National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : REGIONAL TESTING LABORATORY (NR-II),POWERGRID CORPORATION OF INDIA LIMTED, 400/220 KV SUBSTATION, G.T. ROAD, KARTARPUR, JALANDHAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5855 **Page No** 1 of 4

Validity 14/10/2022 to 13/10/2024 **Last Amended on** -

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Carbon Type Analysis- Ca	IEC-60590
2	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Carbon Type Analysis- Cn	IEC-60590
3	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Carbon Type Analysis- Cp	IEC-60590
4	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Dissipation factor test (Tan delta)	IEC-60247
5	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Dissipation factor test (Tan delta)	IEC-60247
6	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Strength Test (BDV)	IEC-60156
7	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Strength Test (BDV)	IEC-60156
8	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis - carbon Dioxide (CO_2)	ASTM D-3612 Method C
9	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis - carbon Dioxide (CO_2)	ASTM D-3612 Method C
10	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis - Ethane(C_2H_6)	ASTM D-3612 Method C
11	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis - Oxygen (O_2)	ASTM D-3612 Method C
12	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis - Oxygen (O_2)	ASTM D-3612 Method C
13	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Acetylene (C_2H_2)	ASTM D-3612 Method C

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14	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Acetylene (C2H2)	ASTM D-3612 Method C
15	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Acetylene (C2H2)	IEC-60567 Method C
16	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Acetylene (C2H2)	IEC-60567 Method C
17	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Carbon Dioxide (CO2)	IEC-60567 Method C
18	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Carbon Dioxide (CO2)	IEC-60567 Method C
19	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Carbon Monoxide (CO)	ASTM D-3612 Method C
20	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Carbon Monoxide (CO)	ASTM D-3612 Method C
21	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Carbon Monoxide(CO)	IEC-60567 Method C
22	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Carbon Monoxide(CO)	IEC-60567 Method C
23	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Ethane (C2H6)	IEC-60567 Method C
24	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Ethylene (C2H4)	ASTM D-3612 Method C
25	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Ethylene (C2H4)	ASTM D-3612 Method C
26	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Hydrogen (H2)	ASTM D-3612 Method C
27	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis- Hydrogen (H2)	ASTM D-3612 Method C

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28	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Hydrogen (H2)	IEC-60567 Method C
29	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Hydrogen (H2)	IEC-60567 Method C
30	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Methane (CH4)	ASTM D-3612 Method C
31	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Methane (CH4)	ASTM D-3612 Method C
32	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Nitrogen (N2)	ASTM D-3612 Method C
33	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Nitrogen (N2)	ASTM D-3612 Method C
34	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Nitrogen (N2)	IEC-60567 Method C
35	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Nitrogen (N2)	IEC-60567 Method C
36	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Oxygen (O2)	IEC-60567 Method C
37	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Ethylene (C2H4)	IEC-60567 Method C
38	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis-Ethylene (C2H4)	IEC-60567 Method C
39	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved gas Analysis-Methane (CH4)	IEC-60567 Method C
40	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved gas Analysis-Methane (CH4)	IEC-60567 Method C
41	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Flash point test	ASTM D93-B

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42	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Flash point test	ISO-2719
43	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Furan analysis test- 2 Furfuraldehyde (2 FAL)	IEC-61198
44	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Furan analysis test- 2acetylfuran (2 ACF)	IEC-61198
45	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Furan analysis test- 2-furfurylalcohol (2 FOL)	IEC-61198
46	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Furan analysis test- 5-hydroxymethyl-2-furfural (5 HMF)	IEC-61198
47	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Furan analysis test-5-methyl-2-furfural (5 MEF)	IEC-61198
48	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Inhibitor content measurement	IEC-60666
49	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Inter Facial Tension Test	ASTM D-971
50	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Specific Resistance Test (Resistivity)	IEC-60247
51	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Specific Resistance Test (Resistivity)	IEC-60247
52	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Total acidity test (Neutralization value)	IEC-62021-1
53	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Water content test	IEC-60814
54	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Water content test	IEC-60814