

NATF Redacted Operating Experience Report

Overhead Line Contacts and Common Cause Analysis

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 © 2021 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

Overhead Line Contacts and Common Cause Analysis

Description

The company identified 12 “above-ground utility line contact” incidents involving contractors that occurred in 2018 and 2019. As a result of that observation, the Safety and Human Performance (HP) Teams conducted a common cause analysis (CCA) on these 12 incidents.

CCA Process

A CCA reviews the details of the common events and then categorizes them. The goal of the CCA is to determine themes common between or among events in order to prevent recurrence. This CCA received three distinct categorizations.

The first categorization included general themes identified by the analysis team. Each event was reviewed, and one or more themes surrounding the event were captured. The process identified common categories and looked for specific commonalities within any category identified.

The second categorization was the application of cause codes used by North American Electric Reliability Corporation (NERC), U.S. Department of Energy (DOE), and the North American Transmission Forum (NATF).

The third categorization was the application of TapRoot© basic cause categories. It is important to note that the analysis team did not apply the full TapRoot© process. The team used its expertise to apply the high-level basic codes.

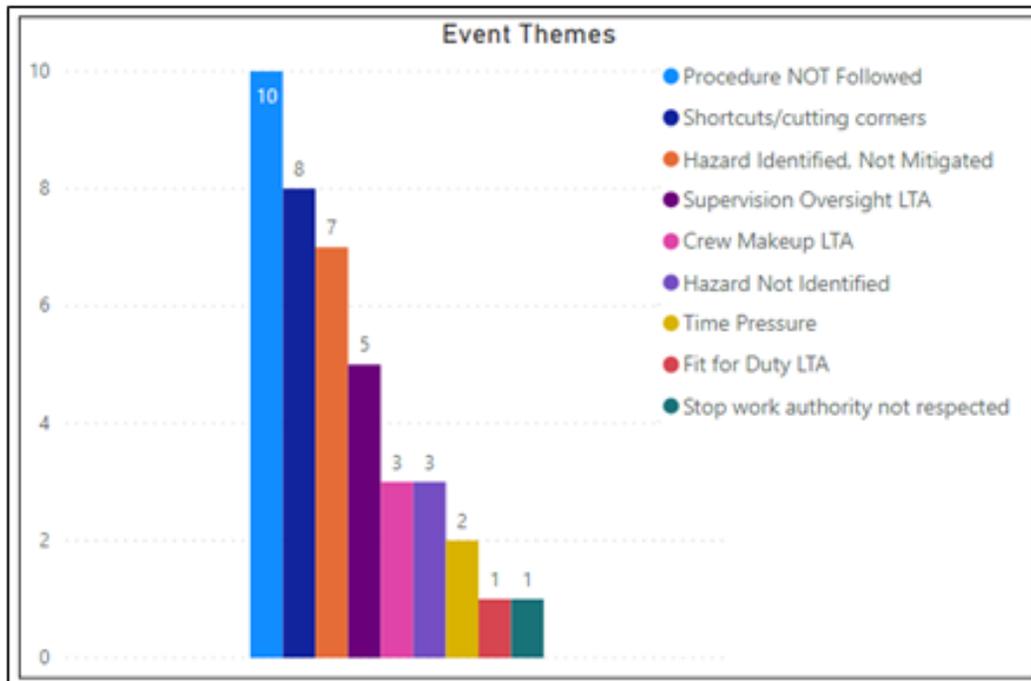
While all three rounds of categorization were performed, this OE report focuses on the general themes identified.

CCA Results

Through the general theme identification, nine themes were identified. The top four general themes were as follows (and noted in figure 1):

1. Procedures NOT followed (10 instances)
2. Shortcuts/cutting corners (8 instances)
3. Hazard identified and not mitigated (7 instances)
4. Supervision oversight was less than adequate (LTA) (5 instances)

Figure 1 – Top Four Themes Identified



Lessons Learned

1. Many of the same themes were applicable to each of the line contacts, and the top four themes consistently point to actions that could have prevented the event.
2. Need to reinforce existing expectations surrounding these themes and communicate why these themes are important.
3. A final learning was the need to understand the “why” behind expectations not being followed.

Corrective Actions

- Communication with Contractors
 - Review CCA themes with contractors at the next safety meeting.
 - Ask contractors to add this as a topic to next scheduled monthly safety meeting.
 - Contractor to gather three reasons from employees for “why” the expectations are not being followed.
- Common Theme #1: Procedures NOT Followed
 - Provide HP tool to help clarify expectations of corrective actions.
 - The Safety Department to produce a safety alert covering the company’s expectations of adhering to procedures, with language providing direction for escalation to leadership.

- Common Theme #2: Shortcuts/Cutting Corners
 - Task contractor leadership with creation of documentation and training covering the following:
 - Reinforcing expectations that time pressure (real, self-imposed, or perceived) is no reason to cut corners and use shortcuts.
 - Reinforcing expectations that availability of resources is no reason to cut corners and use shortcuts.
 - Emphasizing the stop-work authority.
 - Pre-planning work tasks ahead of time and in pre-job safety brief (PJSB) so necessary tools and safety equipment are available.
- Common Theme #3: Hazard Identified, Not Mitigated
 - Ask contractors to develop and implement a requirement for the mitigation plan to be written out on the PJSB and require contractor leadership level to perform a monthly review of PJSBs, checking for adherence to process.
- Common Theme #4: Supervision Present but Oversight LTA
 - Communicate with contractors the company's expectation for field supervisors along with the company's program manager and others as assigned to be involved in all line contact investigations.
 - Communicate the company's expectation of contractors that supervisors are responsible for enforcement of proper procedure use and adherence.
 - Communicate the company's expectation of contractors that contractor management supports supervisors in their roles.
- Other Actions Taken
 - Safety will also be developing a focus area on the four themes listed above. The focus areas will be provided to safety liaisons as well as the company's field personnel for their review. The expectation is that all field personnel focus on the four themes in their task and behavior-based safety observations.

Extent of Condition

Above-ground utility line contact incidents can occur any time crews are working in the vicinity of above ground utility lines. Implementation and adherence to the above corrective actions should lessen the extent to which an incident of above-ground utility line contact occurs.