



**TELECOMMUNICATIONS
INDUSTRY ASSOCIATION**

HEADQUARTERS

2500 Wilson Boulevard
Suite 300
Arlington, VA 22201-3834
+1.703.907.7700 MAIN
+1.703.907.7727 FAX

D.C. OFFICE

10 G Street, N.E.
Suite 550
Washington, DC 20002
+1.202.346.3240 MAIN
+1.202.346.3241 FAX

tiaonline.org

Approved by General Counsel

TR-14 Meeting Report

Date(s): 10/23/2012 - 10/23/2012

Location: Miami, FL

Approved: 11/07/2012



www.tiaonline.org

2500 Wilson Boulevard, Suite 300
Arlington, VA 22201-3834 USA

Tel: +1.703.907.7700
Fax: +1.703.907.7727

COMMITTEE CORRESPONDENCE

TELECOMMUNICATIONS INDUSTRIES ASSOCIATION (TIA)

Standards and Technology Department

Meeting Report

Subcommittee TR-14 - Steel Antenna Towers and Antenna Supporting Structures

October 23rd, 2012

Deauville Beach Hotel
6701 Collins Ave
Miami, FL 33141

1 Administrative

1.1 Call to order – The Chair, Brian Reese, called the meeting to order.

1.2 Attendance - The Chair led individual introductions and read the quorum company listing. Companies on the conference call also identified themselves. For quorum – one company, one vote - see 3.2.3.1 [Engineering Manual](#). Quorum was established with thirty (30) member companies present.

The Chair reviewed the notice of participation and recommended those with questions see the Chair, Vice-Chairman.

IMPORTANT NOTICE OF PARTICIPATION

Participation in, or attendance at, any activity of a TIA Formulating Group or any sub-element thereof, constitutes acceptance of and agreement to be bound by all provisions of the TIA Engineering Manual and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA's web site, in whole or in part, on a non-exclusive basis by TIA or TIA's licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by TIA's Senior Vice President, Standards and Special Projects on a case-by-case basis.

Marianna Kramarikova (mkramarikova@tiaonline.org) of the TIA reviewed the process for signing into the meeting and registering attendance. Note that the Meeting [Roster](#) sign-in code: "6044". All meeting attendees were instructed to download contributions and other meeting documents from the TIA TR 14 FTP site (<ftp://ftp.tiaonline.org/14>) for the meeting. For information on how to access the FTP site or other difficulties, attendees were directed to see Marianna.

New contributions for the meeting shall use the approved templates and specific wording provided by TIA. Contributions affecting a document are to include a TIA cover sheet, proposed text to be included in the document, and the rationale/substantiation for the contribution. File templates are available on the TR COMMITTEE FTP site for download. All contributions shall be submitted to the electronic document coordinator (EDC). All electronic files shall be provided in either Adobe Acrobat (*.PDF); Microsoft Word (*.DOC); Microsoft PowerPoint (*.PPT); or in Microsoft Excel(*.XLS). Compressed files shall be accessible using PKUNZIP or WINZIP (*.ZIP).

Early submittal and posting of contributions for consideration in meetings is highly encouraged. Contributions shall be submitted to the EDC as soon as possible and then posted to the FTP folders by the EDC as soon after receipt as possible, preferably within one business day. Notification of the posting shall be made to the group's email reflector list by the EDC within one working day of the posting. All contributions shall be posted to the appropriate location on the TIA FTP site no later than TIME noon EST on the DAY preceding the week of the meeting in which the contribution is to be considered.

Late contributions not posted as described in the timing above shall be classified as "late contributions." They may be considered in the meeting to which they are addressed provided that an appropriate motion receives 50% or greater of a vote. All late contributions shall be provided to the EDC and to the committee members on a memory stick or CD-ROM along with sufficient paper copies for those members without a PC. All late contributions shall be posted to the TIA FTP site no later than one week following the meeting in which they are considered. Notification of the posting shall be made to the group's email reflector list by the EDC.

All contributions to TR-14 documents are assigned a document number. To obtain a document number before the meeting, provide your name, affiliation, contribution title and corresponding agenda item to the TR-14 EDC.

1.3 Intellectual property rights (Early disclosure policy) – The Chair read the IPR policy:

TIA's patent policy can be found in the TIA Engineering Manual (5th edition). Participants in the work of the TIA Formulating Group are urged to review this policy. Participants are encouraged to notify TIA of any patents of which they are aware that are related to the practice of a TIA publication early on in the development of the TIA document to reduce the possibility for delays in the development process and increase the likelihood that the draft TIA publication will be approved for publication. Patent searches are not required to comply with the TIA IPR policy. Moreover, the Engineering Manual describes the need for members' disclosure of patents that are essential to practice TIA publications and for members to provide an indication of their willingness to license any known patents.

