

F. No. J-11011/710/2007-IA-II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

Paryavaran Bhawan  
CGO Complex, Lodhi Road  
New Delhi – 110 003

E-mail: [r.sundar@nic.in](mailto:r.sundar@nic.in)  
Telefax: 011: 2436 6739  
Dated: 11<sup>th</sup> February, 2013

To,  
M/s Tamil Nadu Newsprint and Papers Limited  
67, Mount Road, Guindy  
Chennai

Ph: 044- 22301094-97 Fax: 044-22350834  
E-mail: [response@tnpl.co.in](mailto:response@tnpl.co.in) /[export@tnpl.co.in](mailto:export@tnpl.co.in)

**Sub:** Installation of 300 TPD Deinked Pulp Line (DPL) and up-gradation of Captive Co-generation Plant (CCP) at Kagithapuram, District Karur in Tamil Nadu by M/s Tamil Nadu Newsprint and Papers Limited - regarding Environmental Clearance

Sir,

This has reference to your letter no. TNPL/CTC/0455 dated 23.8.2012 along with copies of EIA/EMP report and subsequent communications dated 27.8.2012 and 1.11.2012 seeking environment clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the application for the above project. It is noted that M/s Tamil Nadu Newsprint and Papers Limited have proposed to install a De-Inking Plant (DIP) of 300 TPD and upgrade the Co-Generation Plant (CCP) in the existing premises of the pulp and paper plant at Kagithapuram, District Karur in Tamil Nadu. Existing plant area is 375 acres and the total area including township etc. is 778 acres. Proposed project requires an area of 6 acres and will be located within the existing plant premises. The green cover developed by TNPL at its mill site, housing complex and surrounding area is about 263.75 acres out of a total area of 778 acres (34%). There are no ecologically sensitive areas/reserve/protected forests within 10 km radius study area from the plant. The total project cost is estimated at Rs.310 Crores. Of this, pollution control equipment and pollution control measures account for Rs.39 Crores. The environmental clearance for the existing pulp and paper mill (4,00,000 TPA) has already been accorded by the Ministry vide letter no. J-11011/710/2007-IA-II (I) dated 11.12.2008.

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3. Following are the details of proposed facilities and products:
  - i. De-Inking Plant (DIP) of 300 TPD capacity
  - ii. Upgradation of Co-Generation Power Plant by installing one 125 TPD 105 atm high pressure CFBC multi-fuel boiler with one 41 MW double extraction-condensing turbo generator. The power generation will increase from 81.12 MW to 103.62 MW as part of this up-gradation.
4. The existing water requirement is 53,800 m<sup>3</sup>/day which will be reduced to 52,800 m<sup>3</sup>/day. Post project water requirement will be reduced by 1000 m<sup>3</sup>/day, owing to installation of air cooled condenser in place of water cooled condenser. The process water requirement of DIP will be met by back water from paper machines. The Mill holds permission for drawl of 16 MGD of water. The wastewater generation will remain at 37,715 m<sup>3</sup>/day. The existing wastewater treatment plant has a capacity to treat 85,000 m<sup>3</sup>/day while the wastewater generation will be less than 38,000 m<sup>3</sup>/day.
5. The boiler ash generation will increase from 140 TPD to 150 TPD during post project. This will be used in TNPL's cement plant. The sludge from the DIP will be about 90 TPD and this will be used as feed stock in TNPL's cement plant.
6. The proposed project activity is an expansion/modification of the existing category 'A' project, the proposal is appraised by the Expert Appraisal Committee (Industry) of MoEF.
7. The proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 2<sup>nd</sup> meeting held during 29-31<sup>st</sup> October, 2012. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. The Public Hearing / Public Consultation meeting was conducted by the Tamil Nadu Pollution Control Board on 18<sup>th</sup> May, 2012.
8. Based on the information submitted by you, presentation made by you and consultant, M/s Vimta Labs Limited Hyderabad, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006 subject to strict compliance of the following Specific and General conditions:

**A. SPECIFIC CONDITIONS :**

- i. Compliance to all the specific and general conditions stipulated for the existing plant by the Central/State Government shall be ensured and regular reports submitted to the Ministry and its Regional Office at Bangalore.
- ii. The project authority shall install multi cyclones, wet scrubbers with the boilers to achieve the particulate emission below 50 mg/Nm<sup>3</sup>. The

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emissions from chemical recovery section shall be controlled through primary and secondary venturi scrubbers.

