

# NATF Redacted Operating Experience Report

## Oil Spilled While Dismantling a 230 kV Transformer

### 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 © 2024 North American Transmission Forum ("NATF"). All rights reserved. Not for sale or commercial use. Report is provided with the member's permission for distribution. The NATF makes no and hereby disclaims all representations or warranties, either express or implied, relating to the content, including as to the accuracy or completeness of the information. No liability is assumed by the NATF for any damages arising directly or indirectly from the content or by the use or application thereof. Use of the content constitutes agreement to defend, indemnify, and hold the NATF harmless from and against all claims arising from such use. Further, no liability is assumed for infringement by any presentation materials, artwork, or photographs used in presentations not developed by NATF.

## Topic

Oil Spilled While Dismantling a 230 kV Transformer

## Description

Prior to dismantling a 230 kV transformer at a transmission substation (figure 1), the maintenance crew reviewed the inspection report and hazard assessment plans. The reports stated the transformer had been drained and was ready to be dismantled. As part of the dismantlement process, the crew drilled a hole approximately three feet from the bottom of the transformer, and oil spilled out, getting on several crew members. In response, the crew plugged the hole and reported the incident. The spill was cleaned up.

An incident analysis was performed following the event to determine the causal factors:

- The 230 kV transformer was not drained of oil as reported.
- The crew dismantling the transformer was given incorrect information on the inspection report.
- The crew failed to physically check the transformer to verify it was drained.

The event analysis also identified the following positive observations:

- There were no immediate risks to life or injuries from the event.
- The area was cleaned, and oil-soaked gravel was removed.
- The crew reported the incident in a timely manner.



## Lessons Learned

1. Information should be reviewed and peer checked during pre-job planning.
2. Apply stop work authority if an item needs to be verified.
3. Communicate work activities with the construction site coordinator.

## Actions Taken

1. The importance of always double-checking information about the purging of vessels/transformers was reiterated and stressed with construction/maintenance crews.
2. Crews were retrained on performing initial transformer assessments.

## Extent of Condition

Oil handling is a common maintenance task for transmission transformers. Unintended events can occur any time information provided has not been verified.