

Director (S)
Government of India, Ministry of Environment & Forests,
Eastern Regional Office,
A-3, Chandrasekharpur.
BHUBANESWAR-23

Ref: JKPW/ CTS/08.04A/45/2016,

July 27, 2016

Re: Expansion Cum modernization in Paper & Paper Board from 1,20,000 TPA to 3,00,000 TPA and Pulp from 1,10,000 BDTPA (bone dry tones per annum) to 2,20,000 BDTPA and CPP from 20 MW to 55 MW by replacement of some of the old machineries within existing mill area at Village Chandili, District Rayagada, Orissa by M/s J K Paper Limited - Environmental Clearance Compliance.

Your Reference: letter no: i) J-11011/172/2010-IA-II(I), Dated 20th April 2011

ii) J-11011/172/2010-IA-II(I), Dated 10th May 2013

Dear Sir,

With reference to the above letter, we are here with sending six monthly progress of implementation of Environmental Conditions as mentioned here under. We would also like to inform you that, we have commissioned our all new equipments and started our commercial production since 30.08.2013.

A. SPECIFIC CONDITIONS:

Point – (i)

Compliance to all the specific and general conditions stipulated for the existing plant by the Central/State Government should be ensured and regular reports submitted to the Ministry and its Regional Office at Bhubaneswar.

Status

Noted and being followed regularly.

Point – (ii)

The project authority shall install ESP to CFBC boilers to achieve the particulate emission below 50 mg/Nm³. The emissions from chemical recovery section shall be controlled through primary and secondary ventury scrubbers. To scrub the vent gases, scrubber shall be installed in the pulping and bleaching section. Lime scrubbing shall be done to mitigate SO₂ emissions and Low NOx burners shall be installed.

Status

In our new CFBC boiler with the latest design of our ESP, we are able to achieve the particulate emission below 50 mg/Nm³.

In chemical recovery boiler, we have adopted bigger size economizer with high efficient ESP instead of primary and secondary ventury scrubber, to control emissions.



Works : J.K. Paper Mills. Ph : 91-6856-233770/233550/234077. Fax: 91-6856-234078
E-mail: jkpaper@jkpm.jkmail.com

Regd. Office : P.O. Central Pulp Mills, Fort Songadh, Distt. Tapi (Guj.)-394660. Ph: 91-2624-220228/220278-80.
Fax: 91-2624-220138 Cable: Cenpulp. E-mail: cpm@cpmjk.jkmail.com

Admn. Office : Nehru House, 4, Bahadur Shah Zafar Marg, New Delhi-110002. Ph: 91-11-33001112/23311112-5.
Fax: 91-11-23712680. Website: www.jkpaper.com
CIN-L21010GJ1960PLC018099

We have adopted bleach scrubber in bleaching section by using caustic solution which is more effective than lime.

Stack emissions are being monitored using stack-monitoring devices. The monitoring results of Stack for Coal fired Boiler and liquor Fired Boiler from Dec'15 to May'16 is given below.

Monitoring results of Coal Fired Boiler

Period	Sampling locations	PM			SO ₂			NO ₂		
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
Dec'15 – May'16	Coal Fired Boiler	44.83	39.44	41.75	21.93	14.72	17.60	29.58	21.64	26.35

Monitoring results of Liquor Fired Boiler

Period	Sampling locations	PM			H ₂ S			SO ₂			NO ₂		
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
Dec'15 to May'16	Liquor Fired Boiler	47.13	41.08	44.44	6.35	3.59	4.86	26.59	19.66	22.58	33.66	26.13	30.16

Point – (iii)

The total water requirement after expansion shall not exceed 40,000 KLD. The industry should ensure the compliance of the standards for discharge of the treated effluent from the unit as stipulated under the EPA rules or SPCB whichever is more stringent. The company shall make efforts to limit the water consumption upto 75 m³/tonne of product. Adequate steps including use of modern RO/UF based technologies should be used to increase recycling and reduce water consumption. The wastewater shall be discharged only after meeting the CPCB norms. Efforts shall be made to achieve 10 Kappa by using H₂O₂. The Company shall harvest the rain water to recharge the ground water.

Status

Our fresh water consumption is well within 40,000 M³/day.