- iii. Data on ambient air, stack and fugitive emissions shall be regularly submitted online to Ministry's Regional office at Bangalore, SPCB and CPCB as well as hard copy once in six months and display data on RSPM, SO<sub>2</sub> and NO<sub>x</sub> outside the premises at the appropriate place for the general public.
- iv. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- v. The total water requirement (including existing) shall not exceed 52,800 m<sup>3</sup>/day. The industry shall 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 m<sup>3</sup>/tonne of product. Adequate steps including use of modern RO/UF based technologies should be used to increase recycling and reduce water consumption.
- vi. Adequate number of influent and effluent quality monitoring stations shall be set up in consultation with the State Pollution Control Board and regular monitoring shall be carried out for all relevant parameters to maintain the effluent treatment efficiency. Online flow meter, pH meter, conductivity meter etc. shall be installed. The report shall be submitted to Ministry's Regional Office at Bangalore, SPCB and CPCB.
- vii. Ground water quality study in and around the project area shall be conducted and report submitted to Ministry's Regional Office at Bangalore, SPCB and CPCB.
- viii. The company shall install Oxygen Delignification (ODL) Plant and shall maintain AOX below 1 kg/tonne of paper production.
- ix. ECF technology shall be used and lime kiln shall be installed to manage lime sludge
- x. 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.
- xi. The ash generated from the plant shall be disposed of in accordance with the provisions of the Fly Ash Notification, 2009.
- xii. The project authority shall dispose of hazardous waste as per the provision of Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.



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- xiii. The company shall develop green belt in 33% of the total land as per the CPCB guidelines to mitigate the effect of fugitive emissions.
- xiv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xv. The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- xvi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the pulp and paper sector shall be strictly implemented.
- xvii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 18<sup>th</sup> May, 2012 shall be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bangalore.
- xviii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- xix. 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.

## **B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Tamil Nadu Pollution Control Board and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore and the SPCB/CPCB once in six months.
- iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and

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31<sup>st</sup> December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.

- v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- ix. Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.
- x. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xi. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bangalore. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including



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results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore / CPCB / SPCB shall monitor the stipulated conditions.

- xiii. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bangalore by e-mail.
  - xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bangalore.
  - xv. Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.
9. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.
12. This issues with the prior approval of the Competent Authority.

  
(Sundar Ramanathan)  
Deputy Director(S)

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**Copy to:-**

1. The Principal Secretary, Department of Environment, Ground Floor, Panagal Buildings 1, Jeenias Road, Saidapet, Chennai - 600 015.
2. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
3. The Chairman, Tamil Nadu Pollution Control Board, Corporate Office, 76, Anna Salai, Guindy, Chennai - 600 032.
4. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore) Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File / Record File/Monitoring file.

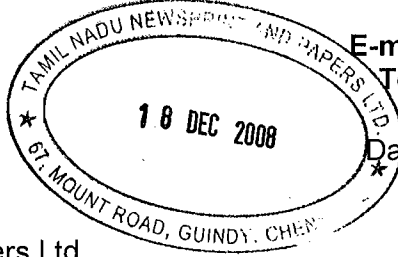
\_\_\_\_\_  
(Sundar Ramanathan)  
Deputy Director(S)

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E-mail : [pb.rastogi@nic.in](mailto:pb.rastogi@nic.in)  
Telefax : 011: 2436 7668



Dated 11<sup>th</sup> December, 2008

To,

✓ Shri V. Murthy, Managing Director  
M/s Tamil Nadu Newsprint & Papers Ltd.  
Kagithapuram – 639136  
District Karur, Tamil Nadu

E-mail : [pmd@tnpl.co.in](mailto:pmd@tnpl.co.in) / [response@tnpl.co.in](mailto:response@tnpl.co.in)  
Fax No. : 04324-277027/277025, 044-22350834, 22350835

**Subject :** Expansion of Pulp and Paper Mill (2,45,000 to 4,00,000 TPA) by installation of new Paper Machine (1,55,000 TPA) and balancing of Hard Wood Pulp Mill (300 to 330 TPD) and bagasse based Pulp Mill (500 to 550 TPD) at Kagithapuram, District Karur, Tamil Nadu by M/s Tamil Nadu Newsprint & Papers Ltd. – Environmental clearance reg.

