



BUILDING GLOBAL COMMUNICATIONS

## Approved by General Counsel

TR-14.7 Meeting Report

Date: 10/10/06

Location: San Francisco, CA

Approved: 10/15/06

**T# 10340**



## COMMITTEE CORRESPONDENCE

TELECOMMUNICATIONS INDUSTRIES ASSOCIATION (TIA)  
Standards and Technology Department  
Meeting Report  
Subcommittee TR 14.7 - Steel Antenna Towers and Antenna Supporting Structures  
October 10th, 2006

**Hilton San Francisco Fisherman's Wharf  
2620 Jones St.  
San Francisco, CA 94133**

### Members Present (41)

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## Members Absent

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8:05 – Meeting of TR 14.7 Subcommittee – A quorum was present

8:10 – Roll Call & Introduction – Craig Snyder, Sioux Falls Tower, TR 14.7 Chairman

- a. General introduction regarding the TR14 committee & TR 14.7 sub-committee.
- b. The Chair reviewed the day's meeting agenda.
- c. The Chair requested members update the distributed TR 14.7 membership list.
- d. The Chair encouraged anyone who was aware of intellectual property that relates to the work of TR-14.7 to make the appropriate statements as early as possible in the process. The Chair

directed the members to the TIA Engineering Manual, and the TIA web site ([www.tiaonline.org](http://www.tiaonline.org)), for the specific requirements.

- e. Member introductions of those present.
- f. The Chair reviewed membership requirements and voting eligibility. Voting eligibility is maintained by being current with membership dues and attendance at two meetings.
- g. Acceptance of last meeting's report from May 17th, 2006, in St. Louis. Motion by John Erichsen and seconded by Dave Davies. Motion carries by unanimous vote.
- h. The Chair reviewed TIA rules on sending Subcommittee correspondence. All Subcommittee documents are available on TIA's web site ([www.tiaonline.org](http://www.tiaonline.org)) and are only available to Subcommittee members. Recent documents will be uploaded to the TIA website by the Secretary.

8:15 – Old Business – none

8:17 – Election of officers – The chair reviewed the Engineering Manual requirements for the election of officers. The chairman asked for nominations from the floor for chairman. No other nominations were placed before the committee. Brian Reese was the sole nomination. Brian Reese was elected by majority vote 31-1 using written ballots. The chair asked if there were additional nominations from the floor for Vice Chairman/Secretary. No additional nominations were received. The chair introduced the two candidates Mr. Steven Yeo of Sabre and John Erichsen of EET. Each candidate introduced themselves and shared a few words. John Erichsen was elected 25-12 by written ballot.

8:25 – Craig Snyder the retiring chairman offered some departing words. The New Chairman, Brian Reese, on behalf of the committee presented Craig Snyder with an appreciation award.

8:30 – The new chairman and vice chairman resumed the meeting per the published agenda

8:35 – IBC Adoption – Tom Hoenninger summarized the status of the IBC adoption of revision G. Both motions presented to the IBC were adopted. The changes will be presented for public ballot after formal adoption on December 1, 2006. The public will have an opportunity to review the changes until January 24, 2007. In April of 2007 the main IBC committee will review comments received. If all of the comments are reviewed and resolved, the IBC will adopt the changes in May of 2007. The changes will be part of the addendum of 2007. Tom Hoenninger will provide the changes as part of these minutes see attached. The chair thanked Tom Hoenninger for his efforts. Tom reviewed the IBC process of adoption.

8:45 – The chair discussed the adoption of the addendum in lieu of the errata. The addendum process was chosen by TIA based upon the addendum's content. An errata is reserved for purely typographical issues. The addendum can be purchased. The addendum was posted for ballot on 8/30/06. The ballot closes on October 13, 2006. If there are comments the committee must address these prior to publication. OPEN ITEM: The effective date of the standard has not been determined. The Chair will advise after consultation with TIA. The chair offered the opportunity to discuss questions about the addendum. No questions were offered. Dave Brinker remarked that the addendum is exactly the document in content that was voted upon in St. Louis.

8:55 – Structural Reliability Update – Bill – During the May meeting the task group addressed the focus. Of the six topics of interest three were chosen. The topics selected are monopole fatigue, Guyed tower fall radius, and corrosion. The remaining topics that were tabled until a future date are Materials, Fabrication process, falling ice.

