BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI – 600 005

O.A. No. 26 of 2019

Between:

1. E. Rajendran, (Deceased),

2. E. Ashok Raj Kumar,
S/o. Easwara Gowder,
And 2 others
Coimbatore District – 641 113. ...Applicants

And

1. The Ministry of Environment, Forest and Climate Change,
Government of India,
New Delhi - 110 003.
And 11 others. ...Respondents

REJOINDER TO THE REPLY FILED BY THE RESPONDENTS NO. 9 TO 12

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI – 600 005

Original Application No. 26 of 2019

Between:

1. E. Rajendran, (Deceased),

2. E. Ashok Raj Kumar,
S/o. Easwara Gowder,

3. Nithyadevi, aged about 32 years old,
W/o. E. Rajendran (Late),

4. Master Avinash (Minor), aged about 8 years old,
S/o. E. Rajendran (Late),
Rep. by his Mother and Natural Guardian,
Nithyadevi.
(The Applicants No. 2 to 4 are residing at)
Door No. 5/ 92, Thekkampatti Post,
Seeliyur (Via),
Mettupalayam Taluk,
Coimbatore District – 641 113.

(Applicants No. 3 and 4 who are the Legal Heirs of the 1st Applicant/ E. Rajendran, (Deceased) are Impleaded as Additional Applicants No. 3 and 4 as per the Order passed by this Hon'ble Tribunal in I.A. No. 63 of 2020 in O.A. No. 26 of 2019 dated 12.10.2020)

...Applicants

And

1. The Ministry of Environment, Forest and Climate Change,
Government of India,
Rep. by its Secretary (EF&CC),
Indira Paryavaran Bhavan, Jorbagh Road,
New Delhi - 110 003.
And 11 others.

...Respondents

INDEX TO THE TYPED SET OF PAPERS

It is certified that the above documents are true copies of the originals.

Dated at Chennai on this the 12th day of April 2021

A. Bhavani

Counsel for Applicants

(1)

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...Respondents

(2)

REJOINDER TO THE REPLY FILED BY THE RESPONDENTS NO. 9 TO 12

The address of the Applicants are as given above for the service of notices of this application and that of their Counsel **Mr. A. Deivasigamani, Advocate** having office at No. 14, 4th floor, Sunkurama Chetty Street, Parrys, Chennai – 600001. (Mobile No. 9566065601, 7200065602 and E-Mail ID: legalsigamani@gmail.com)

1. It is submitted that the Applicants herein and as such I am well acquainted with the facts and circumstances of the case. It is submitted that the Applicants craves leave of this Hon'ble Tribunal to file Rejoinder to the Reply filed by the Respondents No. 9 to 12. It is submitted that the 2nd Applicant is swearing the above Rejoinder on behalf of the Applicants No. 3 & 4.

2. The Applicants submits that they are deny the allegations made in Para no. 2 is that the present Original Application/ Complaint is a motivated one and it is also filed with malafide intention without any basis by knowingly making false and incorrect statements and in utter disregard of facts. The Applicants submits that they are ample documents and evidences to prove and substantiate their case and the allegations levelled against the Respondents No. 9 to 12.

3. The Applicants submits that they are denying the allegations made in Para no. 3 is that they have not approached this Hon'ble Tribunal with clean hands as they have not disclosed their relationship/ association with the Respondents No. 9 to 12 with ulterior motive. The Applicants submits that the Applicants bonafidely and really believed that it is not necessary to

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mention about the relationship between the Applicants and 12th Respondent for the reason that their concern is only with regard to securing the environment and they are not worried about any other thing. Hence the Non-disclosure of relationship between the Applicants and the 12th Respondent is neither wilful nor wanton but it is highly inadvertent and without any ulterior motive as alleged by the Respondents No. 9 to 12 and we have no malafide intention to suppress the above facts. Therefore the above act of the Applicants for Non-disclosure of relationship between the Applicants and the 12th Respondent may be condoned. The Applicants further submits that the above said Non-disclosure of relationship would not affect the case of the Applicants and it is also not required to this case. Therefore the allegations made by the 12th Respondent are liable to be brushed aside.

4. The Applicants submits that only due to the promise given by the 12th Respondent, the 1st Applicant purchased the referred Tractor out of loan amount taken from the M/s. Shriram Chit Funds but after filing of the above OA before this Hon'ble Tribunal, the 12th Respondent's contractor who is the service provider to the 12th Respondent; refused to pay salary for driving the referred tractor subsequently the 1st Applicant's tractor was not hired by the 12th Respondent. Since the 1st Applicant is the only bread winner of his family he suffered a lot and he unable to run his family, hence due to stress & depression and also because of anxiety, he died due to heart attack. The Applicants submits that the 12th Respondent is the only responsibility for the 1st Applicant's death.

5. The Applicants submits that the 1st Applicant (deceased) expired on 21.09.2019 hence the 3rd and 4th Applicants who are the Legal Heirs of the

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1st Applicant/ E. Rajendran, (Deceased) are impleaded as Additional Applicants No. 3 and 4 as per the Order passed by this Hon'ble Tribunal in I.A. No. 63 of 2020 in O.A. No. 26 of 2019 dated 12.10.2020 and now they are pursuing the 1st Applicant's case and they also sailing with the 2nd Applicant. Therefore the allegations as against the 1st Applicant is liable to be rejected.

6. The Applicants submits that they are denying the allegations made in Para no. 4 is that the 2nd Applicant is also working in the 12th Respondent's company as contract employee and is on the rolls of M/s. Servikraft and he has been trying for a permanent employment with the 12th Respondent's company and the proposal was also considered favourably by the 12th Respondent's company is not given and he has been drawing a salary of Rs.11,000/- per month as contract employee.

7. The Applicants submits that the 2nd Applicant initially worked under the 12th Respondent as contract employee but later he came to know that the 12th Respondent is engaged in activities causing environmental pollution. Hence he requested the 12th Respondent to restrict the activities causing environmental pollution but the 12th Respondent have not heeded to it. Therefore the 1st and 2nd Applicants filed the above Original Application in O.A. No. 26 of 2019 before this Hon'ble Tribunal seeking to restrain the 12th Respondent's factory from causing pollution to the environment. The Applicants submits that immediately on filing the above Original Application, the 12th Respondent threatened the 2nd Applicant to withdraw the above OA otherwise he would be put to dire consequences but the 2nd Applicant have not yielded to their menacing. Therefore the 12th

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Respondent has terminated the service of the 2nd Applicant and till date, he was not allowed to continue to work.

8. The Applicants submits that the contention of the Respondents No. 9 to 12 in Para. No. 5 is that the Applicant's elder brother Mr.Varatharaj is a Manager – (Employee ID – 87452, PP-4) in the 12th Respondent's company is irrelevant to this case and he is not party to this case hence the above contention of the 12th Respondent is redundant.

9. The Applicants deny the averments made in Para. No. 6 that they are directly or indirectly employed/ engaged for their livelihood with the 12th Respondent Company and also enjoying in the act of holding the 12th Respondent Company for a ransom with ulterior motives, for the reasons stated supra and it is also subjected to strict proof of the same. The Applicants submits that from the event of filing the above OA before this Hon'ble Tribunal to till date, there is no relationship between the Applicants and the 12th Respondent and there is no ulterior motive as alleged by them except the Applicant's elder brother Mr.Varatharaj who is a Manager in the 12th Respondent's company.

10. The Applicants deny the averments made in Para. No. 7 that the Applicants have made scandalous and patently false statements to mislead this Hon'ble Tribunal in spite of knowing the facts, thereby prompting this Hon'ble Tribunal to appoint an expert committee to investigate and file a report. The Applicants also deny that not a single drop of wastages or effluents enter into the river as the river is located around 5 Kms from the factory. It is also false to state the effluent water is used within the factory premises to irrigate and grow plantations and for the same the

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Respondents No. 9 to 12 have purchased around 222 Acres as per the directions of the Tamil Nadu Pollution Control Board (PCB) to irrigate the lands and develop the green belt. It is also false to state that the ETP installed at the factory is working efficiently and the effluents are regularly monitored by the PCB and reports are being filed as per the consent orders given in favour of the 12th Respondent Unit and there is no any violation of the consent order and the Joint Committee vide its Report dated 17.03.2020 has not found any non-compliance as regard the consent orders. The Applicants deny the allegation that they are misleading this Hon'ble Tribunal with false and untrue statements.

11. The Applicants submits that the real fact is that the 12th Respondent's Paper Boards Industry is situated at about 3 km from River Bhavani. It's northern boundary is Kandiyur reserve forest, of the Nilgiri Hills, forming the last southern slope of the range at the point. The Applicants submits that 12th Respondent Industry owns a huge extent of land of 76.92 Hectares of land all along the Kandiyur reserve forest and on the west, south and east there are agricultural farm lands. The Applicants submits that there are two semi perennial streams on either side of the 12th Respondent's Industry premises, running east-west and North-South on the eastern side and the stream on the Northern side is called, 'Bokkai Pallam'. The Applicants submits that the above stream originates in the Kandiyur Reserve forest, runs along its Boundary, and very close to the ETP Plant of the 12th Respondent' Industry. The Applicants submits that the actual manufacturing unit is on the top of a small elevated hillock, tapering towards the southern and eastern streams and on the north towards northern stream.

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12. The Applicants submits that the northern streams enters into reserve forest again and the both the streams join the 'Periapallam' before joining river Bhavani on its southern Bank, near Nellithurai. The Applicants submits that the soil depth of 12th Respondent's land being shallow, topography being undulating and bounded on all sided by streams, the huge amount of untreated effluent water moves fast horizontally and enters as seepage into streams and farmer's Agricultural well, in a very short span of time. The Applicants submits that the PH of untreated effluent water being higher than the unpolluted wells and soils, the seepage of the untreated effluent water alters the PH of the farming land making the traditional crop cultivation unviable. Therefore with no other option in order to safeguard their livelihood, the farmer is forced to adapt to unfamiliar crops which are tolerant to the altered PH conditions, as a result, the farmers are facing huge economic loss and anxiety.

13. The Applicants submits that the premises of 12th Respondent's Industry and adjoining come under 'Ecologically Sensitive Area (ESA) as per Dr.Kasthurirangan Committee Report and the above Committee is called "High Level Working Group on Western Ghats"and it has given 17 recommendation to safeguard the eco-system of Western Ghats as there is urgent need of attention and action.

14. The Applicants submits that as per above recommendation, thermal power project should not be allowed in ESA and all Red category Industries should be banned. The Applicants submits that the 12th Respondent's industry is having Thermal Power Generation Unit for its own purposes and the 12th Respondent's factory is engaged in the manufacture of Paper Boards of various measurements in its factory and

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for the same, the 12th Respondent is using various types of chemical and the hazardous substances in the production process. Hence it clearly comes under the Red Category Industry.

15. The Applicants submits that the Bhavani is an Indian River flows through Indian states of Kerala and Tamil Nadu, India. It's a major tributary of the Kaveri River. It lies at the confluence of the rivers Kaveri, the largest river in Tamil Nadu and Bhavani, the second largest river in Tamil Nadu, with the invisible mystic Sarasvati River. Hence this place is known as the Triveni Sangam of South. The Applicants submits that as per G.O. No. 127 dated 08.05.1998 and G.O. No. 223 dated 02.09.1998 issued by the Environment and Forest Department, State Government of Tamil Nadu creates an embargo/ ban on setting up of highly polluting industries within 5 Kms from rivers. However, to our shock and dismay, the Government Authorities and concerned Officials have granted permission to establish the above 12th Respondent's Industry violating the above said G.O. issued by the State Government. The Applicants submits that admittedly 12th Respondent factory comes under the 'RED' Category Industry, hence it has to be closed.

16. The Applicants further submits that surprisingly, the Tamil Nadu Pollution Control Board have issued Consent Order authorizing the occupier to operate the industrial plant in the Air Pollution Control area as notified by the Government and to make discharge of emission from the stacks/ chimneys vide Consent order No. 170828064955 dated 03.05.2017 through Proceedings No. T12/TNCP/F.0038CBN/RL/CBN/A/2017S. Moreover the Consent Order was also renewed and an order was also issued to that effect by the Tamil Nadu Pollution Control Board up to

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31.03.2022 and the same is a clear violation of the above G.O. committed by the Authorities under the Tamil Nadu Pollution Control Board.

17. The Applicants submits that the Tamil Nadu Water and Drainage Board inducted its own intake well allocated towards the Water Project, for the purpose of supplying water to Kavundampalayam and Vadavali, on the Southern bank of Bhavani River which is situated nearby the Periapallam Confluence point. The Applicants submits that the two streams, which run surrounding the ITC Industry join Periapallam, which is the major drainage structure for the whole of Karamadai West block. The Applicants submits that during the Monsoon season, the Public came to know that the River Water drawn and supplied by the TWAD Board had higher Total Dissolved Solids (TDS) indicating Salt Content. Therefore several complaints were lodged by the Public/ Users with corresponding to it, the TWAD Board have shifted its Intake well to the upstream Bhavani River to its Northern bank near Nellithirai. Thus it is a crystal clear indication/ warning of seepage of untreated effluent carried into the Bhavani River which in turn causing Water Pollution and contamination to the Bhavani River and the same is also confirmed by the TWAD Board on an enquiry vide its Reply dated 07.11.2016 under the RTI, Act.

18. The Applicants submits that the intake wells which were placed on the Southern Bank, have been utilized for water supply to Thekkampatti Village and Karamadai Town. Later it has been shifted to unpolluted regions of the River upstream above the confluence point of ITC odais. The Applicants submits that other than the 12th Respondent's Industry, there is no other Industry in the upstream. Therefore it is clear evident that the 12th Respondent's Industry is the sole responsible for the discharge of untreated

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effluents on the barren lands which in turn contaminating the ground water and the river through the streams and polluting the wide extent of Agricultural lands.

19. The Applicants submits that it is also pertinent to note that the Hon'ble NGT (Principle Bench, Delhi) has directed CPCB vide Order dated 26.09.2019 in the case of Shailesh Singh –Vs- Al-Dua Food Processing Pvt.Ltd in O.A. No. 348 of 2017. As per the above Direction, the Central Pollution Control Board framed **"Guidelines for Utilisation of Treated Effluent in Irrigation"** and also issued a circular dated 04.10.2019 to all SPCBs/ PCCs to that effect, which are required to be followed by the all SPCBs/ PCCs, Authorities, at the time of initiating proceeding for issuance of Consent Order to an Industry. It is also pointed out that in every proceeding with regard to issuance of consent order, all SPCBs/ PCCs, Authorities mandatorily has to create above guidelines as a condition for use of treated effluent in irrigation. For the purpose of convenience of this Hon'ble Tribunal, the above said guidelines has been extracted as follows:

"Guidelines for Utilisation of Effluent in Irrigation

(i) The industry should engage an agricultural scientist or tie-up with an agricultural university or institute for advice on the utilization or the rate of application of the effluent for irrigation considering the agro-climatic conditions.

(ii) As seasons and the sowing periods of the crops put restrictions on the utilisation of effluent for irrigation, the industry should prepare a comprehensive Irrigation Management Plan (IMP), which should

include the following, in consultation with the agricultural scientist or agriculture University/institute and submit to SPCBs/PCCs which should verify the same while issuing Consent to the industry:

a. Areas to be covered under irrigation.

b. Survey/plot (khasra) numbers of land and their area covered in the scheme.

c. Written agreement with the farmers to bring their land under the scheme.

d. The quantity of effluent to be used in different periods of the year and crop wise.

e. The treated effluent distribution system and arrangement for low/no demand period.

f. Agronomic plan for effective utilisation of land.

iii. The treated effluent should meet the norms prescribed for irrigation under Environment (Protection) Rules, 1986/Consent. The effluent should also conform to Total Dissolved Solid (TDS)- 2100 mg/l and Sodium Adsorption Ratio (SAR)- preferably less than 18 but not more than 26, depending on soil/crop type, besides meeting any other parameters suggested by agricultural scientist or agricultural university/institute in the IMP.

iv. Meeting the prescribed norms shall not be the only criteria for use of treated waste water in irrigation, the requirement of water for irrigation will also be a limiting condition and this depends upon various factors, as follow:

a. Crop: This is the main subject determining the water requirement, such as, paddy crops (in general) need more water than trees.

b. Climate: In tropical and subtropical climate especially in arid regions, irrigation frequency is higher. However, in slightly moist conditions the frequency decreases.

c. Irrigation type: There are various irrigation types, namely, flood irrigation, sprinkler, rain gun, drip irrigation, etc., which influences the water requirement for irrigation.

d. Soil condition: The various soil types, such as loam, clay, sandy, clay loam, sandy loam etc., determine the crop types and also alters the irrigation system thus determining the water requirement.

e. Soil permeability: The soil permeability, which is also known as water conductivity of the soil, determines the water retention capacity. This determines the cultivable crops, which in turn determines the water requirement for irrigation.

f. Total Salt Concentration: Total salt concentration (for all practical purposes, the total dissolved solids) is one of the most important agricultural water quality parameters. The plant growth, crop yield and

quality of produce are affected by the total dissolved salts in the irrigation water.

v. The command area for effluent utilisation should be as near as feasible to the industry in order to facilitate easy monitoring and effective control. The industry should construct a distribution network of impervious conduits to cover the irrigated area.

vi. The industry should construct impervious lined storage tank of minimum 15 days capacity for storage of treated effluent during low/no demand, based on the Irrigation Management Plan.

vii. The treated effluent should be analysed regularly, say after every 15 days. The effluent samples should be taken at the point from where the effluent is discharged for irrigation.

viii. The physico-chemical characteristics of the soil under irrigation with treated effluent, should be monitored twice in a year to assess conditions in summer and post monsoon seasons, in order to determine the deterioration of soil quality.

ix. Similarly, the groundwater quality should also be monitored twice in a year. Samples should be collected from the first water bearing strata from existing hand pumps or by installing the same for sampling purpose only. The sampling points should be uniformly spread in the command area and near effluent storage area.

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x. The industry should carry out the analysis of various prescribed effluent/soil/ground water quality parameters from the NABL/EPA/ SPCBs/PCCs recognised/accredited laboratories.

xi. Reports regarding compliance of effluent quality standards and status of soil and ground water quality shall be submitted to SPCBs/PCCs twice in a year, in first week of January and July.

xii. In case of observation of any deterioration of the soil and groundwater quality parameters in the assessment by agricultural scientist or agricultural university/institute, the application of effluent should be stopped immediately and the industry should inform the SPCB, accordingly. The industry shall be solely responsible for reclaiming the soil and water quality at their cost in the affected area."

20. The Applicants submits that the Tamil Nadu Pollution Control Board issued the Consent Order dated 03.05.2017 to the 12th Respondent's Industry without following the above said guidelines issued by the Central Pollution Control Board. The Applicants further submits that even the Joint Committee constituted by this Hon'ble Tribunal have not inspected and verified with regard to the implementation of the above said guidelines by the 12th Respondent's Industry. The Applicants submits that till now, the 12th Respondent have not implemented the guidelines issued by the Central Pollution Control Board.

21. The Applicants deny the averments made in Para. No. 8, 9, 10, 11 and 12 as the same are irrelevant and imaginary one and it is not at all related to this case and the same is subjected to strict proof of the same. It seems

that the Respondents No. 9 to 12 is attempting to escape and evade from the clutches of this Hon'ble Tribunal and also from its liability under the law by stating one reason or the other. The Applicants submits that earlier predecessors of a factory/ establishment such as Servall Engineering Ltd and then BIPCO (Bilt Industrial packaging Company Ltd) have not dumped Plastic wastages in the ground; it is only the 12th Respondent who are dumping the above said Plastic wastages in the ground. The Applicants submits that Plastic wastages are generated due to the usage of low quality raw materials by the 12th Respondent and the same is also categorically admitted by the 12th Respondent. Hence it is clear that the 12th Respondent is the only reason for the environmental pollution.

22. The Applicants submits that the ground water has been highly affected due to the seepage of untreated effluents and there are corroborative evidences to prove that the ground water is not fit for drinking and also for other domestic purpose. The Applicants submits that for the above said reason alone, the 12th Respondent Company is supplying water for drinking purpose to the people residing nearby the 12th Respondent's factory premises, if ground water is not at all, it is not necessary for the 12th Respondent's factory to supply water to people for drinking purpose. The Applicants submits that Madras School of Economics (MSE) workshop report states that the Bhavani River water is not fit for drinking purpose.

23. The Applicants submits that the 12th Respondent's sister concern/ Unit namely M/s. White Star Fibres (Formerly M/s. S.S.R. Chandrasekhara & Co have been closed by the 4th Respondent for dumping solid waste in open wells and for the same, action has been initiated by the concerned

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authorities and then it was revoked by the 4th Respondent on strict conditions. Therefore it is clear that it is the modes operandi of the 12th Respondent is always engage in activities causing pollution.

24. The Applicants submits that even now, after inspection of Joint Committee, the 12th Respondent have erected three huge check dams inside the ITC Compound, for storing the untreated effluents, which in turn caused seepage into the land. As a result, the Applicant's land has been highly polluted. The Applicants submits that 12th Respondent has constructed several bores inside its compound but it has been never utilised for Industry purpose. The Applicants submits that the 12th Respondent is taking water from the Bhavani River for its Industry need. During rainy season, polluted and untreated effluent water which is stored in Check dams inside its compound wall seeped into the referred boring. Consequently, it causes water and land pollution. It is pertinent to note that the Applicant's bore well is also highly polluted due to the above said activities of the 12th Respondent's factory. Therefore the Applicant has clear evidence for ground water pollution caused by the 12th Respondent.

25. In Para 8, it is stated that water consumption has dropped from 16.65 KL/MT (2011-2012) to 9.2 KL/MT in 2019-2020. The Applicants submits that at the consumption rate of 16.65 KL/MT, the Company would have consumed 5473.97 KLD per day for the production of 328.76 MT/day. (Monthly production is 10,000MT). So the effluent generation should have been 5473 KLD up to 2011-2012. By Consumption of 9.2 KL/MT, the company should be generating 3024.59 KL for the production of 328.76 MT/day. In addition to this the company is generating 73 KL of sewage that is also treated in the ETP. The permitted effluent generation is 2,600 KLD of

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effluent. The company has been generating 2873 KLD in excess of the permitted 2,600 KLD up to 2012. From 2019-2020, the excess effluent generated is 424 KLD. Under these circumstances, the effluent cannot be treated and the claim of the company is false and impossible. It is evident that the large quantity of untreated effluent was and is being discharged into the land.

26. The Applicants submits that the treatment process in ETP will require 4 hrs for settlement of 30% of the sludge and complete process will take more than 10-12 hours for a given amount of effluent. The papers board manufacturing is a continuous process, so the consumption and effluent generation continuous over the period of 24 hrs, implying that 108.33 KL of effluent generated per hour for the stated consumption of 2600 KLD. (But in reality the quantum is more.) So it is not possible to treat the complete effluent in that time frame, as the effluent is serially fed into ETP Tank, meaning to first come best treated and the others worst treated and not treated. And up to 2011-2012 and now also, the company does not have the capacity to treat the stated discharge, leave alone the excess generation. So the effluent is either partially treated or untreated and discharged on to the land.

27. The Applicants submits that the company claims in Para 35 that only 3000 KL of water is consumed per day. As per statements of the TNPCB this consumption of water remains the same since the starting of the company. Up to the year 2011-2012, the company as per their own statement of 16.65 KL/ Ton consumption should have consumed 5473 KLD and in 2019-2020 @ of 9.2 KL/MT should be consuming 3024.59 KLD. The difference in the consumption and discharge is so obviously contrasting

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indicating false statements of figures. It should be noted that according to the PWD monitoring of ITC well, the daily intake water is 6000 m^3 (i.e.) 6000 KLD (Letter from PWD enclosed). The company is committing a perjury of serious nature.

28. In para 11 (a) of the reply it is stated that 40% of treated water is reused. If so the consumption of fresh water should be only 1800 KLD. There is no need for the company to consume 3000 KLD. The company's intention is to hide and mislead the court of facts. From 2004-2012, the company had generated 8389160 Kl of excess untreated effluents are discharged into the land. This is an indirect acceptance by the company by their own statement. 8.4 million KL of excess effluent is enormous to destroy the eco system of the fragile agricultural lands. The company should account for the present excess of 424 KLD of effluent. As per TNPCB, the company own 76.92 Hectares of land. The permitted usage of treated effluent for irrigation is 35 Kl/ Per Hectare. 20% of the land will always remain uncultivated for the reason of crop rotation, land preparation for sowing. The effective area available for cultivation and irrigation out of 76.92 Hectare would be 61.53 Hectare. The real water demand in the 61.53 Hectare is decided by the age of the crop, rainy days etc.

29. The Applicants submits that even on an assumption that all the 61.53 Hectare irrespective of different demand are irrigated at the rate of 35 KL, the total requirement of treated effluent will be 2353.55 KLD only. With the states generation of 2600 KLD of effluent and 73 KL of sewage, there is an excess amount of 519.45 Kl of unusable effluent, and it is simple logic it is flooded on the land unlawfully. As per the Boards 6th condition as stated in

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the Additional Conditions of the consent Order "The Unit shall uniformly dispose the treated trade effluent over Unit's own land in compliance to the hydraulic loading rate of 35 KL/ Hectare. At present and all these years the company has bot installed any scientific system of irrigation to deliver 35 KL of treated effluent per Hectare. They are adopting flood irrigation method to dispose of the ETP water. It should be noted that application 35 Kl water evenly on 10000 Sq.m Per Hectare land is impossible through flood irrigation means. 35 Kl water means 3.5mm of water (i.e.) 3.5 litre on sq. of area. Even if the land is a concrete surface, 35 Kl cannot be evenly spread on per Hectare of land. Assuming that the water is applied through sprinkler irrigation system, the percolation depth of the irrigated water into land would be 28.3 mm depth for 3.5mm of water. The plant and soil are losing or evaporating water by means of evapotranspiration. The loss of water from the land by sunshine heat is evaporation. The rate of evaporation on a summer day is 4.9mm of water/ day. Now the application of water is 3.5mm (35KL/ Hectare) and the evaporation loss is 4.9mm of water, resulting in the nullification of water retention in the soil making cultivation impossible. The claim of the company that the treated effluent water is used for plantation purpose and irrigation purpose is a perjury, cannot be proved by any scientific standards. At the prescribed level of irrigation no agro-cultivation is possible and it is evident that the treated, partially treated and untreated effluents are flooded into the land in excess of multiple times. This indiscriminate and unscientific discharge has led to the deterioration of agricultural farms surrounding the ITC Factory and land. The perusal of crop details as entered in the adangal books of revenue department shows that most part of the ITC land remains vacant except for a few acres of coconut, some babul and some batches of eucalyptus here and there. (Document Enclosed).

30. The Applicants submits that this concept of treated effluent irrigation must be looked into by independent agronomists, water technologist and experts in this field. The Company is trying to make the Hon'ble Court to believe that the treated effluent discharges are within the parameters, but in reality it is not so.

31. The Applicants submits that the analysis of effluent water is not done with reference to the chemicals added in the manufacturing process and in the ETP process. There are no qualitative and quantitative details on the use of chemicals in the process. Standard simple analysis will not reflect the real nature of the effluent water and its impact on soil and water, without the analysis for added chemicals because the treated water is used for crop production. All the chemicals one bound to end up in the final end product. Here the consumable vegetables, grains, coconuts etc, causing untold reactions and diseases in humans and cattle's.

32. As for as Para. No. 13 is concerned, the 12th Respondent clearly admitted that the Online Continuous Monitoring System (OCEMS) was not installed to the 44 TPH boiler stack for the reason that it has been put on a limited use only as a standby boiler. The Applicants submits that whenever a boiler stack is installed in an Industry, as per the Pollution Control Board (PCB) Norms whether it is for limited use (a standby boiler) or regular use, Online Continuous Monitoring System (OCEMS) has to be installed in order to calibrate and monitor the fugitive emissions. Hence the stand taken by the 12th Respondent is only a lame excuse. The Applicants submits that the 12th Respondent has given too much of false information for the purpose of obtaining the consent order from the 4th Respondent and other

concerned Authorities and the Applicants have ample documents and evidences to prove the same.

33. The Applicants submits that the 12th Respondent have indulged in several activities violating the rules prescribed the 4th Respondent and concerned authorities of the Government and the Applicants is having ample documents and evidence to prove the same. The Applicants submits that till this date, there is a seepage of untreated effluents into the Applicants land and the sludge was also sediment in their land which causing pollution to the environment, despite of the recommendation of the Joint Committee Final Report.

34. The Applicants submits that the recommendations of the Joint Committee Final Report have not been implemented by the 12th Respondent in its same letter and spirit and the 12th Respondent is still continuing to pollute the land. The Applicants submits that due to the usage of the polluted water, our crop has been highly affected and its yielding capacity of the crops and plants has been highly shrink and affected, only because of usage of untreated polluted water both the ground water and also the water supplied by the 12th Respondent or

35. As regards Para No. 14, 15 and 16, it is only a factual aspect.

36. A regards Para No. 17 to 51 is concerned, the Applicants have made comprehensive and detailed response/ rejoinder as stated supra. Hence it is not necessary to reiterate the same.

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37. The averments in para 20 are false for the reasons given above. Additionally any mechanically system is bound to break down an also requires periodical maintenance. During those times the process of ETP is to be necessarily shut down. The company has not erected a standby unit or a sufficient concrete tank to store the untreated effluent. The board manufacturing being a continuous process, it is evident that the effluents generated on these occasions are by passed directly on to land without treatment.

38. The Applicants submits that the applicants land has a common boundary with ITC factory premises, and the company has stated in Para. 19, that the treated effluent is discharged in the premises. This excessive discharge of untreated effluent by way of seepage and percolation is entering into applicants land. During 2020 rainy season, the stored polluted water from the huge earthen pond built near the applicants land, has caused enormous seepage of pollution into the applicants land. (The photograph is enclosed). It should be noted that the applicants land is located on the eastern side on a slope below the factory premises. The company's reply should be rejected as baseless.

39. The reply given in para22 is false and misleading. The Applicants submits that the applicants land and other lands are away from the village. People are residing in the farm and they use the ground water for their domestic and cattle use panchayat is not supplying Bhavani River to farm houses. The company is providing the Hon'ble Court with false statements. The company time and again is committing perjury on such physically verifiable facts. In fact, the company on its own expenses is providing fresh water from Bhavani river by pipeline for drinking purpose. The Tamil

Nadu Agricultural University (TNAU) is conducting water quality and soil quality tests from bench mark sites which are predetermined sites, where the effluent discharges might not be happening wilfully. The research is collaborative in nature and is paid, and the results are termed confidential not given for public perusal. The study reports should be put to strict scientific proof and authentication.

40. As per the statement by the respondent in para 23, that the company does not possess any storage facility for storage of effluent water. The company is again into perjury, because the statements given in the second tabular column Sl. No. 10 under column action planned. It states "Unit has created rain water storage pits, to collect the rain water run off to avoid going to the nearby fields". The polluted water got stored in pits (rather huge earthen ponds) overflowed into the applicants land and other's land, in addition to continuous seepage. The company is contradicting its own statements. (Photo enclosed).

41. As per the reply statement in Para 25_that the factory is located in a remote location is false and misleading. Rangarajapuram is a hamlet located at their boundary within 10 mt at the south west region. The Village Devanapuram is located at about a Kilometre from the factory on the eastern side. The Village Thekkampatti, where the ITC is located, is at about one Kilometre distance from the factory boundary on the north east side. The hamlet chinnakandiyur is at about one Kilometre from the western border of the ITC land. The hamlet sullipalayam is at about one Kilometre from the western border from the factory premises. A residue colony by name Amman agar is located at about 100 mts within their western boundary. The Madur village is located at the south of their

factory at about 2 Km distance. In addition to this there are about 30 farmer families are residing at all the sides of their boundary. The company is submitting false facts to the Hon'ble Court. These are verifiable through Google Map and through physical verification. The statement in this para that it has no pulp mill operation is true but the company is generating compost waste and sludge and pulp wastes after De-inking and pulping of waste papers. These wastes create obnoxious smell. The composted waste has caused bas odour is recorded by the TNPCB by its letter dated 16.07.2015 to the complaint made by Mr.V.Kanakaraj (Copy of letter enclosed). Their reply should be rejected.

42. The statement in Para 26 that the company is not in a position, at this distance of time, to answer as to how the plastics got buried in the land is not known. This is evading responsibility knowing very well the reasons. As the applicant is a farmer very close to the land fill site, he knows that from 2006 onwards to 2015 the plastic wastes collected and segregated from the municipal wastes of the metropolitan cities of Chennai, Bangalore, Hyderabad, Cochin etc. were used to be buried in an extent of 2 Hectare to a depth of more than 15 M beneath the ground, from where a miniscule sample was dug out by the joint committee. It was observed that lot of sludge deposits were found all along the irrigation channels, which is evident that the trade effluent was (bypassed) discharged without adequate treatment to remove the suspended solids. V Biological sludge generated in ETP is used as manure after vermicomposting. The yard provided for composting is not adequate. During inspection, it is found that the composting is being carried out in the open land. The two observations by the Joint Committee clearly explain that sludge is dumped in the land. Composting in the open land means dumping of the sludge on

the open land. The company is trying to contest even the findings of the committee. The company is generating not only biological sludge and mainly chemical sludge mixed with chemicals of the manufacturing process and the ETP process. There is no quantification of the sludge and an audit on its disposal. The statement of the committee assumed the applicant that the land fill area can be dug out once the area is cleared of bushes. This is yet fill is available in that area south of collected these waste paper under a project namely WOW (Wellbeing Out of Waste). This is nothing but collection of waste and segregation. The Applicants submits that the above said practice of collecting waste, mixed waste papers are still practiced by the company, leading to pollution. The company is trying to convince the Hon'ble Court by submitting evasive statements, suppressing the truths.

43. The averments in Para 28 is denied. The Applicants submits that the applicants once again confirms the dumping of solid waste on open land, the Joint Committee has found out and recorded the sludge in the open land. The committee has observed as recorded in S.L. No.III, on inspection of the irrigation fields owned by the Unit, it was blind, false, evasive and arrogant. The dumping of waste sludge was recorded by the TNPCB in the reply to one person namely Kanagaraj. (Report enclosed).

44. The averments in Para 29 is denied. The company should prove the extent of plantation and agricultural operation using 35 Kl of treated effluents in one Hectare of land. Since, technically no cultivation is possible as explained in the Page No. 6.

(26)

45. The statement of the respondent in Para 30 that the G.O. Ms. No. (1D) 223/ E & F/ EC III dated 02.09.1998 is not applicable, as they do not qualify to be banned as per the G.O. is false and misleading. The G.O. has classifies 18 industries as Red Category that should not be permitted within 5 Km of cauvery and its tributaries. Classification Sl. No. 4 indicates "Pulp and paper manufacturing industries" (including hand made papers). The G.O. is very clear and refusing to accept and submitting distorted facts to the Court is arrogance on the part of the 12th Respondent.(G.O. Copy enclosed). It should be noted that ITC is making pulp out of the waste paper by digesting with chemicals. In the same Para it is stated that plastic wastes coming in laminated/ combined form with waste paper is separated in drum pulper at the factory. Denying that the company does not manufacture pulp is false and misleading.

46. The averments in Para 32 is denied. Here again the respondent is misleading the Hon'ble Court by submitting irrelevant, unsubstantiated facts without regard to law. The draft notification No. S.OL. 5135€ of the ministry of Environment, forest and climate change has notified , the Kandiyur reserve forest of the Nilagiri bio reserve in Mettupalayam taluk of Coimbatore district as ESA. Under the Gazette in Page 130 Para 3 (C) says (C) Industry:- All new Red category of Industries as specified by the central pollution control board or state pollution control board and the expansion of such sxisting industries shall be banned.

(b)Thermal power plants:- No. new thermal power projects and expansion of existing plants shall be allowed in the ecologically sensitive area.

47. The averments in Para 38 is denied. The Applicants submits that Contrary to the statement of the company, the joint committee found many

violations and the company has been fined to the tune of 331.80 lakshs of Rupees. The report of the joint committee is incomplete and inadequate. The committee did not look into the implementation of the "Guidelines for utilization of treated effluent inn irrigation". None of the guidelines is implemented by the 12th Respondent. The 12th Respondent required constructing impervious lined storage tank of minimum 15 days capacity for storage of treated effluent during low/ No demand based on the irrigation management plan, as specified in the guideline No.IV.

48. The averments in Para 39 is denied. The Applicants submits that the affidavit given by the applicant in Para 24 and 25 are valid. Since the Joint Committee consisted of the members of the enforcement agencies (i.e.) Pollution Control Boards, for reasons known to them did not look into the entire aspects of Pollution from scientific angle. Experts in paper and pulp research scientists from Central Pulp and Paper Research Institute, Sharanpur, Lucknow, NEERI and scientist from the Department of Pulp and Paper Research, IIT, Qoorkee should investigate this Company because the negative issues posed by the Company to this Particular sensitive Bhavani River basin is enormous and technical. New guidelines may be formed based on their findings for the benefit of the environment.

49. The averments in Para 12 is denied. The Applicants submits that along with the stated credit they must also acknowledge the following facts of omissions and commissions. During 2007, ITC imported municipal trash materials and were segregated at their sub-contractors premises. The Company namely M/s. White star Fibres was closed down for wilfully dumping the segregated municipal waste into the wells. The primary responsibility lied with ITC for having imported banned wastes. A full

consignment of banned imported waste was sent back and ITC was fined. After this incident the TNPCB has an official to investigate every container at Tuticorin Port before being unloaded. This incident shows their concern for environment.

50. Under these circumstances and also with reference G.O. No. 223 dated 02.09.1998 and draft Gazette notification of ESA, and for the enumerated lapses cited in this rejoinder and the impossibility of scientific utilization of treated effluent water, ITC may be reallocated or closed down to save the ecology of this region.

51. The Applicants submits that they reserves rights to raise additional grounds or alter or amend the above said rejoinder at the later stage of the case with due permission of this Hon'ble Tribunal.

Under the above said circumstances it is just and necessary that this Hon'ble Tribunal may be pleased to appoint the Respondents No. 5 to 8 or any other independent nodal agency or officer to inspect the 12th Respondent's Unit and to file a Report ensuring whether the recommendations of the Joint Committee Final Report dated 13.03.2020 have been implemented adhering to the guidelines issued by the Hon'ble National Green Tribunal (Principle Bench, Delhi) vide Order dated 26.09.2019 in O.A. No. 348 of 2017 in the case of Shailesh Singh –Vs- Al-Dua Food Processing Pvt.Ltd and also the circular dated 04.10.2019 issued by the Central Pollution Control Board in respect of **"Guidelines for Utilisation of Treated Effluent in Irrigation"** within a stipulated period of time as prescribed by this Hon'ble Tribunal at the cost and expenses of the 12th Respondent's Unit and pass such further or other order or orders as

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this Hon'ble Tribunal may deems fit and proper in the circumstances of the case and thus render justice.

Under the above said circumstances it is just and necessary that this Hon'ble Tribunal may be pleased to kindly allow the above Original Application in O.A. No. 26 of 2019 pending disposal on the file of this Hon'ble Tribunal as prayed for and pass such further or other order or orders as this Hon'ble Tribunal may deems fit and proper in the circumstances of the case and thus render justice.

VERIFICATION

I, E. Ashok Raj Kumar, S/o. Easwara Gowder, aged 35 years old, residing at Door No. 5/92, Thekkampatti Post, Seeliyur (Via), Mettupalayam Taluk, Coimbatore District – 641 113, the 2nd Applicant do hereby verify that the contents of Paras No. 1 to 26 are true to my personal knowledge and Paras No. 1 to 12 in grounds are believed to be true on legal advice and that I have not suppressed any material facts.

Date: 09-04-2021

Place: Chennai

1. E. Ashok

2. R. Nithyadevi

3. R. Avinash

A. Ahmani

Counsel for Applicants

Signature of the Applicants

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI – 600 005

I.A. No. of 2021
In
Original Application No. 26 of 2019

Between:

1. E. Rajendran, (Deceased),

2. E. Ashok Raj Kumar,
S/o. Easwara Gowder,

3. Nithyadevi, aged about 32 years old,
W/o. E. Rajendran (Late),

4. Master Avinash (Minor), aged about 8 years old,
S/o. E. Rajendran (Late),
Rep. by his Mother and Natural Guardian,
Nithyadevi.
(The Applicants No. 2 to 4 are residing at)
Door No. 5/ 92, Thekkampatti Post,
Seeliyur (Via),
Mettupalayam Taluk,
Coimbatore District – 641 113.

(Applicants No. 3 and 4 who are the Legal Heirs of the 1st Applicant/ E. Rajendran, (Deceased) are Impleaded as Additional Applicants No. 3 and 4 as per the Order passed by this Hon'ble Tribunal in I.A. No. 63 of 2020 in O.A. No. 26 of 2019 dated 12.10.2020)

...Petitioners/ Applicants

And

1. The Ministry of Environment, Forest and Climate Change,
Government of India,
Rep. by its Secretary (EF&CC),
Indira Paryavaran Bhavan, Jorbagh Road,
New Delhi - 110 003.
And 11 others.

...Respondents/ Respondents

PETITION FOR APPOINTMENT OF INDEPENDENT NODAL AGENCY ENSURING IMPLEMENTATION OF THE RECOMMENDATION OF THE JOINT COMMITTEE FINAL REPORT DATED 13.03.2020

For the reasons stated in accompanying Rejoinder it is just and necessary that this Hon'ble Tribunal may be pleased to appoint the Respondents No. 5 to 8 or any other independent nodal agency or officer to inspect the 12th Respondent's Unit and to file a Report ensuring whether the recommendations of the Joint Committee Final Report dated 13.03.2020 have been implemented adhering to the guidelines issued by the Hon'ble National Green Tribunal (Principle Bench, Delhi) vide Order dated 26.09.2019 in O.A. No. 348 of 2017 in the case of Shailesh Singh –Vs- Al-Dua Food Processing Pvt.Ltd and also the circular dated 04.10.2019 issued by the Central Pollution Control Board in respect of **"Guidelines for Utilisation of Treated Effluent in Irrigation"** within a stipulated period of time as prescribed by this Hon'ble Tribunal at the cost and expenses of the 12th Respondent's Unit and pass such further or other order or orders as this Hon'ble Tribunal may deems fit and proper in the circumstances of the case and thus render justice.

Dated at Chennai on this the 9th day of April 2021

A. Dhanani

Counsel for Petitioners/ Applicants

6.7.2 Ban on setting up of highly polluting industries with in 5 km from river (G.O. 127 & 223)

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுச்சூழல் – நீர் ஆதாரங்களின் தன்மையை பாதுகாத்தல் – நீரை அதிக அளவில் மாசுபடுத்தும் தொழிற்சாலைகள் நிறுவுவதை வரன்முறைப்படுத்தல் – நீர் ஆதாரங்களிலிருந்து 5 கி.மீ. தூரம் வரை தொழிற்சாலைகள் நிறுவுவதை தடைசெய்தல் – ஆணைகள் வெளியிடப்படுகின்றன.

சுற்றுப்புறம் & வனத் (சுக 3) துறை

அ.ஆ.நிலை எண் 127 நாள் 8.5.98

பார்வை:

1. அரசாணை (நிலை) எண்.1இ சுற்றுப்புறம் & வனத்துறை நாள் 6.2.84
2. அரசாணை (நிலை) எண்.213, சுற்றுப்புறம் & வனத்துறை நாள் 30.3.89

ஆணை:

6.2.84 ஆம் நாளிட்ட சுற்றுப்புறம் மற்றும் வனத்துறை அரசாணை (நிலை) எண்.1 இல் ஆறுகள், ஓடைகள் மற்றும் அணைகளிலிருந்து 1 கி.மீ.தூரம் வரை எந்தவித அதிக மாசு ஏற்படுத்தும் தொழிற்சாலைகளையும் நிறுவக்கூடாது என்றும் அதிகமாக மாசு ஏற்படுத்தும் தொழிற்சாலைகள் பற்றிய பட்டியலை அனைத்து உள்ளாட்சி நிறுவனங்களுக்கும் தெரிவிக்க வேண்டும் என தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் கேட்டுக் கொள்ளப்பட்டது. 30.3.1989 ஆம் நாளிட்ட சுற்றுப்புறம் மற்றும் வனத்துறை அரசாணை (நிலை) எண் 213இல் குறிப்பிடப்பட்ட அதிக மாசு ஏற்படுத்தும் தொழிற்சாலைகளை சில நீர் ஆதாரங்களிருந்து 1 கி.மீ. தொலைவிற்குள் அமைக்கக்கூடாது என அரசு ஆணையிட்டுள்ளது. (அந்த நீர் ஆதாரங்களின் விவரப் பட்டியலும் அவ்வாணையில் இணைக்கப்பட்டுள்ளது).

2. தோல் தொழிற்சாலைள் தொடர்பாக உச்சநீதி மன்றத்தில் வேலூர் நல மக்கள் மன்றத்தின் மூலமாக தொடுக்கப்பட்ட வழக்கில் உச்ச நீதிமன்றம் வெளியிட்ட உத்தரவிற்கிணங்க அரசாணை (நிலை) எண். 213 சுற்றுப்புறம் வனத்துறை, நாள் 30.3.89ஐ உடனடியாக தீவிரமாக கடைபிடிக்க வேண்டும் எனவும் அரசாணையின் இணைப்பில் கூறப்பட்டுள்ள தொழிற்சாலைகள் எதுவும் புதியதாக தடை செய்யப்பட்ட பகுதியில் நிறுவக்கூடாது எனவும் மேலும் அதற்காக நிறுவப்பட்டுள்ள குழுமம் இத்தொழிற்சாலைகளை பற்றி ஆராய்ந்து ஏற்கனவே நிறுவப்பட்டுள்ள தொழிற்சாலைகளை ஆய்வு செய்து தேவைப்படின் வேறிடத்திற்கு மாற்றுமாறும் உத்தரவிடப்பட்டுள்ளது.

3. மக்களிடையே மாசு கட்டுப்பாடு பற்றிய விழிப்புணர்வு ஏற்படுவதற்கு முன் பல தொழிற்சாலைகள் காவிரி, பெண்ணையாறு, பாலாறு, வைகை, தாமிரபரணி மற்றும் அதன் உப நதிகளின் அருகில் தொடங்கப்பட்டுவிட்டன. தொழிற்சாலைகள் வெளியேற்றும் கழிவுநீர் மற்றும் தொழிற்சாலை கழிவுநீர் ஆகியவற்றால் நிலம் மற்றும் நீரின் தன்மை வெகுவாக பாதிக்கப்பட்டுள்ளது. இதனை தடுத்து நிறுத்தாமல் தொடர்ந்து அனுமதிக்கப்படும் போது நீர் வளமும் அதன் தன்மையும், மக்கள் நலமும், பிற உயிர்வாழ் இனங்களின் நலமும் பாதிக்க வாய்ப்புள்ளது. தற்போது தொழிற்சாலைகள் பொது கழிவுநீர் சுத்திகரிப்பு நிலையம் / தனியார் சுத்திகரிப்பு நிலையங்கள் அமைத்து செயல்படும்படி அரசினால் வற்புறுத்தப்பட்டு வருகிறது.

4. தற்போது சில தொழிற்சாகைள் நீர் ஆதாரங்களிலிருந்து, நீரை பயன்படுத்தி தொழில் வளாகங்கள் ஏற்படுத்தப்படுகின்றன. நீரின் தன்மையை சரிவர பாதுகாக்கவும், நீர்வளம், மக்கள் நலம், உயிர்வாழ் இனங்களின் நலன் ஆகியவைகளைக் கருத்தில் கொண்டும், உயர்நீதிமன்றம் மற்றும் உச்ச நீதிமன்றங்களின் தீர்ப்பின் அடிப்படையிலும் இலட்சகணக்கான மக்களின் நலனை கருத்தில் கொண்டு நீர் ஆதாரங்களின் தன்மையை பாதுகாக்கவும், அதே நேரத்தில் தொழில் வளர்ச்சி குன்றாமல் இருக்கவும் நீரை அதிக அளவில் மாசுபடுத்தும் தொழிற்சாலைகள் தொடங்கப்படுவதை வரன்முறைப்படுத்துவது பற்றி ஒரு கொள்கை முடிவு எடுக்க வேண்டிய நிலை அரசிற்கு ஏற்பட்டுள்ளது.

5. மேலே உள்ள பத்தி 4இல் கண்டுள்ள சூழ்நிலைகளின் அடிப்படையில் அரசாணை (நிலை) எண் 213 சுற்றுப்புறம் & வனத்துறை நாள் 30.3.89ஐ சற்று விரிவுப்படுத்தி தீவிரமாக அமல்படுத்த கீழ்கண்ட வாறு ஆணையிடுகிறது.

1. அரசாணை (நிலை) எண்.213, சுற்றுப்புறம் & வனத்துறை, 30.3.89ஐ முழு அளவில் தீவிரமாக நடைமுறைப்படுத்தப்படல் வேண்டும்

2. தமிழ்நாட்டில் முக்கிய நீர் ஆதாரங்களான காவிரி மற்றும் அதன் உபநதிகள், பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி ஆகிய நதிகளிலிருந்து 5 கி.மீ. தூரத்திற்கள் நீரை அதிக அளவில் மாசுபடுத்தும் எந்த தொழிற்சாலையும் (சிவப்பு வகை) நிறுவப்பட அனுமதி அளித்தல் கூடாது.