**Ref. :** Your letter no. TNPL/MCE/MOEF/001 dated 29<sup>th</sup> June, 2007.

Sir,

This has reference to your letter TNPL/MCE/MOEF/001 dated 29<sup>th</sup> June, 2007 alongwith EIA/EMP report and other related project documents and subsequent communications 18<sup>th</sup> October, 2007, dated 7<sup>th</sup> August, 2008 and 24<sup>th</sup> October, 2008 on the above mentioned project.

2.0 The Ministry of Environment and Forests has examined your application. It is noted that proposal is for the expansion of Pulp and Paper Mill (2,45,000 to 4,00,000 TPA) by installation of new Paper Machine (1,55,000 TPA) and balancing of Hard Wood Pulp Mill (300 to 330 TPD) and bagasse based Pulp Mill (500 to 550 TPD) at Kagithapuram, District Karur, Tamil Nadu by M/s Tamil Nadu Newsprint & Papers Ltd. Out of total 375 acres total land, 4 acre will be used for expansion. Environmental clearance for the existing pulp and paper mill (2,45,000 TPA) has already been accorded vide Ministry's letter dated 10<sup>th</sup> April, 2006. Total cost of the project will be Rs. 1,000.00 Crores including Rs. 128.00 Crores towards the pollution control measures. Pulp and paper production will be enhanced as per details given below:

Item (s)	Units	Pre MEP	Post MEP
Chemical hardwood pulp	TPD	300	330
Chemical bagasse pulp	TPD	500	550
Paper (as per Consent)	TPA	2,45,000	4,00,000

3.0 On-line stack monitoring of SPM, SO<sub>2</sub>, NO<sub>x</sub> and H<sub>2</sub>S is carried out. ESPs will be provided to new paper machine and coal fired boiler alongwith the stacks of adequate height to disperse emissions to control particulate matter within < 150 mg/Nm<sup>3</sup>. Odour will be controlled by collecting gas and burning. Dust extraction system and water sprinklers will be provided to

*Dany (etc)*  
*DCM (Pm)*  
*For records*



control fugitive emissions. Total water requirement after expansion will be 75,750 m<sup>3</sup>/day and PWD's consent for the drawl of 72,000 m<sup>3</sup>/day for the drawl of water from River Cauvery is obtained. Effluent treatment plant (ETP) will be augmented and all the wastewater, spill liquor from paper mill and chemical recovery areas will be treated. Elemental Chlorine-free (ECF) bleaching method will be used to bring down the pollution load. The water consumption in the existing plant is 81 m<sup>3</sup>/T of paper against the limit of 100m<sup>3</sup>/T and AOx level is 0.51 Kg/T of paper against the limit of 1 Kg/T. The new paper machine will be designed for a specific consumption of 12 m<sup>3</sup>/T of paper with a wastewater generation of 10 m<sup>3</sup>/T of paper (Limit is 80 m<sup>3</sup>/T). Effluent Water Lift Irrigation Scheme (TWELTIS) will continue to irrigate barren land. The cultivated area will be further extended by 500 acres. The colour in the effluent will be reduced by installation of oxygen delignification and closing down of brown loop in the hardwood line as a part of Mill Development Plan (MDP). The water reservoirs are already provided to store the treated wastewater during monsoon season to avoid discharge of treated effluent into canal. Fly ash and ETP sludge will be supplied to cement manufacturers. The chip dust and pith will be used as fuel in the boilers.

4.0 Public Hearing / Public Consultation meeting was held on 10<sup>th</sup> July, 2008.

5.0 The Ministry of Environment and Forests hereby accords environmental clearance to the proposed of the above project under the provisions of EIA Notification dated 27th January, 1994 as amended subsequently subject to strict compliance of the following specific and general conditions.

