"SEALEDAIRE" TRANSFORMERS

INSTRUCTIONS

General

To insure the satisfactory operation of Westinghouse power transformers, means are provided to prevent the deterioration of oil and insulation by the exclusion of oxygen and moisture.

Sealedaire Transformers have the gas space above the oil sealed to prevent breathing under operating conditions. All ratings are supplied with a diaphragm relief device as described on I.L. 3239, which will relieve abnormal pressures.

A high degree of protection is provided against the entrance of moisture as breathing is eliminated except with the most extreme changes in transformer temperature. Sufficient gas space is provided above the liquid to allow for its expansion and contraction with temperature changes.

Explosive gases cannot be formed within Sealedaire transformers because after a short period of operation the oxygen in the gas space is absorbed by the oil and no more can enter the sealed case.

High acidity of the oil is prevented. Sludge, which under certain conditions is easily formed at operating temperatures when there is a continued supply of oxygen, will not be formed in Sealedaire transformers.

Hot spots in the winding are avoided since no sludge is formed to impede oil circulation in the cooling ducts.

Periodic filtering of the oil should be unnecessary with reasonable care and maintenance of Sealedaire transformers.

In the mechanical design of Sealedaire transformers, special consideration has been given to all of the details which would have any effect on the ability of the tank to remain essentially tight during years of service and under all conditions usually encountered. Carefully designed gasket surfaces are used to provide the best insurance for a tightly sealed tank. Corprene gaskets and metal retainers and stops are used for all bushings 8700 volts and above and on all manhole openings.

Maintenance

The Sealedaire Transformer is completely tested for leaks before it leaves the factory and should require very little maintenance. Should it be necessary to open the transformer after it has been in service, care should be exercised in reclosing handholes, valves and plugs tightly and promptly so no leakage results. If the transformer cover or any of the bushings have been removed the gaskets should be replaced according to directions given on I.L. 3152.

If a source of dry air pressure or compressed nitrogen is available, it is desirable as part of a regular program of inspection to make an eight pounds per square inch pressure test for a period of six hours to detect leakage. The upper filter press connection with proper fittings can be used for attaching the pressure supply. The test pressure can best be limited by the use of a regulating valve on the air or nitrogen cylinder. A check for leaks above the oil level may be made with a solution of soap and water applied to all gasketed joints and screwed fittings.

For making pressure tests we recommend the use of test set Westinghouse Style Number 1243888, shown on Fig. 1 .

FIG. 1—TEST SET 1243888

Westinghouse Electric & Manufacturing Company

Sharon, Pa.

ıghouse Press
! in U.S.A.