah Nuclear Solutions	mcalhaney@ieee.org	803-208-3389
Ruthven	Dale	Houston Wire and Cable	druthven@houwire.com	713-725-0491
Saccone	Rocke	General Cable	rsaccone@generalcable.com	859-572-8702
Savage	Gary	Draka MOG	gary.savage@draka.com	281-645-7388
Shoshani	Gil	Rockbestos Surprenant	gil.shoshani@r-scc.com	860-653-8465
Smith	Charles	Northrop Grumman	charles.smith@ngc.com	757-380-2340
Stephan	Stan	Dekoron W&C	stan@dekoroncable.com	330-688-6831
Taylor	Bill	3M	wltaylor1@mmm.com	512-984-5019
Voltz	Don - Chair	BP Exploration & Production	don.voltz@bp.com	281-366-8029

Chairman Voltz made introductory remarks, reviewed the Agenda and the Minutes of the last Mtg held in Anaheim. Introduction of attendees followed.

- Chairman Voltz stated that he's one of the few users on the WG and encouraged more users to participate in the working group's discussions. The last mtg. had 13 members present and whom received his e-mail with this meeting's announcement.
- IEEE-576. Bill Taylor is leading the review of 576. Wayne Madden was Chair when it was reaffirmed. Will review tomorrow. Need to decide what to do regarding keeping it. Considering incorporate parts of 576 into IEEE-1185.
- Reviewed of Draft prepared at ICC
- References in the Annex have changed.
- Vice Chair reviewed the list of action items which are included in the revisedTable of Contents.
- Bartolucci and Cancelosi to update conductor section. Dave Mercier agreed to help with updating section.
- Members are welcomed to review the guide and make changes.
- Next review of the Guide will be at the ICC in the Spring.

- Chairman Voltz would like a final review at the PCIC Mtg. in Toronto. Then go to balloting.
- Chair Voltz volunteered Rudy Bright to add a section on flexible conductors.
- Cancelosi to do Insulations, Bayer/Bow to do shielding since they are Chair/Vice Chair of IEEE-1143.
- In Shielding section just need to make brief statement and reference 1143.
- Vice Chair explained the IEEE's website system for posting Drafts, Minutes. Can download the draft. When submitting revisions send to Voltz, CC Maldonado.
- Cable jackets and chemical properties section needs to be updated. Fire safety should be included. Include Rudy Bright. Can reference IEEE compendium for Smoke and Toxicity tests. Should add flame propagation tests such as IEEE-1202.
- For Moisture Protection section, reference IEEE-1142 (Joe Snow/Ken Bow).
- Armors – Needs updating. Member Shoshani did TC-ER. Madden to review review for PCIC.
- Discussed Armored Cables section. Was called Metal Armors, now should be called Armors. Discussion ensued. Member Shoshani asked if an offshore rig is considered a Petroleum Plant. Chairman Voltz stated yes. Refer to Marine Standards. Are power generation Cables to be included? Chairman Voltz stated no, as 1242 is not a power generation guide, therefore should not be included.
- Should subsea cables be included in 1242? BP uses these cables. Consensus was that it should be included. These cables can extend 30-40 miles from the Platform.
- Splice & Terminating-Bill Taylor to write section – Should consider referencing IEEE- 576 and IEEE-1215. Does it include connectors? 576 has section on connectors.
- Use IEEE-1185 as a reference. It covers generating and industrial stations. Written at ICC
- Power cables are covered in ICEA standards. Should review properties of armored cables such as core ODs.
- Submarine cable guide is IEEE-1120. Marine cables should be included as a reference. Power cables should be added. Members Madden/Bartolucci to review Power Cable section for Submarine Cable. For marine power cables should refer to 1120 and ICEA. Although submarine and subsea cables are considered interchangeable, some subsea cables can be an umbilical whereas a submarine cable can be a 3/C power cable. Member Savage stated that the same cable design can be for wind power or subsea applications. Should include a brief description of the cables and references.
- Grounding-Ajit Gwal- He will contribute for other standards.
- Installation. Include installation of Fire Rated Cables. IEEE-P1810 will meet the next day.
- Need updated photos. Need software and a graphic artist. Chairman Voltz stated that the last time Bechtel provided the photos. Photos in B&W may be better because Standard is printed in B&W. Need generic photos, not with Company logos. Also need to update the standards that accompany the photos.
- Added MI and TC-ER cables.
- ICEA standards such as 524 and 516 have been obsoleted. Color coding is in 532. Applies only to 600V. Per Member Bartolucci, Med Voltage cables don't have color coding. Need photos, compliance information, and version of the standard. Per guest Tricia Gerdon from the IEEE-SA, the guide should include latest revision of the referenced standard unless want to use a particular revision.

- Member Bill Taylor asked question if all standards to be referenced in Bibliography. Some can be in the body of the guide. Can remove the dates from the Standards. Ask Chris Averill from if he can review the Standards. Vice Chair stated that John Merando is well versed in Stds. and can aid in updating reference section.

- Member Madden brought the review of CSPE as a Control Cable Jacket. Vice Chair stated that TPU is a good replacement for CSPE in terms of abrasion and cut through properties.. Also, thermoset CPE is a good replacement. Chairman Voltz agreed to review applications section. The 1999 version had a few more users participating. Not many users at this round of revisions.. Encouraged manufacturers to drop off the 1st draft to users and solicit their input. Works is being given to Contractors such as Engineering Firms.

- Also ask the Standards Committee to solicit participation for 1242. Several WG meet around the same time. Not many choices. Used to meet on Tuesday afternoon and had better participation. Today had great participation.

- Discussion of Section 10-Armors-At the request of Member Madden, review Section 10 for consensus in the room. It was suggested that polymeric armors should be in Cable Jackets section and MC cables in Armored cables section. Chairman Voltz was in agreement that a polymeric armored cable is different than an MC armored cable and should be in a different section. Have distinctions in NEC and UL.

- A round wire armor is not MC. Should have a different section for MC. But member Savage stated that armor is armor. Maybe should have armored cables as a subsection. 10.1should be for MC, Served wired armor should be in a different section. Round armor is used in submarine cables. Member Savage stated that the purpose of including submarine cables is to show what's out there. WG agreed to break out in several sections. MC vs Polymeric armors. Chairman Voltz stated that a polymeric armor is not metallic but has the same crush and impact of the metallic armor. Should reference UL-2225.

- Chairman Voltz stated that the latest version of IEEE-P1242 he has was 2005. Guest Gerdon shows version as 2006 but will check to confirm.

- Per Chairman Voltz, difficult to make 1242 an international guide because we don't have input from the International technical community and the expertise to make this an international guide. At the ICC there are Canadian members on the1242 WG whom may be able to contribute CSA type cables. Need volunteer to do TECK cables. Need references, compliant info and photos. Need photo of TECK cable. Member Barker stated he can find photos for TECK cables. Use of Optical Fibers and Data Cables should be included. Member Shoshani added the Fieldbus section. Companies that make these types of cables can contribute to the section. Member Savage will do Fiber Optics. He's including in IEEE-45.8.

- Chairman Voltz stated that Donald Dunn helped during the 1999 review; now works for Saudi Aramco, used to work with Equistar when did the previous version. The Chairman reiterated soliciting input from users and engineering firms. He will make announcement at Marine Committee mtg. Some users agreed to be correspondent members.

- Next ICC mtg will be Oct 18 in Ft. McDowell, AZ. Want to go for internal balloting next year. If want to vote on an IEEE standard, should have an SA membership. Meeting was adjourned.

Meeting minutes were written by Vice Chairman Art Maldonado and submitted on October 8, 2010.

1349	**Guide for Application of Electric Motors in Class I Division 2, & Class I Zone 2 Hazardous Locations**	**Lorraine Padden, Chair** **Paul Anderson, Vice Chair** **Rick Bried, Secretary**

Will McBride
Arco Alaska (retired)
7200 Lake O' the Hills Circle
Anchorgae, AK 99516
Phone: 907-830-6022
WillE.McBridePE@ieee.org

Please address reply to:
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Padden Engineering, LLC
P.O Box 5745
Katy, TX 77491
Phone: 281-579-6586
Email:paddeneng@aol.com

September 5, 2011

SUBJECT: ANNUAL REPORT SEPT 2010 TO SEPT 2011
FOR P1349 WORKING GROUP
Guide for Application of Electric Motors in Class I, Div. 2 or Class I, Zone 2 Hazardous (Classified) Locations

Dear Will,

This is the 2011 annual report for Working Group P1349.

1) PAR status: The PAR Extension was approved December 2009 through December 2011. A PAR revision was approved in December 2010 to include the 2011 NEC.

2) Officers: Paul Anderson is the Vice Chair, Rick Bried is the Secretary and I will continue as Chair of Working Group P1349. No changes.

Bill Lockley will continue as IEEE 1349 Liaison to EIEEA (Energy Industry Electrical Engineering Association) of Canada. The EIEEA reviewed the WG Ballot in July 2010.

3) Current Action of Working Group:

The Working Group met during the 2010 PCIC Conference and met this year during the PCIC Conference on Sunday for an overview. The Working Group also met Thursday/Friday of the PCIC conference 2010 to review the Working Group Ballot comments. A recirculation of the WG Ballot was successful to move the Guide to formal ballot. The Guide completed the formal ballot and recirculation. The Guide was submitted to RevCom and is on their agenda for their September 2011 meeting. IEEE approved the standard on September 10, 2011.

4) Note status of WG Procedures: WG Procedures were approved July 2010.

5) Meetings held: September 2010, Ballot Resolution and Officer meetings/teleconferences

6) Note items of possible problems/noteworthy activities: planned publication 4th quarter 2011

7) Minutes of meetings: September 2010 attached

8) Roster: attached

9) Note if the WG has an IEEE Bank Account & note if Form L-50S sent to Standards SC Chair (in Spring): no bank account & no form.

If you have any questions, please contact me at the above numbers, address, or e-mail.

Sincerely,

Lorraine K. Padden, P.E.

Lorraine K. Padden, P.E.
IEEE P1349, Chair
http://grouper.ieee.org/groups/ias/1349/index.htm

cc: Rick Bried and Paul Anderson

Attachments:

1) 2010 PCIC 1349 meeting, Minutes
2) Roster

Approved Meeting Minutes for Working Group P1349
Guide for the Application of Electric Motors in
Class I, Division 2 and Class I, Zone 2
Hazardous (Classified) Locations
September 19, 23 – 24, 2010 – San Antonio, Texas
Issued October 13, 2011

Chair Lorraine Padden called the meeting to order at 11:00 a.m. on September 19, 2010, in Conference Room 12 of the Marriott RiverCenter in San Antonio, Texas.

Attendees introduced themselves.

Meeting Attendees: (See Attachment)

IEEE Patent Slides
The IEEE Patent Slides were reviewed and a copy was circulated for reading.

Minutes
Secretary, Rick Bried read the minutes from the May 17 – 19, 2010 meeting and they were approved as read.

Old Business
PAR Extension
The P1349 PAR Extension was approved until December 31, 2011.

PAR Scope, Purpose and Schedule
There was discussion on revision of the PAR Scope and Purpose to reflect the recently approved 2011 National Electrical Code. These will be discussed during the Working Group meeting Thursday/Friday, September 23 & 24, 2010. A PAR revision is planned for submission to IEEE by October 18 for the December 2010 NesCom meeting.

Schedule
The schedule was reviewed. The Working Group is on schedule for completion prior to the PAR expiration of December 31, 2011.

Working Group Policies and Procedures
Working Group Policies and Procedures were approved by the Working Group in July, 2010.

Future Meetings
There is a Working Group Meeting scheduled for Thursday, September 23 and September 24 to review Working Group Ballot comments.

September 23: 10:00 am – 5:00 pm
September 24 8:00 am – 4:00 pm

Thursday at 11:00 am, there will be a presentation on “Behavior of insulation systems in gas groups IIA IIB IIC” by Bharat Mistry with GE.

There will be a meeting at the 2011 PCIC in Toronto on Sunday, September 18, 2011.

The meeting adjourned at 11:45 am.

September 23 and 24

Chair, Lorraine Padden called the meeting to order at 10:00 a.m. in Conference Room 12 of the Marriott RiverCenter.

Attendees introduced themselves and attendance sheets were circulated.

The IEEE Patent Slides were reviewed.

PAR Scope, Purpose and Schedule
There was discussion on revision of the PAR Scope and Purpose to reflect the recently approved 2011 National Electrical Code. Below is the revised PAR Scope and Purpose revisions that will be submitted to IEEE:

PAR Scope
Three-phase and single-phase AC synchronous and induction electric motors in ratings 0.18 kW (1/4 hp) and larger are covered in this Guide. Primary emphasis is on the use of open or nonexplosionproof or nonflameproof enclosed motors in Class I, Division 2 and Class I, Zone 2 locations as covered in NFPA 70-2011. Surface temperature test methods and sine wave and non-sine wave applications are covered. Precautions against excessive surface temperatures and sparking are included. To mitigate hot surface temperatures and sparking, this document provides guidance for selecting, operating, and maintaining motors in Class I, Division 2 and Class I, Zone 2 locations. This Guide does not cover AC wound rotor motors and DC electric motors. Motors installed in locations other than Class I, Division 2 and Class I, Zone 2 as covered in NFPA 70-2011 are not covered in this Guide. This document is not a specification and is not intended to be used as a specification for purchasing motors. The voltage breaks in this document are 1000 V and less, and over 1000 V.

PAR Purpose
Existing codes and standards contain cautionary notes for open or nonexplosionproof or nonflameproof enclosed motors in Class I, Division 2 and Class I, Zone 2 locations as covered in NFPA 70-2011. This Guide documents industry experience and established practices and provides guidance for applying motors in these locations.

Presentation
Bharat Mistry delivered the presentation on “Behavior of insulation systems in gas groups IIA IIB IIC”.

Ballot Comments
The Working Group reviewed and addressed all the comments submitted by the Working Group. Prior to adjourning, the Working Group unanimously voted to accept the changes made during the meeting. Refer to the Ballot resolutions attached to the minutes.

The Working Group met on Thursday until 5:15 p.m. and re-convened at 8:00 a.m. on Friday, September 24. The meeting adjourned at 11:45 a.m.

F. Bried, Secretary

Attachments: Attendees, WG Ballot Resolutions, IEC Presentation

Approved Meeting Minutes for Working Group P1349
Guide for the Application of Electric Motors in
Class I, Division 2 and Class I, Zone 2
Hazardous (Classified) Locations
September 19, 23 – 24, 2010 – San Antonio, Texas
Issued October 13, 2011

ATTACHMENT

Attendance	Company	Sept 19	23	24
Lorraine Padden	Padden Engineering, Chair	X	X	X
Paul Anderson	Toshiba International, Vice Chair	X	X	X
Rick Bried	Shell, Secretary (VM)	X	X	X
Michael Bachmeyer	WEG (V)	X		
Dale Basso	WEG (AM)	X		
Greg Biasetti	Bechtel (V)	X		
Dennis Bogh	GE (V)	X		
Charles Boynton	DuPont (VM)	X	E	E
Matthew Campbell	Toshiba (V)	X		
Gabe D'Alleva	ExxonMobil (VM)	X	E	E
Dan Delaney	(NM)	X		
Paul Gaberson	Curtiss Wright (O)	X		
Steve Giveans	Argo International (V)	X		
Tom Herman	Emerson (V)	X		
Rich Holub	DuPont (VM)	X	E	E
Marc Janssens	SKF (V)	X		
Royce King	MKEC Engr. Consult. (VM)	E	X	X
Bill Lockley	Lockley Engineering (VM)	X	X	X
Robbie McElveen	Baldor Electric (AM)	X	X	X
Brent McManis	Baldor Electric (V)	X		
Bharat Mistry	General Electric Canada (NM)	E	X	X
Rajendra Mistry	Siemens (VM)	X	X	X
Daleep Mohla	DCM Consulting (VM)	X	E	E
Art Neubauer	Arseal Technologies (VM)	X	X	X
Mike Noonan	Suncor (V)	X		
Rick Paes	Rockwell Automation (VM)	X	E	E
Soenke Petersen	SKF (V)	X	X	
Javier Portos	National Oilwell Varco (VM)	E	E	E
David Rains	Areva/Schneider (VM)	X	E	E
John Rama	Synchrony (VM)	X	X	X
Laura Reamer	Marathon Electric (V)	X		
MP Reddy	Teco Westinghouse (NM)	E	X	X
Clarence Wallace	(V)	X		
Tom Stewart	Toshiba International (NM)	X	X	X
Wayne Wasserman	Converteam (NM)	X	E	E
Laszlo Weress	BASF (V)	X		
Barry Wood	Chevron (VM)	E	X	E
Ther Xiong	Converteam (VM)	E	X	X
Mark Zawadski	International Paper (V)	X		

VM – Voting Member
NM – Non-Voting Member
AM – Aspirant Member
O – Observer
V – Visitor

X – Present
E – Excused

When completed, please e-mail this roster to nescom-admin@ieee.org.

