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RTS specializes in providing weld inspections, mappings, and condition assessment services to the tower & pole industries

TIA Issues New Mounting System Classification Standard

New Standard Specifies Telecommunications Infrastructure Requirements Regarding Mounting Systems That Support Antennas & Other Structures

The Telecommunications Industry Association (TIA) has published a new document, TIA-5053 Mounting System Classification.

TIA-5053 was developed in response to the rate of change in antenna technology, which has necessitated an industry standard for the classification of mounting systems. It specifies requirements for telecommunications infrastructure related to mounting systems supporting antennas and related appurtenances. The intent of TIA-5053 is to provide a system for classifying existing and new mounting systems. When using mounting systems classified in accordance with the specification, an owner will be able to determine the maximum loads that can be applied to existing mounting systems, as well as determine the proper mounting systems required for proposed antenna configurations.

TIA-5053 was formulated by the TIA TR-14 Structural Standards for Communication and Small Wind Turbine Support Structures subcommittee. This Standard is intended to be used in conjunction with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas.

"With 5G and Smart Cities on the horizon we will see increased demand for wireless service and therefore an increase in antennas being deployed," stated Stephanie Montgomery, VP of Technology and Standards at TIA. "Without proper mounting those antennas will be useless. I applaud the TIA engineering community for getting this needed guidance out to the industry. Proper use of this standard will save millions of dollars."

Regarding the standard, John Erichsen, Chair of TR-14 said, "In an ever-changing industry, TR-14 is committed to delivering standards that keep pace with the shifting telecommunications landscape. The new TIA-5053 Mount Classification standard will assist and improve the industries deployment of new technology and improves the integrity of the structures deployed. It was developed with tremendous industry input and collaboration and will be important, allowing wireless technology to deliver on its full potential."

TIA actively seeks participation in these projects from the user and general interest communities. For more information about TR-14 and how to participate in standards development with TIA, contact: Marianna Kramarikova at *standards@tiaonline.org.* □

- TIA-5053 and all TIA standards may be purchased at http://global.ihs.com

Crown Castle Hot Work Program Changes

By Jared Whitehead, P.E.
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In order to ensure all personnel performing structural welding on Crown towers are fully aware of the safety requirements necessary to mitigate the hazards associated with their work, Crown Castle began requiring all welders be qualified and trained in 2015. The initial qualification testing was done to the minimum requirements of AWS D1.1. The upcoming "Phase II" of the Hot Work Program focuses on telecommunications-specific requirements for structural welding. One of these requirements is the filler metal specified when welding on monopoles. Welding Grade 65 plates with 80 series electrodes presents some difficulties when welding in the field. While a welder may be qualified to weld with this material after passing a test with 70 series electrodes, the next round of qualification focuses on testing competency when welding with the higher strength material. Additionally, Crown has requested the Engineers of Record limit the welded joints they specify for modifications to a specific list of eight preapproved joints.

Revisions were recently released to Crown's documents associated with the Hot Work program. The new requirements for welder qualification and the direct-hire of CWIs by area representatives will become effective April 1, 2018. The changes to the construction requirements will be effective immediately upon release of the updated Cutting and Welding (Hot Work) Safety Plan in early December. Some examples of changes to the construction requirements are:

- Reduction of firewatch to one hour
- A checklist for exothermic welding
- More specific requirements for the site-specific hazard analysis plan
- A checklist for the pre-hot work construction meeting □

TIA Publishes Revision H of TIA-222-H Standard

The Telecommunications Industry Association (TIA) TR-14 Communication and Small Wind Turbine Support Structures Committee today published Revision H of the ANSI/TIA-222 Structural Standard for Antenna Supporting Structures, Antennas and Small Wind Turbine Support Structures. The TIA represents the companies that supply high-tech communications networks and is a global leader in developing industry standards across a range of ICT segments.

The TIA-222-H standard is available from the TIA Standards Store via IHS.

Revision H represents a significant update to this important standard, which provides the industry with critical guidance regarding minimum load requirements and design criteria. More specifically, TIA-222-H addresses the requirements for the structural design and fabrication of new, and the modification of existing antenna supporting structures, antennas, small wind turbine supporting structures, appurtenance mounting systems, structural components, guy assemblies, insulators and foundations. The last update of TIA-222 (Revision G), which represented the most sweeping update to the standard, was published in 2006.

Changes included in the newly published TIA-222-H standard include bringing it into alignment with the latest version of ASCE-7, use of ultimate gust wind speeds, updates to seismic loading considerations, bringing the design provisions in line with the latest AISC 360 steel design, changes to climbing facilities, foundations, and analysis of existing structures. New annexes have been added including inspection of new construction or modification of existing structures and other informative annexes.

"This is an important update to a standard that has become increasingly essential in our ever more connected world," said Stephanie Montgomery, TIA's Vice President of Technology and Standards. "Revision H includes items that no related standard has previously addressed, making it a unique and vital resource. And because TIA-222 is supported by so many incredible companies and individuals, it represents a truly world class standard."

"The new Revision H builds on the previous Revision G and enhances the provisions and keeps the Standard up-to-date and moving forward in addressing the industry needs" said Mark Malouf of MEI, the Task Group Chair who headed the revision effort. □

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