Our specific water consumption is getting reduced drastically by implementing different water saving schemes. The present water consumption is 39.97 M³ (April'15 to Mar'16) per tone of paper. The detail data is given in the graph Anx – I

Two stage oxygen delignification processes has been adopted at Pulp mill to control 10 kappa.

Presently the rain water is going to recharge wells.

Point – (iv)

Adequate number of influent and effluent quality monitoring stations should be set up in consultation with the State Pollution Control Board and regular monitoring should be carried out for all relevant parameters to maintain the effluent treatment efficiency. The report shall be submitted to Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.



Status

Influent and effluent monitoring stations are set up in consultation with the SPCB. pH, BOD, COD, TSS is being tested by Pulp and Paper Research Institute and AOX by Central Pulp and Paper Research Center, Saharanpur. The test results of pH, BOD, COD, TSS and AOX are being sent to SPCB on monthly basis. Monitoring data of Treated and untreated effluent, Upstream and Downstream of River Nagavali are attached in Annexure – II, III respectively.

Stage wise Effluent Monitoring Data

Period	Monitoring station	pH			SS (mg/l)			COD (mg/l)			BOD (mg/l)			AOX (mg/l)
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	
Dec'15 – May'16	Inlet to ET Plant	7.6	6.6	7.1	1302	318	1025	1400	101	1082	354.4	89	294.4	8.57
	Primary clarifier overflow	7.5	6.8	7.1	148	36	120.6	673	79	539.4	201.1	29.4	163.1	---
	Activated sludge basin overflow	7.7	7.1	7.4	2866	2608	2716	--	--	--	--	--	--	---
	Secondary clarifier overflow	7.6	7.1	7.3	28	7.0	18.1	257	41	167.9	22.8	2.4	13.2	3.97

Point – (v)

The company shall install Oxygen Delignification (ODL) Plant and maintain AOX below 1 kg/tonne of paper production.

Status

We have adopted two stage oxygen delignification processes in our new pulping process and the AOX level at our treated effluent is between 0.12 - 0.2 kg / ton of paper production.

Point – (vi)

Elemental Chlorine Free (ECF) technology shall be used and lime kiln should be installed to manage lime sludge.

Status

We are not using chlorine in our bleaching process.

We have commissioned one Lime kiln plant of capacity 300 MT/day for lime sludge management.

Point – (vii)

The company shall submit the comprehensive water management plan along with monitoring plan for the ground water quality and the level, within three months from date of issue of this letter.

Status

Since long, we are monitoring ground water quality twice a year at three places around the factory and reports are being submitted regularly to your office. The data is enclosed in the Annexure - IV. With respect to ground water level, we are capturing the month wise data since Oct'11 with the help of a level indicator from bore well. The month wise ground water level data is as under (From Jun'15 to Nov'15).

Month	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16
Ground water level in (m)	19.7	19.5	19.5	19.5	19.6	19.6

Point – (viii)

The ash generated from the plant shall be disposed of in accordance with the provisions of the Fly Ash Notification, 2003 as amended in 2009.

Status

In our present fly ash management system, we are utilizing 100% generated fly ash for manufacturing of bricks.

Point – (ix)

The project authority shall dispose of hazardous waste as per the provision of Hazardous Wastes (Management Handling and Transboundary Movement) Rules, 2008.

Status

This is being followed regularly and will be continued.

Point – (x)

The company should develop green belt in 33% of the total land all along the boundary wall as per the CPCB guidelines to mitigate the effect of fugitive emissions.

Status

At present, from our total area, 36.8% has been covered with green belt. In addition to that, we are planning to develop more green belt in future.

Point – (xi)

Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

Status

Being conducted regularly and records maintained.

Point – (xii)

The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.

Status

Suitable fire hydrant system is in place and it has been extended for our new operation area also.

Point – (xiii)

All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the pulp and paper sector should be strictly implemented.

Status

This is being followed strictly.



Point – (xiv)

All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 22nd December, 2010 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.

Status

We have prepared action plan to implement all the commitments made to the public during the Public Hearing through our CSR activities. Please refer to our Annexure - V

Point – (xv)

At least 5 % of the total cost of the project shall be earmarked towards the enterprise social commitment based on Public Hearing & social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.

Status

Please refer to our Annexure – V for detailed proposal and expenditure on CSR.