(VM=Voting

First	MI	Last	Company	Email	Status
Paul	A.	Anderson	Toshiba International Corp.	paul.anderson@tic.toshiba.com	**VM**
Dale		Basso	WEG Electric Motors	dabasso@weg.net	***AM***
Charles	L.	Boynton	DuPont	charles.l.boynton@usa.dupont.com	**VM**
Frederick		Bried	Shell Pipeline Co. LP - Retired	rbried@yahoo.com	**VM**
Dave		Burns	Shell	dave.burns@shell.com	***AM***
Gabe	F.	D'Alleva	ExxonMobil	gabe.f.d'alleva@exxonmobil.com	**VM**
Daniel		Delaney			**NM**
James	H.	Dymond	GE Canada - Retired	barb.jimns@ns.sympatico.ca	**Observer**
Carl	J.	Fredericks	The Dow Chemical Company	cfredericks@dow.com	**Observer**
Paul		Gaberson	Curtiss-Wright Flow Control Company	pgaberson@curtisswright.com	**Observer**
Michael		Gagne	ABB, Inc.	mike.a.gagne@us.abb.com	***AM***
J.	Travis	Griffith	GE Oil & Gas	travis.griffith@ge.com	**NM**
Shan		Griffith	KBR, retired	jsg@suddenlink.net	**Observer**
Richard		Holub	DuPont Engineering	richard.a.holub@usa.dupont.com	***AM***
Royce	M.	King	MKEC Engineering Consultants Inc.	rking@mkec.com	**VM**
William	G	Lawrence	Factory Mutual	william.lawrence@fmapprovals.com	**NM**
Bill		Lockley	Lockley Engineering	lockleyb@telusplanet.net	**VM**
Robbie		McElveen	Baldor Electric Co.	RFMcElveen@baldor.com	***AM***
Bharat		Mistry	GE Canada	bharat.mistry@ge.com	**VM**
Rajendra		Mistry	Siemens	rajendra.mistry@siemens.com	**VM**
Daleep	C.	Mohla	DCM Consulting	d.c.mohla@ieee.org	**VM**
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Lorraine		Padden	Padden Engineering, LLC	paddeneng@aol.com	**VM**
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Barry	M.	Wood	Chevron	BarryWood@Chevron.com	**VM**
Ther		Xiong	Converteam, Inc.	ther.xiong@converteam.com	**VM**

{VM-Voting Member, NM-Non-Voting Member, AM-Aspirant Member}

1458	**RP for the Selection, Application, Field Testing, and Life Expectancy of Molded Case Circuit Breakers for Industrial Applications**	**Gary Donner, Chair**

2011 Annual report for: IEEE Std 1458 IEEE Recommended Practice for the Selection, Field Testing, and Life Expectancy of Molded Case Circuit Breakers for Industrial Applications.

1) PAR Status: The PAR has expired. A new PAR request will not be submitted until the committee starts to update the standard.
2) The officers are: Chairman: Gary Donner; Secretary: Diane San Megal
3) Current Action of Working Group is to issue a new PAR request once the committee starts the revision process.
4) The committee last met at the ESW in 2011.
5) The working group has no IEEE money.

Attach Working Group roster:

ROSTER FOR P-1485 RECOMMENDED PRACTICE FOR THE SELECTION, FIELD TESTING,
AND LIFE EXPECTANCY OF MOLDED CASE CIRCUIT BREAKERS
FOR INDUSTRIAL APPLICATIONS
UPDATED: 2-2011

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1566	**Standard for Performance of Adjustable Frequency Drives Rated at 375 kW & Larger**	**Rick Paes, Chair** **Robert Hanna, Vice Chair** **Roger Lawrence, Secretary**

IEEE - IAS
Petroleum and Chemical Industry Committee

Will McBride
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September 5, 2011

SUBJECT: ANNUAL REPORT SEPT 2010 TO SEPT 2011
FOR P1566 WORKING GROUP
Standard for Performance of Adjustable Speed AC Drives Rated 375 kW and Larger

Dear Will,

This is the 2011 annual report for Working Group P1566.

1) PAR status: The Standard was published in 2006. Current PAR runs from 2008 to 2012.

2) Officers: Robert Hanna is the Vice Chair, Roger Lawrence is the Secretary and I will continue as Chair of Working Group P1566.

3) Current Action of Working Group:

The Working Group met during the 2010 PCIC Conference and have met several times during the past year. The upcoming meeting on Sunday Sept 18,, 2011 at the current PCIC Conference (2011) will focus on making progress with respect to data sheets which is the focus of the WG for the new revision.

- Core Group has been established
- Website has been created for the standard.
- Population of the site with standard related material has begun

4) Note status of WG Procedures: WG Procedures have been submitted for approval Sept 2011.

5) Meetings held: September 2010, Officer meetings/teleconferences

6) Note items of possible problems/noteworthy activities: Ratification of standard for end of 2012 – end of PAR

7) Minutes of meetings: December 13, 2010, January 25, 2011, April 11, 2011, May 20, 2011 attached

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY

8) Roster: attached

9) Note if the WG has an IEEE Bank Account & note if Form L-50S sent to Standards SC Chair (in Spring): no bank account & no form.

If you have any questions, please contact me at the above numbers, address, or e-mail.

Sincerely,

Richard Paes

Richard Paes,

IEEE P1566, Chair
http://grouper.ieee.org/groups/ias/1566/index.htm

cc: Robert Hanna & Roger Lawrence

Attachments:

1) 2011 PCIC 1566 meeting minutes – January, April, May
2) Roster
3) IEEE PCIC 1566 WG Procedure for Approval

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY

IEEE 1566 Working Group 2010	Manufacturer Y End User G			
NAME	COMPANY	PHONE	EMAIL	Voting
Rick Paes (Chair)	Rockwell Automation	403 836 2979	rhpaes@ra.rockwell.com	✓
Bob Hanna (Vice Chair)	RPM Engineering	905 823 3363	r.hanna@ieee.org	✓
Roger Lawrence (Secretary)	Consultant	919 515 6682	rogerlawrence@relsolutions.com	✓
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Kevin Smith	Athabasca Oil Sands Corp.	403 817 1633	ksmith@aosc.com	
Stephen Hicks	NOVA Chemicals	403 314 7992	hickss@novachem.com	

IEEE 1566 Telephone Conference 13 December 2010

Teleconference Meeting convened at 11:00am on 12/13/2010

Core Group Meeting Attendees

Rick Paes (Chair)
Bob Hanna (Vice Chair)
Roger Lawrence (Secretary)
David Rains
Bill Lockley
Yuri Khersonsky

Minutes

RP reported that he had been given access to the IEEE Standards Association information on Friday 10th December when Official status of chair was assigned.

Reviewed meeting minutes and action items from September 21st

Matters arising from minutes:
Retrieve archive information
Bill sent in archive information 8 weeks ago and will send in again later on 12/13
Develop a working group roster by 22 Oct (6 weeks)
Working group roster is still a work in progress.
Discussion:
DR sent in roster used for IEEE 841 marked with attendee categories
DR used a 21 member core action roster group for IEEE 841, balancing the number of end users and manufacturers
Action: RL to assemble a first draft working group roster from IEEE 1566 attendee lists to be completed by Dec 17 2010
Set dates for quarterly meetings
The next working group meeting will be held on 23rd Jan 2011 9-10am associated with the PCIC winter meeting. Conference call attendance will be made available.
Action: RP to set up conference call and circulate details of the meeting to individual working group members before the end of Dec. No group circulation
January agenda items:

- Reaffirmation and keeping 1566 current
- PAR schedule
    - Where we are
    - Where we need to go
    - Prioritize what needs action

Action: RP to develop a schedule of quarterly general working group meetings and set the Core Group meeting two weeks ahead of a working group meeting. . Tentative schedule discussed was to have the following schedule

January 23rd meeting for working group associated with IEEE PCIC mid winter meeting – already scheduled – RP to make telecom by providing telecon phone number sent out to working group members per new roster
Agenda items for 23rd

Discuss best time for meetings – during week or weekends
Survey of standard items to be addressed

Core team meetings to be held March, June and September time frames

Investigate suitable web location for IEEE 1566

Action: RP Website location appears as if it will be on the IEEE Standards site. Working with Luigi @ IEEE to see what is possible in terms of format. Would like feedback from the core group as to the materials and information which we anticipate must be supported by the site. Please advise. Question received was as to whether we are interested in a document repository or more specifically a website we can add html pages to? or both? I see that we will have rosters, meeting minutes, surveys, etc. for example.

New Items

DR proposed that the working group be polled for input as soon as possible.
There was general agreement among the core group that the polling should take place, no motion was proposed.
The sequence to be followed :

- Poll Working group via survey re items to address on 1566
- Need to develop above survey for distribution
- Confirm Responses
- Recirculate result to the whole group

Subgroup activity needs to have better visibility and reporting to the core team

- BL to identify subgroups that he is aware of
- RP identified data sheet working group led by Don Wilson
- BL will keep in contact with the data sheet subgroup for purpose of data sheet guide
- Known subgroups
    - Data Sheet – Don Wilson
    - Data Sheet guide – Bill Lockley
    - Others?

RP to send out core group contact information

(YK joined meeting)
YK reinforced that 1566 is not intended to tell a manufacturer how to design equipment but to provide information on common requirements.
DR advised that the topic of arc elimination strategies such as arc resistance will certainly be raised by one manufacturer.

There was discussion as to whether electronic soft starters should be added to the scope of 1566
There was discussion about new product at 15kV the 10,000hp line frequency soft starter.
It was identified that a working side issue list is required.

The meeting was adjourned at 12:15EST
Submitted 12/14/2010 RGL
Working Group List Attached

IEEE Standard P1566
Data Sheet Sub-committee Meeting
Date: January 25, 2011/0900MST

Don Wilson, Chair	- Present
Rick Paes	- Present
Laszlo Weress	- Present
Roger Lawrence	- Present
Robert Spiewak	- Present
Bill Lockley	- Regrets

Agenda:

0900-0915	Opening remarks, develop complete agenda
0915-0930	Collection of documents to be used
0930-1000	Discussion and brainstorming the final product of the committee

Restated Mission: Create a proposal document recognizing the linkages between the P1566 data sheet and the standard and supporting adjustments in both.

Future Meetings: ~ 1100 Eastern time
Discussion media: IEEE website, to be arranged by Don. Later possibly on specific P1566 website.

Rick: Created a core team for P1566, standard has been out for 5 years, needs reaffirming or revising, Bill wanted to create a guide for data sheet, that's why Rick wanted him on data sheet duty (to sit in whilst creating a guide), website for P1566 being created, meeting minutes to be posted, Main spec: Discussion over ESPs, adding solid state starters. First meeting in Feb 2011, Rick will still maintain a position on data sheet group, but with suggestion Bill be included for the sake of his authoring a P1566 guide.

On data sheet: Rick wondering if we should add some things: 110% should be a checkbox rather than 100%, sound level meeting OSHA being excessive, some people saying P1566 is "gold-plated" costs too much, general comment to revisit data sheet content. Question over whether the Data sheet group should be grooming content or strictly the mission of linkages. Agreement we go with the data sheet as it exists, look at changes in the future.

Roger suggesting that we need a definition of what the group is doing. Agreed that the primary focus is to complete the linkages project and be complete first, then possibly take on added responsibility when it is complete, this toward more data sheet content topic.

Suggesting that Rick invite Will McBride to discuss data sheet content, as he is actively using standard, and very familiar with issues. Rick to lead on the structural part of how we include Will, Rick suggesting the forum of P1566.

Robert digging out some original P1566 notes and sending to all.

Don will await the main P1566 meeting request to come out from Rick before booking a subsequent "Data Sheet" group meeting.

D gather materials from the old website and report on the status of where we left things.

Don to debrief in minutes.

Adjourned 1000 MST

Subsequent note: Don trying desperately to retrieve website materials, however, tech support now involved for a possible case of nn-compatibility with Explorer 8 (silly).

IEEE 1566 Minutes: Teleconference Meeting 11 April 2011

Meeting Attendees: see attached PDF

Minutes:

1. Meeting was called to order at approximately 8:40 am Mountain time 10:40 am Eastern
2. Bill Lockley / Bob Hanna approved the agenda
3. Patent policy was reviewed with some discussion as to the intent - no conflicts were voiced
4. Reviewed roster with group - Marco and Santiago were added (attached below)
5. The current roster is to be further revised to add a voting member column
6. September and December Data Sheet team meeting minutes were reviewed - comment made that Yuri's name was spelled incorrectly
7. Discussion needed on 110% rating.
8. Meeting minutes approved by Bill Lockley and seconded by Bob Hanna
9. Discussed the possibility that Roger and Bob should obtain access to Standards website as officers of 1566
10. Status of the standard was discussed and our options reviewed - revision or reaffirmation
11. Current PAR to revise the standard expires on December 31st, 2012
12. WG will be proceeding on the basis that revision will be our approach
13. Revision will definitely include revised data sheets and a data sheet guide
14. Website was discussed with the decision of the WG being that we will adopt a similar webpage as that for IEEE 1349 and adjusted to suit our specific needs. Archives will be gathered on the website.
15. WG demographics were discussed. Additional end users need to be recruited to insure we maintain this perspective and to help balance the WG and voting members will reflect this balance. WG members are encouraged to bring in new member particularly end users.
16. A survey will be circulated in the next couple of months to solicit further items for revision to the standard beyond those discussed.
17. David Rains and Rick Paes will work to complete the survey and distribute to WG
18. No additional subgroups were identified other than the data sheet and data sheet guide
19. The present Data Sheet is in PDF format which is not user friendly. A request of IEEE Standards to allow an Excel spreadsheet version to be used. Will McBride to take action
20. Bill Lockley to join the data sheet team.
21. Barry Wood to be added to the roster
22. Irving Gibbs brought up section 14.2.3 and there was discussion by the group as to content. It was agreed that the WG should add some additional definition as to what constitutes temperature stabilization (UL347 definition suggested), the manner to address test ambient conditions ie extrapolate from lower temperature required ambient as the base test, higher ambients were considered custom tests (not base level) which the user can stipulate if desired.
23. Section 6.7
    - There was specific discussion pertaining to the origin of this waveform. Waveform is derived from ANSI C62 and would be subject to source impedance which has not been defined
24. Potential revisions / additions updated
    24.1 Data sheets – will likely need to make a standalone excel spreadsheet to encourage use
    24.2 Data sheet guide
    24.3 Ambient temperature protection
    24.4 Addition of start duty drive application
    24.5 UPS power supplies for ASD control – base drive capabilities, extended options
    24.6 Ride-through testing guidelines
        24.6.1 Factory testing
        24.6.2 Use of UPS for certain functions i.e. auto-restart
    24.7 Noise level – by design and factory test only – 6.1.7
    24.8 Capacity definition – user selectable (data sheets) – 110%, 120% OL – 6.3
    24.9 New directions – wind power, sub-sea, marine, electric submersible pumps
    24.10 Vibration withstand-capability – marine / seismic, etc.

24.11 Arc mitigation options
24.12 Cable related items - long distances, noise, output filters, etc.
24.13 Update 1566 reference standards i.e. 519, IEC, UL347 to UL347A (4.2.4)
24.14 Review 14.2.3 with respect to definition of temperature stabilization, etc.

25. Provide further definition to Section 6.7
26. Group agreed that we have monthly meetings
27. Motion to adjourn – Bill Lockley, seconded by Bob Hanna
28. Meeting adjourned at approximately 10:15 am Mountain, 12:15 am Eastern
29. Post meeting

29.1 Patrick Wong has volunteered to help establish and maintain the website - Thanks Patrick
29.2 Bill Lockley and John Dickin approached the EIEEA with respect to new membership. Doug Brooks is considering joining the WG.

Submitted:
Richard Paes and Roger Lawrence

23 April 2011

IEEE 1566

Teleconference Meeting 3:00pm EST May 20 2011

Meeting Attendees:

Richard Paes (Chair)
Bob Hanna (Vice Chair)
Roger Lawrence (Secretary)
Bill Lockley
Yuri Khersonsky

Minutes

1. This Meeting of the core group was called by the Chair to discuss organizational issues.
2. The New IEEE1566 website was reviewed. This has been assembled by Patrick Wong based on the P1349 webpage. General approval for the work was stated as this was a very good start.
3. Bob requested that the font size be increased and this met with general agreement.
4. Certain text needs updating as references to P1349 still remain.
5. Access to the website and the standard will need to be carefully controlled. Revisions and source need to be easily identified. Rules are needed for introduction of changes to the standard.
6. The group decided that effort should be made to involve Patrick in further discussion of the detail of the website at the PCIC meeting in Toronto. Patrick now works for Jacobs in Calgary.
7. It was agreed that the present website version was a good start.
8. Bob requested that paragraph numbers be added to the minutes of the April meeting before circulation to the members at large. The format needs to be standardized.
9. Circulate the April minutes on Monday 23 May to the present roster unless comment is received over the weekend.
10. Rules relating to roster membership need to be settled. A common guideline is that to miss three meetings results in a name being removed from the list. The Chair has authority on this matter and flexibility is required.
11. Yuri confirmed that Working group activities should be open to everybody who wishes to contribute.
12. Voting membership was discussed. This affects balloting of the standard a process that is very strictly monitored by IEEE.
13. Voting column will be removed from the current roster.
14. End user input to the committee work is very important and Bill is to invite Barry Wood to join the group.
15. Rick will contact Will McBride to discuss voting membership issues.
16. A membership survey was discussed. The IEEE 841 survey was reviewed. Bob suggested a simpler version was needed because 1566 is at a different stage of development. 20 questions was accepted as a good length of survey to aim for. Rick is aiming to complete the survey process before the Toronto PCIC.
17. Next meeting of the committee will be in June the target dates are 16th to 20th .
18. Agenda items for the next full committee meeting need to be assembled. The election of working group chairs will be one item.
19. Rick plans to schedule a conference call for June, July and August.

.

Submitted Roger Lawrence

1580	**Recommended Practice for Marine Cable for use on Shipboard and Fixed or Floating Platforms**	**Rudy Bright, Chair T. S. Bhat, Vice Chair/Secretary**

No Report
Published 2010

1584	**Guide for Performing Arc Flash Hazard Calculations**	**Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary**
1584A	**Guide for Performing Arc Flash Hazard Calculations Amendment 1**	**Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary**
P1584B	**Guide for Performing Arc Flash Hazard Calculations Amendment 2**	**Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary**
P1584.1	**Guide for the Specification of Scope and Deliverable Requirements for an Arc-flash Hazard Calculation Study in Accordance With IEEE 1584**	**Craig Wellman - Chair, Bruce McClung Vice Chair, Daleep Mohla Secretary**

INDUSTRY APPLICATIONS SOCIETY
Petroleum and Chemical Industry Committee

Please address reply to:
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September 12. 2011

Will Mcbride, Chair, Standards Subcommittee, willE.mcbridepe@ieee.org

cc: Daleep C. Mohla, Vice Chair, d.c.mohla@ieee.org

Lorraine K. Padden, Secretary, PaddenEng@aol.com

SUBJECT: ANNUAL REPORT SEPT 2011 FOR
P1584 WORKING GROUP ON ARC FLASH HAZARD CALCULATIONS

Dear Will:

Here is our Annual Report:

1) Current status:
P1584, Guide for Performing Arc Flash Hazard Calculations, PAR extension 2008--2011.
P1584a, Guide for performing arc-flash hazard calculations amendment 1, Approved, No PAR
P1584b, Guide for performing arc-flash hazard calculations amendment 2, PAR 2008-2012, Approved
P1584.1 Guide for specification and deliverable requirements for an arc-flash hazard calculation study in accordance with IEEE 1584, Par 2009-2013, Balloting

2) Officers: C. M. Wellman, Chair; L. B. McClung, Vice Chair; D. C. Mohla, Secretary. There have been no changes in the last year.

