

**DR. H.MALLESHAPPA, I.F.S.,
MEMBER SECRETARY**



**STATE LEVEL ENVIRONMENT
IMPACT ASSESSMENT AUTHORITY,
TAMILNADU,**

3rd Floor, Panagal Maaligai,
No.1 Jeenis Road, Saidapet,
Chennai - 600 015.

ENVIRONMENTAL CLEARANCE (EC)

Letter No. SEIAA-TN/F.3082/KAR/3(b)/EXP/EC-8/2014 dated 12.03.2015

To

The Director (Operations),
M/s Tamil Nadu Newsprint and Papers Limited,
No.67, Mount Road, Guindy,
Chennai – 600 032.

Sir,

Sub: SEIAA, TN - Environmental Clearance for the project of modernization/upgradation of existing cement plant of M/s Tamil Nadu Newsprint and Papers Limited at Kagithapuram town panchayat, Punjai Pugalur village, Manmangalam taluk, Karur district to enhance the cement production capacity from 600 TPD(0.22 MTPA) to 900 TPD(0.33 MTPA) – Issued - Regarding.

- 1.0 This has reference to your application dated 20.10.2014 and subsequent documents submitted for the above said project to the State Level Environment Impact Assessment Authority, Tamil Nadu seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006.
- 2.0 It is noted, interalia that the project proposal is for the modernisation/upgradation of the existing cement plant of M/s Tamil Nadu Newsprint and Papers Limited located at S.F Nos. 841, 842, 843, 844, 809 & 837 of Punjai Pugalur village, Manmangalam taluk, Karur district to enhance the cement production capacity from 600 TPD(0.22 MTPA) to 900 TPD(0.33 MTPA) along with clinker production capacity from 500 TPD to 800 TPD. The existing cement plant is located in an extend area of 18.33 hectares & the modernisation project will be carried out within the existing cement plant premises. The modernisation/upgradation project involves (1) installation of secondary crusher for crushing of limestone, (2) providing of precalciner prior to kiln, (3) replacing uniflow burner by multi-channel burner in the kiln, (4) installation of chloride bypass system at kiln gas outlet and (5) modification in raw mill circuit, grate cooler, preheater cyclones and RABH. The modernisation project is proposed at a cost of Rs 30 crores.
- 3.0 Existing cement plant is reported to be in operation from December, 2012, manufacturing both Portland Pozzolana Cement (PPC) and Ordinary Portland Cement (OPC) in a ratio of 80:20 with production capacity of 600 TPD(0.22 MTPA). Environmental Clearance was granted for the existing cement plant vide Letter No. SEIAA/TN/EC/3(b)/005/F-166/2010 dated 21.2.2010 after conducting

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public hearing on 1.12.2009. No national parks/biosphere reserves/ecologically sensitive areas are located within 10 km from cement plant. River Cauvery flows at a distance of 5.5 km from the cement plant in the north from west to east. The nearest habitations are Moolimangalam village at 300m in the West and Moorthipalayam village at 700m in South-East direction from the cement plant.

4.0 Following is the existing and proposed plant configuration:-

Product	Existing	Enhancement	After Enhancement
Cement (PPC & OPC)	600 TPD (or) 0.22 MTPA	300 TPD (or) 0.11 MTPA	900 TPD (or) 0.33 MTPA

5.0 Existing cement plant uses the waste material of limesludge from TNPL paper plant and fly ash from TNPL captive power plant as raw materials towards waste utilisation policy. The raw materials requirement at existing plant and proposed enhancement plant are as follows:-

Raw Materials	Source	Qty requirement for existing cement production (600 TPD)	Qty requirement for enhancement of cement production (900 TPD)
Limesludge	TNPL paper plant	200 TPD	250 TPD
Limestone	Limestone mines near Palayam & Ariyalur	500 TPD	785 TPD
Bauxite/ Iron ore	Salem	50 TPD	75 TPD
Gypsum	Sterlite Industries, Tuticorin	10 TPD	15 TPD
Fly Ash	TNPL captive power plant	90 TPD	135 TPD
Coal	Imported coal from TNPL paper plant	100 TPD	150 TPD

The washed & cleaned limesludge received from TNPL paper plant thro' pipeline in slurry form is reported to be used in the cement process after dewatering. The filtrate generated during dewatering/filtration is sent back to TNPL paper plant for reuse in the process. Imported steaming (non coking) coal from Indonesia purchased thro' the supplier of M/s Phoenix Commodities DMCC, Dubai-UAE is reported to be used in the kiln. As per the coal purchase order furnished, the ash and sulphur content in the imported coal are max8% and max0.8% respectively. The cement plant receives coal and water from TNPL paper plant that directly gets from the supplier for its group of companies collectively.