#### **A. SPECIFIC CONDITIONS :**

- i. As proposed, Elemental Chlorine Free (ECF) bleaching technology shall be adopted in hardwood pulp mill, bagasse pulp mill and paper machine.
- ii. Continuous stack monitoring facilities for all the stacks and sufficient air pollution control devices viz. Electrostatic precipitator (ESP) and bag filters etc. shall be provided to control gaseous emissions below 100 mg/Nm<sup>3</sup>. Monitoring of H<sub>2</sub>S and Mercaptan alongwith other parameters shall be ensured and report submitted to Ministry's Regional Office at Bangalore, TNPCB and CPCB regularly. The gaseous emissions (SPM, SO<sub>2</sub>, NO<sub>x</sub>, H<sub>2</sub>S and Mercaptan) from various process units shall conform to the standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry, its size and location. At no time, the emission level shall go beyond the prescribed standards. In the event of failure of any pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.
- iii. Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed. Fugitive emissions shall be controlled by providing dust collectors and water spraying system at material transfer points. Monitoring of H<sub>2</sub>S and mercaptans shall be carried out once in a month in the work environment.
- iv. AOx levels shall be controlled less than 1 kg/ton of paper manufactured as per E(P) Act. The odours and gases from cooking / stripping column, evaporator hot well and hot condensate tank shall be burnt in the incinerator.

- v. Total water consumption shall not exceed as mentioned in the Corporate Responsibility for Environment Protection (CREP) guidelines.
- vi. Total water requirement from River Cauvery shall not exceed 72,000 m<sup>3</sup>/day as per the permission accorded by the Public Works Department. Efforts shall be made to reduce the quantity of water intake and maximize use of recycled water.
- vii. The process effluent shall be treated in Effluent Treatment Plant (ETP) through primary, secondary and tertiary treatment methods. Spill liquor from paper mill and chemical recovery areas shall also be collected and properly treated. Effort shall be made to reduce colour in the effluent discharged. Treated effluent (filtrate) shall be used for the green belt development and discharge to the nearby drain only after conforming to the standards prescribed by the TNPCB and under E(P) Act, whichever are more stringent. The quality of the treated effluent shall conform to the prescribed standards and used for irrigation. AOX and TOC levels are monitored.
- viii. Adequate number of influent and effluent quality monitoring stations shall be installed in consultation with the TNPCB and controlled within the permissible limits for all the parameters. One of the water quality monitoring station shall be at 100 m downstream of confluence of the treated effluent discharge point in the nearest water body.
- ix. Efforts shall be made to reduce total dissolved solids (TDS) in the effluent and effluent discharged shall not exceed 80 m<sup>3</sup>/T of paper produced as per the norms prescribed in the E(P) Act.
- x. Chemical recovery plant shall be installed for the treatment of black liquor. In order to achieve colour reduction, tertiary treatment system like activated filter, multi-media filter etc. shall be explored. The inorganic compounds shall be recovered in the chemical recovery plant and organic compounds burnt in the recovery boiler. The effluent from bagasse handling and fibre preparation section containing high BOD and SS shall be segregated and treated in a clarifier to reduce the SS. Effluent with low BOD and SS generated from paper machine, pulp mill and soda recovery plant shall be passed through bar screen, mechanical screen, detritor and primary clarifier to remove SS. Anaerobic treatment shall be done to reduce BOD levels. The bio-gas from the bio-methanation plant shall be utilized in lime kiln. The effluent shall be further treated in the aeration system based on 'Activated Sludge Process' to reduce BOD/COD to the permissible levels. No trade effluent shall be discharged into Pugalur canal and seepage from TEWLIS area shall be prevented entering the same canal during the monsoon.
- xi. Permission for the drawl of 75,750 m<sup>3</sup>/day from River Cauvery water shall be obtained from the concerned department.
- xii. Action plan shall be prepared for further colour removal from the effluent and submitted to the Ministry, its Regional Office at Bangalore, TNPCB and CPCB and implemented.
- xiii. Regular ground water monitoring shall be carried out for all the relevant parameters where effluent is discharged.