3) Current Action of Working Group: Shown above

4) WG Procedures: No action

5) Meetings held: Meetings were held in conjunction with last year's PCIC and this year's ESW.

6) Possible problems/noteworthy activities:

For P1584 we will have to apply for a PAR extension before the end of this year. We should be able to complete balloting in early 2012.

7) Minutes: Minutes of the two most recent meetings are attached.

8) Roster: Attached.

9) Note if the WG has an IEEE Bank Account & note if Form L-50S sent to Standards SC Chair (in Spring): No bank account and no request for L-50S received.

Sincerely,

Craig. M. Wellman
Craig M. Wellman, P1584 Working Group Chair

IEEE P1584 Working Group Roster

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Lippert	Kevin	Eaton/Cutler Hammer	kevinJlippert@eaton.com
Marroquin	Albert	Operation Technology	albert@etap.com
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Megna	Peter	Federal Aviation Admin.	peter.megna@faa.gov
Mills	T. David	Savannah River Nuclear Solutions, LLC	d.mills@ieee.org
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P 1584 WG Meeting Minutes
September 18, 2010
San Antonio, TX

P 1584 Work Group Meeting

Document Name: **Guide for Performing Arc-Flash Hazard Calculations**

Date of Meeting: September 18, 2010

Location: Marriott Rivercenter
San Antonio, TX

1.0 Call to order

Meeting was called to order at 1:00 PM by Chairman, Craig Wellman.
Self introduction was conducted by all members and guests.

.

2.0 Verification of quorum

A total of 31 members and 16 guests were present at the meeting.
Working Group has 53 current members at the time of the meeting.
Necessary quorum was achieved.

3.0 Approval of Agenda

Agenda of the meeting was unanimously approved

4.0 Minutes of previous meeting

on a voice vote minutes of last meeting held February 1, 2010 in Memphis, TN were accepted.

5.0 IEEE-SA Patent Policy

Mandatory IEEE-SA Patent slides were shown to the attendees

6.0 IEEE/NFPA Collaborative Effort on Arc-Flash Issues Project Report

Project Manager Wei- Jen Lee provided the update of testing and schedule

The following is a summary of report based on notes taken as no written report was provided

- Labs have been prequalified with third party certified facilities and equipment.
- Current tests are being done with copper electrodes on 480 V systems
- Separate Tests are being conducted with enclosure bonded and unbonded to the transformer neutral to quantify solidly grounded and ungrounded/ resistance grounded systems.
- Preliminary test results indicate no appreciable difference between solidly grounded and ungrounded/resistance grounded systems.

- Initial test results track 1584 test results at 480 V level
- Next testing scheduled is for higher voltages .

7.0 Current state of Projects

PAR for revision to IEEE 1584- 2002 has been approved by IEEE- Standards Association Standards Board. This PAR includes revision of document except model changes. Model will be revised after information from IEEE/NFPA Collaboration Effort on Arc-Flash Issues Project is available to P1584WG.

1584b Amendment has been balloted. It is planned to be sent for a re-circulation ballot.

1584.1 new guides for deliverables are in progress.

A separate WG is working on an aligned recommended practice IEEE P1814 Recommended Practice for Electrical System Design Techniques to Improve Electrical Safety.

8.0 Revision of IEEE 1584-2002

Scope and purpose of new PAR was reviewed

Update by various task groups was provided

9.0 Recess to permit 1584.1 Task Group meeting

Working Group proceedings were recessed to allow P 1584.1 Task Group meeting.

10.0 Reconvene Working Group meeting

P 1584 WG was reconvened.

11.0 Report from 1584.1 Task Group

Comments from Task Group have been received and incorporated. The document is being sent for mandatory IEEE-SA editorial review prior to being balloted

Approved scope and purpose of the P1584.1 is provided below.

Scope: This document provides guidance for the specification and performance of an arc-flash hazard calculation study, in accordance with the process defined in IEEE 1584, Guide for Performing an Arc-Flash Calculations Study (Arc-Flash Study). It outlines the minimum recommended requirements to enable the owner or its representative to specify an arc-flash Study, including scope of work and associated deliverables.

Purpose: This document defines the recommended minimum guidelines for performing a detailed Arc-Flash Calculation Study (Arc-Flash Study) based on IEEE 1584, IEEE Guide for performing Arc-Flash Calculations. Use of this document should enable persons such as facility owners, contractors, operations, safety, and electrical personnel as well as those responsible for the specification and/or the performance of the study to understand the minimum scope of work and deliverables required.

Additionally, by providing a detailed list of deliverable items, accurate proposals can be obtained

12.0 Reports of recent testing/studies/incident

No additional testing or incident reports were given at the meeting

13.0 Other Business

There was no other business

14.0 Next Meeting

The Next meeting is tentatively scheduled in Toronto on Tuesday January 25,2011, starting at 8; 00 PM before ESW meeting. A meeting notice will be sent when meeting date and time is confirmed.

15.0 There being no other business to conduct, meeting was adjourned at 2:55 PM.

Notes taken by:
Daleep Mohla
Secretary, P 1584 WG

Reviewed by :
Bruce McClung
Vice Chair, P 1584 WG

Craig Wellman
Chair, P 1584 WG

P 1584 WG Meeting Minutes
January 26, 2011
Toronto, Canada

P 1584 Work Group Meeting

Document Name: **Guide for Performing Arc-Flash Hazard Calculations**

Date of Meeting: January 26, 2011

Location: Sheraton Center
Toronto, Ontario, Canada

1.0 Call to order

Meeting was called to order at 8:00 AM by Chairman, Craig Wellman.
Self introduction was conducted by all members and guests.

.

2.0 Verification of quorum

A total of 28 members and 46 guests were present at the meeting.
Working Group has 53 current members at the time of the meeting.
Necessary quorum was achieved.

3.0 Approval of Agenda

Agenda of the meeting was unanimously approved

4.0 Minutes of previous meeting

on a voice vote minutes of last meeting held on September 18,2010in San Antonio, TX were accepted without changes.

5.0 IEEE-SA Patent Policy

Mandatory IEEE-SA Patent slides were shown to the attendees

6.0 IEEE/NFPA Collaborative Project Update

An update on IEEE/NFPA Collaborative project was provided by Bruce McClung, Member Steering Team. Project Manager We-jen Lee will provide a detailed update on Thursday, January 28, 2011 to the full Electrical Safety Workshop attendees.
Testing is continuing for various voltages and is on schedule. Most of testing on 480 V systems has been completed and data is being analyzed.
Next phase is for testing on medium voltage equipment.
A report with recommendation can be expected within two years.

7.0 Current state of Projects

1584b Amendment has been balloted and all comments have been addressed.

1584.1 new guide for deliverables has been submitted for balloting to the IEEE-SA Balloting Center.
Invitation to join balloting pool closed on January 16, 2011.
On a show of hands, it was determined that a large number of people are not on the balloting pool because they did not respond on time to the invitation. Chairman will contact IEEE-SA to reopen the invitation for a week to allow people to join the balloting group.

Approved scope and purpose of the P1584.1 is provided below. Comments should be limited to the approved scope and purpose

Scope: This document provides guidance for the specification and performance of an arc-flash hazard calculation study, in accordance with the process defined in IEEE 1584, Guide for Performing an Arc-Flash Calculations Study (Arc-Flash Study). It outlines the minimum recommended requirements to enable the owner or its representative to specify an arc-flash Study, including scope of work and associated deliverables.
Purpose: This document defines the recommended minimum guidelines for performing a detailed Arc-Flash Calculation Study (Arc-Flash Study) based on IEEE 1584, IEEE Guide for performing Arc-Flash Calculations. Use of this document should enable persons such as facility owners, contractors, operations, safety, and electrical personnel as well as those responsible for the specification and/or the performance of the study to understand the minimum scope of work and deliverables required. Additionally, by providing a detailed list of deliverable items, accurate proposals can be obtained.

8.0 Other aligned projects

IEEE P 1814 Recommended Practice for Electrical System Design Techniques to Improve Electrical Safety
A separate WG is working on an aligned recommended practice IEEE 1814

9.0 Revision of IEEE 1584-2002

Task Group leaders are requested to provide a written update for inclusion in the minutes

A summary of verbal update at the meeting by various task groups is provided in the attached Excel Spreadsheet.

10.0 Reports of recent testing/studies/incident

No additional testing or incident reports were given at the meeting .

Discussions were initiated by the Chairman on the level of voltage and current below which arc flash is not a hazard i.e. the "125 kVA exception" mentioned in the IEEE 1584- 2002 and included in NFPA 70E-2009 in modified form.
It was reported that technical Committee on NFPA 70E voted to remove this exception from the proposed 70E- 2012 version.

Chairman indicated in the absence of any definitive test results, the WG should consider the Delphi method to come to a consensus level of voltage and current where arc flash may not be considered a hazard.

The **Delphi method** is a structured communication technique, originally developed as a systematic, interactive forecasting method which relies on a panel of experts.

Considerable discussions were held on what should be the level based on experiences of the WG.

It was reported six (6) tests were conducted with repeatability. It was observed that arc is not sustained below 4,000 A at 240 V level and at 5,000 A at 208 V level.

Ben Johnson reported that IEEE/NFPA Collaborative project has decided to conduct testing to establish this level in March 2011 and any decision on this should be delayed until after the tests results are available.

WG Vote was for waiting on collaborative group tests results and recommendations.

Subsequent discussions were held on using judgment instead of test data. A point was made that 5kA and 4kA were based on test data provided. 125 kVA was more of an educated decision with the test data information at the time. Users have learned a lot more since 2002 based on various testing and incident histories. OSHA provided two incident reports to NFPA 70E Technical Committee where workers received second degree burns on hands and chest while working on 120/240 V equipment supplied by smaller than 125 kVA transformers (these are available on OSHA site) .

11.0 Other Business

It was mentioned that the practice of equating PPE clothing level based on Hazard Risk Category (HRC) and incident energy is incorrect and should not be included in any recommendations.
WG was informed that IEEE 1584 is a method to calculate incident energy and selection of PPE is not a part of scope. Further PPE level in IEEE 1584 may not be consistent with PPE selection criteria in NFPA 70E for PPE selection.
It was pointed out that PPE level based on Hazard Risk Categories is how the Calculation factor C_f was determined in IEEE 1584- 2002 . Revision will be needed to the equations to address Cf when PPE references based on HRC clothing levels are removed in the revised 1584.

12.0 Next Meeting

The Next meeting is tentatively scheduled in Toronto on September 17 2011, starting at 1:00 PM before the PCIC meeting.
A meeting notice will be sent when meeting date and time is confirmed.

13.0 There being no other business to conduct, meeting was adjourned at 10:00 AM.

Notes taken by:
Daleep Mohla
Secretary, P 1584 WG

Reviewed by :
Bruce McClung
Vice Chair, P 1584 WG

Craig Wellman
Chair, P 1584 WG

Attachment: P1584 20110126 TGroup Update

1662	**Guide for the design and application of Power Electronics in Electrical Power Systems on Ships**	**Yuri Khersonsky, Chair**

No Report
Published 2008

P1673	**Standard for Requirements for Conduit & Cable Seals for Field Connected Wiring to Equipment in Petroleum and Chemical Industry Exposed to pressures Above Atmospheric (1.5 kilopascals, 0.22 psi)**	**Marty Cole, Chair** **Daleep Mohla, Vice Chair**

No Report

P1683	**Guide for Specifying Motor Control Centers Rated Up To 600 V AC or 1000 V DC With Features Intended to Reduce Electrial Hazards While Performing Defined Operations**	**Marcelo Valdes - Chair** **David Pace - Vice Chair** **Craig Wellman - Secretary**

INDUSTRY APPLICATIONS SOCIETY
Petroleum and Chemical Industry Committee

Please address reply to:
Craig M. Wellman, P.E.
216 Unami Trail, Newark, DE 19711
Phone (302) 731-0798
c.m.wellman@ieee.org
September 11. 2011

Will Mcbride, Chair, Standards Subcommittee, willE.mcbridepe@ieee.org

cc: Daleep C. Mohla, Vice Chair, d.c.mohla@ieee.org

Lorraine K. Padden, Secretary, PaddenEng@aol.com

SUBJECT: ANNUAL REPORT SEPT 2011 FOR
P1683 -- Improved safety and reliability in Low Voltage Motor Control Centers Working Group

Dear Will:

Here is our Annual Report:

1) Current status:
P1683 Guide for Specifying Motor Control Centers Rated Up To 600 V AC or 1000 V DC With Features Intended to Reduce Electrical Hazards While Performing Defined Operations -- WG in progress

2) Officers: Marcelo Valdes, Chair, David Pace, V. Chair, Craig Wellman, Secretary. Ben McClung resigned as chair and was replaced in the last year.

3) Current Action of Working Group: WG in progress

4) WG Procedures: No action

5) Meetings held: Meetings were held in conjunction with last year's PCIC and this year's ESW.

6) Possible problems/noteworthy activities: We will have to apply for a PAR extension before the end of this year.

7) Minutes: Minutes of the two most recent meetings are attached.

8) Roster: Attached.

9) Note if the WG has an IEEE Bank Account & note if Form L-50S sent to Standards SC Chair (in Spring): No bank account and no request for L-50S received.

Sincerely,

Craig. M. Wellman
Craig M. Wellman, P1683 Working Group Secretary

IEEE P1683 Working Group
Current Members

Last Name	First Name and MI	Company	Email
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Bugaris	Rachel	Rockwell Automation	rmbugaris@ra.rockwell.com
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Yee	Ed	Eaton	EdgarYee@eaton.com

IEEE P1683 Working Group
Minutes for Meeting
Saturday, Sept. 18, 2010, San Antonio, Texas

Marcelo Valdes, Vice- Chair, called the meeting to order at 3:00 pm and everyone present introduced themselves. Sign-in sheets were passed around.

We confirmed a quorum was present -- 30 of 44 members.

We reviewed the agenda and accepted it by common consent.

The minutes of the previous meeting were accepted by common consent.

The IEEE Patent Policy slides were presented and are attached.

IEEE/NFPA Coalition – Wei-Jen Lee reported on the progress of the test program. He hopes to have all results available to the WG by the middle of next year.

Task Group reports

TG1 – Marcelo reported that the TG1 clause was updated and resubmitted just before this meeting. It should be sent out for ballot.

TG2 – Mike Bryant reported that the TG2 clause was also updated and resubmitted just before this meeting. It too should be sent out for ballot.

TG3 – Bob Morris reported they recently received comments on that latest draft and will be acting on them. Bob Seitz will be passing on additional comments while in San Antonio.

TG4 – No report -- The officers will follow up.

TG5 – Erich Heberlein was not able to make the meeting, but sent a recommendation that all task groups include explanations of why a feature is important and where it should or should not be included in a specification. This would be a very useful guide to users.

TG6 – Ed Yee reported that his TG has sent in a revised draft. It is currently out for comments from the Working Group.

Comment form format. In a group response to a comment submitted by Ed Larsen, it was moved/seconded/passed to change the comment form to be a Word document.

If we publish this Guide, will it be a significant help? In answer to this discussion question, several users voiced strong support for publishing the Guide. They said it would be especially useful for younger engineers.

What do we need to do to finish? It was agreed by common consent that we should send out the draft standard as an updated single document. It should be marked technical content superseded because drafts of TG work are still being updated. It was also recommended that we schedule the standard for completion.

Other business -- none

Next meeting: Tentatively at IAS ESW in Toronto, January 25 at 10:00 AM.

It was moved/seconded/passed to adjourn.

Minutes submitted by Craig Wellman, Secretary

IEEE P1683 Working Group
Minutes for Meeting
Saturday, Sept. 18, 2010, San Antonio, Texas

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Other business

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It was recommended that we schedule the standard for completion.

Next meeting: Tentatively at IAS ESW in Toronto, January 25 at 10:00 AM.

It was moved/seconded/passed to adjourn.

Minutes submitted by Craig Wellman, Secretary

1709	**RP for 1 to 35 KV Medium Voltage DC Power Systems on Ships**	**Yuri Khersonsky, Chair**

No Report
Published 2010

P1714	**RP for Industrial Uninterruptible (UPS) Systems**	**Donald Dunn, Chair** **Robert Spiewak, Secretary**

IEEE • IAS
Petroleum and Chemical Industry Committee

October 22, 2011

Please address reply to:
Donald G. Dunn
Aramco Services Company
9009 West Loop South
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Phone: 713-432-8588
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Will E. McBride, PE
Standards Subcommittee Chair
7200 Lake O' The Hills Circle
Ancorage, AK 99516-4605

Subject: 2009 Report – **P1714** Working Group: Recommended Practice for Industrial UPS Systems.

Dear Will:

P1714 Working Group officers during the past year were: Donald Dunn, Chair, and Robert Spiewak, Secretary. As the Group does not assess charges for any activities, events, proceedings or meeting resources, there is no Treasurer or handling of any funds.

The organization of this activity began at the P1714 working group meeting in conjunction with PCIC in 2007. The working group has held annual meetings at the PCIC with the most recent being on September 17, 2011 at 1:00 pm in Kent at the Sheraton Centre Toronto Hotel.

At the 2011 working group meeting the group was shown the required IEEE slides, and cautioned about the use of intellectual property, copyrighted material and commercial/competitive concerns.

The WG has developed an outline with assigned section editors who have developed the detailed content for the given sections.

A roster of the WG is attached.

Respectfully submitted,

Donald Dunn

Donald Dunn
P1714 Working Group Chair
encl.

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY

P1714 - Recommended Practice for Industrial Uninterruptible Power Supply (UPS) Systems

When completed, please e-mail this roster to nescom-admin@ieee.org.

Name	MI	LastName	Company	Email	Officers
Donald	G	Dunn	Aramco Services Company	donald.dunn@ieee.org	Chair
Robert	M	Spiewak	Siemens Energy	robert_spiewak@ieee.org	Secretary
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Masoud		Haji	Chevron	mhjg@chevron.com	

P1716	**RP for Managing Natural Disaster Impact on key electrical systems and installation in Petroleum and Chemical Facilities**	**Ed Thornton - Chair Larry Stahl - Vice Chair Daleep Mohla - Secretary**

No Annual Report
No Roster
See minutes that follow.

