National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : NTPC ENERGY TECHNOLOGY RESEARCH ALLIANCE (NETRA), NTPC LTD., PLOT NO. E-3, ECOTECH-II, UDYOG VIHAR, NOIDA, GAUTAMBUDH NAGAR, UTTAR PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

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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	CHEMICAL- CORROSION TESTS	Boiler Tube internal deposit	Deposit weight density measurement	ASTM-D-3483
2	CHEMICAL- CORROSION TESTS	Cooling water	Corrosion/Scaling behaviour	IS-8188
3	CHEMICAL- CORROSION TESTS	Scale inhibitor	Scaling inhibition efficiency	NACE-TM 0374
4	CHEMICAL- LUBRICANTS	Insulating Oil	Dielectric strength(BDV)	ASTM D-877
5	CHEMICAL- LUBRICANTS	Insulating oil	Dielectric strength(BDV)	IS-6792
6	CHEMICAL- LUBRICANTS	Insulating oil	Dissolved Gas Analysis (DGA)	ASTMD3612-Method -C
7	CHEMICAL- LUBRICANTS	Insulating oil	Kinematic Viscosity	ASTM D 445
8	CHEMICAL- LUBRICANTS	Insulating oil	Moisture content	ASTM D6304
9	CHEMICAL- LUBRICANTS	Insulating oil	Specific resistance (Resistivity)	ASTM-D1169
10	CHEMICAL- LUBRICANTS	Insulating oil	Total Acid Number (TAN)	ASTM D 974
11	CHEMICAL- LUBRICANTS	Insulating oils	Flash Point	ASTM D93
12	CHEMICAL- LUBRICANTS	Insulation Oil	Tan Delta	ASTM-D-924
13	CHEMICAL- LUBRICANTS	Lubricating oil	Copper strip corrosion	ASTM D130
14	CHEMICAL- LUBRICANTS	Lubricating oil	Flash point by COC	ASTM D93
15	CHEMICAL- LUBRICANTS	Lubricating oil	Rust Preventive characteristics	ASTM D665
16	CHEMICAL- LUBRICANTS	Lubricating oil &fire resistant control fluid	ASTM Color of oil	ASTM D1500
17	CHEMICAL- LUBRICANTS	Lubricating oil &Fire resistant control fluid	Density	ASTM D4052
18	CHEMICAL- LUBRICANTS	lubricating oil &fire resistant control fluid	Ferrographic Analysis/Microscopic Characterization	ASTM D7690
19	CHEMICAL- LUBRICANTS	Lubricating oil &fire resistant control fluid	Kinematic Viscosity	ASTM D445
20	CHEMICAL- LUBRICANTS	lubricating oil &fire resistant control fluid	particle Quantification (pq) index	ASTM D8120
21	CHEMICAL- LUBRICANTS	Lubricating oil &fire resistant control fluid	Total Acid Number (TAN)	ASTM D974
22	CHEMICAL- LUBRICANTS	Lubricating oil& Fire resistant control fluid	Moisture content	ASTM D6304
23	CHEMICAL- METALS & ALLOYS	Carbon and low alloy Steel	Carbon (C)	ASTM E 415
24	CHEMICAL- METALS & ALLOYS	Carbon and low alloy Steel	Chromium (Cr)	ASTM E 415

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25	CHEMICAL- METALS & ALLOYS	Carbon and low alloy Steel	Manganese (Mn)	ASTM E 415
26	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Molybdenum (Mo)	ASTM E 415
27	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Phosphorous (P)	ASTM E 415
28	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Silicon (Si)	ASTM E 415
29	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Sulphur (S)	ASTM E 415
30	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon (C)	ASTM E 1086
31	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium (Cr)	ASTM E 1086
32	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese (Mn)	ASTM E 1086
33	CHEMICAL- METALS & ALLOYS	Stainless steel	Nickel (Ni)	ASTM E 1086
34	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorous (P)	ASTM E 1086
35	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon (Si)	ASTM E 1086
36	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur (S)	ASTM E 1086
37	CHEMICAL- PLASTIC & RESINS	Activated Carbon Granular	Ash (%)	Is :877
38	CHEMICAL- PLASTIC & RESINS	Activated Carbon Granular	Iodine Number	IS :2752
39	CHEMICAL- PLASTIC & RESINS	Activated Carbon Granular	Moisture (%)	IS :877
40	CHEMICAL- PLASTIC & RESINS	Ion Exchange resin	Density	IS 7330
41	CHEMICAL- PLASTIC & RESINS	Ion exchange resin	Particle Size distribution	IS-7330
42	CHEMICAL- PLASTIC & RESINS	Strong Acid Cation	Operating Capacity	ASTMD1782
43	CHEMICAL- PLASTIC & RESINS	Strong acid cation	Salt splitting capacity	ASTM D - 2187