9:05 – Construction Standard – Ernie Jones summarized the effort to date. The editorial group has been meeting 2-3 times a month. The editorial group believes the work will be completed within the next 6 months. If TR14.7 members would like a copy of the standard they can obtain a copy from the Vice Chairman. The standard is similar to the Gin pole standard with the following changes: Loading applied to the tower during all phases of the construction. The effort is strongly influenced by the ASCE construction standard. It includes both gin pole wind loads, and at rest wind loads as well as guy slippage. The construction standard will address replacement of members, including replacement techniques and issues that may arise during replacement. Copies of the Gin pole standard are available from TIA. It was released on January of 2004. The new version addresses

the balance of the construction issues. The construction editorial committee will meet on 10-11-06 at 1:00 to summarize the work to date.

- 9:10 – Revision H Topics. The main committee received prior to today's meeting topics for discussion.
- a. Dave Brinker: Mr. Brinker the change proposal process used by ASCE. Mr. Brinker makes a motion to adopt the ASCE change proposal form to track requested changes to the standard. It creates a good record and formalizes the process. It is a concise way to track changes. The form can be forwarded to the full committee for review electronically.
  - b. The chair reviewed the process of setting up the formulating task groups. The chair opened discussion about the approach that should be used to develop the Revision H topics.
  - c. The chair reminded the committee that Revision H or reaffirmation of revision G shall occur prior to August of 2011. The main committee agreed that balloting for revision H should be targeted for completion prior to 2010.
  - d. Dave Brinker noted that the next revision timeline should be coordinated with the IBC publications. The next publication for IBC is 2009. The IBC publication cycle is every 3 years.
  - e. Tom Hoenninger: ASTM uses the same change proposal process that is used by ASCE, however, the person formulating the request becomes the leader of the task group that addresses the change process. The main committee agreed that this is an option.
  - f. Peter Moskal discussed the need to create white papers to capture the content and back ground that leads to changes to the standard.
  - g. Dave Brinker – the change proposal should be topic based rather than by section. This allows the topic to transition across multiple sections.
  - h. As part of this process a white paper supporting the change should be issued. Once the change process has been reviewed, solved and approved, the main committee will decide if the change proposal is part of an addendum or part of revision H.
  - i. Dave Brinker – Motion to use a change proposal process. Mark Malouf seconded the motion. By voice vote the motion is approved.

9:25 – 15 minute break

9:50 – Adam Jones: Mr. Jones is reinvigorating two EIA committees dealing with Transmission lines. He asked for volunteers interested in participated to contact him.

9:55 – New Topics Rev. H –

Dave Davies: Mr. Davies presented information discussing the Mechanical Health, Electrical Performance, and the structures movement has upon the broadcast antenna signal. He continued present the current definition of Tower Movement, problems with movement (mechanical and electrical), beam degradation as it relates to broadcast signal (3db is a 30% reduction in signal strength). Broadcast antenna degradation is not currently addressed by the standard. The actual requirement employed varies by manufacturer policy. Demonstrated the sway angle impact upon the signal power loss. How should this be addressed? Mr. Davies recommended the following:

- a. Minimum permissible sway (and twist) for the mechanical requirements of the antenna.
- b. Minimum permissible sway (and twist) requirements for the tower supporting the antenna.
- c. A customer can specify a more stringent standard. 4. The sway is calculated at the service wind load.
- d. This can be addressed in annex D or in section 2.8.

10:30 –

- a. John Robinson presented the mechanical parameters for antennas – Radius of Curvature. What causes the mechanical failure of antennas? The radius of curvature is a measure of the performance of the antennas ability to resist mechanical damage to the antenna. The study commissioned by ERI concluded that a radius of curvature greater than 800 will result in an antenna that can resist mechanical damage (revision C 50 psf). Currently, ERI revision F recommendations stipulate an 80 mph with no ice a minimum radius of curvature of 1500. Under revision G, ERI current recommends a minimum radius of curvature of 3000 ft utilizing a 60 mph service wind speed using 5 ft increments. Under revision G the higher radius of curvature value is intended to provide an offset to the lower wind speed used to calculate the deflection. This is more applicable to the FM side. However, it has an also impact on the digital side of TV.