IEEE WG P1716
Managing Natural Disaster Impact and Recovery
Meeting at PCIC 2010 – San Antonio
September 18, 2010 Meeting Minutes

- WG chair, Ed Thornton, called meeting to order at 10:00am

- Reviewed meeting agenda

- Reviewed mandatory IEEE patent policy and inappropriate meeting discussion topics

- Reviewed current WG membership and made several updates

- Review current PAR status and discussed options for extension
  - Suggestion made to consider applying for a new PAR (Deadline for doing so is October 18, 2010)
  - Patricia Gerdon will send instructions for submitting a new PAR and Ballot Group development to Ed Thornton

- Reviewed draft of current Recommended Practice Managing Natural Disaster Impact and Recovery. Several suggestions made on content development including:
  - Section 2 – Emergency Management Planning Process
    1. Establish Central Emergency Command Center and define role
    2. Define Re-energization responsibilities and roles
    3. Change "Risk Assessment" title to "Risk Assessment and Mitigation Options"

- Section 3 – During The Disaster
    1. Change Section title to “Functional Requirements During the Disaster”. Include content development on Safety of Personnel, Environmental Safety and Equipment Safety.
    2. Refer to NFPA 1600 for input.
  - Section 4 – After The Disaster (Recovery and Restoration Process)
    1. Remove words ‘After the Disaster” in the Section title.
    2. Swap order of Sections 4.3 and 4.4
  - Add a Section 5 titled “Lessons Learned”. Include content development on System Design (Especially Future Designs) and Cost Benefit Issues
  - Add a Section 6 titled “Case Histories”. Included pictures, facility damage immediately after the disaster, consider insurance photos, etc.

- Additional Content Development Topics
  - NFPA 780 – Lightning Issues (Designs & Reliability)
    1. Hari Kewalramani to provide info by November 30, 2010
  - Earthquakes
    1. Oriel Lowell to provide info by November 30, 2010
  - IEC Content
    1. Larry Stahl to provide info by November 30,2010

- Pathforward

    - Target issuing draft for sponsor ballot by end of December 2010

- Next WG Meeting
    - November 8, 2010
    - DuPont Houston, Texas (Ed Thornton's Office)
    - Time: 9:00am to 3:00pm
    - Face to Face with Webconferencing

- New business:
    - Suggested that future WG meetings held in conjunction with IEEE conferences be held on Sunday versus Saturday to promote more participation.

- Meeting adjourned at approximately 9:45am

P1810	**Guide for the Selection and Installation of Fire-Rated, Circuit Integrity Cables for Safety, Critical, and Emergency Shutdown Systems in Petroleum and Chemical Industries**	**Gil Shoshani, Chair** **Don Smith, Vice Chair**

IEEE • IAS
Petroleum and Chemical Industry Committee

October 17, 2011

Please address reply to:
Art Maldonado - Chair
AM Technology Group LLC
Ph. 239-877-7657
E-mail: art@amtechnologygroup.com

To: Lorraine Padden, Will McBride, Daleep Mohla

From: Gil Shoshani – Chair –IEEE P1810

ANNUAL REPORT
IEEE-P1810

Draft Guide for the Installation of Fire-Rated Cables Suitable for Hydrocarbon Pool Fires for Critical and Emergency Shutdown Systems in Petroleum and Chemical Industries

Meeting Place: 2011 PCIC, Toronto, Ontario
Date: Sunday September 18, 2011

1) PAR Status – Approved: 02 November 2009
Expires: 31 December 2013

2) List Officers/Officer changes – New Chair: Gil Shoshani – RSSC Wire and Cable
New Vice-Chair - Mick Bayer - KBR

3) Current Action of Working Group - WG in progress

4) Note status of WG Procedures-Nothing to report.

5) Last meetings held – September 18, 2011 Toronto, IEEE PCIC
May 23, 2011 St Pete Beach, Florida, IEEE ICC
October 20, 2011 Scottsdale, AZ IEEE ICC

6) Note items of possible problems/noteworthy activities – Good user participation at PCIC. We will meet two more times at IEEE ICC before New Orleans PCIC.

7) Attach minutes of meetings- Attached to e-mail.

8) Attach roster – Attached to e-mail.

9) Note if the WG has an IEEE Bank Account & note if Form L-50S sent to Standards SC Chair (in Spring) – Nothing to report.

INSULATED CONDUCTORS COMMITTEE Established 1947

Spring 2011 Meeting – St. Pete Beach, FL

ICC – D18W IEEE-P1810

New P1810 "Guide for the Installation of Fire-Rated Cables suitable for Hydrocarbon Pool Fires for Critical, and Emergency Shutdown Systems in Petroleum and Chemical Industries"

Gil Shoshani, Chair

Michael G. Bayer, Vice-Chair

Meeting Minutes from May 23, 2011 St. Pete Beach, FL

Title: Guide for the Installation of Fire-Rated Cables suitable for Hydrocarbon Pool Fires for Critical, and Emergency Shutdown Systems in Petroleum and Chemical Industries.

Scope: This installation guide provides information on the installation of fire-rated, power, control, and instrumentation cables suitable for hydrocarbon pool fires, as typically used in petroleum, chemical, and similar plants, offshore marine platforms, in emergency and safety shutdown systems.

Purpose: The purpose of the document is to provide a guide for the installation of fire-rated circuit integrity cables and performance requirements for these cables and/or cable systems, which may be subjected to a hydrocarbon pool fire. This guide may be useful when installing cables for applications where circuit integrity is critical to plant safety shutdown systems under hydrocarbon pool fire conditions. In addition, this guide will provide installation practices found in petroleum and chemical plants and marine platforms as they relate to fire rated cables. The use of this installation guide should help eliminate premature cable failure due to improper installation in petroleum, chemical plants, and offshore marine platforms.

It will address materials and installation practices. This installation guide is not intended to be a design document, although many of the problems associated with the specification and installation of power, control, and instrumentation, fire-rated circuit integrity cables for petroleum and chemical plant applications can be avoided by considering the information presented in this guide.

Working Group Members

Present	Attendee Name	Affiliation
Y	Shoshani, Gil – Chair	Rockbestos-Surprenant Cable Co
Y	Bayer, Mick – Vice Chair	KBR
Y	Maldonado, Art	A&M Technology
Y	McGrath, Blair	Tyco Thermal Controls
Y	Merando Jr., John E.	Bechtel
Y	Taylor, Gabriel	NRC

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Spring 2011 Meeting – St. Pete Beach, FL

ICC – D18W **IEEE-P1810**

Guests

Attendee Name	Affiliation
Bloethe, William G.	Sargent & Lundy, LLC
Gehm, Robert	Rockbestos-Surprenant Cable Co
Cancelosi, John R.	The Okonite Co
Hills Charles	General Cable
Konnik, Robert	Rockbestos-Surprenant Cable Co
Liskom, Gerald	General Cable
Smith, Don	Houston Wire & Cable
Wobick, Robert	Dekoron W&C
Conrad, James	Rockbestos-Surprenant Cable Co
Fosse, Jason	SCE
Ellis, Richard	CMI
Fleming, Robert	Marmon I&T

Introduction

Gil Shoshani assumed the Chair position after Art Maldonado stepped down to take on additional ICC responsibilities as Vice-Chair of Subcommittee D. Mick Bayer assumed the role of Vice-Chair. . This Guide is a joint ICC/PCIC project. Maldonado is the Chairman of the P1810 on the PCIC side, Gil Shoshani is Vice Chair. IEEE 1810 met at the last PCIC in San Antonio September 2010 and at ICC FT McDowell, AZ on October 2010 .

The meeting took place on May 23, 2011 from 10:30 am to 12:30 pm with 18 members and guests. Official WG roster is still under development. Those with assigned action items are shown as WG members.

Gil reviewed the changes in PAR title and scope. The revised wording is shown at the top of these minutes. Title and scope specifically address installations in areas subjected to hydrocarbon pool fires. Action items related to general WG administration and the guide are at the end of these minutes. What follows are notes from the general discussion about various clauses of the guide. The changes to the Title, Scope and Purpose were approved by the PCIC standards committee on 2/4/2011.

P1810 Scope limitation

API 2218 indicates that for liquid hydrocarbon fuels, a frequently used frame of reference for the fire-scenario envelope is one that extends 20 – 40 feet (6 - 12 meters) horizontally and 20-40 feet (6 -12 meters) vertically from the source of liquid fuel. Recent fires have shown damage extending up to 60 ft from fire source. P1810 will not address fire rated cable selection nor address where such cables should be installed. P1810 is not a design guide for fire zones and users should look in API documents such as API 2218 and API 14 FZ for fire zone information. P1810 will address how to install fire rated cables once the user decides that the cables may be subjected to Hydrocarbon Pool Fire.

Installation in steel tray and steel conduit

Generally speaking, the installation should be with the same support as the cable was tested in Hydrocarbon Pool Fire cable test. (Reference UL 1709 / IEEE 1717). If the users want to provide support separation at distances beyond the test (6 ft), then the users need to calculate deflection because the going beyond the test conditions (6 ft) will increase deflection and increases the chances of cable failure. There are no standards to do this and the cable tray and conduit manufacturers will need to be consulted.

Observations at 1850 deg F at UL in UL 2196 on RMC conduit showed 7 in of deflection at 8 ft support span and 3 in deflection at 6 in support. Based on this results, cables in RMC conduit should be installed at 6' support as tested in UL 1709 / IEEE 1717.

Steel cable fasteners are required.

Cable tray rungs need to be welded. Braised rungs generally fall apart in fire conditions.

Fire rated cables may be in same tray as non-fire rated cables as long as they are separated by 1 in of air space or by steel tray divider from regular cables (horizontally and vertically). Top tray covers may be needed to prevent cables in trays above from dripping into the fire rated cables or cables below fueling the fire. Tray cover should be installed where falling debris and other melting materials may fall on the fire rated cables.

Installation in RMC conduit should follow the percentage fill as was test in UL1709 / IEEE 1717. Reference NEC - 2011 Chapter 9 article 344 – Rigid Metal Conduit (RMC). Pulling lubricant may be used and should be tested for compatibly with the fire rated cables in the UL 1709 / IEEE 1717. Bare or insulated ground wire in conduit should be installed as tested as complete system in RMC conduit. RMC conduit support should no exceed 6'. Minimum conduit size should be based on the fire test UL 1709 / IEEE 1717

Current rating and voltage drop data to be put in an informative annex:

Recent revision to API 14FZ has a table of recommended current ratings for Nickel Coated Copper conductor 27% Ni-Cu. Gil suggested adding this table to 1810 along with an explanation of the methodology used to generate the table.

Gil showed table of ASTM 286 and actual resistance values measured at 2000 F for 27% for 16 AWG to 4 AWG. ASTM has conductivity values for Class 27 copper conductors.

Current rating will be at normal ambient (40 or 45 C) and voltage drop

Need to show sample calculations with a continuous run of FR cable and one with a JB with regular cable being most of the run.

Also mention impact of cable dimensions on reactance. NEC Table 9 data may not be appropriate because those reactances are based on thin single conductors in a cradled position

Cable Glands

Material selection is critical because the cable/gland/equipment is part of a complete system. Brass melts at 815°C / 1500°F but stainless steel fittings would be OK. If gas block or weathering compound is used in the cable gland, it should be the one tested in UL 1709 / IEEE 1717 for compatibility with the fire rated cables.

Pulling Lubricants

Compatibility IEEE 1210 is always important. Type and quantity used in 1717 test report is important

Splices

For MI cable it is required by design. For non-MI cable splices are not common

Splice should have been part of the cable's 1717 test results report.

MI cable

Refer to MI cable manufacturer guidelines for installation and splicing. No industry standards exist at this time.

Next meetings

Chair stated that the next meeting of this group would be at the Fall 2011 ICC meeting in Denver, CO.

Liaison meeting at PCIC September 2011

The meeting was adjourned by the chair at 12:30 pm. The minutes were written and submitted by Mick Bayer & Gil Shoshani on 16-June-2011

Action items – General Admin

Action Item	Assigned at	Assigned to	Due Date	Status
Spring 2011 Minutes & action items to members and Sub D	ICC 05/11	Bayer / Shoshani	6/6/11	Pending
Revise PAR scope and title through IEEE		Shoshani / Maldonado	3/1/11	Complete 3/1/11

Action items – Clauses and Annexes

Clause No	Title	Assigned at	Assigned to	Due Date	Status
Intro	Introduction Included discussion about 1717 test and other tests		Maldonado / Shoshani / Bayer		Pending
1.0	Overview		Maldonado / Shoshani	5/23/11	Complete 2/15/11
1.1	Scope		Maldonado / Shoshani	5/23/11	Complete 2/15/11
1.2	Purpose		Maldonado / Shoshani	5/23/11	Complete 2/15/11
1.3	Units of measure		Maldonado / Shoshani		Pending
2.0	Normative References		Maldonado / Shoshani / Merando		Pending
3.0	Definitions, acronyms, and abbreviations		Shoshani / Bayer		Pending

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ICC – D18W **IEEE-P1810**

Clause No	Title	Assigned at	Assigned to	Due Date	Status
3.1	Definitions		Shoshani / Bayer		Pending
3.2	Acronyms and abbreviations		Shoshani / Bayer		Pending
4.0	Typical Constructions		Rudy Bright / Shoshani/Bartolucci		Pending
4.1	General		Rudy Bright / Shoshani/Bartolucci		Pending
4.2	Low-voltage cables		Rudy Bright / Shoshani/Bartolucci		Pending
5.0	Application Guideline		Rudy Bright / Shoshani/Bartolucci		Pending
5.1	Types of Installations		Rudy Bright / Shoshani/Bartolucci		Pending
5.2	Electrical considerations		Rudy Bright / Shoshani/Bartolucci		Pending
5.3	Mechanical and physical considerations		Rudy Bright / Shoshani/Bartolucci		Pending
5.4	Environmental considerations		Rudy Bright / Shoshani/Bartolucci		Pending
5.5	Other applications considerations		Rudy Bright / Shoshani / Bartolucci		Pending
6.0	Installation	PCIC	Merando / McGrath		Pending
6.1	Overview	PCIC	Merando / McGrath		Pending
6.2	Conduit Installation Incl pulling lubricants, distance between supports				Pending
6.3	Cable Tray installation Incl subclause “Protection by Location” Incl tray loading calcs, other nearby cables, other nearby cable trays and equipment above (need for covers), distance between supports (coordinate with conduit clause)	PCIC	Throckmorton / Shoshani		Pending
6.4	Direct burial installation	PCIC	Molayem		Pending
6.5	Spice and Terminations Incl intumescing fire block over cable glands, splice boxes, and MOVs	PCIC	McGrath / Taylor / Shoshani		Pending

PCIC IEEE · IAS Petroleum and Chemical Industry Committee

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ICC – D18W **IEEE-P1810**

Clause No	Title	Assigned at	Assigned to	Due Date	Status
6.6	Aerial	PCIC	Voltz / Bayer		Pending, do we need this section? What is the intent of this section?
6.7	Marine Platforms	PCIC	Voltz / Bayer		Pending, do we need this section? What is different between on shore and off shore for HPF?
6.8	Fire pumps (and other equipment in fire zones)	PCIC	Maldonado		Pending, do we need this section?
6.??	Mineral Insulation MI installation		Shoshani / Bayer / Maldonado, Blair		Pending
6.??	Cable glands		Shoshani		Pending
Annex A	Bibliography (informative) Add references from API 2218-2010 draft sections 5.1.8.1 and 7.2.1	PCIC	Merando / Shoshani / Bayer		Pending
Annex B	Current rating and voltage drop (informative)	ICC 5/11	Bayer / Shoshani		Pending

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IEEE-P1810

Guide for the Selection and Installation of Fire-Rated, Circuit Integrity Cables for Safety, Critical, and Emergency Shutdown Systems in Petroleum and Chemical Industries

Member/Guest Sign-in Sheet

Working Group: D18W **Meeting Date:** **May 23, 2011 10:30 – 12:30 PM** Chair **Gil Shoshani**

Tradewinds Vice Chair **Mick Bayer**

	Last Name	First	Affiliation	E-Mail	Voice Phone	IEEE #
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IEEE-P1810

Guide for the Selection and Installation of Fire-Rated, Circuit Integrity Cables for Safety, Critical, and Emergency Shutdown Systems in Petroleum and Chemical Industries

Member/Guest Sign-in Sheet

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IEEE

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P1814	**Recommended Practice for Electrical System Design Techniques to Improve Electrical Safety**	**Bruce McClung- Chair, Gary Donner Vice Chair, Dennis Hill - Secretary**

INDUSTRY APPLICATIONS SOCIETY
Petroleum and Chemical Industry Committee

To: Will Mcbride, Chair, Standards Subcommittee, willE.mcbridepe@ieee.org

cc: Daleep C. Mohla, Vice Chair, d.c.mohla@ieee.org and
Lorraine K. Padden, Secretary, PaddenEng@aol.com

SUBJECT: ANNUAL REPORT SEPT 2011 FOR IEEE P1814 WORKING GROUP for
Recommended Practices for Electrical System Design Techniques to Improve Electrical Safety

Dear Will:

Here is our Annual Report:

1) Current status: IEEE P1814 PAR was approved Dec. 9, 2009 and is due to expire Dec. 31, 2013.
2) Officers: L. B. McClung, Chair; G. L. Donner, Vice Chair; D. J. Hill, Secretary.
The first WG meeting was held Feb. 1, 2010 at IEEE-IAS-ESW 2010 in Memphis, TN:
3) Action of Working Group was to form Task Groups:

Eight Task Groups were formed to produce drafts of assigned tasks;

Task Group 1 –	**System Design – General**
	Peter Sutherland
Task Group 2 –	**System Design – Operation and Maintenance**
	Steve Wilson
Task Group 3 –	**Grounding**
	Sergio Panetta
Task group 4 –	**Protection**
	Marcelo Valdes
Task Group 5 –	**Equipment**
	Phil Lasek
Task Group 6 –	**Environment (Include Lighting)**
	Eric Campbell
Task Group 7 –	**Heat Tracing**
	Ben Johnson
Task Group 8 –	**Labeling and Signage**
	Jim Mitchem

All Task Groups needed to go back to basics for Research and Development of what electrical system design techniques create facilities with features and atmosphere to improve electrical safety beyond that dictated by recognized and required National Codes and Standards.