Point – (xvi)

Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

Status

Our project already completed and commissioned and all temporary structures have been removed.

Thanking you.

Yours faithfully,

For J K Paper Limited



Executive Vice President (Works)

Copy to:

1. Joint Director, MoEF, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi-110003
2. Member Secretary, Odisha Pollution Control Board, Bhubaneswar, Odisha
3. Regional Officer, Odisha Pollution Control Board, Kasturi Nagar, Rayagada



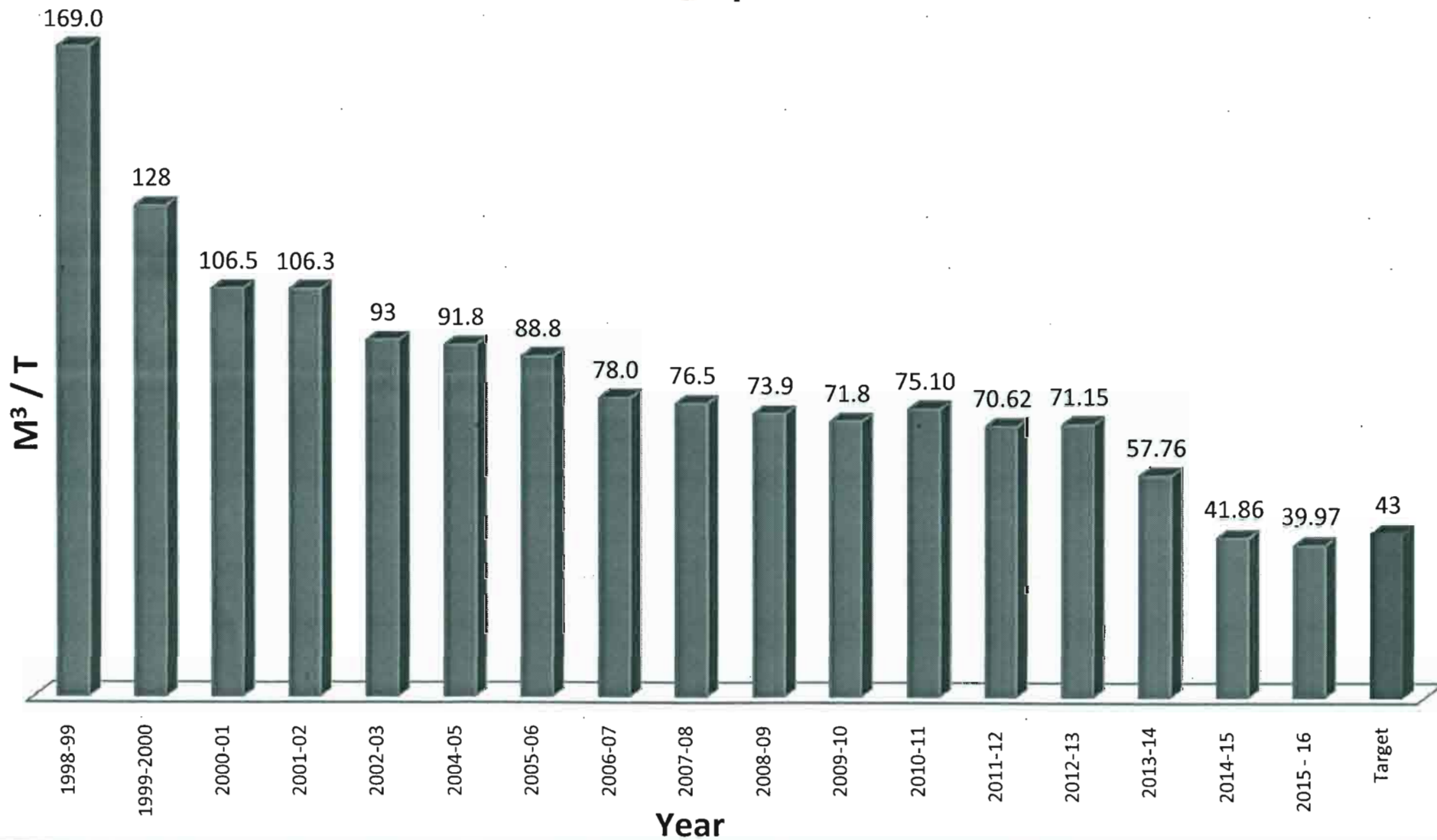
Works : J.K. Paper Mills. Ph : 91-6856-233770/233550/234077. Fax: 91-6856-234078
E-mail: jkpaper@jkpm.jkmail.com

