



TEXAS RE

PRC-027-1 Compliance Internal Controls

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PRC-027-1 Overview

Purpose

- To maintain the coordination of Protection Systems installed to detect and isolate Faults on Bulk Electric System (BES) Elements, such that those Protection Systems operate in the intended sequence during Faults.
- This is to ensure that the absolute minimum portion of the BES is removed from service by the operation of the Protection System to maintain the reliability of the grid.

Applicability

- Transmission Owner
- Generator Owner
- Distribution Provider (that owns Protection Systems installed to detect and isolate Faults on BES Elements)

Requirement

- Applicable entities must establish and implement a process to develop new and revised Protection System settings for Bulk Electric System (BES) Elements.



Internal Control Recommendations

Create a standardized philosophy and process for developing new and revised Protection System settings for BES Elements with a clear step-by-step checklist for a fully documented procedure.

Document the maintenance process for an accurate short-circuit system model and ensure all applicable BES Elements data is part of the model. The process must include the correct data source for obtaining equipment parameters.



More Internal Controls Recommendations



Establish a process for a review and peer review of the developed settings calculations and coordination studies. Review must include that the settings meet coordination requirements, and any deviations from the standardized philosophy should be documented.

Perform a thorough internal assessment on any PRC-027-1 related activities performed by third-party contractors to confirm the accuracy of the work produced for reliability purposes.

Establish a process for performing coordination studies including study method, interval, and evaluation of the Protection System functions and document the study results.



Even More Internal Controls Recommendations!

Establish and document clear communication protocols and procedures for exchanging proposed Protection System settings to the owners of the electrically joined Facilities to ensure that Protection System settings are appropriately reviewed for coordination, and issues are addressed prior to implementation. The process should include communication of any Protection System settings changes prompted by unforeseen circumstances.

Apply internal controls designed to address and document timely responses for Protection System settings of electrically joined Facilities. Doing so will help set up proper communication channels and expectations between electrically joined Facilities for providing and/or receiving proposed Protection System settings.



Capturing Pertinent Data

The entity's established process needs to capture key details such as:

- Model review and updates
- Protection System settings calculations
- Protection System settings review
- Study results
- Dates
- Names, titles, and signatures
- Coordination issues and the resolution of those coordination issues, if applicable



Summary

It is critical that new and revised Protection System settings be reviewed, that periodic coordination studies are conducted to verify proper coordination, and that the various stages of that review be documented to ensure Protection Systems operate in the intended sequence during Faults.

By embedding internal controls to new or existing processes or procedures, your organization is likely to identify any compliance gaps that may lead to a potential noncompliance.



The background of the slide features a blurred Texas state flag on the left and a target with several darts on the right. The darts are clustered in the center of the target, suggesting a focus on a specific point.

Questions?



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Ensuring electric reliability for Texans