

Seshasayee Paper and Boards Ltd., Unit : Tirunelveli

Compliance Report of Environmental Clearance (EC)

Letter No. SEIAA-TN/F.1941/TVLI/5(i) & 1(d) / EC-12/2013 dt. 01.04.2015

(A) Specific Conditions:

Sl. No. In EC	EC Conditions	Compliance status
1	"Consent for Establishment" shall be obtained from Tamil Nadu Pollution Control Board for the expansion project of paper mill with captive power plant and copy of the same shall be furnished to the SEIAA, Tamil Nadu before start of Project	Complied Paper Production : Obtained Direct CTO from TNPCB for paper production enhancement from 72,000 TPA to 90,000 TPA Captive Power Plant : Project not taken-up till date EC amended as 6.6 MW (existing) as coal based and 11.4 as New (not taken-up)
2	100% imported coal from Indonesia shall be used as fuel for captive plant as reported. No other fuel including domestic coal /Indian coal shall be used in the power plant	Complied Only imported coal is used in the existing Cogen Plant (6.6 MW Coal based)
3	In case of source of coal has to be changed at a later stage, the project proponent shall intimate the Authority well in advance along with necessary documents for its concurrence for allowing the change in coal source	Complied Any change in source of coal will be intimated to Authority (SEIAA)
4	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.15% and 2.93% respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the SEIAA for suitable amendments in the conditions of the environmental clearance wherever necessary.	Complied Sulphur Content < 0.15% and Ash content < 2.93

5	Transportation of coal from the port of Tuticorin to the project site shall be done via mechanically covered trucks or by dedicated closed conveyor system, avoiding the route passing through habitation areas / thickly populated areas.	complied Coal is covered while on transport
6	Efforts shall be made to reduce impact due to the transport of imported coal on the surrounding environment including agriculture land.	Complied
7	During transportation of coal from the port to project site, adequate precautions should be taken to prevent dust emission.	Complied. Coal is covered while on transport
8	The fugitive emissions during loading and unloading shall be suitably controlled. Fugitive emissions in the work zone environment and raw materials storage & handling areas shall be regularly monitored. The emissions shall be confirm to the limits prescribed by the TNPCB / CPCB.	Complied
9	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of trucks / vehicles used in transportation of coal. Only mechanically covered trucks should be used and shall not be overloaded.	Complied
10	Adequate dust extraction system such as cyclones / bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Complied Adequate dust extraction system is provided.
11	Air pollution Control Measures such as Electrostatic Precipitator (ESP) shall be provided for coal fired boiler proposed in the power plant with chimney of height 72m above G.L for control of the process emissions so as to achieve the particulate emission level below 50 mg/Nm ³ . Continuous online monitoring system shall be provided in the chimney of the boiler for monitoring gaseous emissions & particulate matter and it shall be connected to CARE AIR CENTER of TNPCB	Complied ESP is provided in the existing power plant

12	In the power plant area, dust collector shall be provided at coal crusher, coal bunker, fly ash silo, bed ash silo and all transfer points. Enclosed shed and automatic water sprinkling system with CO detection mechanism (carbon monoxide sensor) shall be provided at coal stock yard and coal handling area to suppress dust emission. Required APC measures shall be provided to arrest fugitive emission.	Complied Dust collector provided at coal crusher, fly ash silo and transfer points. Sprinklers provided to arrest fugitive emissions.
13	The fly ash generated from the coal fired boilers in the power plant shall be collected in dry form as reported and it shall be disposed of in accordance with the provisions of the fly ash notification, 2003. Unutilized fly ash shall be disposed off in the ash pond in the slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb etc) will be monitored in the bottom ash and also in the effluents emanating from the ash pond .No ash shall be disposed off in low lying area	Complied. Fly ash is collected in the silo and disposed to brick manufacturers.
14	Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	MS Ash silo with 4 days storage is provided.
15	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	Complied
16	Utilization of 100% fly ash generated shall be done for beneficial use in cement industry & brick manufacturing units as reported.	Complied Fly ash is disposed to brick manufacturers.
17	Ambient Air Quality Monitoring Stations shall be set up in the down wind direction as well as where maximum ground level concentration of RSPM, SO ₂ , 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, SO ₂ and NO _x . Location of the monitoring stations should be decided in consultation with State Pollution Control Board based on the meteorological data, topographic features and environmentally and ecologically sensitive targets and frequency monitoring etc.	Complied 5 nos. of AAQ monitoring stations installed in consultation with TNPCB Dy. Director. Reports are being sent to TNPCB monthly.

