

IEC TC 14
Philip J Hopkinson, PE & TA

- International Electro-Technical Commission TC 14 Power Transformers
- Voting Relationships between standards
- P-Member Active Countries
- Members of US TAG
- Documents and Programs
- Last Plenary Meeting October 26-27, 2017 in Watertown, MA
- Meeting this year September 20-21 in Glasgow, UK
- Stability Dates

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- **International Electro-Technical Commission TC 14 Power Transformers:**
 - Headquartered in Geneva, Switzerland
 - Scope ≥ 10 kVA, Voltage classes $>1,000$ Volts, ac and dc
- **Voting Relationships between standards organizations**
 - IEEE and Cigre: 1 person, 1 vote
 - NEMA and EEI: 1 company, 1 vote
 - IEC: 1 country, 1 vote
- **All votes cast by Technical Advisers to National Committees to Geneva**

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NEW ANSI Directives to be discussed in Wednesday Meeting:

1. IEC and IEEE and ISO are International Stds Organizations
2. Joint IEC and IEEE Documents can issue as ANSI Documents
3. IEC can Adopt IEEE Documents
4. IEEE cannot adopt IEC Documents
5. IEEE Stds can become ANSI Stds by selecting intent on PAR Submission

Malia Zaman and Erin Spiewak asked to join us as possible.

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Member Countries in IEC TC 14

Circulation Date: 2016-01-22

IEC 60076-10 Ed. 2.0 IEC 60076-10 Ed.2: Power transformers - Part 10: Determination of s

Country	Status	Vote
Australia	P	Y
Austria	P	Y
Belarus	O	Y
Belgium	P	Y
Brazil	P	A
Canada	P	Y
China	P	Y
Colombia	O	A
Croatia	P	Y
Czech Republic	P	Y
Denmark	P	A
Egypt	O	Y
Finland	P	Y
France	P	Y
Germany	P	Y
Greece	-	A
Hungary	P	Y
India	P	Y
Iran	O	N
Ireland	P	Y
Italy	P	Y
Japan	P	Y

Korea, Republic of	P	Y
Mexico	P	Y
Netherlands	P	Y
Norway	P	Y
Pakistan	O	Y
Poland	P	Y
Portugal	O	Y
Qatar	-	Y
Romania	O	Y
Russian Federation	P	Y
Slovenia	P	Y
South Africa	P	A
Spain	P	Y
Sweden	P	Y
Switzerland	P	Y
Turkey	P	Y
Ukraine	P	Y
United Kingdom	P	Y
United States of America	P	Y

		Approval Criteria	Result
P-Members voting: 29			
P-Members in favour: 29 = 100%		>=66.7%	APPROVED
Total votes cast: 36	Total against: 1 = 2.8%	<=25%	APPROVED
Final Decision:			APPROVED

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US TAG in IEC TC 14 as currently active

NAME	ORGANIZATION
Raj Ahuja	Consultant
Casey Ballard	Federal Pacific
Jeff Britton	Phenix Tech.
Craig A. Colopy	Eaton
Eric Davis	Burns & McDonnell
Larry Dix	Quality Switch,
David Geibel	ABB
Philip Hopkinson	HVOLT Inc.
Matthew Kennedy	Doble Engineering
Sheldon Kennedy	Niagara Transf.
Mario Locarno	Doble Engineering
Richard Marek	DuPont
Emilio Morales Cruz	Qualitrol LLC
Ken Pagenkopf	Hubbell Acme
Sanjay Patel	SMIT Transf.
Thomas Prevost	Weidmann
Kevin Rapp	Cargill
Mahesh Sampat	EMS International
Daniel M. Sauer	Cooper/Eaton
Bruce Schramm	Hubbell Acme
Vijay Tendulkar	ONYX Power Inc.
Dharam Vir	SPX Transformer

US Tag Requirements

1. US citizens
2. Pay annual dues
3. Genuine interest

We welcome new Members

1. Observers welcome from US
2. Observers welcome internationally too
- 3. Breakfast meeting Wednesday**

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Attendance in Watertown, MA. USA on October 26-27, 2017

