Manufacturing Unit : Dabhota Industrial Area, Nalagarh, HP.

STORAGE OF TRANSFORMER

It is advisable to locate a transformer, complete with liquids in its permanent location even if it will not be placed in service for some time. It is well to check the paint finish and to repair all damaged painted surfaces. If the transformer is shipped and stored in dry inert gas, the gas pressure should be maintained and periodically tested.

Radiators should be stored on their shipping pallets. Oil-filled condenser bushings should be stored upright, if possible, for extended periods of time.

If a transformer has been stored for greater than ninety days prior to energization additional testing will be required. This is noted in the section of this manual covering field testing.

- **Location**

Store transformers in a clean, climate-controlled building if possible. If storing outdoors, cover with a waterproof cloth. Avoid storing transformers in areas with high moisture, salt, or corrosive gases.

- **Position**

Store transformers upright on a solid foundation that can support the transformer's weight. Avoid storing transformers on jacks, rollers, or temporary blocking.

- **Maintenance**

Perform acceptance and maintenance tests at the end of the storage period.

- **Dryness**

Keep the transformer's internal components and windings dry and free of dust.

Breather cap should be closed
Transformer should be kept straight & not at an angle.
Oil sample should be taken out & BDV shall be done before charging the transformers.
Open radiators should be properly covered so that there is no water or moisture ingress inside the radiators.

INSPECTION & MAINTENANCE SCHEDULE FOR DISTRIBUTION TRANSFORMERS:

Sl	**Inspection frequency**	**Items to be inspected**	**Inspection notes**	**Action required if inspection shows un-satisfactory conditions**
1.	Fortnightly	(i) Dehydrating Breather (ii) Oil Level in	Check that air passages are clear Check colour of active agent (silica Gel)	Clean air passages. If silica gel is pink, change with spare. Charge. The old charge may be reactivated

		Transformer (iii) Physical Condition	Check transformer oil level	for use again. If oil level is low, top up with dry oil. Examine transformer for leaks. If loose. Tighten: replace if cracked
2.	Monthly	(i) Connections (HT & LT terminals) (ii) Explosion vent (iii) Diaphragm (Pressure relief device)	Check tightness Check for cracks/ damages Check for any oil spillage	Tighten the terminal connections Replace lugs if required Replace the gasket
3.	Quarterly	Bushings	Examine for cracks and dirt deposits Check for external connection	Clean or replace Tighten, if required
4.	Half yearly	(i) Non oil conservator tank transformer (ii) Cable boxes, gasket joints, gauges and general paintwork.	Check for moisture under cover Inspect	Improve ventilation Maintenance of breathers to be ensured Take remedial measures
5.	Yearly	(i) Oil in transformer (ii) Earth resistance	Check for dielectric strength Check for acidity and sludge <I ohm	Oil filtration to restore quality of oil. Take suitable action if earth resistance is high

INSPECTION & MAINTENANCE OF TRANSFORMER AND ACCESSORIES:

A. Overall Sub-station Inspection cum Maintenance Report.

a. Capacity of Transformer

b. Date of inspection

Sl	**Items to be inspected**	**Condition/Observations/Remarks**
1	Physical condition of the transformer	

2	DOs/Main switch/Cut-Out		....	
3	LT feeders			
4	Cable Lugs		....	
5	Earthing, Earthing Leads, etc			
6	Lightening Arrestor		....	
7	Arching Horn			
8	Transformer Bushing		..	
9	Breather		....	
10	Condition of silica gel			
11	Radiator		....	
12	Oil level			
13	Oil leakage in any		....	
14	HT Terminal			
15	LT Terminal		....	
16 ..	Current (Amps)	Peak Hours .	a. R-phase b. Y-phase c. B-phase	
		Off-Peak Hours	a. R-phase b. Y-phase c. B-phase	
17	I R Value	a. HT-LT b. HT-E c. LT-E		