

Task Force - Chair P. McShane

- **Recommended Terminology for the use of Fluid, Oil, and Liquid across all the Transformer Standards, Guides and Best Practices**
- Presented Nov 2, 2011 in Boston at Standards SC meeting.

Insulating Fluids and C57 Series

Task Force to review and report in a white paper nomenclature uniformity issues and locate clauses that should consider including or excluding alternative fluids.

Stds SC C57 Review Project Focus

- Various nomenclatures used for transformer dielectric coolants. Should create uniformity
- Omissions of various alternative fluids in existing clauses even though inclusion is technically valid.
- Clauses where generic oil terms are used but should be limited to mineral oil for technical reasons.
- Clauses where revisions may be necessary based on the different fluid technical properties.

Example: Modify based on Different Characteristics

- Power Factor Limit of Transformer
 - Value dependent on insulation system (paper and fluid)
 - Esters have higher typical dissipation factor than MO, which will cause higher transformer power factor readings even with all other variables equal.

TF Approved 4/13/11

- Patrick McShane Accepted Chair Position
- Outcome of TF will be a white paper on the C57 set review findings.
- Will use current new 2011 Collection
- Volunteers Requested.

Examples: Nomenclature Consistency

- Terms may be found in C57:
 - Oil
 - Mineral Oil
 - Liquid Filled
 - Transformer Oil
 - Silicone, High Molecular Weight Hydrocarbon, Natural Esters
 - Insulating Liquids
 - Synthetic Insulating Liquids

Examples: Omissions

- **IEEE Std C57.12.34™-2004**
 - **IEEE Standard Requirements for Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers (2500 kVA and Smaller)****1.2 Scope**
 - This standard covers certain electrical, dimensional, and mechanical characteristics and takes into consideration certain safety features of three-phase, 60 Hz, mineral-oil-immersed,

Example: Should be only for MO

- **Title DGA C57.106 : “IEEE Guide for Acceptance and Maintenance of Insulating Oil in Equipment”**
- **Recommend adding “Mineral” before Oil**