- b. Comments Adam Jones – The antenna base plate has a significant impact upon the vortex shedding that an antenna experiences. A stiffer base plate can significantly reduce antenna vibration.
  - c. Dave Davies agreed to lead the development of a proposal. The proposal will be presented at the next meeting. He will poll the antenna manufacturers and RF engineers as part of the proposal.
- 10:40 – John Robinson - Schifferized angles – How do you calculate section properties of Shifferized Angles in accordance with the standard? He presented the results delineated in “Geometric Properties of Schifferized Angles” by M.K.S Madugula and S.M.R Adluri. Motion by John Robinson: Add to Annex O Geometrical Properties of Schifferized Angles. Seconded by Jim Walker. Full Vote carried the motion. John Robinson will prepare a formal change proposal form for consideration at the next meeting.
- 10:50 – Development of the “Change Proposal Form”: Dave Brinker will provide the ASCE form. The Vice Chairman will work with TIA to make the form to the web site and will email the form to all committee members.
- 10:55 –
- a. Peter Moskal – Quality certification of manufacturers – A question was posed by Mr. Moskal to the main committee. Should the tower industry use the ISO or equal quality system? Mr. Moskal outlined the ISO process. It is proposed that a quality processes would provide a new minimum for the industry. A quality documentation process may include the following items: drawings and calculations, the detailed drawings of the structure, welding procedures, welder certifications, hardware certificate of compliance, material test reports, Non-Destructive test results, Charpy test results.
  - b. Questions posed during the discussion included: Should the process use ISO or another approach? AISC, CWB? Should this be part of a new task group? Can a standard reference a certification organization? Should this be added to annex A (Procurement and User Guidelines)? Is this a reasonable expectation for small manufacturer?
  - c. Chair requested Peter Moskal to continue with the exploration of the inclusion of a quality system.
  - d. Comment: Doug Pineo – The middle of the road approach. There should be a minimum, but this is a probably more a specification issue. The requirement should not become a burden for the small organizations.
  - e. Comment: Adam Jones – Will this apply to antenna structures? Consensus of committee response is yes. The form of the certification or the quality system selected is important.
- 11:25 – John Wahba - Fatigue categories of welded joints – How should fatigue affect the capacity of different welded joints? The intent is to avoid excluding specific joint configuration. The European and other standards address the issue. It is an issue worthy of investigation. The information presented in the Reliability Task Group may be helpful. Use a reduction factor that is selected depending upon the type of joint selected may be a reasonable approach, see AISC. John Wahba will proceed with the investigation.
- 11:30 – David Hawkins - Base plate design methodologies – Some of these issues will be discussed during the Reliability Task Group meeting. Mr. Hawkins provided several papers available in the Transportation Industry via email to the reliability task group. The papers will be made available for the main committee by the Vice Chairman.
- 11:35 – Ernie Jones - Member replacement/erection stresses – the new TIA construction standard will address these issues. The standard is under development. Mr. Jones outlined some of the conceptual issues under development. The construction standard will be made available to the main committee upon request.
- 11:45 – Break for Lunch
- 1:15 – Ernie Jones – Heavy Icing Events –The recommendation from Mr. Jones is:
1. Defer to the ASCE committee and monitor development of the in cloud ice criteria
  2. Provide data to the ASCE committee instances/observations of in cloud icing.
- Committee members are encouraged to provide examples and time line of the event so the ASCE committee can use the event to improve the computer model. Members can provide data to Dr. Alan Peabody at [apeabody@acsalaska.net](mailto:apeabody@acsalaska.net).

