

C37.23 Metal Enclosed Bus Working Group  
Minutes of the Spring 2013 Meeting  
The San Luis Resort, Galveston, TX USA  
May 1, 2013

**1. Introductions**

The meeting was called to order by Art Jur at 8:02 AM. Art has graciously volunteered to Chair this Working Group to replace Ed Peters who has stepped aside due to time commitments. Art welcomed the members and guests and thanked Ed for his contributions. Attendees introduced themselves identifying their company and affiliation.

**2. Attendance**

Nineteen Working Group members were present, with seven guests also in attendance. One member was excused from attendance.

<u>Name</u>	<u>Affiliation</u>	<u>Role</u>
Paul Barnhart	Underwriters Laboratories	Member
Michael Cannady	Southern Company Services	Member
Robert Cohn	Powercon Corp.	Member
Doug Edwards	Siemens Industries, Inc.	Member
Tim Faber	Schneider Electric	Guest
Michael Flack	Southern Nuclear	Member
Paul Gingrich	AZZ / Central Electric	Member
Sahadev Gohil	AZZ/Central Electric Mfg. Co.	Member
Tom Hawkins	Siemens	Vice-Chair
Arthur Jur	Eaton Corporation	Chair
Michael Lafond	General Electric	Guest
Paul Leufkens	KEMA Powertest	Guest
Frank Mayle	Technibus, Inc.	Member
Deepak Mazumdar	Central Electric Manufacturing Co.	Member
John McClelland	Technibus, Inc.	Guest
T Olsen	Siemens Industry, Inc.	Member
Raghunath Parthasarathi	Bechtel Power	Guest
Edward Peters	Powell Electrical Systems - Delta/Unibus Division	Member
Steve Powell	AZZ/Calvert	Member
Mark Roberson	AZZ/Calvert	Member
Amy Rowell	Eaton Corporation	Guest
Paul Sullivan	DuPont	Member
Chand Tailor	Eaton Corporation	Member
Michael Wactor	Powell Industries, Inc	Member
Robert Warren	KEMA Powertest	Member
Oon Yek	Pacific Gas & Electric	Guest
Bob Cohn	Powercon Corp.	Member (excused)

**3. PAR Status**

PAR was approved on 05-Dec-2012 and has an Expiration Date of 31-Dec-2016

**4. Discussion of Draft D1**

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- T. Olsen notified the Working Group that the draft needs to be formatted using the IEEE template.
- Forced Cooled Bus needs a dual rating – one with fans operating, one without fans.
  - Forced Cooled Bus – Tables 4C & 4D have been added.
- Need a 6300 A Preferred Rating in Table 4B.
- Voltage rating of 15.5 kV should change to 15.8 kV to match the generator standards
- Handling Guide needs further review
  - Ed Peters volunteered to review
- Insulation Testing needs to be incorporated from C37.20.2
  - Art Jur volunteered to work on this
- Field Testing clause will need to keep pace with the ratings
- Neutral Connection
  - Wording mimics NEC 2011section 250.36 (B)
  - States “up to 1000 V”. What are the requirements above 1000 V?
    - Chand Tailor volunteered to research
    - Paul Sullivan found in NEC 2011section 250.186 that Neutral Conductor requires the same insulation as the Phase conductors.
    - Paul Sullivan to research the color specified in NEC.

**5. New Business**

- Pressurized isolated phase bus was brought to the working group for consideration
- Cast Resin Bus
  - Since the last meeting, an inquiry for inclusion of Cast Resin Bus into C37.23 was received by the Chair from Michel Gaspard at ETA-COM.
  - The working group expressed concerns with the product installation. Paul Barnhart and Art Jur agreed to research other cast resin products to determine if there are specific clauses to be considered.
- UL 857 Busway
  - With other standards moving up to include 1000 V, UL 857 may also.
  - What changes should be made in C37.23 to address this?
    - Art Jur volunteered to communicate with the appropriate NEMA and STP groups to determine the direction of UL 857
- Definitions from C37.100 regarding Metal Enclosed Bus need to be incorporated
  - Ted Olsen is working to sort the definitions into appropriate sub committee lists
- Insulated Bus Pipe for Oil & Gas Applications was discussed. Working Group consensus was that these will not be considered for inclusion.

**6. Sub Group Break out meetings**

The following Sub Groups met to assign a group leader, a back up and discuss their sections.

**Cable Bus**

1	Edward Peters	Powell Electrical Systems - Delta/Unibus Division
2	Michael Cannady	Southern Company Services
	James Bowen	Aramco Services
	Steve Powell	AZZ/Calvert
	Paul Sullivan	DuPont

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**Forced Cooling**

1	Frank Mayle	Technibus, Inc.
2	Arthur Jur	Eaton Corporation
	Robert Cohn	Powercon Corp.
	Mark Roberson	AZZ/Calvert

**Short Time Test**

1	Paul Gingrich	AZZ / Central Electric
2	Robert Warren	KEMA Powertest
	Paul Barnhart	Underwriters Laboratories
	Michael Cannady	Southern Company Services
	Edward Peters	Powell Electrical Systems - Delta/Unibus Division
	Steve Powell	AZZ/Calvert

**Handling Guide**

Scott Hutchinson	Shallbetter Inc.
Edward Peters	Powell Electrical Systems - Delta/Unibus Division

**Pressurized Bus**

1	Frank Mayle	Technibus, Inc.
2	Edward Peters	Powell Electrical Systems - Delta/Unibus Division
	John McClelland	Technibus, Inc.

**Cast Resin**

Arthur Jur	Eaton Corporation
Paul Barnhart	Underwriters Laboratories

**7. Comment Deadline**

All comments and sub group work is requested by July 1.

**8. Adjournment**

The meeting adjourned at 11:45AM.

Report submitted by:  
 Tom Hawkins  
 C37.23 Working Group Vice-Chair  
 May 1, 2013