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Dear Phil,

Thank you for the invitation to attend the meeting on Functional Life Tests for DETCs on 04/21/09. Although I will not be attending this meeting, I would like to share my observations and views with you and others who are part of this group and Bill Henning's working group on Tap Changer Requirements, C57.131.

As I recall discussion from past meetings, it was agreed that the work done by your task force represents very important findings for designers of DETC apparatus. It would provide guidance to the designer about selection of proper material pairs, contact plating materials, and various insulating liquids. It provides a screening tool in terms of testing for validation of the DETC performance in using these materials. It was discussed that these findings should be reported in a technical paper. The activities of this task force should end after reporting the results.

It was also discussed that without clear specification about the test details, this test could not become standardized. A list of unresolved and unspecified test parameters follows.

1. Moisture content.
2. Sulfur content.
3. Oxygen exposure at the oil surface.
4. Oil stirring.
5. Are we allowed to change oil during the test?
6. The criteria for defining stable equilibrium.
7. The size of the test tank and oil volume.
8. Safety at the proposed liquid temperatures.
9. Preparation (Cleaning, polishing of contacts).
10. Free breathing or sealed tank.

It was also discussed that transformer standards do not require or specify functional life tests on other critical transformer components such as load tap changers and bushings.

In light of these points, I request that you consider publishing a task force paper on this important subject and bring closure to the important work you have done in this area.

Thanks,

Sam Mehta

Cc: Bill Henning

Cc: Jin Sim