4) Meetings held: Three meetings to date including the first one held Feb.1, 2010 at IEEE-IAS-ESW in Memphis, TN, the second one held Sept. 14, 2010 at IEEE-IAS-PCIC in San Antonio, TX, and third one held Jan. 24, 2011 in Toronto, Ontario, Canada.
5) WG Procedures: Task Group Instructions are in place.
6) Possible problems/noteworthy activities:

Problems have been encountered by limited opportunities, between planned WG standard development meetings held in conjunction

with ESWorkshops and/or PCIC Conferences, for WG members to concentrate on TG assignments. Most Working Group members are gainfully employed and have difficulty holding TG teleconferences or meetings between ES Workshops or PCIC Conferences.

Each following WG meeting requires significant time to reconniter and recover content being considered where we left off at the end of the previous WG meeting.

Noteworthy activities involve TG's being formed for all perceived aspects of the electrical system design techniques that contribute to improving electrical safety beyond that dictated by recognized and required National Codes and Standards. Tg's are now beginning to consider (design conditions where a safety review is mandated for an independent engineer to review the design concepts before they are placed into construction), (new versions of equipment and protective devices that can be placed into maintenance mode for instantaneous tripping to reduce incident energy release when people are present), (redundant sources to enable a second or alternate power supply to provide power for continuous operation of production while testing and maintenance is being performed on the normal power supply equipment), (Et. Al).

NOTE: Projected completion date for submittal to RevCom is 06/2013. A decision will need to be made at the next WG meeting (Jan. 30, 2012 in conjunction with IEEE-IAS-ESW in Daytonal Beach, FL), whether to seek a PAR extension or to hasten completion of a draft (to submit to IEEE-SA by 10/2012) for initial Sponsor Ballot.

7) Minutes: Minutes of the Jan. 24, 2011 meeting are yet to be approved.

NOTE: Approval of Minutes of Jan. 24, 2011 Meeting is on Agenda for Sept. 18, 2011 Meeting.

8) Roster: Will be attached to Minutes of Jan. 24, 2011 meeting following approval.

9) Note if the WG has an IEEE Bank Account & note if Form L-50S sent to Standards SC Chair (in Spring):

No bank account involved.

Best Regards:	Bruce McClung	IEEE P1814 Working Group Chair
	Gary Donner	IEEE P1814 WORKING Group Vice Chair
	Dennis Hill	IEEE P1814 Working Group Secretary

Address any Reply to:
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Roster and Task Groups updated September 19 , 2011

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Roster and Task Groups updated September 19 , 2011

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Thomas		Papallo	GE	GE	Member	tom.papallo@ge.com
Tony		Parsons	Schneider Electric	Schneider Electric	Member	aparsons@ieee.org
Scott		Pederson	ESPS Inc.	ESPS Inc.	Guest	scott.pederson@espsi.ca
Bill		Petry	IBM Corp.	IBM Corp.	Guest	petry@us.ibm.com
Mike		Pintar	GE IS	GE IS	Guest	mike.pintar@ge.com
Anthony		Propes	Schneider Electric	Schneider Electric	Member	anthony.propes@us.schneider-electric.com
Bob		Ragsdale	Dahlen Systems	Dahlen Systems	Member	bragsdale@dahlensystems.com
Ken		Rempe	Siemens	Siemens	Interested	ken.rempe@siemens.com
Jack		Richards	Schneider Electric	Schneider Electric	Guest	jack.richards@us.schneider-electric.com
Martin		Robinson	IRISS	IRISS	Member	m.robinson@iriss.com
Tim		Rohrer	EXISCAN	EXISCAN	Member	rohrer.tim@gmail.com
Diane		San Miguel	Operation Technology, Inc.	Operation Technology, Inc.	Interested	diane.sanmiguel@etap.com
Vince		Saporita	Cooper Bussmann	Cooper Bussmann	Interested	vince.saporita@cooperindustries.com
Edwin		Scherry	Scherry Engineering	Scherry Engineering	Member	scherryengineering@swbell.net
Terry	L.	Schiazza	Schneider Electric	Schneider Electric	Interested	terry.schiazza@us.schneider-electric.com
Craig		Schiro	Marathon Petroleum	Marathon Petroleum	Guest	cschiro@marathonpetroleum.com
Jeff		Schmitt	IBM Corp.	IBM Corp.	Guest	schmitt@us.ibm.com

Roster and Task Groups updated September 19 , 2011

FirstName	Middle	LastName	Employer	Affiliation(s)	Status	EmailAddress
Robert		Seitz	Artech Engineering	Artech Engineering	Interested	rseitzak@aol.com
George		Smith	Schneider Electric	Schneider Electric	Member	george.smith@us.schneider-electric.com
Jeremy		Smith	Husky Energy	Husky Energy	Interested	jeremysmith@ieee.org
Andrew		Sohn	GE	GE	Interested	andrew.sohn@ge.com
Chris		Stinson	Air Liquide	Air Liquide	Member	Chris.Stinson@Airliquide.com
Peter	E.	Sutherland	GE	GE	Member	peter.sutherland@ge.com
David		Sweeting	Sweeting Consulting	Sweeting Consulting	Guest	david@sweeting.com.au
Dhirendra		Tiwari	GE	GE	Interested	dhirendra.tiwari@ge.com
Louis		Torres	PDMA Corporation	PDMA Corporation	Member	torres@pdma.com
Jesus	D.	Trevino	GE	GE	Guest	jesse.trevino@ge.com
Marcelo		Valdes	GE	GE	Member	marcelo.valdes@ge.com
Clarence		Wallace	Alstom	Alstom	Member	cwallace15@gmail.com
Peter	R.	Walsh	Mersen	Mersen	Member	peter.walsh@mersen.com
Craig		Wellman	CMW Consulting	CMW Consulting	Interested	c.m.wellman@ieee.org
Laszlo		Weress	BASF	BASF	Interested	laszlo.weress@basf.com
Matt		Westerdale	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	Guest	mwesterdale@usbr.gov
Ken		White	Olin Corp	Olin Corp	Member	KPWhite@olin.com
Stephen		Wilson	Self	Self	Member	sfwilson@ieee.org
Jaime		Ybarra	Tony Demaria Electric	Tony Demaria Electric	Interested	jybarra@verizon.net

Meeting Minutes: for IEEE P1814 Working Group (WG) Session, "Recommended Practice for Electrical System Design Techniques to Improve Electrical Safety"

Date and Time: **January 24, 2011 from 1:00 – 5:00PM**
Location: **2011 ESW, Conference Room A, Sheraton Centre Toronto Hotel**

Attachments to these Meeting Notes:

- Attachment A (Agenda: Word format)
- Attachment B (Agenda: PowerPoint format)
- Attachment C (Affiliation Frequently Asked Questions from IEEE-SA)
- Attachment D (Officers Draft Forward)
- Attachment E (TG1 Officer's Review)
- Attachment F (TG2 Officer's Review)
- Attachment G (TG5 Officer's Review)
- Attachment H (TG8 Officer's Review)
- Attachment I (TG1 2010 Submittal for Officer's Review)
- Attachment J (TG2 2010 Submittal for Officer's Review)
- Attachment K (TG5 2010 Submittal for Officer's Review)
- Attachment L (TG8 2010 Submittal for Officer's Review)
- Attachment M (TG4 Submittal January 25, 2011)
- Attachment N (Roster/Task Group List, 1-24-11)

For reference: the current output from TG1 = Attachment I above. Likewise, the current output from TG2 is Attachment J; TG4 is Attachment M; TG5 is Attachment K; TG8 is Attachment L.

(Note: The Power Point slides of Attachment B served as material for agenda items listed here.)

1. Bruce McClung (Chair) called the meeting to order and reviewed safety cautions regarding room use and exits.
2. At Bruce's direction, all present introduced themselves.
3. Dennis distributed Sign-In Sheets and asked each person to mark "Member" or "Guest".
4. Gary and Dennis verified that a quorum exists for any voting.
5. Bruce reviewed and approved the agenda for today's meeting.
6. Dennis reviewed and had the group approve the Minutes of the last Meeting, held Sept. 19, 2010 in San Antonio.
7. Bruce reviewed the IEEE Patent Policy using the slides from the Power Point agenda slides.
8. Bruce reviewed the IEEE Affiliation Policy using the Power Point agenda slides.
9. Bruce reviewed the P1814 PAR, with specific emphasis on the Scope, Purpose, and Need.
10. Dennis reviewed the basis and use of the myProject tool of the IEEE Standards Group, covering the location, access, and the basics of how it is used to develop the document and initiate reviews and voting. The document process steps PAR, Draft Development, Sponsor Balloting, Final Approval, Publication, and Five Year Maintenance process were reviewed. Noted was that this PAR expires on December 31, 2013. For questions the contact information of Tricia Gerdon is included in the Power Point slides. **Post Meeting Note**: you must be an IEEE Standards Association Member to access and use myProject. The cost is $47.00 to join IEEE-SA per year.
11. Bruce reviewed two facets of the Working Group conduct-
    - Robert's Rules of Order
    - Disclosure of Affiliation – not covered specifically at the meeting, but included with these Minutes is Attachment C – Affiliation FAQ for the Working Group reference
12. IEEE-SA P & P – Bruce covered some points then Daleep Mohla reviewed content of Power Point slides.

13. Daleep Mohla reviewed the WG Membership Qualifications. Notable: the requirements for an individual to be a Voting MEMBER of Working Group P1814 include attendance at the first meeting after the PAR approval (ESW Feb. 1, 2010), or if not at that meeting attendance at two meetings in a row (PCIC Sept. 19, 2010 and ESW Jan. 24, 2011). It is required not to miss more than one meeting in a row without a valid reason.
14. Dennis reviewed the Working Group Website for Reference Materials. The website address is: http://grouper.ieee.org/groups/1814/ . Some general materials are available to all. Some portions are restricted to Voting Members only (copyrighted references, task group materials).
15. Bruce and Gary reviewed the Officers' 2ND Pass on a Foreward to the Recommended Practice. This Foreward, while far from complete, is intended to set the tone for the remainder of the document. See Attachment D. The Foreward expands upon the Scope, Need, and Purpose outlined in the PAR. It also is intended to launch into the remaining sections of the Recommended Practice.
16. Bruce Verified with participation from all present the Current Members and Chairs of Task Groups, and who was present. The list below reflects an UPDATED group of names for each Task Group, compiled at the END of the P1814 Meeting. Some Task Groups have grown or changed in membership. The names of those who participated in the Task Group Breakout Session at the meeting are **BOLD**; the Task Group Lead has an asterisk (*) next to it.

    Bruce called attention to the Submittals of Task Groups 1, 2, 5, and 8 given to the Officers in November 2010 (these are Attachments I, J, K, L). Bruce then passed around via USB drive to TG1, TG2, TG5, and TG8 the Officer's Review comments (these are Attachments E, F, G, and H). These Officer's Review comments were not available to the TG's before this meeting.

    TG1 – System Design – General
    Peter Sutherland*, Mark Fisher, Bob Ragsdale, John McQuilkin, Chris Stinson, Edwin Scherry, Darrell Broussard, Tom Papallo, Warren Hopper, Jim Bowen, Clarence Wallace

    TG2 – System Design – Operation & Maintenance
    Steve Wilson*, D. Ray Crow, Ken White, Gabriel Arce, Peter Megna, Martin Robinson, David Pace, Dean Naylor, Tim Rohrer, David Sweeting, **Louis Torres**

    TG3 – Grounding
    Sergio Panetta*, Dennis Neitzel, Paul Dobrowsky, Jim Mitchem, Tony Locker, John Cadick, **Phil Lasek**, Jesse Trevino

    TG4 – Protection
    Marcelo Valdes*, Steve Dittman, Kenneth Rempe, Ray Micallef, Waylon Bowers, Ryan Downey, Diane San Miguel, Albert Marroquin, Maurice D' Mello, Peter Walsh, Jean Ayoub, Ray Catlett, Warren Hopper, **Kevin Lippert**, Vince Saporita, Joe Crawford, Jaime Ybarra, **Peter Megna**, Mike Lang, Ken Cybart

    TG5 – Equipment
    Phil Lasek*, Kevin Lippert, Tim Rohrer, Marcelo Valdes, Louis Torres, Keith Fager, Dhirendra Tiwari, Dennis Hill, Ronnie Fry, Ken White, Jack McAlhaney

    TG6 – Environment (Include Lighting)
    This Task Group was not represented.
    Scope and direction of this group to be determined at the next meeting. Previous members at one time included- Eric Campbell*, Waylon Bowers, Danny Liggett, Jim Mitchem, D. Ray Crow. However, the WG needs to decide on a direction in September 2011.

    TG7 – Heat Tracing
    This Task Group was not represented.

It has limited scope for this document, and Bruce will follow up with Ben Johnson and other resources in order to derive a path forward.

TG8 – Labeling & Signage
Jim Mitchem*, Jean Ayoub, Eric Campbell, **D. Ray Crow**, Andrew Sohn

17. The Working Group had a 60 minute **Working Session** Breakout. Each Task Group got together into its respective small group in various parts of the meeting space to collaborate. At the end of the session, the entire Working Group reconvened. The following brief verbal reports were given.

TG1: They view as a General Introduction to designing to electrical safety.
- Outline of power system design overview
- Substations
- Distribution Equipment
- Small systems: they want to address some of those issues. These systems are not usually maintained by trained personnel. TG1 wants to design these to be more "inherently safe" due to inexperience personnel working on them. [Daleep comment- TG1 can define small systems as generic names such as PS1, PS1, not using the 1584 thresholds since all of this is under review]
- Equipment rated for application- types of devices, conductors, etc.
- Removing the section on "locate controls on breaker door", too narrow
- Grounding – coordinate with TG3?
- Taps and feeders section

TG2: Will add to their starting point.

TG3: Will include basic breakdowns such as
- System, HRG, Ungrounded, Solidly, Low Resistance
- Grids
- Others

TG4: Provided a summary list of topics, and will assign out pieces of their topics
- Overcurrent, withstand ratings
- Fuses and breakers
- Arcing vs. bolted fault currents
- Role of maintenance
- Arc sensing technologies
- Over voltage and other protections

TG5: Provided a review of categories that TG5 is pursuing. TG5 has many individual features and is now organizing them into broader categories. TG5 is also planning to develop the individual ideas more fully.

TG6: Not represented. Scope and direction to be determined at next meeting.

TG7: Not represented. Bruce pursuing assistance with this topic.

TG8: Jim Mitchem stated that TG8 will put its work into a format per the IEEE Template. The work of this TG is substantially complete, but any further ideas that surface will be incorporated.

18. Bruce stated that he would develop a rough time line for communications between the Chair (Bruce) and the individual Task Groups. At the meeting Bruce decided that the TG's should send

a summary email and/or materials to the Chair (Bruce) with copy to the Vice Chair (Gary) and copy to the Secretary (Dennis). The dates to send an update to the Chair are:

- March 21
- April 25
- May 30
- June 29
- July 25
- August 29
- September 18

19. Bruce thanked all for their concern for this important topic and for their participation. Bruce adjourned the meeting.
20. Next Meeting – Tentatively set for association with IEEE-IAS-PCIC 2011 in Toronto, Canada Sunday, September 18, 2011.

ATTACHMENT "C" – Affiliation Frequently Asked Questions

IEEE-Standards Association Disclosure of Affiliation FAQ's

What is the definition of affiliation?

It is defined in the *IEEE-SA Standards Board Bylaws*, 5.2.1.5 as: "An individual is deemed "affiliated" with any individual or entity that has been, or will be, financially or materially supporting that individual's participation in a particular IEEE standards activity. This includes, but is not limited to, his or her employer and any individual or entity that has or will have, either directly or indirectly, requested, paid for, or otherwise sponsored his or her participation.

Why am I being asked to record my affiliation?

IEEE standards development is based on the principles of openness and balance. Standards development meetings are to be open to all interested parties and are not to be dominated by any particular entity or interest category. The disclosure of affiliation allows all participants the information necessary to assure these principles are adhered to.

How will this benefit me?

Industry participants and users of the standard will benefit from an open and transparent development process. The disclosure of this information adds to openness and transparency.

What is the difference between employer and affiliation?

They may be the same or different. Your employer is typically the entity that would be reporting you as an employee for tax purposes. If you are consulting or contracted with another entity, your employer and affiliation will typically be different [e.g., your employer, self-employed, or your consulting firm name as the employer; the client(s) as the affiliation].

Will you assume that affiliation is the same as employer?

No, you must declare any affiliation even if it is the same as your employer.

What if I am a consultant - How do I determine my affiliation?

The general answer is in the definition. It is the person or entity that is financially or materially supporting your participation. Other questions in this set of FAQ address some possible cases in which a consultant might find him or herself.

When should I disclose my affiliation?

Whenever asked as part of the IEEE-SA process.

How do I disclose my affiliation?

It will be required at various points in the standards development process. When joining a technical activity area in myProject, you will be asked to declare your affiliation. At an in-person meeting, it will typically be included in the meeting attendance sign-in, but on a teleconference meeting may be done verbally. When joining a Sponsor ballot group, you will also be asked about affiliation

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Will this information be shared with anyone else other than IEEE-SA?

Yes, employer and affiliation of participants is to be included in the minutes of a standards development meeting. Because minutes are to be available to all participants, the declarations are considered public information.

How will this information be used?

All standards development group employer and affiliation declarations will be considered if there is an appearance of dominance in the standards development project or governance body.

What if I refuse to disclose my affiliation?

As outlined in IEEE-SA governance documents, you will lose certain rights. In a working group where voting rights are gained through attendance, no attendance credit will be granted if affiliation isn't declared. Similarly, voting rights are to be removed if affiliation isn't declared.

What happens to people who make a false declaration?

If it is determined that a person has made a false or misleading declaration of affiliation, their participation privileges may be suspended or revoked. This may be limited to the particular project or may, if warranted, cover all IEEE-SA activities. Similarly, if warranted, penalties may extend to the participant's employer and/or any person or entity that is considered an affiliate.

I'm participating in IEEE-SA activities as an individual. Why are you asking me for my affiliation?