1.4 Meeting Agenda Review and Approval – today's meeting

Chair reviewed Meeting Agenda for today's meeting (please note revision 10/19/2012) and requested a motion to accept the agenda. Mark Malouf made the motion and John Wahba seconded with no objections.

1.5 Distribution and Numbering of Documents – reviewed by Marianna Kramarikova of the TIA

TR-14 email reflector address: tr14@tiacomm.org

To be added please contact Ronda Marrow rmarrow@tiaonline.org

TR-14 FTP site

Login [provided by TIA – please contact Ronda Marrow rmarrow@tiaonline.org]

Password [ditto]

1.6 Meeting Reports Review and Approval – by Chair

1.6.1 Meeting Report March 29, 2011, San Antonio - Chair reviewed Meeting Report from the San Antonio meeting and requested a motion to accept the report. Mark Malouf made the motion and David Hawkins seconded with no objections.

1.6.2 Meeting Report November 10-11, 2009, Pittsburgh - Chair reviewed Meeting Report from the Pittsburgh meeting and requested a motion to accept the report. Doug Pineo made the motion and Scott Vance seconded with no objections.

1.6.3 Meeting Report February 4-5, 2008, Las Vegas Chair reviewed Meeting Report from the Las Vegas meeting and requested a motion to accept the report. Mark Malouf made the motion and Dennis Abel with no objections.

1.7 Chair's Report and General Items – no report by Chair at this time

1.8 TIA Report and General Items by Marianna Kramarikova of the TIA

Marianna gave an overview of the TIA organization and the ftp site. She also reviewed the new TIA web page and TIA's Digital Training Library. TIA will be re-locating soon; however, will be staying in Arlington, VA. She welcomed anyone to visit the TIA's office.

1.9 Committee Organizational Changes and Election of Officers by Marianna Kramarikova of the TIA
There was one nomination for Chairman, John Erichsen of EET, LLC. Marianna called for a motion to accept John's nomination for Chairman. David Brinker made the motion and John Wahba seconded with no objections.

There was one nomination for Vice-Chairman, Mark Malouf of Malouf Engineering Int. Marianna called for a motion to accept Mark nomination for Chairman. David Brinker made the motion and John Wahba seconded with no objections.

John Erichsen reviewed the role of Secretary and requested volunteers to fill this role.

Out-going Chairman Brian Reese was recognized for his years of service to the committee by Herb Congdon of the TIA.

2 Old Business

2.1 TR-14 name change and dissolution of TR-14.7 by Brian Reese. TR-14 proposed a change to TR-14 name and scope to the Technical Committee. TR-14.7 was a sub-committee of TIA's TR-14, Microwave Point-to-Point Communications. TR-14.7 is the author and maintainer of the industry's tower standard, TIA-222. Presently, TR-14.7 was the only active sub-committee in TR-14. TR-14.7 was deactivated and incorporated the standards and participants of that formulating group into the parent committee. In turn, TR-14 modified both its title and scope to the following: Structural Standards for Communication and Small Wind Turbine Support Structures.

The work scope of TR-14 is to maintain and provide interpretation of ANSI/TIA-222, "Structural Steel Standards for Steel Antenna Towers and Supporting Structures" and TIA-1019-A, "Structural Standards for Installation, Alteration and Maintenance of Communication Towers, Antennas, and Antenna Supporting Structures."

The committee also intends to provide design guidance for small wind turbine structures through a Design Supplement to TIA-222-G. The objective of the Design Supplement is to provide recognized literature intended to be used in conjunction with the ANSI/TIA-222-G for the design and analysis of structures supporting Small Wind Turbines (SWT's) defined as wind turbines with rotor swept areas less than 2,200 sq. ft. The Design Supplement defines how specific portions of the TIA Standard shall be applied to SWT supporting structures and provides supplementary requirements that pertain specifically to the unique characteristics of SWT supporting structures. The provisions of the Design Supplement are intended to be used for the development of standard designs for SWT supporting structures and for the design and analysis of site-specific structures.

2.2 Disposition of ANSI/TIA-1019-A – update was provided by Marianna Kramarikova. ANSI/TIA-1019-A was published on September 2012.

2.3 Disposition of ANSI/TIA-222-G-1 – update was provided by Marianna Kramarikova. ANSI/TIA-222-G-1 will be re-affirmed by December 2012.

2.4 Disposition of ANSI/TIA-222-G – update provided by Marianna Kramarikova. ANSI/TIA-222-G will be re-affirmed by December 2012.

