Executive Summary (English)

Integrated Unit of Kraft-Duplex Grade of Paper with Deinking Plant and Capative Power Plant (CPP)
AT
Village Prakasha, Taluk Shahada, and District Nandurbar State
Maharashtra
BY
M/s. GENUS PAPER AND BOARD LIMITED

Environment Consultant

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EXECUTIVE SUMMARY

Project & Project Proponent

M/s Genus Paper and Boards Ltd (GPBL) is the flagship company of Kailash Group of companies. Kailash group is engaged in diversified business covering paper, coal, power, apparels, electronics etc. Main product of GPBL is kraft paper. Its registered address at located at Village- Aghwanpur, Kanth Road, Moradabad, Uttar Pradesh- 244 001. Correspondence address of the project site is D-116, Okhla Industrial Area Phase-1, New Delhi- 110020.

GPBL is contemplating to set up a new Greenfield kraft paper mill project with a production capacity of 300,000 tons/ annum at village Prakasha, Taluk Shahada of Nandurbar district in Maharashtra for manufacture of kraft paper using wastepaper as the main raw material. The new paper mill project will be integrated with one 22 MW coal based power plant which will be an integral part of this kraft paper mill project.

The Kraft paper project is covered under the provisions of EIA Notification, mentioned as item 5(i) and the integrated 22 MW Thermal Power plant project is covered under the provisions of EIA Notification, mentioned as item 1(d) in the schedule in the schedule of the EIA Notification 2006 and amendment thereof. Bleaching and deinking and duplex grade of paper product will be used in manufacturing of duplex grade and kraft paper. Hence it is a Category B Project. Though the project does attract general condition as per EIA notification dated 14th September 2006 as project site located within 10 km from the boundary of Gujarat –Maharashtra inter-State boundaries The project location is Thus, by virtue of the location of the proposed unit it appraised as Category A, thus requires prior EC from MOEF&CC. The total investment is ~ Rs 673 crores (Rs 573 for Kraft Paper + Rs 100 Crores for CPP). The capital investment towards environment management is estimated to be Rs.738 lacs and recurring cost will be Rs. 86 lacs .

