



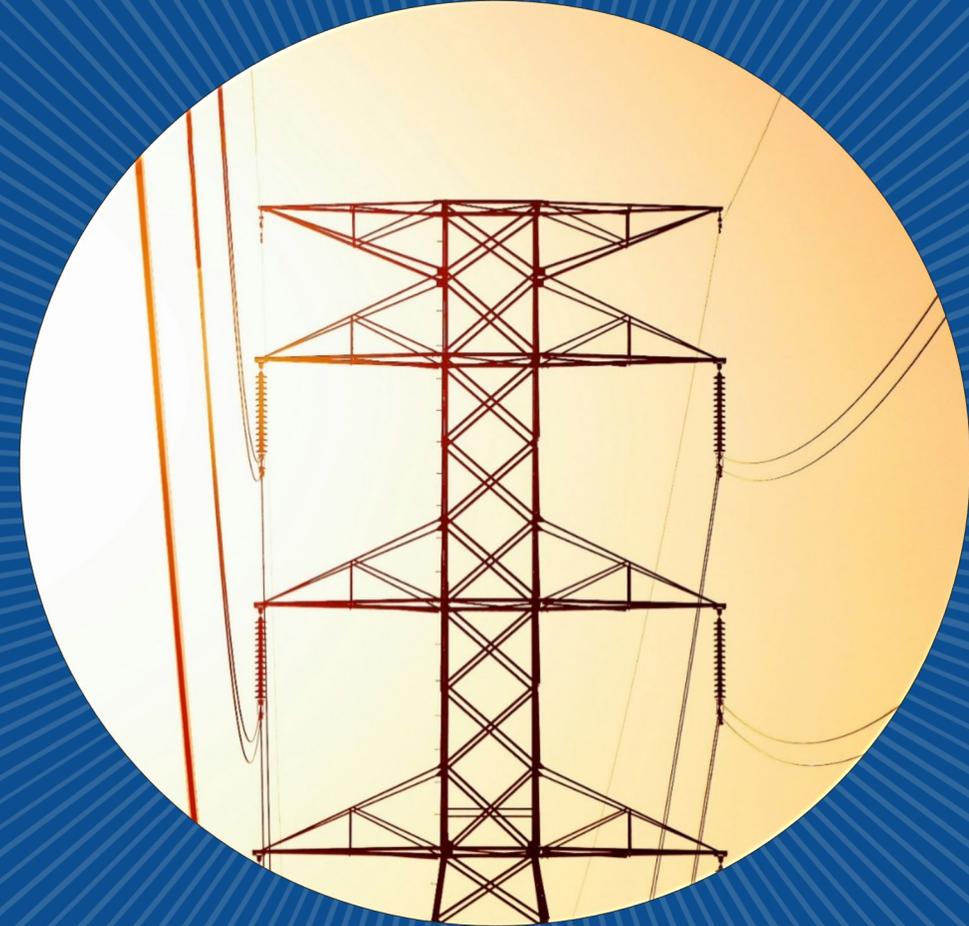
# TPL-001-5.1

## Revised Category P5 & Its Implementation Plan

NPCC Compliance Audit Group  
Duong Le

February 2026

Public



# Agenda

- TPL-001-4 & TPL-001-5.1 Category P5 Overview
- TPL-001-5.1 Category P5 Implementation Plan
- TPL-001-5.1 Category P5 Audit Findings & Root Causes
- What Should Happen Now?



# TPL-001-4 P5 Overview

Category	Initial Condition	Event <sup>1</sup>	Fault Type <sup>2</sup>
<b>P5</b> Multiple Contingency ( <i>Fault plus relay failure to operate</i> )	Normal System	Delayed Fault Clearing due to the failure of a non-redundant relay <sup>13</sup> protecting the Faulted element to operate as designed, for one of the following: <ol style="list-style-type: none"> <li>1. Generator</li> <li>2. Transmission Circuit</li> <li>3. Transformer <sup>5</sup></li> <li>4. Shunt Device <sup>6</sup></li> <li>5. Bus Section</li> </ol>	SLG

## TPL-001-4 Footnote 13

- Applies to the following relay functions or types: pilot (#85), distance (#21), differential (#87), current (#50, 51, and 67), voltage (#27 & 59), directional (#32, & 67), and tripping (#86, & 94).