The requirement applies to both individual and entity-based standards development projects. It is consistent with the IEEE Code of Ethics requirement to disclose conflicts of interest. The employer and affiliation of a participant is usually perceived by other participants to be a potential conflict of interest and therefore is to be disclosed.

What if I represent more than one affiliate?

If they are financially or materially supporting your participation you should declare all of them.

I consult for multiple companies but none are paying my time or expenses for attending the standards development meetings. Am I affiliated with those companies?

If they are influencing what positions you take on issues (e.g., continued work is probably dependent on taking an agreeable position), then you are materially supported by that affiliate.

Multiple companies are funding my participation. Do I list them all?

A small number of entities are more likely to be influencing your positions. With a large number of entities, with none explicitly or implicitly influencing your positions through financial or other incentives, it is less likely that your positions would be influenced by the relationship. The person disclosing has to honestly judge if their positions are "materially supported" and if so, declare it.

If someone invited me to the meeting is that the same as having "requested" my attendance?

That depends. How much influence does the person who invited you have in terms of influencing your actions? If you are independent of that person or their employer (e.g., you are a supplier to the inviter as well as their competitors at the meeting), then there usually wouldn't be an affiliation. If, on the other hand, you are a captive supplier of the inviter then you probably are affiliated. If the inviter is paying your expenses and/or time, then certainly you are affiliated with that person or entity.

What if I am retired - Who do I list as my affiliation?

If you are not financially or materially supported by another person or entity (e.g., you participate as a volunteer for the good of the industry), you could declare employer as self employed and affiliation as the same.

What if I work for a subsidiary and am being funded by them - Do I need to disclose its parent affiliation as well?

If parent entities are not obvious and are material to the standards development activity, certainly you may disclose them. This is one area that is likely to be pursued in the event there is ever an investigation of domination of a standards development activity.

What if the parent affiliate is not financially supporting participation - Are they still considered my parent affiliate?

In the event of an investigation on possible domination, this information may be required, independent of financial support of your activity.

I'm employed, but my employer isn't funding my participation. What should I record for affiliation?

It is recognized that some IEEE-SA participants may participate on their own time on standards development projects (e.g., Sponsor ballot participation). In this case, it may be factually accurate to list your employer but for affiliation indicate that you represent yourself or are self-funded on that particular IEEE-SA activity. A participant is

encouraged to check with their employer or legal advisor that this participation is consistent with any employee agreement to which they are subject.

What is the Sponsor's responsibility related to affiliation declarations in a Sponsor ballot group?

These are detailed in the IEEE-SA Standards Board Bylaws, 5.2.2.3.

What is the Chair's responsibility for validating declarations of affiliation?

It is not the Chair's responsibility to question a participant's declaration of affiliation. A faithful and complete declaration of affiliation by participants is required by the rules of IEEE-SA and expected under the IEEE Code of Ethics.

What do I do if I believe another participant has made a false declaration of affiliation?

As indicated in the IEEE-SA Standards Board Bylaws,5.2.1.5, any participant, including an officer of a standards development group, "who believes that a participant's disclosure is materially incomplete or incorrect should report that fact to the Secretary of the IEEE-SA Standards Board and the appropriate Sponsor(s)."

Is there any exception for publishing declared affiliations in the minutes?

There are none defined. If though, a participant makes a declaration that is obscene, defamatory to an individual or group or otherwise through publication would be likely to be injurious to IEEE, the issue of publishing the declaration should be escalated to the Sponsor.

P1826	**Standard for Power Electronics Open System Interfaces in Zonal Electrical Distribution Systems Rated Above 100 kW**	**Yuri Khersonsky, Chair**

Subj: **Re: IEEE 1826 - annual report**
Date: 9/6/2011 2:19:49 P.M. Central Daylight Time
From: ykhersonsky@ieee.org
To: PaddenEng@aol.com
CC: will.mcbride@bp.com, willE.mcbridepe@ieee.org

Loraine,

Here are my responses to all questions:

1) PAR Status: **approved**

2) List Officers/Officer changes:
Yuri Khersonsky – chair
Norbert Doerry, Roger Dougal, Terry Ericsen – Vice Chairs
Joe Piff – Secretary

3) Current Action of Working Group (eg. WG in progress, Balloting, plan to issue new PAR, no action):
All textual, table, and figure changes that were discussed and approved were integrated into the current copy of the standard that is available on IEEE SharePoint site. It is called "IEEE P1826 Power Electronics Open System Interfaces in Zonal Systems" dated 08/30/2011.

4) Note status of WG Procedures: Group follows current IEEE procedures

5) List meetings held: September 18 2010, December 6-7 2010, April 14-15 2011, Aug 17-19 20**11**

6) Note items of possible problems/noteworthy activities:
At the October 2011 meeting, all clauses will be complete and reviewed by the committee with the objective of identifying areas where additional work is required. Additionally, the version of the document that results from this meeting will be sent to multiple manufacturers to solicit their comments. At the December 2011 meeting, the committee will do a "final" complete review of the document. At the February 2012 meeting, the committee will prepare the document for Balloting

7) Attach minutes of meetings: done
8) Attach Working Group roster: done
9) Note if the WG has an IEEE Bank Account & note if Form L-50S will be sent to Standards SC Chair (in Spring): **P1826 does not have Bank Account.**

Regards,

Yuri

From: "PaddenEng@aol.com" <PaddenEng@aol.com>
To: ly.kerson@yahoo.com
Cc: ykhersonsky@ieee.org; will.mcbride@bp.com; willE.mcbridepe@ieee.org
Sent: Monday, September 5, 2011 4:37 PM
Subject: IEEE 1826 - annual report

Yuri,

Thank you for the information (meeting minutes & roster).
I do need you to respond to each of the items below:

The annual report should include:
1) PAR Status
2) List Officers/Officer changes
3) Current Action of Working Group (eg. WG in progress, Balloting, plan to issue new PAR, no action)
4) Note status of WG Procedures

P1826 Roster

Name	Position	Affiliation	e-mail	Telephone
Yuri Khersonsky	Chair	Consultant	ykhersonsky@ieee.org	
Norbert Doerry	Vice-chair	NavSea	norbert.doerry@navy.mil	
Roger Dougal	Vice -chair	U of South Carolina	dougal@engr.sc.edu	
Terry Ericsen	Vice-chair	ONR	terry.ericsen@navy.mil	703-696-7741
Joe Piff	Secretary	MCR LLC	jpiff@mcre.com	301-980-8525
John Amy	Member	ASN (RD&A)	john.amy@navy.mil	
Paul Bishop	Member	Bishop Group	pcbishop@bishopgroup.net	850-271-8877
Roy Crosbie	Member	Cal State U Chico	rcrosbie@csuchico.edu	
Omar Farugue	Member	CAPS	faruque@caps.fsu.edu	
Herbert Ginn	Member	U of South Carolina	GINNHL@cec.sc.edu	803-777-5598
Narian Hingorani	Member	Consultant	nghingorani@sbcglobal.net	650-823-3335
Boris Jacobson	Member	Raytheon	boris_s_jacobson@raytheon.com	978-440-3269
Hans Krattiger	Member	ABB	hans.krattiger@us.abb.com	
Earl MacDonald	Member	Northrop Grumman	earl.macdonald@ngc.com	
Kevin Peterson	Member	P2S Engineering	kevin.peterson@p2seng.com	
George Robinson	Member	L-3 Communications	george.robinson@l-3com.com	
Zareh Sogomonian	Member	QinetiQ NA Inc.	zareh_soghomonian@ieee.org	571-405-1373
Mischa Steurer	Member	CAPS Florida State U	steurer@mail.caps.fsu.edu	850-644-1629
Giorgio Silligoi	Member	University of Trieste	gsulligoi@units.it	
Albert Tucker	Member	Consultant	ajtucker@ieee.org	301-785-6140

STANDARD FOR POWER ELECTRONICS OPEN SYSTEM INTERFACES IN ZONAL DISTRIBUTION SYSTEMS RATED ABOVE 100 KW
(P1826)
MCR, LLC
ARLINGTON, VA
17, 18 & 19 AUGUST 2011

FOURTH MEETING

The fourth meeting of the P1826 working group was held at MCR, LLC, in Arlington, VA, on 17, 18 and 19 August 2011. Chair Yuri Khersonsky welcomed the group and called the meeting to order at 0900 Eastern Standard Time on 17 August, at 0900 on 18 August, and at 0800 on 19 August. Members introduced themselves on the first day at the Chair's request.

IEEE POLICY

The IEEE slides on Topics to Avoid and Patent Rights were presented and discussed. The Chair reminded participants of the importance of these policies.

A quorum was present at the meeting all 3 days.

AGENDA

The Chair presented the agenda and asked for comments. Receiving none, the Chair called for a motion to approve the agenda, which was made, seconded, and unanimously approved.

MINUTES

The minutes of the third meeting were reviewed and approved.

CHAIR'S REPORT

The Chair stated his concern about incomplete writing assignments and the need for volunteers to complete their writing assignments on time. Lacking that, we need to continue to move forward. Therefore, we will need to write during working group meetings.

IEEE Std 2030 and 1547.6 Reviews

IEEE Std P1547.6 defines an "intentional island" and a "secondary spot network."

There is a new standard on Smart Grid that is called IEEE Std P2030. The 2030 standard accepted all of our open system definitions. Approximately 90% of the content of 2030 deals with data and information communication.

A discussion on the scope of P1826 in relation to the foregoing two standards ensued. It was stated that P1826 is a standard for employing power electronics in electrical system design and implementation. It covers new and emerging technology. A motion was presented, seconded and unanimously approved to add a subclause to Clause 1 called "1.3 Applications and Limitations." A few examples of what might be considered a zone will be added here or in an Annex. Clause 4.1 does not mention "power electronics." We need to try to clearly identify what we mean by "zone." We need to state why or how power electronics makes a difference in electrical system design. IEEE Std 1547.6 sizes zones by power level.

V-Model Discussion

Dr. Khersonsky then presented the "V" model. The committee concluded that this information was not applicable to this standard.

Web Site Discussions

Mr. Piff opened the IEEE Std P1826 web site where versions of the draft document are stored. The committee decided that the SharePoint site that is made available by The Bishop Group is more functional than the IEEE web site and will be used for day-to-day operations. However, in order to comply with the IEEE Industrial Applications Society (IAS) requirements, Mr. Piff will post "completed" versions of the standard to the IEEE site.

CLAUSES 1, 4, 5, 6, AND 7 REVIEW

NOTE: All textual, table, and figure changes that were discussed and approved were integrated into the current copy of the standard that is available on The Bishop Group IEEE SharePoint site. It is called "IEEE P1826 Power Electronics Open System Interfaces in Zonal Systems" dated 08/30/2011.

Dr. Khersonsky mentioned that IEEE Std 1679 was a new standard for energy storage.

This standard should indicate that there are no restrictions on the power levels (except the lower limit stated in the title) to which this standard applies. However, safety considerations may impose restrictions in implementation.

One of the objectives of this standard is to implement the control principles stated in IEEE Std 1676 for systems with power levels at 100 KW or above. Recently published IEEE Std 1676 -2010 is applicable at power ratings above 1 MW.

Clause 5 needs to address not only control, but control, monitoring and protection. Attributes of the Human System Interface do not need to be included here – this should be addressed by IEEE Std P45.3. When addressing monitoring, we should concentrate on automated monitoring, not the displays for human consumption.

Standard interfaces are for openness. We need to define the minimum needed to encourage openness. So, we need a characterization of the electric power at each interface and state the constraints to achieve good behavior.

MOTION: In Clause 6.1.1, move the last sentence to 6.1 and rewrite. Seconded, discussed, and approved.

MOTION: Create a new clause that covers Power Management issues specifically. This clause will give us the ability to derive power interfaces separately. Seconded, discussed, and approved. Then, as we tried to implement, this became new paragraph 4.3.

Discussions about stating the function of the zonal systems lead to the statement that the functions are defined by the customer – the controls implement the functions.

The "Overall Control System" or supervisory system needs to give information to the zone (direction) and receive information from the zone. There are bandwidth and other issues

associated with these communications, but these are very application dependent. We should try to define the least common denominator for these communications.

We need to define the zone to zone interface. So, we have (1) interzonal control, (2) intrazonal control, and (3) situational awareness.

We need to consider self-protection versus protection coordination. In other words, to whom do I send the protection coordination message?

ACTION ITEM: Dr. Steurer and Dr. Ginn will provide a draft of Clause 5 to Dr. Khersonsky by September 5, 2011.

IEEE Std 1547.4 defines islanding and has a special section to deal with it. By the definition in 1547.4, a ship electrical system is an intentional island.

Dr. Khersonsky presented a PowerPoint file (submitted in pdf format) called "Interconnection-Issues-Barker." On the "Concluding Points" page, item #2 should be a part of this standard.

AROUND THE TABLE TALK

No additional comments were offered by anyone in attendance.

UPCOMING MEETINGS SCHEDULE

The next meeting will be at MCR in Arlington, VA, on October 28 and 29, 2011.

The meeting following that will be at MCR in Arlington, VA, on December 14 and 15, 2011.

The meeting following that will be at MCR in Arlington, VA, on February 13 and 14, 2012.

NEW BUSINESS

We discussed the plan to finish the document. At the October 2011 meeting, all clauses will be complete and reviewed by the committee with the objective of identifying areas where additional work is required. Additionally, the version of the document that results from this meeting will be sent to multiple manufacturers to solicit their comments. At the December 2011 meeting, the committee will do a "final" complete review of the document. At the February 2012 meeting, the committee will prepare the document for Balloting.

ADJOURN

A motion to adjourn was made, seconded and unanimously approved at 1345.

ATTENDANCE

NAME	TELEPHONE	EMAIL
Dr. Yuri Khersonsky, Chair	714-488-0690	ykhersonsky@ieee.org
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Dr. Omar Faruque		
Dr. Zareh Soghomonian		

P60079-30-1/515	**Standard for Explosive Atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements for Industrial Applications**	**Ben Johnson, Convener** **Rich Hulett, 515 Chair**
P60079-30-2/515	**Standard for Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance for Industrial Applications**	**Ben Johnson, Convener** **Rich Hulett, 515 Chair**

Standards Update

For

IEEE/IAS PCIC Standards Subcommittee

On

IEC 60079-30 Part 1 & 2/IEEE 515 Joint Development

1. **The IEEE SA PAR and IEC New Work Item are approved and active.**

2. **The IEC 60079-30 Convener is Ben Johnson-the IEEE 515 Chair is Rich Hulett.**

3. **The MT/WG is in progress. The initial meeting was held in conjunction with the IEC General meeting in Seattle during October, 2010. The MT/WG has met three times during 2011 and will meet a fourth time in November. Excellent progress has been made on the joint development.**
4. **IEC and IEEE SA PCIC Standards Procedures are in use.**
5. **Meetings: 2010: Seattle 8 & 9 October, 2011: Orlando 31 January & 1 February, Frankfurt, Germany 31 May & 1 June, Menlo Park CA 31 August & 1 September.**
6. **No know process problems**
7. **& 8 Meeting Notes and Roster:**

IEC 60079-30-IEEE 515 Meeting notes for report.zip

8. **No Bank Account**

60079-30-1/515 and 60079-30-2/515 Roster - 2011

Function	Last Name	First Name	NC	E-mail address
Member	Amyes	Terry	GB	terry.j.amyes@btinternet.com
Member	Colpa	Mario	CH	colpa@bacab.ch
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Member	Driscoll	Tim	CA	tim.driscoll@ieee.org
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Member	Hamden	Todd	CA	Todd.Hamden@csa-international.org
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Convenor	Johnson	Ben C.	US	ben.johnson@thermon.com
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Member	Stephens	Erik	IEEE	erik.stephens@emerson.com
Member	Thurnherr	Peter	CH	peter.thurnherr@thuba.com
Member	Turner	John	CA	john.turner@ieee.org
Member	Tyldesley	Alan	GB	alantyldesley@gmail.com
Member	Williams	Wayne	US	wwilliams@tycothermal.com

IEC TC31 60079-30 Meeting Notes 2010/10/08–09

Attendance on 2010/10/08:

Ben Johnson – Convenor MT 60079-30
Rich Hulett – Chair IEEE 515 Working Group

Wolfgang Dlugas
Tim Driscoll
Jodi Haasz (IEEE)
Paul House
Neil Malone
Jim Monroe – Visitor
Jason O'Conner
Rudolf Pomme
Juergen Rueberg
Peter Schmidt
Bob Seitz
Erwin Stanzel
Larry Stehling
Eric Stevens
Peter Thurnherr
John Turner
Wayne Williams

1) Welcome and Introductions

2) Apologies from Bo Hwan Lee of Korea and Terje Pedersen of Norway

3) Review of Agenda

4) Review history of this MT to become joint development working group with IEEE-515

5) Review of the decisions taken by TC31 at the 2009 Plenary in Tel Aviv:

Decision 6 – TC31 agrees that the electrical protection inclusive of equipment ground fault protection requirements for Trace Heating from IEC 60079-30-2 will be included in IEC 60079-14 with the guidance for performance and reliability remaining in IEC 60079-30-2. The general maintenance criteria will be included in IEC 60079-17 with the specific requirements remaining in IEC 60079-30-2.

Decision 7 – TC31 supports the proposal of the MT to move the relevant normative design requirements and related installation documentation requirements from IEC 60079-30-2 to IEC 60079-30-1.

Decision 8 – TC31 agrees in principle to the joint development of IEC 60079-30 with IEEE 515. [The process is outlined in Administrative circular AC/22/2008.]

Decision 9 – TC31 agrees to the inclusion of additional guidance in IEC 60079-30-2 of knowledge base requirements for personnel involved in design, installation, and maintenance of electrical trace heating.

-- There was a discussion on the comments submitted during the voting process on the new work proposal for the joint development of IEC 60079-30 and IEEE 515. This included a discussion on the German, Switzerland, Norway, and Canada comments about concerns on the proposed titles of the documents – that they should include the term "Explosive Atmospheres".

-- The Netherlands comment was noted: "The developments of this standard shall not only harmonize more with IEEE 515, but also with the latest developments in the IEC 60079 series of standards, addressing the EPL's as listed in IEC 60079-0:2007. In order to address installation and maintenance requirements close working relations with the maintenance teams MT 60079-14 and MT 60079-17 shall be established and maintained throughout the whole project."