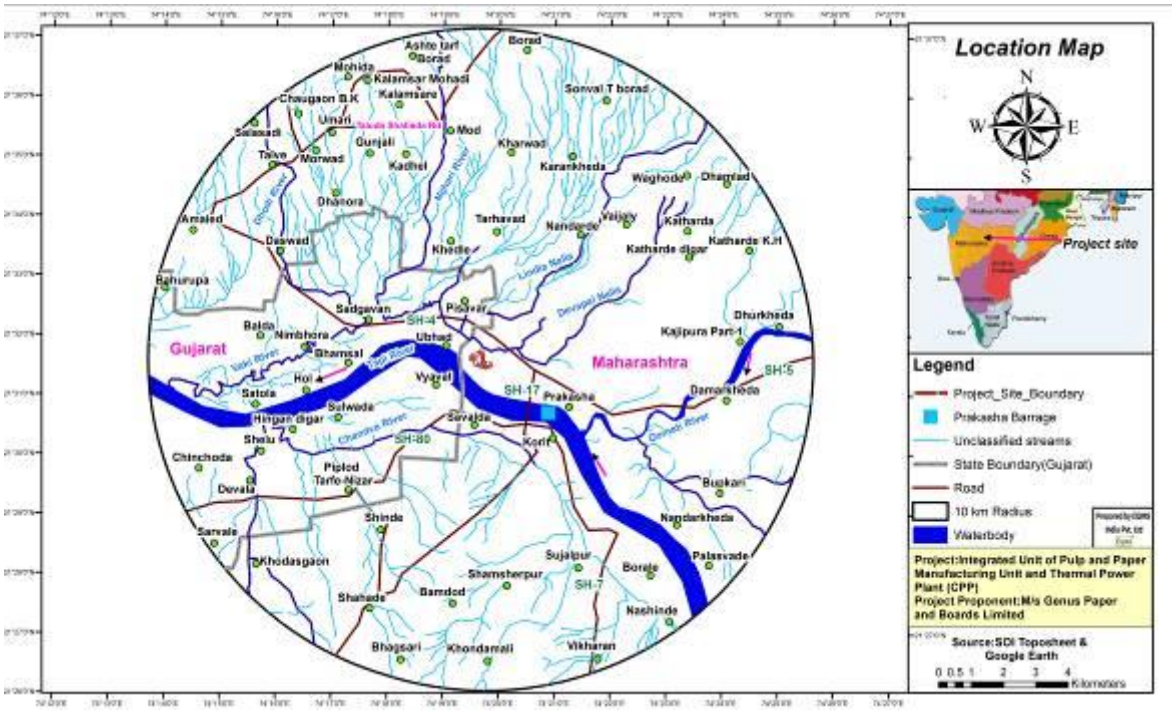

Figure: Location Map of 10 km radius

Connectivity:

The site well connected to Ankleshwar-Buranpur highway (SH-4), which is passing about 0.65 km northeast of the site. Nandoorbar Sahada highway (SH-17) is passing about 1.5 km east of the proposed plant site. Prakasha Town is located about 2.8 km away from the site in southeast direction. Nearest village is Vayaval wich located about 0.9 km southwest of the proposed plant site. The other villages located close to site are Savalda (1.4 km, S), Ubhad (0.65 km, WNW) and Pisavar (1.4 km NW). State Boundary of Gujarat is located about 300 m west direction of the proposed project site. There are no environmentally sensitive components such as National Park, Wildlife Sanctuary, Elephant / Tiger Reserve, migratory routes of fauna and wet land present within 10 Km radius of plant site

Project Description:

The present EIA study covers for installation of Greenfield project, focus on Environmental friendly production of paper by recycling used paper instead of using wood as the raw material. GPBL will establish Kraft Paper (Pulp paper sheet) manufacturing of capacity 300,000 TPA using waste Kraft Paper and Old used Corrugated Boxes procured from the domestic suppliers, supplemented with imported waste paper and also Install Captive Power Plant (CPP) will have rated capacity of 22 MW. For production of 300,000 TPA. Out of this 30% would be Duplex Paper & 70% would be Kraft Paper.

The proposed production is 300,000 Tons of paper per annum and out of which 30% would be Duplex paper and the remaining 70% would be Kraft paper. Out of Total weight of 300,000 Tons, 5% of production is based on Starch and packaging material. Where-as the remaining 95% will be produced from fromwaste paper. White cuttings are required only for production of top layer of Duplex paper. The weight of top layer of Duplex paper amounts to 30% of total weight of duplex paper produced

Finished Product	**Tons per annum**
Kraft Paper (70%)	210,000
Duplex(30%)	90,000
Total	**300,000**

Description of Environment:

The baseline environmental data generation has been done for the period of three months from 1st March 2018 to 30th May 2018 as per approved TOR for Integrated unit. Baseline Data was generated by following the standard procedures of the Ministry of Environment & Forests and the Central Pollution Control Board**.**

Air Environment: Ambient air quality was monitored at eight locations in the study area. The locations were selected as per CPCB guidelines. The mean concentration of $PM_{2.5}$ in all location ranges between 29-38 µg/$m^{3.}$. The mean concentration of PM_{10} in all location ranges between 65-80 µg/m^3 . Mean value are found well within National Ambient Air Quality standards. SO_2 level in all the location ranges between 5.9 -8.5 µg/m3, NO_x level in all the location ranges between 11.5-15.9 µg/m3, which was found well within National Ambient Air Quality standards i.e. NAAQMS (80µg/m^3).

Other Parameters: The highest CO levels were found at Prakasha (0.54 mg/m^3) and Hg were not detected in the study area. Over all the ambient air quality of the study area is meeting the prescribed National Ambient Air Quality Standard at all locations. No abnormal values have been found in the dust of ambient air.

