

Tower Alert

To: Tower Owners and Contractors
From: Craig Snyder, President – **Sioux Falls Tower & Communications**
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Re: Anchor Failure Due to Corrosion

Guy Anchor Failure Due To Anchor Corrosion

Investigation of guy anchors for corrosion continues to point to the fact that damage due to corrosion can pose a significant risk to towers. Over the past two years, our investigations have found that up to 15% of the towers investigated have structurally damaged anchors that require replacement. A very high percentage of others have significant corrosion but did not require replacement. During a recent subsurface investigation at a site in California, an anchor had diminished to less than ¼" in diameter and ***the anchor failed during the investigation***. It was however attached to a temporary anchorage saving the tower. A similar anchor failure occurred at a separate site six months earlier.

It is becoming increasingly clear that structural damage due to underground corrosion is not an isolated problem but is wide spread throughout the U.S. and Canada. Guy anchors are coming of age and if not inspected and protected soon, many more tower anchors are likely to fail.

Recommended Action

- A. Develop a plan to target towers most at risk for investigation
- B. Perform subsurface investigation of the anchors to determine if structural damage has occurred
- C. Install a corrosion control system that allows for continuous monitoring such as the one offered by **ANCHORGUARD®** CORROSION CONTROL SYSTEM FOR TOWER ANCHORS (800) 653-3392. www.anchorguard.com
- D. Regularly inspect the corrosion control system to ensure it is properly working

On the next page you can view a few pictures of the failed anchor mentioned above.



California 1/21/05 – Broken anchor showing slack guy wires



California 1/21/05 – Anchor on temporary chain and close-up of corrosion at break. Note the dry sanding conditions. Dry climates do not preclude active corrosion cells.