3. பிறவகை தொழிற்சாலைகளான ஆரஞ்சு மற்றும் பச்சை தொழிற்சாலைகளுக்கு நீர் ஆதாரங்களிலிருந்து நீரை எடுப்பதற்கு அனுமதி வழங்குவதற்கு முன்னரும், புதிய தொழில் வளாகங்கள் ஏற்படுத்துவதற்கு முன்னரும் முறையே பொதுப்பணித்துறை, தொழில் துறை, மற்றும் பிற துறைகள் சுற்றுச்சூழல் மற்றும் வனத்துறையை கலந்து ஆலோசிக்கப்படல் வேண்டும். இனி வரும் காலங்களில் புதியதாக தொடங்கவிருக்கும் தொழிற்சாலைகளுக்கு இந்த நடைமுறை பொருந்தும்.

4. ஆரஞ்சு மற்றும் பச்சை வகை தொழிற்சாலைகள் நிறுவுவதற்கான விதிமுறைகளின் வரைமுறைகள் குறித்து, உள்ளாட்சி நிறுவனங்களுக்கு தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம், தெளிவாக்கி நடவடிக்கை எடுக்கவேண்டும்.

(ஆளுநரின் ஆணைப்படி)

கே.எஸ். ஸ்ரீபதி

அரசு செயலாளர்

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுச்சூழல் – நீர் ஆதாரங்களைப் பாதுகாத்தல் – 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127க்கு திருத்தம் வெளியிடப்படுகிறது.

சுற்றுபுறம் & வனத் (சுக 3) துறை

அரசு ஆணை (1டி) எண். 223 நாள்: 2.9.98

பார்வை:

1. 30.3.89 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 213.

2. 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127.

ஆணை:

30. 3.89 ஆம் ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 213–இல் இன்ன பிறவற்றுடன், இவ்வாணையில் இணைப்பு 1 இல் கண்டுள்ள 14 வகை தொழிற்சாலைகள் இவ்வாணையில் இணைப்பு II இல் கண்டுள்ள நீர் ஆதாரங்களிலிருந்து 1 கி.மீ. தூரத்திற்குள் நிறுவப்பட அனுமதி அளித்தல் கூடாது என்று ஆணையிடப்பட்டது. பின்னர் 8.5.98 நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127 இல் இன்ன பிறவற்றுடன் காவிரி மற்றும் அதன் உபநதிகள், பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி நதிகளிலிருந்து 5 கி. மீட்டர் தூர்த்திற்குள் நீரை அதிகஅளவில் மாசுப்படுத்தும் எந்த தொழிற்சாலையும் (சிவப்பு வகை) நிறுவப்பட அனுமதி அளித்தல் கூடாது என்று ஆணையிடப்பட்டது.

2. 30.03.89 ஆம் ஆம் நாளிட்ட அரசாணையின் இணைப்பு 1 இல் கண்டுள்ள குறிப்பிட்ட வகைதொழிற்சாலைகள் இந்த 8.5.98 ஆம் நாளிட்ட அரசாணையில் கண்டுள்ள முக்கிய ஆதாரங்களிலிருந்து 5 கி. மீட்டர் தூரத்திற்குள் அமைக்க அனுமதித்தல் கூடாது என்று அரசு கருதுவதால் 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127க்கு கீழ்க்கண்ட திருத்தத்தை அரசு இவன் வெளியிடுகிறது.

திருத்தம்

8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127 இல் துணைப்பத்தி 2 இல் கண்டுள்ள சொற்றொடரான " தமிழ்நாட்டில் முக்கிய நீர் ஆதாரங்களான காவிரி மற்றும் அதன் உபநதிகள். பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி ஆகிய நதிகளிலிருந்து 5 கி. மீட்டர் தூரத்திற்குள் நீரை அதிகஅளவில் மாசுப்படுத்தும் எந்த தொழிற்சாலையும் (சிவப்பு வகை) நிறுவப்பட அனுமதி அளித்தல் கூடாது". இதற்குப் பதிலாக கீழ்க்கண்ட சொற்றொடரைப் பதிக்கவும் "தமிழ்நாட்டின் முக்கிய நீர் ஆதாரங்களான காவிரி மற்றும் அதன் உபநதிகள், பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி நதிகளிலிருந்து 5 கி. மீட்டர் தூரத்திற்குள் 30.3.89 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 213 இன் இணைப்பு 1 இல் கண்டுள்ள 14 வகை தொழிற்சாலைகள் நிறுவப்பட அனுமதி அளித்தல் கூடாது.

(ஆளுநரின் ஆணைப்படி)

கே. எஸ். ஸ்ரீபதி

அரசுச் செயலாளர்

6.7.3 Industries requiring prior consent of TNPCB to get building license and TNEB power connection (GO. 17 & 111)

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுப்புற சூழல் கட்டுப்பாடு – நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1974 மற்றும் காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1981–இல் கீழ் எந்த தொழிற்சாலை அமைப்பதற்கும் கட்டிட உரிமம் வழங்குமுன் தொழிலதிபர்களை மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெற்ற ஒப்புதலை காட்டும்படி வலியுறுத்தல் – ஆணை வழங்கப்படுகிறது.

சுற்றுப்புறச் சூழல் கட்டுப்பாட்டு துறை

அரசு ஆணை (நிலை) எண்.17 நாள் 10 ஏப்ரல் 1984

பங்குனி 28–ருத்ரோத்காரி 2014
திருவள்ளுவர் ஆண்டு

ஆணை:

தொழிற்சாலைகளிலிருந்து வெளிப்படும் கழிவுகளை நீரோடை அல்லது கிணறு (அதாவது அரசால் அறிவிக்கப்பட்டுள்ள எல்லைக்குட்பட்டுள்ள ஆறு மற்றும் நீர் நிலைகள் பூமி மற்றும் பூமிக்கடியில் உள்ள நீர், மற்றும் கடல் உட்பட) இவற்றில் கலக்க ஏதுவாகும்படி வெளியேற்றும் அனைத்து தொழிற்சாலைகளும் நீர் மாசு தடுப்பு மற்றும் கட்டுப்பாடு சட்டம் 1974–இன் கீழ் அடங்கும். அத்தொழிற்சாலைகள் கழிவுகளை வெளியேற்ற தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவைப் (consent) பெற வேண்டும்.

2. இதே போல், காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1981–இன் கீழ் 20 வகை தொழிற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து இசைவைப் பெற வேண்டும்.

3. ஊர் வளர்ச்சி மற்றும் உள்ளாட்சித் துறையின் 3.2.1983–ம் நாளிட்ட அரசாணை எண்.148–ன்படி, உள்ளாட்சி மன்றங்கள், தொழிலதிபர்கள் தொழிற்சாலைக்கான உரிமத்திற்காக விண்ணப்பிக்கும் போதே தொழிற்சாலையிலிருந்து கழிவுகள் வெளியேற்றப்படுவதற்கு தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து ஒப்புதல் பெற்று அத்துடன் இணைக்க வற்புறுத்த வேண்டும். மேற்கண்ட ஆணையில் உரிமம் என்பது தொழில் உரிமத்தை மட்டுமே குறிக்கிறது. கட்டிட உரிமம் வழங்குமுன் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவைக் கேட்க வேண்டுமா என்று பரிசீலிக்கப்பட்டது. தொழில் உரிமத்திற்காக விண்ணப்பிக்கப்படும்போதே கட்டிடம் கட்டி முடிக்கப்பட்டு இருக்கும். ஆகையால் மாசு கட்டுப்பாடு வாரியம் குறிப்பிட்டுள்ள வரையறைக்குக்கேற்ப குறுகிய காலத்தில் கழிவுகளை சுத்திகரிக்கும் அமைப்பு அல்லது இயந்திரம் ஏற்படுத்த இயலாமலிருக்கலாம். எனவே, இத்தொழிற்சாலை அமைக்கத் திட்டமிடும்போதே, அதாவது உள்ளாட்சி மன்றங்களால் கட்டிட உரிமம் வழங்கப்படும் முன்னரே, சில வகை தொழிற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் ஒப்புதலைப் பெறுவது அவசியமாகிறது.

4. ஆகவே, கட்டிட விதிகளின் கீழ், மாநகராட்சிகள், நகரமன்றங்கள் மற்றும் உள்ளாட்சி மன்றங்கள் தொழிற்சாலைகள் கட்டுவதற்கான கட்டிட உரிமத்திற்கான (Building Licence) விண்ணப்பத்தை பெறும்போதே, அல்லது உரிமம் வழங்கும் முன், இவ்வாணையின் இணைப்பில் குறிப்பிட்டுள்ள தொழிற்சாலைகளைப் பொறுத்த வரையில் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெறப்பட்ட ஒப்புதலையும் இணைக்குமாறு கேட்டுக் கொள்ள வேண்டும் என ஆணை பிறப்பிக்கப்படுகிறது.

5. மாசு கட்டுப்பாடுச் சட்டங்களின் கீழ் பழைய மற்றும் புதிய தொழிற்சாலைகள் மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெற வேண்டிய இசைவு, இவ்வாணையால் பாதிக்கப்படமாட்டாது.

(ஆளுநரின் ஆணைப்படி)

ஒம்/–மு.அக்பர்

ஆணையாளர் மற்றும் செயலாளர்

பெறுநர்

அனைவர், தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம், சென்னை.

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இணைப்பு

1. சாராயவடி தொழிற்சாலைகள்
2. மிருக மற்றும் தாவரயினப் பொருட்களைப்பதனிடும் தொழிற்சாலைகள் (தோல் பதனிடுதல், ஜவ்வரிசி, பசை, சர்க்கரை மற்றும் பால் பண்ணைத் தொழிற்சாலைகள் உட்பட)
3. உரத் தொழிற்சாலைகள்
4. மரக்கூழ் மற்றும் காகிதம் தயாரிக்கும் தொழிற்சாலைகள் (கையினால் தயாரிக்கப்படும் காகிதங்கள் உட்பட)
5. இராசயனத் தொழிற்சாலைகள்
6. நில எண்ணை (Petroleum) சுத்திகரிப்பு ஆலை
7. துணியாலைகள் (சாயமிடுதல் மற்றும் வெளுப்பாலைகள் உட்பட)
8. இரும்பு உலைக் கூடம் (மின் முலாம் பூசுதல், வெப்ப சுத்திகரிப்பு இயந்திரம் உட்பட)
9. மண்பான்டத் தொழிற்சாலை
10. அனல்மின் நிலையங்கள்
11. சிமெண்ட் தொழிற்சாலைகள்
12. மருந்து தயாரிக்கும் தொழிற்சாலைகள்
13. வர்ணம் மற்றும் மெருகு எண்ணை(Varnish) தயாரிக்கும் தொழிற்சாலைகள்
14. கரைப்பான் (Solvent) தயாரிக்கும் தொழிற்சாலை
15. வாகனங்களுக்கு உதிரி பாகங்கள் தயாரிக்கும் தொழிற்சாலைகள்
16. பூச்சி மற்றும் களைக் கொல்லி மருந்து தயாரிக்கும் தொழிற்சாலைகள்
17. வார்ப்புத் தொழிற்சாலைகள்
18. கல்நார் (Asbestos) தயாரிக்கும் தொழிற்சாலைகள்

ஒம்/– மு.அகமது,

ஆணையாளர் மற்றும் செயலாள

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுச்சூழல் கட்டுப்பாடு – நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1974 மற்றும் காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1981–ன்படி தொழிற்சாலைகள் அமைப்பதற்கு முன் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் ஒப்புதல் பெறுதல் – ஆணைகள் வழங்கப்பட்டுள்ளது – திருத்தங்கள் வெளியிடுதல் – ஆணைகள் வெளியிடப்படுகிறது.

சுற்றுச்சூழல் மற்றும் வனத் (சு.சூ.1) துறை

அரசு ஆணை (நிலை) எண்.111 நாள்: **21.09.2011**

படிக்க:

(ய) அரசாணை (நிலை) எண் 17, சுற்றுப்புறச் சூழல் கட்டுப்பாடு துறை, நாள்: 10.04.1984.

மேலும் படிக்க:

(i) கடித எண் 41268/சு1/91–1, சுற்றுச்சூழல் கட்டுப்பாடு துறை, நாள்: 09.04.1992

(உ) தலைவர், தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் அவர்களின் கடித எண்.

தநாமாகவா/P&D/9798/2006, நாள்:16.03.2009.

(d) தலைவர், தமிழ்நாடு மின்சார வாரியம் அவர்களின் கடித எண்:
CE/Comml/EE3/AEE1/F.PCB/D.426/10, Dated: 24.06.2010.

ஆணைகள்:

பார்வை ஒன்றில் படிக்கப்பட்ட அரசாணை நிலை) எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள்: 10.04.1984–ல் நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1974 மற்றும் காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம், 1981–ன் கீழ் தொழிற்சாலை அமைப்பதற்கும் கட்டிட உரிமம் வழங்குமுன் தொழிலதிபர்களை மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெற்ற ஒப்புதலை காட்டும்படியும், கட்டிட விதிகளின் கீழ், மாநகராட்சிகள், நகர மன்றங்கள், உள்ளாட்சி மன்றங்கள், தொழிற்சாலைகள் கட்டுவதற்கான கட்டிட உரிமத்திற்கான (building license) விண்ணப்பத்தைப் பெறும்போதே, அல்லது உரிமம் வழங்கு முன், சாராயவடி தொழிற்சாலைகள் உள்ளிட்ட 17 வகையான தொழிற்சாலைகளைப் பொறுத்தவரையில் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெறப்பட்ட ஒப்புதலையும் இணைக்குமாறும் ஆணை வெளியிடப்பட்டுள்ளது.

2. பார்வை இரண்டில் படிக்கப்பட்ட அரசு கடிதத்தில் சில கூடுதல் தொழிற்சாலைகளும் சேர்க்கப்பட்டு, அரசாணை (நிலை), எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள்: 10.04.1984–க்கு திருத்தங்கள் வெளியிடப்பட்டது.

3. பார்வை மூன்றில் படிக்கப்பட்ட கடிதத்தில் தமிழ்நாடு மாசு கட்டுப்பாடு வாரிய தலைவர், தனது கருத்துருவில், அரசாணை (நிலை) எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.1984–ல் வெளியிடப்பட்டபோது, தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் தோற்றுவிக்கப்பட்ட ஆரம்ப கால கட்டத்தில், தொழிற்சாலைகள் வகைப்படுத்துவது பற்றி விரிவான முறையில் ஆராயப்படவில்லை என்றும், தற்போது தொழிற்சாலைகள் வகைப்படுத்தப்பட்டு, ஆராய்ச்சி செய்யப்பட்டதில், இணைப்பில் உள்ள சிவப்பு மற்றும் ஆரஞ்சு வகை என்று வகைப்படுத்தப்பட்ட தொழிற்சாலைகளை அரசாணை (நிலை) எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடுதுறை, நாள்: 10.04.1984–ல் சேர்க்கப்பட திருத்திய ஆணைகள் வெளியிடப்பட வேண்டும் என்றும் கேட்டுக் கொண்டுள்ளார். மேலும், மேற்கண்ட வகைப்படுத்தப்பட்ட தொழிற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் உரிய இசைவாணையை சமர்ப்பித்த பின், மின் இணைப்பினை

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அளிக்குமாறும், ஏற்கனவே உள்ள தொழிற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரிய இசைவாணையினை அளித்த பின் கூடுதல் மின்சாரம் வழங்கவும். தமிழ்நாடு மின்சார வாரியத்திற்கு அறிவுறுத்தவும் கேட்டுக் கொண்டுள்ளார்.

4. தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் மேற்படி கருத்துரு மீது தமிழ்நாடு மின்சார கட்டுப்பாடு வாரியத்தின் கருத்து கேட்கப்பட்டது. தமிழ்நாடு மின்சார வாரியத் தலைவர் பார்வை 4ல் படிக்கப்பட்ட கடிதத்தில், அரசாணை (நிலை) எண்.17. சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84-ல் குறிப்பிட்டுள்ள தொழிற்சாலைகள் தொழில் தொடங்குவதற்காக மின்இணைப்பிற்கான மனு சமர்ப்பிக்கும் போதே தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவாணையினை பெற்று இணைக்குமாறு தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தால் அறிவுறுத்தப்படுகிறது. எனவும், அரசாணை (நிலை) எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84 ல் தொழிற்சாலையின் ஒருங்கிணைத்த பட்டியல் வெளியிடப்படுமானால், அதனையும் தமிழ்நாடு மின்சார வாரியத்தால் பின்பற்றப்படும் எனவும் தெரிவித்துள்ளார்.

5. தலைவர், தமிழ்நாடு மின்சார கட்டுப்பாடு வாரியம் அவர்களின் கருத்துரு அரசால் ஆய்வு செய்யப்பட்டு, அரசாணை (நிலை) எண் 17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84-க்கு தங்கள் திருத்தங்கள் வெளியிடக் கோரும் அன்னாரின் கருத்துருவை ஏற்கலாம் என முடிவு செய்யப்பட்டு அவ்வாறே இணைப்புகளில் (I & II) உள்ள 48 வகையான சிவப்பு தொழிற்சாலைகள் மற்றும் 25 வகையான ஆரஞ்சு தொழிற்சாலைகளை அரசு ஆணை (நிலை) எண். 17, சுற்றுப்புறச் சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84-ல் சேர்த்து அரசு ஆணையிடுகிறது.

(ஆளுநரின் ஆணைப்படி)

ச.வி.சங்கர்

அரசு முதன்மைச் செயலாளர்

இணைப்பு-1

அரசாணை (நிலை) எண் :111 சுற்றுச்சூழல் மற்றும் வனத் (சு.சூ.1) துறை நாள் : 21. 09.2011

CATEGORISATION OF INDUSTIES (RED)

Sl.No	Code		சிவப்பு
1	1004	Aluminium	தாதுவிலிருந்து அலுமினியம் தயாரிக்கும் ஆலை
2	1006	Aromatics Manufacturing Units	வேதி வாசனை உற்பத்தி தொழிற்சாலை
3	1007	Asbestos Products Manufacturing Units	கல் நார் உற்பத்தி தொழிற்சாலைகள்
4	1008	Atomic Power Plant	அணு மின்சக்தி கூடம்
5	1010	Batteries Manufacturing Units	மின்கலன் உற்பத்தி தொழிற்சாலைகள்
6	1012	Bulk Drugs & Pharmaceauticals	மருந்து கலவை தயாரிக்கும் தொழிற்சாலைகள்
7	1014	Cement	சிமெண்ட் தொழிற்சாலைகள்
8	1016	CETPs	பொதுகழிவு நீர் சுத்திகரிப்பு நிலையங்கள்
9	1017	Chemical Units	இரசாயனத் தொழிற்சாலைகள்
10	1018	Chloro Alkali Units	குளோரோ கார தயாரிப்பு தொழிற்சாலை
11	1019	Cogeneration/Captive Power Unit	கோ ஜனரேஷன் / கேப்டிவ் பவர் கூடம்

12	1020	Cake making, coal liquefaction, Coal tar distillation, processing of coal tar distillate or fuel gas marking, coke briquetting (excluding sundrying)	கல் கரி, நிலக்கரி வாயு, தார் வடிப்பான் ஆலை
13	1023	Copper Smelter	தாமிர தாது உருக்கு ஆலை
14	1025	Distillery	சாராய வடி தொழிற்சாலை
15	1028	Dye & Dye intermediates	சாயம் மற்றும் இடைநிலை சாயப் பொருட்கள் தயாரிக்கும் தொழிற்சாலை
16	1030	Edible Oil refinery	உணவு எண்ணெய் சுத்திகரிப்பு ஆலை
17	1032	Electro Plating Units	மின்முலாம் தொழிற்சாலை
18	1034	Fertilizer	உரத் தொழிற்சாலை
19	1035	Fire Crackers Manufacturing Units	பட்டாசு தயாரிப்பு தொழிற்சாலை
20	1037	Forging Units (Excluding Cold Forging)	வடிப்பு அலகுகள் (குளிர்முறை வடிப்பு தவிர)
21	1038	Foundries	வார்ப்பு தொழிற்சாலை
22	1039	Galvanizing Units	துத்தநாக பூச்சு தொழிற்சாலை
23	1042	Glue/Gelatin Manufacturing Units	விலங்கு / தாவர வழி பசை / பிசின் உற்பத்தி தொழிற்சாலை
24	1046	Hazardous Substances storage	அபாயகரமான பொருட்கள் சேமிப்பு
25	1048	Heat Treatment Units (With Cyanide)	வெப்ப கடினப்படுத்துதல் தொழிற்சாலை (சயனைடு வழி)
26	1052	Hot Mix Plant	வெப்ப கலவை கூடம்
27	1059	Integrated Iron and steel Plants	ஒருங்கிணைந்த இரும்பு மற்றும் துருபிடிக்காத இரும்பு தயாரிக்கும் கூடங்கள்.
28	1060	Lead smelting refining and manufacturing of its oxides	காரியம் உருக்குதல், சுத்திகரிப்பு மற்றும் காரிய ஆக்சைடு தயாரித்தல் தொழிற்சாலை.
29	1062	Lubricating Oil / Grease Manufacturing Units	மசகு எண்ணெய் / மசகு களி நெய் தயாரித்தல்
30	1062	Match Units	தீப்பெட்டி தொழிற்சாலை
31	1067	Mosquito Coil Manufacturing Units	கொசுவர்த்தி சுருள் உற்பத்தி தொழிற்சாலை
32	1072	Paint/ Enamel / Varnish Manufacturing Units	பெயிண்ட் / வார்னீஷ் / எனாமல் தொழிற்சாலை
33	1073	Pesticide (Synthetic)	பூச்சிக்கொல்லி (செயற்கை தொகுப்பு முறை) மற்றும் களைக்கொல்லி தயாரிக்கும் தொழிற்சாலை.

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34	1074	Pesticide (Formulation Mixing Units)	பூச்சிக்கொல்லி கலவை தொழிற்சாலை
35	1075	Petro Chemical	நில எண்ணெய் வேதி பொருட்கள் (பெட்ரோலிய வேதி பொருட்கள் தொழிற்சாலை .
36	1077	Petroleum Refinery	கச்சா எண்ணெய் சுத்திகரிப்பு ஆலை
37	1079	Pigments & Intermediates Manufacturing Units	வர்ணம் மற்றும் அதன் இடைநிலைகள் தயாரிப்பு தொழிற்சாலை
38	1083	Pulp and Paper (with Digestor)	காகித கூழ் மற்றும் காகிதம் (செரிப்பான் வசதியுடன்)
39	1090	Sponge Iron	தொன் இரும்பு ஆலை
40	1091	Sugar	சர்க்கரை தொழிற்சாலை
41	1092	Synthetic Detergents Manufacturing Units	டிடர்ஜன்ட் தொழிற்சாலை
42	1093	Synthetic Detergent Manufacturing Units	செயற்கை ரெசின்கள் மற்றும் பல தயாரிப்பு தொழிற்சாலை
43	1094	Tannery	தோல் பதனிடும் தொழிற்சாலை
44	1095	Tar & Tar Products Manufacturing Units	தார் மற்றும் தார் பொருட்கள் தயாரிப்பு தொழிற்சாலை
45	1097	Textile Dyeing Units	துணி நூல் சாயமிடும் தொழிற்சாலை
46	1101	Units Recovering Lead From Batteries	மின் கலத்திலிருந்து காரீயம் மீளப்பெறும் தொழிற்சாலை
47	1102	Waste Oil Reclamation Units	கழிவு எண்ணெயிலிருந்து எண்ணெய் மீட்டெடுக்கும் தொழிற்சாலை
48	1104	Zinc Smelter	தாதுவிலிருந்து துத்தநாகம் பிரித்தெடுத்தல் தொழிற்சாலை.

இணைப்பு-II

அரசாணை (நிலை) எண் :111 சுற்றுச்சூழல் மற்றும் வனத் (சு.சூ.1) துறை நாள் : 21. 09.2011

CATEGORISATION OF INDUSTRIES (ORANGE)

Sl.No.	Code	Type	ஆரஞ்சு
1	2001	Agar agar manufacturing unit	கடற்பாசி கூழ்மம் தயாரிப்பு
2	2008	Battery Reconditioning and Repair units	மின்கலம் மறுநிலைப்படுத்துதல் பழுது நீக்கும் தொழிற்சாலை
3	2012	Bleaching Units	சலவை தொழிற்சாலை
4	2014	Bone Crushing Mills	எலும்பு நொறுக்கும் ஆலை.
5	2021	Cashew Nut Processing Units	முந்திரி தொழிற்சாலை
6	2025	Chemical Mixing/Storage Units	வேதிப் பொருட்கள் கலப்பு மற்றும் சேமிப்பு தொழிற்சாலை
7	2043	Fish/Cattle/Poultry Feed Unit	மீன்/ கால்நடை/ கோழி/ தீவனம் தயாரிப்பு தொழிற்சாலை

8	2046	Food and Beverage Units	உணவு மற்றும் பானங்கள் தயாரிப்பு தொழிற்சாலை
9	2052	Ginning Mills/Waste Cotton Units	ஜின்னிங் ஆலை/ கழிவு பஞ்சு தொழிற்சாலை
10	2065	Ice Plants/Ice Creams manufacturing unit	ஐஸ்/ஐஸ் கிரீம் தயாரிப்பு தொழிற்சாலை
11	2066	IMFL Units	சாராயத்தை பாட்டில்களில் அடைக்கும் தொழிற்சாலை
12	2073	Leather Meal	தோல் கழிவிலிருந்து உரம் தயாரிக்கும் தொழிற்சாலை
13	2076	Lime Manufacture (Lime Kiln) Units	சுண்ணாம்பு தயாரிப்பு தொழிற்சாலை
14	2078	Mercerising Units	கார வினையாக்கம் தொழிற்சாலை (Mercerism)
15	2081	Mineral Water Units	குடிநீர் தயாரிப்பு தொழிற்சாலை
16	2089	Pharmaceutical Formulation Units	மருந்துகள் கலந்திடும் தொழிற்சாலைகள்
17	2090	Phosphating/Anodising Units	பாஸ்பேட்டிங் / ஆனடைசிங் தொழிற்சாலை
18	2099	Pulp & paper Without Digestor	காகித மற்றும் காகித கூழ் தயாரிப்பு (செரிப்பான் வசதி இல்லாதது)
19	2106	Sago Units	சவ்வரிசி தொழிற்சாலை
20	2118	Sizing Units	சைசிங் தொழிற்சாலை
21	2122	Solvent extraction units (edible oil)	உணவு எண்ணெய் தயாரிப்பு ஆலை
22	2123	Starch units	மாவு பெருட்கள் தயாரிப்பு ஆலை (Starch)
23	2126	Steel Rolling Mills	இரும்பு உருக்கு ஆலை
24	2129	Stone/Mineral Crushing Units	கல் / கனிமங்கள் உடைக்கும் ஆலை
25	2130	Surface Coating/Units Powder Coating/Spray Painting	புறப்பரப்பு பூச்சு/ பவுடர் பூச்சு/ ஸ்பிரே பெயிண்டிங் ஆலை

ச.வி சங்கர்

அரசு முதன்மைச் செயலாளர்

6.7.2 Ban on setting up of highly polluting industries with in 5 km from rivers (G.O.127 & 223)

GOVERNMENT OF TAMILNADU

ABSTRACT

Environment – Protecting the nature of the Water Resources – Regularisation of establishment of Industries which pollution the water in high volume – Prohibiting the establishment of Industries within 5 kilo meters from the water resources – passing orders.

Environment & Forest (Su.Ka.3) Department

G.O.(Ms)No.127 Date: 8.5.98

Ref: 1. G.O. (MS) No.1E Environment & Forest Department dated 6.2.84.

2. G.O. (MS) No.213 Environment & Forest Department dated 30.03.89.

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Order:

In the G.O.Ms.No.1 dated 6.2.84 Environment and Forest Department it has been stated that the Industries causing high pollution shall not be established upto 1 kilometer from Rivers, Streams and Dams and it has been requested that the Tamilnadu Pollution Control Board shall furnish the list of polluting industries to concern local bodies. Government order was passed as to the Industries which are causing high pollution shall not be established upto 1 kilo meter from the water resources as mentioned in Environment and Forest Department G.O.Ms.No.213 dated 30.03.1989. (Details of the water bodies are enclosed with this order).

2. As per the order passed by the Hon'ble Apex Court in the case filed by Vellore Public Welfare Board relating to the

Tannery Industries before the Supreme Court it has been ordered to follow the G.O.Ms.No.213 Environment and Forest dated 30.3.89 that none of the industries mentioned in the said enclosure of the Government Order shall be established in the banned zone, further the committee appointed in this regard inspected the said area the said industries and inspected the industries already established and orders have also been passed to transfer the same to some other place if it is required.

3. Several industries have been established near Cauveri, Pennaiyar, Palar, Vaigai, Thamirabarani and its channels prior to the averment about the Pollution Control among the Public. The nature of the land and water are being affected seriously in view of the sewage water discharged by the industries. There is a possibility of affecting the water source and its nature, welfare of Public and other species it at all the same is allowed to continue. Not it has been persuaded by the Government to erect Industrial Sewage Refinery Station / Private Refinery Station by the Industries.

4. Now some industries are erecting water stations by using the water resources. With a view to protect the nature of the Water, Water Resource and considering the Welfare of People and Welfare of other Species and on the basis of the orders passed by the High Court and Supreme Court and considering the welfare of lakhs of people to protect the nature of water source and in the same time without affecting the growth of the Industries situation is being arisen to the Government to take Policy Decision regarding regularisation

of establishment of Industries which caused high pollution on water bodies.

5. Considering the situations mentioned in Para – 4 above the G.O.(Ms).No. 213 Environment and Forest dated 30.3.89 is hereby extended further and it has been ordered to implement the same in sincerely as mentioned below:

1. G.O.(Ms)No.213 Environment and Forest dated 30.03.89 should be implemented seriously.

2. No permission shall be granted for erecting any industries (Red Category) which causing high water pollution within 5 kilo meters from the rivers namely Cauvery and its Sub Rivers, Pennaiyar, Palar, Vaigai and Thamirabarani, which are the important water source of Tamilnadu.

3. Before granting permission to other industries such as Orange and Green Industries for taking water from the water resources and before establishing the new industries, the departments such as Public Works Department, Industries Department and other Departments should be consulted with the Environment and Forest Department. This procedure is applicable for the industries going to be established for the upcoming years.

4. Local bodies and Tamilnadu Pollution Control Board shall made clarification and actions regarding the Rules and Guidelines for establishing the Orange and Green categories industries.

(As per the Order of Governor)

K.S.Sripathy,
Secretary to Government.

GOVERNMENT OF TAMIL NADU

ABSTRACT

Environment – Protection of Water Resources – Correction and publishing the G.O.Ms.No.127 Environment and Forest Department dated 8.5.98

Environment & Forest (Su.Ka 3) Department

G.O.Ms.(1D) No.223 Date: 2.9.98

Ref: 1) G.O.Ms.No.213, dated 30.03.89 Environment and Forest Department.

2) G.O.Ms.No.127 dated 8.5.98 Environment and Forest Department.

Order:

It has been ordered that permission for 14 categories of Industries mentioned in the Enclosure – 1 of G.O.Ms.No.213 Environment and Forest Department dated 30.3.89 should not be granted within 1 kilo meter of the water resources mentioned under Enclosure – II of this order. Subsequently it has been order through G.O.Ms.No.127 dated 8.5.98 Environment and Forest Department that no permission shall be granted to any category of industries (Red Category) which cause high water pollution within 5 kilo meters from the water resources such as Cauvery and its sub rivers, Pennaiyar, Palar, Vaigan and Thamirabarani.

2. As mentioned in Enclosure – 1 of the Government Order dated 30.03.89 particularly 14 categories of industries shall not permitted within 5 kilo meters from the water resources mentioned under Government Order dated 8.5.98 and accordingly as intended by the Government the below mentioned corrections were published in the Government

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Order vide G.O.(Ms).No.127 dated 8.5.98 Environment and Forest Department.

CORRECTIONS

Instead of the Sub Para – 2 of Para -5 in G.O.Ms.No.127 Environment and Forest Department dated 8.5.98 "No permission shall be granted for erecting any industries (Red Category) which causing high water pollution within 5 kilo meters from the rivers namely Cauvery and its Sub Rivers, Pennaiyar, Palar, Vaigai and Thamirabarani, which are the important water source of Tamilnadu" the following sentence may be read "No permission shall be granted for erecting 14 categories of industries mentioned under Enclosure 1 of G.O.Ms.No.213 Environment and Forest Department dated 30.3.89 within 5 kilo meters from the rivers namely Cauvery and its Sub Rivers, Pennaiyar, Palar, Vaigai and Thamirabarani, which are the important water source of Tamilnadu.

(As per Order of Governor)

K.S.Sripathi
Secretary to Government.

6.7.3 Industries requiring prior consent of TNPCB to get building license and TNEB power connection (G.O.17 & 111)

GOVERNMENT OF TAMILNADU

ABSTRACT

Environment Control – Insisting the Industrialists to furnish the consent obtained from Pollution Control Board prior to granting any building permission for Industries as per Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 - order passed.

ENVIRONMENTAL CONTROL DEPARTMENT

G.O.(Ms)No.17 Date: 10th April 1984

28th day of Panguni
Ruthrothkaari 2014
Thiruvalluvar year.

Order:

Sewage Water discharging by the Industries into the Channels or Well (that is within the boundaries of the river and water resources announced by the government and the land or water bodies under the land including Sea) all such Industries are coming under the purview of Water (Prevention and Control of Pollution) Act, 1974. Such Industries shall obtain the consent of the Tamilnadu Pollution Control Board for discharging the Sewages.

2. Likewise as per Air (Prevention and Control of Pollution) Act, 1981 20 categories of Industries should obtain the consent of Tamilnadu Pollution Control Board.

3. As per G.O.Ms.No.148 Rural Development and Administration Department dated 3.2.1983, Local bodies shall insist the Industrialist to get the consent from Tamilnadu Pollution Control Board for discharging the Industrial waste

while applying for Industrial License. License mentioned in the above said Order is pointing out only the Industrial License. It has been discussed as to whether consent of Tamilnadu Slum Clearance to be obtained prior to getting Building permission. Building is finished while applying for the Industrial License. Therefore it is no possible to make arrangement for Recycling of the Sewage within a short period as prescribed by the Pollution Control Board. Therefore it is necessary to get the consent of the Tamilnadu Pollution Control Board for certain categories of industries prior to getting building license from the local bodies while planning for establishing the industry.

4. Hence it is hereby order that the Industries mentioned under this order should enclose the consent of the Tamilnadu Pollution Control Board while applying or getting license towards construction of the building for Industries within the Local Bodies, Municipalities or Corporation as per Building Rules.

5. Consent obtained by Old and New Industries from the Pollution Control Board as per Pollution Control Acts shall not be affected by this order.

(As per the Order of Government)

Sd.xxx
M.Ahmed
Commissioner & Secretary

To

The Chairman, Tamilnadu Pollution Control Board, Chennai

Enclosures

1. Distilleries Industries.

2. Industries processing the Plant and Animal species (including Tannery, Sago Industries, Gum, Sugar and Milk Farming Industries)

3. Fertilizer Industries

4. Wood pulp and Paper manufacturing industries (including the industries prepared hand made papers)

6. Petroleum Refinery Industries

7. Cloth Mills (including Dying and Bleaching)

8. Iron Furnace Industries (including Electroplating and Heat Purifying machines)

9. Paving Industries

10. Thermal Power Stations

11. Cement Industries

12. Medicine Manufacturing Industry

13. Paint and Varnish Manufacturing Industries

14. Solvent Manufacturing Industries

15. Vehicle Spare Manufacturing Industries

16. Pesticides and Herbicide Manufacturing Industries

17. Foundry Industries

18. Asbestos Manufacturing Industries

Sd.xxx M.Mohammed
Commissioner and Secretary

GOVERNMENT OF TAMILNADU

ABSTRACT

Environment Control – To get the consent of Tamilnadu Pollution Control Board as per Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 - order passed – publishing corrections – passing orders

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ENVIRONMENT & FOREST (Su.Soo.1) DEPARTMENT

G.O.(Ms)No.111 Date: 21.09.2011

Read:

1) G.O.Ms.No.17, Environment Control Department dated 10.04.1984.

Further Read:

(2) Letter No.41268/Su.1/91-1 Environmental Control Department, dated 09.04.1992.

(3) Letter No.Tha.Na.Ma.Ka.Va./P&D/9798/2006 dated 16.03.2009 of Chairman, Tamilnadu Pollution Control Board.

(4) Letter No.CE/Comml/EE3/AEE1/F.PCB/D.426/10 dated 24.06.2010 of Chairman, Tamilnadu Pollution Control Board.

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Orders:

It has been ordered in the above said G.O.Ms.No.17, Environment Control Department dated 10.04.1984 cited under reference – 1 that the industries such as Distilleries and other 17 categories shall enclose the consent obtained from the Tamilnadu Pollution Control Board while getting the application for getting building license or granting of license towards construction of building for Industries before the Local bodies, Municipalities and Corporation as per the building rules and to show the consent obtained from Pollution Control Board prior to getting building license for

erecting the industries as per Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

2. Some additional industries were also added in the Government Letter cited under Reference - 2 above and corrections were made in G.O.Ms.No.17 Environment Control Department dated 10.04.1984.

3. In the opinion of the Chairman, Tamilnadu Pollution Control Board, read under reference - 3 above, it has been stated that while publishing the G.O.Ms.No.17, Environmental Control Department dated 10.04.1984, no research was made in brief regarding regularisation of the industries since the initial period of establishment of the Tamilnadu Pollution Control Board. Now after detailed research after categorising the industries, the industries mentioned in the enclosure as Red and Orange Categories are to be included in G.O.Ms.No.17 Environment Control Department dated 10.04.1984 and requested to publish corrected Government Orders. Further the industries mentioned in the above said categories shall submit the consent letter from Tamilnadu Pollution Control Board, while providing Electricity, and also advise the Tamilnadu Electricity Board to provide additional Electricity Connection for the industries already in existence only after getting consent of the Tamilnadu Pollution Control Board.

4. In respect of the above said opinion of Tamilnadu Pollution Control Board, the comment of the Tamilnadu Electricity Board was asked. As per the letter cited under reference - 4 of the Chairman Tamilnadu Electricity Board it

has been informed that it was advised to enclose the consent obtained from the Tamilnadu Pollution Control Board while submitting application for Electricity Connection for establishment of Industries as mentioned in the G.O.Ms.No.17 Environmental Control Department dated 10.04.94, further Tamilnadu Electricity Board shall follow the same if at all a combined list was published in the said G.O.Ms.No.17 Environmental Control Board, dated 10.04.84.

5. The opinion of the Chairman Tamilnadu Electricity Board was perused by the Government and it has been decided to accept his opinion seeking corrections in the G.O.Ms.No.17 Environmental Control Department dated 10.04.84. Accordingly the 48 categories mentioned Enclosures (I& II) are under Red Industries and 25 are under the category of Orange Industries and the same is being added in G.O.Ms.No.17, Environmental Control Department, dated 10.04.84 and ordered by the Government.

(As per the order of the Governor)

S.V.Shankar
Chief Secretary to Government

Enclosure – 1:

G.O.Ms.No.111 Environment and Forest (Su.Soo.1) Department dated 21.09.2011

CATEGORISATION OF INDUSTRIES (RED)

Sl. No.	Code	RED
1.	1004	Aluminium
2.	1006	Aromatics Manufacturing Units
3.	1007	Asbestos Products Manufacturing Units
4.	1008	Atomic Power Plant
5.	1010	Batteries Manufacturing Units

6.	1012	Bulk Drugs & Pharmaceuticals
7.	1014	Cement
8.	1016	CETPs
9.	1017	Chemical Units
10.	1018	Chloro Alkali Units
11.	1019	Cogeneration / Captive Power Unit
12.	1020	Cake making, coal liquefaction, Coal tar distillation, processing of coal tar distillate or fuel gas marking, coke briquetting (excluding sundrying)
13.	1023	Copper Smelter
14.	1025	Distillery
15.	1028	Dye & Dye Intermediates
16.	1030	Edible Oil Refinery
17.	1032	Electro Plating Units
18.	1034	Fertilizer
19.	1035	Fire Crakcers Manufacturing Units
20.	1037	Forging Units (Excluding Cold Forging)
21.	1038	Foundries
22.	1039	Galvanizing Units
23.	1042	Glue / Gelatin Manufacturing Units
24.	1046	Hazarduous Substances Storage
25.	1048	Heat Treatment Unit (with Cyanide)
26.	1052	Hot Mix plant
27.	1059	Integrated Iron and Steel Plants
28.	1060	Lead Smelting Refining and manufacturing of its oxides
29.	1062	Lubricating Oil / Grease Manufacturing Units

30.	1062	Match Units
31.	1067	Mosquito Coil Manufacturing Units
32.	1072	Paint / Enamel / Varnish Manufacturing Units
33.	1073	Pesticide (Synthetic)
34.	1074	Pesticide (Formulation Mixing Units)
35.	1075	Petro Chemical
36.	1077	Petroleum Refinery
37.	1079	Pigments & Intermediates Manufacturing Units
38.	1083	Pulp and Paper (with Digestor)
39.	1090	Sponge Iron
40.	1091	Sugar
41.	1092	Synthetic Detergents Manufacturing Units
42.	1093	Synthetic Detergent Manufacturing Units
43.	1094	Tannery
44.	1095	Tar & Tar Products Manufacturing Units
45.	1097	
46.	1101	Units Recovering Lead from batteries
47.	1102	Waste Oil Reclamation Units
48.	1104	Zinc Smelter

Enclosure – 1I:

G.O.Ms.No.111 Environment and Forest (Su.Soo.1) Department dated 21.09.2011

CATEGORISATION OF INDUSTRIES (ORANGE)

Sl. No.	Code	ORANGE
1.	2001	Agar Agar Manufacturing Unit
2.	2008	Battery Reconditioning and Repair Units
3.	2012	Bleaching Units

4.	2014	Bone Crushing Mills
5.	2021	Cashew Nut Processing Units
6.	2025	Chemical Mixing / Storage Units
7.	2043	Fish / Cattle / Poultry Feed Unit
8.	2046	Food and Beverage Units
9.	2052	Ginning Mills / Waste Cotton Units
10.	2065	Ice Plants / Ice Creams Manufacturing Unit
11	2066	IMFL Units
12	2073	Leather Meal
13.	2076	Lime Manufacture (Lime Kiln) Unit
14.	2078	Mercerising Units
15.	2081	Mineral Water Units
16.	2089	Pharmaceutical Formulation units
17.	2090	Phosphating / Anodising Units
18.	2099	Pulp & Paper without digestor
19.	2106	Sago Units
20.	2118	Sizing Units
21.	2122	Solvent Extraction units (Edible Oli)
22.	2123	Starch Units
23.	2126	Steel Rolling Mills
24.	2129	Stone / Mineral Crushing Units
25.	2130	Surface Coating / Units Powder Coating/ Spray Painting

S.V.Shankar
Chief Secretary to Government.

Annexure – II.

Assessment of Loss of Ecology and Environment in Mettuppalayam industrial area due to Pollution by Industries

1.0 BACKGROUND

The Loss of Ecology (P&PC) Authority (LoEA) received a set of claim petitions from a group of agriculturists from the villages of Jadayampalaym, Ramaplayam (an hamlet of Jadadyampalayam),Wellspuram (an hamlet of Thekkampatti) and Bellapalayam in the matter of pollution caused by certain industries in Mettuplalayam Taluk. The Member Secretary, Loss of Ecology (P&PC) Authority in a meeting held on 26th July 2006 with the Director, Centre for Environmental Studies (CES), Anna University and his colleague requested the opinion of CES in this matter and made available a report of the Madras School of Economics (MSE) titled "Ground water pollution and emerging environmental challenges of Industrial effluent Irrigation: a case study of Mettupalayam Taluk, Tamilnadu" and " Water resources, livelihood, security and stakeholders initiatives in Bhavani River basin Water quality" prepared after studying the area . The list of claim petitions filed by the agriculturists was also made available. The Authority requested the Centre to study the report of MSE which is taken by the authority as the basic material and to make field visit to assess the situation. The authority requested the Centre to provide its expert opinion on the nature of loss to ecology, environment in the area and analyze the likely cause of such loss to ecology in the area.

The Centre had a meeting with the MSE on 01st August 2006 to seek clarifications on the locations of various wells that were monitored by them. These information were made available by the MSE to the Centre. The Centre made field observations on 11th and 12th August, 2006 with revenue officials, officials of the LoEA authority and officials of the Tamil Nadu Pollution Control Board (PCB). The petitioners were also present during the field assessment.

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2.0 ASSESSMENT OF THE LOSS OF ECOLOGY AND ENVIRONMENT

The report of the MSE indicated that the groundwater of the study area (Thekkampatty cluster, Jadayampalayam Cluster and Sirumugai Cluster) is polluted with inorganic TDS measured in terms of Electrical Conductivity (EC). In this report, classification of the study areas was done based on the Electrical Conductivity (EC) profile of the area using the criteria listed in Table 1. The chloride levels were also high in the range of 2 to 200 meq/L (70.8 to 7080 mg/L). At the same time this deterioration in the groundwater quality is centered around dyeing and bleaching industries either in individual basis or group basis if they are closely located.

Table 1. Criteria for classification of study areas

Class	Criteria		Impact Description
	TDS (mg/L)	EC (µS/cm)	
I	<1000	<1500	No detrimental effect on agriculture and acceptable as drinking water source.
II	1000 - 2100	1500 - 3000	Cause for rejection as source of drinking water at TDS above 1500 mg/L and may have adverse effects on many crops
III	2100 - 3500	3000 - 5250	Unfit for drinking and adverse effect on many crops
IV	3500 - 4900	5250 - 7500	Unfit for drinking. Salt tolerant species may survive on permeable soils with careful management practices
V	>4900	> 7500	Unfit for drinking as well as for cultivation of most of the crops

Source: Manual on Sewerage and sewage Treatment (1993), Ministry of Urban Development, GOI

During the field visit by CES on 11th and 12th August about 26 groundwater samples were collected from the open well of the petitioners and analyzed by CES for EC. The field observations by CES and relevant observations in the MSE report for the area from where the LoEA received the claim petitions are presented in Table 2 to Table 6. The areas have been categorized based on the criteria listed in Table 1. It may be seen that the field observations of CES correlated very well with the corresponding data of MSE,s report.

It was observed during field visits as well as from MSE report that the borewells are not at all polluted and it is only the dug wells that are polluted. During the field visit it was noted that these dug wells are the sources of irrigation by the agriculturalists. In some cases the river water or borewell is pumped in to the dug wells for storage purposes and again it is

pumped and used for irrigation. Considering the field observations of CES and those reported by MSE, it is concluded that the ground water quality in the study area may be classified as follows:

Class - I	:	None
Class - II	:	Thekkampatti village down stream of CCC, Bellapalayam Village down stream of K G Denim
Class - III	:	Wellspuram hamlet in Thekkampatti village down stream of Sharadha Terry products, and Ramapalayam hamlet in Jadayampalayam village - down stream of Sri Vaishnavdevi mills and Siruvani textile Ltd.
Class-IV	:	Jadayamplayam village - down stream of Sri Vaishnavdevi mills and Siruvani textile Ltd.

Crops are reported to suffer from direct osmotic effects of salts in preventing water uptake by plants and specific ion toxicity due to chloride. Considering the nature of impacts on the use of such water for drinking and agricultural uses, it is suggested that the areas falling under Class I with TDS <1000 mg/L (or EC<1500 µS/cm) may be considered as unaffected and areas falling under Class II, Class III, Class IV and Class V may be considered as affected.