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44	CHEMICAL- PLASTIC & RESINS	Strong acid cation	Total exchange capacity	ASTM D-2187
45	CHEMICAL- PLASTIC & RESINS	Strong acid cation and strong base anion resin	Moisture retention capacity	ASTM D-2187
46	CHEMICAL- PLASTIC & RESINS	Strong Base Anion	Operating Capacity	ASTMD3087
47	CHEMICAL- PLASTIC & RESINS	Strong Base Anion	Salt splitting capacity	ASTM-D2187
48	CHEMICAL- PLASTIC & RESINS	strong base anion	total exchange capacity	ASTMD-2187
49	CHEMICAL- PLASTIC & RESINS	Weak acid cation	Total exchange capacity	IS - 7330
50	CHEMICAL- PLASTIC & RESINS	Weak acid cation and weak base anion resin	Moisture retention capacity	ASTM D2187
51	CHEMICAL- PLASTIC & RESINS	Weak Base Anion	Total Exchange Capacity	IS 7330
52	CHEMICAL- RESIDUES IN WATER	Water	Cadmium	APHA 311123rd Edition
53	CHEMICAL- RESIDUES IN WATER	Water	Chromium	APHA-3111 23rd ed
54	CHEMICAL- RESIDUES IN WATER	Water	Copper	APHA 3111,23rd Ed
55	CHEMICAL- RESIDUES IN WATER	Water	Fluoride	APHA 23rd edition
56	CHEMICAL- RESIDUES IN WATER	water	Iron	APHA 4500F D23rd Edition
57	CHEMICAL- RESIDUES IN WATER	water	Lead	APHA 23rd Edition
58	CHEMICAL- RESIDUES IN WATER	Water	Mercury	APHA 23rd edition
59	CHEMICAL- RESIDUES IN WATER	Water	Zinc	APHA 23rd Edition
60	CHEMICAL- SOLID FUELS	Coal	Ash Fusion Temperature (AFT) Oxidising Flow Temperature (FT)	ASTM 1857
61	CHEMICAL- SOLID FUELS	Coal	Ash Fusion Temperature (AFT) : Oxidising: Hemispherical Temperature (HT)	ASTM 1857

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62	CHEMICAL- SOLID FUELS	Coal	Ash Fusion Temperature (AFT) Reducing Flow Temperature (FT)	ASTM 1857
63	CHEMICAL- SOLID FUELS	Coal	Ash Fusion Temperature (AFT) Reducing ; Hemispherical Temperature (HT)	ASTM 1857
64	CHEMICAL- SOLID FUELS	Coal	Ash Fusion Temperature (AFT) Reducing Spherical Temperature (ST)	ASTM 1857
65	CHEMICAL- SOLID FUELS	Coal	Ash Fusion Temperature (AFT), Oxidising: Initial Deformation Temperature (IDT)	ASTM 1857
66	CHEMICAL- SOLID FUELS	Coal	Ash Fusion Temperature (AFT): Reducing Initial Deformation Temperature	ASTM 1857
67	CHEMICAL- SOLID FUELS	Coal	Gross calorific value	ASTM D 5865
68	CHEMICAL- SOLID FUELS	Coal	Moisture in Equilibrated Sample (60% RH &40 Degree Celcius)	IS 1350 (part 1)
69	CHEMICAL- SOLID FUELS	Coal	Proximate analysis- Ash	ASTM 7582
70	CHEMICAL- SOLID FUELS	Coal	Proximate Analysis- Ash	IS 1350 (PART 1)
71	CHEMICAL- SOLID FUELS	Coal	Proximate Analysis Fixed Carbon	IS 1350 (PART 1)
72	CHEMICAL- SOLID FUELS	Coal	Proximate Analysis- Fixed Carbon	ASTM D7582
73	CHEMICAL- SOLID FUELS	Coal	Proximate Analysis Moisture	IS 1350 (part 1)
74	CHEMICAL- SOLID FUELS	Coal	Proximate analysis- Moisture	ASTM D7582
75	CHEMICAL- SOLID FUELS	Coal	Proximate Analysis Volatile Matter	IS 1350 (PART 1)
76	CHEMICAL- SOLID FUELS	Coal	Proximate analysis-Volatile Matter	ASTM D7582
77	CHEMICAL- SOLID FUELS	Coal	Sulphur	ASTM D 4239
78	CHEMICAL- SOLID FUELS	Coal	Total Moisture% (TM) (As Received Basis ARB)	IS 1350 (PART 1)
79	CHEMICAL- SOLID FUELS	Coal	Ultimate Analysis (As Received AD,Dry Basis DB, As Received Basis ARB) Hydrogen	ASTM D 5373

