

767 – Flashover caused by Electrostatic Discharge during Transformer Routine Switching

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Abstract: When switching on a power transformer, the coupling of the applied step voltage function to the stray capacitance and inductance of the secondary winding is generating an oscillatory transient voltage. The existence of a resonant point close to that oscillation frequency can amplify the surge severity above the insulation withstand and lead to insulation breakdown or flashovers. In addition, factors affecting the transformer capacitance, like the oil degradation, might shift the resonance point and impact the surge severity.