18	The fresh water requirement shall be obtained from the collector wells located in the Thamirabarani River as reported. Necessary permission from PWD shall be obtained for supply of required quantity of fresh water for the current project proposal also prior to start operation of the expansion project as the present water supply agreement made with PWD ended already on 12.02.2014. Under any circumstances, ground water shall not be drawn for the project without approval.	Complied Obtained Water Renewal permission from PWD for the 5 years period ending on 12.02.2024. (Annexure V q1) We obtained NOC or the abstraction of 940 m3/day (Annexure V q2)
19	Suitable water conservation measures and waste minimization techniques shall be implemented to reduce generation of waste water at source itself. Also a suitable proposal shall be drawn to adopt recycle/reuse of treated effluent in the process to the maximum extent possible to reduce raw water consumption.	Complied Treated water recycling to process is practiced.
20	Water conservation Scheme including rain water harvesting measures to augment ground water resources shall be implemented as per the proposal furnished.	Complied 4 nos. of rain water harvesting arrangements are installed.
21	Existing Effluent Treatment Plant shall be revamped by adopting technology to take care of the additional load of effluent generation (4380 KLD – 2250 KLD = 2130 KLD) from the production expansion in paper mill so as to bring the quality of treated effluent to satisfy the discharge standards prescribed by the TNPCB.	Existing ETP had been revamped with 5000 m3 capacity anaerobic digester and treated water quality is meeting the standard prescribed by TNPCB
22	Separate new Effluent Treatment Plant of adequate capacity shall be provided for treatment of trade effluent generation (490 KLD) from the proposed captive power plant. Latest treatment technology shall be adopted for reuse point of view to promote water conservation and also to reduce raw water consumption to ensure zero discharge. The treated water shall be utilized for dust suppression in process & coal storage & handling areas, ash conditioning cooling tower makeup etc., completely to achieve zero discharge of effluent from proposed power plant.	ETP had been augmented with Equalization tank, Dissolved Air Flootation clarifier and Anaerobic digester and designed to treat the entire quantity of both Paper and Power plant effluents.

23	Flow meter with computer recording system shall be installed at appropriate places in the treatment plant to monitor the quantity of waste water flow & quality of treatment .For this ,on-line monitoring mechanism with linkage to Care Air Centre of TNPCB shall be established .The treated sewage and trade effluent shall confirm to the discharge standards prescribed under the EPA Rules (or) SPCB Norms whichever is more stringent	Complied Flow meters with computer recording arrangements are provided and transmitted to CAC, TNPCB, Chennai
24	The land area of 7,73,270 sq.m earmarked within the project area for green belt development utilizing treated waste water from paper mill shall be developed in consultation with DFO on the selection of the species & number of plantations to be carried out	Complied Thick canopy of green belt developed
25	Adequate number of piezometer shall be provided in the land areas earmarked for utilizing treated effluent for irrigation / green belt development so as to monitor ground water quality regularly.	Complied 4 nos. of piezometer wells are provided in the land areas earmarked for utilizing treated effluent for irrigation / green belt development and monitored through TNAU quarterly and through TNPCB biannually.
26	It shall be ensured that the proposal of utilizing treated effluent on land application for irrigation / green belt development shall not pollute the soil and ground water in and around the project area either directly or indirectly under any circumstances.	Complied We ensure that utilizing the treated effluent on land application for irrigation / green belt development is not polluting the soil and ground water in and around mill's vicinity directly or indirectly under any circumstances.
27	Feasibility study report by Tamil Nadu Agricultural University on soil characteristics including Ground Water modelling shall be prepared in the land areas where the treated effluent treated sewage are proposed to be applied continuously for green belt development / gardening and the report shall be furnished in this regard.	Complied Both water and soil samples taken from effluent irrigated area are analysed by TNAU regularly including including ground water modelling. Report furnished to TNPCB.

28	Interlocking system between process plant and pollution control equipment shall be installed, in case of treatment process disturbances/failure of pollution control equipment the industry shall be stopped and shall be restarted until the control measures are rectified to achieve the desired efficiency.	Complied Inter-locking system has been provided between process plant and pollution control equipment and intimated to TNPCB.
29	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. The report shall be submitted to this Authority.	Complied Regular sampling / analysing is carried out at our laboratory internally and based on the results of analysis of quality of effluent with respect to parameters Viz. flow, PH, MLSS, VSS, BOD, COD and DO, necessary actions are taken to improve the treatment efficiency. Report sent to TNPCB monthly.
30	Ground water quality in the existing wells located inside and around the project site shall be monitored regularly and a report shall be maintained and furnished in this regard to the regional office of MoEF, Chennai and to this Authority.	Complied Ground water quality in the existing wells located inside and around the mill is monitored regularly and report are furnished to TNPCB and REginal Office of MoEF&CC regularly.
31	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.	Complied Regular monitoring on the air quality water quality and noise on the selected locations in and around mill are continuing and reports are furnished to TNPCB regularly.
32	All the recommendations made in Charter on Corporate Responsibility for Environment Protection (CPRI) for pulp and Paper Sector shall be strictly implemented.	Complied - All the recommendations made in Charter on Corporate Responsibility for Environment Protection (CPRI) for pulp and Paper are strictly implemented and report sent to TNPCB.