Noise Environment: The ambient noise quality of the study area is within the prescribed National Ambient Noise Quality Standards prescribed for residential area (Standards - 55 dBA during day time and 45 dBA during night time) and commercial area (Standards - 65 dBA during day time and 55 dBA during night time).

Water Quality: Eight ground water samples and two surface water sample were collected from different locations around the site during study period. Surface water sample were collected from Tapi River (Prakasha Barrage) and Gomai River. During field visit, the river was found dry in downstream of the Prakasha Barrage hense, no down stream water samples were collected.

In ground water overall the parameters in ground water sample were also well within the desired limit of Indian Standard IS: 10500-2012 all location, where the hardness values are slightly above the permissible limit but well within the desirable limit. No metallic and bacterial contamination was found in the ground water samples.

Surface water quality is determined by the help of water quality criteria defined in CPCB best designated uses criteria. Bacterial and metallic contamination was observed in the surface water sample. However, the surface water was found to meet the Best Designated Use – 'C' Criteria of CPCB (i.e Drinking water source after conventional treatment and disinfection).

Soil Quality: The soil quality of study area is clay loam. The pH and conductivity of the soil is within acceptable range. The soil analysis describes that the soil of the study area is moderately fertile.

Sensitive Ecosystem: There are no environmentally sensitive components such as National Park, Wildlife Sanctuary, Elephant / Tiger Reserve, migratory routes of fauna and wet land present within 10 Km radius of plant site.

Socio economic environment: According to Census 2011, the total population of District Nandurbar is 1,648,295 persons of which male and female were 833,170 and 815,125 respectively. During the decade of 2001-11, there has been an addition of 336,586 persons. In the rural areas the District reported a population of 1,372,821 persons and in urban it is 275,474 persons. Nandurbar District added 3, 36,586 persons during the past decade of 2001-11 with the growth rate of 25.7% followed by 23.8 & 35.9% in rural and urban parts respectively. The District shows a density of population of 277 per Sq. km, whereas it is 233 for rural and 4587 for urban.

Environmental Impact and Mitigation Measures

Air Quality:

The main sources of air pollution due to the operation of the plant are the Boiler, and DG set and other stacks. Gaseous emission from fuel burning, consist of common pollutants like PM, SO2, NO2, and Hg would be discharged into atmosphere through Stack of suitable height as per CPCB norms. After using the emission in Aermod for air modelling it has observe that there will be no adverse impacts on the surrounding area (all pollutants post project GLC will be well within NAAQ norms). Highly efficient air pollution control systems have been adopted to mitigate particulate matter as well as gaseous emissions in the ambient environment.

Noise Quality:

The main source of noise generation during operation stages are mainly from pumps, blowers, compressors, DG sets, vehicle movement for transportation of raw materials, finished goods etc**.** DG sets will be provided with acoustics enclosures**.** Mufflers, silencers, acoustics treatment of room will be done wherever required**.** Equipment will be maintained so that noise level does not increase due to improper maintenance**.** Material handling operations and movement of vehicles will be properly scheduled to minimize construction noise**.** Workers working in noisy areas will be given ear plugs**.** The noise level will be restricted within the plant boundary to meet the standards**.** Existing greenbelt developed within the plant premises will also act as a barrier to the propagation of noise from the factory premises**.** This shall further reduce the noise levels appreciably**.** Hence, no significant impact is envisaged**.**

Water Quality: The total water requirement is 2800 KLD for the proposed project. Out of the total water equired about 2300 KLD water shall be sourced from Prakasha Resrvoir and 500 KLD shall be from ground water/ Bore well sources. Permission for the same shall be obtained from the concerned authority. Water will be required for boiler, washing, pulping, deinking, cooling and drinking purpose. Out of the total water required about 2000 KLD waste water shall be generated from the industry. Industrial and domestic waste water is treated in ETP and STP, the treated water recycle back in process and used for green belt development within premises.