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80	CHEMICAL- SOLID FUELS	Coal	Ultimate Analysis (Air Dried AD, Dried Basis DB, As Received Basis ARB) Oxygen	ASTM D 3176
81	CHEMICAL- SOLID FUELS	Coal	Ultimate Analysis (Air Dried Basis AD, Dry Basis DB, As Received Basis ARB) Carbon	ASTM D 5373
82	CHEMICAL- SOLID FUELS	Coal	Ultimate Analysis(Air Dried AD, Dry Basis DB, As Received basis ARB) Nitrogen	ASTM D 5373
83	CHEMICAL- SOLID FUELS	Coal Ash	Al2O3	ASTM D 4326
84	CHEMICAL- SOLID FUELS	Coal Ash	CaO	ASTM D 4326
85	CHEMICAL- SOLID FUELS	Coal Ash	Fe2O3	ASTM D 4326
86	CHEMICAL- SOLID FUELS	Coal Ash	MgO	ASTM D 4326
87	CHEMICAL- SOLID FUELS	Coal Ash	SiO2	ASTM D 4326
88	CHEMICAL- SOLID FUELS	Coal Ash	SO3	ASTM D 4326
89	CHEMICAL- WATER	Treated Water	Biochemical Oxygen Demand (BOD)	APHA-5210B,23rd Edition
90	CHEMICAL- WATER	Treated Water	Chemical Oxygen Demand (COD)	APHA -5220D,23rd Ed: 2017
91	CHEMICAL- WATER	Treated Water	Conductivity	APHA ,23rd Edition
92	CHEMICAL- WATER	Treated Water	pH	APHA ,23rd Edition
93	CHEMICAL- WATER	Treated Water	Turbidity (NTU)	APHA -2130,23rd Ed.
94	NON-DESTRUCTIVE-METALS & ALLOYS	Ferromagnetic Materials	Magnetic Particle Inspection (MPI) - Yoke type (Fluorescent & Visible)	ASME BPVC Section V, SE 709-08
95	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous & Non - Ferrous metals & alloys	Ultrasonic Thickness Measurement	ASTM E 797-21
96	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous & Non -ferrous metals & alloys	Ultrasonic Testing (Contact Pulse-echo type)	ASME BPVC, Sec V Articles 4,5 & 23
97	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous & Non -Ferrous metals &alloys	Dye- penetrant test (Fluorescent & Visible)	ASME BPVC Section V-Article 6,24(SE165)
98	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous & Non-ferrous metals & alloys	In-situ Metallography	ASTM E1351-01
99	NON-DESTRUCTIVE-METALS & ALLOYS	Metallic Materials (Dummy)	Rebound Hardness (Leeb Hardness)	ASTM A956/A956M-17a

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Site Facility				
1	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous & Non-ferrous metals & alloys	In-situ Metallography	ASTM E1351-01
2	NON-DESTRUCTIVE-METALS & ALLOYS	Metallic Materials (Dummy)	Rebound Hardness (Leeb Hardness)	ASTM A956/A956M-17a