## $\mathbf{Rese's}_{\mathsf{PIECES}}$

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



## Handling SMAW Electrodes in the Field

ne of the challenges of field welding with stick electrodes (SMAW - shielded metal arc welding) is the proper handling of the electrodes. Why is this important? Low hydrogen electrodes, typically specified in our industry for structure upgrades, help prevent cracking and porosity in welds. The ability of low hydrogen electrodes to prevent defects after welding is dependent on the moisture content in the coating on the electrode. AWS D1.1 in Section 5.3.2.1 provides requirements for storing electrodes. All low hydrogen electrodes shall be



purchased in hermetically sealed containers or be baked by the user. After opening the sealed container, electrodes not immediately used shall be

stored in an oven at a temperature of at least 250 degrees Fahrenheit. Electrodes shall not be baked more than once. Wet electrodes should never be used.

Table 5.1 in D1.1 identifies exposure times for electrodes. Electrodes exposed to the atmosphere

for time greater than that allowed in the table shall be baked as follows: 1) Electrodes confirming to AWS 5.1 (specification for the classification of carbon steel electrodes for SMAW) shall be baked for at least two hours between 500 and 800 degrees; 2) Electrodes confirming to AWS A5.5 (specification for the classification of low-alloy steel electrodes for SMAW) shall be baked for at least 1 hour at temperatures between 700 and 800 degrees.

To comply with these requirements, a welding crew should have a portable 'rod oven' for the storage of their electrodes. Weld inspectors will look to see if the oven is on site, being used, and most importantly plugged in to power! Sometimes depending on the size of the project it is easier to use small, sealed boxes of electrodes that are opened and used within the time allowed by AWS.

D1.1 provisions for handling, storing, drying, and use of low-hydrogen electrodes are critical and should be diligently followed in order to prevent moisture absorption of the electrode coating and potential defects. Following these practices will greatly improve the final quality of your welded product. □

Call RTS today to assist with your weld inspections!

## NATE Unveils Safety Video on Guy Wire Anchor Inspections



The National Association of Tower Erectors (NATE) recently unveiled a guy wire anchor inspection safety video as part of it's Climber Connection series. The video was released at the association's 2017 Summer Conference in Kansas City, MO.

The NATE video provides an overview of surface inspections and dig-to-block inspections, the two types of inspection protocols utilized in the industry to assess potential corrosion on the anchors of guyed towers. The video also includes footage and analysis of a tower crew conducting surface level and dig-to-block inspections at a communication tower site. Additionally, it portrays images of the impact corrosion can have on the anchor shafts of guy wires.

"I commend NATE for shining a spotlight on the importance of conducting guy wire anchor inspections," stated Chris Memmott, President at Triple M Enterprises in Nephi, UT. "As guyed tower structures age and as the infrastructure continues to take on more equipment, it is paramount that tower technicians and other industry field personnel gain knowledge and experience in performing guy anchor inspections to ensure both the ultimate safety of the worker and the stability of the tower," added Memmott.

NATE encourages tower climbers and industry stakeholders to participate in this campaign by posting the video on their respective social networking platforms using the hashtag #ClimberConnection. The association also encourages tower climbers to share their anchor guy wire inspection safety tips through social interaction on the association's Facebook and Twitter pages.

The Climber Connection Volume 2 campaign was developed by the NATE Member Services Committee in conjunction with its Safety & Education Committee and is designed to provide specific resources and communicate the association's message directly to the industry's elevated workforce.

For more information on NATE, visit *www.natehome.com*. □ - *Inside Towers, September 2017* 

## NWSA Developing Tower Foreman Worker Certification

he National Wireless Safety Alliance (NWSA) today announced that a group of subject matter experts, representing a broad cross-section of the telecommunications industry, are convening in Dallas, TX. this week to begin the development process for the Telecommunications Tower Foreman certification program. NWSA made the announcement at the 2017 GSMA-CTIA Mobile World Congress Americas event in San Francisco, CA.

The new credentialing system will provide an independent nationwide certification for industry workers who supervise crews that work on communications structures, whether they are antenna and line crews, construction crews, or structural modification crews. Task Force participants will build broad industry consensus and be actively involved in developing competency tests and related psychometric validation processes for NWSA's Telecommunications Tower Foreman certification program. The labor-intensive process is anticipated to require many meetings and hundreds of hours of sessions to achieve accreditation under the ANSI 17024 Standard.

"We are very excited to begin development of this new foreman level certification," stated NWSA Executive Director Duane MacEntee. "The Telecommunications Tower Foreman credential will complement the existing NWSA Telecommunications Tower Technician I and II certification offerings and continue to raise the bar of professional certification and proficiency for workers as they gain experience within their respective companies," added MacEntee.

NWSA also announced that Jim Coleman from AT&T will serve as Chairman of the Tower Foreman Task Force and Gordon Lyman of eSystems Training Solutions will be Vice Chairman of the group. will be facilitating the meetings.

NWSA, headquartered in Fair-

fax, VA., is a national non-profit assessment and certification organization established to provide thorough, independent assessments of knowledge and skills and provide worker certification in order to enhance safety, improve quality, encourage training, and recognize those who work on towers and other non-standard communication structures.

Industry workers, companies and stakeholders are encouraged to visit www.nws-a.org to learn more about the organization and its transformative worker certification offerings.

- Wireless EstimatorSeptember 2017