Solid and Hazardous Wastes Disposal:

All the solid and hazardous waste generated from the proposed unit shall be disposed as per the norm**.** Minor quantities of construction waste will be generated in the form of packaging material and construction waste**.** Proper care will be taken for handling and reduction of the solid waste generated during construction phase**.** ETP sludge**/** process residue generated during operation phase shall be disposed as per the hazardous wastes management, handling and Trans**-**boundary movement Rule 2016 and amendment thereof**.**

Impact on Ecology: No national park, wildlife sanctuary, biosphere reserve exists within 10 km area of the project. No endangered or rare or threatened plant or animal species was observed within 10 km area of the project site. The impact on the surrounding ecology during the operation of the project will mainly occur from the deposition of air pollutants. Air pollution affects the biotic and abiotic components of the ecosystem individually and synergistically with other pollutants. Chronic and acute effects on plants and animals may be induced when the concentration of air pollutants exceeds threshold limits. Particulate emission and other gaseous emissions from the proposed plant are the major pollutant that may affect the ecology of the area. However the AAQ modeling proves that in worst condition the concentration of the PM and other gaseous emission will not exceeds the AAQ standards. Further the mitigation measures have been suggested for the same. By adopting the mitigation measures suggested the impact due to operation will be negligible.

Risk Assessment and Disaster Management Plan: The hazard potential of chemicals and estimation of consequences in case of their accidental release during storage, transportation and handling has been identified and risk assessment has been carried out to quantify the extent of damage and suggest recommendations for safety improvement for the proposed facilities. Risk mitigation measures based on MCA analysis and engineering judgments are incorporated in order to improve overall system safety and mitigate the effects of major accidents.

An effective Disaster Management Plan (DMP) to mitigate the risks involved has been prepared. This plan defines the responsibilities and resources available to respond to the different types of emergencies envisaged. Training exercises will be held to ensure that all personnel are familiar with their responsibilities and that communication links are functioning effectively.

Environmental Management Plan (EMP): EMP for effective management of environmental impacts and ensuring overall protection of the environment through appropriate management procedures has been recommended in the EIA report. The capital investment towards environment management is estimated to be Rs.738 lacs and recurring cost will be Rs. 86 lacs. This amount shall be used for procurement of air and water pollution control devices, noise pollution control, monitoring devices, strengthening of environment Cell, occupation health and safety department, green belt development, etc.

ENVIRONMENT MONITORING PROGRAM

Post project environmental monitoring is important in terms of evaluating the performance of pollution control equipment's installed in the project. The sampling and analysis of the environmental attributes will be as per the guidelines of CPCB/SPCB. The frequency of sampling and location of sampling will be as per the directives of Maharashtra Pollution Control Board.

CER Plan: CER budget of 5.73 Cr has been earmarked by GPBL which will be spent for development of the local area. The Enterprise Social Commitment (ESC) and item-wise details along with time bound action plan will be prepared and incorporated after public hearing.

Project Benefits

- Proposed project will result in considerable growth of stimulating the industrial and commercial activities in the state. Small and medium scale industries may be further developed as a consequence.
- The project will be beneficial in govt's target of increase the production capacity and yield in the field of pharmaceuticals.
- Increased revenue to the state by way of royalty, taxes and duties;
- Overall Growth of the neighbouring area viz. Health and family welfare; Watershed development; Sustainable livelihood and strengthening of village Self Help Groups; and Infrastructure development.
- In operation phase, the proposed plant would require significant workforce of non-technical and technical persons.
- Migration of persons with better education and professional experience will result in increase of population and literacy in the surrounding villages.

- Civic amenities will be substantial after the commencement of project activities. The basic requirement of the community needs will be strengthened by extending healthcare, educational facilities to the community, building/strengthening of existing roads in the area.
- The local population will be given preference to employment on the basis of their eligibility and company requirement. The employment potential will ameliorate economic conditions of these families directly and provide employment to many other families indirectly who are involved in business and service oriented activities. The employment of local people in primary and secondary sectors of project shall upgrade the prosperity of the region. This in-turn will improve the socio-economic conditions of the area.