NEPALIMITED NEPANAGAR

Technical Service Charges.

The following testing facilities of fibrous, non-fibrous raw materials, Pulp, Paper & Effluent Samples are available in the R&D Centre.

S.	Test	NEPALIMITED R&D	
No.		Charges	Method
	PULPING & BLEACHING	(₹)	
1.	Raw material evaluation – pulping, bleaching & pulp evaluation (optimization of cooking & strength properties)	20,000	-
2.	Bleaching optimization (CEH)	20,000	-
	PULP EVALUATION		
1.	Beating & Sheet formation (PFI mill or Valley Beater)	6,000	T-248hm-85
2.	Refining of pulps using sprout Waldron Laboratory Disc. Refiner , including pulp evaluation) one set	15,000	Nepa
3.	Bauer McNett Fibre Classification	2,000	T-233 hm-82
4.	Freeness (CSF)	400	T-227 om-85
5.	Shive analysis of pulp	2,000	Nepa
	PAPER TESTING - PHYSICAL PROPERTIES		
1.	Ash content	300	T-413 om-85
2.	Bursting strength	300	T-403 om-85
3.	Cobb sizing test	300	T-441 om-84
4.	Grammage	300	T-410 om-83
5.	Folding Endurance	300	T-423 om-84
6.	Moisture	300	T-412 om-83
7.	Porosity (Bendtsen)	300	-
8.	Tearing strength	300	T-404 om-82
9.	Tensile strength	300	T-404 om-82
10.	Thickness	300	T-411 om-84
11.	Smoothness (Bendtsen)	300	-
	OPTICAL PROPERTIES		
1.	Brightness	400	T-452 om-83
2.	CIE, colour coordinates	400	T-527 su-72
3.	Opacity	400	T-425 om-81

	CHEMICAL TESTING		
1.	Alum	1000	IS – 299 (1980)
2.	Soda ash	300	IS – 251 (1982)
3.	Soap Stone Powder (Sand, Grids, Calcium carbonate, Mesh size & Brightness)	1000	T- 665 om - 89
4.	Common Salt	1000	IS – 797 (1976)
5.	Poly Aluminum Chloride	1000	IS – 15573 (2005)
6.	Sulphuric Acid	1000	IS – 266 (1977)
7.	Hydrochloric Acid	1000	IS – 265 (1976)
8.	Caustic Lye	1000	IS – 252 (1991)
9.	Sodium Silicate	2000	IS – 381 (1972)
10.	Hydrogen Peroxide	1000	IS – 2080 (1972)
11.	Rosin	1000	Nepa
12.	Slimicide	1000	Nepa
13.	Defoamer	1000	Nepa
14.	De-inking Chemical	1500	Nepa
15.	Waste Paper	1500	Nepa
16.	Whitening agent	1000	Nepa
	WATER ANALYSIS		
1.	Colour	500	
2.	PH	200	
3.	Dissolved solids	300	
4.	Silica as SiO2	700	IG 40500 (4004)
5.	Alkalinity - Methyl orange alkalinity as CaCO3 - Phenolphthalein alkalinity as CaCO3	200 200	- IS-10500 (1991)
6.	Total hardness - Temporary as CaCO3 - Permanent as CaCO3	400 400	
7.	Sulphates	400	
8.	Chlorides	400	
9.	Iron	300	

	EFFLUENT ANALYSIS		
1.	Dissolved Oxygen	1000	IS-3025 (Part 38)1989
1.	COD	1000	IS-3025 (Part 38)1983
2.	BOD	2000	IS-3025 (Part 44)1993
3.	Alkalinity as CaCO3	800	IS-3025 (Part 23)1986
4.	Chloride	500	IS-3025 (Part 32)1988
5.	Total Suspended Solid	500	IS-3025 (Part 17) 1984
6.	Total Dissolved Solids	500	IS-3025 (Part 16) 1984
	BIOASSAY METHODS		
1.	Toxicity assay of effluents		
	FINISHING MATERIAL OF ROLLS		
1.	Kraft Paper	1000	Nepa
2.	Paper core	500	Nepa
3.	Core Plug	500	Nepa
4.	Synthetic Glue	1000	Nepa
5.	Plastic Strip	300	Nepa
6.	Side Circular Disc.	300	Nepa
7.	Splicing Tape	300	Nepa

NEPA LIMITED NEPANAGAR

(A Covt of India Undertaking)



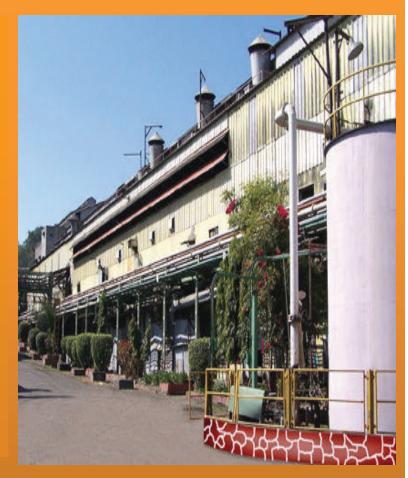
IN-HOUSE R&D CENTRE

Physical & Optical Properties of Pulp & Paper, Chemical and Water Analysis

INTRODUCTION

Nepa Limited is a pioneer newsprint Industry under administrative control of Ministry of Heavy Industries and **Public Enterprises, Department** of Heavy industry, Govt. of India. Mill was commissioned in April 1956. Total installed capacity is TPA. 88.000 Initially its production was based mainly on stone ground- wood Mechanical pulp and Chemical pulp.

From 1996 onwards, company has adopted eco-friendly technology and has started manufacturing newsprint from secondary fibre.