Regd. Office : P.O. Central Pulp Mills. Fort Songadh, Distt. Tapi (Guj.)-394660. Ph: 91-2624-220228/220278-80.
Fax: 91-2624-220138 Cable: Cenpulp. E-mail: cpm@cpmjk.jkmail.com

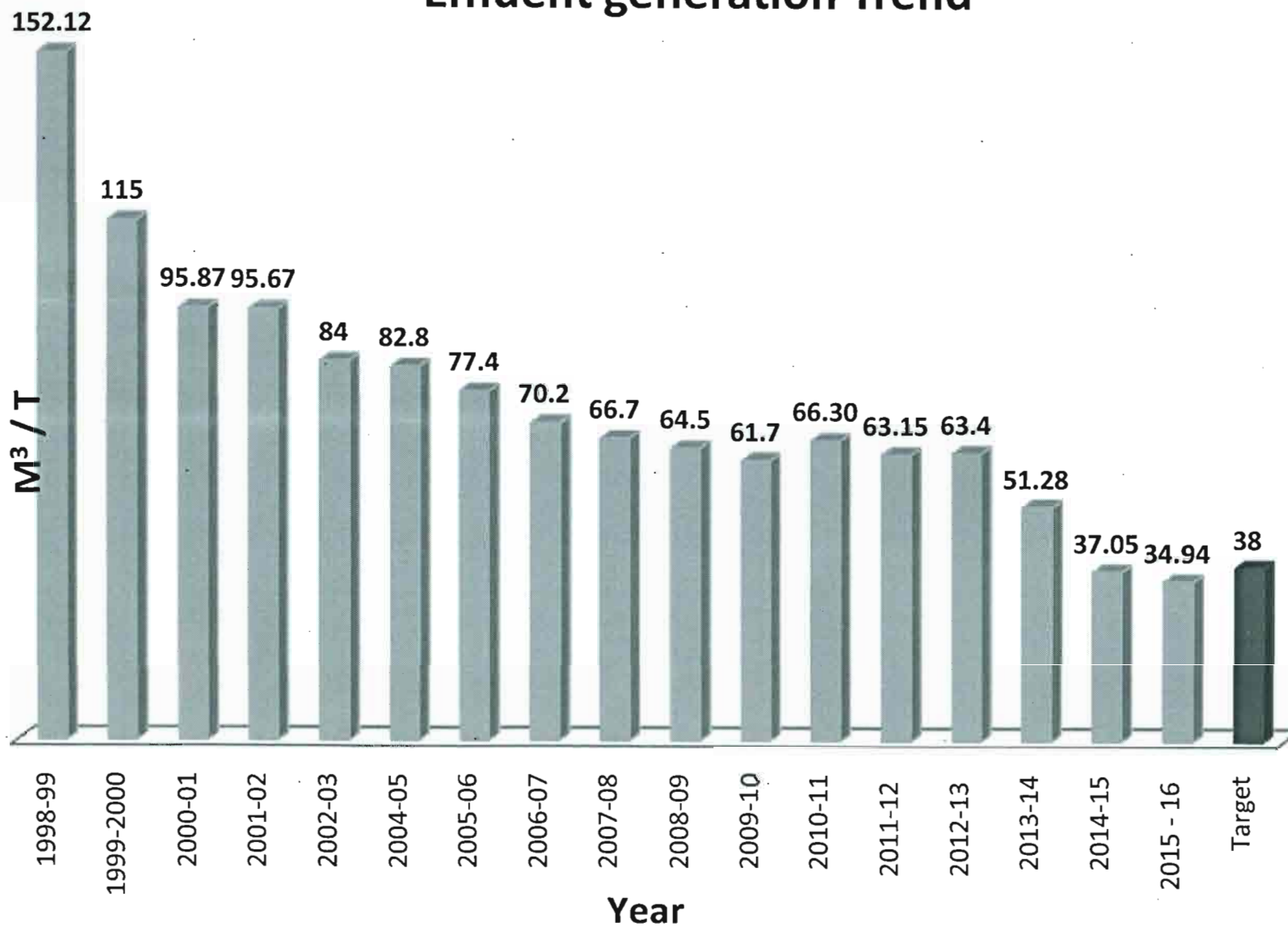
Admn. Office : Nehru House 4, Bahadur Shah Zafar Marg, New Delhi-110002. Ph: 91-11-33001112/23311112-5.
Fax: 91-11-23712680. Website: www.jkpaper.com