- 1:35 – Steven Yeo – Guyed tower fall radius. More information will be presented tomorrow during the Reliability task group meeting. Mr. Yeo has researched the variety of setback requirements legislated by various municipalities around the country. No conclusions to date.  
 Comment: Madison Bate – Is there a danger in inserting a fall radius within a standard? Is it better to provide a discourse that discusses the history? Several committee members have suggested a white paper that will educate the general public about the issue. The IBC will be adding a section that deals with the progressive collapse of structures. This may provide a guideline to an acceptable approach. The reliability task group will formulate its findings for the main committee to review.
- 2:05 – Ernie Jones - Structural modification and upgrades – On hold until the construction standard is completed. This topic will remain on the list and will be addressed at a later date.
- 2:05 – Mike Morel – Concealed monopoles – Charged with the development of drag factor of the pole cladding and the associated concealment components. Discussion Issues: How do you design a branch? How should cladding or components on the pole be designed? Proprietary design issues need to be resolved.  
 Conceptual solution: A minimum design criteria/formula that is based upon conservative design assumptions. Using conservative assumptions will allow firms to preserve their proprietary wind tunnel investments.  
 Question posed: Should the manufacturer provide the EPA<sub>A</sub> for the loadings? Section 13.2 of revision G requires plans to list loading as an inventory or as an EPA<sub>A</sub>.
- 2:15 – Other. The Chair offers the committee the opportunity of present to the floor new topics for consideration.
- a. Dave Brinker: ACI 318 has a method for combined stress of anchor bolt. Mr. Brinker recommends the adoption of the ACI 318 criteria. Dave Brinker will provide a change proposal. ASCE 48 and ASCE 10 are also looking at the topic.
  - b. Dave Brinker – Reliability classes – The utility market has a number of reliability classes that are less stringent than the reliability classes currently outlined in revision G. Should this be opened for additional investigation? Example: Utility 50 year return map and 1.1 load factor with a strength factor  $\phi = 1.0$ . Questions posed: How would the criteria for a new class be established? How would the structure be tied to a class? Height, use, etc. This issue will remain on the list as a topic for further discussion.
- 2:45 – 15 minute break.
- 3:00 – Continuation of Additional revision H topics
- c. Adam Jones – Spec Sheets for antennas. Create a standardized approach for dissemination of the antenna data provided to designers. Should the committee create a standardized presentation of the area of appurtenances? Adam Jones will provide leadership for the effort.
  - d. Doug Pineo - Plumb – Is it practical to check a structures plumb when there is wind? Can the tower be checked in the out of plumb condition taking into account the secondary moments that may be present? Will be reviewed for full committee consideration.
  - e. Brandon Chapman (Not Present) – Antenna mounts –If the mount does not provide climber anchorage as defined by the standard, then a rail shall be provided. The rail is a single rail as defined in revision G. It was not intended to imply that the rail will be as defined in a building code with an intermediate rail. The presence of the rail is not deferred if the climbing facility is designated as a class B facility. John Erichsen will provide a formal response.
  - f. Dave Brinker - New Plumb measurement technique will be reviewed.
  - g. Dave Brinker - Allowing the use of  $F_{yz}$  for compact polygonal poles but not greater than  $F_{critical}$ . This will be added to the revision H criteria.
  - h. John Erichsen - Antenna mounts – General safety/adequacy of platform/mount designs; fall anchorages, etc. From NATE: How should the tower personnel anchor themselves to a mount? Most manufacturers would not recommend anchorages to a mount. Practical maintenance techniques will not allow a lanyard to the tower as the fall protection. This topic will be added to the revision H topic list. Issues to review: Marking of attachment points. How should a mount be rated? Training recommendations. ...
  - i. Dave Brinker - Split ring washers shall not be used for fully pre-tensioned connections. Hot dipped versus mechanically galvanized? A topic for future discussion.

4:35 – Next meeting – 2007 (1<sup>st</sup> quarter). Goal: Meet 2-3 times in 2007.

4:45 – Steven Yeo – Suggestion to place the task group meetings prior to the main committee meeting.  
The suggestion will be reviewed.

4:50 – Review of task group committee schedule for tomorrow.

5:00 – Adjournment – Motion to adjourn John Erichsen, Second by Mark Malouf Approved by voice vote.

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## **Adjournment**

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

End of Report

By: John R. Erichsen, P.E., S.E. – TR14.7 Vice Chairman & Secretary

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INTERNATIONAL  
CODE COUNCIL

## 2006/2007 ICC CODE DEVELOPMENT SCHEDULE

STEP IN CODE DEVELOPMENT CYCLE	DATE
DEADLINE FOR RECEIPT OF APPLICATIONS FOR CODE COMMITTEES	January 3, 2006
DEADLINE FOR RECEIPT OF CODE CHANGE PROPOSALS	March 24, 2006
PUBLICATION DATE FOR MONOGRAPH OF "PROPOSED CHANGES TO THE I-CODES"	July 14, 2006
CODE DEVELOPMENT HEARINGS (CDH) at the 2006 ICC Annual Conference and CDH	<b>September 20 - October 1, 2006</b> Disney's Coronado Springs Resort Lake Buena Vista, Florida
PUBLICATION DATE FOR "REPORT OF THE PUBLIC HEARING"	December 1, 2006
DEADLINE FOR RECEIPT OF PUBLIC COMMENTS	January 24, 2007
PUBLICATION DATE OF PUBLIC COMMENTS "FINAL ACTION AGENDA"	April 6, 2007
FINAL ACTION HEARINGS (FAH) at the 2007 Codes Forum	<b>May 21 - 26, 2007</b> Rochester, New York
ANNUAL CONFERENCES	<b>September 17- October 1, 2006</b> 2006 ICC Annual Conference and CDH Coronado Springs Resort Lake Buena Vista, Florida  <b>September 30 - October 4, 2007</b> 2007 ICC Annual Educational Conference Grand Sierra Resort Reno, Nevada
RESULTING PUBLICATION	2007 SUPPLEMENT
2007/2008 DEADLINE FOR RECEIPT OF APPLICATIONS FOR CODE COMMITTEES	July 2, 2007
2007/2008 DEADLINE FOR RECEIPT OF CODE CHANGE PROPOSALS	August 20, 2007

