Reese's PIECES

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

New Mobile Platform Safety Standard Released

Published in December, *Safe Use of Mobile Elevating Work Platforms (MEWPs)*, became effective in March of this year. This American National Standard Institute (ANSI) document is one of a series of standards produced by ANSI/SAIA A92 as part of its program of work regarding standardization for MEWPs used to raise and position personnel, related work tools, and materials. A Mobile Elevating Work Platform (MEWP) is defined as a machine/device intended for moving persons, tools, and material to working positions, consisting of at least a work platform with controls, an extending structure, and a chassis. The Standard specifies requirements for application, inspection, training, maintenance, repair and safe operation of MEWPs. It applies to all types and sizes of MEWPs as specified in A92.20 that are intended to position personnel along with their necessary tools and materials at work locations. For those familiar with the tower industry, these improvements to the Standards are welcome and long overdue.

ANSI/SAIA A92.22, along with companion Standards A92.20 and A92.24, have been developed to replace existing Standards ANSI/SAIA A92.3, A92.5, A92.6 and A92.8. The reasoning that led to the development of the three new Standards was as follows:

- To combine the requirements for MEWPs exhibiting similar configuration and application
- To more closely align with existing ISO Standards
- To more closely relate to a specific audience

(– continued on page 2)

AWS D1.1-2020 – Updated Welding Code

Brian Reese, PE, CWI

D1.1 from the American Welding Society (AWS) has been relied on for years as the Code for structural welding. AWS released D1.1-2020 this year superseding the previous 2015 edition.

History of the Code

Published in 1928, the first edition of the Code for Fusion Welding and Gas Cutting in Building Construction was called Code 1 Part A. The initial Code was revised in 1930 and 1937 and maintained the same title. The document was revised again in 1941 and given the designation D1.0. The D1.0 document was revised again in the years 1946, 1963, 1966, and 1969. The 1963 edition published an amended version in 1965, and the 1966 edition published an amended version in 1967. In 1972, the Code was combined with D2.0, Specifications for Welding Highway and Railway Bridges, designated D1.1, and retitled AWS Structural Welding Code. D1.1 was revised again in the years 1975, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1988, 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010 (a 2nd printing of D1.1 2010 was published in 2011), and 2015. The 1st Spanish edition translation was published in 2010.

From 1972 to 1988, D1.1 covered welding applications for both buildings and bridges. In 1988, AWS published its 1st edition of AASHTO/AWS D1.5, Bridge Welding Code; coincident with this, the D1.1 Code changed references of buildings and bridges

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(– continued from page 1, New Mobile Platform)

The Standard is intended to be used in conjunction with the following ANSI documents: ANSI/SAIA A92.20 - Design Calculations, Safety Requirements and Test Methods for Mobile Elevating Work Platforms and ANSI/SAIA A92.24 - Training Requirements for the Use, Operation, Inspection, Testing and Maintenance of Mobile Elevating Work Platforms.

The primary objective of the A92.22 Standard is as follows:

- Prevent accidents, personal injuries, and property damage
- Establish requirements for application, inspection, training, maintenance, repair, and safe operation
- Establish the respective responsibilities of manufacturers, dealers, owners, users, supervisors, operators, occupants, lessors, lessees, and brokers
- Promote safe use

The information in the Standard should be applied in combination with good job management, safety control, and the application of sound principles of safety, training, inspection, maintenance, application, and operation.

- The Operator's Manual should be available with the MEWP.
- The intended use and expected environment shall be evaluated.
- Decisions on the application and operation of the MEWP shall be made with consideration for safety of the occupants and personnel in the vicinity.
- The selection, positioning, operation, maintenance and pre-start, pre-delivery, frequent and annual inspections of the equipment shall be performed by a qualified person in accordance with the manufacturer's requirements.
- All tasks shall be properly planned, appropriately supervised, and carried out in a safe manner.
- Having identified hazards, the qualified person shall evaluate the risks associated with the MEWP use and implement appropriate control measures.
- Rescue planning and fall protection are critical components when working at height.
- Occupant training in basic level of knowledge to work safely in the MEWP is required.
- Weather and site ground conditions should be accounted for during planning.
- Operating the MEWP on public roads, traveling, and parking the equipment are critical functions.
- Electrical hazards must be taken into account during operation. □

(– continued from page 1, Updated Welding Code)

to statically loaded and dynamically loaded structures in order to make the document applicable to a broader range of structural applications. After the 2010 edition, the Society decided that the Code would be published on a five-year revision cycle instead of two-year. This decision was to align the publication cycle of the Code with the publication cycles of the AISC Steel Building Specification and the International Building Code.

Code Changes from 2015 to 2020

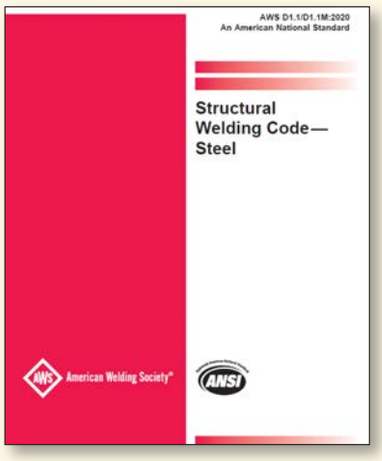
The 24th edition of the D1.1 Code was released earlier this year. A summary of changes are as follows:

- *Clause 2 Normative References*
  This is a new Clause listing normative references which are documents referenced within the Code that are mandatory to the extent specified within the Code. This clause replaces subclause 1.9 and Annex S from the 2015 edition.