6.0 The water requirement for the existing cement plant is reported as 300 KLD which is sourced from surface water of River Cauvery thro' pump house at Kattipalayam. Out of 300 KLD of water requirement, 20 KLD for domestic purposes, 200 KLD for process equipment cooling, 30 KLD for dust control and 50 KLD for green belt development within the premises. No additional man power and water requirement for the proposed modernisation project. The

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sewage generation of quantity 18 KLD from existing cement plant is treated in the full fledged sewage treatment plant of design capacity 20 KLD and the treated sewage (18 KLD) is utilised for dust control (5 KLD) & for green belt development (13 KLD) within the premises. No trade effluent generation from existing cement plant & also from the proposed modernisation project.

- 7.0 Dry process operations are carried out in the manufacturing of cement. Dust, fugitive and gaseous emissions are main sources of process emissions. Existing cement plant is reported to be provided with adequate Air Pollution Control Measures to control process emissions and all stacks are provided with online SPM monitoring equipment and connected to the CARE Air Centre of Tamil Nadu Pollution Control Board for continuous monitoring of SPM. Bag filter with adequate height of stack are proposed for the control of particulate emissions from the chloride bypass system proposed in the modernization project.

Emission sources	APC measures	Details of stack
Existing Cement Plant:-		
Lime stone crusher	Bag filters	--
Raw mill/Kiln preheater	Reverse Air Bag House	Stack of height 55m
Coal mill	Bag filter	Stack of height 40m
Cooler	Electrostatic Precipitators (ESP)	Stack of height 40m
Cement mill	Bag filter	Stack of height 55m
Packing plant	Bag filter	Stack of height 40m
Modernization Project:-		
Chloride bypass system	Bag filter	Stack of height 40m

All raw materials transportations within the cement mill are reported to be done in closed pipe and fully covered conveyors. All internal roads are concretized to prevent fugitive emissions due to vehicular movement. Water sprinkling is ensured at lime and coal handling areas to prevent dust emissions.

- 8.0 Solid wastes generated from STP (50 kgs/day) are used as manure for green belt development. Waste oil generated from cement plant (1.6 TPA) is disposed thro' authorized recyclers. CO₂ gas in the flue gas from the kiln is sent to adjacent PPT plant for the production of precipitated calcium carbonate. Lime sludge waste from chloride bypass system (10 TPD) will be reused in the process. 6.25 hectares of land area is allotted for green belt development within the premises. About 5000 trees are reported to be maintained and it is planned to plant further 1500 trees during the current year. The power requirement of the existing cement plant is reported as 6.5 MW and the additional requirement is 1.5 MW for modernization project and it is met from TNPL CPP at paper plant, Kagithapuram, Karur district.
- 9.0 For the present modernization/expansion project, the compliance report on the conditions of Environmental Clearance granted for the existing cement plant as obtained from the Regional Office of MoEF, Chennai was received in letter dated

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- 18.11.2014. Terms of Reference was prescribed vide Letter No. SEIAA-TN/F-3082/KAR/3(b)/TOR-204/2014 dated 28.11.2014 after placing the project proposal in the 62nd SEAC meeting held on 26.11.2014 for the preparation of EIA report exempting public hearing. But, a clause of public notice of EIA report was included for the reason that the spatial impacts due to the present modernization project would be negligible /insignificant. Six responses were reported to be received after public notice of the EIA report. Issues addressed include providing of welfare measures in the nearby villages & control of emissions etc, for which provision is made in the CSR activities during the year 2015-2016. As per the TORs prescribed, EIA report was received on 23.01.2015.
- 10.0 The project proposal was appraised by the State Level Expert Appraisal Committee (SEAC) in its 63rd meeting held on 30.01.2015 as per the prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application and subsequent EIA report and the additional clarifications furnished. The SEAC after due consideration, recommended to the SEIAA-TN for grant of Environmental Clearance to the modernization/expansion project of the existing cement plant. The project proposal was then considered by the SEIAA, TN in its 121th meeting held on 04.03.2015 vide Item No. 121-26 and the project proposal was discussed in detail and decided to issue Environmental Clearance to the project of modernisation of existing cement plant. Accordingly, the SEIAA hereby accords Environmental Clearance under the provisions of the EIA Notification dated 14th September, 2006 to the project of modernization/upgradation of the existing cement plant to enhance the cement production capacity to 900 TPD (0.33 MTPA) based on the recommendations of the SEAC subject to the strict compliance of the following specific and general conditions.