\* Dates tentative

Publication dates indicate approximate date when the printed copy of the document will be available. These documents will be posted on the ICC website approximately 4 weeks prior to availability of the printed version.

June 1, 2006

**Reason:** To delete an outdated provision.

(Loscheider) The structural safety of handrails and guards is predominantly governed by strength. When this provision was created during the drafting of the IBC, strength-based (LRFD) material standards were neither widely used nor readily available for all materials. Furthermore, for the design of steel handrails and guards, allowable stress design (ASD) consistently provided substantially lower unfactored load capacities than LRFD, and AISC had no plans to update its ASD standard correct this situation. When the IBC was drafted, the sole purpose of the allowable stress increase for handrails and guards was to provide nominal design parity between LRFD and the much more widely used ASD.

In recent years, however, there have been several important changes in our structural codes. LRFD standards are now more commonly available, and their adoption by reference in the IBC allows designers to rationally evaluate strength-critical elements such as handrails and guards. Furthermore, AISC has finally issued updated ASD provisions, which have been adopted by reference in the 2006 IBC. AISC 360-2005 is an integrated ASD/LRFD design standard that provides consistent parity between the two design methods, so designers are no longer penalized for using ASD. In fact, for many types of members commonly used for handrails and guards, ASD now actually provides unfactored load capacities that are slightly higher than LRFD, without the use of a one-third increase. For this reason, a one-third increase for ASD is no longer appropriate, and continuing to allow its use may result in unsafe handrails and guards.

(Huston) The stress increase is no longer appropriate given the latest editions of the referenced standards that more properly coordinate allowable stress design with load and resistance factor design through a unified design process. The continued use of the one-third stress increase for handrails could lead to unconservative results.

**Cost Impact:** The code change proposal will not increase the cost of construction.

Public Hearing: Committee: AS AM D  
Assembly: ASF AMF DF

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## S15-06/07

### 1609.1.1, 3108, Chapter 35

**THIS PROPOSAL IS ON THE AGENDA OF THE IBC STRUCTURAL AND THE IBC GENERAL CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.**

**Proponent:** Thomas Hoenninger, Stainless LLC, representing the TIA Subcommittee TR14.7

#### PART I – IBC STRUCTURAL

##### 1. Revise as follows:

**1609.1.1 Determination of wind loads.** Wind loads on every building or structure shall be determined in accordance with Chapter 6 of ASCE 7. The type of opening protection required, the basic wind speed and the exposure category for a site is permitted to be determined in accordance with Section 1609 or ASCE 7. Wind shall be assumed to come from any horizontal direction and wind pressures shall be assumed to act normal to the surface considered.

##### Exceptions:

1. Subject to the limitations of Section 1609.1.1.1, the provisions of SBCCI SSTD 10 shall be permitted for applicable Group R-2 and R-3 buildings.
2. Subject to the limitations of Section 1609.1.1.1, residential structures using the provisions of the AF&PA W WFCM.
3. Designs using NAAMM FP 1001.
4. Designs using TIA/EIA-222 TIA-222 for antenna-supporting structures and antennas.

**3108.4 Loads.** Towers shall be designed to resist wind loads in accordance with TIA/EIA-222 TIA-222. Consideration shall be given to conditions involving wind load on ice-covered sections in localities subject to sustained freezing temperatures.

##### 2. Delete and substitute standard in Chapter 35 as follows:

~~TIA/EIA-222-F-96 Structural Standard for Antenna Supporting Structures and Antennas~~

~~TIA-222-G-2005 Structural Standard for Antenna Supporting Structures and Antennas~~

#### PART II – IBC GENERAL

##### Delete and substitute as follows:

#### SECTION 3108 RADIO AND TELEVISION TOWERS

**3108.1 General.** Subject to the provisions of Chapter 16 and the requirements of Chapter 15 governing the fire-resistance ratings of buildings for the support of roof structures, radio and television towers shall be designed and constructed as herein provided.