- xiv. Apart from other parameters, TOC and AO<sub>x</sub> levels in the treated effluent shall be measured once in a month. The AO<sub>x</sub> levels shall not 1.5 kg/tonne of paper as per the norms prescribed in E(P) Act.
- xv. Sludge dewatering system shall be installed. ETP sludge shall be used as manure. Chip dust and pith shall be used as fuel in the existing boilers of TNPL. Lime mud reburning kilns shall be installed to recycle lime sludge and to regenerate burnt lime required for the causticizing process. Efforts shall also be made for the utilization of lime sludge and mud in the cement plants.
- xvi. Action plan for the disposal of Reverse Osmosis (RO) rejects shall be prepared and submitted to the Ministry's Regional Office at Bangalore, TNPCB and CPCB within three months of issue of this letter.
- xvii. Proper utilization of fly ash shall be ensured as per Fly ash Notification, 1999 and subsequent amendment in 2003.
- xviii. As per the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP), the company shall undertake measures for discharge of within two years and 1.0 kg/ton of paper in 5 years.
- xix. Green belt shall be developed in 33 % area to mitigate the effects of fugitive emissions all around the plant in as per the CPCB guidelines and in consultation with local DFO. Green belt already developed shall be properly maintained.
- xx. All the commitments made to the public during public hearing shall be satisfactorily implemented.
- xxi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for Pulp and Paper Sector shall be strictly implemented.
- xxii. The company shall provide housing for 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.

#### **B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Tamil Nadu State Pollution Control Board (TNPCB) and the State Government.
- ii. No further expansion or modernization in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. Proper house keeping and cleanliness must be maintained within and outside the plant.



- iv. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- v. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees, specially for those engaged in handling hazardous substances. The first aid facilities in the occupational health center shall be strengthened and the medical records of each employee should be maintained separately.
- vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
- vii. The company shall undertake rainwater harvesting measures to recharge the ground water.
- viii. The implementation of the project vis-à-vis environmental action plans shall be monitored by Ministry's Regional Office at Bangalore/TNPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies.
- ix. Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc. shall be ensured for construction workers during the construction phase so as to avoid felling of trees and pollution of water and the surroundings.
- x. The project proponent shall have a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, education, establishment of health centers, sanitation facilities, drinking water supply, community awareness and employment to local people whenever and wherever possible both for technical and non-technical jobs.
- xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities to carry out the various Environmental Management and Monitoring functions shall be set up under the control of Senior Executive.
- xii. The project authorities will provide Rs. 128.00 Crores both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes. Rs. 159.00 Crores is allotted for environment protection measures.
- xiii. Six monthly status report on the project vis-à-vis implementation of environmental measures shall be submitted to this Ministry's Regional Office at Bangalore/CPCB/TNPCB.
- xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the Tamil Nadu State Pollution Control Board and may also be seen at Website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one

shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.

- xv. The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, and the date of commencing the land development work.

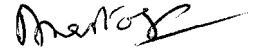
6.0 The Ministry or any competent authority may suitable any further condition(s) on receiving reports from the project authorities. The above condition shall be monitored by the Regional Office located at Bangalore.

7.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

8.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

9.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

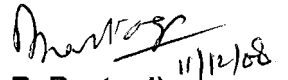
10.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.



**(Dr. P. B. Rastogi)**  
**Director**

Copy to:

1. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110 032.
2. The Chairman, Tamil Nadu Pollution Control Board, 100, Anna Salai, Guindy, Chennai – 600 032, Tamil Nadu.
3. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E&F Wings, 7<sup>th</sup> Main Road, II<sup>nd</sup> Block, Koramangala, Bangalore- 560 034, Karnataka.
4. The Secretary (Environment), Govt. of Tamil Nadu, Fort. St. George, Chennai- 560 560, Tamil Nadu.
5. Adviser, IA II(I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File.
8. Monitoring File.
9. Record File.



**(Dr. P. B. Rastogi)**  
**Director**

F. No. J-11011/375/2005-IA-II (I)  
Government of India  
Ministry of Environment & Forests  
(I.A. Division)

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Paryavaran Bhavan  
CGO Complex, Lodhi Road  
New Delhi – 110 003  
Dated April 10, 2006

To, ✓  
Shri T.V. Satyanarayana  
Chief General Manager (Operations)  
M/s Tamilnadu Newsprint and Papers Ltd.  
Kagithapuram - 639136  
District Karur  
Tamil Nadu.