2.5 Disposition of EIA-250-C - reviewed by Marianna Kramarikova. TIA/EIA-250-C Electrical Performance for TV Transmission systems. Motion to-reaffirm as a TIA Standard by Mark Malouf and seconded by Madison

Batt seconded with no objections. The document will no longer have ANSI designation but will be re-affirmed as a TIA only document. This document will be re-assigned back to the TIA.

2.6 Disposition of TSB-10 TR-45 Interference Criteria for Microwave Systems - reviewed by Marianna Kramarikova. TIA will be talking with NSMA to delineate potential options to further the work of TSB-10 and related growth areas. The TIA and NSMA should consider working together in a partnership relationship to maintain and update this document such that the NSMA updates the technical specification and the TIA transposes the specifications into technical standards.

3 New Business

3.1 Purpose of the Standard ANSI/TIA-222-G – Objective and Scope of the Standard – John Erichsen reviewed the scope of the 222 Standard and intent of meeting minimum requirements of the Standard.

3.2 New AASHTO LTS-5 provisions for High Mast Lighting – Dave Brinker reviewed new AASHTO requirements related to fatigue, pole base details, welding, and weld inspection.

3.3 Disposition of Design Supplement ANSI/TIA-222-G-3 (ANSI/TIA-222-DS2-2011) Pole Base Plates – Dave Brinker reviewed latest draft of pole base plate design. Motion to submit Design Supplement ANSI/TIA-222-G-3 (ANSI/TIA-222-DS2-2011) Pole Base Plates for TIA ballot by Mark Malouf and seconded by John Wahba for TIA ballot with no objections. Motion to submit the same document for ANSI ballot by Dave Hawkins and seconded by Doug Pineo for TIA ballot with no objections. TIA/ANSI ballots will be delayed until first quarter of 2013 (see 3.11 below).

3.9 IBC and ICC – 2015 Update by Brian Reese

3.9.1 The ICC has 1400 reference codes and the TIA-222 Standard is one of them. It is mandatory to have all reference standard code change proposals submitted to the ICC by 1/13/2012.

Update to a standard only needs to be published before 12/1/2014. The linkage between the ICC and TIA-222 is very important.

3.9.2 A new TIA/ICC liaison is required to replace Tom Hoenninger – a very critical role. Thank you to Tom for his years of service to the committee in this role!

3.9.3 Chris Martin volunteered to be the new TIA liaison for this role.

3.10 Spanish translation of TIA-222-G, G-1, and G-2 by Brian Reese. The translation is complete and being reviewed by Glen Martin. Thank you to Glen Martin for performing this service. If there are any other interested members to aid in this review, please advise. Anticipated release is end of 2012.

3.11 Task Group Formation for Design Supplement ANSI/TIA-222-G-3 (ANSI/TIA-222-DS2-2011) Pole Base Plates and Design Supplement and Task Group Formation for Design Supplement ANSI/TIA-222-G-4 (ANSI/TIA-222-DS1-2011) Small Wind Turbine Support Structures by John Erichsen. John Erichsen requested motions for the creation of task groups for pole base plates and small wind turbine support structures. For pole base plates task group, John Wahba made the motion and Mark Malouf seconded with no objections. For small wind turbine structures task group, Dave Hawkins made the motion and Zach Thiemann seconded with no objections. Vice-Chairman Mark Malouf will chair both of these committees. The two task groups were formed to review and process remaining comments from the committee and wind industry prior to balloting.

3.12 AISC LRFD Review by Mark Malouf. Mark reviewed new provisions in AISC's LRFD 360 and applications to the committee's work. A significant number of changes highlight the newest version.

3.13 Disposition of Design Supplement ANSI/TIA-222-G-4 (ANSI/TIA-222-DS1-2011) Small Wind Turbine Support Structures – Dave Brinker reviewed updates to the small wind turbine design supplement since the San Antonio meeting. Issues discussed included fatigue, extreme wind, adjustment for materials other than steel and general clarifications of the principles included.

3.14 ASCE 7-10 Wind Maps – FAQ System & IBC Conversion – John Erichsen. John discussed ASCE’s updated wind maps, now three maps. The new ASCE maps include the exposure category and load factors.

3.15 TIA-222-G Change Proposals by John Erichsen. General discussion on potential changes to revision G. ASCE topographic factors and wind maps were discussed.

3.16 Additional Addenda or ANSI/TIA-222-H (2018) – John Erichsen. With the large changes possible, David Brinker recommended the committee work toward revision H of 222. Motion by Scott Vance to initiate revision H to 222 Standard with Doug Pineo second; there were no objections.

Motion by Will Heiden and second by Scott Vance to maintain the existing title of the 222 Standard for revision H with no objections. To maintain the same scope of 222-G in 222-H with the addition of small wind turbine structures, motion was made by Mike Morel and seconded by Chris Ply also with no objections.