**3108.2 Location and access.** Towers shall be located and equipped with step bolts and ladders so as to provide ready access for inspection purposes. Guy wires or other accessories shall not cross or encroach upon any street or other public space, or over above-ground electric utility lines, or encroach upon any privately owned property without written consent of the owner of the encroached upon property, space or above-ground electric utility lines.

~~3108.3 Construction.~~ Towers shall be constructed of approved corrosion-resistant noncombustible material. The minimum type of construction of isolated radio towers not more than 100 feet (30 480 mm) in height shall be Type II-B.

~~3108.4 Loads.~~ Towers shall be designed to resist wind loads in accordance with TIA/EIA-222. Consideration shall be given to conditions involving wind load on ice covered sections in localities subject to sustained freezing temperatures.

~~3108.4.1 Dead load.~~ Towers shall be designed for the dead load plus the ice load in regions where ice formation occurs.

~~3108.4.2 Wind load.~~ Adequate foundations and anchorage shall be provided to resist two times the calculated wind load.

~~3108.5 Grounding.~~ Towers shall be permanently and effectively grounded.

## SECTION 3108 TELECOMMUNICATION AND BROADCAST TOWERS

3108.1 General. Towers shall be designed and constructed in accordance with the provisions of TIA-222.

3108.2 Location and access. Towers shall be located such that guy wires and other accessories shall not cross or encroach upon any street or other public space, or over above-ground electric utility lines, or encroach upon any privately owned property without the written consent of the owner of the encroached-upon property, space or above-ground electric utility lines. Towers shall be equipped with climbing and working facilities in compliance with TIA-222. Access to the tower sites shall be limited as required by applicable OSHA, FCC and EPA regulations.

**Reason: (Part I)** Revise outdated material.

TIA-222-G was published in August 2005 and was made effective January 1, 2006. It replaces TIA/EIA-222-F, which is no longer maintained or supported by the Telecommunications Industry Association (TIA). TIA-222-G is an ANSI approved standard.

The major changes from 222-F that are incorporated in 222-G are:

222-G is based on the ASCE 7-05 three-second gust basic wind speed map. 222-F is based on the ASCE 7-93 fastest mile basic wind speed map and results in confusion when comparing to the ASCE 7-05 and IBC2006.

222-G includes reliability classes for telecommunication and broadcast structures that correspond to the building and structure categories of ASCE 7-05. 222-F does not include reliability classes.

222-G incorporates the same exposure categories and provisions for topographic features as ASCE 7-05. 222-F does not include multiple exposure categories and provisions for topographic features.

222-G incorporates appropriate provisions for the latest AISC and ACI standards that pertain to telecommunication and broadcast structures.

222-G incorporates the ASCE 7-05 ice maps. 222-F does not include ice map data.

222-G contains a section for proper earthquake analysis and design for telecommunication and broadcast structures. 222-F does not include earthquake provisions.

222-G contains updated, comprehensive provisions for climbing and working facilities.

**(Part II)** TIA-222-G is the current standard and was published in August 2005 and was made effective January 1, 2006. This is the structural standard for antenna supporting structures and antennas and is ANSI approved. IBC2006 references TIA/EIA-222-F, which is an outdated TIA standard.

The title "Telecommunication and Broadcast Towers" was substituted for "Radio and Television towers" because TIA-222 applies to more than just radio and television towers.

Section 3108.1 was substituted because it is clearer and more concise language. Deleted the reference to Chapter 15 because it does not apply.

Section 3108.2 was substituted because it is clearer and more concise language.

Sections 3108.3, 3108.4 and 3108.5 were deleted because the language in the sections either does not apply or it is covered in TIA-222.

**Cost Impact:** In general, the code change proposal will not increase the cost of construction. However, some specific tower projects may experience an increase in construction cost.

**Analysis:** Results of review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

### **PART I – IBC STRUCTURAL**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

### **PART I – IBC GENERAL**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

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## **S16-06/07**

### **1609.1.1**

**Proponent:** Paul K. Heilstedt, P.E., Chair, representing ICC Code Technology Committee (CTC)

#### **1. Revise as follows:**

**1609.1.1 Determination of wind loads:** Wind loads on every building or structure shall be determined in accordance with Chapter 6 of ASCE 7. The type of opening protection required, the basic wind speed and the exposure category for a site is permitted to be determined in accordance with Section 1609 or ASCE 7. Wind shall be assumed to come from any horizontal direction and wind pressures shall be assumed to act normal to the surface considered.