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JKPW/ CTS /08.04D / 64/2016

September 22, 2016

The Member Secretary
Odisha Pollution Control Board
Paribesh Bhavan, A/118, Neelkanthnagar ,
Unit VIII, Bhubaneswar-751012

Sub: Environmental Statement for the year 2016

Dear Sir,

As per Environment Protection Rules, 1986, Rule 14, we are herewith sending the Environmental Statement for the year 2015 – 16 (April – March) in form V.

Thanking you.

Yours faithfully,
For J K Paper Limited



 Executive Vice President (Works)

Encl: As Above

CT:

1. Regional Officer, OPCB, Kasturi Nagar, Rayagada, Odisha
2. Mr. Priyadarsini Mohapatra, Sr.General Manager (PR), Bhubaneswar
3. Mr. Sandeep Bhalla, General Manager (Development), New Delhi

(Form-V)
Environmental Statement
Part-A

| | | |
|---|--|--|
| 1 | Name and Address of the owner/occupier of the industry, operation or process | Shri P. K. Suri Executive Vice President (Works) J K Paper Limited, Unit: JK Paper Mills, Jaykaypur, Rayagada. Orissa |
| 2 | Industry Category Primary – (STC Code) Secondary –(SIC Code) | |
| 3 | Production Capacity | 3,00,000 MTA (Paper +Salable Pulp) |
| 4 | Year of Establishment | 1962 |
| 5 | Date of the last environmental Statement submitted | September 28, 2015 |

Part-B
Water and Raw material Consumption

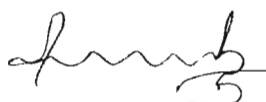
1. Water consumption M³/d

| | |
|-------------------------|--------|
| Process and Boiler Feed | 29,935 |
| Domestic | 3,751 |

| Name of the Products | Water consumption (Process + Boiler feed) per unit of products (M ³ /T) | |
|---|--|--|
| | During the previous financial year (April'14 to March'15) | During the current financial year (April'15 to March'16) |
| Writing, Printing, MG, MF Paper & Boards and P D sheets | 41.86 | 39.97 |

2. Raw material Consumption

| Name of the raw material | Name of the Products | Consumption of raw material Kgs per ton of nominal finished product / Pulp) | |
|--------------------------|---|---|---|
| | | During the previous financial year (14-15) | During the current financial year (15-16) |
| Bamboo | Writing, Printing, MF Paper & Boards & P D sheets | 99.78 | 105 kg/T of Pulp |
| Hard wood | | 2778 | 2699 kg/T of Pulp |
| Imported Pulp | | 23 Kg/T of Paper | 12 Kg/T of Paper |
| Lime | | 481 | 470 kg/T of Pulp |
| Caustic soda flake | | 0 | - |
| Caustic lye | | 90 | 80 kg/T of Pulp |
| Liquid chlorine | | 12.94 | 15 kg/T of Pulp |
| Sodium Sulphate | | 18.7 | 18.6 kg/T of Pulp |
| Hydrogen peroxide | | 10.34 | 9.3 kg/T of Pulp |
| HCl Acid | | 7.85 | 0.706 kg/T of Pulp |
| Alum | 2.7 | 0.04 kg/T of Paper | |



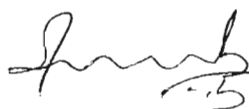
| | | | |
|------------------------------|--|--------|----------------------|
| Purbanol | | 0 | - |
| Rosin | | 0 | - |
| Ivax 500 / Dynasize | | | - |
| ASA & AKD sizing chemical | | 5.01 | Package Deal |
| Ground calcium Carbonate/PCC | | 186.16 | 205.11 kg/T of Paper |
| SS Powder | | 0 | - |
| Soda ash | | 0 | - |
| Starch | | 50.22 | 49.12 kg/T of Paper |
| Titanium Dioxide | | -- | - |
| Dyes and Whitening agent | | 3.03 | 2.144 kg/T of Paper |
| Coal | | 103 | 797 kg/T of Paper |
| Furnace oil | | 1.97 | 0.949 Ltr/T of Pulp |

Note: Financial year is April '15 to March '16

Part-C

Pollution Generated (Parameters as specified in the consent issued)

| Pollutants | Quantity of pollution generated | Concentration of pollutants generated | % of variation from prescribed standards with reasons |
|--------------------|--|---------------------------------------|---|
| a. Water | Total Effluent per day: 26,166 M ³ /Day | | Installed E T Plant operated continuously under strict supervision |
| Suspended Solids | 0.521 (MT / Day) | 19.9 (mg/l) | 60.2 % better than norm |
| BOD | 0.355 (MT / Day) | 13.6 (mg/l) | 54.66 % better than norm |
| COD | 4.497 (MT / Day) | 171.9 (mg/l) | 50.88 % better than norm |
| AOX | 0.097 (MT / Day) | 3.71 (mg/l) | 90 % better than norm |
| pH | - | 7.4 | - |
| b. Air-Stack | | | Installed ESPs of each boilers operated continuously under strict supervision |
| Particulate Matter | 23.80 Kgs / Hr | 40.89 Mg/NM ³ | 18.2 % better than norm |
| H ₂ S | 0.68 Kgs /Hr | 1.97 Mg/NM ³ | 80.3 % better than norm |