Table 2 a. Classification of Thekkampatty village (downstream of M/s. Coimbatore Coats and Coating Ltd.) based on EC of open wells as reported by MSE

S.No.	Owner of well	EC (mS/cm)		Major crops
		Pre monsoon	Post monsoon	
1.	K.Thippannan S/o. Ramaiyah Gowder Survey No. 2/39	1.8	2.0	Banana, Sugarcane, Coconut
2.	T.Thirunavukkarasu S/o. Thippaiyan	2.0	1.3	
3.	R.Thippannan S/o. Ramaiyah Gowder	2.6	1.9	
4.	Subbaiyan	3.2	2.8	
5.	G.Krishnaswamy S/o. Selvappa Gowder	2.9	3.3	
6.	P. Velusamy S/o. Ponnusamy Gowder	1.5	1.8	
7.	T.T.Natarajan S/o. Thippaiyah Gowder	1.0	2.2	
8.	Thottadasanur Rajappan	2.2	2.9	
Average		2.2		

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Table 2 b. Classification of Thekkampatty village (downstream of M/s. Coimbatore Coats and Coating Ltd.) based on EC of open wells as observed by CES

S. No.	Well location	EC (mS/cm) Sampling on 11 August 2006	Major crops
1	Survey No. 807/1c	2.5	Banana, Sugarcane, Coconut
2	Survey No. 40	1.6	
3	Survey No. 38/2	1.5	
4	Survey No. 39	1.6	
Average		1.8	

Table 3a.Classification of Wellspuram hamlet in Thekkampatty village (downstream of M/s. Sharada Terry Products Ltd.,) based on EC of open wells as reported by MSE

S. No.	Owner of well	EC (mS/cm)		Major crops
		Pre monsoon	Post monsoon	
1	D.K.R. Ravichandran S/o. Rangasamy	4.7	5.9	Coconut, Arecanut, Banana
2	M.S.R. Selvaraj S/o. Maruthachalam	3.5	3.8	
3	Jeyaprakash	2.9	4.7	
4	Somu	2.8	3.8	
5	V.Ramasamy S/o. Venkatesan	3.9	-	
6	A. Murugesan	3.0	3.9	
7	Vijayalakshmi W/o. Murugesan	3.7	3.2	
Average		3.8		

Table 3b.Classification of Wellspuram hamlet in Thekkampatty village (downstream of M/s. Sharada Terry Products Ltd.) based on EC of open wells as observed by CES

S. No.	Well location	EC (mS/cm) Sampling on 11 August 2006	Major crops
1	Survey No. 932/1	4.8	Coconut, Arecanut, Banana
2	Survey No. 879	4.8	
3	Survey No. 770/1	4.3	
4	Survey No. 901	3.8	
5	Survey No. 948/1	4.3	
Average		4.4	

Table 4a. Classification of Jadayampalayam village (downstream of M/s. Sri Vaishnodevi mills Ltd. and M/s Siruvani Textiles Ltd.) based on EC of open wells as reported by MSE

S.No.	Owner of well	EC (mS/cm)		Major crops
		Pre monsoon	Post Monsoon	
1.	Kandasamy S/o.Periyanna Gowder	4.4	5.3	Curry leaf, Brinjal and Coconut
2.	Ramasamy Gowder S/o.Pathrappa Gowder	5.0	5.5	
3.	J.T.Murugayyain S/o. Thippaian Gowder	5.6	7.8	
4.	T.Subbayain S/o.Thippayya Gowder	4.9	6.1	
5.	Shanthamani W/o. T.Subbian	6.2	7.2	
6.	S.Mailsamy S/o. Subbiah Gowder	4.6	3.5	
7.	R.Marannan S/o. Rangasamy Gowder	1.8	1.6	
8.	Rajendran S/o. Mathaiya Gowder	6.9	2.9	
9.	M.Sundari, W/o. Nanjappan	4.2	3.9	
10.	T.R. Rangasamy, S/o. Ramasamy Gowder	5.8	5.2	
11.	Karivaradhan, S/o. Mookanna Gowder	6.8	8.0	
12.	Rangaraju S/o.Doraisamy	-	2.8	
13.	Thundappan, S/o. Rangiah Gowder	7.1	6.4	
14.	J.R.Rangasamy S/o. Ramasamy Kandasamy S/o. Bujja Gowder	8.4	-	
15.	J.S. Rangasamy S/o. Subbiah Gowder	9.9	8.8	
16.	Velliangiri S/o. Govinda Gowder	7.0	9.3	
17.	K.Magali Gowder, S/o. Kembiah Gowder	8.3	7.5	
Average		5.9		

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Table 4b. Classification of Jadayampalayam village (downstream of M/s. Sri Vaishnodevi mills Ltd. and M/s Siruvani Textiles Ltd.) based on EC of open wells as observed by CES

S.no.	Well location	EC (mS/cm)	Major crops
		Sampling on 11 August 2006	
1	Survey No.79/1	8.4	Curryleaf, Brinjal and Coconut
2	Survey No.54	8.2	
3	Survey No.84/1a	5.2	
4	Survey No.151/1	6.0	
5	Survey No.78/3a	7.4	
6	Survey No.167/8	7.9	
Average		7.2	

Table 5a. Classification of Ramapalayam hamlet in Jadayampalayam Village - (downstream of M/s. Sri Vaishnodevi mills Ltd. and M/s Siruvani Textiles Ltd.) based on EC of open wells as reported by MSE

S.no.	Owner of well	EC (mS/cm)		Major crops
		Pre monsoon	Post monsoon	
1	R.T. Doraisamy, S/o. V.Tippiah Gowder	3.8	4.6	Curry leaves, Fodder crops
2	K. Subbiah, S/o. Karivartha Gowder	3.6	4.6	
3	S. Rangasamy, S/o. Sivanappa Gowder	3.6*	4.3*	
4	Easwaran teacher S/o.Ramayah Gowder	-	6.3	
5	Dasappa Gowder	-	5.4	
6	Varadharaj S/o.Easara Gowder	-	3.9	
7	Jeyapal S/o.Sivanappan	-	4.9	
Average		4.6		

* borewell and open well mixed water. Not taken in to account in computing average

Table 5b. Classification of Ramapalayam hamlet in Jadayampalayam Village - (downstream of M/s. Sri Vaishnodevi mills Ltd. and M/s Siruvani Textiles Ltd.) based on EC of open wells as observed by CES

S.no.	Well location	EC (mS/cm) Sampling on 11 August 2006	Major crops
1	Survey No.596/2	5.6	Curry leaves, Fodder crops
2	Survey No.598/6	8.7	
3	Survey No.587/15	6.9	
4	Survey No.621/D	3.3*	
5	Survey No.585	4.2	
6	Survey No.28/2b2*	5.0	
Average		6.1	

* borewell and open well mixed water. Not taken in to account in computing average

Table 6. Classification of Bellapalayam village (Downstream of K.G. Denim) based on EC of open wells

S.No.	Sampling by CES on 11 August 2006		Major crops in the area
	Well location	EC (mS/cm)	
1	Survey No.759/6a2	2.2	Banana, Coconut
2	Survey No.759/a	1.7	
3	Survey No.824	2.3	
4	Survey No.826	1.8	
5	Survey No.789/c	2.0	
Average		2.0	

3.0 INDUSTRIAL POLLUTION AND WATER QUALITY LINKAGE

As the focus of the present study is ecological and environmental damage due to industrial pollution, relevant data was obtained from TNPCB which revealed that the major water consuming and polluting industries located in the Thekkampatty and Jadayampalayam village of Mettuppalayam belong to the textile bleaching and dyeing industries. The effluent from these industries is likely to contain high concentrations of chlorides and contribute to EC due to the use of salts such as sodium chloride in the process.

Based upon the observations during the field survey and the report of MSE, CES is of the opinion that with respect to the claim petitions arising from Ramamapalayam and Jadayamplaayam, the loss of ecology is attributable to M/s. Sri Vaishnavdevi mills Ltd and M/s. Siruvani Textile Ltd.

Similarly, Wells Puram (a hamlet of Thekkampatti) would have been affected by Sarada Terry Products, as the average EC level in this village is 4.4 mS/cm. The pollution in Bellapalyam though low, may be attributed to M/s. K.G. Denim.

The peculiarity of this filed data is that the polluted wells are distinguishable as clusters of wells around these industries. There are certain claim petitions from Thekkampatti village itself for lands around Supersales Agency (earlier called Coimbatore Coats & Coating Ltd.).

MSE in its report also included Sirumugai Cluster including Chitlapalayam from which the Authority received 11 petitions. It has attributed to the environmental degradation of this area to the defunct M/s. South India Viscose industries. Considering the distance of Chitlapalayam from the industries currently in operation, the finding of the MSE is valid in our opinion.

4.0 SUMMARY

In summary, the villages could be classified as in Table 7.

Table 7. Summary of Area Classification and Pollution Source

Sl. No	Name of area	Classification based on water quality	Pollution Source*	Major Agriculture crops in the area
1.	Thekkampatti village surrounding CCC	II	M/s. Coimbatore Coats and Coating Ltd (CCC)	Banana, Sugarcane, Coconut
2.	Wellspuram hamlet in Thekkampatti village surrounding Sharada Terry Products	III	M/s. Sharada Terry Products Ltd.	Coconut, Arecanut, Banana
3.	Bellapalayam village	II	M/s. K.G.Denim	Banana, Coconut
4.	a) Jadayamplayam village	IV	M/s. Sri Vaishnodevi mills Ltd. and M/s Siruvani Textiles Ltd.	Curryleaf, Brinjal Coconut Fodder crops
	b) Ramapalayam hamlet in Jadayampalayam village	III		

* The pollution source indicated in the fourth column of the above table is, in our opinion, the primary source that contributed to the pollution. It was brought to our notice that United Bleachers and five other industries are also operating in this area. These industries also would have contributed to the environmental degradation of the area to some extent.

CENTRE FOR ENVIRONMENTAL STUDIES
19 AUG 2006
ANNA UNIVERSITY, GUINDY, CHENNAI-25

19.8.2006
Director,
Centre for Environmental Studies,
Anna University,
Guindy, Chennai - 600 025.

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தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்

BY RPAD

Proceedings. No.T16 / TNPCB / F.29611 / 2008 / CBE / Orange / W – 4 / Dated 16.9.2008

Sub: TNPC Board – Industries – M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) SF No. 122/5, Rangarajapuram, Kemmarampalayam Village, Mettupalayam Taluk, Coimbatore District - Action against the Erring Industry for violation of the provisions of the Water (P&CP) Act, 1974 as amended - Stoppage of electricity – Directions issued - Reg.

Ref: 1. Proceeding. No.T16 / TNPCB / F.29611 / 2008 / CBE / Orange / W – 3 / Dated 16.9.2008

2. Memo No. SE/Comm/EE 3/ Assistant Environmental Engineer -1/TNPC Bd/D 320/2002 dt. 4.12.02 from the Chairman, TNEB to Superintending Engineers of all electricity Distribution Circles, TNEB.

****

Tamil Nadu Pollution Control Board enforces the provisions of Water (P&CP) Act, 1974 and the Air (P&CP) Act, 1981. As per section 33 A of the Water (P&CP) Act, 1974 as amended in 1988 & section 31 A of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 the Board is empowered to issue directions for closure, prohibition or regulation of any industry and stoppage of electricity or any other services. Instructions have been issued by Tamil Nadu electricity Board in this regard vide reference second cited.

In this connection, a copy of Board's proceedings first cited is also enclosed in which directions have been issued under section 33A of the Water (P&CP)Act,1974 as amended for closure of the unit of M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) SF No. 122/5, Rangarajapuram, Kemmarampalayam Village, Mettupalayam Taluk, Coimbatore District in view of the reasons stated therein.

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It is hereby further directed in exercise of the powers conferred under section 33A of the Water(P&CP)Act,1974 as amended, that the power supply to the said unit should be stopped with immediate effect.

The receipt of the proceedings may be acknowledged and the action taken in this regard may also be intimated to this office early.

Sd/...
R.Balakrishnan, I.A.S.,
CHAIRMAN

Encl. As above.

To.

The Assistant Engineer (O&M)
Tamil Nadu Electricity Board,
Thekkampatty,
Mettuplayam Taluk,
Coimbatore District

16/9/08
for CHAIRMAN.

Copy to:

1 The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Coimbatore District.

2 The Superintending Engineer,
Tamil Nadu Electricity Board,
Electricity Distribution Circle,
Coimbatore.

3 The District Collector,
Coimbatore District,
Coimbatore.

4 BMS File

5 Technical File

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தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்

By RPAD

Proceedings. No.T16 / TNPCB / F.29611 / 2008 / CBE / Orange / W – 3 / Dated 16.9.2008

Sub : TNPCB – Industries - M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) SF No. 122/5, Rangarajapuram, Kemmarampalayam Village, Mettupalayam Taluk, Coimbatore District - Directions under section 33A of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 for the closure of the unit and stoppage of power supply – Orders issued – Regarding.

Ref: 1.Board proceeding No. DEE / CBE / 320590 / AE (1) / W / dated 29.8.2006
2. Proceedings No. DEE / CBE / F. 0873 / AE (1) / dated 11.7.2008
3. Personal Hearing conducted on 16.9.2008 by the Chairman, TNPCB.

Whereas, consent under the Water (P&CP) Act, 1974 as amended in 1988 was issued to the unit of M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) SF No. 122/5, Rangarajapuram, Kemmarampalayam Village, Mettupalayam Taluk, Coimbatore District in the reference first cited subject to one of the conditions that

All solid waste arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by

i. Land fill, in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.

Whereas a public complaint was received against the unit stating that the unit of M/s. M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) is dumping solid waste in an open well at Kemmarampalayam village. Based on the complaint, the site was inspected by the TNPCB officials along with Revenue Department on 5.7.2008. During inspection it was found that one open well at Kemmarapalayam village and another open well in Selaiyur village were dumped with plastic wastes by violating the

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consent order conditions.

Whereas, the DEE, TNPCB, Coimbatore has issue show cause notice to the unit under the provisions of the Water (P&CP) Act, 1974 as amended vide proceeding No. DEE / CBE / F.0873 / AE (1) / dated 11.7.2008. A show cause notice was also issued to M/s. M/s. ITC Ltd who is the client of M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) for segregation of waste material from imported waste papers. The unit of M/s. ITC Ltd vide letter dated 29.7.2008 has denied the allegations and requested time till 14th August to file a reply. Subsequently the unit M/s. ITC Ltd in its letter letter dated 13.8.2008 has given a reply to the show cause notice. The unit has replied that they have not violated any of the conditions of the consent order. There is no reply received from M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) which is presently sealed by the District Administration.

Whereas, to give one more opportunity to the unit, a personal hearing was called on 16.9.2008 by the Chairman, TNPCB at Corporate Office Chennai. M/s. ITC Ltd and M/s. White Star Fibres were called for a personal hearing. However, no officials from the two Companies attended the personal hearing. Instead two Chennai based advocates were sent by them to appraise the TNPCB of a court case filed by M/s.White Star Fibres in the Hon'ble High Court, Madras against the sealing orders of the Tahsildar, Mettupalayam, in which M/s.I.T.C. Limited was impleaded as a respondent and in which the TNPCB was also added as a respondent.

Whereas, M/s.White Star Fibres has admitted that he is a contractor engaged by M/s.I.T.C Limited for segregating the imported waste brought into the country by M/s.I.T.C Limited. It is also a fact that plastic waste which was found dumped in the two open wells was part of the waste segregated by M/s. White Star Fibres on behalf of M/s.I.T.C. Limited. This is evident from the fact that M/s.White Star Fibres as a

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contractor of M/s.I.T.C., is responsible for segregating of all the wastes given to him by M/s.I.T.C. Limited. The primary responsibility for the proper handling and disposal of imported waste, which is owned by M/s.I.T.C Limited, is the primary responsibility of that Company, irrespective of whether such waste is got segregated through a contractor. Enquiries made by the District Environmental Engineer, Coimbatore reveals that the waste belonging to M/s.I.T.C. Limited was dumped in two open wells which is against the General condition No.7 of the consent issued under the Water (P&CP) Act, 1974 as amended. In this instance the imported waste found in the consignment belonging to M/s.I.T.C. Limited are segregated by M/s. White Star Fibres was found to contain plastic material and willfully disposed off by them in the two open wells which is a clear violation of the consent condition mentioned above. By stating that this waste material is not their responsibility but that of M/s. White Star Fibres, their contractor, who has a separate consent for such segregation is to abdicate their primary responsibility. It is therefore considered that both M/s.I.T.C.Limited and M/s.White Star Fibres have violated their respective consent conditions in having disposed of the plastic waste in open wells outside their own premises causing a serious hazard to the environment. Their replies to the show cause notices issued under Section 33A of the Water (P&CP) Act, 1974 (as amended) are vague and in the nature of shifting their responsibility. They have also been given ample opportunities.

In the light of the above said facts and in exercise of the powers conferred under section 33A of the Water(P&CP) Act,1974 as amended, it is decided to issue directions for closure of the said units and for stoppage of electricity to the unit.

Now, therefore, in exercise of the powers conferred under section 33A of the Water (P&CP) Act, 1974 as amended, it is hereby directed that the unit of M/s. White Star Fibres (Formerly M/s. S.S. R. Chandrasekhara & Co) SF No. 122/5, Rangarajapuram,

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Kemmarampalayam Village, Mettupalayam Taluk, Coimbatore District shall be closed with immediate effect.

The receipt of the proceeding shall be acknowledged.

Sd/...
R.Balakrishnan, I.A.S.,
CHAIRMAN

To
The Managing Partner,
M/s. White Star Fibres,
SF No. 122/5, Rangarajapuram,
Kemmarampalayam Village,
Mettupalayam Taluk,
Coimbatore District

for CHAIRMAN 16/9/04

Copy to

1 The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Coimbatore District.

2 The Superintending Engineer,
Tamil Nadu Electricity Board,
Electricity Distribution Circle,
Coimbatore.

3 The District Collector,
Coimbatore District,
Coimbatore.

4 The Assistant Engineer(O&M),
Tamil Nadu Electricity Board,
Thekkampatty,
Mettuplayam Taluk,
Coimbatore District

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TAMIL NADU POLLUTION CONTROL BOARD

By RPAD.

3015

Proceedings No.T16/TNPCB/F.25640/2008/CBE/Orange/W-2/ Dated :20.05.2011.

Sub: TNPCB - Industries - M/s.White Star Fibres (Formerly M/s. Chandrasekhar & Co.), S.F.No.122/5, Rangarajapuram, Kemmarampalayam Village, Mettupalayam T.K., Coimbatore District - Revocation of directions issued under section 33A of the Water(P&CP) Act,1974 as amended in 1988- Orders issued – Reg.

Ref: 1. Proc.No.T16/TNPCB/F.29611/2008/CBE/Orange/W-3/ dated 16.09.2008
2. Proc.No.T16/TNPCB/F.29611/2008/CBE/Orange/W-1/ dated 28.09.2010
3. Letter No. F.DEE/CBE/F.1591/AEE-1/2011 Dated 02.02.2011
4. IR.No.F.CBE1591/OS/DEE/CBE/2011/dated 08.03.2011

Directions were issued to the unit of M/s. White Star Fibres (Formerly M/s.Chandrasekhar & Co.), S.F.No.122/5, Rangarajapuram, Kemmarampalayam Village, Mettupalayam Taluk, Coimbatore District under section 33A of the Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988 for the closure of the said unit and stoppage of power supply in this office proceedings first cited for the reasons stated therein.

In the reference 2nd cited, based on the recommendation of the District Environmental Engineer, the closure order dated 28.09.2010 issued to the unit of M/s.White Star Fibres (Formerly M/s. Chandrasekhar & Co.), S.F.No.122/5, Rangarajapuram, Kemmarampalayam Village, Mettupalayam Taluk, Coimbatore District was suspended for a period of three months subject to the following conditions.

1. The unit shall not store the imported waste paper in the concrete platform available in the open area at any point of time.
2. The unit shall store the imported waste paper in the newly erected closed shed adjoining to the process hall only.
3. The unit shall send their segregated waste to M/s.ITC Ltd PSPD Unit, Kovai only.
4. The unit shall formulate and implement a fool proof system of documenting the paper waste from arrival to post segregation, removal to recyclers and disposal in SLF facility of M/s.ITC Ltd PSPD Unit, Kovai only.

Subsequently, the unit in its letter dt.10.01.2011 addressed to the District Environmental Engineer, requested for permanent revocation based on the compliance of the conditions stipulated. In the reference 3rd cited above, based on the unit request, the unit was inspected by

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the District Environmental Engineer on 25.01.2011and he has furnished the compliance report on the conditions stipulated to the unit in the suspension of closure direction as follows:

Sl.No.	Conditions stipulated	Compliance
1	The unit shall not store the imported waste paper in the concrete platform available in the open area at any point of time.	The unit does not store any waste in concrete platform available in open area. It is kept vacant.
2	The unit shall store the imported waste paper in the newly erected closed shed adjoining to the process hall only.	The unit stores the imported waste paper in the newly erected closed shed adjoining to the process hall only.
3	The unit shall send their segregated waste to M/s. ITC Ltd PSPD Unit, Kovai only.	The unit sends the segregated waste to M/s .ITC Limited (PSPD unit) Kovai only. The delivery Chelans are endorsed by the ITC Ltd.
4	The unit shall formulate and implement a fool proof system of documenting the paper waste from arrival to post segregation, removal to recyclers and disposal in SLF facility of M/s. ITC Ltd PSPD Unit, Kovai only.	The unit is maintaining records for the receipt of imported waste paper and delivery of fibre and non fibre materials. The copy of delivery Chelan endorsed by ITC enclosed.

In the reference 4th cited above, the District Environmental Engineer has recommended for issuing permanent revocation to the unit subject to the condition that the unit shall collect the waste paper from M/s. ITC Limited, PSPD Kovai unit, only for segregation and return the entire waste paper along with the non-fibre (non-paper) to ITC Limited, PSPD, Kovai unit then and there without accumulation and also the unit shall maintain records.

In view of the above said reasons and in exercise of the powers conferred under section 33A of the Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988, the closure order dated ~~24.06.2009~~ 16.9.2008 issued to the unit of M/s.White Star Fibres. (Formerly M/s. Chandra-sekhar & Co.), S.F.No.122/5, Rangarajapuram, Kemmarampalayam Village,Mettupalayam Taluk., Coimbatore District is revoked with immediate subject to the following conditions.

1. The unit shall collect the waste paper from M/s.ITC Limited, PSPD Kovai unit, only for segregation and return the entire waste paper along with the non-fibre (non paper) to ITC Limited, PSPD, Kovai unit then and there without any accumulation.

TAMIL NADU POLLUTION CONTROL BOARD

2. The unit shall store the imported waste paper in the newly erected closed shed adjoining to the process hall only and shall not store the same in the concrete platform available in the open area at any point of time.
3. The unit shall maintain the system of documenting the paper waste from arrival to post-segregation, removal to recyclers and disposal into SLF facility of M/s. ITC Ltd PSPD Unit, Kovai and show the records, while inspection.
4. The unit shall continue its segregation activity only after obtaining the consent of the Board in the present name M/s. White Star Fibres".

The receipt of this proceeding shall be acknowledged.

VISWANATH SHEGAONKAR,
CHAIRMAN.

To
The Managing Partner,
M/s.White Star Fibres (Formerly M/s. Chandrasekhar & Co.),
S.F.No.122/5, Rangarajapuram,
Kemmarampalayam Village,
Mettupalayam Taluk,
Coimbatore District

Copy to:

1) The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Coimbatore.

2) The Superintending Engineer,
Tamil Nadu Electricity Board,
Coimbatore Electricity Distribution Circle,
Coimbatore.

3) The District Collector,
Coimbatore District, Coimbatore.

4) The Assistant Engineer(O&M),
Tamil Nadu Electricity Board,Thekkampatty,
Mettupalayam Taluk, Coimbatore District .

5) BMS File.

6) Technical file.

For CHAIRMAN

RSG/24.5.11.

25/5

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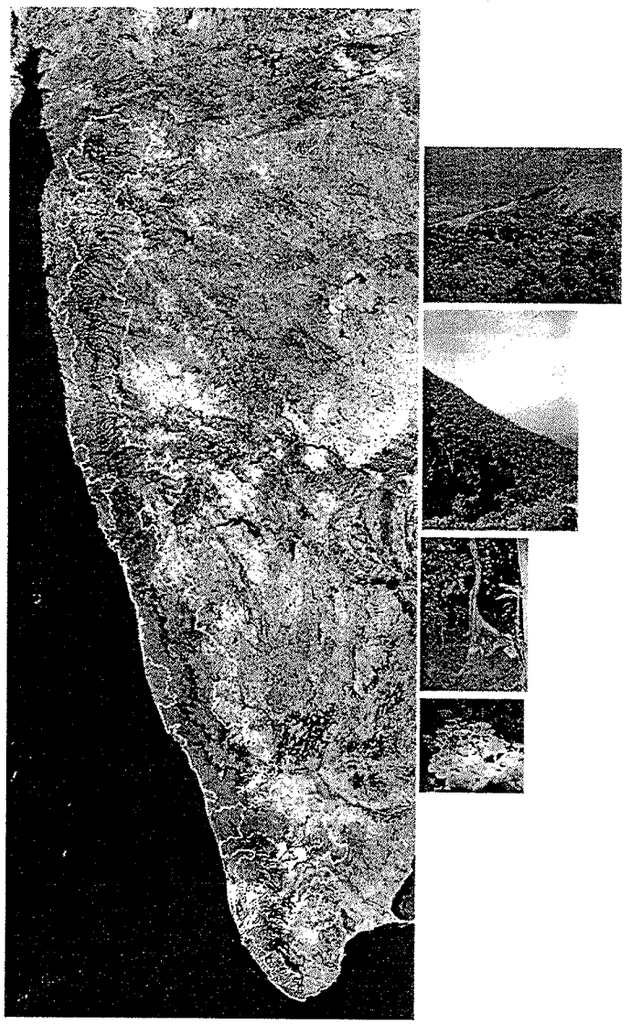
REPORT OF THE HIGH LEVEL WORKING GROUP ON WESTERN GHATS

Volume I



Ministry of Environment and Forests
Government of India
15 April 2013

SUMMARY OF RECOMMENDATIONS AND ACTION PLAN

The observations and discussions presented in different chapters of this Report clearly indicate unambiguously that the eco-system of Western-Ghats is in need of urgent attention and action. Out of the estimated 1,64,280 km^2 of the Western-Ghats area, the natural landscape constitutes only 41 per cent. The area identified as ecologically sensitive is about 37 per cent i.e., about 90 % of the natural landscape. It is against this backdrop of a fast dwindling unique ecosystem, that we make these recommendations. Needless to emphasize, there is a great sense of urgency, in the implementation of the tasks arising out of these recommendations, even though, we fully recognize the sincere commitment that each of the Six States has displayed in the context of protecting the rich Bio-diversity of this mountain range. In making some of the general and sectoral recommendations, we are also aware that many of these are already inbuilt into the present strategies of the respective States. In repeating such recommendations, we are only underscoring the imperatives of implementing such recommendations in letter and spirit. The summary of recommendations are given below:

A. Delineation and demarcation of ecologically sensitive area in Western Ghats region

1. In the absence of accepted definition and delimitation of Western Ghats in terms of geology and geomorphological features, the talukas under Western Ghats Development Programme of Planning Commission and under Hill Development Programme and talukas located at the traditionally accepted northernmost boundary of Western Ghats (south of Tapti river) in Gujarat have been included in defining and delimitation of Western Ghats Region by HLWG. The delimited area of 188 talukas in 6 States of Western Ghats has been designated as Western Ghats Region which spreads over an area of 1,64,280 km^2 between 8°0'– 22°26' N and 72°55'– 78°11' E and extends over a distance of 1500km from Tapti River at the north to Kanyakumari at the south, with altitudinal range (ellipsoid) from 0 to 2674 m above sea level and

width ranging from 10km (at narrowest point) to 200km (at widest point). HLWG recommends the adoption of the boundaries as demarcated in the Report.

2. About 60,000 km^2 of natural landscape (approximately 37% of the total geographical area of Western Ghats Region) has been identified as Ecologically Sensitive Area (ESA) by HLWG, which represents more or less a contiguous band of vegetation extending over a distance of 1500 km across 6 States of Western Ghats region and includes Protected Areas and World Heritage Sites. The demarcation unit of ESA is the village. IRS LISS III derived spatial layers on vegetation type and landscape level indices (with a fine spatial resolution of 24 m) were used as the basis for identification of ecologically sensitive areas (ESAs).

To facilitate sustainable development in the WG region, which is inhabited by about 50 million people, the non ESA comprising mostly cultural landscape is also demarcated. HLWG recommends that the Central government should immediately notify the ESA area, demarcated by HLWG in public interest. The need for urgent action is evident. In this notified area, development restrictions as recommended in this report will apply.

3. MoEF should put the ESA map in the public domain, which will enable scrutiny and transparency in decisions.

B. ***<u>Development Restrictions in proposed Ecologically sensitive areas</u>***

4. HLWG is recommending a prohibitory and regulatory regime in ESA for those activities with maximum interventionist and destructive impact on the ecosystem. All other infrastructure development activities, necessary for the region, will be carefully scrutinized and assessed for cumulative impact and development needs, before clearance.

5. There should be a complete ban on mining, quarrying and sand mining in ESA. All current mining areas should be phased out within the next 5 years, or at the time of expiry of mining lease, whichever is earlier.

6. No thermal power projects should be allowed in ESA. Hydropower projects may be allowed but subject to following conditions:

(a) Uninterrupted ecological flow at atleast 30 per cent level of the rivers flow in lean season till a comprehensive study establishes individual baselines.
(b) After a cumulative study which assesses the impact of each project on the flow pattern of the rivers and forest and biodiversity loss.
(c) Ensuring that the minimum distance between projects is maintained at 3 km and that not more than 50 per cent of the river basin is affected at any time.

7. HLWG recommends that wind energy should be included in EIA notification and brought under purview of assessment and clearance.

8. All 'Red' category industries should be strictly banned. As the list of industries categorized as 'orange' includes many activities like food and fruit processing, there will not be a complete prohibition on this category. But all efforts should be made to promote industries with low environmental impacts.

9. Building and construction projects of 20,000 m^2 and above should not be allowed. Townships and area development projects should be prohibited.

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10. All other infrastructure and development projects/schemes should be subject to environment clearance under Category 'A' projects under EIA Notification 2006.

11. Additional safeguard for forest diversion in ESA should be introduced. In cases of forest clearance required in ESA, all information of the project, from application stage to approval should be placed in the public domain on the website of MoEF and of the forest department of the respective States.

12. All development projects, located within 10 km of the Western Ghats ESA and requiring Environment Clearance (EC), shall be regulated as per the provisions of the EIA Notification 2006.

13. HLWG recommends a framework for governance and regulation of ESA, which draws on current regulatory institutions for decision-making, but simultaneously, strengthens the data monitoring systems and the participation and involvement of local communities in decision-making.

14. Existing regulatory institutions and processes for environment and forest clearances and project monitoring would need to be greatly strengthened for the governance framework to be enforced and monitored effectively.

15. The villages falling under ESA will be involved in decision making on the future projects. All projects will require prior-informed consent and no-objection from the Gram Sabha of the village. The provision for prior informed consent under the Forest Rights Act will also be strictly enforced.

16. The State Governments should also ensure consultation with local communities while planning for protection of wildlife corridors.

17. State Governments should immediately put in place structures for effective enforcement of development restrictions and ensuring sustainable development in ESA.

Table 6 gives statistical data on ESA, PAs+WHSs, natural and cultural landscapes geographical area of talukas falling in Western Ghats region in each of the 6 States of Western Ghats region. The State of Goa has highest percent of ESA (83.57%), of which nearly half of it is under PAs + WHS. The State of Karnataka and Kerala have high percent of area under ESA. Gujarat has least percent of ESA area.

Table 6: Area under Natural and Cultural landscapes, ESA, PAs+WHSs and total area of 'talukas' under Western Ghats region in different States of the Western Ghats region (area in km^2)

State	Total Geographic Area of State	Western Ghats Taluka Area	No. of Villages	Natural Landscape	Cultural Landscape	PA + WHS	Village Sharpened ESA	ESA to WG Taluka
Goa	3,702	1,749	99	1,558	191	655	1,461	83.57%
Gujarat	1,96,024	5,977	64	2,553	3,423	64	449	7.52%
Karnataka	1,91,791	44,448	1,576	21,529	22,919	5,660	20,668	46.50%
Kerala	38,863	29,691	123	12,477	17,214	4,913	13,108	44.15%
Maharashtra	3,07,713	55,345	2,159	21,185	34,161	2,242	17,340	31.33%
Tamil Nadu	1,30,058	27,069	135	8,947	18,122	3,369	6,914	25.54%
Grand Total	8,68,151	1,64,280	4,156	68,249	96,031	16,902	59,940	36.49%

Table 7: Number of villages with ESA in each taluka, the total geographical area of taluka and the area occupied by ESA in a taluka across the States of Western Ghats

State	District	Taluka	Taluka Area (km^2)	ESA	No. of Villages with ESA
Gujarat	**Navsari**	Bansda	571	35	5
		Chikhli	553		
	Surat	Songadh	1,111	95	13
		Uchchhal	559	5	1
		Vyara	782	30	5
	The Dangs	The Dangs	1,700	285	40
	Valsad	Dharampur	699		
Gujarat Total			**5,976**	**449**	**64**

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	Wayanad	Mananthavady	749	364	4
		Sulthanbathery	770	301	2
		Vythiri	619	287	7
Kerala Total			**29,693**	**13,108**	**123**

State	**District**	**Taluka**	**Taluka Area (km^2)**	**ESA**	**No. of Villages with ESA**
Tamil Nadu	**Coimbatore**	Avanashi	656		
		Coimbatore north	525	150	4
		Coimbatore south	827	140	2
		Mettupalayam	625	205	10
		Pollachi	1,168		
		Udumalaipettai	1,460	460	7
		Valparai	712	528	7
	Dindigul	Dindigul	1,451	327	5
		Kodaikanal	1,048	500	9
		Oddanchatram	782	70	1
		Palani	711		
	Erode	Dharapuram	1,412		
		Kangeyam	823		
	Kanniyakumari	Agastheeswaram	340	2	1
		Kalkulam	703	286	4
		Thovala	325	298	14
		Vilavancode	378	79	1
	Madurai	Usilampatti	505		
	The nilgiris	Coonoor	199	18	2
		Gudalur	472	413	5
		Kotagiri	400	239	7
		Kundah	309	233	5
		Panthalur	268	92	1
		Udhagamandalam	924	480	5
	Theni	Andipatti	941	311	1
		Bodinayakanur	545	263	3
		Periyakulam	392		
		Theni	250		
		Uthamapalayam	781	167	7
	Tirunelveli	Ambasamudram	1,225	639	5
		Nanguneri	921	272	2

6.8 The Framework for Governance and regulation of ESA

6.8.1 The Eco-Sensitive Area, once identified and demarcated, will need an effective governance framework to ensure that can be protected, regenerated and managed sustainably to meet livelihood needs. We need institutions, which are capable of responding to local concerns and can take timely decisions, to balance people's developmental needs with environmental protection. This, when it is clear that resource management issues are complex, with competing interests and require careful scrutiny and assessment. Furthermore, any system, which is based on a permit and prohibitory regime, needs careful and nuanced decisions, particularly when they impact the poor.

The WGEEP had a specific Terms of Reference to "recommend the modalities for the establishment of Western Ghats Ecology Authority under the EP Act, which will be a professional body to manage the ecology of the region and to ensure its sustainable development with the support of all concerned states." Based on this, the WGEEP recommended a structure, which included a national and state level authorities as well as district ecology committees.

All State governments, who have formally responded to the WGEEP report, have rejected the creation of yet another centralized authority. They have pointed out that the federal system of the country allows states to take decisions and have expressed concern at the attempt to centralize decisions through the creation of this Authority.

HLWG recommends that there is clearly a need to strengthen as well as reform the current system of environmental governance to enhance effectiveness. The HLWG recommends that this be done first before new institutions and authorities are created. Otherwise, the problems of current institutions will continue to weaken decisions in the future as well. Given this situation, HLWG has taken the view that it will recommend a framework for governance and regulation of ESA, which draws on

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current regulatory institutions for decision-making, but simultaneously, will strengthen the data monitoring systems and the participation and involvement of local communities in decision-making.

The current environmental management system is either based on a single project-based approach or an area-based approach. Given the scale of interventions and given the urgency for protection and regeneration, HLWG would recommend the need to shift to regional based approaches and cumulative assessments, which determine combined impacts of projects across the region or the river-basin.

6.8.2 Strengthening existing regulatory institutions

It is clear that we need to fix the current institutional system and make it more effective. It is for this reason that HLWG is of the strong opinion that the country must reform and strengthen the current institutions of environmental regulation and management in the country in general and in Western Ghats region in particular.

State Pollution Control Boards:

The State pollution control boards are the foundation of the environmental governance infrastructure. But these institutions lack regular in-service training of personnel, funds, and systems of management that are accountable and transparent. Without attention to these issues of institutional strengthening we cannot move ahead in dealing with the enormous challenges of sustainable resource management and development.

State Forest Departments:

The State Forest Departments of the Western Ghats need to be sensitized towards the importance of biodiversity, ecosystem services and local bioresources. The State frontline staff of Forest Departments needs to be equipped with modern systems of communication and surveillance. Regular in-service training of Forest officials needs to be undertaken in the area of wildlife management.

State Biodiversity Authority:

Establishment of Biodiversity Management Committees (BMC) at the Panchayat level especially in the rich biodiversity areas is a priority. The BMCs so established should take up preparation of Peoples Biodiversity Register in mission mode so as to document local biodiversity, bioresources and traditional knowledge. The BMCs should become a focal point for peoples participation with reference to local ecology and biodiversity. The concerned State Government should provide adequate funds to the State Biodiversity Boards and BMCs.

Environment and Forest Clearance Systems:

Similarly, environment and forest clearance systems both at the Centre and State must be strengthened to deepen the process of public assessment and scrutiny of all projects. In addition, there is an urgent need to build capacity to monitor compliance with conditions set for clearance. The strengthening of monitoring procedures is needed for credible deterrence for non-compliance and for environmental integrity. This agenda is urgent and must get the highest attention.

HLWG recommends that it is important that MoEF should review the functioning of the institutions so that they have necessary powers to ensure compliance. Most importantly, MoEF must direct state governments to complete the process of preparation of zonal plans, with maximum consultation with local people. The ESA mapping should be put in the public domain so that plans are based on current developments, which exist on the ground. It is critical that eco-sensitive area mapping must be sensitive to the livelihood and developmental needs of the poorest. There should be an annual assessment based on the changes in the ESA, which is prepared and presented to the public.

6.8.3 Decision Support and Monitoring Centre for Western Ghats

The HLWG recommends for setting up a "Decision Support and Monitoring Centre" for Western Ghats as a part of Governance of the region. The details on the proposed Centre are given in Chapter 7.

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6.8.4 Conclusions

To sum up, the HLWG recommends the following:

1. The Central government should immediately notify the ESA area, as demarcated by HLWG in public interest. It must be noted that there is an urgency to protect and safeguard the remaining biodiversity rich areas of Western Ghats. In 2011, recognizing this imperative, the Central government had set up the Western Ghats Ecology Expert Panel under Professor Madhav Gadgil to recommend how this can be done. The Panel in its deliberations spread over 18 months had large number of public consultations across the different states of the Western Ghats. It recommended the need for effective action to protect the region.
2. The HLWG has also had a number of consultations, particularly with state governments and their agencies. After extensive deliberations and efforts to determine the ESA, it has been found that the natural area of the Western Ghats is 41 per cent and ESA only 37 per cent. The need for action is evident. For this reason, HLWG is recommending for immediate notification, the identified area as ESA. In this notified area, development restrictions as recommended in this report will apply.

3. State Governments will immediately put into place structures for effective enforcement of development restrictions and ensuring sustainable development in ESA. The MoEF will ensure that all projects located in the districts comprising the Western Ghats are required to submit information about distance and proximity to the ESA.

4. The Planning Commission should create a special Western Ghats Sustainable Development Fund, which will be used to promote programmes specifically designed to implement an effective ESA regime and incentivize green growth in the region.

5. The 14th Finance Commission should consider options for ecosystem and other service payments in the Western Ghats as well as allocation of funds to ESA areas. It should also consider how these funds for environmental management would be made available directly to local communities who live in and around Western Ghats ESA.

6. MoEF should set up the Decision Support and Monitoring Centre for Western Ghats, with the mandate to assess and report on the state of ecology of the entire region. The Centre will be hosted by one state and will have joint management of all six states of the Western Ghats. The Centre will have a decision support function in the implementation of ESA. Its reports will be in the public domain.

7. MoEF should put the ESA map in the public domain, which will enable scrutiny and transparency in decisions.

8. All development projects located within 10 kms of the Western Ghats ESA and requiring environment clearance (EC) shall be regulated as per the provisions of the EIA Notification 2006. .

9. The villages falling under ESA will be involved in taking decisions on future projects. All projects will require prior-informed consent and no-objection from the *gram sabha* of the village. The provision for prior informed consent under the Forest Rights Act will also be strictly enforced.

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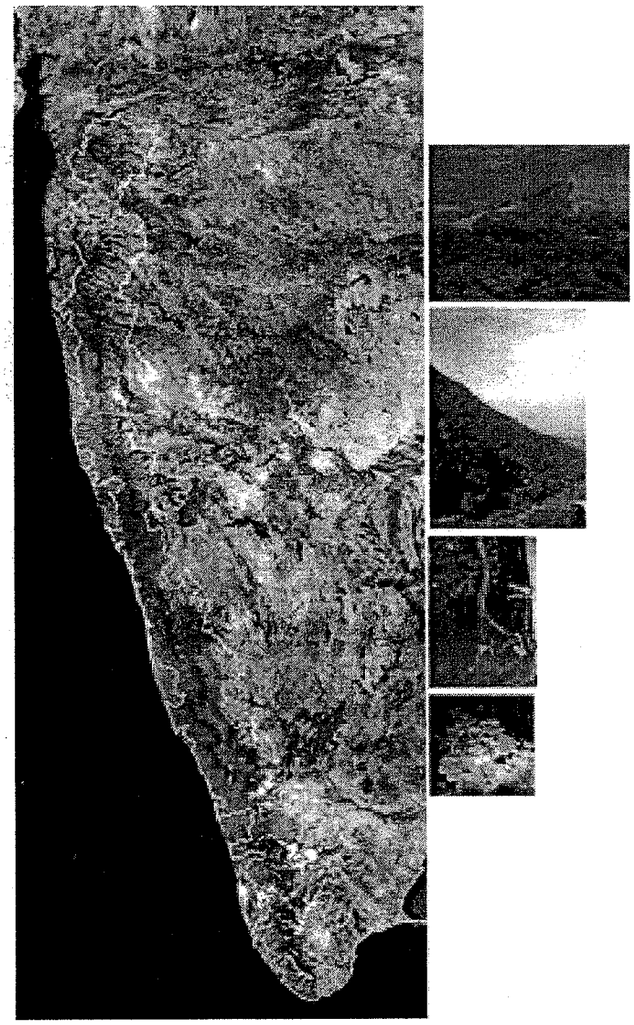
REPORT OF THE HIGH LEVEL WORKING GROUP ON WESTERN GHATS

Volume II



Ministry of Environment and Forests
Government of India
15 April 2013

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Appendix 3: List of Villages in ESA of the Western Ghats

(307 polygons did not have an entry in the name field in the Survey of India layer. These polygons have been named as "—NoName—XXXX" and counted as a village. These names may be finalized in consultation with the State Governments and Survey of India)

Sl No	STATE	DIST	TALUK	Village Name
1	GOA	NORTH GOA	SATARI	Anjune
2	GOA	NORTH GOA	SATARI	Shiroli
3	GOA	NORTH GOA	SATARI	Gulle
4	GOA	NORTH GOA	SATARI	Bayalvada
5	GOA	NORTH GOA	SATARI	Pali
6	GOA	NORTH GOA	SATARI	Singna
7	GOA	NORTH GOA	SATARI	Salpi Budruk
8	GOA	NORTH GOA	SATARI	Jarma
9	GOA	NORTH GOA	SATARI	Naneli
10	GOA	NORTH GOA	SATARI	Maloli
11	GOA	NORTH GOA	SATARI	Koparde
12	GOA	NORTH GOA	SATARI	Karambali Bramha
13	GOA	NORTH GOA	SATARI	Hedode
14	GOA	NORTH GOA	SATARI	Uste
15	GOA	NORTH GOA	SATARI	Ambede
16	GOA	NORTH GOA	SATARI	Dongarvada
17	GOA	NORTH GOA	SATARI	Mausi
18	GOA	NORTH GOA	SATARI	Bhuipal
19	GOA	NORTH GOA	SATARI	Bombede
20	GOA	NORTH GOA	SATARI	Veluz
21	GOA	NORTH GOA	SATARI	Sonal
22	GOA	NORTH GOA	SATARI	Kumar Khand
23	GOA	NORTH GOA	SATARI	Valpoy
24	GOA	NORTH GOA	SATARI	Sanvarde
25	GOA	NORTH GOA	SATARI	VELGUE
26	GOA	NORTH GOA	SATARI	HASOLE
27	GOA	NORTH GOA	SATARI	Karambali Buzruk
28	GOA	NORTH GOA	SATARI	BARAJAN
29	GOA	NORTH GOA	SATARI	Panse
30	GOA	NORTH GOA	SATARI	SHELPI KHURD
31	GOA	NORTH GOA	SATARI	BHIRONDE
32	GOA	NORTH GOA	SATARI	KHOTODE
33	GOA	NORTH GOA	SATARI	SIRSODE
34	GOA	NORTH GOA	SATARI	KARANZOL
35	GOA	NORTH GOA	SATARI	AASSODE
36	GOA	NORTH GOA	SATARI	MELAVALI
37	GOA	NORTH GOA	SATARI	Gotiakhadilwada
38	GOA	NORTH GOA	SATARI	AMBELI
39	GOA	NORTH GOA	SATARI	Gavane
40	GOA	NORTH GOA	SATARI	MALPON
41	GOA	NORTH GOA	SATARI	SURLA
42	GOA	NORTH GOA	SATARI	Satre
43	GOA	NORTH GOA	SATARI	GOALI
44	GOA	NORTH GOA	SATARI	Charavade
45	GOA	NORTH GOA	SATARI	IVRE KHURD
46	GOA	NORTH GOA	SATARI	IVRE BUDRUK
47	GOA	NORTH GOA	SATARI	Kelavade
48	GOA	NORTH GOA	SATARI	Rive
49	GOA	NORTH GOA	SATARI	Kodal
50	GOA	NORTH GOA	SATARI	Dongurvada
51	GOA	NORTH GOA	SATARI	Derode
52	GOA	NORTH GOA	SATARI	Vayangani
53	GOA	NORTH GOA	SATARI	Nanode
54	GOA	NORTH GOA	SATARI	GoaNoname1
55	GOA	NORTH GOA	SATARI	Kodal
56	GOA	NORTH GOA	SATARI	Penral
57	GOA	SOUTH GOA	KANKON	Kola
58	GOA	SOUTH GOA	KANKON	Gaundongren
59	GOA	SOUTH GOA	KANKON	Cotigao
60	GOA	SOUTH GOA	KANKON	Poingunin
61	GOA	SOUTH GOA	KANKON	Lolen
62	GOA	SOUTH GOA	SANGUEM	SURLA
63	GOA	SOUTH GOA	SANGUEM	AALOT

Sl No	STATE	DIST	TALUK	Village Name
3984	Maharashtra	THANE	VADA	Harosale
3985	Maharashtra	THANE	VADA	Kanchad
3986	Maharashtra	THANE	VADA	Dhapad
3987	Maharashtra	THANE	VADA	Vaghote
3988	Maharashtra	THANE	VADA	Dhadhare
3989	Maharashtra	THANE	VADA	Balivali
3990	Maharashtra	THANE	VADA	Galtare
3991	Maharashtra	THANE	VADA	Vaveghar
3992	Maharashtra	THANE	VADA	Nane
3993	Maharashtra	THANE	VADA	Sange
3994	Maharashtra	THANE	VADA	Kalambhe
3995	Maharashtra	THANE	VADA	Sonale Kh.
3996	Maharashtra	THANE	VADA	Nishet
3997	Maharashtra	THANE	VADA	Pimparoli
3998	Maharashtra	THANE	VADA	Moj
3999	Maharashtra	THANE	VADA	Bilghar
4000	Maharashtra	THANE	VADA	Tuse
4001	Maharashtra	THANE	VADA	Varai Bk.
4002	Maharashtra	THANE	VADA	Sonale Bk.
4003	Maharashtra	THANE	VADA	Varai Kh.
4004	Maharashtra	THANE	VADA	Avandhe
4005	Maharashtra	THANE	VADA	Chikhale
4006	Maharashtra	THANE	VADA	Savarkhand
4007	Maharashtra	THANE	VADA	Asnas
4008	Maharashtra	THANE	VADA	Abitghar
4009	Maharashtra	THANE	VADA	Gaurapur
4010	Maharashtra	THANE	VADA	Goleghar
4011	Maharashtra	THANE	VADA	Kalambhai
4012	Maharashtra	THANE	VADA	Devghar
4013	Maharashtra	THANE	VADA	Devgaon
4014	Maharashtra	THANE	VADA	Ambarbhui
4015	Maharashtra	THANE	VADA	Budhavali
4016	Maharashtra	THANE	VADA	Bilavali
4017	Maharashtra	THANE	VADA	Kati
4018	Maharashtra	THANE	VADA	Gunj
4019	Maharashtra	THANE	VADA	Khaire Ambivali
4020	Maharashtra	THANE	VADA	Varnol
4021	Maharashtra	THANE	VADA	Dongaste
4022	Tamil Nadu	COIMBATORE	COIMBATORE NORTH	Thadagam R.F.
4023	Tamil Nadu	COIMBATORE	COIMBATORE NORTH	Anaikatti (North)
4024	Tamil Nadu	COIMBATORE	COIMBATORE NORTH	Anaikatti (South)
4025	Tamil Nadu	COIMBATORE	COIMBATORE NORTH	Veerapandi
4026	Tamil Nadu	COIMBATORE	COIMBATORE SOUTH	Boluvampatti (Block I)
4027	Tamil Nadu	COIMBATORE	COIMBATORE SOUTH	Booluvampatti(BlockII)
4028	Tamil Nadu	COIMBATORE	METTUPALAYAM	Odanthurai R.F.
4029	Tamil Nadu	COIMBATORE	METTUPALAYAM	Jaganarai Slopes R.F.
4030	Tamil Nadu	COIMBATORE	METTUPALAYAM	Kallar R.F.
4031	Tamil Nadu	COIMBATORE	METTUPALAYAM	Hulical Drug R.F.
4032	Tamil Nadu	COIMBATORE	METTUPALAYAM	Pillur Slope R.F.
4033	Tamil Nadu	COIMBATORE	METTUPALAYAM	Nellithurai and Sundapatti R.F
4034	Tamil Nadu	COIMBATORE	METTUPALAYAM	Kandiyur R.F.
4035	Tamil Nadu	COIMBATORE	METTUPALAYAM	Nilgiri Eastern Slope R.F.
4036	Tamil Nadu	COIMBATORE	METTUPALAYAM	Melur Slope R.F.
4037	Tamil Nadu	COIMBATORE	METTUPALAYAM	Anaikatti North R.F.
4038	Tamil Nadu	COIMBATORE	UDUMALAIPETTAI	Anamalai R.F.
4039	Tamil Nadu	COIMBATORE	UDUMALAIPETTAI	Anamalai R.F.
4040	Tamil Nadu	COIMBATORE	UDUMALAIPETTAI	--NoName--1201
4041	Tamil Nadu	COIMBATORE	UDUMALAIPETTAI	Amaravathi R.F.
4042	Tamil Nadu	COIMBATORE	UDUMALAIPETTAI	Kudiraiar & Kukkal R.F.
4043	Tamil Nadu	COIMBATORE	UDUMALAIPETTAI	--NoName--1212
4044	Tamil Nadu	COIMBATORE	UDUMALAIPETTAI	Manjampatti R.F.
4045	Tamil Nadu	COIMBATORE	VALPARAI	--NoName--1183
4046	Tamil Nadu	COIMBATORE	VALPARAI	Valparai (TP)
4047	Tamil Nadu	COIMBATORE	VALPARAI	--NoName--1194
4048	Tamil Nadu	COIMBATORE	VALPARAI	Valparai (TP)
4049	Tamil Nadu	COIMBATORE	VALPARAI	--NoName--1199
4050	Tamil Nadu	COIMBATORE	VALPARAI	Valparai (TP)
4051	Tamil Nadu	COIMBATORE	VALPARAI	Valparai (TP)
4052	Tamil Nadu	DINDIGUL	DINDIGUL	Kannivadi (TP)
4053	Tamil Nadu	DINDIGUL	DINDIGUL	Adalur

