

NATF Redacted Operating Experience Report

Line Energized with Grounds Still Attached

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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.

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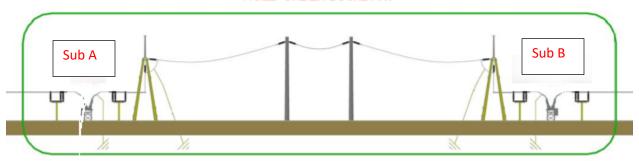


Topic

Line Energized with Grounds Still Attached

Description

HOLD ORDER BOUNDARY



Four field personnel were involved in returning a line to service. Grounds were hung at each end of the line from substation A to substation B. Individuals A, B, and C removed the grounds at substation A. Individual C was the only one on the hold order. Individuals A and B then traveled to substation B to remove the grounds at that end. Neither of these individuals were on the hold order. Individual C remained at substation A to complete the work there and return that end of the line to service.

Upon completing the work, individual C called the Transmission Operator (TO) to be removed from the hold order for the substation A to substation B line outage. Individual C indicated being at substation A. The TO asked individual C if all grounds were down, and individual C indicated they were. Individual C's assumption was that the TO was asking about the grounds on the substation A end only.

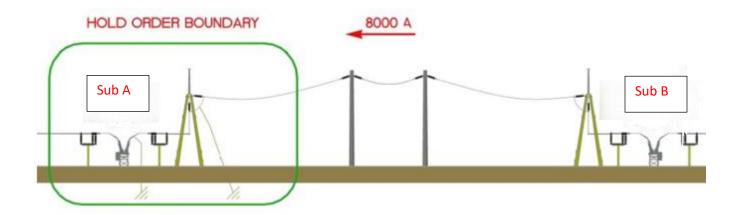
During the conversation, the TO told individual C that individual D remained on the hold order. Individual C stated they would call individual D to get this person removed from the hold order. Individual C then called and asked individual D to call the TO. Individual D was participating in a training activity at the time and planned to go to substation B after the training was completed.

Individual D called the TO and requested to be removed from the hold order. When asked if all grounds were removed (were down), individual D said they were not sure because individual D just came back from vacation and therefore stated they would need to call the TO back.

Individual D called individual C and asked if the grounds were down. Individual C responded that they were. Both individuals C and D assumed the TO was asking about the grounds on the substation A end only. Individual D called the TO and confirmed that the grounds were down. Individual C performed repeat back switching with the TO confirming that all work had been completed at substation A. Individual C then received a release time from the TO. Individual C closed the breaker back at Substation A. The breaker tripped. As individual C was about to call the TO in order to learn what had happened, individual A called to let them know that the grounds were still installed at substation B, and that individual C had closed back on them. No one was harmed, and there were no reliability impacts from this incident. Relays at substation A performed as designed.

Reference: NATF-OER-578





Lessons Learned

- 1. Individuals directing the installation or removal of grounds shall be on the hold order and on-site with the card in hand while doing so.
- 2. If the person holding the grounds cannot be on-site, they must transfer their grounds to a person that is on-site and on the hold order who will take over as the person directing the removal of grounds.

Actions Taken

- 1. Shared this information and learnings with other employees.
- 2. Posted this information at work locations with the above key learnings.

Extent of Condition

This type of event could occur anywhere on the system where hold orders are being removed, especially a situation like this one where grounds are being removed at two different locations/stations.

Reference: NATF-OER-578