Fax No : 04234- 277027/277025

**Subject : Expansion of paper production from 2,05,000 to 2,45,000 MTPA and production of 45,000 MTPA market pulp at Kagithampuram, Karur, Tamil Nadu by M/s Tamil Nadu Newsprint and Papers Ltd.**

Sir,

This has reference to your letter no. PMD/23/304 dated 13<sup>th</sup> September, 2005 alongwith EIA/EMP report and other related project documents and subsequent communications dated 25<sup>th</sup> January, 2006, 30<sup>th</sup> January, 2006, 8<sup>th</sup> February, 2006, 13<sup>th</sup> February, 2006 and 21<sup>st</sup> February, 2006 on the above mentioned project. The Ministry of Environment and Forests has examined your application. It is noted that proposal is for the expansion of paper production from 2,05,000 to 2,45,000 MTPA and production of 45,000 MTPA market pulp at Kagithampuram, Karur, Tamil Nadu. Total land available for the project is 375 acres and expansion will be carried out in 8.5 acres. It is noted that environmentally friendly Element Chlorine Free (ECF) pulp bleaching process shall be adopted. A new Chemical Bagasse Pulp Mill shall be installed to produce additional pulp. A new Chlorine dioxide generation plant shall supply Chlorine dioxide to both the new hardwood and chemical bagasse lines. ESPs, dust collectors and water spraying system shall be installed to control air emissions. A super batch digester shall be installed to control odour as per of CREP guidelines. Total fresh water requirement shall be 66,380 m<sup>3</sup>/d and sourced from River Cauvery. Permission for 16 MGD (72,736 m<sup>3</sup>/d) water has been accorded by the P.W.D. Minimum 38% treated waste water shall be recycled and reused in the process. Only 31,715 m<sup>3</sup>/day treated waste water shall be discharged and used for irrigation purpose. No trade effluent shall be discharged into Pugalur canal and seepage from TEWLIS area will be prevented entering the same canal during the monsoon. Solid waste generated in the form of boiler ash, lime sludge, chip dust, ETP sludge and pith shall be properly utilized or disposed off as per TNPCB guidelines. 26.7 ha. area is already afforested and efforts shall be made to achieve plantation in 50 ha. (33%). Total cost of the project is Rs. 565.00 Crores.



2.0 Public hearing was held on 19<sup>th</sup> October, 2005. 'NOC' has been accorded by the TNPCB vide letter no. TIO/TNPCB/10174/ KAR/W&A, dated 7<sup>th</sup> December, 2005.

3.0 The Ministry of Environment and Forests hereby accords environmental clearance to the proposed of the above project under the provisions of EIA Notification dated 27th January, 1994 as amended subsequently subject to strict compliance of the following specific and general conditions.

**A. SPECIFIC CONDITIONS :**

- i. The gaseous emissions (SPM, SO<sub>2</sub>, NO<sub>x</sub> and H<sub>2</sub>S) from various process units shall conform to the standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry, its size and location. At no time, the emission level shall go beyond the prescribed standards. In the event of failure of any pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency. ESPs shall be provided to the recovery boiler with 99.9% and lime kiln to collect the solids (Sodium salts) escaping the flue gas.
- ii. Three on-line monitoring stations for ambient air near the boundary of the plant shall be set up alongwith another on-line stack monitoring system for recovery boiler for particulate matter, SO<sub>2</sub>, NO<sub>x</sub> and H<sub>2</sub>S and the on-line data shall be submitted to the CPCB and TNPCB.
- iii. The company shall phase out Elemental Chlorine from pulp bleaching process. The Chlorine dioxide plant shall be installed and commissioned on or before May, 2007.
- iv. The company shall install new Chemical Recovery Boiler (CRB). The new power boilers for the co-generation power plant, recovery boiler and lime kiln shall be equipped with ESP ans shall meet the notified standards..
- v. Fugitive emissions shall be controlled by providing dust collectors and water spraying system at material transfer points. A super batch digester shall be installed to control odour. All the recommendations of the Corporate Responsibility for Environmental Protection (CREP) issued by the CPCB shall be followed. Arrangements for burning the non-condensable gases in a lime kiln shall be in place before the new digesters are commissioned. The existing direct contact evaporator shall be changed to the surface contract evaporator. Monitoring of H<sub>2</sub>S and mercaptans shall be carried out once in a month in the work environment.
- vi. Total fresh water requirement from River Cauvery shall not exceed 66,380 m<sup>3</sup>/d. Presently, 38% treated waste water is recycled and reused in the process. Effort shall be made to further reduce water consumption by spill liquor collection from pulp mill and chemical recovery areas, cooling towers, dewatering of waste sludge in lieu of vacuum drum filters etc. The effluent generation shall not exceed 31,715 m<sup>3</sup>/day. The quality of the treated effluent shall conform to the prescribed standards and used for irrigation.
- vii. The black liquor generated by the paper mill shall be concentrated in an evaporation pond. The inorganic compounds shall be recovered in the chemical recovery plant and organic compounds brunt in the recovery boiler. The effluent from bagasse handling

