

NATF Redacted Operating Experience Report

Pole Splicing Rigging Plates

[About NATF Redacted Operating Experience \(OE\) Reports](#)

North American Transmission Forum (NATF) operating experience reports highlight positive or negative transmission (reliability or resiliency) experiences worth sharing for learning opportunities or potential trending. The overall goal is to help each other learn without experiencing the same issues first-hand. This sharing originates confidentially within the NATF membership.

Redacted operating experience reports are posted on the NATF public website to allow the NATF and its members to more broadly share information, especially safety-related alerts and learnings, with contractors and other utilities to benefit the industry at large.

The NATF member company that submitted the initial restricted distribution OE report for this topic/event has approved the NATF to issue this redacted OE report.

Open Distribution

Copyright © 2018 North American Transmission Forum. Not for sale or commercial use. All rights reserved.

Disclaimer

This document was created by the North American Transmission Forum (NATF) to facilitate industry work to improve reliability and resiliency. The NATF reserves the right to make changes to the information contained herein without notice. No liability is assumed for any damages arising directly or indirectly by their use or application. The information provided in this document is provided on an “as is” basis. “North American Transmission Forum” and its associated logo are trademarks of NATF. Other product and brand names may be trademarks of their respective owners. This legend should not be removed from the document.

Topic

Pole Splicing Rigging Plates

Description

A lineman working near a 161 kV line structure was assembling two pole sections together when the (light-duty steel pole) pole splice rigging plates failed under tension causing a portion of the assembly to recoil striking the employee in the back.

Lessons Learned

1. The use of the bent pole-splice rigging plate created leverage and unintended direction of force on the bolt and nut attachment point.
2. The affected bolt was not fully engaged based on load cell tests.
3. The affected pole-splice rigging plate had been damaged from other activities, which caused unnoticeable damage to the plate.
4. Based on replication of failure, a combination of contributing factors #1 & #2 lowered the SWL (safe working load) near the tension supplied by the 3-ton chain hoist.

Actions Taken

- Pole-splice rigging plate assembly involved in the incident immediately removed from service.
- Notification to cease using this device was communicated across all line construction crews.
- Three hydraulic pole jacking devices were procured as an interim corrective action.
- New plates were designed to transfer load to surface of welded nut on pole instead of transferring load through threads of nut.

Extent of Condition

- All crews are to use the new plates or chokers to assemble pole sections.
- Add to construction standards a requirement for installation and inspection criteria to be developed & documented in the line maintenance manual and line construction manual prior to application of engineered rigging.
- See pictures on next page.

Old Plate - load transferred through bolt treads to welded nut



New Plate - load transferred to surface of nut



Old Rigging Plate

