

Mitigation of High Voltage Equipment Design Deficiencies for Improved Operation and Maintenance

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Abstract : Proper operation and maintenance (O&M) activities of high voltage equipment can lead to an increased asset lifecycle and maintain its integrity and reliability. Such a vital process is important to be proactively considered during equipment design and manufacturing phases by removing and eliminating any obstacles in the equipment which adversely affect the (O&M) activities. This paper presents a gap analysis pertaining to difficulties in performing operations and maintenance (O&M) high voltage electrical equipment, includes power transformers, switch gears, motor control center, disconnect switches and circuit breakers. The difficulties are gathered from field personnel, equipment design review comments, quality management system, and lessons learned database. The purpose of the gap analysis is to mitigate and prevent the (O&M) difficulties as early as possible in the design stage of the equipment lifecycle. The paper concludes with several recommendations and corrective actions for all identified gaps in order to reduce the cost (O&M) difficulties and improve the equipment lifecycle.

Keywords : operation and maintenance, high voltage equipment, equipment lifecycle, reduce the cost of maintenance

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