(A) SPECIFIC CONDITIONS:-

1. The modernisation/expansion project shall comply with the new discharge emission standards of MoEF & CC issued vide GSR 612 (E) dated 25.08.2014 with respect to Particulate Matter, SO₂, NO_x for Cement sector.
2. Continuous online stack monitoring facility to monitor gaseous emissions from the process kiln stack shall be provided. Bag filter with adequate height of stack shall be provided for the control of particulate emissions from the chloride bypass system proposed in the modernization project. It shall be ensured that adequate APC measures are provided for the control of process emissions and the permissible limit of Particulate Matter shall be achieved at all time. Low NO_x burners shall be provided to control NO_x emissions. Regular calibration of the instruments must be ensured.
3. All the pollution control devices/equipment in raw mill/kiln, kiln feeding system, clinker cooler, coal mill, cement mill, and cement silo shall be interlocked so that in the event of the pollution control devices/systems not working, the respective unit(s) shut down automatically.

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4. Proper and full utilization of CO₂ gas present in the gaseous emission from the kiln in the adjacent industry for the production of precipitated calcium carbonate shall be ensured.
5. An interlocking system shall be provided so as to ensure that whenever the ESP is not in operation, the raw material feeder will automatically stop and restart only with the restart of ESP.
6. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/Code of Practice issued by the CPCB in this regard shall be followed.
7. Arsenic and Mercury shall be monitored periodically in emissions, ambient air and water.
8. The coal storage yard shall be lined and covered.
9. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment. All the raw materials including coal, fly ash shall be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.
10. Total fresh water requirement after the proposed modernisation of the cement plant shall not exceed 300 m³/day as reported. The fresh water requirement shall be met from the River Cauver with proper approval obtained from Concerned Authority.
11. Efforts shall be made to further reduce water consumption by using air cooled condensers.
12. Existing STP shall be operated continuously and effectively so as to bring the quality of treated sewage to satisfy the discharge standards prescribed by Tamil Nadu Pollution Control Board. The treated sewage shall be utilised for dust suppression and green belt development.
13. It shall be ensured that no process effluent shall be generated in the cement plant. No washing of lime sludge received from TNPL paper plant shall be carried out in the cement plant except dewatering/filtration and the filtrate shall be sent to TNPL paper plant thro' pipe line for reuse in the paper plant process as reported.
14. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
15. Regular monitoring on the air quality, water quality and noise on the selected locations in and around the project site as mentioned in the EIA report for creating base line data shall be continued and report in this regard shall be furnished periodically to the Regional Office of MoEF & CC at Chennai & SPCB.
16. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the

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process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers only.

17. Fly ash generation from TNPL Captive Power Plant shall be utilized completely in the cement plant as per Fly ash Notification, 1999 & its amendment in 2003 & 2008. Efforts shall be made to use fly ash maximum in making Pozzolona Portland Cement (PPC). A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the MoEF & CC at Chennai.
18. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
19. Efforts shall be made to provide flexible fuel feeding system in the inlet of kiln in the modernisation project so as to enable the use of hazardous wastes such as oil sludge, cut tyres, etc.
20. The proponent shall examine and prepare a plan for utilisation of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term utilisation of such wastes as per the EP Act, 1986 and with necessary approvals.
21. As proposed, green belt in an extend area of 6.250 hect (33 % of the total project area) shall be developed within cement plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward wind direction and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
22. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.
23. All the responses received during public notice of EIA report shall be satisfactorily implemented and a separate budget of Rs. 25 lakhs allotted for implementing the same shall be utilised only for the purposes and a report shall be submitted to the TNPCB, Regional Office of MoEF & CC at Chennai after implementation.
24. The proponent shall prepare a detailed CSR Plan for every next 5 years for the existing-cum- expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to Regional Office of MoEF & CC at Chennai. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

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25. Risk Assessment and Disaster Management Plan with focus on Disaster Prevention and Safety shall be prepared and a copy submitted to the Regional Office of MoEF & CC at Chennai, SPCB and CPCB.