Sources: [TPL-001-4](#); [TPL-001-5.1](#)

# TPL-001-5.1 P5 Overview

Category	Initial Condition	Event <sup>1</sup>	Fault Type <sup>2</sup>
<b>P5</b> Multiple Contingency ( <i>Fault plus non-redundant component of a Protection System failure to operate</i> )	Normal System	Delayed Fault Clearing due to the failure of a non-redundant component of a Protection System <sup>13</sup> protecting the Faulted element to operate as designed, for one of the following: <ol style="list-style-type: none"> <li>1. Generator</li> <li>2. Transmission Circuit</li> <li>3. Transformer<sup>5</sup></li> <li>4. Shunt Device<sup>6</sup></li> <li>5. Bus Section</li> </ol>	SLG

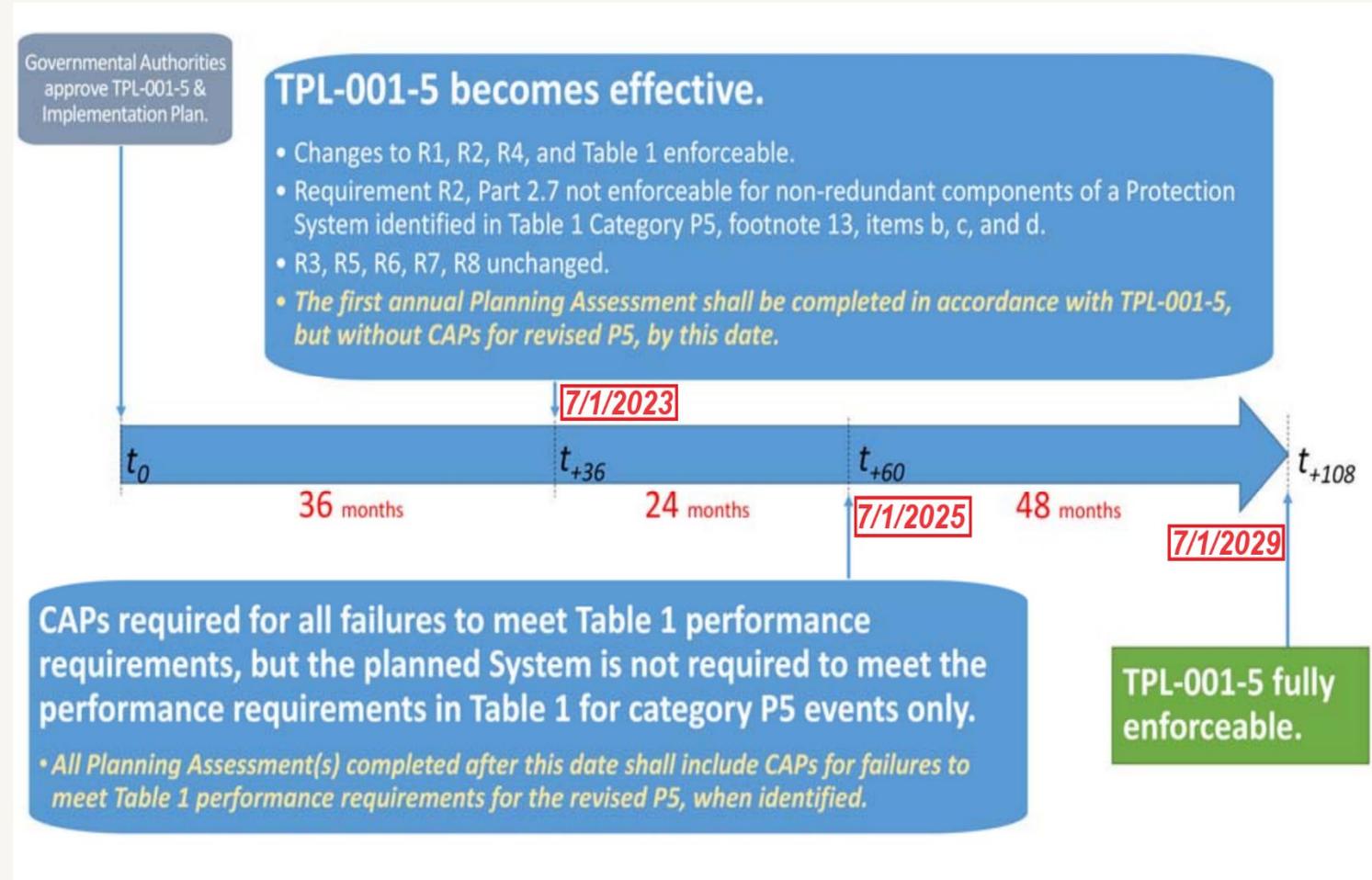
## TPL-001-5.1 Footnote 13

- For purposes of this Standard, non-redundant components of a Protection System to consider are as follows:
  - a. A single protective relay which responds to electrical quantities, without an alternative (which may or may not respond to electrical quantities) that provides comparable Normal Clearing times;
  - b. A single communications system associated with protective functions, necessary for correct operation of a communication-aided protection scheme required for Normal Clearing (an exception is a single communications system that is both monitored and reported at a Control Center);
  - c. A single station dc supply associated with protective functions required for Normal Clearing (an exception is a single station dc supply that is both monitored and reported at a Control Center for both low voltage and open circuit);
  - d. A single control circuitry (including auxiliary relays and lockout relays) associated with protective functions, from the dc supply through and including the trip coil(s) of the circuit breakers or other interrupting devices, required for Normal Clearing (the trip coil may be excluded if it is both monitored and reported at a Control Center)



# TPL-001-5.1 Category P5 Implementation Plan Timeline

- **July 1, 2023** – TPL-001-5.1 became effective
  - First annual Planning Assessment to assess the new Category P5 impacts must be done by this date (July 1, 2023).
    - Don't have to identify CAPs at this point. Only need to assess system performance per Table 1 with identified non-redundant components of a Protection System.
- **July 1, 2025** – Identification of CAPs for all failures to meet Table 1 performance as a result of the new Category P5 contingencies.
- **July 1, 2029** – TPL-001-5.1 fully enforceable
  - All CAPs need to be implemented.



Source: [TPL-001-5.1 Implementation Plan](#)