Our Mission

To Stimulate, continue & accelerate effort to maximize contribution for sustainable future development growth

BUSINESS POLICY

Standardiz

Customer Satisfaction
Continuous Innovation

Environmental Concern

Optimum Resource utilization

Employee's participation and satisfaction

Congenial Relation with suppliers and customers

IN - HOUSE R & D CENTRE

R&D centre is registered with Department of Science and Industrial Research, Ministry of Science and Technology, Govt. of India. Nepa R&D centre is well equipped with modern technology facility.

HUMAN RESOURCE

R & D centre has 10 Scientists and 12 technicial staff to carry out various projects, inspection and testing of chemicals, raw materials and technological innovation. Staff of R&D centre get hand on experience and familiarity with pulp and paper mill processes in Nepa limited.



TELFGRAM SCINDRSCH gv#// TEJ 26962819, 26567373 25665697, 26562144 25562134, 26562122 (EPBAX) 春杯/FAX 28960292, 26529745 26516078 Wehsite http://www.datt.gov.in



विक्त न और प्रीवोगिकी मंत्रलय वैज्ञानिक और औद्योगिक अनुस्थान विभाग देवनं लीजी भवन नया महर्र ती मार्ग, नई दिल्ली — 150016 GÖYLANMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY Department of Scientific and Industrial Research Technology Bhavan New Mehraull Road, New Delni-110 C18

भारत सरकार

BY REGISTERED POST

F. No. TU/IV-RD/1076/2010 Dated: April, 2011

Τø

Nepa Limited Nepa Nagar-450221 Dist, Burhanpur Madhya Pradesh

Subject: RENEWAL OF RECOGNITION OF IN-HOUSE R&D UNIT (5)

Dear Sirs.

This has reference to your application for renewal of recognition of your In-House R&D unit(s) beyond 31-03-2010 by the Department of Scientific and Industrial Research.

- This is to inform you that it has been decided to accord renewal of recognition to the In-House R&D unities) of your firm at Nepa Nagar, Dist. Burhanpur (MP) upto 31.03.2014.
 Terms and conditions pertaining to this recognition are given overleaf.
- 3 Kindly acknowledge the receipt of this letter

Yours faithfully

(R.R. ABHYANKAR) Scientist – 'G'

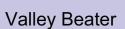
FACILITIES, SPECIALIZED EQUIPMENT

INSTRUMENTS AVAILAB

Analysis of Raw material, Pulping, Bleach and Evaluation of Pulp Series Glycol digester Sprout Waldron Lab Disc Refiner

PFI Mill





GLYCOL DIGESTER

PFI MIL



PAPER TESTING

Basic & Strength Properties

Basis weight, thickness, caliper, density,bulk, Moisture,Ash content Tensile strength
Bursting strength
Tearing Strength
Folding Endurance





Structural and Surface properties

Bendtsen Smoothness & Porosity Tester

NORAM Formation Tester (N.U.I)
PULMAC Trouble Shooter

OPTICAL PROPERTIES

TECHNIBRITE Brightness / Opacity Tester

Scattering coefficient



NON-FIBROUS MATERIAL TESTING

Alum, Poly Aluminum Chloride Soda Ash, Soap Stone powder Lime Stone, Lime, Rosin, Defoamer, Slimicide,

Hydrogen Peroxide,

Sulphuric Acid, Hydro chloric Acid,

Sodium Silicate, Caustic, chloride,

Salt Cake, Synthetic Glue



Air Monitoring

Stack Monitoring
SPM,SO2
Ambient Air monitoring
SPM,SO2,NOX

WATER AND EFFLUENT ANALYSIS

pH, Turbidity

Suspended Solid, Total Dissolved Solid, Conductivity, Hardness,

Calcium, Magnesium, Iron, sulphate, Chloride, Residual Chlorine,

BOD, COD, Bioassay test



Packing Material Testing

Paper Core

Plastic Core plug

Plastic Strip

Kraft paper

Circular Disc

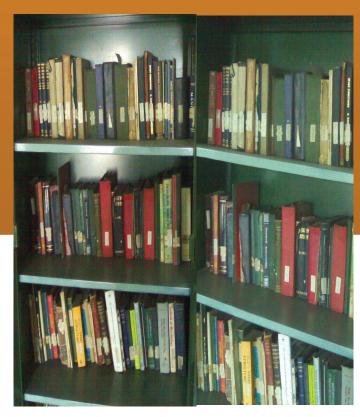
Splicing tape etc.



TECHNICAL INFORMATION LIBRARY

R&D centre has an excellent Library with about 1400 books on different subjects including Pulp & Paper technology, Engineering,

Environmental services, Industrial Chemistry, Forestry, Basic Science and Management. Library also has the relevant standards like TAPPI, APPITA,ISO,BIS. It also subscribes all well-known technical the journals (Indian & International) in the field of Pulp&Paper. This is a precious resource centre which is valuable to conduct research and development of paper industry and technology.



NEPA LIMITED NEPANAGAR

------HEAD OFFICE------

NEPANAGER - 450 221 DIST:- BURHANPUR (M.P.)

Tel.: 07325 - 222133/34/67 Fax: 07325 - 222162/65/74/76

E - mail: nepaltd@nepamills.nic.in

Website: www.nepamills.nic.in



----- REGIONAL OFFICES--

D-165, DEFENCE COLONY, NEW DELHI-110 024

Tel.: 011-24615894 / 24622751 Fax: 011-24615073

PLOT NO.E-114, PRABHU DARSHAN FLAT NO. 103, SECTOR - 3
BELPADA – KHARGHAR NAVI MUMBAI- 410210 Tel.: 022-22926032

E-7/ 773, ARERA COLONY, BHOPAL- 462 016 Tel.: 0755-2465184 Fax: 0755-

2468164