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Submitted to: The MS, TNPCB, Chennai

TAMIL NADU POLLUTION CONTROL BOARD

IR No. : F.CBN1371/RL/DEE/CBN/2014/dated.29/05/2014

Ref: 1. Proc.No. T12/TNPCB/F 34953/RL/W & A/CBE/2013/DT 05-07-2013 valid up to 31/10/2013
2. Circular Memo No.T12/TNPCB/F-RENEWAL/2014-15/RL/2014/DT.21/05/2014

Inspection Report for Renewal of Consent Orders

1	a	Name of the Inspecting Officer	Er. P.Asokan & Er. P.Manimaran
	b	Designation	DEE & Assistant Environmental Engineer
	c	District Office	Coimbatore North
2	b	Date of Inspection	02/04/2015 & 28/05/2014
3	a	Name of the Industry	**M/s. ITC LIMITED PAPER BOARDS AND SPECIALTY PAPERS DIVISION UNIT:KOVAI**
	b	*Factory address:* : SPECIALITY PAPERS DIVISION UNIT KOVAI, Vivekanandapuram P.O, Thekkampatty Village, Coimbatore-641113	*Registered Office address:* Virginia House, 37,J.L.Nehru Road,Kolkata-700071, India
4		Date of Commissioning	01/07/1997
5		Total Gross Fixed Assets (as on 31/03/2013)	**Rs. 45440.96 Lakhs**
6	a	Category-Classification	**Red-Large**
	b	Type of the industry	**1061-Pulp and Paper (Paper manufacturing with or without pulping)- (including Handmade paper units, Kraft paper units and Leather Boards)**
	c	Extent of Land : Total Area in Hectares	164.81 Hectares
7	a	**Water Requirement :**	
	i)	Source of water	Surface Water
	ii)	**Water consumption :**	
		WC-I : Cooling& Boiler feed	750 KLD
		WC-II: Domestic	350 KLD
		WC-III: Process (Easily Bio degradable)	2400 KLD
		WC-IV: Process (Not easily Bio degradable)	0 KLD
	b	**Quantity of effluent :**	
	i)	Sewage	10 KLD
	ii)	Trade effluent	2600 KLD
	c	**Sources of trade effluent:**	

- Duplex Board manufacturing, Boiler Blow Down, D.M Plant and Softener Effluent

d **List of Main Products :**

Sl. No.	*Name of Product*	*Qty.*	*Unit*	*Actual Production*
1	Duplex Board Cromo Board Art Board	7424	T/M	8500 T/M

8 **Details of Effluent Treatment Plant :**

Nature of Effluent	*Sl. No.*	*Components of ETP*	*Nos.*	*Dimensions (in metres)*	*Mechanical equipment like Aerator*	
(1)	*(2)*	*(2)*	*(3)*	*(4)*	*Capacity*	*Nos*
Sewage	1	Septic Tank	4	3x3.5x2.5		
	2	Collection Tank	2			
	3	Package of Primary Settling Aeration and Sec Sett	2	23 and 53 KLD Capacity		
	4	Treated Collection Tank	1			
Trade Effluent - Type of ETP : Individual ETP						
Trade Effluent	1	Bar Screen	2	6mm and 3 mm Size		
	2	Flash Mixer	1	1.3x1.3x3.0		
	3	Primary Clarifier	1	20 diax3.5		
	4	Equalization Tank	1	20x20x3.5	With diffuser 800 m^3 per	50 nos of diffuser

30/5/14

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					hr	
	5	Krofta	1	5.0 diax0.05		
	6	Thickener Clarifier	1	10 diax3.0		
	7	Aeration tank-1No 6 Aerators of 40 hp each	1	60.5x36x3.50		
	8	Secondary Clarifier	1	20.0 diax3.54		
	9	Final Collection Tank	1	10x10x2		
	10	Pressure Sand Filter	1	100 m3 per hr		
	11	Filter Press	2	40Plate1.2x1.2m each		
	12	Decanter Centrifuge	1	15 m3 per hr		
	13	**Drum Filter (Before Primary Clarifier)**	**1**			
	14	**Multiple Disc Filter (After Secondary Clarifier)**	**1**			

9 **Point of disposal of Effluent:**

	Effluent	*Quantity*	*Point of Disposal*
a	Sewage 1	10 KLD	On Industry's Own Land
b	Trade effluent 1	2600 KLD	On Land for Irrigation
c	i) Whether No discharged into inland surface waters	If yes, name of the Odai/ River/ Lake?	NA
	ii) Distance of the water body from the unit if effluent reaches the water body	NA	
iii)	Whether the water source is included in the G.O. Ms. No.213 / E & F Dept. dated 30.03.89 / G.O. Ms. No. 127 / E & F Dept. E.C – 3 / dated 8.5.1998 ?	No / No	

10 *Details of Air Pollution Control measures:*

Sl. No.	*Source of Emission*	*APC measures provided*	*Stack top dimension (in metres)*	*Stack ht. above ground (in Mts.)*	*Stage/operational condition*
1.	**Captive Power Plant Boiler 60T**	**ESP with stack**	**1.5**	**84**	**Under Operation**
2.	**Boiler -44T- Hr - Standby**	**ESP with Stack**	**1.1**	**67**	**Not under operation**
3.	**Coal/Bio-Fuel Bunker**	**Bag House and Stack**	**0.66**	**9.9**	**Under Operation**
4.	**Coal/Bio-Fuel Transfer Point**	**Bag House and Stack**	**0.25x2.0**	**9.9**	**Under Operation**
5.	**DG Set - 250 KVA-2Nos**	**Stack with Acoustic Enclosures**	**0.15**	**25**	**Under Operation**

11 *Details of Solid Wastes:*

a. Non Hazardous wastes:

Sl. No.	*Nature of Solid Waste*	*Quantity*	*Unit*	*Mode of disposal*	*Area of land earmarked for Storage/Disposal(in Hectares)*
1.	ETP Primary Sludge	500	T/M	To Board Manufacturer	2.0
2.	Process Waste	200	T/M	To Board Manufacturer	
3.	ETP Bio Sludge	350	T/M	Vermi Composting	
4.	Canteen Waste	1	T/M	Vermi Composting	
5.	Fly Ash	1050	T/M	Brick and Cement Ind	

b. Hazardous Wastes :

i)	Hazardous waste generation ?	Yes
	Applied for Authorisation ?	Yes
ii)	Authorisation issued ?	Yes
	If issued, issued date & Valid Date	25/04/2005 & 24/04/2010
iii)	Applied for renewal of Authorisation ?	Yes
	Renewal of Authorisation issued ?	
	If issued, issued date & Valid Date	26/05/2010 & 25/05/2015
iv)	Hazardous Waste Quantity generated :-	

Hazardous wastes listed in Schedule 1

S1-HW1 - Process - 1 :	5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems		
Hazardous waste - 1 :	5.1 Used/spent oil	Quantity :	5 T/Year
S1-HW2 - Process - 2 :	33 Disposal of barrels / containers used for handling of hazardous wastes / chemicals		
Hazardous waste - 1 :	33.3. Discarded containers / barrels / liners contaminated with hazardous wastes/ chemicals	Quantity :	2 T/Year

v) Hazardous Waste Types :-

Type	*Quantity* (T/Year)
Recyclable	4.5
Recyclable	2

vi) Hazardous Waste Storage details :-

Type	*Quantity* (T/Year)
Drums (M S)	2.16

vii) Hazardous Waste Treatment & Disposal Options :-

Type	*Quantity* (T/Year)
Recovery & Reuse (by CPCB reg. facil.)	4.5
Recovery & Reuse (Captive)	2

viii) Present method of handling Hazardous Solid Wastes :-

Hazardous wastes listed in : Schedule 1

Sl. No.	*Category of Haz. Waste*	*Quantity T/year*	*Solid/Semi-solid/liquid /Oily/Tarry/ Sludge/Slurry/others*	*Method of Handling*	
				Collection & storage	*Treatment & Disposal*
1	5.1	5	Liquid	Drums (M S)	Recovery & Reuse (by CPCB reg. facil.)
3	33.3	2	Solid	Select H W Storage	Recovery & Reuse (Captive)

12 *Details of Consent / Renewal Consent Orders issued :*

a	Consent order (to operate) issued date & validity	14/08/1997	31/03/1998
b	Latest Consent order (to operate for expansion) issued date & validity		
c	Renewal of previous consent order issued date & validity	05-07-2013	31/10/2013

13 *Status of Compliance of Conditions stipulated in the previous Consent Order/ Renewal Consent Order :*

	Water (P&CP) Act, 1974 conditions	*Compliance*
i)	Kindly refer Item No.16 of this RIR	Kindly refer Item No.16 of this RIR

	Air (P&CP) Act, 1981 conditions	*Compliance*
i)	Kindly refer Item No.16 of this RIR	Kindly refer Item No.16 of this RIR

14 *Details of remittance of Consent Fee and Water Cess :*

a *Consent Fee (CF):*

Particulars	*Water Act*	*Air Act*
CF Arrears up to 2013-14	Kindly refer **ANNEXURE - V**	
CF Demand for Current year 2014-15		
CF Total amount to be paid		
CF Amount paid & CR No. and Date		
CF Balance amount to be paid	Rs. 0	

b *Water Cess (WC):*

WC applicable?	Yes
WC Returns filing regularly ?	Yes
WC arrears up to	Rs. 0

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WC Demand for current year	Rs. 169650
WC Total amount to be paid	Rs. 169650
WC Amount paid & CR No. and Date	Rs. 169650
WC Balance amount to be paid	Rs. 0

15 Whether any complaint or court case filed against the unit. If so the details there on — Kindly refer Item No.16 of this RIR

16 **Any other information and Specific recommendation on Renewal of Consent under Water (P&CP) Act, 1974 as amended and Air (P&CP) Act, 1981 as amended:**

1. This unit **M/s. ITC Limited, Paper Boards and Speciality Boards Division, Unit: Kovai** located in Thekkampatty Village, Mettupalayam Taluk, Coimbatore District was issued with consent renewal vide Proc.No. T12/TNPCB/F 34953/RL/W & /CBE/2013/DT 05-07-2013 valid up to 31/10/2013. The unit was inspected on 02-04-2015 & 28-05-2014 and the following were observed:

i. The unit's manufacturing activities were under operation.

ii. The ETP was also under operation and the treated trade effluent was being discharged on land for irrigation purposes.

iii. The unit has provided EMFM in the following locations and necessary Log Book was also maintained.
   a. Inlet Effluent channel leading to Primary Clarifier (Open non contact type)
   b. EMFM to the Outlet of the ETP i.e. Outlet of Pressure Sand Filter leading to Irrigation
   c. and one more EMFM was installed to the internal recycling line (after the EMFM of Irrigation pipeline as said in (b) above) within the ETP area i.e. cleaning of ETP area.

iv. The unit has provided separate Energy Meter to the ETP and necessary Log Book for the operation of the ETP and Energy Meter readings were recorded.

v. It was reported that the unit has already increased the Production (in the range of 8500 T/M) by various changes /improvements in the existing machineries i.e. change of Mechanical drives by reducing the downtime of no. of running hours, installation of PETEX Filters, KRAFTA for recycling of the effluent generated in the process before discharge into the ETP. By the said installations the actual Water Consumption is reduced to about 10.9 KL/T of Paper as against the NPC Guide lines of 19 KL/T of Paper produced.

vi. As per the conditions of the Renewal Consent Order dt.05-07-2013, the unit has installed the **Drum Screen** before the Primary Clarifier to remove the floating fiber and small plastics and also installed **Multiple Disc Filter** after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation during the time of inspection.

vii. The procured waste paper under the scheme, Waste from Wealth (WOW) from various NGOs and the same was stored inside the premises is being reused in considerable quantities and also being disposed to other waste paper board manufacturing units/recyclers.

viii. The process waste generated i.e Plastics etc, at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent partly to SLF & partly to Cement Manufacturing Plants for Co-Processing.

ix. The unit made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees. The TNAU had concluded that the treated effluent is fit for irrigation and the soil is also not detoriated.

x. The Captive Power Plant with Boiler 60 T/Hr was also under operation.

xi. The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed **Online Stack Monitor for the parameters of SPM, NO_x & SO_2 and it has also been connected to the CARE AIR Centre (for SPM only)** and the same was under operation.

xii. The other APC measures such as the Dust Extraction System, Bag House with Stack attached to the Coal/Bio Fuel transfer points etc were also under operation

xiii. The Boiler 44 T/Hr was not under operation and reported to be used as a standby.

xiv. The unit is using the Bio Mass such as De-Oiled Rice Bran, Saw Dust mixed with imported Coal as fuel in the Boiler – 60 T/Hr. The Boiler 60 T/hr is actually designed for 100% Lignite and now the unit is using the Bio Mass such as De-Oiled Rice Bran and the usage of Bio mass is increased to about 70% with Imported Coal of 30% as fuel.

2. Complaints received from Farmers of Thekkampatty Village against unit regarding damage caused to the Ground water, Soil, Agricultural Yield of the Farmers surrounding the unit's location due to the discharge of treated trade effluent on Industry's own irrigation lands, claiming compensation. In this regard the District Collector has instructed to the TNAU, Coimbatore and the **Directorate of Natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore** has furnished a proposal to analyse the Soil, Ground Water, and Yield in and around the area of the unit's irrigation fields vide its Lr.No. TNAU/SO-DNRM/SOIL & WATER POLLUTION/STUDY IN THEKKAMPATTY VILLAGE/2013/DT.18-03-2013 and the study is yet to be started by the TNAU, Coimbatore.

Hence the Renewal Consent to the unit M/s. ITC Limited, Paper Boards and Specialty Boards Division, Unit: Kovai, Thekkampatty Village, Mettupalayam Taluk, Coimbatore District may be issued subject to the following and conditions that:

a. The unit shall operate and maintain the Air Pollution Control Measures continuously and efficiently so as to satisfy the Emission and AAQ standards prescribed by the Board and shall ensure that at any point of time there shall not be any hindrance to the connectivity of the Online Stack Monitor with the CARE AIR CENTRE, Corporate Office, Chennai.

b. The unit shall operate and maintain the Effluent Treatment Plant continuously and efficiently to satisfy the standards prescribed by the Board and the treated trade effluent shall be utilized for irrigation (after maximum recycling of trade effluent before treatment in the process) and shall ensure that there shall not be any seepage/overflow of treated/untreated trade effluent into nearby land/odai or any other water sources directly or indirectly.

c. The unit shall continue to dispose the plastic waste generated from the process, through co-incineration in cement plant or it should be stored in SLF provided inside the unit and ensure that it shall not be accumulated in huge quantity and shall be stored in open land.

d. The unit shall follow the Directions issued by the Hon'ble High Court in the W.P.No.23097/2008 regarding disposal of waste paper & others.

e. The unit shall adhere to the final judgment in the W.P.26985/2007 regarding operation of Captive Power Plant.

f. The unit is consented for the manufacture of Duplex Board, Chromo Board and Art Board of 7424 T/M.

g. The unit shall comply the conditions of G.O.(3D) No.15 E & F Dept (EC-3)/dt.14/02/2014

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Encl: ANNEXURE- I, II, III, IV, V, VI and Unit's Lr.dt.28-03-2014

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ANNEXURE – I

Compliance as per the Hon'ble High Court of Madras, Order dt.15-10-2008 in W.P.No:23097/2008

Hon'ble High Court Directions in Order dt. 15-10-2008 in W.P.No:23097/2008	Compliance by the unit
3. (B) That all the waste presently lying at White Star Fibers be moved to a Secured Landfill either at their own premises (White Star Fibers) or in ITC premises subject to environmental suitability of the site determined after appropriate study. (C) The SLF shall be completed and ready for operation before the end of June 2009. A proposal for secured land fill facility shall be furnished to TNPC Board within a month time.	The unit (ITC Ltd) had removed the waste that was lying in the premises of M/s. White Star Fibers to the Secured Landfill facility constructed in the premises of ITC Ltd. SLF provided.
(C) Until, such time, the secured land fill is made ready, the waste must be stored on some impervious surface such as a concrete platform available at White Star Fibres and M/s. ITC. and this waste shall be covered plastic (Polythene) sheet which shall be spread both under the waste and over the waste in order to protect it from rain water and also to product the ground water.	The unit (ITC Ltd) has removed the waste that was lying in the premises of M/s. White Star Fibers to the Secured Landfill Facility constructed in the premises of ITC Ltd.
(D) M/s. ITC should formulate and implement a foul proof system of documenting the paper waste from arrival to post segregation removal to recycler or disposal in a secure land fill or equivalent facility and satisfy the TNPC Board about the efficacy and reliability of such systems and documentation apart from protocols to determine the nature of the waste to rule out the possibility of these wastes being hazardous in nature. This all the more critical considering the fact that consignments containing high waste content have been detected at Tuticorin Port, no information available readily as to the quantity of waste at the job worker's premises nor has ITC taken the level of care commensurate with its imports of waste to ensure that there is no release of waste into the surroundings environment.	The unit is maintaining the Log Book for the receipt of the imported waste paper as per the direction of the Board and assured to comply with the direction. **In the premises of M/s. White Star Fibers, there was no segregation activities carried out as on date.**
5. In addition to the measures which the petitioner undertake to follow on the basis of the affidavit **(Refer coming pages for petitioner's (Unit's) affidavit & compliance as on 25-09-2012)** this Court is adding few more safeguards, which are as follows:- (i) In so far as the second clause in the said affidavit (i.e. The petitioner is agreeable that until such time as the secure land fill is made ready, the waste will be stored on some impervious surface such as a concrete platform available at White Star Fibers and the petitioners and will be covered in such a way as to protect it from rain water.) is concerned, the Court makes it clear that the petitioner must find out a secure land fill and make it ready as early as possible, but definitely by the end of 30th June 2009. (ii) Apart from the undertaking which is given by the petitioner to store the waste on some impervious surface, such as a concrete platform, this Court directs that the petitioner must arrange to cover such waste	The unit (ITC Ltd) had removed the waste that was dumped in the premises of M/s. White Star Fibers to the Secured Landfill Facility constructed in the premises of M/s. ITC Ltd.

by a plastic (Polythene) sheet which shall be spread both under the waste and over the same, in order to protect the it from rain water. This Court is giving this direction in order to protect the quality of the ground water which may not be contaminated by seepage from rain water and that is why the waste should be protected by spreading a sheet under the waste.	
6. This Court also adds that if the Pollution Control Board on inspection finds that any consignment of waste papers is unsuitable or is not within the permissible norms of pollution hazards as certified by the Pollution Control Board, the petitioner shall cancel such consignment and the said consignment shall be re-exported immediately to place of its destination from where it was imported.	The unit has assured to comply.
7. This Court also permits the petitioner-Unit to run its operation on the basis of the norms which have been undertaken to be followed in its affidavit and also the additional norms which are imposed by this Court in this order. This Court gives the Pollution Control Board, the authority to inspect the site of the petitioner from time to time in order to ascertain whether the pollution control norms suggested in this order as well as the norms undertaken by them in the affidavit are followed. This Court also directs the removal of sludge in respect of which there are photographs in the report of the Monitoring Committee and its disposal should be made by following the pollution norms.	The unit is furnishing periodical reports regarding the quantity of Plastic Waste disposed to the SLF/Cement. **In the premises of M/s. White Star Fibers, there was no segregation activities carried out as on date.**
Affidavit of the Petitioner (as it forms part of the Court Order)	**Compliance by the unit**
1. The Petitioner (M/s. ITC Ltd.,) is agreeable that the waste lying at White Star premises be moved to a secure land fill either at their own (White Star Fibers) or in Petitioner's premises or any other premises identified by the Petitioner, and approved by the Tamil Nadu Pollution Control Board.	The unit (ITC Ltd) had removed the waste that was lying in the premises of M/s. White Star Fibers to the Secured Landfill facility constructed in the premises of ITC Ltd.
2. The petitioner is agreeable that until such time as the secure land fill is made ready, the waste will be stored on some impervious surface such as a concrete platform available at White Star Fibers and the petitioners and will be covered in such a way as to protect it from rain water.	
3. The Petitioner would formulate an appropriate system of documenting the waste paper from arrival to post segregation removal to recycler or disposal in a secure land fill or equivalent facility to the reasonable satisfaction of the Tamil Nadu Pollution Control Board, having due regard to the efficacy and reliability of such system and documentation, apart from protocols to determine the nature of the waste to be stored in the secure land fill.	The unit is maintaining the Log Book for the receipt of the imported waste paper as per the direction of the Board and assured to comply with the direction. The unit is furnishing periodical reports regarding the quantity of Plastic Waste disposed to the SLF/Cement. **In the premises of M/s. White Star Fibers, there was no segregation activities carried out as on date.**
4. The Petitioner agrees that in respect of its imports of waste paper, the Tamil Nadu Pollution Control Board may conduct suitable inspection at the time of the Customs clearance of the consignments to satisfy itself that such import is within permissible norms.	**Complied with.** The imported consignment of waste paper as and when it was arrived is being inspected by the DEE, Tutucorin and the report in this regard is being sent to Bd, this office and also reported by the unit regularly.
5. The Petitioner agrees that it will, in the presence of the officials of the Tamil Nadu Pollution Control Board, ascertain the quantity of waste lying in the premises of White Star, before being dealt with in accordance with paragraphs 1 and 2 above.	**Complied with.**

ANNEXURE – II

Compliance as per the Directions issued by the TNPC Bd vide Proc.No: T16/TNPCB/ F.29611 /CBE /ORANGE/2008 /W-1/DT.02-04-2009:

Sl. No	Conditions	Compliance by the unit
01.	The unit has to ensure that the imported mixed waste paper should not contain any hazardous or Bio medical waste under any circumstances.	The consignments are cleared after the inspection by TNPCB officials at Tutucorin Port.
02.	The unit shall explore the possibility to reduce the import of mixed waste paper which contains more percentage of plastics and other unwanted materials.	It was stated by the unit authorities that the unit has restricted the import of mixed waste paper by substituting the same with higher grade of paper.
03.	The efficiency of the primary clarifier in the ETP has to be improved to avoid floatation.	**Complied with:** As improvement measures and as per the conditions of the Renewal Consent Order dt.05-07-2013, the unit has installed the **Drum Screen** before the Primary Clarifier to remove the floating fiber and small plastics and also installed **Multiple Disc Filter** after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation during the time of inspection.
04.	The unit shall explore the possibility to replace the fixed aerators in the aeration system for better efficiency as well as energy saving.	The unit has stated that a techno-commercial feasibility study has been undertaken by the unit to replace the fixed type aerators.
05.	The unit shall provide PSF/ACF/multigrade filters at the outlet before discharge so as to remove traces of colour.	As improvement measures and as per the conditions of the Renewal Consent Order dt.05-07-2013, the unit has installed the **Drum Screen** before the Primary Clarifier to remove the floating fiber and small plastics and also installed **Multiple Disc Filter** after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation during the time of inspection.
06.	The Hon'ble High Court direction has to be complied early.	Compliance stated as in the above statement.

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ANNEXURE – III

Compliance of Conditions on the latest Renewal Consent Order (dt.05-07-2013 valid up to 31-10-2013)

No	Latest Renewal Consent Order (dt.05-07-2013 valid up to 31-10-2013) Conditions	Compliance by the unit
	WATER ACT & AIR ACT	
1.	The unit should install the drum screen & Disc filter within three months time to improve the efficiency of the effluent treatment plant. So as to improve the quality of the treated trade effluent (for color, TSS etc.) to achieve the standards prescribed by the Board.	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation.
2.	The unit shall operate and maintained the air pollution control measures continuously and efficiently so as to satisfy the emission and NAAQ standards prescribed by the board.	The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed **Online Stack Monitor for the parameters of SPM, NO_x & SO_2 and it has also been connected to the CARE AIR Centre** and the same was under operation. The other APC measures such as the Dust Extraction System, Bag House with Stack attached to the Coal/Bio Fuel transfer points etc were also under operation
3.	The unit shall operate and maintained the effluent treatment plant continuously to satisfy the standards prescribed by the Board and the treated effluent shall be utilized for irrigation (After maximum recycling of trade effluent before treatment in the process) and shall ensure that there shall not be any seepage/overflow of treated/untreated effluent into nearby land or any other water sources directly or indirectly.	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation. It was reported that the maximum quantity of trade effluent generated from the process is reused. The ETP was under operation and the treated effluent being utilized for irrigation on industry own land.
4.	The unit shall take immediate action to dispose all the plastic waste dumped/stored in a haphazard manner within the premises through the co-incineration in cement plant and it should be stored in SLF provided inside the unit and shall not be stored as if now within the premises.	The process waste generated i.e Plastics etc. at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent partly to SLF & partly to Cement Manufacturing Plants for Co-Processing
5.	The unit shall follow the directions issued by the Hon'ble high court in the W.P. No 23097/2008 regarding the disposal of waste paper and others.	Compliance is mentioned separately in **ANNEXURE – I**

6.	The unit shall obtain necessary registration with TNPCB for the import of waste paper in Form -16 under the hazardous wastes (Management, handling and transboundry movement) third amendment rules 2010.	In this regard the unit has requested clarification to the MoEF, New Delhi and it was clarified by MoEF vide Lr. No.12- 52/ 2013- HSMD / dt. 16/09/2013, **(ANNEXURE-VI)** where in it was stated that the import of waste paper is permitted to the actual users without any license or restriction.
7.	The unit shall adhere to the final judgment in the W.P. 26985/2007 regarding operation of captive power plant.	"Interim stay until further orders", **Order dt. 13-08-2007** issued by the Hon'ble High Court of Madras in W.P.No. 26985/2007 regarding the operation of the Captive Power Plant and the **W.P.No. 26985/2007 is pending to be disposed in the Hon'ble High Court of Madras.**
8.	The unit is consented for the manufacture of Duplex Board, Chromo Board and art board of 7424 T/Month.	The present production quantity is around 8500 T/M as against the Consented quantity of 7424 T/M.
9.	The unit shall connect the online stack monitoring of CPP to the Care-Air centre, Chennai without further delay.	Online Stack Monitor attached to the Captive Power plant Stack was connected to the CARE AIR Centre and the same was under operation.
10.	Unit shall remit the balance consent fee if any.	The unit was requested to furnish the GFA values and consent fee remittance details from 2004 to 2013 and the same was furnished.
11.	The unit shall dispose off the plastic waste within three months.	The process waste generated i.e Plastics etc, at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent partly to SLF & partly to Cement Manufacturing Plants for Co-Processing.
12.	The unit shall connect the emission sources to the Care air Center, TNPCB, Guindy. Within three months.	Online Stack Monitor was connected to the CARE AIR Centre and the same was under operation.
13.	The unit shall improve the performance of effluent treatment plant and the treated water quality shall be analysed through Boards laboratory and report should be furnished.	As improvement measures, the unit has installed the Drum Screen before the Primary Clarifier and also installed Multiple Disc Filter after Secondary Clarifier so as to improve the efficiency of treated effluent. Both the Drum Filter and the Disc Filters were under operation.

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ANNEXURE – IV

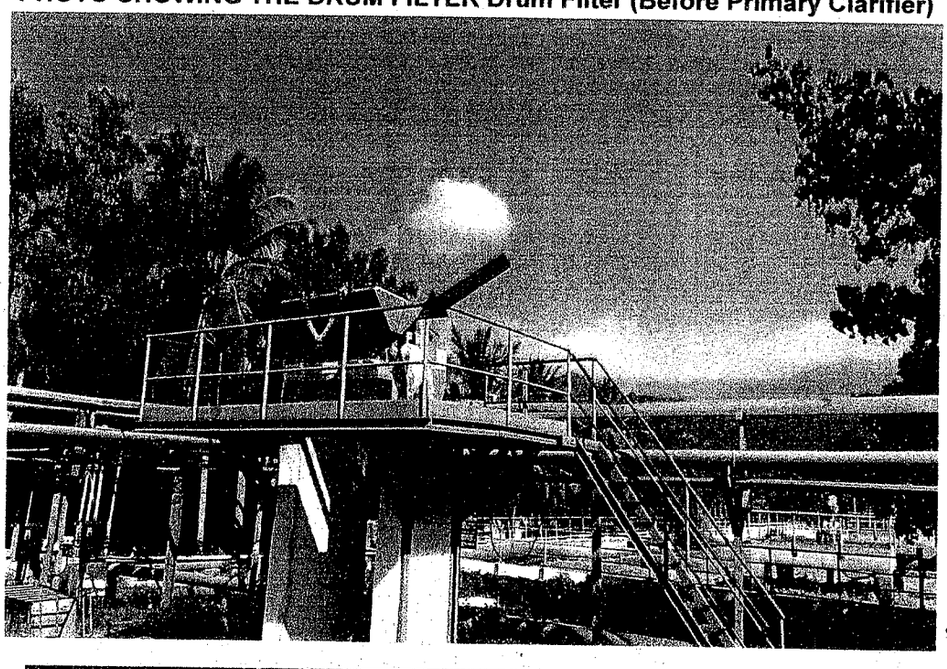
Month	BOD	COD	Cl	OIL & GREASE	SODIUM	SO_4	SULPHIDE	TDS	TSS	PH
Apr'13	7.6	119	282	1.7	44	253	1.4	1198	42	7.9
May'13	7.7	122	231	1.9	30	239	1.3	1182	42	8.0
Jun'13	7.4	91	174	2.0	33	230	1.4	895	39	8.0
Jul'13	7.5	75	188	1.9	32	217	1.3	991	36	8.1
Aug'13	8.1	102	171	1.7	28	188	1.2	977	36	8.0
Sep'13	7.4	61	175	1.6	37	187	1.1	946	29	8.1
Oct'13	6.6	63	156	1.6	27	186	1.2	899	37	8.2
Nov'13	8.0	81	211	1.7	29	246	1.3	863	41	8.3
Dec'13	8.3	90	277	1.6	40	399	1.1	1171	43	8.3
Jan'14	7.0	76	280	1.7	38	250	1.1	1376	37	8.3
Feb'14	8.0	92	237	1.7	37	226	1.3	1343	44	8.3

ANNEXURE – V

Consent fee details – since the unit's Category changed from Orange/Large to Red/Large from 2004 (Unit has applied for CPP with the existing unit as combined file on 25-06-2004)

Year	GFA in lakhs	Consent fee demand (as R/L)			Remittance details in Rs.	
		Water Act In Rs	Air Act In RS	Total demand	Cash Receipt No. & dt.	Amount remitted in Rs
2004-05	27765.37	80000	80000	160000	2940/dt.02/03/2004	130000
2005-06	33674.66	90000	90000	180000	16747/dt.17/02/2005	130000
2006-07	35005.83	90000	90000	180000	05700/dt.07/02/2006	130000
2007-08	37857.77	90000	90000	180000	49209/dt.01/02/2007 0152/dt.02/03/2007	130000 30000
2008-09	38325.62	90000	90000	180000	62063/dt.03/03/2008	140000
2009-10	38333.43	710001	710001	1420002	46917/dt.06/02/2009 2737/dt.10/11/2009	140000 781156
2010-11	37626.79	345694	345694	691388	01641/dt.16/02/2010	946512
2011-12	44907.4	371176	371176	742352	33251/dt.07/03/2011 20223/dt.28/08/2012	62336 36406
2012-13	45440.9	373043	373043	746086	46569/dt.06/03/2012	488134
2013-14	-	373043	373043	746086	20846/dt.25/02/2013	742350
				5225914		3886894
Balance to be remitted(up to 31-03-14)				Rs. 13, 39, 020/=		
Balance fee remittance details				Rs. 13, 39, 020 vide C.R.No. 60984/dt.24/12/2013		
2014-15	-	373043	373043	746086	60464/DT.05/04/2014	746088
Balance to be remitted (up to 31-03-15)				0	-	0

PHOTO SHOWING THE DRUM FILTER Drum Filter (Before Primary Clarifier)



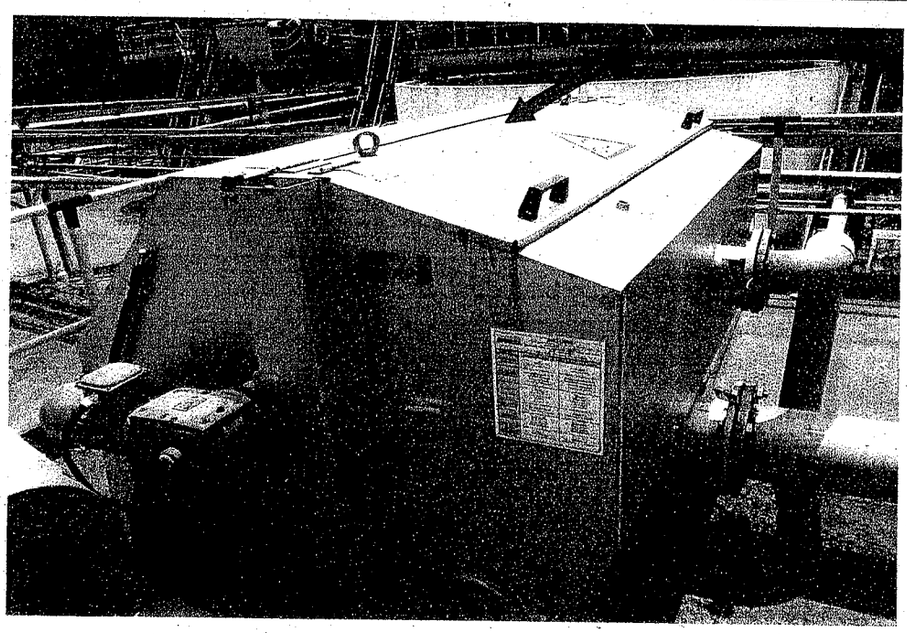


PHOTO SHOWING THE FILTERED PLASTICS IN THE DRUM FILTER

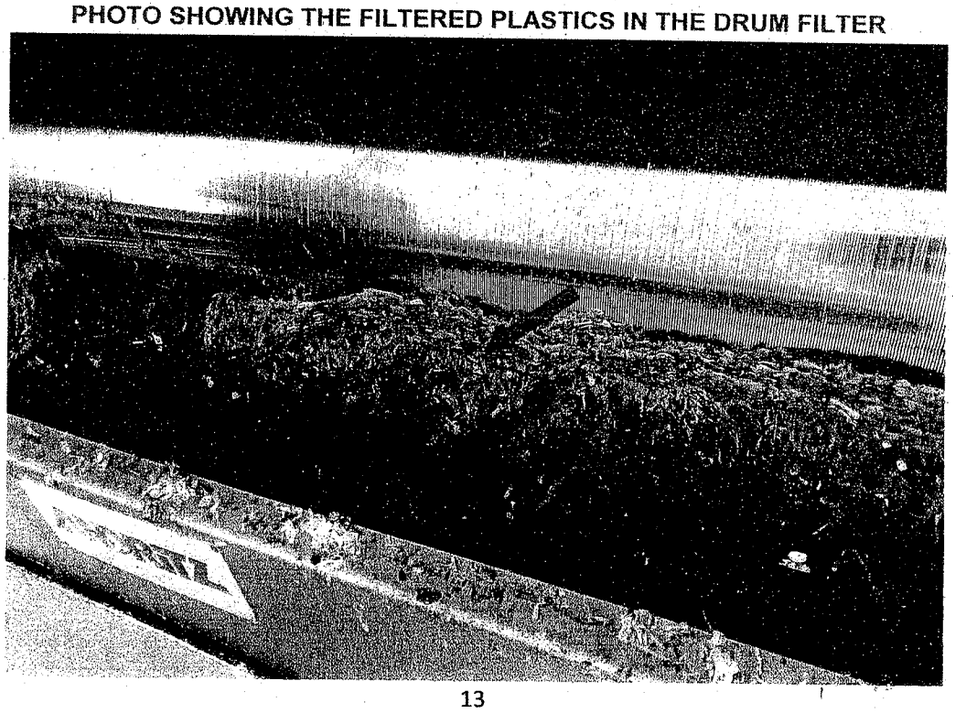


PHOTO SHOWING THE EFFLUENT FREE FROM SUSPENDED PARTICLES IN THE DRUM FILTER OUTLET

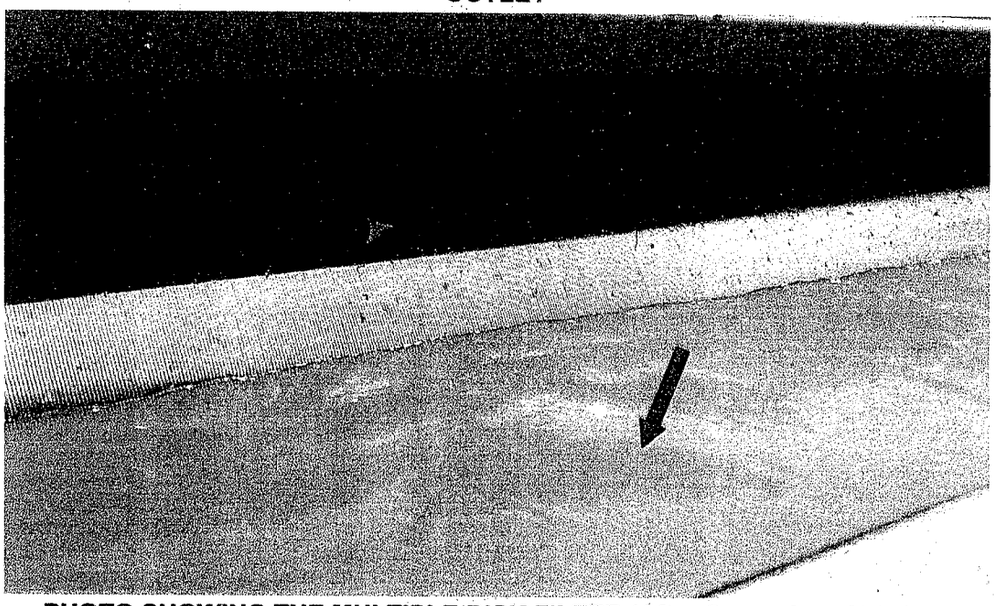
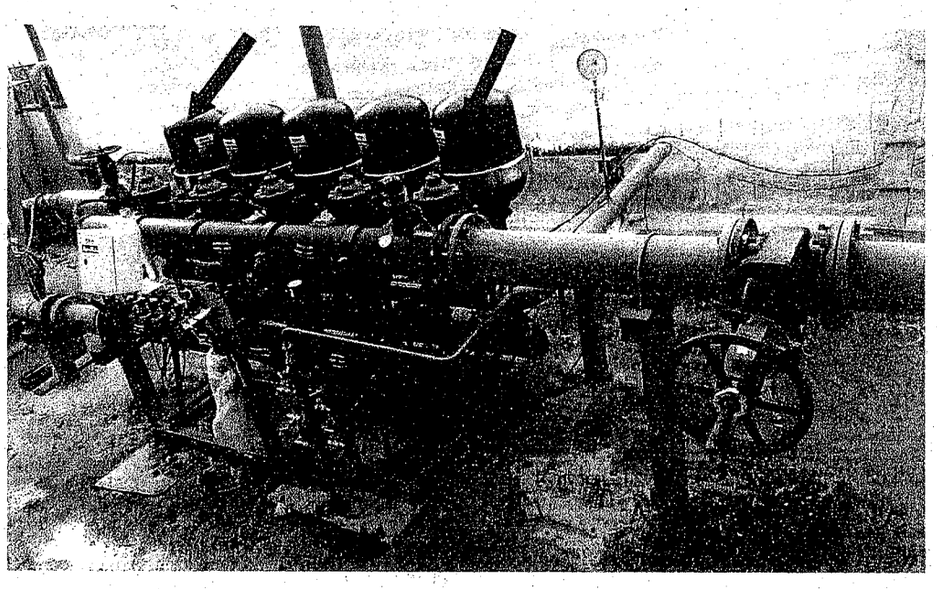


PHOTO SHOWING THE MULTIPLE DISK FILTER (After Secondary Clarifier)



29/05/14

AEE/TNPCB/CBN

FIR.No : F.0038CBN/R/L/DEE/CBN/2015 dated 28/04/2015

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TAMILNADU POLLUTION CONTROL BOARD

Inspection Report for CTO-expansion

1.	[a]	Name and Designation of the Inspecting Officer	:	Nalini K DEE, Er.P.Manimaran AEE
	[b]	District Office	:	COIMBATORE NORTH
2.	[a]	Date of receipt of Application	:	Water Act 16/11/2012 Air Act 16/11/2012
	[b]	Date of Inspection	:	25/03/2015
3.	[a]	Industry Name	:	ITC LIMITED, PSPD UNIT KOVAI.
	[b]	Location of the Unit :	:	
		(i) S.F. No	:	241/1 , 409/1, 409/2A, 409/2B, 409/2C, 409/2D, 409/2E, 409/2F, 409/2G, 409/2H, 409/2I, 410/2B, 410/3A, 410/3B, 411/1B, 411/1C, 411/1D, 412/1E, 412/1F, 412/2, 412/3C, 412/3D1, 412/3D2, 412/3D3, 414/2A, 414/2C 414/2D, 414/2E, 415/2, 415/3A, 415//3B, 415/4, 416/2A, 418, 421/1, 421/2, 422/1A, 422/1B, 422/1C, 422/2, 423/1, 423/2, 423/3, 423/4, 423/5, 424/1, 424/2, 424/3, 424/4, 426/1B, 426/1B, 426/1C, 426/1D, 426/2, 426/3A, 426/3B, 426/3C, 427/1, 427/2, 427/5A, 97/3, 133/2E2, 132/2C, 141/2B, 141/2C, 877/2A2, 877/2B, 877/2C, 878/2, 879/2, 914, 921/1A, 921/1B, 922/2, 922/1, 923/1A, 923/2A, 923/2B, 923/2C, 924/1, 924/2, 925/1, 925/2, 926/1, 927/1A, 930, 932/1, 936/1, 938/1, 938/2, 938/3, 939/1A1, 939/1A2, 940, 941/1, 941/2, 942/1, 942/2, 943/1A, 943/1B, 848, 849, 850, 851, 885, 889/2A, 889/2B, 891/2B2, 890/2A, 890/2B, 892, 893, 894, 895, 899, 891/2B1, 891/2A2, 884/1, 775/5, 775/6, 776/1, 776/2, 776/3, 776/4A, 776/5A, 777/1, 777/2, 778/2A, 778/2B, 778/2C, 778/2DC, 778/2E2, 778/2F2, 779, 844/1, 844/2, 962, 921/2, 1011, 1012, 900/1, 901/2, 902/1, 904/1B, 900/2C, 901/1A, 900/2A, 901/1C, 900/2B, 901/1B
		(ii) Village	:	THEKKAMPATTY
		(iii) Taluk	:	METTUPALAYAM
		(iv) Revenue District	:	Coimbatore
		(v) Local Body Type	:	Panchayat Union
		(vi) Local Body	:	KARAMADAI
	[c]	Industry Postal address:		Registered Office address:
		Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District		ITC LIMITED, PSPD, UNIT : KOVAI Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District
		Pincode: 641113		Pincode: 641113
4.		Date of Commissioning	:	17/07/1997
5.		Total Gross Fixed Assets (as on31/03/2014)	:	45784.69
6	[a]	Category-Classification scale	:	RED - Large
	[b]	Industry Type	:	1061-Pulp and Paper (Paper manufacturing with or without pulping)- (including Handmade paper units, Kraft paper units and Leather Boards)
7.	[a]	Occupier Name	:	Krishna Mohan

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	[b]	Occupier Designation	:	The Head-Operations
	[c]	Representative who accompanied during inspection	:	Samuel Rajkumar
8.	[a]	Land Status	:	Owned
	[b]	Total area(in Hectares)	:	166.7405
		Built up area(in Hectares)	:	49.07365
		Irrigation / Green belt area(in Hectares)	:	110.6758
		Solid waste Storage / disposal area(in Hectares)	:	2.8
		Vacant area(in Hectares)	:	4.191
9.		No. of Employees per day	:	1065

10. **Products manufacured**

SL.No.	Name of the product	Quantity	Unit	End Use
a	Main Products manufactured:			
1.	DUPLEX BOARD, ART BOARD, CROMO BOARD	10000	Tons / month	PACKAGING USE
2.	POWER	8	MWHR	MILL
b	By Products manufactured:			
1.	NA	0	NA	NA
c	Intermediate Products manufactured:			

11. **Raw materials used (For each product)**

SL.No.	Name of the raw material	Quantity	Unit	Principal Use
1.	PURCHASED PULP	2500	Tons / month	PAPER BOARD PRODUCTION
2.	WASTE PAPER	10500	Tons / month	PAPER BOARD PRODUCTION

12. Manufacturing Process (For each product) : REFER ATTACHMENT

13. [a] **Water Source Details**

SL. No.	Source Type.	Source Name	Quantity in KLD
1.	River/Canal Water	BHAVANI	6600.0

Total :6600.00

[b] **Water Consumption Details**

SL. No.	Consumption Type	Quatity (KL/D)
1.	WC-IV: Process (Not easily Bio degradable)	0.0
2.	WC-I : Cooling & Boiler feed	750.0
3.	WC-II: Domestic	350.0
4.	WC-III: Process (Easily Bio degradable)	2400.0

Total :3500.00

14. [a] **Sewage generation Details**

S.No.	Source	Quantity(KLD)
1.	Sewage -2	50.0
2.	Sewage -1	23.0

Total :73.00

[b] **Trade effluent generation Details**

S.No.	Source	Quantity(KLD)
1.	Trade effluent	2600.0

Total :2600.00

15. [a] **Details of Sewage Treatment plant Details**

Treatment status: Septic Tank and SP/DT

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	Septic tank	4	3 x 3.5 x 2.5

Treatment status: Individual STP

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	package of primary settling aeration & Secondary	1	24 M3 (STP - 2)
2.	package of primary settling aeration & Secondary	1	14 M3 (STP - 1)
3.	Raw Sewage collection tank (STP-1)	1	4.2 X 5.1 X 2
4.	Sewage Treated Collection Tank (STP - 1)	1	1.6 X 1.6 X 1
5.	Raw Sewage collection tank (STP - 2)	1	5.25 X 3.25 X 2.5
6.	Sewage Treated Collection Tank (STP - 2)	1	3.5 X 1.5 X 1

[b] Details of Effluent Treatment plant Details

Treatment status: Individual ETP

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	FLASH MIXER	1	1.3X1.3X3
2.	PRIMARY CLARIFIER	1	20D X 3.5
3.	BAR SCREEN- COARSE	1	6MM
4.	BAR SCREEN- FINE	1	3 MM
5.	EQUALIZATION TANK	1	20X20X3
6.	AERATION TANK	1	60.5 X 36 X 3.5
7.	SECONDARY CLARIFIER	1	20D X 3.5
8.	FINAL COLLECTION TANK	1	10X10X2
9.	PRESSURE SAND FILTER	1	100 M3
10.	FILTER PRESS	1	NO OF PLATES - 40 EA
11.	FILTER PRESS COLLECTION TANK	1	1.2 m X 1.2 M
12.	THICKENER CLARIFIER	1	10D X 3.5
13.	Drum screen	1	1.7M x 0.6M
14.	Disc filter	1	1.7 m x 1.4 M

16. **[a] Sewage disposal Details**

S.No.	Description of Outlet	Quantity(KLD)	Disposal
1.	sewage	73.0	In the Existing ETP

[b] Trade effluent Disposal details

S.No.	Description of Outlet	Quantity(KLD)	Disposal
1.	Trade effluent	2600.0	On Industries Own land for irrigation

17. **Details of Air Pollution Control measures**

[a] Point source emission with stack Details

Stack No	Point source of Emission	Pollution control measures	Stack top dimension(in metres)	Stack height above ground level(in metres)
5	Coal / Bio fuel bunker	Bag Filters with stack	0.3	9.9
6	Coal / Bio fuel transfer point	Bag Filters with stack	0.3	9.9
1	CAPTIVE POWER PLANT BOILER 60T/HR	ESP with stack	1.5	84
2	BOILER 44 T/Hr (stand by)	ESP with stack	1.1	67
3	DG SET 250 KVA (NEAR BOARD MACHINE)	Acoustic enclosures with stack	0.25	24
4	DG SET 250 KVA (NEAR POWER PLANT)	Acoustic enclosures with stack	0.15	8.2

[b] Fugitive emission/Noise Details

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Sl No	Source of Fugitive or Noise Emission	Type of emission	Pollution control measures	Capacity
1.	COAL / BIO FUEL BUNKER	Fugitive	Bag Filter	10
2.	COAL/BIO-FUEL TRANSFER POINT	Fugitive	Bag Filter	60
3.	DG Set-1 250 KVA	Noise	Acoustic Enclosure	250
4.	DG set -2 250 KVA	Noise	Acoustic Enclosure	250

18. **Details of Solid Wastes**

[a] Non Hazardous solid wastes

SL. No.	Name of the Waste	Quantity	Unit	Mode of disposal	Area of land earmarked for storage/disposal
1.	ETP Sludge	500	Mt / month	Sold to recyclers	1200
2.	Fly Ash	120	Mt / month	Sold to brick manufacturing units	100
3.	Process waste	2	MT / MONTH	sold to authorized recycler	1520
4.	Plastic Waste	600	Mt / month	Storing in SLF / Sent to cement plants for Co-Processing	22500
5.	ETP Bio sludge	350	Mt / month	own land as manure after vermi-composting	600
6.	Canteen Waste	1	Mt / month	own land as manure after vermi-composting	600
7.	Engineering & Packing Scraps	100	Mt / month	Sold to recyclers	1440

[b] Hazardous solid wastes

(i) Hazardous waste Authorization details

HW generation	Applied for Authorisation	Date of Application for HWA	HWA Type	Issued date	Valid date
Yes	Yes	12/11/2009	Renewal	26/05/2010	25/05/2015

(ii) Hazardous waste generation details

SL. No.	Name of Process	Name of Process Waste(Category No)	Quantity T/Y	Waste Type	Waste Storage	Waste Disposal	Area earmarked for Storage/Disposal
1.	33 Disposal of barrels / containers used for handling of hazardous wastes / chemicals(Schedule I)	33.3. Discarded containers / barrels / liners contaminated with hazardous wastes/ chemicals	2	Recyclable	CONCRETE FLOOR	SENDING BACK TO SUPPLIER	15
2.	5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems(Schedule I)	5.1 Used/spent oil	5	Recyclable	MS Drums	Recover and Reuse-CPCB Authorized recyclers	15

19. **Details of consent fee demand and consent fee remittance**

[a] Consent Fee Demand by TNPCB Details :

Financial Year	Consent Fee Type	Water Act	Air Act	Total	Total Gross Fixed Assets in Lakhs	As On
2015-16	Current	374246.0	374246.0	748492.0	45784.69	31/03/2014
2014-15	Arrears	665.0	665.0	1330.0	45784.69	31/03/2014
Total : 749822.0						

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29. [a] Topo Sketch showing the surrounding features in item No. 24 to 27 has to be enclosed — As attached

30. **Any other information**

Kindly refer the attachment titled as Upload Report

31. **Specific recommendations on the issue of consent under Water (P & CP) Act, 1974 as amended and Air (P & CP) Act, 1981 as amended.**

Kindly refer the attachment titled as Upload Report

Nalini K
DEE
(Name and Designation)

DEE Recommendations.