33	It shall ensured that the production capacity of the existing de-inking plant shall not be altered and the production quantity of waste paper pulp shall be within the permitted consent quantity of TNPCB already issued to the earlier management of the industry. Internal recycle of water from paper mill as reported shall be done to the maximum extent possible to reduce raw water requirement & record shall be maintained in this regard.	Complied No alteration in the production of De-inking plant. Internal recycling is practiced for maximum and reduction in raw water consumption.
34	De- Inking plant sludge and ETP sludge shall be properly collected and sent for beneficial use without accumulation within the premises as reported. MOU with the supplier / purchaser in this regard shall be executed and furnished. Records shall be maintained.	Complied De- Inking plant sludge and ETP sludge are properly collected and sent for board manufacturing units. Records are maintained.
35	The hazardous waste generated shall be disposed of as per the provision of hazardous wastes (Management, Handling and Transboundary Movement) Rules, 2008	Complied Hazardous waste generated are disposed as per the provision of hazardous wastes (Management, Handling and Transboundary Movement) Rules, 2008
36	Green belt in an extant of area not less than 33% of the total project area shall be developed as per the CPCB guidelines	Complied Green belt developed more than 33% of the area.
37	Arrangement for the protection of possible fire hazards during manufacturing process and material handling section shall be provided	Complied Fire protection arrangements are made during process and for material handling.
38	Action plan drawn for the issues raised during public hearing meeting of the project shall be implemented	Complied : Issues raised during public hearing are addressed.
39	Scheduled Flora and Fauna found in the study area of the core zone around the project site shall be monitored closely and a plan shall be prepared and implemented for their conservation	Complied : Maintaining thick canopy of forest in 180 acres. Flora and Fauna in the area are protected.

40	The natural drainage pattern in the project area shall be maintained and storm water drain along the boundary and appropriate places shall be provided to collect runoff water/rain water for proper disposal to avoid water stagnation/ponding within the project site.	Complied Natural drainage pattern in the mill area is maintained along with storm water drain in the boundary. Appropriate collection facilities are available to collect runoff water/rain water and water stagnation is avoided.
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(B) General Conditions:

Sl. No. In EC	Conditions	Compliance status
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 Environment Clearance informing that the project has been accorded environment 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 .	Complied
b	A copy of the Environment 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 Environment Clearance shall also be put on the website of the company.	Complied
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.	Complied
d	All stipulations made by TNPCB and the State Government shall be strictly complied with.	Complied
e	No further expansion or modernization in the project shall be carried out without prior approval of the SEIAA-TN. In case of any deviations or alteration in the project proposal from those submitted to this Authority for clearance, a fresh reference shall be made to the SEIAA-TN to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied No further expansion or modernization has been carried out without prior approval from SEIAA-TN.

f	All the environmental protection measures and safeguards as recommended in the EIA report shall be complied with.	Complied All the environmental protection measures and safeguards as recommended in the EIA report are complied with.
g	The implementation of the project vis-a-vis environmental action plans shall be monitored by the Regional office of MoEF at Chennai/TNPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies regularly.	Complied Mill already exists. However, Biannual EC compliance status report are furnished to regional office of MoEF&CC.
h	Data on ambient air, stack and fugitive emissions shall be regularly submitted online to the Regional office of MoEF at Chennai, TNPCB and Central Pollution Control Board as well as hard copy once in six months and display data on RSPM, SO ₂ and NO _x outside the premises at the appropriate place for the general public.	Complied Data on ambient air, stack and fugitive emissions are regularly submitted through online to MoEF, TNPCB and Central Pollution Control Board.
i	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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied
J	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied Occupational health surveillance of the workers are conducted on a regular basis and records maintained as per the Factories Act.
K	Proper housekeeping and cleanliness must be maintained within and outside the plant.	Complied Housekeeping and cleanliness are maintained inside and outside mill.

L	Occupational health surveillance programme shall be undertaken as regular exercise for all the employees, especially for those engaged in handling hazardous substances. The first aid facilities in the occupational health centre shall be strengthened and the medical records of each employee should be maintained separately.	Complied Occupational health surveillance programme are conducted regularly for all the employees, especially for those engaged in handling hazardous substances. The first aid centre is upgraded and medical records of each employee has been maintained.
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.55 dBA (day time) and 45 dBA (night time).	Complied Overall noise levels in and around the plant area are kept well within the standards prescribed. Provided noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels have been conforming the standards prescribed under EPA Rules, 1989 viz.55 dBA (day time) and 45 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 to local people whenever possible both for technical and non-technical jobs and protection of water sources around the project site etc.	Complied – And ongoing activities
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 a senior executive.	Complied A separate environmental management cell has been established with full-fledged laboratory

p	The requisite amount earmarked towards capital cost and 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.	Complied
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, SO ₂ ,Nox (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.	Complied We upload the status of compliance of the environmental clearance conditions, including results of monitored data in the website. Simultaneously all the details are sent to MoEF&CC regional office
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 the MOEF at chennai/ CPCB/ SPCB shall monitor the stipulated conditions.	Complied Submitting 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 regional office of MOEF, Chennai and SPCB.
s	The environmental statement for each financial year ending 31 st March in Form –V as is mandated to be submitted by 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 regional office of the MOEF by e-mail.	Complied Submitting Environmental statement regularly in Form V.

For Seshasayee Paper and Boards Ltd
Unit : Tirunelveli