

Limited Information for Investigations

Issue Summary

Nearly 60 percent of misoperations with unknown causes are associated with electromechanical or solid state relays. Compared to microprocessor type relays, the data available from these two types of relays is limited, which increases the challenge of identifying the cause of a misoperation. Since a significant number of these relays are still in service, and replacement would be costly, resource intensive, and time consuming, developing investigation approaches specific to these relay types may reduce the tendency to assign unknown cause by default.

Time Estimates & Action Plan



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Entities evaluate the nature of this issue in their company using unknown misoperations data provided by WECC



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Entities determine the extent of condition by breaking down relay inventory by type, identifying the percentage of unknown misoperations by relay type, and performing internal evaluations of non-microprocessor systems to identify areas for improvement.



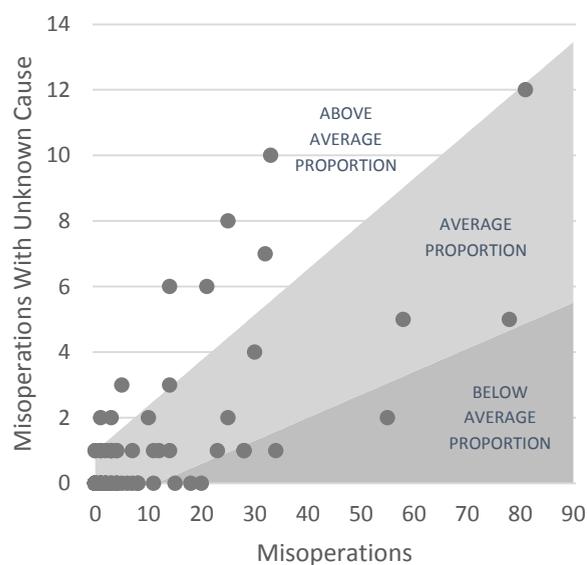
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Entities create replacement plans for non-microprocessor systems with performance issues and implement reinforcement strategies to identify areas where monitoring equipment may capture useful information.

Analysis

“Unknown” remains one of the top causes of misoperations in the Western Interconnection. When cause cannot be determined, there is an increased likelihood that the same misoperation will occur multiple times. Preliminary analysis suggests that at least one-fifth of misoperations are repeat misoperations.

Unknown Misoperations by Entity



Questions to consider:

1. Is this an appropriate issue for the Misoperations Reduction Strategy?
2. How would you rank the priority of this issue (high, medium or low), and why?
3. Do you feel each action could be accomplished in the proposed time frame?
4. Does the Action Plan adequately address the issue?
5. What is the likelihood that your company would adopt the Action Plan (likely, possibly, unlikely), and why?