Consent to Operate for Expansion activities to the unit M/s. ITC Limited, Paper Boards and Specialty Boards Division, Unit: Kovai, Thekkampatty Village, Mettupalayam Taluk, Coimbatore District may be issued

Nalini K
DEE
(Name and Designation)

viii. The process waste generated i.e Plastics etc, at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent partly to SLF & partly to Cement Manufacturing Plants for Co-Processing.

ix. The unit made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees. In the Half Yearly Report -2014 furnished **the TNAU had concluded that**;

"The observed parameters in water samples taken from different locations, both within the ITC factory premises and nearby open wells indicated that, all the parameters are within the standards prescribed by the State Pollution Control Board and also as per irrigation water standards prescribed by Pollution Control Board. In field soil no deleterious effect was observed due to continuous irrigation of treated effluent. Anyhow continuous monitoring is essential for water quality used for irrigation." (Copy of report attached as **Annexure – V**)

x. The Captive Power Plant with Boiler 60 T/Hr was also under operation.

xi. The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed **Online Stack Monitor for the parameters of SPM, NO_x & SO_2 and it has also been connected to the CARE AIR Centre (for SPM only)** and the same was under operation.

xii. The other APC measures such as the Dust Extraction System, Bag House with Stack attached to the Coal/Bio Fuel transfer points etc were also under operation

xiii. The Boiler 44 T/Hr was not under operation and reported to be used as a standby.

xiv. The unit is using the Bio Mass such as De-Oiled Rice Bran, Saw Dust mixed with imported Coal as fuel in the Boiler – 60 T/Hr. The Boiler 60 T/hr is actually designed for 100% Lignite and now the unit is using the Bio Mass such as De-Oiled Rice Bran and the usage of Bio mass is increased to about 70% with Imported Coal of 30% as fuel.

4. Complaints received from Farmers of Thekkampatty Village against unit regarding damage caused to the Ground water, Soil, Agricultural Yield of the Farmers surrounding the unit's location due to the discharge of treated trade effluent on Industry's own irrigation lands, claiming compensation. In this regard the District Collector has instructed to the TNAU, Coimbatore and the **Directorate of Natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore** has furnished a proposal to analyse the Soil, Ground Water, and Yield in and around the area of the unit's irrigation fields vide its Lr.No. TNAU/SO-DNRM/SOIL & WATER POLLUTION/STUDY IN THEKKAMPATTY VILLAGE/2013/DT.18-03-2013. The unit has paid the amount required for the cost of the study and the TNAU has taken samples of Soil, Ground Water, etc and the study report is awaited.

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g. The unit shall continue the study regarding the continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees through TNAU, Coimbatore.

h. The unit shall comply the conditions/suggestions/improvements any on the separate study being conducted by **Directorate of Natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore** based on the complaints received against the unit from the farmers in and around the unit's irrigation lands.

AEE/TNPCB/CBN

DEE/TNPCB/CBN

Encl: ANNEXURE- I, II, III, IV & V

[b] Consent Fee Remittance by the Industry Details:

Date	CR No/Bank Ref No	Amount	Reason/Remarks on rising the demand	District Office of TNPCB
Total : 0.0				

Total consent fee Demand Rs.	749822.0
Consent fee remitted by the industry Rs.	0.0
Balance to be remitted Rs.	749822.0

20. **Details of complaint**

Whether there are any complaints against the unit? Yes

Date of receipt of complaint	Name of the Complainant	Nature of Complaint	Details of Investigation	Action taken on the complaint
30/01/2013	Public of Thekkampatty Farmers	Ground water pollution, Soil Degradation, Reduction in the Yield due to irrigation of treated effluent	District Collector orderd the TNAU to Sytudy and report vide Lr.dt.09/10/2013	Soil samples and Water Samples taken by TNAU Results awaited

21. **Details of Legal Action**

Whether any court case filed against the unit? No

Nature of the case	Date of filing	Case Number	Name and place of the Court	Present stage of the case

22. **Details of applicability and status of GO relaxations/EC/CRZ clearances**

[a] Whether the unit attracts the GO No.213 or GO.127? If so, the details of GO relaxation obtained there on — No

[b] Whether the unit is coming under the purview of EIA Notification? If so, the details there on — No

[c] Whether the unit is coming under the purview of CRZ Notification? If so, the details there on — No

Clearance Type	Issued date	Valid date	Issued by Authority	Proc. No and date

23. **Status of Disposal of effluent and water bodies**

[a]	Whether discharged into inland surface waters?	No	If yes, name of the Odai/ River/ Lake?	

[b] Distance of the water body from the unit if effluent reaches the water body in Metres?

[c] Details of nearby water bodies:

Name as found in records	Bhavani River
Whether the water source is included in the G.O. Ms. No.213, E & F Dept. dated 30.03.89?	Yes
Whether the water source is included in the G.O. Ms. No. 127 / E & F Dept. E.C – 3 / dated 8.5. 1998?	Yes
Distance of the water source(in meters)	3800
Confluence Point ?	River Cauvery
Topographical details with reference to the unit's site?	
Whether unit's effluent reaches the water sources (or) possibility exists?	No

24. Land use pattern in the vicinity

East	Agri Lands
West	Agri Lands
North	Agri Lands
South	Agri Lands

25. **Details of habitation**

SL.No.	Habitation Name	Distance in Km	Population in Nos
1.	THEKKAMPATTY	1	1064

26. [a] Name of the nearby Roadways (Viz.) NH / SH / MDR / ODR — NH

[b] Distance from the site in Kms. — 3

27. [a] Land use classification of the site — Agricultural use zone

[b] Authority which classified the land use — D T C P

28. Name and distance of the sensitive/eco sensitive areas like places of Archeological importance, National Park, Wild Life/ Birds sanctuary, Marine National Park, Mangrove Forests, reserved forests if any. — Kandiyur reserve forest 3 (In Km)

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Nalini K
DEE
(Name and Designation)

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TAMIL NADU POLLUTION CONTROL BOARD

Any Other Information & Specific Recommendations:

1. This unit **M/s. ITC Limited, Paper Boards and Speciality Boards Division, Unit: Kovai** located in Thekkampatty Village, Mettupalayam Taluk, Coimbatore District is an existing **Pulp and Paper Board Unit without Digester.**
2. The unit has applied for Expansion activities for **producing 10000 T/M of Duplex Board, Cromo Board & Art Board and CPP for 8 MW** and CTE – Expansion was issued vide Board Proc.No. T12/TNPCBD/F-34953/CBE(N)/RL/EXP/A & W/2014/DT.04/06/2014.
3. Now the unit has applied for CTO-Expansion through On-Line and the unit was inspected on 25-03-2015 & 17-04-2015 and the following were observed:

i. The unit's manufacturing activities were under operation and the production is in the range of 8000 to 9200 T/M.

ii. The ETP was also under operation and the treated trade effluent was being discharged on land for irrigation purposes.

iii. The unit has provided EMFM in the following locations and necessary Log Book was also maintained.
   a. Inlet Effluent channel leading to Primary Clarifier (Open non contact type)
   b. EMFM to the Outlet of the ETP i.e. Outlet of Pressure Sand Filter leading to Irrigation
   c. and one more EMFM was installed to the internal recycling line (after the EMFM of Irrigation pipeline as said in (b) above) within the ETP area i.e. cleaning of ETP area.

iv. The unit has provided separate Energy Meter to the ETP and necessary Log Book for the operation of the ETP and Energy Meter readings were recorded.

v. It was reported that the unit will achieve the increased the Production (in the range of 10000 T/M) by various changes /improvements in the existing machineries i.e. change of Mechanical drives by reducing the downtime of no. of running hours, installation of PETEX Filters, KRAFTA for recycling of the effluent generated in the process before discharge into the ETP. By the said installations the actual Water Consumption is reduced to about 10.9 KL/T of Paper as against the NPC Guide lines of 19 KL/T of Paper produced.

vi. As per the conditions of the Renewal Consent Order dt.05-07-2013, the unit has installed the **Drum Screen** before the Primary Clarifier to remove the floating fiber and small plastics and also installed **Multiple Disc Filter** after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation during the time of inspection.

vii. The procured waste paper under the scheme, Waste from Wealth (WOW) from various NGOs and the same was stored inside the premises is being reused in considerable quantities and also being disposed to other waste paper board manufacturing units/recyclers.

viii. The process waste generated i.e Plastics etc, at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent partly to SLF & partly to Cement Manufacturing Plants for Co-Processing.

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5. The compliance on the conditions of **CTE-Expansion** is enclosed vide **ANNEXURE – I**.

6. The ROA of the consolidated treated effluent samples is enclosed in **ANNEXURE –II** and the ROA reveals that all the parameters are within the standards prescribed by the Board.

7. The AAQ/SM/ANL Survey conducted on 05/03/2015 which reveals that the parameters are within the standards prescribed by the Board enclosed vide **ANNEXURE – III.**

8. The unit has obtained relaxation of G.O.127 vide G.O (3D) No.15/E & F Dept./(EC3)/dt.14/02/2014 and the compliance on the conditions of the said G.O. is enclosed vide **ANNEXURE – IV.**

9. The unit has obtained HACA Clearance vide DTCP ROC.No.1500/2014BA1/dt.09/03/2015 enclosed uploaded by the unit with its Applications for CT-Expansion.

10. The unit has remitted the consent fee up to 2015-/2016 vide C.R.No.75898/dt. Rs.749822.

Hence the Consent to Operate for Expansion activities to the unit M/s. ITC Limited, Paper Boards and Specialty Boards Division, Unit: Kovai, Thekkampatty Village, Mettupalayam Taluk, Coimbatore District may be issued subject to the following and conditions that:

a. The unit shall operate and maintain the Air Pollution Control Measures continuously and efficiently so as to satisfy the Emission and AAQ standards prescribed by the Board and shall ensure that at any point of time there shall not be any hindrance to the connectivity of the Online Stack Monitor with the CARE AIR CENTRE, Corporate Office, Chennai.

b. The unit shall operate and maintain the Effluent Treatment Plant continuously and efficiently to satisfy the standards prescribed by the Board and the treated trade effluent shall be utilized for irrigation (after maximum recycling of trade effluent before treatment in the process) and shall ensure that there shall not be any seepage/overflow of treated/untreated trade effluent into nearby land/odai or any other water sources directly or indirectly.

c. The unit shall continue to dispose the plastic waste generated from the process, through co-incineration in cement plant or it should be stored in SLF provided inside the unit and ensure that it shall not be accumulated in huge quantity and shall be stored in open land.

d. The unit shall follow the Directions issued by the Hon'ble High Court in the W.P.No.23097/2008 regarding disposal of waste paper & others.

e. The unit shall adhere to the final judgment in the W.P.26985/2007 regarding operation of Captive Power Plant.

f. The unit shall comply the conditions of G.O.(3D) No.15 E & F Dept (EC-3)/dt.14/02/2014.

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g. The unit shall continue the study regarding the continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees through TNAU, Coimbatore.

h. The unit shall comply the conditions/suggestions/improvements any on the separate study being conducted by **Directorate of Natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore** based on the complaints received against the unit from the farmers in and around the unit's irrigation lands.

AEE/TNPCB/CBN

DEE/TNPCB/CBN

Encl: ANNEXURE- I, II, III, IV & V

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g. The unit shall continue the study regarding the continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees through TNAU, Coimbatore.

h. The unit shall comply the conditions/suggestions/improvements any on the separate study being conducted by **Directorate of Natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore** based on the complaints received against the unit from the farmers in and around the unit's irrigation lands.

AEE/TNPCB/CBN

DEE/TNPCB/CBN

Encl: ANNEXURE- I, II, III, IV & V

		/2015 and assured to handle the same as per the said rules.
6.	The unit shall ensure the non Hazardous waste are send for authorized dealers / reused then and there so as to avoid the accumulation of the same inside the premises.	Generated Non – Hazardous waste are sent to recyclers time to time.
7.	The unit shall operate and maintain the Sewage Effluent Treatment Plant and trade Effluent Plant to satisfy the standards prescribed by the Board	STP is being maintained and the treated sewage is discharged into the existing ETP. Treated trade effluent is being utilized for irrigation and the ROA reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**)
8.	The unit shall improve the efficiency of the Effluent Treatment Plant so as to improve the quality of the treated trade effluent (for colour, TSS etc) to achieve the standards prescribed by the Board	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation. The ROA of treated trade effluent reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**)
9.	The unit shall operate and maintain the effluent treatment plant continuously to satisfy the standards prescribed by the Board and the treated effluent shall be utilized for irrigation (After maximum recycling of trade effluent before treatment in the process) and shall ensure that there shall not be any seepage/overflow of treated/untreated effluent into nearby land or any other water sources directly or indirectly.	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation. It was reported that the maximum quantity of trade effluent generated from the process is reused. The ETP was under operation and the treated effluent being utilized for irrigation on industry own land. The ROA of treated trade effluent reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**)
10.	The unit shall uniformly dispose the treated trade effluent over unit's own land in compliance to the hydraulic loading rate of 35 KLD/ Hectare.	Treated effluent is used in unit's own land. Sprinklers & Drip irrigations are used in few places of irrigation and it was reported that hydraulic loading maintained well below the Board standards of 35 KLD /Hectare.
11	Quality of water in open /bore wells located on upstream of the land under wastewater irrigation shall be assessed	The Quality of water in open / bore wells located on upstream of the land under waste water irrigation is being assessed once in 3 months as a part of the long term study by Tamil Nadu Agricultural University, Coimbatore. (Copy of report attached as **Annexure – V**)
12.	Green belt shall be developed to mitigate the effects of fugitive emission all around the plant. Green belt already developed shall be properly maintained	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species.
13.	The unit shall obtain HACA clearance and submit before obtaining CTO for expansion.	The unit has obtained HACA Clearance vide DTCP ROC.No.1500/2014BA1/dt.09/03/2015 enclosed vide **ANNEXURE – V**
	The unit shall continue to develop green belt in and around the unit's premises in consultation with the local DFO	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species.
14.	The unit shall obtain permission from PWD to draw water from River Bhavani	The agreement Renewal is in Process with PWD.

AEE/TNPCB/CBN

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ANNEXURE – I

Compliance of Conditions on the CTE - Expn dt.04-06-2014

No	CTE - Expn dt.04-06-2014 Conditions	Compliance by the unit
	AIR ACT	
1.	The unit shall ensure that the existing Boiler 44 T/Hr is used for the enhanced production of 10000 T/M of Duplex Board, Cromo Board & Art Board	It was reported that the Boiler 44 T/Hr is utilized for presently for enhanced production.
2.	The unit shall not utilize the 60T/Hr for the enhanced paper mill production as the unit has not obtained Consent order till date	It was reported that the Boiler 60 T/Hr has not been utilized for enhanced production.
3.	The unit shall operate and maintain the existing Air Pollution Control measures efficiently and continuously to bring the quality of emission to achieve the Ambient Air Quality / Emission standards prescribed by the Board	The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed **Online Stack Monitor for the parameters of SPM, NO_x & SO_2 and it has also been connected to the CARE AIR Centre** (SPM) and the same was under operation. The other APC measures such as the Dust Extraction System, Bag House with Stack attached to the Coal/Bio Fuel transfer points etc were also under operation. **AAQ/SM/ANL Survey** conducted on 05/03/2015 reveals that the parameters are within the standards prescribed by the Board. (enclosed vide **ANNEXURE – III)**
4.	The Unit shall operate and maintain the noise control measures on all sources of noise generation and ensure that the Noise emission shall satisfy the Ambient Noise Level standards prescribed by the Board	
5.	The unit shall obtain HACA clearance and submit before obtaining CTO for expansion.	The unit has obtained HACA Clearance vide DTCP ROC.No.1500/2014BA1/dt.09/03/2015 attached with the unit's application.
6.	The unit shall remit the balance Consent fee if any since it is coming under Red / Large Category	Balance ~~to be~~ remitted as R/L 2004-05 to 2013-14 Rs. 13, 39, 020 vide C. R .No. 60984/ dt.24/ 12/ 2013
7.	The unit shall continue to develop green belt in and around the unit's premises in consultation with the local DFO	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species
8.	The unit shall obtain permission from PWD to draw water from River Bhavani	The agreement Renewal is in Process with PWD.
9.	The unit shall comply with the conditions stipulated in G.O. (3D) No. 15 of E & F dept (EC3) Dept. dated 14.02.2014 except for item No. 17	Compliance enclosed vide **ANNEXURE – IV**
10.	The unit shall remit the balance Consent fee until 2014-15 based on the updated GFA value, if any, since it is coming under Red – Large Category	Unit had already paid the consent fee for the year 2015-16 based on Gross Fixed Asset under Red – Large category, vide C.R.No.75898/dt. Rs.749822. Differential consent fee from 2004-05 to 2013-14 of Rs.13,39,020/- had already been paid vide C. R .No. 60984/ dt.24/ 12/ 2013.
	Water Act	
1.	The unit shall ensure that the existing Boiler 44 T/Hr is used for the enhanced production of 10000 T/M of Duplex Board, Cromo Board & Art Board	It was reported that the Boiler 44 T/Hr is utilized for presently for enhanced production.
2.	The unit shall not utilize the 60T/Hr for the enhanced paper mill production as the unit has not obtained Consent order till date	It was reported that the Boiler 60 T/Hr has not been utilized for enhanced production.
3.	The Land use pattern and agriculture activity shall be studied periodically and report shall be submitted to the Board	The unit made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees. The TNAU had concluded that the treated effluent is fit for irrigation and the soil is also not detoriated. (Copy of report attached as **Annexure – V**)
4.	Green belt shall be developed to mitigate the effects of fugitive emission all around the plant. Green belt already developed shall be properly maintained	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species.
5.	The unit shall handle Hazardous wastes complying with the Hazardous waste (Management, Handling and Trans boundary Movement) Rules 2008	Unit has obtained Authorization for collection, Storage and Disposal of Hazardous waste in Auth.No.3765/dt.26/ 05/ 2010 valid up to 25 /05

		/2015 and assured to handle the same as per the said rules.
6.	The unit shall ensure the non Hazardous waste are send for authorized dealers / reused then and there so as to avoid the accumulation of the same inside the premises.	Generated Non – Hazardous waste are sent to recyclers time to time.
7.	The unit shall operate and maintain the Sewage Effluent Treatment Plant and trade Effluent Plant to satisfy the standards prescribed by the Board	STP is being maintained and the treated sewage is discharged into the existing ETP. Treated trade effluent is being utilized for irrigation and the ROA reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**)
8.	The unit shall improve the efficiency of the Effluent Treatment Plant so as to improve the quality of the treated trade effluent (for colour, TSS etc) to achieve the standards prescribed by the Board	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation. The ROA of treated trade effluent reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**)
9.	The unit shall operate and maintain the effluent treatment plant continuously to satisfy the standards prescribed by the Board and the treated effluent shall be utilized for irrigation (After maximum recycling of trade effluent before treatment in the process) and shall ensure that there shall not be any seepage/overflow of treated/untreated effluent into nearby land or any other water sources directly or indirectly.	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation. It was reported that the maximum quantity of trade effluent generated from the process is reused. The ETP was under operation and the treated effluent being utilized for irrigation on industry own land. The ROA of treated trade effluent reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**)
10.	The unit shall uniformly dispose the treated trade effluent over unit's own land in compliance to the hydraulic loading rate of 35 KLD/ Hectare.	Treated effluent is used in unit's own land. Sprinklers & Drip irrigations are used in few places of irrigation and it was reported that hydraulic loading maintained well below the Board standards of 35 KLD /Hectare.
11	Quality of water in open /bore wells located on upstream of the land under wastewater irrigation shall be assessed	The Quality of water in open / bore wells located on upstream of the land under waste water irrigation is being assessed once in 3 months as a part of the long term study by Tamil Nadu Agricultural University, Coimbatore. (Copy of report attached as **Annexure – V**)
12.	Green belt shall be developed to mitigate the effects of fugitive emission all around the plant. Green belt already developed shall be properly maintained	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species.
13.	The unit shall obtain HACA clearance and submit before obtaining CTO for expansion.	The unit has obtained HACA Clearance vide DTCP ROC.No.1500/2014BA1/dt.09/03/2015 enclosed vide **ANNEXURE – V**
	The unit shall continue to develop green belt in and around the unit's premises in consultation with the local DFO	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species.
14.	The unit shall obtain permission from PWD to draw water from River Bhavani	The agreement Renewal is in Process with PWD.

AEE/TNPCB/CBN

DEE/TNPCB/CBN

ANNEXURE – II

ETP Treated Effluent Water TNPCB Lab Report: 2014-15								
Collection date	PH	TSS in PPM	TDS in PPM	CHLORIDE in PPM	SULPHATE in PPM	OIL & GREASE in PPM	BOD in PPM	COD in PPM
Standards	**5.5 - 9.0**	**100**	**2100**	**1000**	**1000**	**10**	**30**	**250**
02.04.2014	7.04	6	424	47	116	<1	3	22
04.06.2014	8.01	14	744	81	92	1	2	64
02.07.2014	7.99	6	552	47	26	1	4	32
02.09.2014	7.73	18	356	53	63	<1	<2	16
08.10.2014	8.72	16	442	82	94	<2	2	48
12.01.2015	7.77	12	502	82	71	<2	4	24
09.02.2015	7.78	32	516	98	103	3	3	40
09.03.2015	7.92	18	924	290	196	2	<2	64

22/04/15

AEE/TNPCB/CBN

ANNEXURE -III

TAMILNADU POLLUTION CONTROL BOARD

From

N.A.Sekar, M.Sc.,
Assistant Director (Lab)
Advanced Environmental Laboratory
Tamilnadu Pollution Control Board,
171, Samy Iyer New Street
Coimbatore – 641 001.

To

M/s. I.T.C. Ltd.,
PSPD unit - Kovai,
Vivekanandapuram (PO),
Thekkampatty Village,
Mettupalayam – 641 113.

Lr.No.TNPC Bd/AD(L)/AEL-CBE/Air Survey/F.M.I/14-15, Dt.10.03.2015.

Sir,

Sub: Furnishing of Report of Analysis of Ambient Air Quality / Stack Monitoring / Ambient Noise Level Survey – Reg.

Ref: 1.Lr.No.TNPC Bd/AD(L)/AEL-CBE/Air Survey/F.M.I/14-15, Dt.14.01.2015.
2. Your Lr.No.ITCK/UTY/2014-15 dt.05.02.2015 & 06.03.2015.
3. Cash Receipt No.75957 dt.09.02.2015 Rs.37,600/-.

I am sending herewith the Report of Analysis of Ambient Air Quality / Stack Monitoring / Ambient Noise Level Survey conducted in the vicinity of your industry on 05.03.2015 with Invoice for Rs.37,600/- (Rupees thirty seven thousand and six hundred only) towards the above survey / analysis charges, and the same has been adjusted vide reference (3) cited.

Kindly acknowledge the receipt of the above without fail.

E.S D.C.S.O Authorised Signatory
[Assistant Director (Lab)]

Encl: As above.

Copy submitted to:

1.The Director (Labs), TNPC Bd, Chennai for favour of kind information please.

Copy to:-

1. The District Environmental Engineer, TNPC Bd, Coimbatore (North) for favour of kind information please.
2. Copy to file.

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TAMIL NADU POLLUTION CONTROL BOARD

Advanced Environmental Laboratory, Coimbatore – 1

AMBIENT AIR QUALITY SURVEY – Report of Analysis

Report No.86/AAQS/2014-2015 Date: 10.03.2015.

1. Name of the Industry : M/s.I.T.C. Ltd., P.S.P.D. Unit - Koval

2. Address of the Industry : Vivekanandapuram (PO), Thekkimpatty Village, Mettupalayam – 641 113.

3. Date of Survey : 05.03.2015

4. Duration of Survey : 8 Hours

5. Category : Red / Large

6. Land use classification : Residential

Meteorological Conditions

Ambient Temperature (^{0}C)	Min	Max	Relative Humidity (%)	Min	Max
	25.7	34.0		41	67.8
Weather Condition	Clear sky		Rain Fall (mm)	NIL	
Predominant Wind Direction	North East – South West		Mean Wind Speed (km / hr)	5.69	

Ambient Air Quality Survey Results

Sl. No.	Location	Direction *	Distance (m) *	Height From GL (m)	Pollutants Concentration (microgram / m^3)		
					PM_{10}	SO_2	NO_2
1	On top of platform near rain water harvesting pond.	North East	350	3.0	57.0	<4.00	20.0
2	On top of scaffolding near South East corner.	South East	200	3.0	65.0	<4.00	21.0
3	On top of scaffolding near guest house.	South West	350	3.0	78.0	<4.00	14.0
4	On top of scaffolding near raw water tank.	North	200	3.0	56.0	<4.00	15.0
5	On top of scaffolding near D.M. plant Lab building.	North West	200	3.0	59.0	<4.00	20.0
6	On top of ETP treated water tank.	North West	350	3.0	54.0	<4.00	16.0

11/3/15 E.S

10/3/15 D.C.S.O

11/3/15 Authorised Signatory [Assistant Director (Lab)]

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TAMIL NADU POLLUTION CONTROL BOARD

Advanced Environmental Laboratory, Coimbatore – 1

STACK MONITORING SURVEY – Report of Analysis

Report No.86/SM/2014-2015 Date: 10.03.2015

1. Name of the Industry : M/s.I.T.C. Ltd., P.S.P.D. Unit - Kovai

2. Address of the Industry : Vivekanandapuram (PO)., Thekkampatty Village., Mettupalayam – 641 113.

3. Date of Survey : 05.03.2015

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Stack Temp °C	Velocity in (m/ Sec)	Discharge rate in Nm³/hour	Pollutants (mg / Nm³)		
					PM	SO_2	NO_x
1	Boiler – (60TPH) - Captive - Power plant - After ESP - (8 MW capacity) Fuel :- Coal, Lignite & Agro waste.	148	8.35	37582	21.0	800	1.26

11/3/15
E.S

D.C.S.O

Authorised Signatory
[Assistant Director (Lab)]

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TAMILNADU POLLUTION CONTROL BOARD

Advanced Environmental Laboratory, Coimbatore

Stack Details

Report No.86/AAQ/SM/2014 – 2015

1. Name and Address of the Industry : M/s.I.T.C. Ltd., P.S.P.D. Unit -Kovai Vivekanandapuram (PO), Thekkampatty Village, Mettupalayam – 641 113.

2. Date of Survey : 05.03.2015.

Sl. No.	Particulars		1
1.	Stack attached to		Boiler – Captive power plant
2.	Details of process stack		Steam & power generation
3.	Height from G Level in (m)		84.0
4.	Diameter in (m)		1.5
5.	Port hole height from Ground Level or bends or ducts in (m)		42.0
6.	Fuel Used (with % Sulphur content)		1. Coal 2. Lignite 3. Saw Dust.
7.	Fuel Consumption rate per day (mention units)		1. Coal – 109 mt 2. Lignite – 140 mt 3. Saw Dust – 90 mt
8.	Boiler type and capacity		60TPH
9.	APC Measures provided		Electro Static Precipitator
10.	APC functional status		Working
11.	Composition of flue gas	CO %	--
		CO_2 %	--
		O_2 %	--
12	Moisture content in %		--
13.	Ambient temp in °K		304
14.	Temp of flue gas in °K		421
15.	Velocity of flue gas in m/sec		8.35
16.	Volume of flue gas sampled in m^3		1.000
17.	Gaseous Discharge rate per day in Nm^3/day		37582
18.	Combustion efficiently%		--

E.S D.C.S.O

Authorised Signatory
[Assistant Director (Lab)]

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TAMIL NADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory , Coimbatore – 1
AMBIENT/SOURCE NOISE LEVEL SURVEY - Report of Analysis
Report No.86/ NLS/2014-2015 Date: 10.03.2015

1.	Name of the Industry	M/s.I.T.C. Ltd., P.S.P.D. Unit - Kovai
2.	Address of the Industry	Vivekanandapuram (PO), Thekkampatty Village, Mettupalayam – 641 113.
3.	Date of Survey	05.03.2015

Category	Red/Large	Land use Classification	Residential
Type of Survey	Ambient & Source	Time of Survey	Day
Meteorological conditions		CALM	

Logging Parameters

Instrument Used	Larson & Davis	Serial No	824 A 2030
Logging Interval	10 Minutes each point	Measuring Range	50-110dB(A)
Weighting "A"	Peak Weighting "C"	Time Weighting	FAST
Sound Incidence	RANDOM	Time in hrs	14.45 – 16.30

Report of Noise Level Monitoring

St No	Location	Duration (min)	Distance (M)	Direction	Sound Level – dB (A)					
					L_{eq}	L_{90}	L_{50}	L_{10}	Min	Max
	At Ambient:-									
1	Near fencing at South East corner.	10	300	South East	44.0	41.3	43.9	52.4	39.9	50.3
2	Near Rain water harvesting pond.	10	350	North East	48.6	47.2	54.4	58.8	47.1	53.2
3	DM plant back.	10	200	North West	48.1	48.4	52.2	58.2	47.4	49.7
4	Near main entrance.	10	250	West	56.0	49.1	51.1	68.4	46.5	66.2
5	Near compound wall of ETP.	10	300	North West	54.1	54.7	65.3	74.3	53.8	57.8
6	Near Guest House.	10	350	South West	47.3	45.3	46.3	48.2	44.4	55.6
7	Waste storage Area.	10	200	South West	48.9	48.3	52.1	52.0	44.7	54.3
	At Source:-									
1	Near Turbine of power plant.	10	–	–	87.0	86.8	86.9	87.1	86.1	88.3
2	Air Compressor (4&6)	10	–	–	75.7	78.9	78.1	79.8	70.0	80.3
3	Vaccum separator section.	10	–	–	73.8	73.0	74.3	74.0	70.0	76.0

Note:- L90 value refers to background noise; L50 value refers to mean noise.
L10 value refers to nuisance or annoyance level ; Leq value is the average energy for the measured period.

11/3/15 E.S

D.C.S.O

11/3/15
Authorised Signatory
[Assistant Director (Lab)]

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TAMIL NADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Coimbatore – 1
General Particulars

Report No.86/AAO/SM/2014-15

Name and Address of the Industry : M/s.I.T.C. Ltd., P.S.P.D. Unit - Kovai
Vivekanandapuram (PO)., Thekkampatty Village.,
Mettupalayam – 641 113.

Date of Survey : 05.02.2015

Sl. No.	Particulars	
1.	Process Description	Paper boards & Specialty papers manufacturing (Coated Duplex Paper Board)
2.	Emission Sources	Boiler - Captive Power Plant.
3.	Fugitive Emission Sources	Fuel yard
4.	Raw Material Consumptions	Waste paper – 295 mt.
5.	Production Capacity as per Air Consent order No.12296 & Dated.14.08.97.	Consent Order No. 12296 dt.14.08.97 Duplex Board, Cromo Board & Art Board 7424 T/month
6.	Production on the day of Survey	Coated Duplex paper Board – 272 mt.
7.	Percent production with respect to Air Consent Order	83%
8.	Air Consent Order No. Validity upto 31st March 2013.	Renewal Air consent order No.12296 dt.5.7.2013 valid upto 31.3.2013.
9.	Details of APC measures	E.S.P.
10.	Functional Status of APC measures	Working
11.	Compliance with Consent Conditions	Complied
12.	Field Observations	–

E.S D.C.S.O Authorised Signatory.
[Assistant Director (Lab)]

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ADVANCED ENVIRONMENTAL LABORATORY
COIMBATORE - 1.
INFERENCE REPORT ON A.A.Q.S./ S.M.

1. Name of Industry : M/s.I.T.C. Ltd., P.S.P.D. Unit Kovai Vivekanandapuram (PO)., Thekkampatty Village., Mettupalayam – 641 113.

2. Pollution Category : Red/Large

3. Date of A.A.Q. Survey : 05.03.2015

4. Predominant Wind Direction : North East → South West

5. Weather condition : Clear sky

STATUS OF POLLUTANTS LEVEL

I. AMBIENT AIR QUALITY :-

1. Total No. of A.A.Q. stations monitored : 6

2. No. of A.A.Q. stations in which Pollutants Level exceeded the Boards standards : NIL

Maximum and Minimum values of Pollutants Level observed:

Sl. No.	POLLUTANT	Values in microgram/m³ Maximum	Minimum	BOARD's STANDARD (As per consent order)
1.	PM_{10}	78.0	54.0	100
2.	GASEOUS POLLUTANTS:-			
	(i) SO_2	<4.00	<4.00	80
	(ii) NO_2	14.0	21.0	80

II. STACK MONITORING:-

1. Total No. of Stacks Monitored : 1

2. No. of Stacks in which Pollutants level Exceeded the Boards standards : NIL

11/3/15
E.S.

11/3/15
D.C.S.O

11/3/15
Authorised Signatory.
[Assistant Director (Lab)]

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TAMIL NADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Coimbatore – 1
BILL

Report No.86/AAQ/SM/2014 – 2015

Bill No.	86/2014-2015
Date	10.03.2015

To

M/s.I.T.C. Ltd., P.S.P.D. Unit - Kovai,
Vivekanandapuram (PO), Thekkampatty Village.,
Mettupalayam – 641 113.

Ref: 1. B.P. Ms.No.6 Dt.31.03.2009.
2. Lr.No.TNPC Bd/AD(L)/AEL-CBE/Air Survey/F.M.1/14-15, Dt.14.01.2015.
3. Your Lr.No.ITCK/UTY/2014-15 dt.05.02.2015 & 06.03.2015.
4. Cash Receipt No.75957 dt.09.02.2015 Rs.37,600/-.

******

Sl. No.	Description	No. of Stations	Rate (Rs.)	Amount (Rs).
1.	Ambient Air Quality Survey	6	2,000.00	12,000.00
2.	Stack Monitoring – PM, SO_2, NOx PM only	1 -	7,500.00 5,500.00	7,500.00 –
3.	Analysis Charges – PM_{10} & Particulate Matter	7	600.00	4,200.00
4.	Analysis Charges – Sulphur – dioxide	7	600.00	4,200.00
5.	Analysis Charges – Nitrogen Oxides	7	600.00	4,200.00
6.	Ambient Noise Level testing charges (First – 5 Points)	1st 5 points	4,000.00	4,000.00
8.	Ambient Noise Level testing (each additional stations)	5	300.00	1,500.00
	Total			37,600.00
Less: Advance – (Vide Ref. No.4)				37,600.00
Balance to pay				NIL

11/3/15 E.S

D.C.S.O

Authorised Signatory
[Assistant Director (Lab)]

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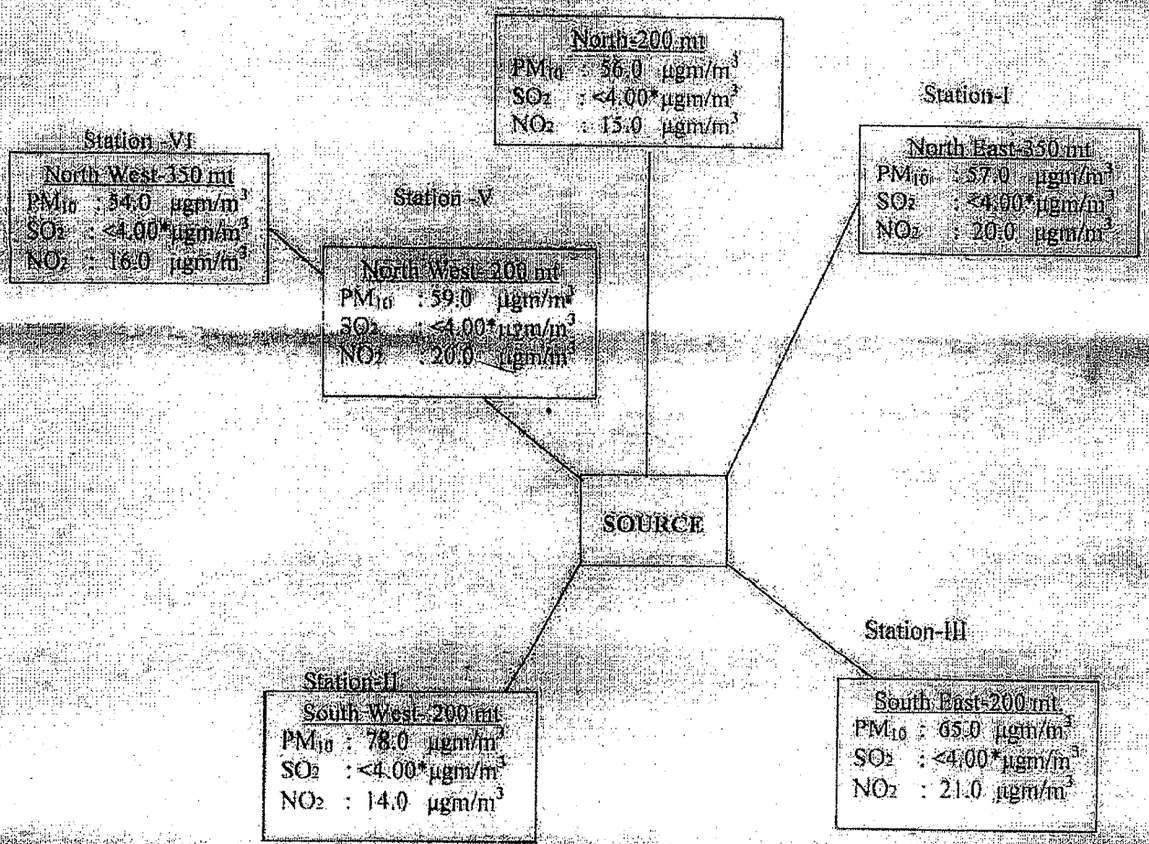
TAMILNADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Coimbatore
AMBIENT AIR QUALITY SURVEY
Schematic Diagram Showing Location of Sampling

Report No.86/AAO/SM/2014-2015

Name and Address of the Industry : M/s.I.T.C. Ltd., P.S.P.D. Unit Kovai Vivekanandapuram (PO), Thekkampatty Village., Mettupalayam – 641 113.

Date of Survey : 05.03.2015



* Indicates Less than minimum detectable limit.
Note: All the values are expressed in µgm/m³ and restricted to sampling period of 8 hours.

11/3/15 B.S

D.C.S.O

Authorised Signatory
[Assistant Director (Lab)]

ANNEXURE – IV

Compliance of Conditions of the G.O.(3D) No.15 E & F Dept (EC-3)/dt.14/02/2014

No	G.O.(3D) No.15 E & F Dept (EC-3)/dt.14/02/2014	Compliance by the unit
1.	The unit shall ensure that the existing Boiler 44 T/Hr is used for the enhanced production of 10000 T/M of Duplex Board, Cromo Board & Art Board	It was reported that the Boiler 44 T/Hr is utilized for presently for enhanced production.
2.	The unit shall not utilize the 60T/Hr for the enhanced paper mill production as the unit has not obtained Consent order till date.	It was reported that the Boiler 60 T/Hr has not been utilized for enhanced production
3.	The unit shall operate and maintain the Sewage Effluent Treatment Plant and trade Effluent Plant to satisfy the standards prescribed by the Board	STP is being maintained and the treated sewage is discharged into the existing ETP. Treated trade effluent is being utilized for irrigation and the ROA reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**) .
4.	The unit shall improve the efficiency of the effluent treatment plant so as to improve the quality of the treated trade effluent (for color, TSS etc.) to achieve the standards prescribed by the Board.	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation. The ROA of treated trade effluent reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II**)
5.	The unit shall uniformly dispose the treated trade effluent over unit's own land in compliance to the hydraulic loading rate of 35 KLD/ Hectare	Treated effluent is used in unit's own land. Sprinklers & Drip irrigations are used in few places of irrigation and it was reported that hydraulic loading maintained well below the Board standards of 35 KLD /Hectare.
6.	The Land use pattern and agriculture activity shall be studied periodically and report shall be submitted to the board	The unit made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees. The TNAU had concluded that the treated effluent is fit for irrigation and the soil is also not detoriated. (Copy of report attached as **Annexure – V**)
7.	Quality of water in open /bore wells located on upstream of the land under wastewater irrigation shall be assessed	The Quality of water in open / bore wells located on upstream of the land under waste water irrigation is being assessed once in 3 months as a part of the long term study by Tamil Nadu Agricultural University, Coimbatore. (Copy of report attached as **Annexure – V**)
8.	Green belt shall be developed to mitigate the effects of fugitive emission all around the plant. Green belt already developed shall be properly maintained	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species.
9.	The unit shall handle Hazardous wastes complying with the Hazardous waste (Management, Handling and Trans boundary Movement) Rules 2008	Unit has obtained Authorization for collection, Storage and Disposal of Hazardous waste in Auth.No.3765/dt.26/ 05/ 2010 valid up to 25 /05 /2015 and assured to handle the same as per the said rules.
10.	The unit shall ensure the non Hazardous waste are send for authorized dealers / reused then and there so as to avoid the accumulation of the same inside the premises.	Generated Non – Hazardous waste are sent to recyclers time to time.
11.	The unit shall operate and maintain the existing Air Pollution Control measures efficiently and continuously to bring the quality of emission to achieve the Ambient Air Quality / Emission standards prescribed by the Board	The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed **Online Stack Monitor for the parameters of SPM, NO_x & SO_2 and it has also been connected to the CARE AIR Centre** (SPM Only) and the same was under operation.
12.	The Unit shall operate and maintain the noise control measures on all sources of noise generation and ensure that the Noise emission shall satisfy the Ambient Noise Level standards prescribed by the Board	The other APC measures such as the Dust Extraction System, Bag House with Stack

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		attached to the Coal/Bio Fuel transfer points etc were also under operation. **AAQ/SM/ANL Survey** conducted on 05/03/2015 reveals that the parameters are within the standards prescribed by the Board. (enclosed vide **ANNEXURE – III)**
13.	The unit shall obtain HACA clearance and submit before obtaining CTO for expansion.	The unit has obtained HACA Clearance vide DTCP ROC.No.1500/2014BA1/dt.09/03/2015 enclosed vide **ANNEXURE – V**
14.	The unit shall remit the balance Consent fee until 2014-15 based on the updated GFA value, if any, since it is coming under Red – Large Category	Unit had already paid the consent fee for the year 2015-16 based on Gross Fixed Asset under Red – Large category, vide C.R.No.75898/dt. Rs.749822. Differential consent fee from 2004-05 to 2013-14 of Rs.13,39,020/- had already been paid vide C. R .No. 60984/ dt.24/ 12/ 2013.
15.	The unit shall continue to develop green belt in and around the unit's premises in consultation with the local DFO	Green belt cover is developed and maintained, it was reported that green belt developed in 255 Acres out of 412 Acres of total Land area with different species.
16.	The unit shall obtain permission from PWD to draw water from River Bhavani	The agreement Renewal is in Process with PWD.