-- After discussion the MT agreed without objection to the following titles:

Explosive atmospheres – Part 30-1: Electrical resistance trace heating - General, Type Testing, Design and Installation Requirements

Explosive atmospheres – Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance

[Note: Action was taken in the TC-31 plenary to further revise the title to Part 30-1.]

6) Jim Monroe (chair TC-31) – Comment: This is an enormous foot-in-the-door for this joint working group of IEC with IEEE. There are many common requirements – one challenge is how to meet the needs of the IEC community as well as the IEEE community.

7) There was a discussion on the working relationship between the MTs for IEC 60079-30, IEC 60079-14, and IEC 60079-17. It was proposed that the respective MTs for -14 and -17 send the language proposed for revisions relative to trace heating aspects to this MT for review.

8) There was considerable discussion on the alignment of the trace heating standards from a global perspective. Included in the discussion were perspectives on the requirements for trace heating in non-industrial areas, in industrial areas, and in explosive atmospheres. Following the direction of the new joint development by TC31, the MT voted on a path forward:

(1) – Move forward with IEC 60079-30 tests as they are, and harmonize with type tests in IEEE-515.

(2) – Review each type test from IEC 60079-30. Keep some with a reference to other type tests from IEC 62395-1, which will require input to IEEE requesting a revision to the joint development III project authorization (PAR)."

Support 15 of 17 Yes on (1), Support 5 of 17 Yes on (2).

8) The MT approved without objection to move the normative language found specifically in Part 2, Clause 6 & 8 to Part 1, and to harmonize the language with IEEE 515, and further assigned a task group of 4 experts to develop draft language for review by the MT.

Action Item: Mr. Pomme, Mr. Williams, Mr. Rueberg, and Mr. Hulett – to review IEC 60079-30 Part 2, Clause 6 & 8 and to draft normative language for IEC 60079-30 Part 1, harmonized further with the latest draft version of IEEE 515. The sections to be moved include installation tests, bonding, grounding, specifications for sensor locations, and determination of maximum temperatures. This task group will also review all the "shall"s in Part 2 for possible inclusion into Part 1.

9) The MT then discussed specific additions, deletions, and revisions to the type testing sections of IEC 60079-30 Part 1, in particular to harmonize with the latest draft of IEEE 515.

-- Dielectric test (5.1.2) – The MT agreed to add in the Alternatively phrase from 515. The MT agreed to move the description of MI cable dielectric testing level from the individual test procedures to a single location under the dielectric test.

Action Item – Mr. Stanzel – to draft a new example sentence for the phase to phase clause in the dielectric test.

-- Insulation resistance test (5.1.3) – The MT agreed to add in "including integral components" to the end of the first sentence.

-- Flammability test (5.1.4) – The MT agreed to adopt the IEEE 515 procedure for flammability with the following considerations:

Action Item – Mr. Williams – to look into the possibility of incorporating the details of the ASTM procedures into the IEC standard, without the references to ASTM.

Action Item – Mr. Johnson – to look at the possibility of IEC being able to reference to the ASTM standards.

Action Item – Mr. Rueberg – to look at the phrase "most vulnerable point" from the IEEE procedure. Mr. Rueberg requested clarification from the MT as to the application of the flammability test to integral components. The MT agreed to the change "A flammability test shall be performed on all trace heaters, including those that are supplied ~~within a prefabricated integral assembly.~~ with integral components." Mr. Rueberg will supply the language to improve on the statement "most vulnerable point".

Attendance on 2010/10/09:

Ben Johnson – Convenor MT 60079-30
Rich Hulett – Chair IEEE 515 Working Group

Wolfgang Dlugas
Tim Driscoll
Paul House
Rudolf Pomme
Juergen Rueberg
Peter Schmidt
Bob Seitz
Erwin Stanzel
Larry Stehling
Eric Stevens
Peter Thurnherr
John Turner
Wayne Williams

10) The MT continued with the review of Part 1.

-- General (5.1.1) – Relative to integral components, Mr. Pomme expressed concern that enclosures go through a test sequence (hot exposure, cold exposure, impact, and IP tests). The MT decided that integral components need to be tested exactly as the trace heater, and should not be subject to the enclosure tests of 60079-0.

The MT agreed to the proposal to bring in the definition of integral components from IEEE 515 into 79-30, and to make the following changes to 5.1.1:
~~Terminations and connections that are to be installed as an integral part of the trace heater, whether intended to be factory fabricated or field assembled,~~ Integral components shall be subjected to the same tests as the trace heater, except where otherwise noted. ~~These connections shall include end terminations, tees, in-line splices and power terminations, as well as glands, fittings and seals where a trace heater enters a termination enclosure.~~

-- Impact test (5.1.5) – The MT agreed to keep the current IEC room temperature impact test as is, and to add in the cold impact test from IEEE 515. Further, it was agreed to add in a Low level cold impact test at 8 Joules to be consistent with the other mechanical tests. It was further agreed that the markings, instructions, etc. need to be reviewed relative to required documentation for Low levels of mechanical strength. The MT agreed to include markings requirements for X products into section 6.1, and to add references from procedures 5.1.5 and 5.1.6 to both sections 6.1 and 6.3. The MT also agreed to add language specifying that the impact energy absorbed by the substrate is negligible.

-- Deformation test (5.1.6) – The MT agreed that the IEC procedure is acceptable as is.

-- Cold bend test (5.1.7) – The MT agreed to continue with the IEC procedure with revisions to Figure 3 to clarify that the test is intended to be based on the manufacturers stated minimum bend radius, not the diameter of the cable.

The MT further agreed that overjackets should not be subjected to the hipot and meg tests.

-- Water resistance test (5.1.8) – The MT agreed to adopt the wording for this procedure from IEEE 515 with the following modifications:

> A sample as described in 4.1, excluding integral components shall be immersed ~~(except at connections and end terminations,~~ in tap water at 10 °C–25 °C for a period of 14 days. Trace heater ends are not immersed.
>
> Within 1 h after conditioning as above, and while still immersed in the water, the sample shall be subjected to the dielectric test outlined in ~~4.1.1~~ 5.1.2 and the insulation resistance test outlined in ~~4.1.2~~ 5.1.3.

-- Integral components resistant to water test (5.1.9) – The MT agreed to continue with the IEC procedure.

-- Verification of rated output (5.1.10) – The MT agreed to use the language from the IEC procedure, but with the following changes:

> Separate the last sentence of the first paragraph of part b) into a separate paragraph by itself.
>
> "The thermal output of the trace heater is measured at three ~~pipe~~ workpiece temperatures"

-- Thermal stability of electrical insulating material (5.1.11) – The MT agreed to use the title "Elevated temperature exposure test" and text from IEEE 515. After a discussion on whether or not moisture exclusion is considered important after this exposure, especially for the integral components, the MT agreed to add some language to make this reasoning clear in the procedure.

-- Verification of start-up current (5.1.14) – The MT agreed to use the IEC procedure with the change "The start-up current recorded shall be ~~the highest current response of three samples.~~ correlated to the maximum output tolerance."

-- Verification of the electrical resistance of metallic covering (5.1.15) – The MT agreed to use the procedure from IEEE 515 for Verification of braid or sheath conductivity with the following changes:

> A metallic braid, metallic sheath, or equivalent electrically conductive material is required as part of the trace heater construction and shall cover at least 70% of the surface. For surface heating units an integral metallic screen grid or equivalent electrically conductive covering at least 70% of the exposed surface opposite the surface to be heated shall be incorporated into the construction. The resistance of at least 3 m length of the trace heater shall be measured at room temperature.~~using a four-wire resistance (Wheatstone bridge) method.~~
>
> A representative sample of a surface heating unit shall be used. The resistance shall be equal to or less than the manufacturer's declared value. The manufacturer shall specify the method of determining this value. Additional considerations shall be applied by the certifying agencies for evaluation of equivalent materials other than metallic braid or sheath.

11) Closing. The next meeting is tentatively scheduled for Jan. 31 - Feb.1 at a venue to be determined, perhaps alongside the MT for 62395. The following meeting could perhaps be in Frankfurt in June.

Motion to adjourn – Mr. Williams, Second – Mr. House

Meeting Notes IEC 60079-30/IEEE-515 2011 January 31 to February 1

Attendance:

Ben Johnson – Convenor MT 60079-30
Rich Hulett – Convenor MT IEEE 515

Wayne Williams
Paul House
Erik Stephens
Wolfgang Dlugas
John Turner
Bo Hwan Lee
Larry Stehling
Terry Amyes (Visitor)
Neil Malone
Jason O'Connor
Tim Driscoll
Rudolf Pomme
Paul Kelly
Erwin Stanzel
Juergen Rueberg
Peter Thurnherr

Apologies: Peter Schmidt, Terje Pedersen,
Resignation: Eero Manniko

Ben proposes to send a note to the Finnish National Committee recognizing and thanking Eero for his work on this committee. Accepted.

1. Welcome and introductions
2. Apologies
3. Approval of the Agenda
4. Approval of the Meeting Notes (First Meeting) 8 & 9 October, 2010
5. Review type test as discussed and revised.

Discussion on Erwin's proposals for the dielectric voltage.

Change definition of rated voltage to - voltage assigned by the manufacturer to which operating and performance characteristics of trace heaters are referred.

Take out…

~~When determining *U*, the correct use of Phase-to-Phase or Phase-to-Neutral voltage level shall be considered.~~

Correct 5.1.1 to 5.1.11 in 5.1.2.

Take out "including integral components" in 5.1.3 since they are already included from 5.1.1.
Add in definition of integral components from 515.

Flammability – it is okay to reference to ASTM standards per IEC (Ben) but cannot be extracted (Wayne). There are some rules (it is well known, etc.), that we meet.

Review of impact level for low impact products. Use 7.5 J and 420 mm. Put J in parenthesis and use height and weight as the given levels.

Consider looking at proposals for 5.1.1 – number of samples per test, whether or not pre-conditioning is needed for each test, to use fresh samples for each test, and that tests are not required to be conducted consecutively. Or perhaps have this mentioned in each procedure. ACTION ITEM – Rudolf Pomme.

Remove temperature range from the water immersion test.

For output test, change #4 description to add in "workpiece".
50 mm outside diameter or greater test pipe (workpiece)

For thermal stability test, remove "at 10 °C to 25 °C".

6. **Report from task group**: Action Item: Mr. Pomme, Mr. Williams, Mr. Rueberg, and Mr. Hulett – to review IEC 60079-30 Part 2, Clause 6 & 8 and to draft normative language for IEC 60079-30 Part 1, harmonized further with the latest draft version of IEEE 515. The sections to be moved include installation tests, bonding, grounding, specifications for sensor locations, and determination of maximum temperatures. This task group will also review all the "shalls" in Part 2 for possible inclusion into Part 1.

Rudolf reported on the discussion from the ad hoc group, and presented written notes from their first meeting. The recommendations were accepted by

the MT, so the ad hoc group will continue with the work with completion scheduled by the end of April. **ACTION ITEM**.

Tim, Jason, Larry, and Juergen have agreed to work with Peter to pull together proposals for an annex for 60079-14, and to have these ready by the end of March. Proposal includes requirements from owners of the certificates regarding installation of trace heating products to be delivered to the end user. **ACTION ITEM**.

7. Review the type test from 60079-30 Part 1 clause 5.1.12 Thermal Safety Requirements and the Type Test Verification of Sheath Temperatures from IEEE 515 draft document for vote clause 4.2.

For sheath temperatures (clause 5.1.13 in 60079-30-1), it is proposed to accept the 515 methods (all of section 4.2), add in 4.4.1 from 79-30, add in the table(s) but without Divisions (which are moved into a Normative Annex), and take out the measurement uncertainty requirement. Add a note to capture the Divisions referenced in the Annex.

We will adopt the 'fast cycle' thermal benchmark test from 515. ACTION ITEM: All manufacturers to review their data and/or to conduct testing to verify the use of this test. Note: It was discussed that certain other information could be evaluated during this review, for example power output and temperature classification.

END of DAY ONE

8. Report on the remainder of action items from first meeting, (see meeting notes).

The MT noted other items to review including transformer sizing, and other items held over from the last revision cycle.

Paul Kelly suggested a review of clauses relative to 60079-0. He will conduct the review on the basis of submitted checklists (for example ExTRs) from manufacturers. His analysis will be reviewed by an ad hoc group consisting of additionally Rudolf, Wayne, and Paul H. ACTION ITEM.

Rudolf presented several proposals relative to his action item from yesterday's meeting. (See 'MT 60079-30 RPO 110131'). Modifications to the proposal were included in the document. **ACTION ITEM** (All) The MT will review the wording for discussion during the next meeting.

The MT reviewed the proposals from Bo Hwan Lee from the meetings in Tel Aviv. It was recognized that the concerns are legitimate, but that the current inclusion of the thermal safety test and the proposed inclusion of the thermal benchmark test cover these concerns. These tests are based on previous discussions of the committee and reflect the combined resolutions.

The MT agrees to review the dynamic aspects of thermal stability, in conjunction with the review of the thermal benchmark test at the next meeting.

9. Address the Zone/Division issue. Possibly include the Division requirements as a Normative Annex.

This item was covered in yesterday's discussion. In addition, we will add in a statement "Table 2 and/or Table 3 defines the test conditions for the Zone types of area classification. Requirements for Division rated equipment are in Annex ___". Also, references are needed for section 4.3 for Division 1 requirements.

The MT discussed the merits of the D1 chemical tests. Several feel that the experience level in Canada, plus the direction to not install product in the Zone 0 type portion of Division 1, is sufficient justification to drop the chemical test. Generally it is felt that the higher mechanical requirements should remain (for impact – both tests, deformation). We should review the CSA requirements for flame-proof glands/fittings. **ACTION ITEM:** Tim will canvass others in the end user community as to any concerns they may have about this approach.

10. Develop a list of discussion items from the last revision of 60079-30, IEEE 515 and any other standards that should be addressed in this current revision cycle.

Transformer sizing – Terje requests that we review and include the wording from IEEE 515-2011 "Draft 1":

The kilovoltampere ratings of the distribution transformers should be based on the maximum design operating load, plus consideration for circuit startup and selected spare capacity. Maximum design operating load and startup loads

should be based on minimum startup temperature. To optimize transformer size, consider startup of the fewest possible circuits at a time. Transformer kva rating should be at least 125% of computed maximum load due to trace heater currents during cold start up. A power system may require several distribution transformers, depending on the magnitude and physical distribution of the trace heating loads. ~~Maximum transformer size should be less than 125kva at 240 volts and higher to reduce the possibility of arc flash.~~ The distribution transformer secondary should be a grounded system.

The MT reviewed this and agreed to the inclusion, but with the removal of the next to last sentence.

Review of comments from the last edition of 60079-30.
1) NL 60079-30-1 1st to 5th – these reference standards are not directly applicable to the tests or the equipment specified in this standard.
John – prefer to list 62395 in the Bibliography. Agreed.
2) NO 60079-30-2 Energy efficiency is already addressed in several sections related to the selection of the thermal insulation system and the control system.

11. Review any action items and task assignments.

See above.

Consideration of appointing liason from this committee to TC27 MT17 – selection of Rudolf Pomme – he accepted.

12. Consideration of next meeting dates and location. Proposed dates 31 May and 1 June, 2011. Location - Consideration of the proposals from Erwin for Frankfurt for DKE/VDE and from Rudolf for Arnhem at KEMA (DEKRA Certification B.V.).

To adjourn: Wayne
Second: Rich

Meeting Notes IEC 60079-30/IEEE-515 2011 May 31 to June 1

Attendance:

Ben Johnson – Convenor MT 60079-30
Rich Hulett – Convenor MT IEEE 515

Wayne Williams
Paul House
Wolfgang Dlugas
John Turner
Larry Stehling
Neil Malone
Jason O'Connor
Tim Driscoll
Rudolf Pomme
Erwin Stanzel
Juergen Rueberg
Peter Thurnherr
Todd Hamden
Peter Schmidt
Christian Adolf (Guest – WWV)
Mario Colpa (Guest – Bacab/Bartec)
Axel Tischendorf (Guest – Bartec)

1. Welcome and introductions
2. Apologies - Bo Hwan Lee, Erik Stephens, Paul Kelly, Vincent Schuhl, Alan Tydesley, Terry Amyes
3. Approval of the Agenda – Approved without objection
4. Approval of the Meeting Notes (Second Meeting) Jan. 31 to Feb. 1, 2011 - – Approved without objection

5. Review type tests as discussed and revised at the second meeting.

Ben Johnson - Add in "trace heater" at the end of 3.15.

Discussion on the definition of integral connections – the industry has struggled with this definition for many years; many prefer a strictly performance based standard. Acid test - Is this component intended to be treated as an integral part of the cable? Another possible definition limitation -

Not intended to ~~be re-entered or not intended to~~ be re-used. ACTION ITEM – Paul House – work on adding new sentence to the definition.

Ben Johnson – add in "trace" to 4.4.1

Review of "Thermal Safety Test 5.1.12:

Ben Johnson – prefer to re-consider the title of Thermal Safety Test.

Considerations:

- While we (for this context, "we" indicates the MT 60079-30) may be starting with the base test from IEEE-515, we may need to consider some changes to keep the test strictly applicable for an explosive atmosphere standard.
- We also need to consider the proposals from earlier meetings such as continuous monitoring and the pre-conditioning time.
- Generally it is felt by the MT that significant changes in power may correlate to changes in sheath temperature.
- The MT recognizes the need to be careful about not attempting to evaluate a manufacturer's quality program with a type test.

Preferences include maintaining the current pass-fail criteria, for a certain amount of pre-conditioning for the fixture adjustment (perhaps five cycles) but not necessarily as much as the current procedure allows, consideration of continuous monitoring, and consideration for a repeat of the T-classification test if the sample exceeds +20%.

The MT agreed on continuing with the current IEEE-515 procedure with the addition of continuous power-level monitoring throughout the test after a five-cycle pre-conditioning period. The pass-fail criteria will continue to be +20% and -25%.

The title of the procedure was changed to Thermal Performance Test.

There was a general review of the other procedures to help align IEC 60079-30 and IEEE-515.