Jarman	Paul	Chair		Shinde	Rajaram	India
Ploetner	Christoph	Germany/ Chair elect		Baggini	Angelo	Italy
Maghar	Mick	Secretary		Ferrari	Fabrizio	Italy
Redgate*	Andrew	IEC CO		Mauri	Flavio Mario	Italy
Kaineder	Kurt	Austria		Miyawaki	Fumihiko	Japan
Hochanh	Thang	Canada		Shirasaka	Yukiyasu	Japan
Tenyenhuis	Ed	Canada		Yamada	Shin	Japan
Guo	Mansheng	China		Castellanos	Juan	Mexico
Guo	Zhenyan	China		Hanique	Ernst	Netherlands
Li	Yunlong	China		Bjorgvik	Geir Morten	Norway
Liu	Jie	China		Susa	Dejan	Norway
Mi	chuanlong	China		Gradnik	Tim	Slovenia
Wang	jian	China		Bengtsson	Claes	Sweden
Zhang	xianzhong	China		Breckenridge	Tom	UK
Zhang	zhongguo	China		Colopy	Craig	USA
Elleau	Christophe	France		Hopkinson	Philip	USA
Riboud	Jean-Christophe	France		Marek	Richard	USA
Sacotte	Michel	France		Rapp	Kevin	USA
Heinz	Michael	Germany		Winstanley	Gerard	USA
Krämer	Axel	Germany		Dix	Larry	USA
Ghioldi	Gianmarco	Italy		Locarno	Mario	USA

Current statistics

28 Documents

14 Current Active Projects

BACKGROUND

1. Statistics on TC 14 activities:

Number of P-members:	34
Number of experts:	173
Number of NPs submitted over the last 3 years:	5
Number of publications approved in last 5 years:	13
Number of current active projects:	14
Number of meetings since 5 years:	5

2. Concerns expressed by relevant IEC Technical Officer: none.

3. Projects older than 5 years:

IEC 60076-10 Ed.2.0, initiated in 2009, FDIS has been circulated for voting on 2016-01-22.

4. Requests for extension of target dates: Yes, see Annex B.

5. Other important matters: none.

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17 Active Projects

76-4 Impulse Tests

76-5 Short Circuit

76-7 Liquid Loading Guide

76-10 Audible Noise

76-11 Dry Types

76-14 Liquid High Temperature

76-16 Wind Power

76-19 Uncertainty in Loss Measure

76-20 Energy Efficiency

76-21 Step Voltage Regulators

76-22 Accessories & Fittings

76-57-129 HVDC

MT 2014 Tap Changers

MT 61378-3 Converter Transformers

WG 33 DC Neutral Current Blockers

WG 34 Voltage Regulating Transformers

AHG 1 Insulating Liquids in Transformers

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Stability Dates

Standard number	Title	Old date	New date
IEC 60076-3	Power transformers - Part 3: Insulation levels, dielectric tests and external clearances in air	2017	2021
IEC TS 60076-19	Power transformers - Part 19: Rules for the determination of uncertainties in the measurement of the losses on power transformers and reactors	2017	2019
IEC 60076-2	Power transformers - Part 2: Temperature rise for liquid-immersed transformers	2018	2020
IEC 60076-1	Power transformers - Part 1: General	2019	2020
IEC 60076-4	Power transformers - Part 4: Guide to the lightning impulse and switching impulse testing - Power transformers and reactors	2018	2020
IEC 60076-5	Power transformers - Part 5: Ability to withstand short circuit	2018	2019
IEC 60076-6	Power transformers - Part 6: Reactors	2018	2020
IEC 60076-8	Power transformers - Part 8: Application guide	2018	2020
IEC TR 60616	Terminal and tapping markings for power transformers	2018	2019
IEC 61378-3	Converter transformers - Part 3: Application guid	2018	2020
IEC/IEEE 60076-57-1202	Power transformers - Part 57-1202: Liquid immersed phase-shifting transformers	2019	2022

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Come to my meeting at 7:00 AM Wednesday, March 28 in Room Three Rivers

Better yet, Join the TAG!