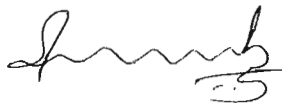


Part-D
Hazardous wastes
(As specified hazardous wastes (Management and Handling) rules, 1989 and thereby amended in 2000)

| Hazardous wastes | Total quantity | |
|--------------------------------------|--------------------------------------|-------------------------------------|
| | During the previous financial year | During the current financial year |
| A. From Process: | | |
| Used oil (litres) | 22090 | 24100 |
| Used Lead cell (No) (Batteries) | 54 nos. purchased on buy back system | 4 nos. purchased on buy back system |
| B. From pollution control facilities | Nil | Nil |

Part-E
Solid Wastes

| | Total quantity (MT) | |
|--|--|---|
| | During the previous financial year (2014-15) | During the current financial year (2015-16) |
| A. From Process | | |
| 1. Bamboo and Hard wood dust(gross) | 19375 | 18605 |
| 2. Fly ash | 105916 | 62924 |
| 3. Lime sludge on o d basis | 17700 | 6870 |
| 4. Slacker Sludge as such | 7334 | 4620 |
| 5. NFL rejects as such | 8082 | 6264 |
| B. From pollution control facilities (Effluent Sludge) | 5550 | 7000 |
| C. Quantity recycled or re-utilized (Bamboo and Hard wood dust in boilers) | 19375 | 18605 |



Part-F

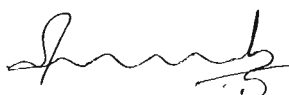
(Please specify the characteristics (in terms of Concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.)

| Name of solid wastes | Characteristics | Method of collection | Method of disposal |
|---------------------------------------|---|--|--|
| a. Hazardous waste Used Oil | Oil Emulsion | Collected in leak proof containers | Sold to authorized parties |
| Used Batteries | Pb Compounds | Collected as such | Buy back system from authorized parties |
| Other Solid Wastes | Characteristics | Method of collection | Method of disposal |
| Bamboo and Hard wood dust | Organic%- 90-92 Inorganic%-10-8 | Removed from chipper screens and collected by the tractors/ trolley/trucks | Used as fuel in boilers |
| Fly ash | SiO ₂ - 55-60 % R ₂ O ₃ -30-35 % Unburnt Carbon%-5-6 | Collected directly by the trucks | Land filling in designated -Low laying areas and Brick manufacturing |
| Effluent sludge | Organic%- 50-55 Inorganic%-45-50 Moisture %- 62-66 | Collected by the tractors/ trucks | Used for card board / low grade pulp sheet by the external agencies |
| Lime sludge | Alkaline (Alkali as Na ₂ O) 0.48 % | Collected directly by the trucks / dumpers | Processed through Lime Kiln Plant for reburn to generate Lime. And few quantity is being used for Land filling in designated -Low laying areas |

Part-G

(Impact of pollution control measures on conservation of natural resources and consequently on the cost of production.)

Consumption of steam, power, and water has been reduced and maintained through process improvements, awareness program and Internal Environmental Auditing (ISO 14001).



Part-H

(Additional measures/investment proposal for environmental protection including abatement of Pollution.)

- Use of treated sewage water again in our process.
- Implementation of different water conservation schemes for further reduction of Fresh water consumption.
- Implementation of different Power and steam conservation schemes for further reduction of Power and steam consumption.

Part-I

Miscellaneous

(Any other particulate in respect of environmental protection and abatement of pollution.)

The following measures were taken for environmental protection and abatement of pollution.

- Installed dust extraction system at lime handling area of our new plant
- Installed dust extraction system at coal handling area of our new plant.
- Fly ash brick making 100 % of ash generated
- Black liquor heat recovery – steam generation 60 –65%
- Double stage oxygen delignification in Pulp mill has been commissioned in our new plant
- Elementary chlorine free bleaching process has been commissioned in our new pulp mill
- Scrubber system in pulp mill to reduce the gas pollution
- Burning of wood and bamboo dust in coal fired boilers
- Increase the waste oil recovery, which is generated due to maintenance of equipments and machineries
- Raw materials from natural forest to man made forest
- More initiatives for energy and water conservation through cost compression cell and environment management team as per ISO -14001
- Augmented our ETP by incorporating one Primary Clariflocculator, Diffused Aeration Basin, New Secondary clarifier, Sludge thickener and centrifuge.
- New Lime Kiln Plant of 300 TPD capacity has been commissioned by phasing out old Lime Kiln Plant of capacity 160 TPD which was commissioned in 2009.
- Chips washing system is in continuous operation since Feb – 09 for resource conservation
- We have adopted rainwater harvesting of rooftop inside factory premises.
- We have adopted high efficient & latest technology of ESP's for our new coal fired boiler and new Liquor fired Boiler.
- Use of solar energy for our colony street light.
- Installed Scientific land fill for disposal of Hazardous Waste.
- A part of treated effluent has been diverted for our plantation, sprinkling, gardening purpose
- Sewage Treatment Plant for colony is installed and commissioned