CIN-L21010GJ1960PLC018099

Water Consumption Trend



Effluent generation Trend





PULP AND PAPER RESEARCH INSTITUTE

(Regd. under Societies Registration Act, 1860)

JAYKAYPUR - 765 017, DIST. RAYAGADA, ORISSA (INDIA)

ANALYSIS REPORT

Material	Effluent water samples	Our Ref.: 08.52/096
Recd. on	20-05-2016	Date: 30-06-2016
From	JK Paper Mills, Jaykaypur	Page No.: 1 of 4
Your Ref.	JKPW/CTS/08.15/18/2016 dt 20-05-2016	

**TABLE - 1: ANALYSIS REPORT OF
EFFLUENT INLET (FEED TO PRIMARY CLARIFIER) (SAMPLE-1)
EFFLUENT OUTLET (SECONDARY CLARIFIER OVERFLOW) (SAMPLE-2)**

Sl.No.	Parameters	Unit	Sample-1	Sample-2
1.	Colour and odour	PtCoU	-	213, agree
2.	pH	-	6.7	7.4
3.	Temperature	°C	50.0	36.0
4.	Oil and grease	mg/l	0.81	0.45
5.	Dissolved oxygen	mg/l	nil	0.40
6.	Total suspended solids	mg/l	688.0	30.5
7.	Electrical conductivity	µmho/cm	2948	2715
8.	COD	mg/l	1300	230
9.	BOD ₅ ²⁷	mg/l	398	12.5
10.	Total residual chlorine	mg/l	-	nil
11.	Ammonical nitrogen (as N)	mg/l	-	37.5
12.	Total Kjeldahl nitrogen (as NH ₃)	mg/l	-	7.5
13.	Free Ammonia (as NH ₃)	mg/l	-	ND
14.	Sulphide (as S)		-	1.35
15.	Fluoride (as F)	mg/l	-	3.11
16.	Dissolved phosphates (as P)	mg/l	-	8.2
17.	Arsenic (as As)	mg/l	-	ND
18.	Lead (as Pb)	mg/l	-	ND
19.	Hexavalent chromium (as Cr+6)			0.21
20.	Total chromium (as Cr)	mg/l	-	0.76
21.	Copper (as Cu)	mg/l	-	0.39
22.	Zinc (as Zn)	mg/l	-	0.98
23.	Nickel (as Ni)	mg/l	-	0.38
24.	Boron	mg/l	-	0.19
25.	Manganese (as Mn)	mg/l	0.35	0.33
26.	Iron (as Fe)	mg/l	0.29	0.24
27.	Sodium (as Na)	mg/l	321.0	125.0
28.	Potassium (as K)	mg/l	81.6	74.0
29.	% sodium as Na	-		56.0
30.	Sodium absorption ratio	-		5.2
31.	Nitrite nitrogen	mg/l	0.62	6.02
32.	Nitrate nitrogen	mg/l	1.98	1.02
33.	Residual sodium carbonate	mg/l	6.85	5.65

Date of collection : 07.06.2016

Time : 12.15 hrs.

ND : Not detectable

Remarks:

For Pulp and Paper Research Institute


Convener



PULP AND PAPER RESEARCH INSTITUTE

(Regd. under Societies Registration Act, 1860)

JAYKAYPUR - 765 017, DIST. RAYAGADA, ORISSA (INDIA)

ANALYSIS REPORT

Material	River water samples	Our Ref.: 08.52/096
Recd. on	20-05-2016	Date: 30-06-2016
From	JK Paper Mills, Jaykaypur	Page No.: 2 of 4
Your Ref.	JKPW/CTS/08.15/18/2016 dt 20-05-2016	

**TABLE - 2: ANALYSIS REPORT OF
UPSTREAM OF RIVER NAGAVALI WATER (SAMPLE-3)
DOWNSTREAM OF RIVER NAGAVALI WATER (SAMPLE-4)**