(B) GENERAL CONDITIONS:-

- a) The Project Proponent should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the Environmental Clearance informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with TNPCB and also at the Website of the SEIAA, TN at <http://www.seiaa.tn.gov.in>.
- b) A copy of the Environmental Clearance shall be sent by the project proponent to concerned panchayat, local body, and local NGO, if any from whom suggestions/representatives, if any were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company.
- c) The State Pollution Control Board should display a copy of the Environmental Clearance issued to the project at the Regional office, District Industry Centre and the Collector's office/Tehsildar's office for 30 days.
- d) Consent from Tamil Nadu Pollution Control Board shall be obtained before start of modernisation project of the cement plant and also before commencement of enhancement production.
- e) All stipulations made by TNPCB and the State Government shall be strictly complied with.
- f) All the environmental protection measures and safeguards as recommended in the EIA report shall be complied with.
- g) The implementation of the project vis-à-vis environmental action plans shall be monitored by the Regional office of MoEF & CC at Chennai/TNPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies regularly.
- h) Ambient Air Quality Monitoring Stations shall be set up in the down wind direction as well as where maximum ground level concentration of RSPM, SO₂, NO_x, are anticipated. At least four ambient air quality monitoring stations should be established in the core zone as well as buffer zone for monitoring RSPM, SO₂ and NOX. Location of the monitoring stations should be decided in consultation with State Pollution Control Board based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring etc.
- i) Data on ambient air, stack and fugitive emissions shall be regularly submitted online to the Regional office of MoEF & CC at Chennai, TNPCB and CPCB as well

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- as hard copy once in six months and display data on RSPM, SO₂ and NO_x outside the premises at the appropriate place for the general public.
- j) Occupational health surveillance of the staffs & workers shall be done on a regular basis and records maintained as per the Factories Act.
 - k) Proper house keeping and cleanliness must be maintained within and outside the cement plant.
 - l) 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.
 - m) The overall noise levels in and around the plant area shall be kept well within the standards prescribed for 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).
 - n) CSR activity shall be implemented as committed by drawing a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, providing sanitation facilities, drinking water supply in the government schools nearby, community awareness, establishment of health centers, water supply to nearby villages and employment to local people whenever and wherever possible both for technical and non-technical jobs and protection of water sources around the project site etc.
 - o) 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.
 - p) The earmarked amount of Rs. 2.5 crores towards capital cost and Rs. 5 lakhs/annum towards recurring cost/annum for implementing pollution control measures shall be used judiciously to implement the Environment Management Plan as furnished in the EIA report. The funds so provided shall not be diverted for any other purposes.
 - q) The project proponent shall upload the status of compliance of the stipulated environmental 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, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; RSPM, SO₂, NO_x (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.

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- r) The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of MoEF & CC at Chennai, CPCB & SPCB shall monitor the stipulated conditions.
- s) The environmental statement for each financial year ending 31st 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 alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.

11. The Environmental Clearance is valid for 5 years from the date of issue.

12. Environmental Clearance is being issued without prejudice to the action initiated under Environment (Protection) Act, 1986 or any court case pending or any other court order shall prevail.
13. The SEIAA, TN may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
14. The SEIAA, TN may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the environmental clearance.
15. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
16. 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, the Public Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.
17. The environmental statement for each financial year ending 31st 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

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along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of MoEF & CC, Chennai by e-mail.

18. Any appeal against this environmental clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**MEMBER SECRETARY
SEIAA-TN**

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Copy to:-

1. The Principal Secretary to Government, Environment & Forests Dept, Govt. of Tamil Nadu, Fort St. George, Chennai – 600 009.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110 032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032.
4. The ACCF(C), Regional Office of MoEF&CC, 34, HEPC Building, 1 & 2 nd Floors, Cathedral Garden Road, Nungampakkam, Chennai - 600 034.
5. Monitoring Cell, I A Division, Ministry of Environment, Forest & Climate Change, Paryavaran Bhavan, CGO Complex, New Delhi 110 003.
6. The District Collector, Karur district.
7. Stock File.

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SEIAA-TN**

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