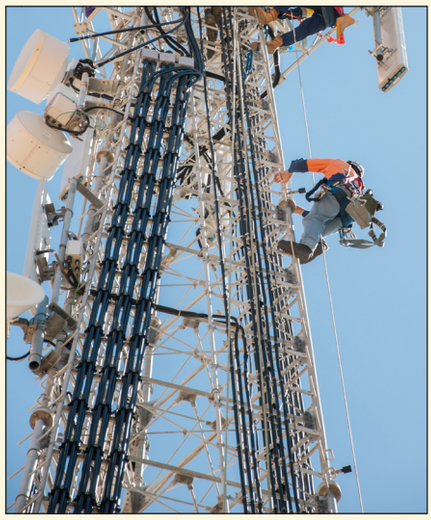
Reese's PIECES

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



Preventing Dropped Objects

Released by NATE, their latest video, 'Look Out Below' highlights the dangers of dropped objects while working at elevations and provides guidelines to prevent them.

The potential to drop objects at elevation by not following proper safety practices is high. The consequenses of doing so can be devastating.

In June NATE released it's latest video from the Association's Climber Connection series at AGL's Local Summit in Philadelphia, PA. The video, titled "Look Out Below" is the fourth to be released in Vol. 3 in the series, and provides suggestions on preventing these high risk scenarios.

Personal anecdotes and experiences from a tower technician are included in the video, as well as actions that should be taken by workers while at elevation to prevent falling objects. A demonstration of the destructive potential of the impact a dropped object has when it falls at a site is also recreated for the video.

"The tower industry has been a leader in dropped object prevention for a long time," said Nate Bohmbach, Product Director at Ergodyne."Feedback from climbers has helped manufacturers develop better and safer solutions that are becoming more common today for all industries. This NATE video does a great job of capturing this evolution leading to a safer worker and tower site."

For more information on NATE, visit their website at www.natehome.com today. □

Welding Defects – Cracks

Continuing our series on welding defects, this newsletter will highlight cracks. American Welding Society AWS D1.1-2015 Structural Welding Code – Steel in Table 6.1 – Visual Inspection Acceptance Criteria provides the inspector discontinuity category and inspection criteria for his or her use during their final inspection. A crack is the first defect listed in this table.

What is a Crack?

AWS A3.0 defines a crack as a fracture type discontinuity characterized by a sharp tip and high ratio of length and width to opening displacement.

Why Does Cracking Occur?

Cracks can occur in the weld metal zone, heat-affected zone, and base metal when localized stresses exceed the ultimate strength of the material according to AWS B1.10. Cracking often initiates at stress concentrations caused by other discontinuities or near mechanical notches associated with weld joint design. Stresses that cause cracking may be either residual or service induced. Residual stresses may pre-exist in base metal or be from the fabrication process.

A crack formed in a layer of weld and not completely removed before the next layer of weld is deposited tends to progress into the layer above and then each succeeding layer until finally it may appear at the surface of the new weld. The appearance at the surface may occur during cooling after the welding has been completed. Cracks can generally be classified as either hot cracks or cold cracks. Hot cracks occur in a metal during solidification or at elevated temperatures. Cold cracks occur in a metal at or near ambient temperature.

How are Cracks Detected?

Significant cracking in a welded joint can be identified visually. Bleeding rust can be a giveaway of the presence of a crack. Magnetic particle non-destructive examination is commonly used to detect small surface cracks that are not visible to the naked eye in welded connections.

Is there Allowable Cracking?

While there are some gray areas related to inspector judgment in weld inspection, this subject is straightforward. AWS D1.1 Table 6.1 prohibits cracks – any crack is unacceptable,

regardless of size or location. A crack, when not repaired, can result in the catastrophic failure of a structural connection. Monopole non-destructive base weld inspections are performed with the intent of locating cracks at the critical base plate to pole shaft weld connection. □

NATE Debuts Latest ClimberConversation Video

"10 Years in the Industry" Video Unveiled

NATE also recently released a #ClimberConversation video highlighting a tower worker's decade of service in the wireless infrastructure industry.

The #ClimberConversation video is a companion series to the Association's popular #ClimberConnection campaign and is a vital component of NATE's workforce development outreach to promote the profession and attract new workers into the industry.

The video, entitled "10 Years in the Industry" includes testimonial footage of a company safety director emphasizing the importance of training and discussing how much he has enjoyed his career working in such a dynamic profession.

Visit *https://www.youtube.com/watch?v=TCgFE4DP_fg* to watch the "10 Years in the Industry" video. NATE encourages tower technicians and industry stakeholders to actively participate in this campaign by posting the video on their respective social networking platforms using the hashtag #ClimberConversation. NATE also encourages industry workers to share their comments through social interaction on the Association's Facebook and Twitter pages.

For more information on NATE, visit www.natehome.com today. ☐

Article courtesy of NATE