Sl. No.	Parameters	Unit	Sample-3	Sample-4
1.	pH	-	7.3	7.4
2.	Colour	PtCoU	8.4	8.9
3.	Temperature	°C	33.0	35.0
4.	Oil and grease	mg/l	0.09	0.11
5.	Dissolved oxygen	mg/l	7.7	7.53
6.	Total suspended solid	mg/l	84.1	150.0
7.	Turbidity	NTU	20.2	23.1
8.	Electrical conductivity	µmho/cm	131.1	175.4
9.	Total dissolved solid	mg/l	80.3	120.0
10.	Chloride (as Cl)	mg/l	2.83	4.25
11.	COD	mg/l	40.0	60.0
12.	BOD ₃ ²⁷	mg/l	2.1	3.2
13.	Sulphate (as SO ₄)	mg/l	1.8	1.89
14.	Fluoride (as F)	mg/l	2.5	2.1
15.	Copper (as Cu)	mg/l	0.04	0.04
16.	Lead (as Pb)	mg/l	ND	ND
17.	Total chromium (as Cr)	mg/l	ND	ND
18.	Zinc (as Zn)	mg/l	0.25	0.34
19.	Nickel (as Ni)	mg/l	Trace	Trace
20.	Iron (as Fe)	mg/l	0.35	0.34
21.	Manganese as Mn	mg/l	0.30	0.31
22.	Calcium (as Ca)	mg/l	25.6	26.9
23.	Magnesium (as Mg)	mg/l	12.5	15.4
24.	Sodium (as Na)	mg/l	15.2	18.5
25.	Potassium (as K)	mg/l	5.4	5.8
26.	Nitrite nitrogen	mg/l	0.23	0.45
27.	Nitrate nitrogen	mg/l	0.195	1.452
28.	Total hardness (as CaCO ₃)	mg/l	80.0	84.0
29.	Total alkalinity (as CaCO ₃)	mg/l	100.0	105

Date of collection : 07.06.2016

Time : 11.00 hrs.

Remarks:

For Pulp and Paper Research Institute

[Signature]
Converter



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

B41-A, RASULGARH, BHUBANESWAR-751010, ODISHA

TEST REPORT

Test Report No.: KLPL-TR/05/16/S- 3070

Issue Date: 13.06.2016

Name and address of the Customer: M/s JK Paper Ltd.,
Units - J.K Paper Mills,
Jaykaypur, Dist - Rayagada,
Odisha, Pin code - 765017

Customer's reference: JKPW/CTS/08.03A/19/2016 DTD - MAY 20,2016

Date of Sample Receipt: 24.05.2016 Testing Dt.: 24.05.2016 Test completion Dt: 30.05.2016

Sample Description: Treated Water

No. of Samples: 1 No.

Sample Condition: Sealed Plastic Bottle

Sampling Method used, if any:

Sample Submitted by Customer

Sl. No	Parameters	Results	Units	Effluent Discharge Standards	Test Methods
1.	Sulphide as H ₂ S	0.22	mg/l , Max	2.0	APHA-22 nd Edition,2012 (4500-S,F)
2.	Mercury as Hg	< 0.001	mg/l , Max	0.01	APHA-22 nd Edition ,2012 (3112 B)
3.	Cadmium as Cd	0.032	mg/l , Max	2.0	APHA-22 nd Edition,2012 (3111 B)
4.	Phenolic Compounds C ₆ H ₅ OH	0.19	mg/l , Max	1.0	APHA-22 nd Edition ,2012 (5530 D)
5.	Hexavalent Chromium as Cr ⁶⁺	0.05	mg/l , Max	0.1	APHA-22 nd Edition, 2012 (3500-Cr-B)
6.	Bioassay	100% survival of test species (zebra fish) in 100 % effluent after 96 hour.	--	90 % survival of fish after 96 hrs in 100 % effluent.	IS 6582/CPCB, Laboratory Analytical Techniques** (Appendix-1)
				Remarks: Nil	
				Any unusual feature observed during determination	Nil

***** End of Test Report *****

Authorized Signatory
Kalyani Laboratories Private Limited





PULP AND PAPER RESEARCH INSTITUTE

(Regd. under Societies Registration Act, 1860)

