



OIL SAMPLING AND GAS ANALYSIS

Product Bulletin HV-10-PB003r4

Areva CT's, VT's and metering units type OSKF, OTEF and KOTEF are hermetically sealed. No oil maintenance is required over the life of the transformer.

Areva recommends the taking of oil samples for oil/gas analysis only if unusual service conditions have been observed, and if internal pre-damage of the units is suspected.

If oil sampling is required, Areva should be contacted. The oil samples should be taken by trained Areva personnel or by following the Areva supplied sampling instructions and using the Areva sampling kit.

With improperly executed oil sampling and re-filling there could be air inserted into the units (dielectrically dangerous) or the wrong oil quantity could be established (problems could arise with low or high temperatures). Furthermore, care must be taken or the result of the gas analysis could be falsified by wrong oil sampling procedures.

Areva recommends to evaluate the gas analysis according to the values set up in the Cigre-paper of WG-07/SC 23 – "Instrument Transformer Technology and Service Behavior – Checking and Monitoring" (Elektra No. 124, May 1989).

According to that paper, the maximum gas contents before actions should be taken are:

H ₂	Hydrogen	120 ppm
CH ₄	Methane	20 ppm
C ₂ H ₆	Ethane	40 ppm
C ₂ H ₄	Ethylene	10 ppm
C ₂ H ₂	Acetylene	5 ppm

In case the sample values are in excess of these recommended maximum values Areva should be contacted immediately.

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