# NPCC TPL-001-5.1 Category P5 Audit Findings



- NPCC Audit Team noticed the following regarding P5 assessments during the past few audits.
  - Entities missed the assessment of P5 in accordance with TPL-001-5.1 implementation plan timeline. In particular,
    - Entities failed to perform the first annual Planning Assessment with the new Category P5 by July 1, 2023.

# Root Causes

- Assumed the new Category P5 for TPL-001-5.1 was the same as the old Category P5 for TPL-001-4, and therefore did not identify or assess the impact of non-redundant components in their Protection Systems by July 1, 2023.
- Delayed identification of non-redundant components in their Protection Systems, resulting in missing the P5 assessment deadline of July 1, 2023.
- Believed there were no non-redundant components in the Protection System but later discovered otherwise—too late to meet the P5 assessment deadline of July 1, 2023.
- Assumed the new Category P5 for TPL-001-5.1 applied only to BPS Protection Systems and overlooked BES Protection Systems.



# What Should Happen Now?



- If your entity has non-redundant components of a Protection System and didn't assess them with the new Category P5 in your annual Planning Assessment by July 1, 2023, then self-report the possible noncompliance to NPCC.
- If your entity thought they didn't have any non-redundant components of a Protection System but realized after July 1, 2023 that they have them, then self-report the possible noncompliance to NPCC.



# References

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## TPL-001-4

<http://www.nerc.com/pa/Stand/Reliability%20Standards/TPL-001-4.pdf>

## TPL-001-5.1 Implementation Plan

[https://www.nerc.com/globalassets/standards/reliability-standards/tpl/2015-10\\_tpl-001-5\\_implementation\\_plan\\_clean\\_10112018.pdf](https://www.nerc.com/globalassets/standards/reliability-standards/tpl/2015-10_tpl-001-5_implementation_plan_clean_10112018.pdf)

## TPL-001-5.1

<https://www.nerc.com/globalassets/standards/reliability-standards/tpl/tpl-001-5.1.pdf>

## TPL-001-5.1 P5 Contingencies and Auditor Expectations (January 2024)

[https://cdn.prod.website-files.com/67229043316834b1a60feba3/675e2ed696e4d61e4452fcf9\\_tpl-001-5.1-p5-contingencies-and-auditor-expectations-webinar-slide-deck.pdf](https://cdn.prod.website-files.com/67229043316834b1a60feba3/675e2ed696e4d61e4452fcf9_tpl-001-5.1-p5-contingencies-and-auditor-expectations-webinar-slide-deck.pdf)





# Questions?

Contact Us: [npcc.org/contact](https://npcc.org/contact)

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