JAYKAYPUR - 765 017, DIST. RAYAGADA, ORISSA (INDIA)

ANALYSIS REPORT

Material	Ground water samples	Our Ref.: 08.52/096
Recd. on	20-05-2016	Date: 30-06-2016
From	JK Paper Mills, Jaykaypur	Page No.: 3 of 4
Your Ref.	JKPW/CTS JKPW/CTS/08.15/18/2016 dt 20-05-2016	

TABLE - 3: ANALYSIS REPORT OF
 GROUND WATER FROM LIME DISPOSAL SITE (NEAR KURUMPETA) (SAMPLE-5)
 GROUND WATER FROM LIME DISPOSAL SITE (NEAR GETTIPADA) (SAMPLE-6)
 GROUND WATER FROM LIME DISPOSAL SITE (NEAR KALAHANDIPADA) (SAMPLE-7)

Sl. No.	Parameters	Unit	Sample-5	Sample-6	Sample-7
1.	pH	-	5.9	5.7	6.2
2.	Colour	PtCoU	1.0	1.2	1.0
3.	Temperature	°C	30.0	32.0	30.0
4.	Oil and grease	mg/l	0.14	0.15	0.09
5.	Dissolved oxygen	mg/l	5.5	5.3	5.9
6.	Total suspended solid	mg/l	10.8	17.8	20.4
7.	Turbidity	NTU	3.5	1.0	0.7
8.	Electrical conductivity	µmho/cm	240.2	194.3	448.1
9.	Total dissolved solid	mg/l	126.0	112.0	259
10.	Chloride (as Cl)	mg/l	8.51	5.67	19.85
11.	COD	mg/l	2.1	2.4	3.2
12.	BOD ₃ ²⁷	mg/l	1.9	2.0	3.5
13.	Sulphate (as SO ₄)	mg/l	1.9	3.1	9.8
14.	Fluoride (as F)	mg/l	nil	nil	nil
15.	Copper (as Cu)	mg/l	0.02	0.04	0.05
16.	Lead (as Pb)	mg/l	ND	ND	ND
17.	Total chromium (as Cr)	mg/l	ND	ND	ND
18.	Zinc (as Zn)	mg/l	0.45	0.51	0.35
19.	Nickel (as Ni)	mg/l	0.85	0.9	0.98
20.	Iron (as Fe)	mg/l	0.21	0.20	0.22
21.	Manganese as Mn	mg/l	0.27	0.28	0.59
22.	Calcium (as Ca)	mg/l	12.5	14.2	25.6
23.	Magnesium (as Mg)	mg/l	5.64	4.56	10.25
24.	Sodium (as Na)	mg/l	19.2	18.9	19.0
25.	Potassium (as K)	mg/l	3.6	3.7	4.4
26.	Nitrite nitrogen	mg/l	0.05	0.08	0.04
27.	Nitrate nitrogen	mg/l	0.56	0.45	0.51
28.	Total hardness (as CaCO ₃)	mg/l	100	60	100
29.	Total alkalinity (as CaCO ₃)	mg/l	85	65	110

Date of collection : 07.06.2016

Time : 11.45 hrs.

Remarks:

For Pulp and Paper Research Institute

S. S. Saha
 Convener

ANX - V

JK PAPER LTD. :: UNIT - JKPM

EXPENDITURE INCURRED ON CORPORATE SOCIAL RESPONSIBILITY
DURING 2015-16 and Budget-2016-17

SL. NO	ACTIVITY	2015-16 (EXPENDITURE)	Budgeted for 2016-17
1	Community Development		
	- Community Asset Building	314.14	98.15
	- Livelihood Intervention	22.30	21.90
	- Community Health	82.75	59.09
	- Awareness & Capacity Building	-	
2	Women & Child Development	0.68	3.05
3	Promotion of Educational Services	11.31	17.42
4	Promotion of Socio - Cultural & Religious Activities		
		72.07	93.66
5	Promotion of Sports & Games	5.18	6.23
6	Infrastructure Development	0	
7	Employment through Plantation (Alternative livelihood opportunities by supporting subsidised planting materials)	444.90	639.62
	TOTAL	953.33	939.12

Ashutosh Das
MANAGER (CD)


CHIEF MANAGER (PR & CSR)


CGM (ACCOUNTS)