AEE/TNPCB/CBN

DEE/TNPCB/CBN

IR.No : F.0038CBN/RL/DEE/CBN/2016 dated 31/03/2016

TAMIL NADU POLLUTION CONTROL BOARD

Inspection Report for Renewal of Consent orders

1.	[a]	Name and Designation of the Inspecting Officer	:	Asokan P DEE, S Senthilkumar A.E.
	[b]	District Office	:	COIMBATORE NORTH
2.		Date of Inspection	:	29/03/2016
3.	[a]	Industry Name	:	ITC LIMITED, PSPD UNIT KOVAI
	[b]	Industry Postal address:		Registered Office address:
		Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District		ITC LIMITED, PSPD, UNIT : KOVAI Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District
		Pincode: 641113		Pincode: 641113
4.		Date of Commissioning	:	17/07/1997
5.		Total Gross Fixed Assets in Lakhs (as on 31/03/2015)	:	45572.14
6	[a]	Category-Classification scale	:	RED - Large
	[b]	Industry Type	:	1061-Pulp and Paper (Paper manufacturing with or without pulping)- (including Handmade paper units, Kraft paper units and Leather Boards)
7.		Land Status	:	Owned
		Total area(in Hectares)	:	166.7405
8.		Representative who accompanied during inspection	:	Mr.Nandhakumar

9. **Products manufacured**

SL.No.	Name of the product	Quantity	Unit	End Use
a	Main Products manufactured:			
1.	DUPLEX BOARD, ART BOARD, CROMO BOARD	10000	Tons / month	PACKAGING USE
2.	POWER	8	MWHR	MILL
b	By Products manufactured:			
1.	NOT APPLICABLE	0	NOT APPLICABLE	NOT APPLICABLE
c	Intermediate Products manufactured:			

10. **[a] Water Source Details**

SL. No.	Source Type.	Source Name	Quantity in KLD
1.	River/Canal Water	BHAVANI	6600.0

Total :6600.00

[b] Water Consumption Details

SL. No.	Consumption Type	Quatity (KL/D)
1.	WC-I : Cooling & Boiler feed	750.0
2.	WC-II: Domestic	350.0
3.	WC-III: Process (Easily Bio degradable)	2400.0
4.	WC-IV: Process (Not easily Bio degradable)	0.0

Total 3500.00

11. **[a] Sewage generation Details**

S.No.	Source	Quantity(KLD)
1.	Sewage -1	23.0
2.	Sewage -2	50.0

Total 73.00

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[b] **Trade effluent generation Details**

S.No.	Source	Quantity(KLD)
1.	Trade effluent	2600.0

Total 2600.00

12. [a] **Details of Sewage Treatment plant Details**

Treatment status: Septic Tank and SP/DT

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	Septic tank	4	3 x 3.5 x 2.5

Treatment status: Individual STP

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	Package of primary settling aeration & Secondary	1	24 M3 (STP - 2)
2.	Package of primary settling aeration & Secondary	1	14 M3 (STP - 1)
3.	Raw Sewage collection tank (STP-1)	1	4.2 X 5.1 X 2
4.	Sewage Treated Collection Tank (STP - 1)	1	1.6 X 1.6 X 1
5.	Raw Sewage collection tank (STP - 2)	1	5.25 X 3.25 X 2.5
6.	Sewage Treated Collection Tank (STP - 2)	1	3.5 X 1.5 X 1

[b] **Details of Effluent Treatment plant Details**

Treatment status: Individual ETP

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	FLASH MIXER	1	1.3X1.3X3
2.	PRIMARY CLARIFIER	1	20D X 3.5
3.	BAR SCREENCOARSE	1	6MM
4.	BAR SCREENFINE	1	3 MM
5.	EQUALIZATION TANK	1	20X20X3
6.	AERATION TANK	1	60.5 X 36 X 3.5
7.	SECONDARY CLARIFIER	1	20D X 3.5
8.	FINAL COLLECTION TANK	1	10X10X2
9.	PRESSURE SAND FILTER	1	100 M3
10.	FILTER PRESS	1	NO OF PLATES - 40 EA
11.	FILTER PRESS COLLECTION TANK	1	1.2 m X 1.2 M
12.	THICKENER CLARIFIER	1	10D X 3.5
13.	Drum screen	1	1.7M x 0.6M
14.	Disc filter	1	1.7 m x 1.4 M

13. [a] **Sewage disposal Details**

S.No.	Description of Outlet	Quantity(KLD)	Disposal
1.	sewage	73.0	In the Existing ETP

[b] **Trade effluent Disposal details**

S.No.	Description of Outlet	Quantity(KLD)	Disposal
1.	Trade effluent	2600.0	On Industries Own land for irrigation

14. **Details of Air Pollution Control measures**

[a] **Point source emission with stack Details**

Stack No	Point source of Emission	Pollution control measures	Stack top dimension(in metres)	Stack height above ground level(in metres)
1	CAPTIVE POWER PLANT BOILER 60T/HR ESP with stack 1	ESP with stack	1.5	84
2	BOILER 44 T/Hr (stand by)	ESP with stack	1.1	67
3	DG SET 250 KVA (NEAR BOARD MACHINE)	Acoustic enclosures with stack	0.25	24
4	DG SET 250 KVA (NEAR POWER PLANT)	Acoustic enclosures with stack	0.15	8.2
5	Coal / Bio fuel bunker	Bag Filters with stack	0.3	9.9
6	Coal / Bio fuel transfer point	Bag Filters with stack	0.3	9.9

[b] Fugitive emission/Noise Details

Sl No	Source of Fugitive or Noise Emission	Type of emission	Pollution control measures	Capacity
1.	COAL / BIO FUEL BUNKER	Fugitive	Bag Filter	10
2.	COAL/BIO-FUEL TRANSFER POINT	Fugitive	Bag Filter	60
3.	DG Set-1 250 KVA	Noise	Acoustic Enclosure	250
4.	DG set -2 250 KVA	Noise	Acoustic Enclosure	250

15. **Details of Solid Wastes**

[a] Non Hazardous solid wastes

SL. No.	Name of the Waste	Quantity	Unit	Mode of disposal	Area of land earmarked for storage/disposal(in sq.Metre)
1.	ETP Sludge	500	Mt / month	Sold to recyclers	1200
2.	Fly Ash	120	Mt / month	Sold to brick manufacturing units	100
3.	Process waste	2	Mt / month	sold to authorized recycler	1520
4.	Plastic Waste	600	Mt / month	Storing in SLF / Sent to cement plants for Co-Processing	22500
5.	ETP Bio sludge	350	Mt / month	own land as manure after vermi-composting	600
6.	Canteen Waste	1	Mt / month	own land as manure after vermi-composting	600
7.	Engineering & Packing Scraps	100	Mt / month	Sold to recyclers	1440

[b] Hazardous solid wastes

(i) Hazardous waste Authorization details

HW generation	Applied for Authorisation	Date of Application for HWA	HWA Type	Issued date	Valid date
Yes	Yes	12/11/2009	Renewal	26/05/2010	25/05/2015

(ii) Hazardous waste generation details

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SL. No.	Name of Process	Name of Process Waste(Category No)	Quantity T/Y	Waste Type	Waste Storage	Waste Disposal	Area earmarked for Storage/Disposal
1.	33 Disposal of barrels / containers used for handling of hazardous wastes / chemicals(Schedule I)	33.3. Discarded containers / barrels / liners contaminated with hazardous wastes/ chemicals	2	Recyclable	CONCRETE FLOOR	SENDING BACK TO SUPPLIER	15
2.	5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems(Schedule I)	5.1 Used/spent oil	5	Recyclable	MS Drums	Recover and Reuse-CPCB Authorized recyclers	15
3.	5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems(Schedule I)	5.2 Wastes/residues containing oil	5	Incinerable	Plastic Drums	Incineration-TSDF	15

16. **Details of Consent/Renewal Consent Orders issued**

Date of Application	Consent Application (Consents/Renewals)	Issued Date	Valid Date	Status and reason for pending if not issued
16/11/2012	CTE-Extension	24/06/2015	31/03/2016	Issued
12/02/2016	CTO-RENEW			

17. **Details of consent fee demand and consent fee remittance**

[a] Consent Fee Demand by TNPCB Details :

Financial Year	Consent Fee Type	Water Act	Air Act	Total	Total Gross Fixed Assets in Lakhs	As On
2016-2017	Current	372758.0	372758.0	745516.0	45572.14	31/03/2015
2017-2018	Current	372758.0	372758.0	745516.0	45572.14	31/03/2015
Total : 1491032.0						

[b] Consent Fee Remittance by the industry Details :

Date	CR No/Bank Ref No	Amount	Reason/Remarks on rising the demand	District Office of TNPCB
15/02/2016	43902	1494024.0		COIMBATORE NORTH
Total : 1494024.0				

Total consent fee Demand Rs.	1491032.0
Consent fee remitted by the industry Rs.	1494024.0
Balance to be remitted Rs.	-2992.0

18. **TNEB power connection available and address status**

TNEB Section name and location	Service Connection No.	Connected load in HP	As on	Address of Section Head(AE) with Phone No

19. **Details of complaint**

Whether there are any complaints against the unit? No

Date of receipt of complaint	Name of the Complainant	Nature of Complaint	Details of Investigation	Action taken on the complaint

20. **Details of Legal Action**

Whether any court case filed against the unit? No

Nature of the case	Date of filing	Case Number	Name and place of the Court	Present stage of the case

21. **Status of actual production with respect to consented quantity of products manufactured with details.**

The production quantity is within the consented quantity as per the records furnished by the unit through online.

22. **Status of operation and performance of ETP/APC measures provided.**

The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed Online Stack Monitor for the parameters of SPM and it has also been connected to the CARE AIR Centre (SPM) and the same was under operation. The other APC measures such as the Dust Extraction System, Bag House with Stack attached to the Coal/Bio Fuel transfer points etc were also under operation.

23. **Status of Compliance of Conditions stipulated in the previous Consent Order/ Renewal Consent Order**

As Attached

24. **Any other information**

1. This unit M/s. ITC Limited, Paper Boards and Speciality Boards Division, Unit: Kovai located in Thekkampatty Village, Mettupalayam Taluk, Coimbatore District is an existing Pulp and Paper Board Unit without Digester.
2. The unit has obtained CTO for Expansion activities for producing 10000 T/M of Duplex Board, Cromo Board & Art Board and Power for 8 MW vide Board Proc.No.T4/TNPCBD/F-0038CBN/ RL/CBN/A & W/2015/DT.24/06/2015.
3. Now the unit has applied for CTO-Renew through On-Line on 12/02/2016 and again resubmitted on 22/03/2016 and the unit was inspected on 29.03.2016 and the following were observed:

i. The unit's manufacturing activities were under operation and the production is in the range of 8000 to 9200 T/M.

ii. The ETP was also under operation and the treated trade effluent was being discharged on land for irrigation purposes.

iii. The unit has provided EMFM in the following locations and necessary Log Book was also maintained.
a. Inlet Effluent channel leading to Primary Clarifier (Open non contact type)
b. Outlet of the ETP i.e. Outlet of Pressure Sand Filter leading to Irrigation
c. The internal recycling line (after the EMFM of Irrigation pipeline as said in (b) above) within the ETP area i.e. cleaning of ETP area.

iv. The unit has provided separate Energy Meter to the ETP and necessary Log Book for the operation of the ETP and Energy Meter readings were recorded.

v. The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation during the time of inspection.

vi. The waste paper procured under the scheme, Wealth out of Waste (WOW) from various NGOs was stored inside the premises and being reused in considerable quantities.

vii. The process waste generated i.e Plastics etc, at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent partly to SLF & partly to Cement Manufacturing Plants for Co-Processing.

viii. The unit has made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees. In the Half Yearly Report - 2015 (Jan to June) furnished by the TNAU, it is concluded that;

"The observed parameters in water samples taken from different locations, both within the ITC factory premises and nearby open wells indicated that, all the parameters are within the standards prescribed by the State Pollution Control Board and also as per irrigation water standards prescribed by Pollution Control Board. In field soil no deleterious effect was observed due to continuous irrigation of treated effluent. Anyhow continuous monitoring is essential for water quality used for irrigation." (Copy of report attached as Annexure – IV)

ix. The Captive Power Plant with Boiler 60 T/Hr was also under operation.

x. The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed Online Stack Monitor for the parameters of SPM and it has also been connected to the CARE AIR Centre (for SPM only) and the same was under operation.

xi. The other APC measures such as the Dust Extraction System, Bag House with Stack attached to the Coal/Bio Fuel transfer points etc were also under operation

xii. The Boiler 44 T/Hr was not under operation and reported to be used as a standby.

xiii. The unit is using the Bio Mass such as De-Oiled Rice Bran, Saw Dust mixed with imported Coal as fuel in the Boiler – 60 T/Hr. The Boiler 60 T/hr is actually designed for 100% Lignite and now the unit is using the Bio Mass such as De-Oiled Rice Bran and the usage of Bio mass is increased to about 70% with Imported Coal of 30% as fuel.

xiv. The unit has provided online connectivity for pH, COD, BOD, TSS & Flow of treated effluent from 23rd July 2015.

4. Complaints were previously received from Farmers of Thekkampatty Village against the unit regarding damage caused to the Ground water, Soil, Agricultural Yield of the Farmers surrounding the unit's location due to the discharge of treated trade effluent on Industry's own irrigation lands. In this regard the District Collector had addressed to the TNAU, Coimbatore and the Directorate of Natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore has furnished a proposal to analyse the Soil, Ground Water, and Yield in and around the area of the unit's irrigation fields vide its Lr.No. TNAU/SO-DNRM/SOIL & WATER POLLUTION/STUDY IN THEKKAMPATTY VILLAGE/2013/DT.18-03-2013. The unit has paid the required cost of the study and the TNAU has taken samples of Soil, Ground Water, etc and the study report was submitted to the District Collector.

5. Based on the report of the Directorate of Natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore, the District Collector has sent a DO letter to the Chairman, TNPCB, Chennai and copy to this office stating that it has been ascertained that water sample analyzed in certain survey nos. in the vicinity of the above unit are unfit for human/domestic consumption and agricultural purposes. Further it has been stated that some of the soil samples have higher pH which will lead to more than 50% reduction of yield corps. In this regard it was requested to issue SCN vide Chairman's Memo No.T12/TNPCB/Complaint/2016 dated 01/03/2016. Show cause notice was issued in this office Proc.No.F.CBN1371/DEE/TNPCB/CBN/RL/W/2016/DT.14/03/2016 (Copy attached).

6. The unit has replied for the same in its Lr.dt.19/03/2016 (Copy attached) stating that the effluent from their process is treated effectively and efficiently in the ETP and the quality of treated effluent discharged is always well below the TNPCB norms and in its Lr.dt.29/03/2016 (Copy attached) stating that already they are engaging TamilNadu Agricultural University (TNAU) from year 2004 to study the impact of treated effluent usage in their agriculture land. TNAU collects 30 Water samples from different locations, both within the premises and nearby wells and 30 Soil samples similarly once in three months and furnishes half yearly report. The recent half yearly report concludes that "In field soil, no deleterious effect was observed due to continuous irrigation of treated effluent". All the parameters are well below the TNPCB Norms. Core parameter (pH, TDS, EC) of surrounding well water and soil samples collected by TNAU are attached for reference.

7. In this regard it is submitted that

(a) Effluents from the ETP are regularly analysed and ROA of the treated effluent samples reveals that all the parameters are within the standards prescribed by the Board. The unit has also installed online connectivity for pH, COD, BOD, TSS & Flow of treated effluent from 23rd July 2015 and the trends attached reveals that all parameters are within the standards prescribed by the Board. The unit is operating and maintaining the Effluent Treatment Plant continuously and efficiently.
(b) TNAU is regularly collecting the treated effluent from ETP and well water and soil samples from the unit and from surrounding farmers land for studying the impact of treated effluent usage in agriculture land. The observed parameters in water samples taken from different locations, both within the premises and nearby open wells indicated that, all the parameters are within the standards prescribed by the Board. In field soil also no adverse effect was observed due to continuous irrigation of treated effluent. The unit continues to study the impact of treated effluent on soil and ground water through TNAU.

8. The compliance on the conditions of CTO-Expansion is enclosed vide ANNEXURE – I.

9. The ROA of the consolidated treated effluent samples is enclosed in ANNEXURE –II and the ROA reveals that all the parameters are within the standards prescribed by the Board.

10. The AAQ/SM/ANL Survey conducted on 21/01/2016 which reveals that the parameters are within the standards prescribed by the Board enclosed vide ANNEXURE – III.

11. The unit has remitted the consent fee up to 2016-2017 and 2017-2018 vide C.R.No.43902/dt.05/02/2016.

Hence the Renewal to the unit M/s. ITC Limited, Paper Boards and Specialty Boards Division, Unit: Kovai, Thekkampatty Village, Mettupalayam Taluk, Coimbatore District may be issued upto 31/03/2018.

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Encl: Compliance conditions, ROAs, AAQ Report, TNAU report, SCN, Unit's Reply letters

25. **Specific recommendations on the issue of consent under Water (P & CP) Act, 1974 as amended and Air (P & CP) Act, 1981 as amended.**

Renewal to the unit M/s. ITC Limited, Paper Boards and Specialty Boards Division, Unit: Kovai, Thekkampatty Village, Mettupalayam Taluk, Coimbatore District may be issued upto 31/03/2018.

31/3/16

Senthilkumar S / AE

(Name & Designation)

DEE Recommendations.

Renewal to the unit M/s. ITC Limited, Paper Boards and Specialty Boards Division, Unit: Kovai, Thekkampatty Village, Mettupalayam Taluk, Coimbatore District may be issued upto 31/03/2018.

Asokan P /DEE

(Name and Designation)

31.03.16

ANNEXURE – I

Compliance of Conditions on the CTO - Expn dt.24-06-2015

No	CTO - Expn dt.24-06-2015 Conditions	Compliance by the unit
	AIR ACT	
1.	The unit shall operate and maintain the APC measures continuously and efficiently so as to satisfy the emission, AAQ/ ANL standards prescribed by the Board and shall ensure that at any point of time there shall not be any hindrance to the connectivity of the online Stack Monitor with the Care Air Centre, Corporate Office, Chennai.	The APC measures such as ESP with Stack attached to the CPP was under operation and the unit has installed **Online Stack Monitor for the parameters of SPM and it has also been connected to the CARE AIR Centre** (SPM) and the same was under operation. The other APC measures such as the Dust Extraction System, Bag House with Stack attached to the Coal/Bio Fuel transfer points etc were also under operation. **AAQ/SM/ANL Survey** conducted on 21/01/2016 reveals that the parameters are within the standards prescribed by the Board. (enclosed vide **ANNEXURE – III)**
	Water Act	
1.	The unit shall operate and maintain the Effluent Treatment Plant Continuously and efficiently so as to satisfy the standards prescribed by the Board and the treated trade effluent shall be utilized for irrigation (after maximum recycling of trade effluent before treatment in the process) and shall ensure that there shall not be any seepage/overflow of treated/untreated trade effluent into nearby land/odai or any other water sources directly or indirectly	The unit has installed the Drum Screen before the Primary Clarifier to remove the floating fiber and small plastics and also installed Multiple Disc Filter after Secondary Clarifier so as to reduce the TSS levels in treated effluent. Both the Drum Filter and the Disc Filters were under operation. It was reported that the maximum quantity of trade effluent generated from the process is reused. The ETP was under operation and the treated effluent being utilized for irrigation on industry own land. The ROA of treated trade effluent reveals that the parameters are within the standards prescribed by the Board.(Consolidated ROA is enclosed as **ANNEXURE -II)**
2.	The unit shall continue to dispose the plastic waste generated from the process, through Co incineration in cement plant.	Generated plastic wastes are sent to cement plant time to time for Co incineration.
3.	The unit shall continue the study regarding the continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees through TNAU, Coimbatore	The unit made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees. The

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		for irrigation and the soil is also not detoriated. (Copy of report attached as **Annexure – IV**)
4.	The unit shall comply the conditions/suggestions/improvements any on the separate study being conducted by Directorate of natural Resource Management wing of Tamilnadu Agricultural University, Coimbatore based on the complaints received against the unit from the farmers in and around the unit's irrigation lands	Kindly refer the Sl.no. 6 & 7 of any other information attached.
5.	The unit shall Comply Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2008	Unit has obtained Authorization for collection, Storage and Disposal of Hazardous waste in Auth.No.3765/dt.26/ 05/ 2010 valid up to 25 /05 /2015 and assured to handle the same as per the said rules. The HW IR has been sent to Board on 17/07/2015
6.	The unit shall uniformly dispose the treated trade effluent over unit's own land incompliance to the hydraulic loading rate of 35 KL/ hectare.	Treated effluent is used in unit's own land. Sprinklers & Drip irrigations are used in few places of irrigation and it was reported that hydraulic loading maintained well below the Board standards of 35 KLD /Hectare.
7.	The unit shall install and record steam flow meters in the power plant and paper process sections.	Installed the steam flow meters in the power plant and paper process sections and the same are record and maintaining the records.
8.	The boiler of 44 TPH shall be used as standby only.	Boiler 44 T/Hr is utilized as standby only.
9.	The unit shall adhere to the final judgment in the W.P.26985/2007 regarding operation of Captive power plant.	Writ petition stands disposed and closed.

31/3/16
AE/TNPCB/CBN

31.03.16
DEE/TNPCB/CBN

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தமிழ்நாடு குடிநீர் வடிகால் வாரியம்

அனுப்புநர்
திரு. இரா.கிருஷ்ணச்சந்திரன், எம்.இ.,
நிர்வாகப் பொறியாளர்,
தகவல்மையம்,
பராமரிப்புக் கோட்டம் (பில்லூர்)
வினாயகபுரம் சாலை,
கோவை-641004.

பெறுநர்
உதவி நிர்வாகப் பொறியாளர்(தொழு)/
பொது தகவல் அலுவலர்,
தகுவளாரியம்,
கிராம குடிநீர் திட்டக் கோட்டம்,
கோவை.29.

கடிதஎண். 1762/கோ.தஅ.உ.க–வ/இவஅ.1/2016 / நாள் 07.11.2016

ஐயா,

பொருள்: தகவல் அறியும் உரிமைச் சட்டம் 2005–ன்கீழ் திருடிடி அரங்கசாமி, மேட்டுப்பாளையம் அவர்கள் சில தகவல்கள் வேண்டியது – பதிலளித்தல் – சம்மந்தமாக.

பார்வை. 1. திருடிடி அரங்கசாமி, மேட்டுப்பாளையம் அவர்களின் 15.09.2016 நாளிட்ட கடிதம்.
2. தங்களின் கடித எண்.86/கோ.23/தஅஉச/2016/நாள் 23.09.2016.

.....

பார்வையில் கண்ட கடிதத்திற்கான விபரங்கள் கீழ்க்கண்டவாறு தெரிவிக்கப் படுகிறது.

பவானி ஆற்றில் கவுண்டம்பாளையம் – வடவள்ளி கூட்டுக் குடிநீர் திட்டத்திற்கான நீரேற்று நிலைய இடமருகில் பவானி ஆற்றில் வந்து சேரும் ஒரு ஓடை அமைந்துள்ளது. மழைக்காலங்களில் அந்த ஓடையில் வரும் நீரில் மொத்த கரை உப்புகளின் (Total Dissolved Solids) அளவு அதிகமாக உள்ளதால் சுலை குறைந்து பொதுமக்கள் அதிருப்தி தெரிவித்த காரணத்தால், ஆற்றின் மேற்குப்பகுதியில் இருந்து நீர் எடுக்கப்பட்டு வருகிறது.

நிர்வாகப் பொறியாளர், தகுவளாரியம்,
பராமரிப்பு கோட்டம் (பில்லூர்) கோவை.

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TAMILNADU WATER AND DRAINAGE BOARD

From

Er.R.T.Ravichandran, M.E.,
Administrative Engineer,
T.W.B Board
Maintenance Division (Pillur)
Vilankurichi Road,
Coimbatore – 641004.

To

Assistant Administrative
Engineer (Tech.,)
Public Information Officer,
T.W.B. Board,
Village Water Scheme
Division, Coimbatore -29.

Letter No.1762/Ko.Tha.A.Vu.Sa.Ka-Va/E.Va.A.1/2016 dated 07.11.2016

Sir,

Sub: Seeking certain Information under Right to Information Act 2005 by Mr.D.D.Arangasamy, Mettupalayam – Reply – Regarding.

Ref: 1) Letter dated 15.09.2016 submitted by Mr.D.D.Arangasamy, Mettupalayam.

2) Your Letter No.86/Ko.23/Tha.Aa.Vu.Sa/2016 dated 23.09.2016.

*****

Below mentioned details were furnished for the letter cited under reference.

There is a stream that flows into Bhavani River near Goundanpalayam – Vadavalli joint drinking water project Scheme Pumping Station. Due to Total Dissolved Solids during the Monsoon in the said Stream, general public are dissatisfied with the taste of the water, therefore water has been taking on the western portion of the said River.

Sd.xxx
Administrative Engineer, T.W.B Board
Maintenance Division (Pillur), Covai.

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ITC Limited
PAPERBOARDS & SPECIALTY PAPERS DIVISION
Unit : Kovai
Vivekanandapuram (PO), Thekkampatty (Village)
Coimbatore - 641 113, Tamilnadu, India.
Tel(O) : 91-4254- 271234 / 284301
Fax : 91-4254-284304
www.itcpspd.com

Enduring Value

09.02.2017

0427

By registered Post (A/D)

Ref: ITCK / UH / 2016-17

The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Coimbatore North
J-KapilaTowers, 3rd Floor,
266, Mettupalayam Road,
Coimbatore – 641043.

Dear Sir,

Subject: Renewal of Consent order for the 5 years (From FY 2017-18 to FY 2021-22)

- The water (P & CP) Act, 1974 as amended and
- The Air (P & CP) Act, 1981 as amended.

Reference: Consent No.

1. a) Air-160825792632 dated 11.08.2016
2. b) Water-160815792632 dated 11.08.2016

We hereby submit our application along with consent fee and required details for renewal of the consent order under the reference acts. Also we applied renewal of consent of the board through online along with relevant documents.

1. Our industry is manufacturing Paper Board from 100% recycled paper and producing power of 8 Mw in cogeneration power plant.
2. Details of Production capacity, actual products manufactured in month wise during current financial year – Attached in Annexure -1.
3. There is no change in quantity of sewage / treated effluent discharge and mode of disposal as against the original consent.
4. There is no change in quantity of emission & number and height of chimney / stacks indicated against the original consent.
5. There is no change in the name and management of the Company.

6. Consolidated report of analysis of treated effluent samples analysed in TNPCB in the financial year 2016-17 is attached in Annexure -2.

   - Consolidated report of analysis of treated effluent samples analysed in our lab in the financial year 2016-17 is attached in Annexure -2A.
   - Report of Trade effluent and treated effluent samples analysed in **M/s. Vimta Labs** for all parameters is attached with this letter.

7. Copy of Latest report of analysis of AAQ/SM/ANL by TNPCB lab **Attached in annexure 3**
   - Continuous Ambient Air quality survey being conducted at 5 locations around the boundary and on line stack monitoring reports are submitted to your office on monthly basis. Consolidated reports of above and noise level survey reports conducted around the boundary are attached in Annexure -4a, 4b & 4c respectively.

8. Compliance report on the conditions of latest Hazardous waste authorization is attached in Annexure- 5.

   Biomedical waste: The dispensary available in our mills is run by M/s. Sheela hospitals, Coimbatore by deploying Doctor and nurses. The wastes generated are sent to their hospital for safe incineration.

9. Compliance report on the latest renewal of consent order dt. 24.06.2015, conditions stipulated under Water Act is attached in Annexure-6 & Air Act is attached in Annexure-7.

10. Latest Audited Balance sheet or auditor certificate for latest Gross Fixed Assets without depreciation with respect to our unit – **Attached (The Gross fixed asset Value as on 31.03.2016 is Rs. 4,74,78,67,441/-)**

11. **Consent fees details as below**
    - Consent fee of Rs. 7,47,012/- for the year 2017-18 was already paid last year.
    - Consent fee for four years from 2018-19 to 2021-22 is Rs 30,41,403 /-
    - Consent fee arrears for the years from 2013-14 to 2015-16 is Rs. 17,590 /- based on actual GFA .
        1. Total consent Fee Payable of Rs.30,58,993/- was already remitted as below.
        2. Demand Draft no.833938 for the value of Rs.7,77,940/-
        3. Demand Draft no.833981 for the value of Rs.22,81,053/-
        4. Acknowledgement of DD remittance is attached
    - Details of consent fee calculation are attached for reference in Annexure -10.

12. Water cess (Provisional) of Rs 1,66,666 /- for the financial Year 2017-18 was remitted after adjustment with previous years payment. Detailed water cess calculation is attached. (Annexure -11)

- Acknowledgement of DD remittance is attached

As we have fulfilled all the conditions given in consent, dt. 11.08.2016, we request you to grant us renewal of consent under Water Act and Air Act for the five years (From FY 2017-18 to FY 2021-22)

Thanking you,

Yours faithfully,
For ITC Limited – PSPD, Unit: Kovai.

ALN Krishna Mohan
Unit Head

Encl:-

1. Form - I (Application Form For Air)
2. Form -II (Application Form For Water)
3. Production Details : Annexure -1
4. Consolidated report of analysis of trade effluent by TNPCB: Annexure -2
5. Consolidated report of effluent sample analyzed in our laboratory : Annexure -2A
6. Copy of Latest report of analysis of AAQ/SM/ANL by TNPCB : Annexure -3
7. Consolidated report of AAQ monitored in 5 location: Annexure -4a
8. Consolidated report of Stack monitoring : Annexure -4b
9. Consolidated report of Boundary Noise level : Annexure – 4c
10. Compliance report of Hazardous Waste authorization : Annexure- 5
11. Compliance report of latest renewal of consent order (Water & Air) :Annexure- 6 &7.
12. Audited Balance sheet showing Gross fixed Asset.
13. Demand Draft acknowledgement receipt.
14. Green belt details
15. Copy of Used oil test report
16. Copy of All Effluent parameters test report.
17. TNAU half yearly progress report (March 2016 to October 2016) : Annexure-8
18. Waste audit study, performance of existing ETP report & Action plan: Annexure -9
19. Details consent fee (air & water) calculation : Annexure -10
20. Details of water cess Calculation : Annexure -11
21. TNAU on Bio remedial solution is attached in annexure -12
22. TNAU Study report of irrigation pattern, water application for irrigation, crops rotation in factory lands is attached annexure - 13

TAMILNADU POLLUTION CONTROL BOARD

FORM-I

Application for consent under section 21 of the Air (Prevention and Control of Pollution) Act 1981, as amended (Central Act 14 of 1981)

(See rule 7 of Tamil Nadu Air (Prevention and Control of Pollution) Rules, 1983)

(To be submitted in Duplicate)

1.	[a] Full Name of the applicant (Occupier of the unit)	:	ALN KRISHNA MOHAN
	[b] Designation	:	The Head-Operations
	[c] Office address with pin code	:	ITC LIMITED, PSPD, UNIT : KOVAI Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District,641113
	[d] Factory address with pin code	:	Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District,641113
	[e] Phone no. with STD code	:	04252-271234
	[f] Fax no. with STD code	:	04254-284304
	[g] Email Id	:	krishna.mohan@itc.in
	[h] Website address	:	
	[i] Mobile No.	:	9994407404
2.	Full Name of the Unit	:	ITC LIMITED, PSPD UNIT KOVAI
3.	Location of the unit	:	

[a] Survey No/TS No	:	241/1 , 409/1, 409/2A, 409/2B, 409/2C, 409/2D, 409/2E, 409/2F, 409/2G, 409/2H, 409/2I, 410/2B, 410/3A, 410/3B, 411/1B, 411/1C, 411/1D, 412/1E, 412/1F, 412/2, 412/3C, 412/3D1, 412/3D2, 412/3D3, 414/2A, 414/2C 414/2D, 414/2E, 415/2, 415/3A, 415//3B, 415/4, 416/2A, 418, 421/1, 421/2, 422/1A, 422/1B, 422/1C, 422/2, 423/1, 423/2, 423/3, 423/4, 423/5, 424/1, 424/2, 424/3, 424/4, 426/1B, 426/1B, 426/1C, 426/1D, 426/2, 426/3A, 426/3B, 426/3C, 427/1, 427/2, 427/5A, 97/3, 133/2E2, 132/2C, 141/2B, 141/2C, 877/2A2, 877/2B, 877/2C, 878/2, 879/2, 914, 921/1A, 921/1B, 922/2, 922/1, 923/1A, 923/2A, 923/2B, 923/2C, 924/1, 924/2, 925/1, 925/2, 926/1, 927/1A, 930, 932/1, 936/1, 938/1, 938/2, 938/3, 939/1A1, 939/1A2, 940, 941/1, 941/2, 942/1, 942/2, 943/1A, 943/1B, 848, 849, 850, 851, 885, 889/2A, 889/2B, 891/2B2, 890/2A, 890/2B, 892, 893, 894, 895, 899, 891/2B1, 891/2A2, 884/1, 775/5, 775/6, 776/1, 776/2, 776/3, 776/4A, 776/5A, 777/1, 777/2, 778/2A, 778/2B, 778/2C, 778/2DC, 778/2E2, 778/2F2, 779, 844/1, 844/2, 962, 921/2, 1011, 1012, 900/1, 901/2, 902/1, 904/1B, 900/2C, 901/1A, 900/2A, 901/1C, 900/2B, 901/1B
[b] Village/Town	:	THEKKAMPATTY
[c] Taluk	:	METTUPALAYAM
[d] District	:	Coimbatore
4. Local body Name & Type	:	KARAMADAI Panchayat Union
5. Land Status	:	Owned
Rent per Year(in Lakhs)	:	
Extent of land (in Hectares)	:	
[a] Total	:	166.7405
[b] Build up area	:	49.07365
[c] Solid waste Storage/Disposal area	:	2.8
[d] Green Belt/Irrigation area	:	110.6758
[e] Vacant area {a-(b+c+d)}	:	4.191
6. Details of raw materials used	:	

SL.No.	Name of the raw material	Quantity	Unit	Principal Use
1.	PURCHASED PULP	2500	Tons / month	PAPER BOARD PRODUCTION
2.	WASTE PAPER	10500	Tons / month	Tons / month

7. Details of fuel used :

SL.No.	Name of fuel	Points of use	Quantity in T/d	Calorific Value	Ash Content	Sulphur Content
1.	DOB	COGENERATION BOILER	50	2700	20%	NIL
2.	SAWDUST	COGENERATION BOILER	300	2350	4%	NIL
3.	LIGNITE	COGENERATION BOILER	120	2817	8%	<1%
4.	COAL	COGENERATION BOILER	70	4700	8%	<1%
5.	HSD (DISEL)	DG / BOILER START UP	0.04	10800	0.01	0.25 %

8. Details of products manufactured :

SL.No.	Name of the product	Quantity	Unit	End Use
	Products			
1.	DUPLEX BOARD, ART BOARD, CROMO BOARD	10000	Tons / month	PACKAGING USE
2.	POWER	8	MWHR	MILL
	By Products			
1.	NOT APPLICABLE	0	NOT APPLICABLE	NOT APPLICABLE
	Intermediate Products			

9. Manufacturing Process :

REFER ATTACHMENT

10. No. of Employees working per day (including contract workers) : 1065

11. Date of commissioning : 17/07/1997

12. (a)Details of Point source emission with stacks :

SL.No.	Stack No	Source	Control Measures	Top dimension	Height above GL	Material of Construction	Exit Gas Velocity	Exit Gas Temp	Max Discharge
1.	1	CAPTIVE POWER PLANT BOILER 60T/HR ESP with stack 1	ESP with stack	1.5	84	CONCRETE	15	140	175000
2.	2	BOILER 44 T/Hr (stand by)	ESP with stack	1.1	67	MILD STEEL	15	125	90500
3.	3	DG SET 250 KVA (NEAR BOARD MACHINE)	Acoustic enclosures with stack	0.25	24	MILD STEEL	15	140	1645
4.	4	DG SET 250 KVA (NEAR POWER PLANT)	Acoustic enclosures with stack	0.15	8.2	MILD STEEL	15	150	1100
5.	5	Coal / Bio fuel bunker	Bag Filters with stack	0.3	9.9	MILD STEEL	16.7	33	20000
6.	6	oal / Bio fuel transfer point	Bag Filters with stack	0.3	9.9	MILD STEEL	10.8	40	15000

12. (b)Details of Fugitive or Noise emission :

SL.No.	Source of Fugitive or Noise emission	Type of emission	Pollution Control Measures	Capacity in HP
1.	COAL / BIO FUEL BUNKER	Fugitive	Bag Filter	10
2.	COAL/BIO-FUEL TRANSFER POINT	Fugitive	Bag Filter	60
3.	DG Set-1 250 KVA	Noise	Acoustic Enclosure	250
4.	DG set -2 250 KVA	Noise	Acoustic Enclosure	250

13. Total Gross Fixed Assets (GFA) (Rs. in Lakhs) : 45572.145

14. Cost of Air Pollution Control Measures (Rs. in Lakhs) : 93.39

15. Details of habitation: (All the habitation located within 1KM radius of the unit) :

SL.No.	Name of habitation	Distance in Kms	Population
1.	THEKKAMPATTY	1	1064

16. [a] Name of the nearby Roadways : NH-MDR - Karamadai to Thollampalayam

[b] Distance from the site in Kms : 3

17. [a] Land use classification of the site : Agricultural use zone

[b] Authority which classified the land use : D T C P

18. Name and distance of the sensitive area like places of Archeological importance, National Park, Wild Life World Sanctuary, Marine National Park, Mangrove Forests, Reserved Forests, Marsh Lands if any located within 10 KM radius of the unit : Kandiyur reserve forest

19. Is the unit is located within 1 Km from marine coastal area (sea, estuaries, back waters) : NO

If yes please mention the distance from the unit (In Meter) :

20. Name and address of all Directors/Partners :

SL.No.	Name of Partner	Designation	Address
1.	REFER ATTACHMENT	REFER ATTACHMENT	REFER ATTACHMENT

List of Documents as per rule:-

1. Details of production capacity, actual products manufactured in month wise during the previous financial year. (Attached)

2. A consolidated report of analysis of the treated sewage/ trade effluent samples collected by TNPCB Officials during the previous financial year (If applicable). (Attached)

3. Latest reports of AAQ, Stack Monitoring and Noise Level Survey conducted through TNPCB lab during the previous financial year (If applicable). (Attached)

4. Compliance report on the conditions of latest Hazardous waste Authorisation/Biomedical Waste Authorisation issued to the unit (If applicable). (Attached)

5. Compliance report on the latest consent/renewal of consent order conditions stipulated under Water & Air Acts issued to the unit. (Attached)

6. The latest Audited Balance Sheet/Auditor certificate showing the Gross Fixed Assets (GFA) without depreciation of the unit in the prescribed format. (Attached)

7. Consent fee under Water and Air Acts payable to the Board. (Attached)

8. Green belt Details (Attached)

9. Directors List (Attached)

10. ETP & STP Dimention details (Attached)

11. ETP Flow Diagram (Attached)

12. STP Flow Diagram -1 (Attached)

13. STP Flow Diagram -2 (Attached)

14. Unit Head Authorization Circular (Attached)

15. Unit Head Authorization (Attached)

16. MANUFACTURING PROCESS - ITC (Attached)

17. Consolidated report of effluent sample analyzed in our laboratory Annexure -2A (Attached)

18. Consolidated report of Boundary Noise level Annexure – 4c (Attached)

19. Copy of Used oil test report - 2 (Attached)

20. Copy of Used oil test report - 1 (Attached)

21. Compliance report of latest renewal of consent order Air Act Annexure-7 (Attached)

22. Consolidated report of Stack monitoring Annexure -4b (Attached)

23. Copy of All Effluent parameters test report - ETP Inlet water (Attached)

24. Copy of All Effluent parameters test report - ETP Treated water. (Attached)

25. Consolidated_report_of_AAQ_monitored_in_5_location (Attached)

26. A covering requisition letter stating the status of the industry and activities clearly. (Attached)

Declaration

1. I certify that all the information / data supplied are true and I have not suppressed any relevant information. I am aware that furnishing incorrect information / suppression of relevant information attracts the penal action under chapter 6 of the Air (Prevention & Control Of Pollution) Act, 1981 as amended.
2. I hereby undertake to make a fresh application for consent in case of change in either of a product/point of discharge or in quality of emission or of its quality.
3. I hereby undertake to abide by the directions/instructions issued by the Board from time to time.
4. I hereby undertake to apply for consent to operate/renewal of consent along with the required details 30 days prior to the expiry of consent order.

Signature of the Applicant
Name and Designation

Place : Thekkampatty
Date : 12/02/2016

ALN KRISHNA MOHAN
Unit Head
ITC Limited, PSPD Unit: Kovai
Vivekanandapuram post,
Thekkampatty Village,
Mettupalayam Taluk,
Coimbatore - 641113.

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IR.No : F.0038CBN/RL/AEE/CBN/2017 dated 29/03/2017

TAMIL NADU POLLUTION CONTROL BOARD

Inspection Report for Renewal of Consent orders

1.	[a]	Name and Designation of the Inspecting Officer	:	Chandrasekaran R AEE, M.Malaiyandi,DEE
	[b]	District Office	:	COIMBATORE NORTH
2.		Date of Inspection	:	23/02/2017
3.	[a]	Industry Name	:	ITC LIMITED, PSPD UNIT KOVAI
	[b]	Industry Postal address:		Registered Office address:
		Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District		ITC LIMITED, PSPD, UNIT : KOVAI Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District
		Pincode: 641113		Pincode: 641113
4.		Date of Commissioning	:	17/07/1997
5.		Total Gross Fixed Assets in Lakhs (as on 31/03/2016)	:	47478.676
6	[a]	Category-Classification scale	:	RED - Large
	[b]	Industry Type	:	1061-Pulp and Paper (Paper manufacturing with or without pulping)- (including Handmade paper units, Kraft paper units and Leather Boards)
7.		Land Status	:	Owned
		Total area(in Hectares)	:	166.7405
8.		Representative who accompanied during inspection	:	Mr.Krishna Mohan,Unit Head

9. **Products manufacured**

SL.No.	Name of the product	Quantity	Unit	End Use
a	Main Products manufactured:			
1.	DUPLEX BOARD, ART BOARD, CROMO BOARD	10000	Tons / month	PACKAGING USE
2.	POWER	8	MWHR	MILL
b	By Products manufactured:			
1.	NOT APPLICABLE	0	NOT APPLICABLE	NOT APPLICABLE
c	Intermediate Products manufactured:			

10. **[a] Water Source Details**

SL. No.	Source Type.	Source Name	Quantity in KLD
1.	River/Canal Water	BHAVANI	6600.0

Total :6600.00

[b] Water Consumption Details

SL. No.	Consumption Type	Quatity (KL/D)
1.	WC-I : Cooling & Boiler feed	750.0
2.	WC-II: Domestic	350.0
3.	WC-III: Process (Easily Bio degradable)	2400.0
4.	WC-IV: Process (Not easily Bio degradable)	0.0

Total 3500.00

11. **[a] Sewage generation Details**

S.No.	Source	Quantity(KLD)
1.	Sewage -1	23.0
2.	Sewage -2	50.0

Total 73.00

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[b] **Trade effluent generation Details**

S.No.	Source	Quantity(KLD)
1.	Trade effluent	2600.0

Total 2600.00

12. [a] **Details of Sewage Treatment plant Details**

Treatment status: Septic Tank and SP/DT

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	Septic tank	4	3 x 3.5 x 2.5

Treatment status: Individual STP

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	Package of primary settling aeration & Secondary	1	24 M3 (STP - 2)
2.	Package of primary settling aeration & Secondary	1	14 M3 (STP - 1)
3.	Raw Sewage collection tank (STP-1)	1	4.2 X 5.1 X 2
4.	Sewage Treated Collection Tank (STP - 1)	1	1.6 X 1.6 X 1
5.	Raw Sewage collection tank (STP - 2)	1	5.25 X 3.25 X 2.5
6.	Sewage Treated Collection Tank (STP - 2)	1	3.5 X 1.5 X 1

[b] **Details of Effluent Treatment plant Details**

Treatment status: Individual ETP

SL. No.	Name of the Treatment Unit	No. of Units	Dimensions in metres
1.	FLASH MIXER	1	1.3X1.3X3
2.	PRIMARY CLARIFIER	1	20D X 3.5
3.	BAR SCREENCOARSE	1	6MM
4.	BAR SCREENFINE	1	3 MM
5.	EQUALIZATION TANK	1	20X20X3
6.	AERATION TANK	1	60.5 X 36 X 3.5
7.	SECONDARY CLARIFIER	1	20D X 3.5
8.	FINAL COLLECTION TANK	1	10X10X2
9.	PRESSURE SAND FILTER	1	100 M3
10.	FILTER PRESS	1	NO OF PLATES - 40 EA
11.	FILTER PRESS COLLECTION TANK	1	1.2 m X 1.2 M
12.	THICKENER CLARIFIER	1	10D X 3.5
13.	Drum screen	1	1.7M x 0.6M
14.	Disc filter	1	1.7 m x 1.4 M

13. [a] **Sewage disposal Details**

S.No.	Description of Outlet	Quantity(KLD)	Disposal
1.	sewage	73.0	In the Existing ETP

[b] **Trade effluent Disposal details**

S.No.	Description of Outlet	Quantity(KLD)	Disposal
1.	Trade effluent	2600.0	On Industries Own land for irrigation

14. **Details of Air Pollution Control measures**

[a] **Point source emission with stack Details**

Stack No	Point source of Emission	Pollution control measures	Stack top dimension(in metres)	Stack height above ground level(in metres)
1	CAPTIVE POWER PLANT BOILER 60T/HR ESP with stack 1	ESP with stack	1.5	84
2	BOILER 44 T/Hr (stand by)	ESP with stack	1.1	67
3	DG SET 250 KVA (NEAR BOARD MACHINE)	Acoustic enclosures with stack	0.25	24
4	DG SET 250 KVA (NEAR POWER PLANT)	Acoustic enclosures with stack	0.15	8.2
5	Coal / Bio fuel bunker	Bag Filters with stack	0.3	9.9
6	Coal / Bio fuel transfer point	Bag Filters with stack	0.3	9.9

[b] Fugitive emission/Noise Details

Sl No	Source of Fugitive or Noise Emission	Type of emission	Pollution control measures	Capacity
1.	COAL / BIO FUEL BUNKER	Fugitive	Bag Filter	10
2.	COAL/BIO-FUEL TRANSFER POINT	Fugitive	Bag Filter	60
3.	DG Set-1 250 KVA	Noise	Acoustic Enclosure	250
4.	DG set -2 250 KVA	Noise	Acoustic Enclosure	250

15. **Details of Solid Wastes**

[a] Non Hazardous solid wastes

SL. No.	Name of the Waste	Quantity	Unit	Mode of disposal	Area of land earmarked for storage/disposal(in sq.Metre)
1.	ETP Sludge	500	Mt / month	Sold to recyclers	1200
2.	Fly Ash	120	Mt / month	Sold to brick manufacturing units	100
3.	Process waste	2	Mt / month	sold to authorized recycler	1520
4.	Plastic Waste	600	Mt / month	Storing in SLF / Sent to cement plants for Co-Processing	22500
5.	ETP Bio sludge	350	Mt / month	own land as manure after vermi-composting	600
6.	Canteen Waste	1	Mt / month	own land as manure after vermi-composting	600
7.	Engineering & Packing Scraps	100	Mt / month	Sold to recyclers	1440

[b] Hazardous solid wastes

(i) Hazardous waste Authorization details

HW generation	Applied for Authorisation	Date of Application for HWA	HWA Type	Issued date	Valid date
Yes	Yes	12/11/2009	Renewal	26/05/2010	25/05/2015
Yes	Yes	29/05/2015	Renewal	06/05/2016	05/05/2021

(ii) Hazardous waste generation details

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SL. No.	Name of Process	Name of Process Waste(Category No)	Quantity T/Y	Waste Type	Waste Storage	Waste Disposal	Area earmarked for Storage/Disposal
1.	33 Disposal of barrels / containers used for handling of hazardous wastes / chemicals(Schedule I)	33.3. Discarded containers / barrels / liners contaminated with hazardous wastes/ chemicals	2	Recyclable	CONCRETE FLOOR	SENDING BACK TO SUPPLIER	15
2.	5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems(Schedule I)	5.1 Used/spent oil	5	Recyclable	MS Drums	Recover and Reuse-CPCB Authorized recyclers	15
3.	5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems(Schedule I)	5.2 Wastes/residues containing oil	5	Incinerable	Plastic Drums	Incineration-TSDF	15

16. **Details of Consent/Renewal Consent Orders issued**

Date of Application	Consent Application (Consents/Renewals)	Issued Date	Valid Date	Status and reason for pending if not issued
15/06/2016	CTO-RENEW	11/08/2016	31/03/2017	Issued
10/02/2017	CTO-RENEW			
16/11/2012	CTE-Extension	24/06/2015	31/03/2016	Issued
12/02/2016	CTO-RENEW	09/05/2016	30/06/2016	Issued

17. **Details of consent fee demand and consent fee remittance**

[a] Consent Fee Demand by TNPCB Details :

Financial Year	Consent Fee Type	Water Act	Air Act	Total	Total Gross Fixed Assets in Lakhs	As On
Up to 31.03.17	Arrears	15465.0	15465.0	30930.0	47478.676	31/03/2016
2017-2018	Current	380175.0	380175.0	760350.0	47478.676	31/03/2016
2018-2019	Current	380175.0	380175.0	760350.0	47478.676	31/03/2016
2019-2020	Current	380175.0	380175.0	760350.0	47478.676	31/03/2016
2020-2021	Current	380175.0	380175.0	760350.0	47478.676	31/03/2016
2021-2022	Current	380175.0	380175.0	760350.0	47478.676	31/03/2016
Total : 3832680.0						

[b] Consent Fee Remittance by the industry Details :

Date	CR No/Bank Ref No	Amount	Reason/Remarks on rising the demand	District Office of TNPCB
10/02/2017	833981	2281053.0	Please refer attached documents	COIMBATORE NORTH
10/02/2017	833938	777940.0	Please refer attached documents	COIMBATORE NORTH
16/03/2017	834578	26680.0	Please refer attached documents	COIMBATORE NORTH
27/03/2017	43902	747012.0	Fess paid upto 2022	COIMBATORE NORTH
Total : 3832685.0				

Total consent fee Demand Rs.	3832680.0
Consent fee remitted by the industry Rs.	3832685.0
Balance to be remitted Rs.	-5.0

18. **TNEB power connection available and address status**

TNEB Section name and location	Service Connection No.	Connected load in HP	As on	Address of Section Head(AE) with Phone No

19. **Details of complaint**

Whether there are any complaints against the unit? No

Date of receipt of complaint	Name of the Complainant	Nature of Complaint	Details of Investigation	Action taken on the complaint

20. **Details of Legal Action**

Whether any court case filed against the unit? No

Nature of the case	Date of filing	Case Number	Name and place of the Court	Present stage of the case

21. **Status of actual production with respect to consented quantity of products manufactured with details.**

Please refer any other information.

22. **Status of operation and performance of ETP/APC measures provided.**

Please refer any other information.

23. **Status of Compliance of Conditions stipulated in the previous Consent Order/ Renewal Consent Order**

As Attached

24. **Any other information**

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This unit M/s. ITC Limited, Paper Boards and Speciality Boards Division, Unit: Kovai located in Thekkampatty Village, Mettupalayam Taluk, Coimbatore District is an existing Paper Board manufacturing unit without Digester. The unit has obtained CTO for Expansion for manufacturing Duplex Board, Art Board & Cromo Board of 10,000 T/M and Power of 8 MWHR vide Board Proc.No.T4/TNPCBD/F-0038CBN/ RL/CBN/A & W/2015/DT.24/06/2015, valid up to 31.03.2016 and finally renewed up to 31.03.2017. The unit has now applied for CTO-Renew through online on 10.02.2017. The unit was inspected on 23.02.2017 and the following observations were made.

1) All the manufacturing sections were in operation. The production quantity is within the consented quantity on verifying the records furnished by the unit. The copy of monthly production details is up loaded in the annexure of on line application.

2) All components of the STP and ETP were also under operation. The treated sewage from the STP's was being pumped in to the inlet channel of ETP and the treated trade effluent was being discharged on their own land for irrigation purposes. The unit has started reuse of the treated trade effluent of 400 to 500 KLD in their process on trial basis.

3) The unit has installed following screens i) Bar Screen before the Primary Clarifier to remove the floating particles of 7mm and above ii) Drum Filter after primary Clarifier to remove the floating particles of 0.5 mm and above iii) Multiple Disc Membrane Filter after Secondary Clarifier to remove particles of 100 micron particles to reduce the TSS levels in treated effluent. All the filters were under operation during the time of inspection.

4) The unit has provided EMFM in the following locations and necessary Log Book was also maintained. i. Inlet Effluent channel leading to Primary Clarifier (V-Notch with laser mechanism- Non contact type) ii. Outlet of the ETP i.e. Outlet of Pressure Sand Filter leads to Irrigation fields iii. Outlet of the ETP i.e. Outlet of Pressure Sand Filter - Reusing line to the process and others. iv) The unit has provided separate Energy Meter for the ETP and necessary Log Book for the operation of the ETP and Energy Meter readings were recorded by the unit.

5) The consolidated Report of Analysis of the treated trade effluent used for irrigation reveals that all the parameters are within the permissible limits of the Board. The copy of consolidated statement (January 2016 to January 2017) is attached as Annexure-II. The unit has provided online sensors for pH, COD, BOD, TSS & Flow of treated trade effluent at the outlet of the ETP and connected to the Care Air Centre (CAC), Chennai.