3.17 Expanded Existing Structures Section in ANSI/TIA-222-H – John Erichsen

- 3.16.1** Tower Reinforcement
- 3.16.2** Pole Base plates
- 3.16.3** Pole Reinforcement

4 Next meeting and Schedule by John Erichsen. Quorum Teleconference call will be held 1st quarter of 2013. Next face-to-face meeting potentially middle to 3rd quarter of 2013.

5 Adjournment by John Erichsen. Motion by Jim Kyriacopoulos and second by Carl Macchieto.

This meeting was conducted in accordance with the TIA Legal Guides and Engineering Manual.

By: John R. Erichsen, P.E., S.E. – TR-14.7 Vice Chairman & Secretary

(This correspondence represents “working papers.” Therefore, contents cannot be viewed as reflecting the corporate policies or the views of the Telecommunications Industry Association or of any company. The Association, the companies and individuals involved, take no responsibility in the applications of this document.)



TR-14 meeting roster**10/23/2012, Miami, FL****Participant****Company**

Burbage, Greg	4SE, Inc.
Abel, Dennis	Aero Solutions, LLC
Mohamed, Raphael	American Tower
Lanier, Bryan	American Tower Corp
Garrett, William	American Tower Corporation
You, Hanming	American Tower Corporation
POULIN, Emmanuel	AW SOLUTIONS
Zabik, Jennifer	AW Solutions
Dotson, Jerod	B&T Engineering
Vance, Scott	B&T Engineering, Inc.
Kelly, John	B+T Group
Taneja, Pankaj(V)	Bentley Systems
Jiang, Ping	Black & Veatch
Kuhn, David	Black & Veatch
Casey, Gregory J(V)	CFE Telecom
Huwel, Jamal	Crown Castle
Kim, Joseph	Crown Castle
Poot, Aaron	Crown Castle
Kyriacopoulos, Jim	Crown Castle International Corp.
Pineo, Doug	Crown Castle International Corp.
Colakoglu, Ahmet	Destek Engineering, LLC
Smart, Rick	Dielectric/SPX Communications Technology
Erichsen, John	EET, L.L.C
Robinson, John	Electronics Research, Inc.
Ruedlinger, James	Electronics Research, Inc.
Morel, Michael	Engineered Endeavors, Inc.
Piner, Jeremy	FDH Engineering
Ply, Christopher	FDH Engineering
Lee, Ta-Wen	FWT, Inc.
Di Franco, Marco	Genivar
Martin, Chris	Glen Martin
DeBoer, Michael	Global Tower Partners
Cheronis, Jason	GPD Group
Herriott, Dave	GPD Group
Palkovic, Dan	GPD Group
Malouf, Mark	Malouf Engineering Internat'l
Cooke, G. Lance	Morrison Hershfield
Kisting, Scott	MUTI
Bayless, Barry	NATIONAL STEEL ERECTORS
Lambert, Jason	Nello Corporation
Maxson, Jordan	Nello Corporation
Hawkins, David	Paul J. Ford and Company

Piercey, Martin	PIER STRUCTURAL ENGINEERING CORP.
Moore, Tom	Ramaker & Associates, Inc.
Reese, Brian	Reliapole Inspection Services Co.
Yeo, Stephen	Rohn Products International Arabia
Brinker, David	Rohn Products, LLC
Tindall, Keith	Sabre Towers & Poles
Jones, Adam	Shively Labs
Owen, Michael	SSC
Schmidt, Albert	SSC
Griffith, Larry	SSOE Group
Miller, Michell	SSOE Group
Fehrman, Gregg	Stainless LLC
Lecordier, Jean	TCI
Gualtieri, Antonio	TECTONIC ENGINEERING
Zawar, Kavish	TECTONIC ENGINEERING
Congdon, Herb	TIA
Kramarikova, Marianna	TIA
Seiffert, Grant	TIA
Batt, Madison	Tower Engineering Company
Glover, Ronnie	Tower Engineering Professionals
Higgins, Paul	Tower Engineering Professionals
Martin, William	Tower Engineering Professionals
Heath, Nyckey	Tower Inspection
Chojnacki, Peter	Tower Numerics Inc.
Kouba, George	Tower Technology
Wahba, John	Turriss Corporation
Haines, Scott	Union Pacific Railroad
Thiemann, Zach	Valmont
Grassman, Jeff	Valmont Communications
Heiden, William	Valmont Industries
Macchietto, Carl	Valmont Industries, Inc.
Proctor, Jacob	Vector Structural Engineers
Blakeman, Daniel	Vertical Structures
Drumm, Timothy	W-T Engineering
Walker, Jim	WALKER ENGINEERING INCORPORATED