

SAMPLING OF TRANSFORMER OIL

SAMPLING POINT

The oil sample should preferably be taken at a point where the oil is normally in circulation e.g. on the pipes to the coolers if available.

However, care should be taken not to sample near live leads. Once a suitable sampling point with a 50 mm diameter valve has been selected, modify to fit an adapter.

Label this point as the oil sampling point, so that all future samples will be taken from this point.

SAMPLING PROCEDURE

1. Start the oil pumps of the cooling system, if applicable. Let the oil circulate for about 30 minutes before sampling.
2. Remove the plug from the sampling point and fit adapter.
3. Fit a transparent P.V.C. hose over the nozzle of the adapter.
4. Open the valve until a reasonable flow of oil is established, free of air bubbles. Once this flow is established do not touch the valve until sampling is completed otherwise dirt may be dislodged, contaminating the sample.
5. Allow \pm one litre to run to waste (into a bucket) Note: This is subject to the size of the Transformer.
6. When satisfied that the oil is free from air bubbles, rinse the sample tins by filling with \pm 100 ml oil, replacing the screw cap and rotate the tin slowly to insure all internal surfaces are rinsed, unscrew the cap and empty contents into bucket. Rinsing must be done twice.
7. Immediately after second rinsing procedure, fill the tin until the oil overflows, making sure no air is trapped in the container. Remove the P.V.C. hose from the filler neck. Squeeze the tin walls gently, allowing some oil to overflow replacing the screw cap at the same time.
8. Shake the tin to ensure there is no air present. If there is, discard the oil and resample.
9. Shut the valve, remove the adapter and refit the plug.
10. Fill in the required information on the label and attach it to the tin. All relevant information should be taken from the transformer nameplate.
Give reasons for sampling e.g. Routine, Buchholz trip, Prior to energising, Completion of purification, etc

NOTES

- A) Collect all waste oil for regeneration.
- B) Oil sampling requires preferably two personnel.
- C) It is vital that fingers are kept clear of items of equipment, which may come into contact with the final sample. i.e. the interior of the screw caps, the end of the P.V.C hose and inside of the filler neck of the tin
- D) Do not breathe into or close to the sample whilst sampling.
- E) Samples should not be taken during rainy/drizzle conditions.
- F) Samples should be taken ideally on clear windless day

CONTENTS OF Transformers Oil Sampling Kit