6. Review of 60079-14 Annex regarding the installation of trace heating – Peter Thurnherr would like to produce a CD for 60079-14 this summer with a working group meeting in November, proposed to finish up primary work in early 2012.

The MT discussed a proposed statement in A.2 "It is necessary to determine who is responsible for marking electrical trace heating systems and ensuring that it fulfils these requirements, the manufacturer of the heating system or the installer." We agreed that the markings supplied on or with the equipment are the responsibility of the manufacturer/certificate holder, and any additional markings applied in the field are the responsibility of the installer.

Other discussion notes from this review are included in the document "heat_tracing_60079_14_annex MT 60079-30 Comments"

7. The MT reviewed Rudolf Pomme's (RP) submittals including the action items of the ad hoc group. Comments include:

- Scope – the MT agreed to remove "gas" from "explosive gas atmosphere" in the first paragraph and to reword the second paragraph
- Wayne Williams expressed concern about stating Divisions in an IEC standard and placing these as Normative requirements. The group noted that for this to be a joint development with IEEE then the Divisions have to be Normative, but other countries that state acceptance of Divisions such as Canada can state Deviations to this document if they exist.
- In 4.1 – we added a couple of changes to two paragraphs from RP, and added in work notes "Move this paragraph to Part 2; needs some work on wording".
- Also in 4.1 – we added in a sentence about metallic shields – apparently moved here from another location.
- In 4.2 for Mechanical strength, we deleted the first sentence about applicability of tests 5.1.5 and 5.1.6.
- Also in 4.2, we deleted the sentence about applicability of the cold bend test
- Also in 4.2, we deleted a section titled "Non-metallic material" and two corresponding paragraphs
- In 4.3, we deleted a paragraph about locating terminations and connections outside of zone 1 and zone 21.
- In 4.4 d), we deleted the phrase "to provide for an effective ground path"
- In 4.5.1 we deleted "under all conditions that may reasonably be foreseen"

- In 4.5.1 we added “The maximum surface temperature of the trace heater shall also be less than the maximum withstand temperature.”
- In 4.5.1 we made the following change and added a work note “For locations utilizing the class and division system ~~classified as divisions~~ [make this change throughout]”
- In 4.5.3 we added the work note “[Hold for references to Part 2.]” in four locations.
- In 4.5.3 we deleted the note at the end of the section.
- In 4.5.3.1 we added the work note “[Move to Part 2] and added a paragraph “Any protective device installed in Zone 1 and Zone 21 locations shall be certified for use in these locations. Refer to 7.2.3 for specific features to be included in the manufacturer’s instructions.”
- In 5.1.12 we made some wording changes to the first paragraph of the re-titled “Thermal Performance Test”.
- At the very end of 5.1.13.2.1, 5.1.13.2.2, 5.1.13.2.3, and 5.1.13.2.4 we added the phrasing “and shall not exceed the manufacturer’s declared maximum withstand temperature”
- In 6.1, we modified e) to read “for marking trace heaters for use in Class/Division explosive atmospheres see clause A.6.”
- In 6.2 we deleted the Markings for tube bundles section
- In 7.1 i) we added the work note “[Reword for better accuracy]” and in k) we added the work note “[include with f]”
- In 7.1, 1) I. we added “[or a higher value if specified by the manufacturer]”
- In Annex A we deleted “and unclassified (ordinary) according to the NEC” and added “Note: These requirements may be applied to similar industrial applications in unclassified (ordinary) locations.”
- In A.4.6.2 we deleted the last column for Unclassified locations
- In Annex C we deleted “and unclassified (ordinary) according to the NEC”
- In Table C.1 we deleted the last column for Unclassified locations
- In Table E.1 we updated the text in line 5.3.1, 7.1.2, 7.2, 7.3, 15, 26.4.2, 26.5, 26.5.1, 26.7, 26.8, 26.10, and Annex C, and deleted Footnote 1
- In Annex F we added “Design and” to the title
- We started going through Annex F, and had started making changes (see F.3, F.4, F.4.1, and F.4.2) before electing to assign this section’s review as an Action Item

Second Day:

Attendance changes:

Peter Hass (Guest – DKE) visited for a few minutes
Peter Thurnherr, Christian Adolf (Guest – WWV) could not attend

7. Discussion on routine tests. The MT agreed to leave the dielectric procedure alone, since the hipot test at the end of production is more important to the final product than the spark test. However, a note was added to allow for higher frequency spark testers for overjackets.

We also agreed to remove "with a 95% confidence level" from 5.2.2.

Review of 5.1.10 – We agreed to take out "as specified by the manufacturer" and to add a note to the resistance method for metallic elements.

Discussion on Instructions:

Using 60079-0 as a guide, we need to re-define Instructions into particular buckets:

- Circuit design
- Documentation
- Installation
- Commissioning
- Maintenance
- Repair/Modification

ACTION ITEM: Rudolf to review the Instructions section again in relation to these buckets, keeping in mind that informative aspects need to be moved to 60079-30-2, and that certain installation aspects should be moved into 60079-14 with coordination with Peter Thurnherr.

8. Review of Annex A: Tim Driscoll reported on canvassing end users and industry experts about the need for a chemical test for trace heating, and found general agreement that it is not needed. Some end users may want to know if a particular product is suitable for a particular atmosphere, and the group feels this is between the manufacturer and the end user to review these cases individually. Generally the MT feels that chemical compatibility is not required in this standard.

Tim's recommendation is that the chemical test is not necessary. Agreed.

Review of Annex A for Scope and Coverage:

The MT discussed the separation and coverage of ordinary industrial locations currently included in IEEE-515. Perhaps we can include a note for corresponding coverage (see also a proposed note added to the draft standard). The MT decided to include a note into the Introduction as well.

Rich Hulett noted that the original requirement for special documentation of Division 1 designs was necessary in the early days, but now that there is sufficient industry history that this requirement is no longer needed.

For D1, Classes I, II, and III:

Std.	R.T Impact	Cold Impact	Deformation
CSA 130.03	14 J	28 J	2000N
IEEE 515	-----	27.1 J	2000N

All at 110% Voltage for Ts

ACTION ITEM: Ben Johnson will review the work that Rudolf Pomme initiated on the inclusion of Classes and Divisions into Annex A, including comparing and coordinating the mechanical tests values for Classes and Divisions.

ACTION ITEM: Todd Hamden will review Annexes B and C, the type test matrices for Zones and Divisions, for accuracy.

ACTION ITEM – Rich Hulett and Todd Hamden will review definitions of temperatures relative to F4, and the wording in F4.

ACTION ITEM – Paul House will work through Annex F to reorganize it and to determine if any parts need to go back into Part 2. Rudolf Pomme will then review the reorganization work.

ACTION ITEM – Rudolf Pomme will review committee changes to Annex E.

Next meeting: IEC 62395-1 will meet 29-30 August in San Francisco, so MT 60079-30 can meet in conjunction that same week Aug. 31 – Sept. 1, at Tyco in Menlo Park.

Next meeting after that: Tentatively the 10-11 of November in Manchester, UK.

P80005-1	**Cold Ironing Part 1: High Voltage Shore Connection (HVSC) Systems – General Requirements**	**Kevin Peterson, Chair** **Dev Paul, Vice Chair** **Scott Baird, Secretary**

IEEE • IAS
Petroleum and Chemical Industry Committee

September 20, 2011

Will McBride, PE
Standards Subcommittee Chair
7200 Lake O' The Hills Circle
Anchorage, AK 99516-4605

Dear Will:

This is the 2011 Annual Report for Working Group P80005-1 "High Voltage Shore Connection (HVSC) Systems" (formally P60092-510) and covers our joint development of an international high voltage shore connection standard. Our PAR was approved in September 2009 and will expire on December 31, 2013. Officers are Kevin Peterson, Chair, Dev Paul, Vice Chair and Scott Baird, Secretary.

Our IEEE working group meetings this past year:

September 19, 2010 Meeting (at PCIC 2010)

In addition, our working group had two joint meetings with IEC/ISO:

November 16-18, 2010, Hamburg, Germany
December 16-17, 2010, Baltimore, MA (convenors only)

All three organizations balloted the Committee Draft for Voting (CDV) over the summer. IEEE has also completed its mandatory editorial review. We are meeting to resolve editorial comments next month in Oslo, Norway and expect to publish the standard in 2012 Q2.

IEC, ISO & IEEE will jointly sponsor a new work proposal, P80005-2: Cold Ironing Part 2: High voltage shore Connection (HVSC) Systems - Communication Interface Description. A PAR has been submitted for the October NESCOM meeting.

The WG follows the PCIC Standards Working Group IEEE/PCIC Operating Procedures. An updated roster of working group participants is attached.

Respectfully submitted,

Kevin Peterson

Kevin Peterson, PE
P80005-1 Working Group Chair

cc: Richard Barker, PCIC Marine Industry SC Secretary
Lorraine K. Padden, PCIC Standards SC Secretary
Daleep Mohla, PCIC Standards SC Vice Chair

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY

ITEM 9.A – API SOEE LIAISON REPORT – ROY HAMILTON

Agenda item 9a

API Subcommittee on Electrical Equipment - Roy Hamilton, IEEE/API Liaison

Status of the API Standards and Recommended Practices:

API RP 500 and API RP 505 - Mark Goodman/Louis Barrios (Substitute) (Area Classification)	RP500 Modifications to final proof are expected to be completed by the end of October. RP 505 revision work continued, approximately 80% complete, work will continue in the API 2012 Spring meeting in Dallas, TX. Tim Driscoll joined as a member to represent the Canadian Association of Petroleum Producers (CAPP).
API Std 540 – Don Dunn (Electrical Installations in Petroleum Processing Plants)	In progress, draft expected to be released for review by the end of October 2011.
API Std 541 – Barry Wood (Induction motors 500 hp and larger)	Reballoted, no negative ballots, only 5 editorial comments, expect final draft to API for publishing over the next four weeks, expect the new revision to be available by mid-2012.
API RP 545 – Victor Minak (lightning protection of hydrocarbon storage tanks)	Issued raised by API 650 committee concerning tank operation to "Drain Dry" condition. A risk assessment for "Drain Dry" operation was conducted by API 545 and 650 representatives. The result of this assessment was that an addendum should be developed. The SOEE committee approved forming a working group to develop an addendum to address "Drain Dry" operation. Anticipate proposed addendum to API at the Fall API meeting.
API Std 546 – Barry Wood (synchronous motors)	Third Edition was published in September 2008; no activity
API Std 547 – Barry Wood (general purpose, sleeve-bearing induction motors 250 hp and larger)	Revision is currently being worked on. 140 comments received. 100 comment reviews completed. Comment review to be completed in Spring 2012 meeting in Dallas, TX. Expectation that ballot will be conducted after Spring meeting.
API RP14F* – Dave Burns (electrical systems, offshore – Divisions)	**Mid 2012 Working Group Forming**
API RP 14FZ* – Dave Burns (electrical systems, offshore – Zones)	**Proof**

*** Standards under the API Committee on Production**

NFPA 70E: 2012 edition accepted in entirety. New edition will be available in October 2011. 15 Nitnams presented in June citing the evidence was not sufficient to overturn.

NFPA 70-2014: API will submit four proposals to NFPA 70

1. Remove date references to API RP 500 and API RP 505 in the NEC 2014 release.
2. NEC art. 110.16 In the informational note, add reference to NFPA 70E for arc flash labeling requirements.
3. NEC art. 392.18(H), ask for industrial exemption. This article now requires a label be added every 10ft. for cables in cable tray that are 600V and higher to display “Danger – High Voltage – Keep Away”.
4. General The terms “ignition temperature” and “auto-ignition temperature” are used synonymously. “auto-ignition temperature” is the correct term with a few exceptions such as cloud ignition temperature for combustible dusts.

ITEM 9.B.1 - IEC CATEGORY D LIASON FOR IEEE TO IEC 60079-15 – PAUL HAMER

IEC Liaison Category D Liaison to the IEC standard on non-sparking Ex"n" equipment - Paul Hamer

IEC TC31 Working Group 27 (WG27) summary and report to the IEEE PCIC Standards S/C:

• Edition 4 of IEC 60079-15 (*Explosive atmospheres – Part 15: Equipment protection by type of protection "n"*) was issued January 2010 and is now in effect.

• A draft for the revision of IEC 60079-7 (*Explosive atmospheres – Part 7: Equipment protection by type of protection "e"*) Edition 4 (2006) is underway, and is now available (31/954/DC, dated 12 Aug 2011, attached) for National Committee review, circulated as a "DC." This project is not yet part of a work program of IEC. Part of the direction from TC31 is to remove all of the motor requirements from the present "n" standard and bring them into the "e" standard • Two classes of "e" protection will be established – (1) "eb" that corresponds to EPL Gb equipment for explosive gas atmospheres, having a "high" level of protection, which is not a source of ignition in normal operation or during expected malfunctions; (2) "ec" that corresponds to EPL Gc equipment for explosive gas atmospheres, having a "enhanced" level of protection, which is not a source of ignition in normal operation and which may have some additional protection to ensure that it remains inactive as an ignition source in the case of regular expected occurrences (for example failure of a lamp). For your information, "EPL," from IEC 60079-0 stands for:

> **equipment protection level (EPL)** level of protection assigned to equipment based on its likelihood of becoming a source of ignition and distinguishing the differences between explosive gas atmospheres, explosive dust atmospheres, and the explosive atmospheres in mines susceptible to firedamp
> NOTE The equipment protection level may optionally be employed as part of a complete risk assessment of an installation, see IEC 60079-14.

The traditional association is that EPL Gb is suitable for Zones 1 and 2, and EPL Gc is suitable for Zone 2

• Once the work is completed in ~ 2013 and the 5th Edition of IEC 60079-7 is issued, the designation "Ex nA" motors will disappear and will become "Ex ec." IEC 60079-15 will then be withdrawn.

• During the Seattle meeting in late 2010, the WG27 was able to successfully bring over the motor's Ex "nA" requirements from the existing 60079-15 and word the 60079-7 draft document in such a way that no added requirements are imposed for the Ex "ec" machines – at least that is the intent, and several of us argued very hard for this approach and were successful. The future drafts and National Committee votes and resolutions will need to be closely monitored to assure that additional requirements are not added for "ec" motors.

• There was quite a bit a dialog on convertor-driven motors, but there was not sufficient time for the WG27 to thoroughly address. This topic will continue during 2011 meetings. The WG is leaning toward adding an installation requirement for low-voltage drives (and similarly for high-voltage drives/motors) and motors to require interconnection cables that have three symmetrically-placed grounding conductors and an overall screen or sheath shield. This will reduce the common-mode voltage that is seen at the motor, which can create high shaft-to-frame voltages on motors supplied from pulse-width modulated drives. The potential for incendive arcing at bearings in an Ex atmosphere is of obvious concern. I request that I be formally re-designating from the "Category D Liaison to the IEC standard on non-sparking Ex"n" equipment for IEEE" to the "Category D Liaison to the IEC standard on increased safety Ex"e" equipment for IEEE." A formal liaison designation for me between the IEEE and the IEC Motors and Drives Working Group (TC31 WG27) may also be appropriate, although I am now designated a "US National Expert" and such a liaison designation may not be required.

Respectfully submitted, Paul Hamer
20 September 2011

ITEM 9.C – OBIEC SLIDES-TIM DRISCOLL

PCIC Standards Subcommittee, Toronto 2011

OBIEC (Objective Based Industrial Elect. Code)

- Looking for pilot projects in Canada
  - Alberta
    - One project started with it, developed 1st draft of SMM (Safety Management Manual), then stopped
    - Looking at other projects now (several possibilities)
  - New Brunswick – major petrochem looking at
  - B.C. – can be included in "Safety Management Program" approval
- Alberta Government Report (by consultant):
  - Recommending pilot project(s), *prior to regulation*
  - Government currently deciding how to proceed
- Current evidence/knowledge
  - Need more education on benefits
  - Flexibility on Design / Equipment Selection (i.e. Codes/standards) for cost/performance/etc., however.....
  - Main benefit is **"project execution" improvement** - *ten fold*

ITEM 11.C STANDARDS PROGRAM UPDATE - TRICIA GERDON, IEEE SA STAFF LIAISON

REVISIONS AND REAFFIRMATION, NEW PROCESS STARTING JANUARY 2012

IEEE STANDARDS ASSOCIATION

The NEW Process for Maintaining Active Standards

The **IEEE-SA Board of Governors (BoG)** and **IEEE-SA Standards Board (SASB)**, comprised of volunteers who oversee the standards development process, have approved and scheduled for implementation a new process for maintaining active standards. **The new process will take effect on January 1, 2012.**

The new process provides a more streamlined and simplified approach to standards maintenance, making it easier for participants to comply with the policies and procedures of both **IEEE** and the **American National Standards Institute (ANSI)**.

For Sponsors and Working Groups, the changes:

- Extend the maintenance timeline for IEEE standards from 5 years to 10 years
- Phase out the reaffirmation and stabilization processes by 2013
- Place the focus primarily on the revision process for standards that require maintenance action (revision or withdrawal will be the only available actions for maintaining active standards)
- Identify approved IEEE standards as either ***active*** or ***inactive***

As of January 1, 2012, all standards will be subject to the following transition plan:

No new reaffirmation or stabilization ballot invitations will be permitted after **December 31, 2011**. Sponsors should review their portfolio of active standards with this deadline in mind.

All reaffirmation or stabilization ballots in effect will need to be completed prior to the SASB submittal deadline for its December 2012 meeting.

Standards that have been reaffirmed or stabilized prior to January 1, 2012 will be transitioned into the new maintenance timeline. The Sponsor will be required to revise the standard according to the latest of the following dates:

- By 31 December 2018
- Within 10 years of initial approval

- Within 10 years from the last maintenance action (revision, reaffirmation, or stabilization)

If no action is taken by the standard's expiration date, the standard will be removed from active status through an administrative process for standards that have not undergone a revision process within 10 years, and will be transferred to inactive-reserved status. (Note that standards that are due to expire at the end of 2011 will be granted a standard expiration date of 31 December 2018 unless the Sponsor has requested that administrative withdrawal occur.)

For more details on these policy changes, an FAQ is available online at:
http://standards.ieee.org/faqs/reaff.html

Changes to the policies and procedures can be viewed online at:
http://standards.ieee.org/about/sasb/procom/reaff-changes.pdf

Connect with us:

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