6) The APC measures such as ESP with Stack attached to the Captive power plant (Boiler of 60T/Hr) was under operable condition and the unit has installed Online Stack Monitor for the parameter of SPM and it has also been connected to the CARE AIR Centre, TNPCB, Chennai (for SPM only). The APC measures such as the Dust Extraction System, Bag Filter with Stack attached to the Coal/lignite/Bio fuel Crusher and Coal/Lignite/Bio Fuel transfer points was also under operation. The Bag Filter with Stack attached to the Coal/Bio fuel bunker was under operation. The unit has installed Boiler of 44 T/Hr as stand by. The APC measures such as ESP with Stack attached to the standby Boiler of 44 T/Hr was under operation.

7) The ROA of AAQ/SM/NL survey conducted by the Board in the unit on 21.01.2016 (Copy uploaded by the unit) reveals that the parameters are within the standards prescribed by the Board.

8) The unit is using the Bio Mass such as De-Oiled Rice Bran, Saw Dust mixed with imported Coal as fuel in the Boiler – 60 T/Hr. The Boiler 60 T/hr is actually designed for 100% Lignite and now the unit is using the Bio Mass such as De-Oiled Rice Bran and the usage of Bio mass is increased to about 70% with Imported Coal of 30% as fuel.

9) The process waste generated i.e Plastics etc, at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent to Cement Manufacturing Plants for Co incineration . There is no waste plastic found to be stored in the onsite SLF.

10) The unit is reusing the waste paper sludge in the form of pulp drained from Primary Clarifier. Sludge generated from Sludge Thickener is being sent to recyclers (Paper Board small manufacturing units).The unit maintains record for the disposal to recyclers. It uses the bio sludge from secondary clarifier of ETP and canteen waste for manure manufacturing.

11) The unit has engaged M/s Cholamandalam MS Risk Services Ltd to conduct a study on ETP performance & Waste audit as directed by the Board and furnished the following recommendations in December 2016. ETP SYSTEM a) the unit shall install flow meter in straight flow path with minimum turbulence for more accurate readings b) the unit shall install automated acid and alkali dosing system along with on line pH meter in the waste water drain for proper neutralization during shock loads discharge. c) the unit shall upgrade the capacity of sludge pump in the primary clarifier to handle the peak load of TSS. SOLID WASTE The unit has to segregate rejects from raw material storage area source

Issue of renewal consent under both acts may be considered to the unit for five years subject to the following conditions.

1. The unit shall operate and maintain the Effluent Treatment Plant components continuously and efficiently so as to satisfy the irrigation standards prescribed by the Board consistently before disposal on land (113 Hectares) owned by the unit for irrigation.
2. The unit shall maximum reuse/recycle the trade effluent before treatment in the process wherever possible so as to comply with the waste water generation standards prescribed in CREP/ Environment (Production) Rules 1986.
3. The unit shall uniformly dispose the treated trade effluent on it's own land by adopting hydraulic loading rate of 35KLD/ Hectare and shall ensure that there shall not be any seepage / overflow of treated / untreated trade effluent into nearby private land / Odai or any other water sources directly or indirectly. The unit should have the provisions for storage (15 days) of treated trade effluent for use in irrigation during low demand period.
4. The unit shall explore the possibility to reuse the treated trade effluent from ETP in to the process to the maximum extent.
5. The unit shall continue the study through TNAU, Coimbatore regarding the monitoring of the effect of the treated trade effluent on land for irrigation on soil and crops/ plants/ trees and it shall implement the suggestions made by Tamilnadu Agriculture university from time to time. The unit shall furnish periodical reports to the Board regarding the subsurface water / soil quality of the irrigation fields.
6. The unit shall operate and maintain the effluent monitors for pH, COD,BOD, TSS and Flow and ensure the online connectivity with CAC of TNPCB at all times. The unit shall submit third party calibration certificate for the online effluent monitoring sensors provided, from any NABL accredited / EPA recognized Labs.
7. The unit shall continue to dispose the plastic wastes generated from the process, to the Cement plants for co incineration.
8. The Unit shall periodically dispose the Hazardous waste generated as per authorization issued under the Hazardous Wasters (MH & TM), Rules 2008 and shall comply with the provisions of Hazardous and other wastes (M & TM), Rules 2016.
9. The unit shall operate and maintain the air pollution control measures provided, efficiently and continuously so as to achieve the AAQ / SM standards prescribed by the Board.
10. The unit shall install adequate dust suppression systems like permanent water sprinklers etc and wind barriers for coal handling area to control fugitive emission.
11. The unit shall periodically calibrate the online monitors provided to monitor the parameter PM at boiler stack and ensure that continuous data is provided to Care Air Centre of TNPCB, Chennai at all times.
12. The unit shall ensure regular operation, maintenance and calibration of the online monitors so as to obtain continuous reliable accurate results and shall also maintain records of operation and maintenance, calibration of online monitoring system as per SOP / guidelines.
13. The boiler of 44 TPH shall be used as standby only.
14. The unit shall function with valid certificate of stability obtained from the competent authority as notified in sub rule (3) of Rule 12 B of the Tamil Nadu Factories Rule 1950 for the pollution abatement measures provided in the unit .

Chandrasekaran R /A
(Name and Designati

DEE Recommendations.

Recommended to issue CTO-reNew up to 31.03.2022 to the unit under both acts as requested by the unit subject to approval of the Chairman and subject to the special conditions mentioned above.

Malaiyandi M /D
(Name and Designati

itself. Proper labeling of segregated waste that are disposed .It was reported by the unit authority that they have started to implement the recommendations which will be completed early.

12) The unit has made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated trade effluent on land for irrigation, on soil and crops/plants/trees. The University has submitted half yearly progress report of 2016 (March to October 2016). Conclusion of the study are furnished as follows.

a) The observed parameters in the treated effluent were within the standard prescribed by State Pollution Control Board. The observed parameters in water samples taken from different locations, both within the ITC factory premises and nearby open wells indicated that, all the parameters are within the standards prescribed by the State Pollution Control Board and also as per Indian Irrigation standard. In field soil, no deleterious effect was observed due to continuous irrigation of treated effluent. There is no adverse effect of ITC treated effluent either on well water or in the field soil. Anyhow continuous monitoring is essential for water quality used for irrigation.

b) Further, since ITC Limited, PSPD, Unit: Kovai followed the TNAU technical advice of Bioremediation of soil by raising of green manure crop, addition of organic manure and Gypsum and following crop rotation of Maize, Ragi and Fodder Sorghum. Soil pH and EC are showing in reducing trend, further ground water pH, EC and TDS also reveling in reducing trend.

c) To monitor ground water quality piezometers were installed in 10 different locations. ITC has taken stringent water conservation measures and in through this activity no seepage of water in the soil was observed and water was not collected in Piezometers installed in ten different locations.

d) A research trial on Maize and Ragi are under progress. This trial was undertaken to assess the impact of treated water application to crops on their growth, yield potential, grain quality, soil health and water infiltration pattern into the soil. The irrigation pattern was undertaken in the form of normal irrigation, micro irrigation and wet and dry method to asses to the best irrigation method in this area.

13) The unit has followed the special conditions stipulated in the Hazardous waste authorization issued to the unit. Used oil is disposed to authorized refiner. Oil soaked cotton is disposed to CHWTSDF, Gummidipoondi. Hazardous chemical used drums/ barrels are being handed over to supplier it self.

14) The statement on compliance of latest renewal consent order conditions is attached as Annexure-III.

15) The unit has remitted the consent fee for five terms up to 2021-2022 and remitted cess for 2017-18.

25. **Specific recommendations on the issue of consent under Water (P & CP) Act, 1974 as amended and Air (P & CP) Act, 1981 as amended.**

ANNEXURE – I

ANY OTHER INFORMATION

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7) The ROA of AAQ/SM/NL survey conducted by the Board in the unit on 21.01.2016 (Copy uploaded by the unit) reveals that the parameters are within the standards prescribed by the Board.

8) The unit is using the Bio Mass such as De-Oiled Rice Bran, Saw Dust mixed with imported Coal as fuel in the Boiler – 60 T/Hr. The Boiler 60 T/hr is actually designed for 100% Lignite and now the unit is using the Bio Mass such as De-Oiled Rice Bran and the usage of Bio mass is increased to about 70% with Imported Coal of 30% as fuel.

9) The process waste generated i.e Plastics etc, at various stages of operations is being collected at the interim storage yard with a concrete platform and the same is being sent to Cement Manufacturing Plants for Co ~~incarceration~~ incineration. There is no waste plastic found to be stored in the onsite SLF.

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12) The unit has made an agreement with Tamil Nadu Agricultural University, Coimbatore for continuous monitoring of the effect of the treated trade effluent on land for irrigation, on soil and crops/plants/trees. The University has submitted half yearly

progress report of 2016 (March to October 2016). Conclusion of the study are furnished as follows.

a) The observed parameters in the treated effluent were within the standard prescribed by State Pollution Control Board. The observed parameters in water samples taken from different locations, both within the ITC factory premises and nearby open wells indicated that, all the parameters are within the standards prescribed by the State Pollution Control Board and also as per Indian Irrigation standard. In field soil, no deleterious effect was observed due to continuous irrigation of treated effluent. There is no adverse effect of ITC treated effluent either on well water or in the field soil. Anyhow continuous monitoring is essential for water quality used for irrigation.

b) Further, since ITC Limited, PSPD, Unit: Kovai followed the TNAU technical advice of Bioremediation of soil by raising of green manure crop, addition of organic manure and Gypsum and following crop rotation of Maize, Ragi and Fodder Sorghum. Soil pH and EC are showing in reducing trend, further ground water pH, EC and TDS also reveling in reducing trend.

c) To monitor ground water quality piezometers were installed in 10 different locations. ITC has taken stringent water conservation measures and in through this activity no seepage of water in the soil was observed and water was not collected in Piezometers installed in ten different locations.

d) A research trial on Maize and Ragi are under progress. This trial was undertaken to assess the impact of treated water application to crops on their growth, yield potential, grain quality, soil health and water infiltration pattern into the soil. The irrigation pattern was undertaken in the form of normal irrigation, micro irrigation and wet and dry method to asses to the best irrigation method in this area.

The unit has followed technical advise of Bioremediation of soil by raising of green manure crop, addition of organic manure and Gypsum and following crop rotation of Maize , Ragi and fodder Sorghum. Hence pH, EC,TDS of water and soil are in reducing trend. The copy of the graph is uploaded by the unit. Ten number of piezometers were installed in different locations of agricultural land. No seepage of water is noted in the piezometers.

13) The unit has followed the special conditions stipulated in the Hazardous waste authorization issued to the unit. Used oil is disposed to authorized refiner. Oil soaked cotton is disposed to CHWTSDF, Gummidipoondi. Hazardous chemical used drums/ barrels are being handed over to supplier it self.

14) The statement on compliance of latest renewal consent order conditions is attached as **Annexure-III.**

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15) The unit has remitted the consent fee for **five terms up to 2021-2022** and remitted cess for 2017-18.

Issue of renewal consent under both acts may be considered for five years subject to the following conditions.

1. The unit shall operate and maintain the Effluent Treatment Plant components continuously and efficiently so as to satisfy the irrigation standards prescribed by the Board consistently before disposal on land (113 Hectares) owned by the unit for irrigation.

2. The unit shall maximum reuse/recycle the trade effluent before treatment in the process wherever possible so as to comply with the waste water generation standards prescribed in CREP/ Environment (Production) Rules 1986.

3. The unit shall uniformly dispose the treated trade effluent on it's own land by adopting hydraulic loading rate of 35KLD/ Hectare and shall ensure that there shall not be any seepage / overflow of treated / untreated trade effluent into nearby private land / Odai or any other water sources directly or indirectly.

The unit should have the provisions for storage (15 days) of treated trade effluent for use in irrigation during low demand period.

4. The unit shall explore the possibility to reuse the treated trade effluent from ETP in to the process to the maximum extent.

5. The unit shall continue the study through TNAU, Coimbatore regarding the monitoring of the effect of the treated trade effluent on land for irrigation on soil and crops/ plants/ trees and it shall implement the suggestions made by Tamilnadu Agriculture university from time to time. The unit shall furnish periodical reports to the Board regarding the subsurface water / soil quality of the irrigation fields.

6. The unit shall operate and maintain the effluent monitors for pH, COD,BOD, TSS and Flow and ensure the online connectivity with CAC of TNPCB at all times. The unit shall submit third party calibration certificate for the online effluent monitoring sensors provided, from any NABL accredited / EPA recognized Labs.

7. The unit shall continue to dispose the plastic wastes generated from the process, to the Cement plants for co incineration.

8. The Unit shall periodically dispose the Hazardous waste generated as per authorization issued under the Hazardous Wasters (MH & TM), Rules 2008 and shall comply with the provisions of Hazardous and other wastes (M & TM), Rules 2016.

9. The unit shall operate and maintain the air pollution control measures provided efficiently and continuously so as to achieve the AAQ / SM standards prescribed by the Board.

10. The unit shall install adequate dust suppression systems like permanent water sprinklers etc and wind barriers for coal handling area to control fugitive emission.

11. The unit shall periodically calibrate the online monitors provided to monitor the parameter PM at boiler stack and ensure that continuous data is provided to Care Air Centre of TNPCB, Chennai at all times.

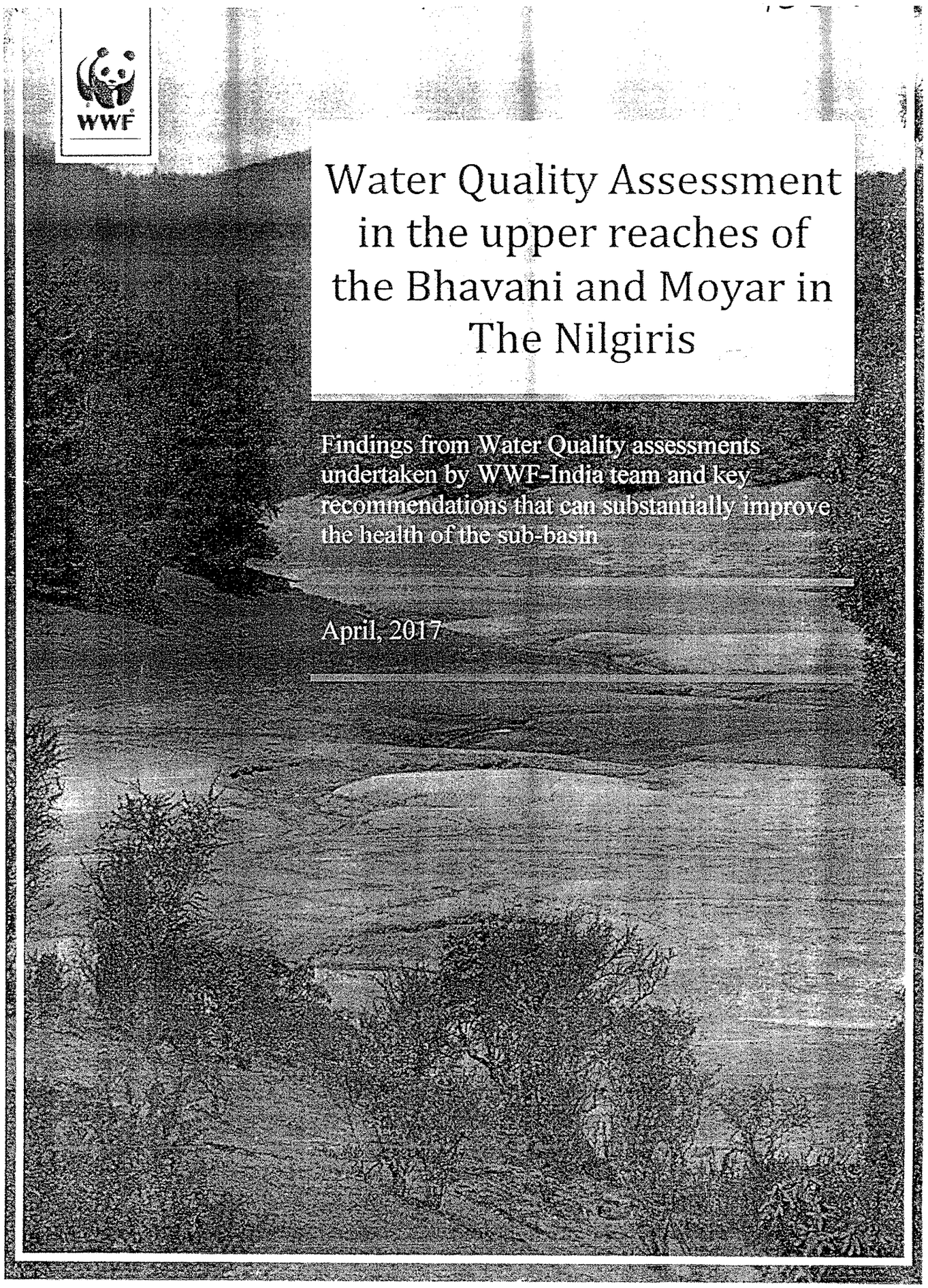
12. The unit shall ensure regular operation, maintenance and calibration of the online monitors so as to obtain continuous reliable accurate results and shall also maintain records of operation and maintenance, calibration of online monitoring system as per SOP / guidelines.

13. The boiler of 44 TPH shall be used as standby only.

14. The unit shall function with valid certificate of Stability obtained from the competent authority as notified in sub rule (3) of Rule 12 B of the Tamil Nadu Factories Rules 1950 for the pollution abatement measures provided in the unit.

Assistant Environmental Engineer,
Tamilnadu pollution Control Board,
Coimbatore North

District Environmental Engineer,
Tamilnadu pollution Control Board,
Coimbatore North



Water Quality Assessment in the upper reaches of the Bhavani and Moyar in The Nilgiris

Findings from Water Quality assessments undertaken by WWF-India team and key recommendations that can substantially improve the health of the sub-basin

April, 2017

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Overview of the water quality assessment

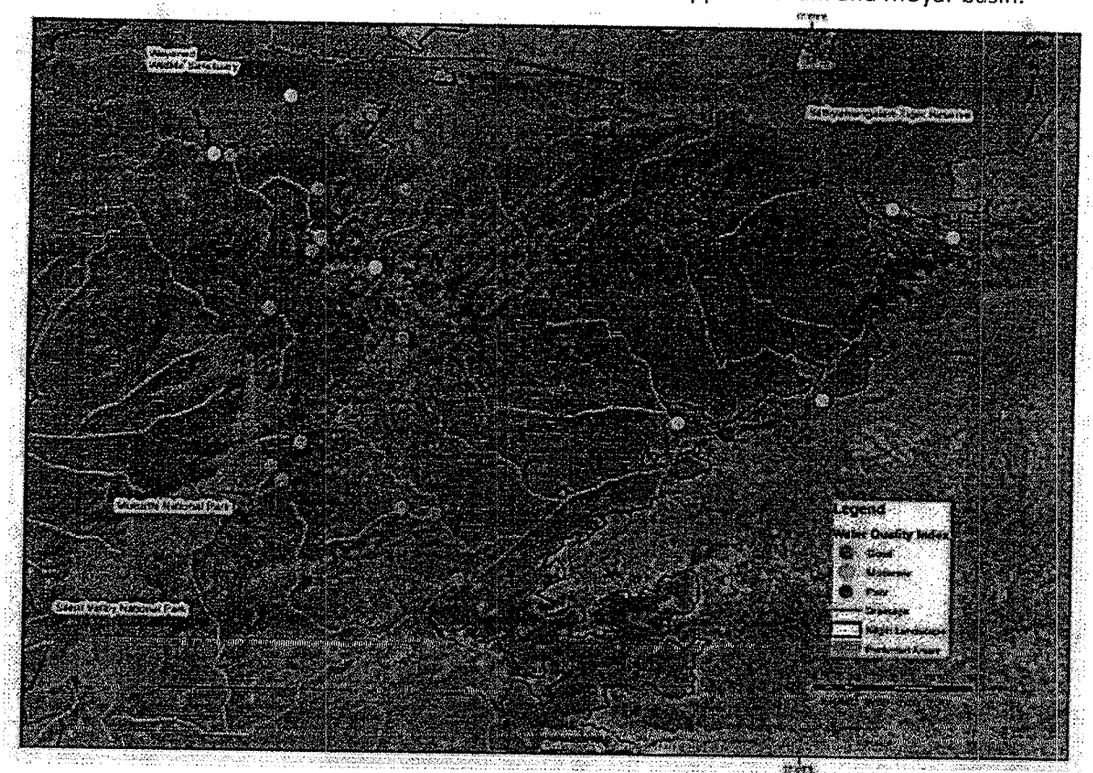
WWF-India, as part of its work in its Western Ghats-Nilgiris Landscape (WGNL), undertook water quality assessment for Upper Bhavani basin for 3 subsequent years during the lean season. Following are the details of water quality assessments undertaken:

Sr. No.	Method of testing	No. of Parameters	Month/ Year
1.	Jal-Tara field testing kit	13	May, 2015
2.	South India Textile Research Association (SITRA), Chemical Lab – NABL Accredited	25	Feb, 2016
3.	SITRA, Chemical Lab – NABL Accredited	25	Feb, 2017

Based on the assessments undertaken, we classified the water quality of a sample as 'Good', 'Moderate' and 'Poor', based on following criteria:

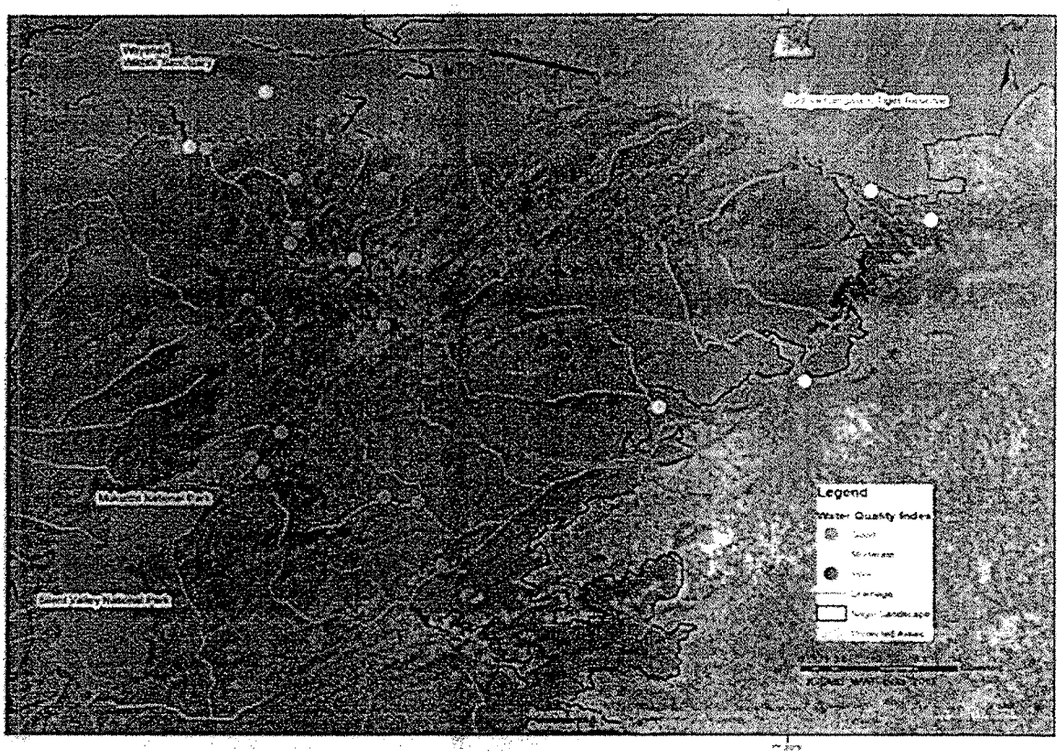
Good – No or minimal deviations from standards over multiple testing instances
Moderate – Minor deviations in 1 or 2 parameters over multiple testing instances
Poor – Major deviations in multiple parameters over multiple testing instances

The map below summarises the results of the assessment for Upper Bhavani and Moyar basin.



The assessment clearly points out 2 main concern areas in the sub-basin. The subsequent sections of the document will elaborate on specific issues and sources of pollution in these concern areas.

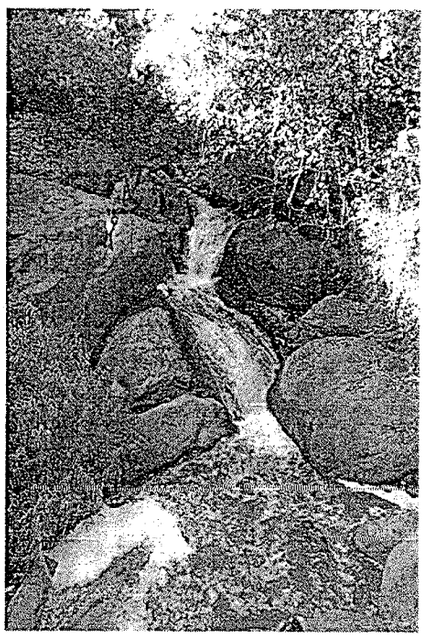
Concern Area 1 – Kallar River and Bhavani at Mettupalayam



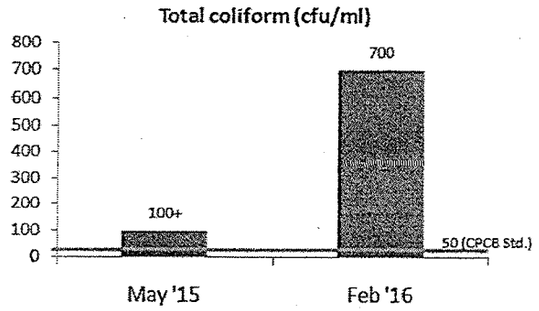
Key polluted stretches and pollutions sources as described below.

Coonoor Town Drain

Coonoor Town discharges large quantity of domestic sewage to Kallar River. The town generates about **5** Million Litre per day (**MLD**) of sewage, which is discharged untreated to Kallar River through a drain that joins near Runnymede station (see adjoining photograph). Currently the Coonoor town, with population of about 50,000 residents, has no sewage treatment infrastructure.

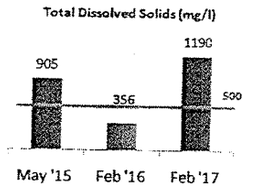


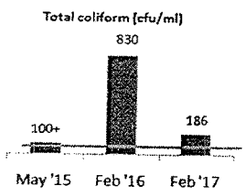
The assessment found the Coliform levels in the Coonoor town drain to be far exceeding CPCB standards for sewage.

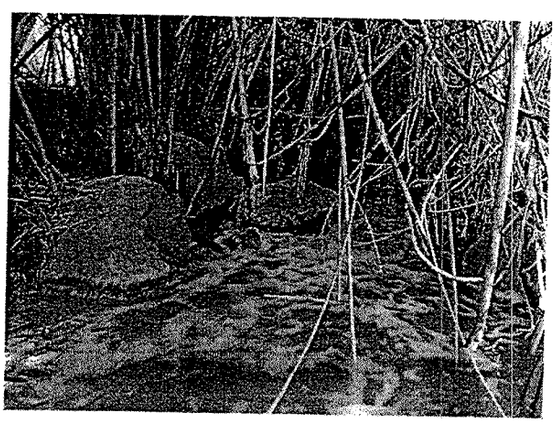


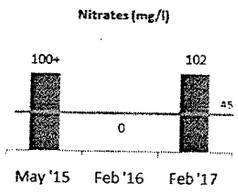
Cordite Factory Drain

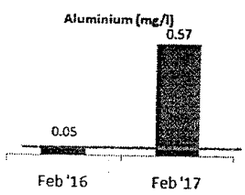
Cordite factory in Aruvankadu, which manufacturers Nitro-cellulose and Nitro-glycerine for ammunition, discharges its process effluent into a small stream, which eventually discharges into Kallar River. Our assessment found the effluent to be loaded with Nitrates and Aluminium, far exceeding CPCB standards for discharge of environmental pollutants in inland freshwaters.





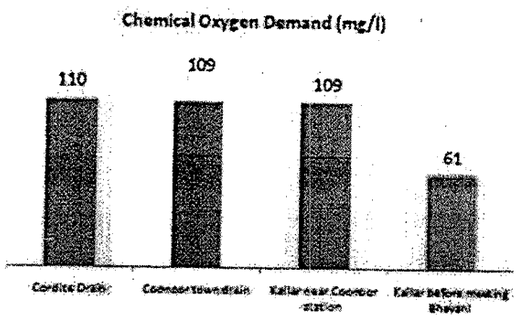


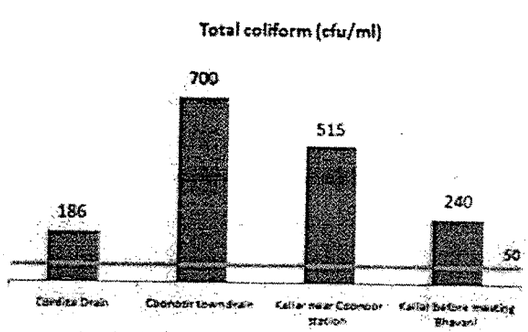




Kallar River

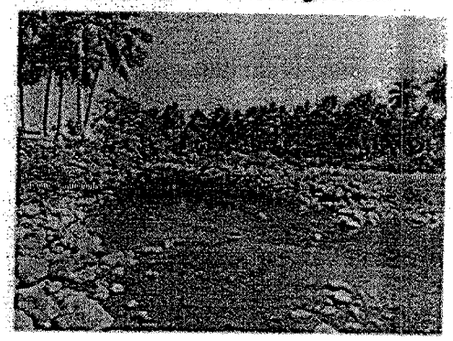
Kallar River downstream of Coonoor is heavily polluted and the pollution is carried over to Bhavani River about 30 km downstream.





Kallar river downstream Coonoor drain discharge

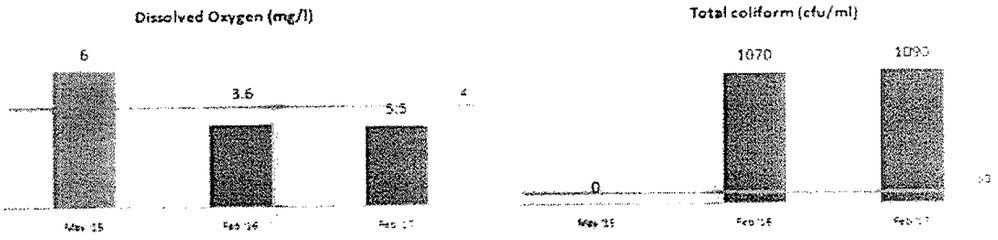
Kallar river before meeting Bhavani



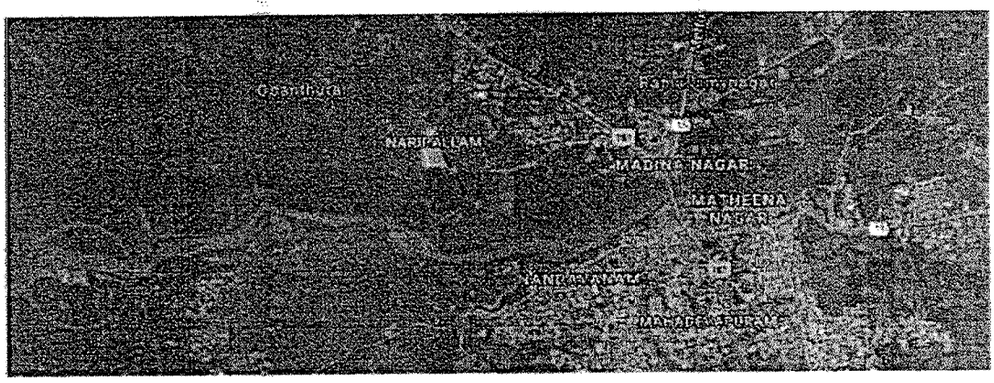
Bhavani River at Mettupalayam

Pollution load from Kallar and Mettupalayam town along with ill-conceived hydropower dams has turned Bhavani in to serious public health concern. Mettupalayam generates about 6-8 MLD of domestic sewage, which is currently being discharged untreated into the river. The pollution

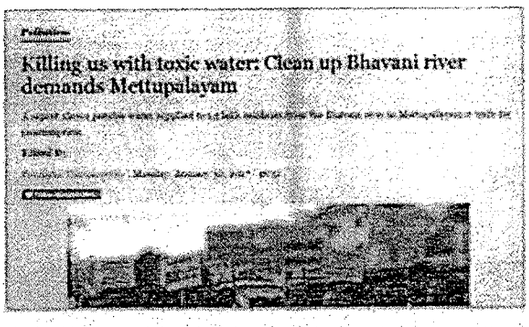
problem is further exacerbated by two micro-hydel dams (10 MW each) that have been recently constructed immediately upstream and downstream of Mettupalayam town, which has converted this stretch of the Bhavani River into a stagnant cesspool. Our water quality assessment shows significant decline in river water quality post commissioning of the dams in late 2015.

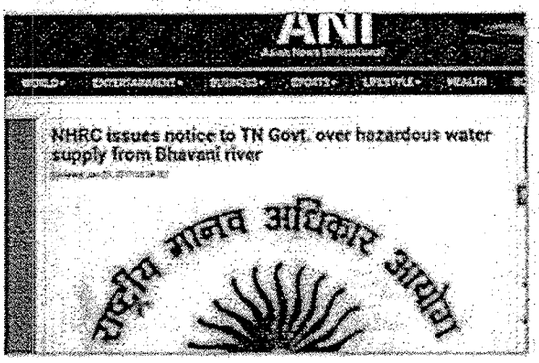


Dam development upstream and downstream of Mettupalayam

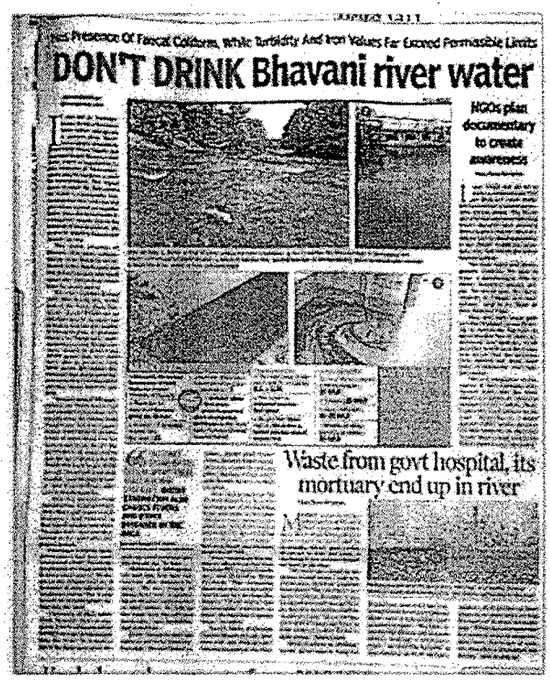


The pollution woes of Bhavani near Mettupalayam are also increasingly being highlighted by local media.


Killing us with toxic water: Clean up Bhavani river demands Mettupalayam


ANI

NHRC issues notice to TN Govt. over hazardous water supply from Bhavani river


DON'T DRINK Bhavani river water

NGOs plan documentary to create awareness

Waste from govt hospital, its mortuary end up in river

Implications for Wildlife and Human Health

- Bhavani River is a lifeline of the region and any degradation in its water quality can have significant negative impacts for the wildlife and the people living around it.
- Both Kallar and Bhavani Rivers are extensively used by elephants and other herbivores for drinking, bathing and as important movement corridors. Any degradation of these rivers can adversely impact these populations
- Bhavani River has high endemism of fishes and hosts some of the iconic species such as Hump-backed Mahseer and Smoot-Coated Otter. Our sampling near Mettupalayam already suggests that the dissolved Oxygen (DO) level in Bhavani has come down below 4 mg/l, which is minimum recommended DO level for fisheries in a river.
- As many as 1 lakh people in Mettupalayam and Sirumugai use Bhavani river water directly or indirectly for drinking, bathing and irrigation. Increasing coliform levels in the river can seriously affect their lives and livelihood.
- Aluminium found is excess in the effluent of Cordite factory can be highly toxic to humans and animals alike. Excess exposure to Aluminium through water is related to nerve damage and allergies.

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TAMILNADU POLLUTION CONTROL BOARD

CONSENT ORDER NO. 170818064955 DATED: 03/05/2017.

PROCFEDINGS NO.T12/TNPCB/F.0038CBN/RL/CBN/W/2017 DATED: 03/05/2017

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT – M/s. ITC LIMITED, PSPD UNIT KOVAI , S.F.No. 241/1 , 409/1, 409/2A, 409/2B, 409/2C, 409/2D, 409/2E, 409/2F, 409/2G, 409/2H, 409/2I, 410/2B, 410/3A, 410/3B, 411/1B, 411/1C, 411/1D, 412/1E, 412/1F, 412/2, 412/3C, 412/3D1, 412/3D2, 412/3D3, 414/2A, 414/2C 414/2D, 414/2E, 415/2, 415/3A, 415//3B, 415/4, 416/2A, 418, 421/1, 421/2, 422/1A, 422/1B, 422/1C, 422/2, 423/1, 423/2, 423/3, 423/4, 423/5, 424/1, 424/2, 424/3, 424/4, 426/1B, 426/1B, 426/1C, 426/1D, 426/2, 426/3A, 426/3B, 426/3C, 427/1, 427/2, 427/5A, 97/3, 133/2E2, 132/2C, 141/2B, 141/2C, 877/2A2, 877/2B, 877/2C, 878/2, 879/2, 914, 921/1A, 921/1B, 922/2, 922/1, 923/1A, 923/2A, 923/2B, 923/2C, 924/1, 924/2, 925/1, 925/2, 926/1, 927/1A, 930, 932/1, 936/1, 938/1, 938/2, 938/3, 939/1A1, 939/1A2, 940, 941/1, 941/2, 942/1, 942/2, 943/1A, 943/1B, 848, 849, 850, 851, 885, 889/2A, 889/2B, 891/2B2, 890/2A, 890/2B, 892, 893, 894, 895, 899, 891/2B1, 891/2A2, 884/1, 775/5, 775/6, 776/1, 776/2, 776/3, 776/4A, 776/5A, 777/1, 777/2, 778/2A, 778/2B, 778/2C, 778/2DC, 778/2E2, 778/2F2, 779, 844/1, 844/2, 962, 921/2, 1011, 1012, 900/1, 901/2, 902/1, 904/1B, 900/2C, 901/1A, 900/2A, 901/1C, 900/2B, 901/1B, THEKKAMPATTY village, Mettupalayam Taluk and Coimbatore District - Renewal of Consent for the operation of the plant and discharge of sewage and/or trade effluent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974) – Issued- Reg.

REF: 1.Proc. No.T12/TNPCB/F.0038CBN/RL/CBN/W&A/2016 DATED: 11/08/2016
2.IR.No : F.0038CBN/RL/AEE/CBN/2017 dated 10/04/2017

RENEWAL OF CONSENT is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act, 6 of 1974) (hereinafter referred to as "The Act") and the rules and orders made there under to

M/s.ITC LIMITED, PSPD UNIT KOVAI,
S.F.No. 241/1 , 409/1, 409/2A, 409/2B, 409/2C, 409/2D, 409/2E, 409/2F, 409/2G, 409/2H, 409/2I, 410/2B, 410/3A, 410/3B, 411/1B, 411/1C, 411/1D, 412/1E, 412/1F, 412/2, 412/3C, 412/3D1, 412/3D2, 412/3D3, 414/2A, 414/2C 414/2D, 414/2E, 415/2, 415/3A, 415//3B, 415/4, 416/2A, 418, 421/1, 421/2, 422/1A, 422/1B, 422/1C, 422/2, 423/1, 423/2, 423/3, 423/4, 423/5, 424/1, 424/2, 424/3, 424/4, 426/1B, 426/1B, 426/1C, 426/1D, 426/2, 426/3A, 426/3B, 426/3C, 427/1, 427/2, 427/5A, 97/3, 133/2E2, 132/2C, 141/2B, 141/2C, 877/2A2, 877/2B, 877/2C, 878/2, 879/2, 914, 921/1A, 921/1B, 922/2, 922/1, 923/1A, 923/2A, 923/2B, 923/2C, 924/1, 924/2, 925/1, 925/2, 926/1, 927/1A, 930, 932/1, 936/1, 938/1, 938/2, 938/3, 939/1A1, 939/1A2, 940, 941/1, 941/2, 942/1, 942/2, 943/1A, 943/1B, 848, 849, 850, 851, 885, 889/2A, 889/2B, 891/2B2, 890/2A, 890/2B, 892, 893, 894, 895, 899, 891/2B1, 891/2A2, 884/1, 775/5, 775/6, 776/1, 776/2, 776/3, 776/4A, 776/5A, 777/1, 777/2, 778/2A, 778/2B, 778/2C, 778/2DC, 778/2E2, 778/2F2, 779, 844/1, 844/2, 962, 921/2, 1011, 1012, 900/1, 901/2, 902/1, 904/1B, 900/2C, 901/1A, 900/2A, 901/1C, 900/2B, 901/1B,
THEKKAMPATTY Village ,
Mettupalayam Taluk ,
Coimbatore District .

Authorising the occupier to make discharge of sewage and /or trade effluent.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier

and subject to the special conditions annexed.

TAMILNADU POLLUTION CONTROL BOARD

This RENEWAL OF CONSENT is valid for the period ending March 31, 2022

For Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai

TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This renewal of consent is valid for operating the facility for the manufacture of products/byproducts (Col. 2) at the rate (Col 3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
	Product Details		
1.	DUPLEX BOARD, ART BOARD, CROMO BOARD	10000	Tons / month
2.	POWER	8	MWHR
	By-Product Details		
1.	NOT APPLICABLE	0	NOT APPLICABLE

2. This renewal of consent is valid for operating the facility with the below mentioned outlets for the discharge of sewage/trade effluent. Any change in the outlets and the quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Outlet No.	Description of Outlet	Maximum daily discharge in KLD	Point of disposal
Effluent Type : Sewage			
1.	sewage	73.0	In the Existing ETP
Effluent Type : Trade Effluent			
1.	Trade effluent	2600.0	On Industries Own land for irrigation

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Additional Conditions:

1. The unit shall operate and maintain the Effluent Treatment Plant continuously and efficiently so as to satisfy the standards prescribed by the Board and the treated trade effluent shall be utilized for irrigation (after maximum recycling of trade effluent before treatment in the process) and shall ensure that there shall not be any seepage/overflow of treated/untreated trade effluent into nearby land/odai or any other water sources directly or indirectly.
2. The unit shall continue to dispose the plastic waste generated from the process, through Co-incineration in cement plant.
3. The unit shall continue the study regarding the continuous monitoring of the effect of the treated effluent on land for irrigation, on soil and crops/plants/trees through TNAU, Coimbatore.
4. The unit shall comply the conditions/suggestions/improvements any on the separate study being conducted by Directorate of natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore based on the complaints received against the unit from the farmers in and around the unit's irrigation lands.
5. The unit shall dispose the Hazardous waste as per the Authorization obtained under Hazardous Waste (MH&TM)Rules,2008 and shall comply with the provision of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
6. The unit shall uniformly dispose the treated trade effluent over unit's own land incompliance to the hydraulic loading rate of 35 KL/ hectare.
7. The unit shall maintain and record steam flow meters in the power plant and paper process sections.
8. The unit shall operate and maintain the EMFMs provided at the various locations of ETP and shall maintain the log book for the same.
9. The unit shall connect the effluent monitors for pH, COD, BOD, TSS &Flow within a month and ensure that proper data shall be provided with CAC of TNPCB at all times.
10. The unit shall regularly conduct a waste audit study ; performance of existing ETP with the reputed institutions as committed so as to reduce ,recycle treated waste water in the plant and furnish a detailed report with time schedule for implementation of improvements plan.
11. The unit shall regularly study the irrigation pattern, water application for irrigation, crops rotation in their agriculture filed from an reputed institutions and furnish a detailed report.
12. The unit shall operate and maintain the piezo meters provided in and around the area where treated trade effluent utilized for on land for irrigation and collect the ground water samples periodically to assess the quality of ground water.
13. The unit shall comply with the conditions/suggestions/improvements any on the separate study being conducted by Directorate of natural Resource Management wing of Tamil Nadu Agricultural University, Coimbatore based on the complaints received against the unit from the farmers in and around the unit's irrigation lands.
14. In case of revision of consent fee by the Government, the unit shall remit the difference in amount within one month from date of notification. Failing to remit the consent fee, this consent order will be withdrawn without any notice and further action will be initiated against the unit as per law.

for Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai

To

,
M/s.ITC LIMITED, PSPD UNIT KOVAI,
Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District,
Pin: 641113

Copy to:

1.The Commissioner, KARAMADAI-Panchayat Union, Mettupalayam Taluk, Coimbatore District .
2. The District Environmental Engineer, Tamil Nadu Pollution Control Board, COIMBATORE NORTH.
3. The JCEE-Monitoring, Tamil Nadu Pollution Control Board, Coimbatore.
4. File

TAMILNADU POLLUTION CONTROL BOARD

CONSENT ORDER NO. 170828064955 DATED: 03/05/2017.

PROCEEDINGS NO.T12/TNPCB/F.0038CBN/RL/CBN/A/2017 DATED: 03/05/2017

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT –M/s. ITC LIMITED, PSPD UNIT KOVAI , S.F.No. 241/1 , 409/1, 409/2A, 409/2B, 409/2C, 409/2D, 409/2E, 409/2F, 409/2G, 409/2H, 409/2I, 410/2B, 410/3A, 410/3B, 411/1B, 411/1C, 411/1D, 412/1E, 412/1F, 412/2, 412/3C, 412/3D1, 412/3D2, 412/3D3, 414/2A, 414/2C 414/2D, 414/2E, 415/2, 415/3A, 415//3B, 415/4, 416/2A, 418, 421/1, 421/2, 422/1A, 422/1B, 422/1C, 422/2, 423/1, 423/2, 423/3, 423/4, 423/5, 424/1, 424/2, 424/3, 424/4, 426/1B, 426/1B, 426/1C, 426/1D, 426/2, 426/3A, 426/3B, 426/3C, 427/1, 427/2, 427/5A, 97/3, 133/2E2, 132/2C, 141/2B, 141/2C, 877/2A2, 877/2B, 877/2C, 878/2, 879/2, 914, 921/1A, 921/1B, 922/2, 922/1, 923/1A, 923/2A, 923/2B, 923/2C, 924/1, 924/2, 925/1, 925/2, 926/1, 927/1A, 930, 932/1, 936/1, 938/1, 938/2, 938/3, 939/1A1, 939/1A2, 940, 941/1, 941/2, 942/1, 942/2, 943/1A, 943/1B, 848, 849, 850, 851, 885, 889/2A, 889/2B, 891/2B2, 890/2A, 890/2B, 892, 893, 894, 895, 899, 891/2B1, 891/2A2, 884/1, 775/5, 775/6, 776/1, 776/2, 776/3, 776/4A, 776/5A, 777/1, 777/2, 778/2A, 778/2B, 778/2C, 778/2DC, 778/2E2, 778/2F2, 779, 844/1, 844/2, 962, 921/2, 1011, 1012, 900/1, 901/2, 902/1, 904/1B, 900/2C, 901/1A, 900/2A, 901/1C, 900/2B, 901/1B, THEKKAMPATTY village, Mettupalayam Taluk and Coimbatore District - Renewal of Consent for the operation of the plant and discharge of emissions under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) –Issued- Reg.

REF: 1.Proc. No.T12/TNPCB/F.0038CBN/RL/CBN/W&A/2016 DATED: 11/08/2016
2.IR.No : F.0038CBN/RL/AEE/CBN/2017 dated 10/04/2017

RENEWAL OF CONSENT is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) (hereinafter referred to as "The Act") and the rules and orders made there under to

M/s.ITC LIMITED, PSPD UNIT KOVAI,
S.F.No. 241/1 , 409/1, 409/2A, 409/2B, 409/2C, 409/2D, 409/2E, 409/2F, 409/2G, 409/2H, 409/2I, 410/2B, 410/3A, 410/3B, 411/1B, 411/1C, 411/1D, 412/1E, 412/1F, 412/2, 412/3C, 412/3D1, 412/3D2, 412/3D3, 414/2A, 414/2C 414/2D, 414/2E, 415/2, 415/3A, 415//3B, 415/4, 416/2A, 418, 421/1, 421/2, 422/1A, 422/1B, 422/1C, 422/2, 423/1, 423/2, 423/3, 423/4, 423/5, 424/1, 424/2, 424/3, 424/4, 426/1B, 426/1B, 426/1C, 426/1D, 426/2, 426/3A, 426/3B, 426/3C, 427/1, 427/2, 427/5A, 97/3, 133/2E2, 132/2C, 141/2B, 141/2C, 877/2A2, 877/2B, 877/2C, 878/2, 879/2, 914, 921/1A, 921/1B, 922/2, 922/1, 923/1A, 923/2A, 923/2B, 923/2C, 924/1, 924/2, 925/1, 925/2, 926/1, 927/1A, 930, 932/1, 936/1, 938/1, 938/2, 938/3, 939/1A1, 939/1A2, 940, 941/1, 941/2, 942/1, 942/2, 943/1A, 943/1B, 848, 849, 850, 851, 885, 889/2A, 889/2B, 891/2B2, 890/2A, 890/2B, 892, 893, 894, 895, 899, 891/2B1, 891/2A2, 884/1, 775/5, 775/6, 776/1, 776/2, 776/3, 776/4A, 776/5A, 777/1, 777/2, 778/2A, 778/2B, 778/2C, 778/2DC, 778/2E2, 778/2F2, 779, 844/1, 844/2, 962, 921/2, 1011, 1012, 900/1, 901/2, 902/1, 904/1B, 900/2C, 901/1A, 900/2A, 901/1C, 900/2B, 901/1B,
THEKKAMPATTY village,
Mettupalayam Taluk,
Coimbatore District.