- *Clause 3 Terms & Definitions*
  This is a new Clause that provides terms and definitions specific to the Code. This Clause replaces subclause 1.3 and Annex J.

- *Clause 4 Design of Welded Connections*
  Clause 4 was presented as Clause 2 previously. Annex A figures in the previous edition were incorporated into Clause 4.

- *Clause 5 Prequalification of WPS*
  Clause 5 was presented as Clause 3 in the 2015 edition. The Clause has also been restructured to follow the normal progression of writing a prequalified WPS. Table 5.2 has been editorially renamed and reorganized to list WPS essential variables. Additional requirements have been added when using shielding gases and a new Table 5.7 was added on shielding gases. New materials have been added to Tables 5.3 and 5.8.



- *Clause 6 Qualifications*
  Clause 6 was presented as Clause 4 previously. Revisions include the requirements for the qualification of WPS using waveform technology. All CVN testing requirements have been added to Table 6.7 contained in a single location. The WPS re-test requirements have been clarified. The PJP groove weld clause has been reorganized to clarify the qualification of PJP groove welds using the joint details in Figure 5.2. Part D of the Clause has been reorganized to better align the testing procedures and qualification of CVNs with the order that they would be accomplished.

- *Clause 7 Fabrication*
  Clause 7 was presented as Clause 5 in 2015. Revisions were made to the weld restoration of base metal with mis-located holes.

- *Clause 8 Inspection*
  Clause 8 was presented as Clause 6 in 2015. Revisions were made to the qualification requirements for inspection personnel to ensure that all welding inspectors are qualified. The Engineer's responsibilities as it relates to inspection were also clarified. Digital radiography has been added to Radiographic Testing. The limitations for geometric unsharpness have been added to the Code and the equation has been revised to match the equation in ASME Boiler and Pressure Vessel Code, Section V, Article 2. The methodology to determine ultrasound attenuation factor has been updated to reflect that UT instruments are now capable of reporting a fractional value for dB.

- *Clause 9 Stud Welding*
  Clause 9 was previously presented as Clause 7 in 2015. The Code was updated to require the manufacturer's permanent identification on headed studs and deformed anchor bars. Revisions were made to provide weld procedure requirements for fillet welding of studs.

- *Clause 10 Tubular Structures*
  Clause 10 was presented as Clause 9 in 2015. The calculations for static strength of welded tubular connections were removed in deference to AISC design provisions.

- *Clause 11 Strengthening and Repair of Existing Structures*
  Clause 11 was previously presented as Clause 8 in 2015.

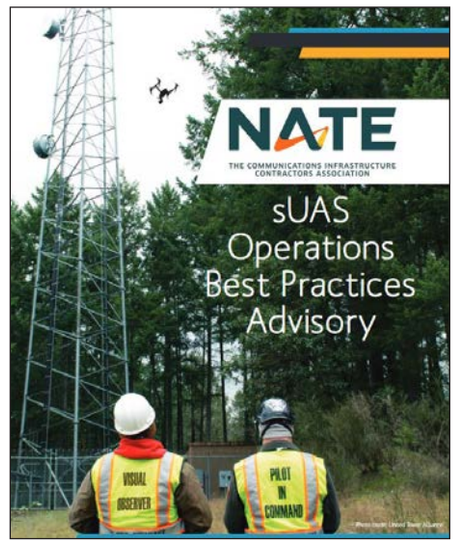
Reference American Welding Society Structural Welding Code – Steel D1.1-2020 and D1.1-2015.

NATE Unveils Comprehensive sUAS Operations Best Practices Advisory Resource

The Communications Infrastructure Contractors Association today officially released the NATE sUAS Operations Best Practices Advisory resource. This indepth, 38-page document becomes the latest in a line of commercial drone-related resources that NATE's UAS Committee and its cadre of aviation subject-matter experts have developed.

NATE is providing this resource as an industry-specific guideline manual for carrying out UAS operations for wireless and broadcast communications tower facilities in accordance with Title 14 of the Code of Federal Regulations Part 107, the UAS Pilots Code, in order to further educate communications infrastructure industry stakeholders on operating UAS safely and efficiently around towers.

"The Association is excited to officially unveil this NATE sUAS Operations Best Practices Advisory resource document to the industry today," stated newly appointed UAS Committee Chairman Bryan McKernan of Consortiq in Annapolis, Maryland. "NATE is a prominent leader when it comes to the integration and safe utilization of UAS around communications infrastructure and these guidelines can play



a major role in providing the industry's wireless carriers, vertical realtors, contractors and technicians with a go-to resource to help standardize the training requirements and operator processes in the industry. NATE's goal is for this new resource to ultimately serve to help scale commerce drone use in the industry in order to maximize the many benefits of this technology," added McKernan.

NATE sUAS Operations Best Practices Advisory resource document is available to NATE members and the industry as a free resource and accessible to be downloaded on NATE's website HERE.

The NATE sUAS Committee continues to be a source of information by providing timely updates to the Association's members and industry stakeholders as key developments continue to emerge in the landscape surrounding commercial drones. □

NATE is a non-profit trade association dedicated to providing a unified voice for companies in the diverse tower and communications infrastructure construction, service and maintenance industries. Today the Association boasts over 940 member companies located throughout the United States, Bahamas, Canada, China, Ghana, Israel, Jamaica, Nigeria, Puerto Rico, Saudi Arabia, Singapore, Spain, Trinidad and the United Kingdom.
For additional information on NATE, please visit *www.natehome.com.*
