

Periodic drying
corrects test results.

Continuous moisture management
corrects failure mechanisms.

CAUSE

Moisture in oil-paper
insulation

MECHANISMS

- ✓ Lower dielectric strength
- ✓ Higher dielectric losses
- ✓ Faster cellulose depolymerization
- ✓ PD & bubbling susceptibility
- ✓ Accelerated oxidation

DIAGNOSTICS (OBSERVED CONSEQUENCES)

- ✓ BDV ↓
- ✓ DDF ↑ / Resistivity ↓
- ✓ CO, CO₂, H₂ ↑ (DGA)
- ✓ Furans / Methanol ↑
- ✓ IFT ↓ / Acidity ↑
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- ✓ IFT ↓ / Acidity ↑
- ✓ Fibers & particles ↑

Diagnostics observe consequences – management must address **the cause**.