and fibre preparation section containing high BOD and SS shall be segregated and treated in a clarifier to reduce the SS. Effluent with low BOD and SS generated from paper machine, pulp mill and soda recovery plant shall be passed through bar screen, mechanical screen, detritor and primary clarifier to remove SS. Anaerobic treatment shall be done to reduce BOD levels. A bio-methanation plant shall be installed to treat high BOD/COD streams and generate bio-gas upto 20,000 m<sup>3</sup>/d to be utilized in lime kiln. The effluent shall be further treated in the aeration system based on 'Activated Sludge Process' to reduce BOD/COD to the permissible levels. No trade effluent shall be discharged into Pugalur canal and seepage from TEWLIS area shall be prevented entering the same canal during the monsoon.

- viii. The use of Ferric/Ferrous chloride shall be optimised to further reduce the colour in the treated effluent.
- ix. Apart from other parameters, TOC and AO<sub>x</sub> levels in the treated effluent shall be measured once in a month.
- x. Solid waste generated in the form of ash and lime sludge shall be provided to cement manufacturing units. Chip dust and pith shall be used as fuel in the existing boilers of TNPL. ETP sludge shall be given to cardboard/egg tray manufactures. The causticizing plant shall be augmented to 2,000 m<sup>3</sup>/day to overcome the problem of high silica bagasse liquor. Lime mud reburning kilns shall be installed to recycle lime sludge and to regenerate burnt lime required for the causticizing process.
- xi. As per the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP), the company shall undertake measures for discharge of AO<sub>x</sub> less than 1.5 kg/tonne of paper within two years and 1.0 kg/ton of paper in 5 years. The waste water discharge per ton of paper shall be less than 80 m<sup>3</sup>/tonne of paper.
- xii. Green belt shall be raised in at least 50 ha. (33%) to mitigate the effects of fugitive emissions all around the plant in as per the CPCB guidelines and in consultation with local DFO.
- xiii. The company shall undertake rainwater harvesting measures to recharge the ground water.

#### **B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Tamil Nadu State Pollution Control Board (TNPCB) and the State Government.
- ii. No further expansion or modernization in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. Proper house keeping and cleanliness must be maintained within and outside the plant.

- iv. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- v. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees, specially for those engaged in handling hazardous substances. The first aid facilities in the occupational health center shall be strengthened and the medical records of each employee should be maintained separately.
- vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
- vii. The implementation of the project vis-à-vis environmental action plans shall be monitored by Ministry's Regional Office at Bangalore/TNPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies.
- viii. Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc. shall be ensured for construction workers during the construction phase so as to avoid felling of trees and pollution of water and the surroundings.
- ix. The project proponent shall have a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, education, establishment of health centers, sanitation facilities, drinking water supply, community awareness and employment to local people whenever and wherever possible both for technical and non-technical jobs.
- x. A separate Environmental Management Cell equipped with full fledged laboratory facilities to carry out the various Environmental Management and Monitoring functions shall be set up under the control of Senior Executive.
- xi. The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes. Rs. 159.00 Crores is allotted for environment protection measures.
- xii. Six monthly status report on the project vis-à-vis implementation of environmental measures shall be submitted to this Ministry's Regional Office at Bangalore/CPCB/TNPCB.
- xiii. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the Tamil Nadu State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.



xiv. The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

4.0 The Ministry or any competent authority may suitable any further condition(s) on receiving reports from the project authorities. The above condition shall be monitored by the Regional Office located at Bangalore.

5.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

6.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

7.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

  
(Dr. P. B. Rastogi)  
Additional Director

Copy to:

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5. Joint Secretary (CCI-I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
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