Authorizing the occupier to operate the industrial plant in the Air Pollution Control Area as notified by the Government and to make discharge of emission from the stacks/chimneys.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

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This RENEWAL OF CONSENT is valid for the period ending March 31, 2022

TAMILNADU POLLUTION CONTROL BOARD

For Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai

TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This renewal of consent is valid for operating the facility for the manufacture of products (Col. 2) at the rate (Col. 3) mentioned below. Any change in the products and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
	Product Details		
1.	DUPLEX BOARD, ART BOARD, CROMO BOARD	10000	Tons / month
2.	POWER	8	MWHR
	By-Product Details		
1.	NOT APPLICABLE	0	NOT APPLICABLE

2. This renewal of consent is valid for operating the facility with the below mentioned emission/noise sources along with the control measures and/or stack. Any change in the emission source/control measures/change in stack height has to be brought to the notice of the Board and fresh consent/Amendment has to be obtained.

I	**Point source emission with stack :**			
Stack No.	**Point Emission Source**	**Air pollution Control measures**	**Stack height from Ground Level in m**	**Gaseous Discharge in Nm3/hr**
1	CAPTIVE POWER PLANT BOILER 60T/HR ESP with stack 1	ESP with stack	84	175000
2	BOILER 44 T/Hr (stand by)	ESP with stack	67	90500
3	DG SET 250 KVA (NEAR BOARD MACHINE)	Acoustic enclosures with stack	24	1645
4	DG SET 250 KVA (NEAR POWER PLANT)	Acoustic enclosures with stack	8.2	1100
5	Coal / Bio fuel bunker	Bag Filters with stack	9.9	20000
6	Coal / Bio fuel transfer point	Bag Filters with stack	9.9	15000
II	**Fugitive/Noise emission :**			
Sl. No.	**Fugitive or Noise Emission sources**	**Type of emission**	**Control measures**	
1.	COAL / BIO FUEL BUNKER	Fugitive	Bag Filter	
2.	COAL/BIO-FUEL TRANSFER POINT	Fugitive	Bag Filter	
3.	DG Set-1 250 KVA	Noise	Acoustic Enclosure	
4.	DG set -2 250 KVA	Noise	Acoustic Enclosure	

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Additional Conditions:

1. The unit shall operate and maintain all the air pollution control measures efficiently and continuously so as to achieve the standards as per Ministry of Environment and Forest, Notification dated:16.11.2009.
2. The unit shall ensure that Noise emission from the Industrial plant shall satisfy the ANL standards prescribed by the Board.
3. The unit shall conduct AAQ/SM/ANL through TNPCB lab periodically and furnish ROA of the same to the Board.
4. The unit shall periodically calibrate the online monitors provided to monitor the parameter PM at boiler stack and ensure that continuous data is provided to Care Air Centre of TNPCB, Chennai at all times.
5. The boiler of 44 TPH shall be used as standby only.
6. In case of revision of consent fee by the Government, the unit shall remit the difference in amount within one month from date of notification. Failing to remit the consent fee, this consent order will be withdrawn without any notice and further action will be initiated against the unit as per law.

For Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai

To

,
M/s.ITC LIMITED, PSPD UNIT KOVAI,
Thekkampatty Village, Vivekanandapuram.P.O., Mettupalayam Taluk, Coimbatore District,
Pin: 641113

Copy to:

1.The Commissioner, KARAMADAI-Panchayat Union, Mettupalayam Taluk, Coimbatore District .
2. The District Environmental Engineer, Tamil Nadu Pollution Control Board, COIMBATORE NORTH.
3. The JCEE-Monitoring, Tamil Nadu Pollution Control Board, Coimbatore.
4. File

रजिस्ट्री सं० डी० एल०-33004/99 REGD. NO. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

असाधारण
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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 3 अक्तूबर, 2018

का.आ. 5135(अ).—अधिसूचना का निम्नलिखित प्रारूप, जिसे केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (ii), अधिसूचना सं. का.आ. 667(अ), तारीख 27 फरवरी, 2017 की अधिसूचना को उन बातों के सिवाय अधिक्रांत करते हुए जिन्हें ऐसे अधिक्रमण से पहले किया गया है या करने का लोप किया गया है, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के द्वारा यथाअपेक्षित जनता की जानकारी के लिए, जिनके उससे प्रभावित होने की संभावना है, प्रकाशित करती है और यह सूचना दी जाती है कि उक्त प्रारूप अधिसूचना पर, उस तारीख से, जिसको इस अधिसूचना वाले भारत के राजपत्र की प्रतियां, जनता को उपलब्ध करा दी जाती है, साठ दिन की अवधि की समाप्ति पर या उसके पश्चात् विचार किया जाएगा ;

ऐसा व्यक्ति, जो प्रारूप अधिसूचना में विनिर्दिष्ट प्रस्तावों के संबंध में कोई आक्षेप या सुझाव देने में हितबद्ध है, वह लिखित रूप में, इस प्रकार विनिर्दिष्ट अवधि के भीतर केंद्रीय सरकार द्वारा विचार किए जाने के लिए सचिव, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, इंदिरा पर्यावरण भवन, ज़ोरबाग रोड, अलीगंज, नई दिल्ली-110003 या ई-मेल पते: esz-mef@nic.in पर भेज सकेगा।

प्रारूप अधिसूचना

पश्चिमी घाट, भारत के पश्चिमी तट के सीमांत पर एक महत्वपूर्ण भौगोलिक भूमि स्वरूप है और यह गोदावरी, कृष्णा, कावेरी और अनेक संख्या में अन्य नदियों का उद्गम है तथा यह कन्याकुमारी के उत्तर में ताप्ती नदी से लगभग 1500 किलोमीटर दूरी पर विस्तारित है, दक्षिण में औसतन 600 मीटर से अधिक उत्थान पर है और छह राज्यों अर्थात् गुजरात, महाराष्ट्र, गोवा, कर्नाटक, केरल और तमिलनाडु से होकर तिरछे फैला है;

और, पश्चिमी घाट वैश्विक जैव विविधता का महत्वपूर्ण स्थल और जैव विविधता का खजाना है और यह अनेक कुसुमित पादपों की स्थानिक प्रजातियों, स्थानिक मत्स्य, उभयचरी, सरीसृपों, पक्षियों, स्तनपायी और अश्कशेरूकियों की

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MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 3rd October, 2018

S.O. 5135(E).—The following draft of the notification, which the Central Government proposes to issue in exercise of the powers conferred by section 3 of the Environment (Protection) Act, 1986 (29 of 1986) is hereby published, in supersession of the notification of the Government of India, Ministry of Environment, Forest and Climate Change published in Gazette of India, Extraordinary, Part II, Section 3, Sub-Section (ii) vide notification number S.O. 667(E), dated the 27th February, 2017, as except as respects things done or omitted to be done before such supersession, as required by sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, for the information of the public likely to be affected thereby; and notice is hereby given that the said draft notification shall be taken into consideration on or after the expiry of a period of sixty days from the date on which copies of the Gazette of India containing this notification are made available to the Public;

Any person interested in making any objections or suggestions on the proposals contained in the draft notification may forward the same in writing, for consideration of the Central Government within the period so specified to the Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor bagh Road, Ali Ganj, New Delhi-110003, or at e-mail address: esz-mef@nic.in.

Draft notification

WHEREAS, Western Ghats is an important geological landform on the fringe of the west coast of India and it is the origin of Godavari, Krishna, Cauvery and a number of other rivers and extends over a distance of approximately 1500 kilometre from Tapti river in the north to Kanyakumari in the south with an average elevation of more than 600 metre and traverses through six States namely, Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu;

AND WHEREAS, Western Ghats is a global biodiversity hotspot and a treasure trove of biological diversity and it harbours many endemic species of flowering plants, endemic fishes, amphibians, reptiles, birds, mammals and invertebrates and is also an important center of evolution of economically important domesticated plant species such as pepper, cardamom, cinnamom, mango and jackfruit;

AND WHEREAS, Western Ghats has many unique habitats which are home to a variety of endemic species of flora and fauna such as Myristica swamps, the flat-topped lateritic plateaus, the Sholas and wetland and riverine Eco-systems;

AND WHEREAS, UNESCO has included certain identified parts of Western Ghats in the UNESCO World Natural Heritage List because Western Ghats is a Centre of origin of many species as also home for rich endemic biodiversity and hence a cradle for biological evolution;

AND WHEREAS, the Western Ghats not only harbour rich biodiversity, but also support a population of approximately fifty million people and include areas of high human population density and therefore, there is a need to conserve and protect the unique biodiversity of Western Ghats while allowing for sustainable and inclusive development of the region;

AND WHEREAS, the Ministry constituted a High Level Working Group to study the ecology, environmental integrity and holistic development of the Western Ghats in view of their rich and unique biodiversity and it was also tasked with the mandate to take a holistic view of the issue and to bring synergy between protection of environment and biodiversity and needs and aspirations of the local and indigenous people, sustainable development and environmental integrity of the region and to suggest steps and way forward to prevent further degradation of the fragile ecology of the Western Ghats;

AND WHEREAS, the High Level Working Group had since submitted its report to the Ministry on the 15th April, 2013 which was kept in the public domain seeking comments/views of concerned stakeholders and was also sent to the concerned six State Governments of the Western Ghats region namely, Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu for their considered comments/views on the report;

AND WHEREAS, the High Level Working Group has identified approximately thirty-seven percent the Western Ghats as ecologically sensitive which covers an area of 59,940 square kilometre. of natural

landscape of Western Ghats and represents a continuous band of natural vegetation extending over a horizontal distance of 1,500 kilometre and is spread across six states of Western Ghats region namely, Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu and includes Protected Areas and World Heritage Sites of Western Ghats and the High Level Working Group has recommended prohibition or regulation of identified projects and activities in the Ecologically Sensitive Area which have maximum interventionist and destructive impacts on Eco-systems;

AND WHEREAS, the Ministry vide OM No. 1-4/2012 – RE (Pt.), dated the 20th December 2013, had *inter alia* sought suggestions from the State Governments on modifications in the boundary of the Ecologically Sensitive Area as identified by the High Level Working Group on the basis of physical verification;

AND WHEREAS, the State Government of Kerala had earlier accordingly undertaken the exercise of demarcating Ecologically Sensitive Area in the State by physical verification the Ecologically Sensitive Area recommended by the Kerala State Government is spread over of an area of 9993.7 square kilometre, which includes 9107 square kilometre of forest area and 886.7 square kilometre of non-forest area and Ecologically Sensitive Area in that State works out to 9,993.7 square kilometre as compared to 13,108 square kilometre recommended by High Level Working Group;

AND WHEREAS, earlier the Ministry issued a draft notification vide S. O. No. 733 (E), dated the 10th March 2014, declaring Ecologically Sensitive Area in the Western Ghats taking into account the Ecologically Sensitive Area demarcated by Kerala Government for the State of Kerala instead of Ecologically Sensitive Area recommended by High Level Working Group for the State, while for other States of Western Ghats region the Ecologically sensitive Area recommended by the High Level Working Group was considered;

AND WHEREAS, while responding to the said draft notification number S.O. 733 (E), dated the 10th March, 2014 some of the States of Western Ghats region had sought an opportunity to undertake demarcation of Ecologically Sensitive Area by physical verification and the same was accorded by the Central Government vide letter dated the 9th June, 2014 except for the State of Kerala;

AND WHEREAS, the Central Government had convened meetings of the State Environment and Forest Ministers of the Western Ghat region on the 7th July, 2015 and Members of Parliament of Western Ghats region on the 3rd August, 2015 to review the progress of demarcation of Ecologically Sensitive Area by physical verification and also to address the apprehensions /concerns expressed by the State Governments and the various stakeholders of Western Ghats from time to time;

AND WHEREAS, the representatives of the State Governments of Western Ghats region had informed during the meeting held on the 7th July, 2015 that demarcation of Ecologically Sensitive Area by physical verification is in advanced stages of completeness;

AND WHEREAS, it was resolved in both the meetings to clarify that there will be no displacement or dislocation of the local people living in habitations within the Ecologically Sensitive Areas demarcated in the Western Ghats and practicing of agriculture and plantation activity shall also not be affected due to the provisions contained in the draft notification;

And Whereas, the Central Government convened a meeting with the Members of Parliament of the Western Ghats region on 11th August, 2016 and decided that the Draft Notification dated 4th September, 2015 would be the basis for further discussion to finalize it.

And Whereas, further, the Central Government convened a meeting with concerned State Govt. representatives in the Ministry on 11th April, 2018 and decided that the Draft Notification dated 27th February, 2017 would be the basis for further discussion to finalize it.

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Environment (Protection) Act, 1986 (29 of 1986) and sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby notifies the identified area of 56,825 square kilometre which is spread across six States, namely, Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu, as the Western Ghats Ecologically Sensitive Area.

2. Boundary and Description of Western Ghats Eco-sensitive Area.- (1) The boundary and description of Eco-sensitive Area as recommended by High Level Working Group excluding the State of Kerala is as under:-

(a) the extent of Eco-sensitive area falling in each state is as per Annexure A;

(b) the State-wise map of the portion of the Eco-sensitive area in each State is as per Annexure – B1 to B5;

(c) the State-wise list of villages falling within the Eco-sensitive Area along with respective Districts and Talukas is as per Annexure-C.

(2) The Eco-sensitive Area in the State of Kerala is spread over of an area of 9993.7 square kilometre which includes 9107 square kilometre of forest area and 886.7 square kilometre of non-forest area and the boundary and description of Eco-sensitive Area and the village-wise details of Eco-sensitive area proposed by the State Government are available on the website of the Kerala State Biodiversity Board.

3. Projects and activities to be prohibited or regulated in the Eco-sensitive area.- (1) The following categories of projects and activities shall be prohibited in Eco-sensitive Area except those proposals which have been received by Expert Appraisal Committees or the Ministry of Environment, Forest and Climate Change or State Level Expert Appraisal Committees or the State Level Environment Impact Assessment Authorities before the 17th April, 2013, the date on which the High Level Working Group report was uploaded on the website of the Ministry and are pending consideration and such proposals shall be dealt in accordance with the guidelines and rules in existence at that time.

(a) Mining.- There shall be a complete ban on mining, quarrying and sand mining in Ecologically Sensitive Area and all existing mines shall be phased out within five years from the date of issue of the final notification or on the expiry of the existing mining lease, whichever is earlier.

(b) Thermal power plants.- No new thermal power projects and expansion of existing plants shall be allowed in the Ecologically Sensitive Area.

(c) Industry.- All new 'Red' category of industries as specified by the Central Pollution Control Board or State Pollution Control Board and the expansion of such existing industries shall be banned and the list of 'Red' category of industries shall be as specified by the Central Pollution Control Board:

provided that all existing 'Red' category of industries including health care establishments shall continue in Eco-sensitive Area under the applicable rules and regulations.

(d) Building, construction, township and area development projects.- All new and expansion projects of building and construction with built up area of 20,000 square metres and above and all new and expansion townships and area development projects with an area of 50 hectares and above or with built up area of 1,50,000 square metres and above shall be prohibited and there shall be no restriction on repair or extension or renovation of existing residential houses in the Eco-sensitive Area as per prevailing laws and regulations.

Note: (1) All existing health care establishments can continue in Eco-sensitive Area and proposed Primary Health Centres established as per laws and regulations. 2 No restriction in change in ownership of property.

(2) The following categories of projects and activities shall be regulated as given below:-

(a) Hydropower projects- New Hydropower projects shall be allowed as per the Environment Impact Assessment notification, published vide number S.O. 1533 (E), dated the 14th September, 2006, subject to the following conditions, namely:-

(i) uninterrupted ecological flow of at least thirty percent of the rivers flow in lean season, till a comprehensive study establishes individual baselines for each project;

(ii) a cumulative study which assesses the impact of each project on the flow pattern of the rivers and forest and biodiversity loss;

(iii) the minimum distance between one project and the other is maintained at three kilometre and not more than fifty per cent. of the river basin is affected at any time,

(b) The "Orange/White" category of Industries as specified by the Central Pollution Control Board or State Pollution Control Board shall be allowed with strict compliance of environmental regulations but all efforts shall be made to promote industries with low environmental impacts.

(c) In the case of activities that are covered in the schedule to the Environment Impact Assessment notification number S.O. 1533 (E), dated 14th September, 2006, published by theerstwhile Ministry of Environment and Forests and are falling in the Eco-sensitive Area, except the projects and activities which are specifically prohibited under sub-para (1) shall be scrutinised and assessed for cumulative impacts and development needs before considering for prior environmental clearance by the Ministry under the provisions of the said notification.

(d) In particular and without prejudice to the provisions of the relevant Acts, in cases of diversion of forest land for non-forestry purposes in the Eco-sensitive Area, all information of the project, from application stage to approval shall be placed in the public domain on the website of the Ministry of Environment, Forest and Climate Change and of the Forest Department of the respective States.

(e) The requirements of prior informed consent under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (2 of 2007) shall be complied with and the consent of Gram Sabha for undertaking projects and activities shall be mandatory.

4. Implementation and Monitoring mechanism.– (1) The responsibility for monitoring and enforcement of provisions of this notification shall be with the concerned State Governments of Western Ghats region and the State Governments shall ensure placing of required mechanisms for effective monitoring and enforcement of restrictions in the Eco-sensitive Area and while placing such mechanisms, the State Governments shall inter-alia ensure strengthening of existing regulatory institutions and processes, and participation and involvement of local communities in decision making and the details of such mechanisms shall be shared by the concerned State Governments with the Ministry of Environment, Forest and Climate Change .

(2) A Decision Support and Monitoring Centre for Western Ghats shall be established by the Ministry of Environment, Forest and Climate Change in collaboration with the six State Governments of the Western Ghats region which shall assess and report on the status of ecology of Western Ghats on regular basis and provide decision support facility in the implementation of the provisions of this notification and shall also facilitate mechanisms for scientific decision making and strengthening enforcement.

(3) The post clearance monitoring of projects and activities allowed in the Eco-sensitive Area shall be carried out by the concerned State Government, State Pollution Control Board and the Regional Office of the Ministry and all projects in the Eco-sensitive Area which have been given Environmental Clearance or Forest Clearance shall be monitored at least once a year by the concerned Regional Office of the Ministry of Environment, Forest and Climate Change .

(4) All projects in the Eco-sensitive Area which have been given consent to establish or Consent to Operate under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) shall be monitored at least once a year by the concerned State Pollution Control Board and the concerned State Governments shall prepare 'State of Health Report' in respect of Western Ghats region falling within their jurisdiction on an annual basis giving inter-alia the details of steps taken in monitoring and enforcement of provisions of this notification and make the same available in public domain.

5. Action for contravention.- In case of any contravention of the provisions of this notification, action under the provisions of the Environment (Protection) Act, 1986 (29 of 1986) and other relevant statutes shall be taken accordingly.

6. The provisions in this notification shall be subject to the final orders of the court in pending litigation.

7. The provisions of this notification shall not affect the ownership of the property in the Eco-sensitive Area.

[F. No. 1-4-2012-ESZ]

Dr. SATISH C. GARKOTI, Scientist 'G'

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9777
14/10/19

Speed Post

No. CPCB/IPC-IV/GL/Irrigation/ 2019-20/7348 October 04, 2019

To

The Member Secretary
Punjab Pollution Control Board,
Vatavaran Bhawan, Nabha Road,
Patiala -147001 (Punjab)

Sub: Guidelines for Utilisation of Treated Effluent in Irrigation.

Sir,

The Hon'ble NGT (Principal Bench, Delhi) has directed CPCB vide order dated 26.09.2019 in the matter of O.A. No. 348/2017, Shailesh Singh Vs Al-Dua Food Processing Pvt. Ltd. to circulate the **"Guidelines for Utilisation of Treated Effluent in Irrigation"**, to all SPCBs/PCCs, which are required to be followed in every consent to establish as a condition for use of treated effluent in irrigation.

The "Guidelines for Utilisation of Treated Effluent in Irrigation" may also be referred on the CPCB website at the web-link "https://www.cpcb.nic.in/NGT/Guidelines-UTE-Irrigation.pdf".

Yours faithfully

(Ajay Aggarwal)
AD & Div. Head IPC-IV

Encl.: as above

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली 110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032
दूरभाष/Tel : 43102030, 22305792, वेबसाईट/Website : www.cpcb.nic.in

Guidelines
for
Utilisation of Treated Effluent in Irrigation

CENTRAL POLLUTION CONTROL BOARD
(Ministry of Environment, Forest & Climate Change)
'Parivesh Bhawan', East Arjun Nagar,
Delhi- 110 032

September 2019

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Guidelines for Utilisation of Treated Effluent in Irrigation

1.0 Background

The Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi, vide order dated 24.05.2019 in the matter of O.A. No. 348/2017, Shailesh Singh Vs Al-Dua Food Processing Pvt. Ltd., issued the following directions to CPCB:

"..We may add that no industry can be permitted to dispose treated effluents on land for irrigation, plantation or horticulture/gardening by prescribing standards applicable without assessment of adequate availability of land and impacts of such disposal on agricultural / crops /plants and the recipient ground water. Impact of precipitation levels also needs consideration while granting such approvals. ZLD needs to be considered with respect to use of effluents in the industrial processes not in terms of its disposal on land or farm. Therefore, the CPCB needs to look into this aspect with the help of experts and issue appropriate guidelines in this regard. This aspect may also be covered in the report to be submitted in the present case..."

CPCB, constituted an Expert Group, comprising of members from Indian Institute of Technology (IIT), Delhi, National Environmental Engineering Research Institute (NEERI), Delhi and Central Pollution Control Board (CPCB), Delhi, to lay down guidelines as directed by the Hon'ble NGT. The Expert Group in its two meetings held on 7.8.2019 and 23.09.2019, discussed the issues thoroughly and finalised the **"Guidelines for Utilisation of Treated Effluent in Irrigation"** as given in the following paragraphs/sections.

2.0 Introduction

Zero Liquid Discharge (ZLD) implies that the industries are not discharging any effluent, either on the land or in the water body or at any other place i.e. recycling the same in the process entirely without releasing any effluent.

ZLD accomplishment may need physical & chemical treatment, followed by biological system to remove organic load. The treated effluents can be then subjected for concentration and evaporation. The concentration method quite often involves the adoption of Reverse Osmosis (RO) and Nano Filtration (NF) methods. The evaporation methods involve drying/evaporation of effluent in multi effect evaporators (MEE).

Adopting ZLD practices may not be feasible in many cases in view of techno-economical reasons. However, the industries should still to be encouraged for

recycling and reuse of waste water as far as practicable in order to minimize the fresh water consumption and discharge of waste water into the environment. The treated waste water of an industry may also be utilised for irrigation. This type of utilisation/application is considered an efficient approach for managing/conserving water resources, compensating water shortages caused by seasonality or the irregular availability of water sources for irrigation throughout the year.

The possible risks of wastewater usage in agriculture may range from changes to physico-chemical and micro-biological properties of soils to impact on human health. In unfavorable economic conditions, the search for alternative irrigation sources, such as the use of untreated or inadequately treated wastewater may result in risk factors. Thus, it is necessary to ensure the beneficial aspects of this practice before application of treated wastewater in irrigation.

3.0 Guidelines for Utilisation of Effluent in Irrigation

(i) The industry should engage an agricultural scientist or tie-up with an agricultural university or institute for advice on the utilization or the rate of application of the effluent for irrigation considering the agro-climatic conditions.

(ii) As seasons and the sowing periods of the crops put restrictions on the utilisation of effluent for irrigation, the industry should prepare a comprehensive Irrigation Management Plan (IMP), which should include the following, in consultation with the agricultural scientist or agriculture university/institute and submit to SPCBs/PCCs which should verify the same while issuing Consent to the industry:

a. Areas to be covered under irrigation.
b. Survey/plot (khasra) numbers of land and their area covered in the scheme.
c. Written agreement with the farmers to bring their land under the scheme.
d. The quantity of effluent to be used in different periods of the year and crop-wise.
e. The treated effluent distribution system and arrangement for low/no demand period.
f. Agronomic plan for effective utilisation of land.

iii. The treated effluent should meet the norms prescribed for irrigation under Environment (Protection) Rules, 1986/Consent. The effluent should also conform to Total Dissolved Solid (TDS)- 2100 mg/l and Sodium Adsorption Ratio (SAR)- preferably less than 18 but not more than 26, depending on soil/crop type, besides meeting any other parameters suggested by agricultural scientist or agricultural university/institute in the IMP.

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iv. Meeting the prescribed norms shall not be the only criteria for use of treated waste water in irrigation, the requirement of water for irrigation will also be a limiting condition and this depends upon various factors, as follow:

a. **Crop:** This is the main subject determining the water requirement, such as, paddy crops (in general) need more water than trees.
b. **Climate:** In tropical and subtropical climate especially in arid regions, irrigation frequency is higher. However, in slightly moist conditions the frequency decreases.
c. **Irrigation type:** There are various irrigation types, namely, flood irrigation, sprinkler, rain gun, drip irrigation, etc., which influences the water requirement for irrigation.
d. **Soil condition:** The various soil types, such as loam, clay, sandy, clay loam, sandy loam etc., determine the crop types and also alters the irrigation system thus determining the water requirement.
e. **Soil permeability:** The soil permeability, which is also known as water conductivity of the soil, determines the water retention capacity. This determines the cultivable crops, which in turn determines the water requirement for irrigation.
f. **Total Salt Concentration:** Total salt concentration (for all practical purposes, the total dissolved solids) is one of the most important agricultural water quality parameters. The plant growth, crop yield and quality of produce are affected by the total dissolved salts in the irrigation water.

v. The command area for effluent utilisation should be as near as feasible to the industry in order to facilitate easy monitoring and effective control. The industry should construct a distribution network of impervious conduits to cover the irrigated area.

vi. The industry should construct impervious lined storage tank of minimum 15 days capacity for storage of treated effluent during low/no demand, based on the Irrigation Management Plan.

vii. The treated effluent should be analysed regularly, say after every 15 days. The effluent samples should be taken at the point from where the effluent is discharged for irrigation.

viii. The physico-chemical characteristics of the soil under irrigation with treated effluent, should be monitored twice in a year to assess conditions in summer and post monsoon seasons, in order to determine the deterioration of soil quality.

ix. Similarly, the groundwater quality should also be monitored twice in a year. Samples should be collected from the first water bearing strata from existing hand pumps or by installing the same for sampling purpose only. The sampling points should be uniformly spread in the command area and near effluent storage area.

x. The industry should carry out the analysis of various prescribed effluent/soil/ground water quality parameters from the NABL/EPA/ SPCBs/PCCs recognised/accredited laboratories.

xi. Reports regarding compliance of effluent quality standards and status of soil and ground water quality shall be submitted to SPCBs/PCCs twice in a year, in first week of January and July.

xii. In case of observation of any deterioration of the soil and groundwater quality parameters in the assessment by agricultural scientist or agricultural university/institute, the application of effluent should be stopped immediately and the industry should inform the SPCB, accordingly. The industry shall be solely responsible for reclaiming the soil and water quality at their cost in the affected area.

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Water Quality Requirement for Different Uses

For any water body to function adequately in satisfying the desired use, it must have corresponding degree of purity. Drinking water should be of highest purity. As the magnitude of demand for water is fast approaching the available supply, the concept of management of the quality of water is becoming as important as its quantity.

Each water use has specific quality need. Therefore, to set the standard for the desire quality of a water body, it is essential to identify the uses of water in that water body. In India, the Central Pollution Control Board (CPCB) has developed a concept of *designated best use*. According to this, out of the several uses of water of a particular body, the use which demands highest quality is termed its *designated best use*. Five *designated best uses* have been identified. This classification helps the water quality managers and planners to set water quality targets and design suitable restoration programs for various water bodies.

Designated Best Uses of Water

Designated Best Use	Class	Criteria
Drinking Water Source without conventional treatment but after disinfection	A	1.Total Coliforms Organism MPN/100ml shall be 50 or less 2. pH between 6.5 and 8.5 3. Dissolved Oxygen 6mg/l or more 4. Biochemical Oxygen Demand 5 days 20 °C, 2mg/l or less
Outdoor bathing (Organised)	B	1.Total Coliforms Organism MPN/100ml shall be 500 or less 2. pH between 6.5 and 8.5 3. Dissolved Oxygen 5mg/l or more 4. Biochemical Oxygen Demand 5 days 20 °C, 3mg/l or less
Drinking water source after conventional treatment and disinfection	C	1. Total Coliforms Organism MPN/100ml shall be 5000 or less 2. pH between 6 and 9 3. Dissolved Oxygen 4mg/l or more 4. Biochemical Oxygen Demand 5 days 20 °C, 3mg/l or less
Propagation of Wild life and Fisheries	D	1. pH between 6.5 and 8.5 2. Dissolved Oxygen 4mg/l or more 3. Free Ammonia (as N) 4. Biochemical Oxygen Demand 5 days 20 °C, 2mg/l or less
Irrigation, Industrial Cooling, Controlled Waste disposal	E	1. pH between 6.0 and 8.5 2. Electrical Conductivity at 25 °C micro mhos/cm, maximum 2250 3. Sodium absorption Ratio Max. 26 4. Boron Max. 2mg/l
	Below-E	Not meeting any of the A, B, C, D & E criteria

Source: CPCB

A colour coding frequently used to depict the quality of water on maps

Blue water	This water can be directly used for drinking, industrial use, etc.
Green water	Water contained in soil and plants is termed as green water
White water	Atmospheric moisture is white water
Brown or grey water	Various grades of wastewater are shown by brown or grey colour

In India, CPCB has identified water quality requirements in terms of a few chemical characteristics, known as primary water quality criteria. Further, Bureau of Indian Standards has also recommended water quality parameters for different uses in the standard IS 2296:1992.

Water Quality Standards in India (Source IS 2296:1992)

Characteristics	Designated best use				
	A	B	C	D	E
Dissolved Oxygen (DO)mg/l, min	6	5	4	4	-
Biochemical Oxygen demand (BOD)mg/l,	2	3	3	-	-

Total coliform organisms MPN/100ml, max	50	500	5,000	-	-
pH value	6.5-8.5	6.5-8.5	6.0-9.0	6.5-8.5	6.0-8.5
Colour, Hazen units, max.	10	300	300	-	-
Odour	Un-objectionable			-	-
Taste	Tasteless	-	-	-	-
Total dissolved solids, mg/l, max.	500	-	1,500	-	2,100
Total hardness (as $CaCO_3$), mg/l, max.	200	-	-	-	-
Calcium hardness (as $CaCO_3$), mg/l, max.	200	-	-	-	-
Magnesium hardness (as $CaCO_3$), mg/l, max.	200	-	-	-	-
Copper (as Cu), mg/l, max.	1.5	-	1.5	-	-
Iron (as Fe), mg/l, max.	0.3	-	0.5	-	-
Manganese (as Mn), mg/l, max.	0.5	-	-	-	-
Cholorides (as Cu), mg/l, max.	250	-	600	-	600
Sulphates (as SO_4), mg/l, max.	400	-	400	-	1,000
Nitrates (as NO_3), mg/l, max.	20	-	50	-	-
Fluorides (as F), mg/l, max.	1.5	1.5	1.5	-	-
Phenolic compounds (as C_2H_5OH), mg/l, max.	0.002	0.005	0.005	-	-
Mercury (as Hg), mg/l, max.	0.001	-	-	-	-
Cadmium (as Cd), mg/l, max.	0.01	-	0.01	-	-
Salenium (as Se), mg/l, max.	0.01	-	0.05	-	-
Arsenic (as As), mg/l, max.	0.05	0.2	0.2	-	-
Cyanide (as Pb), mg/l, max.	0.05	0.05	0.05	-	-
Lead (as Pb), mg/l, max.	0.1	-	0.1	-	-
Zinc (as Zn), mg/l, max.	15	-	15	-	-
Chromium (as Cr^{6+}), mg/l, max.	0.05	-	0.05	-	-
Anionic detergents (as MBAS), mg/l, max.	0.2	1	1	-	-
Barium (as Ba), mg/l, max.	1	-	-	-	-
Free Ammonia (as N), mg/l, max	-	-	-	1.2	-
Electrical conductivity, micromhos/cm, max	-	-	-	-	2,250
Sodium absorption ratio, max	-	-	-	-	26
Boron, mg/l, max	-	-	-	-	2

Guidelines are available to evaluate quality of water for irrigation. For irrigation, water can be classified in five classes depending upon its chemical properties.

Guidelines for Evaluation of Irrigation Water Quality

Water class	Sodium (Na) %	Electrical conductivity (μS/cm)	SAR	RSC meq/l
Excellent	< 20	< 250	< 10	< 1.25
Good	20 - 40	250 – 750	10 – 18	1.25 – 2.0
Medium	40 - 60	750 – 2,250	18 – 26	2.0 – 2.5
Bad	60 – 80	2,250 – 4,000	> 26	2.5 – 3.0
Very bad	> 80	> 4,000	> 26	> 3.0

Drinking Water Specifications (IS 10,500:1991)

Characteristics	Desirable limit	Permissible limit
Essential Characteristics		
Colour, Hazen Units, Max	5	25
Odour	Unobjectionable	-

Turbidity, NTU, Max	5	10
PH value	6.5 to 8.5	-
Total Hardness (as $CaCo_3$), mg/l, Max	300	600
Iron (as Fe), mg/l, Max	0.3	1.0
Chlorides (as Cl), mg/l, Max	250	1,000
Residual free chlorine, mg/l, Max	0.2	-
Desirable Characteristics		
Dissolved solids, mg/l, Max	500	2,000
Calcium as (Ca), mg/l, Max	75	200
Magnesium (as Mg), mg/l, Max	30	75
Copper (as Cu), mg/l, Max	0.05	1.5
Manganese (as Mn), mg/l, Max	0.1	0.3
Sulphate (as So_4), mg/l, Max	200	400
Nitrate (as No_3), mg/l, Max	45	100
Flouride (as F0, mg/l, Max	1.0	1.5
Phenolic compounds (as C_6H_5OH), mg/l, Max	0.001	0.002
Mercury (as Hg), mg/l, Max	0.001	-
Cadmium (as Cd), mg/l, Max	0.01	-
Selenium (as Se), mg/l, Max	0.01	-
Arsenic (as As), mg/l, Max	0.05	-
Cyanide (as CN), mg/l, Max	0.05	
Lead (as Pb), mg/l, Max	0.05	-
Anionic detergents (as MBAS), mg/l, Max	0.02	1.0
Chromium (as Cr^{6+}), mg/l, Max	0.05	-
PAH, mg/l, Max	-	-
Mineral oil, mg/l, Max	0.01	0.03
Pesticides, mg/l, MAX	Absent	0.001
Alkalinity, mg/l, Max	200	600
Aluminum (as Al), mg/l, Max	0.03	0.2
Boron, mg/l, Max	1	5

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தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்

அனுப்புநர்	பெறுநர்
த. ஜெயலட்சுமி. எம்.இ., பொது தகவல் அலுவலர் / மாவட்ட சுற்றுச்சூழல் பொறியாளர், தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம், கோவை வடக்கு அலுவலகம், 5, ராமசாமி நகர், கவுண்டம்பாளையம், கோயம்புத்தூர் - 641 030. மின்னஞ்சல் முகவரி : tnpcbcbn@gmail.com தொலைபேசி எண். 0422-2444608	திரு. டி.டி. அரங்கசாமி, தலைவர், பவானி நதி நீர் மற்றும் நிலத்தடி நீர், பாதுகாப்புக்குழு, உமா சங்கர் நிலையம், எல். எஸ். புரம், மேட்டுப்பாளையம் அஞ்சல், மேட்டுப்பாளையம் வட்டம், கோவை மாவட்டம் – 641 301.

க.எண். கோ.சிபிஎண். 1371/தபெஉச/மாசுகூபொ/தமாகவா/கோவை(வ)/உபொ(1)/2020, நாள். 14.10.2020

அய்யா,

பொருள் - தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் - கோவை வடக்கு அலுவலகம் – தகவல் பெறும் உரிமைச் சட்டம் – 2005 – தகவல் அளிப்பது – தொடர்பாக.

பார்வை - தகவல் பெறும் உரிமைச் சட்டம் – 2005 –ன் கீழ் தங்களது 26.09.2020 நாளிட்ட மனு இவ்வலுவலகத்தில் பெறப்பட்ட நாள். 28.09.2020.

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பார்வையில் கண்டுள்ள தங்களது தகவல் அறியும் உரிமைச் சட்டம் - 2005 மனுவில் கோரியுள்ளவற்றிற்கான தகவல்கள் கீழ்கண்டவாறு அளிக்கப்படுகிறது.

பார்வையில் கண்டுள்ள தகவல் பெறும் உரிமைச் சட்டம் 2005 மனுவிலுள்ள வரிசை எண்.	விபரம்
1.	76.92 ஹெக்டேர் (இவ்வலுவலக கோப்புகளில் உள்ளபடி)
2.	பருவநிலைக்கேற்ப பயிர்கள் சாகுபடி செய்வதால் இது குறித்த தகவல்கள் இவ்வலுவலக கோப்புகளில் இல்லை.
3.	பாசன பரப்பு - 76.92 ஹெக்டேர் (இவ்வலுவலக கோப்புகளில் உள்ளபடி). பயிர்களின் வகை குறித்த தகவல்கள் இவ்வலுவலக கோப்புகளில் இல்லை.
4.	தாங்கள் கோரும் தகவல்கள் இவ்வலுவலக கோப்புகளில் இல்லை.
5. மற்றும் 6.	தாங்கள் கோரும் தகவல்கள் 11 பக்கங்கள் கொண்டதாகும். பக்கத்திற்கு ரூ.2 வீதம் ரூ.22/- செலுத்தும் பட்சத்தில் தகவல்கள் வழங்கப்படும்.
7.	1994 ஆம் ஆண்டில் சேகரிக்கப்பட்ட நீர் மாதிரிகளின் விபரம் இவ்வலுவலக கோப்புகளில் இல்லை. 2020 ஜனவரி மாதத்தில் சேகரிக்கப்பட்ட நீர் மாதிரிகள் தொடர்பான தகவல்கள் 9 பக்கங்கள் கொண்டதாகும். பக்கத்திற்கு ரூ.2 வீதம் ரூ.18/- செலுத்தும் பட்சத்தில் தகவல்கள் வழங்கப்படும்.
8.	தாங்கள் கோரும் தகவல்கள் 10 பக்கங்கள் கொண்டதாகும். பக்கத்திற்கு ரூ.2 வீதம் ரூ.20/- செலுத்தும் பட்சத்தில் தகவல்கள் வழங்கப்படும்.

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	9.	**உற்பத்தி** 1. Duplex Board, Cromo Board & Art Board – 10000 T/M. 2. மின்சாரம் - 8 MW/hr **மூலப் பொருட்கள்.** 1. Purchased Pulp – 83.33 டன்கள் (நாளொன்றுக்கு) 2. Waste Paper – 350 டன்கள் (நாளொன்றுக்கு)
	10.	தாங்கள் கோரும் தகவல்கள் இவ்வலுவலக கோப்புகளில் இல்லை.
	11.	தாங்கள் கோரும் தகவல்கள் இவ்வலுவலக கோப்புகளில் இல்லை.
	12.	தாங்கள் கோரும் தகவல்கள் இவ்வலுவலக கோப்புகளில் இல்லை.

தி/ள். சாரதா டெர்ரி புராடெக்ட்ஸ்.

தற்சமயம் மேற்படி நிறுவனத்தில் சூரிய ஆவியாக்குதல் களம் ஏதும் உபயோகத்தில் இல்லை.

தி/ள். யுனைடெட் பிளீச்சிங்

தற்சமயம் மேற்படி நிறுவனத்தில் சூரிய ஆவியாக்குதல் களம் ஏதும் உபயோகத்தில் இல்லை.

தி/ள். K.G. டெனிம்

1. நீர மாதிரிகள் சேகரிக்கப்பட்ட விபரம் இவ்வலுவலக கோப்புகளில் இல்லை.
2. தற்சமயம் மேற்படி நிறுவனத்தில் சூரிய ஆவியாக்குதல் களம் ஏதும் உபயோகத்தில் இல்லை.

தி/ள். சிறுவாணி டெக்ஸ்டைல்ஸ்

தற்சமயம் மேற்படி நிறுவனத்தில் சூரிய ஆவியாக்குதல் களம் ஏதும் உபயோகத்தில் இல்லை.

தகவல் அறியும் உரிமைச் சட்டத்தின் கீழ் மேல்முறையீடு செய்யும் பொருட்டு தாங்கள்

தலைமை சுற்றுச்சூழல் பொறியாளர்/
மேல் முறையீட்டு அலுவலர்,
தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்,
76, மௌண்ட் சாலை, கிண்டி,
சென்னை – 600 032.
மின்னஞ்சல் முகவரி - pcbrti@gmail.com
தொலைபேசி எண். 044-22353146, 22353143

என்ற முகவரியில் மேல் முறையீடு செய்து தகவல்கள் பெற்றுக் கொள்ளலாம் என்பது தெரிவித்துக் கொள்ளப்படுகிறது.

பொது தகவல் அலுவலர்,
தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்,
கோவை வடக்கு.

TAMILNADU POLLUTION CONTROL BOARD

From
T.Jayalakshmi, M.E.,
Public Information Officer
District Environment Engineer,
Tamilnadu Pollution Control
Board, Covai North Office,
No.5, Ramasamy Nagar,
Goundanpalayam,
Coimbatore – 641030.
Email : tnpcbcbn@gmail.com
Phone : 0422 – 2444608

To
Mr.D.D.Arangasamy,
President, Bhavani River
Water and Ground Water
Protection Committee,
Uma Sankar Nilayam,
L.S.Puram, Mettupalayam
Post, Mettupalayam Taluk,
Covai District – 641 301.

Ka.No.Ko.C.P.No.1371/Tha.Po.Vu.Sa./Ma.Su.Soo.Po./Covai (N)/Vu.Po(1)/2020, dated 14.10.2020

Sir,

Sub: Tamilnadu Pollution Control Board – Coimbatore North Office – Right to Information Act 2005 – furnishing information – regarding.

Ref: Your petition dated 26.09.2020 submitted under Right to Information Act, 2005 received by this Office on 28.09.2020.

****

The below mentioned information was furnished for your petition under Right to Information Act, 2005 as cited under reference.

Serial Number found in Petition under Right to Information Act, 2005 cited under reference	**Details**
1.	76.92 Hectares (as per the records of this office)
2.	There is no information found in this office records as the crops are being Seasonal.
3.	Extent of Irrigation – 76.92 Hectares (as per the records of this office)

	Information regarding nature of crops are found in the office records.
4.	Information sought for by you are not found in the office records.
5 & 6	Information sought for by you contains 11 pages, information may be furnished on payment of Rs.22/- at the rate of Rs.2 per page.
7.	Details of the water samples collected in the year 1994 are not found in the records of this office. The information regarding water samples collected in the month of January 2020 contains 9 pages. The same may be furnished on payment of Rs.18/- at the rate of Rs.2 per page.
8.	The information sought for by you contains 10 pages. The same may be furnished on payment of Rs.20/- at the rate of Rs.2 per page.
9.	**Production** 1. Duplex Board, Cromo Board & Art Board – 10000 T/M/ 2. Electricity – 8 MW/hr **Raw Materials** 1. Purchased Pulp – 83.33 Tons (per day) 2. Water Paper – 350 Tons (per day)
10.	Information sought for by you are not found in the office records.
11.	Information sought for by you are not found in the office records.
12.	Information sought for by you are not found

	in the office records.

M/s.SARADHA TERRI PRODUCTS:

At present no Solar Evaporation Site is under use in the said company.

M/s.UNITED BLEECHING:

At present no Solar Evaporation Site is under use in the said company.

M/s.K.G.DENIM:

1. Details of the Water Samples collected are not found in the records of this office.

2. At present no Solar Evaporation Site is under use in the said company.

M/s.SIRUVANI TEXTILES:

At present no Solar Evaporation Site is under use in the said company.

This is informed that you shall prefer an appeal under Right to Information Act in the below mentioned address and sought for information required.

Chief Environment Engineer /
Appellate Officer,
Tamilnadu Pollution Control Board,
76, Mount Road, Guindy,
Chennai - 600032.
Email Address - pcbrti@gmail.com
Phone Number - 044-22353146, 22353143

Sd.xxx 14.10.2020
Public Information Officer,
Tamilnadu Pollution Control Board,
Coimbatore North.

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/பதிவு தபால் ஒப்புதல் அட்டையுடன்/

தமிழ் நாடு வேளாண்மைப் பல்கலைக்கழகம்

அனுப்புநர்
முனைவர். வெ.கி.துரைசாமி,
பொது தகவல் அலுவலர் (பிரிவு - 1),
ஆராய்ச்சி இயக்குநர்,
தமிழ் நாடு வேளாண்மைப் பல்கலைக்கழகம்,
கோயமுத்தூர் - 641 003.

பெறுநர்
திரு. டி.டி. அரங்கசாமி,
தலைவர், பவானி நதிநீர் மற்றும் நிலத்தடி நீர் பாதுகாப்பு குழு,
உமா சங்கர் நிலையம்,
எல்.எஸ்.புரம்
மேட்டுப்பாளையம் 641 301.

எண்.06/18975/பொது. த. அ/ (பிரிவு - 1)/ திரு. டி.டி. அரங்கசாமி/ மேட்டுப்பாளையம் /2020

அய்யா, தேதி: 15.10.2020

பொருள்: திரு. டி.டி. அரங்கசாமி - கரும்பு சாகுபடி – தகவல் கேட்டது - தகவல் அனுப்புதல்- சம்பந்தமாக.

பார்வை: தங்களின் 26.09.2020 தேதியிட்ட மனு இவ்வலுகத்தில் பெறப்பட்ட நாள் 28.09.2020.

-/-

பார்வையில் குறிப்பிட்ட தங்களின் தகவல் அறியும் உரிமைச் சட்டத்தின் கீழ் பெறப்பட்ட மனுவிற்கான தகவல்கள் கீழே கொடுக்கப்பட்டுள்ளது.

கேள்வி -1.

1. கரும்பு சாகுபடிக்கு கோவை மாவட்டத்தில், நீர்த் தேவை தகவல் விவரங்கள்

தகவல் -1.

எண்	பருவம்	நாட்கள்	மணல்			களிமண்		
			நீர் பாய்ச்சும் இடைவெளி (நாட்கள்)	மொத்த நீரின் ஆழ அளவு (மி.மீ)	மொத்த நீரின் கன அளவு க.மீ ஹெக்டேர்	நீர் பாய்ச்சும் இடைவெளி (நாட்கள	மொத்த நீரின் ஆழ அளவு (மி.மீ	மொத்த நீரின் கன அளவு க.மீ ஹெக்டேர்
1.	முளைப்பு	0-35	-	150	1500	-	150	1500
2.	தூர் விடுதல்	36-100	8	400	4000	10	350	3500
3.	வளர்ச்சி	101-270	8	1050	10500	10	850	8500
4.	முற்றுதல்	271-365	10	500	5000	14	350	3500
		மொத்தம்		2100	21000		1700	17000

கேள்வி -2.

அ) தென்னைக்கு தேவையான நீரின் அளவு வளர்ச்சி பருவத்திற்கு கேற்ப.

ஆ) மண்ணின் தன்மை (சொட்டு நீர் அல்லாத பாசனம்)

தகவல் -2.

எண்	மாதம்	நீர்த்தேவை ஒரு மரத்துக்கு (லிட்டர்)	நீர்ப்பாய்ச்சும் இடைவெளி (நாட்கள்)
1.	பிப்ரவரி முதல் மே வரை	410	6
2.	ஜனவரி, ஆகஸ்டு, செப்டம்பர்	410	7
3.	ஜூன், ஜூலை, அக்டோபர், நவம்பர், டிசம்பர்	410	9

குறிப்பு - 6-8 **pH** தன்மையுள்ள மண் வகைகளுக்கு பொருந்தும்.

15.10.2020

பொதுத் தகவல் அலுவலர் (பிரிவு I)

15/10/2020

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/Registered Post with Acknowledgement Due/

TAMILNADU AGRICULTURAL UNIVERSITY

From

Dr.Ve.Ki.Duraisamy,
Public Information Officer (Section -1)
Research Director,
Tamilnadu Agriculture University
Coimbatore - 641 003.

To

Mr.D.D.Arangasamy
President, Bhavani River
Water and Ground Water
Protection Committee,
Uma Sankar Nilayam,
L.S.Puram,
Mettupalayam-641301.

No.06/18975/Po.Tha.A/(Section-1)/Mr.D.D.Arangasamy/Mettupalayam/2020

Sir, Date: 15.10.2020

Sub: Mr.D.D.Arangasamy - Sugarcane Cultivation - Sought for Information - sending information - regarding.

Ref: Your Petition dated 26.09.2020 received by this office on 28.09.2020.

****

Below mentioned information were furnishedyou're your petition under Right to Information Act cited under reference above.

Question No.1:

1. Details of the demand of water for cultivating Sugarcane in Coimbatore District.

Information - 1:

S. No.	Season	Days	Sand			Clay		
			Water flow Interval (days)	Depth of the total water (M.M)	Amount of Total Water in cubic meter per Hectare	Water flow Interval (days)	Depth of the total water (M.M)	Amount of Total Water in cubic meter per Hectare
1.	Germination	0-35	-	150	1500	-	150	1500
2.	Sprouting	36-100	8	400	4000	10	350	3500
3.	Grown	101-270	8	1050	10500	10	850	8500
4.	Mature	271-365	10	500	5000	14	350	3500
				2100	21000		1700	17000

Question No.2:

a) Required water for growth of coconut as per season

b) Nature of Soil (Except drop water irrigation type)

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Information No.2:

No.	Month	Required water per tree (in Litres)	Gap of irrigation (in days)
1.	February to May	410	6
2.	January, August & September	410	7
3.	June, July, October, November and December	410	9

Note: Suit for the soil with 6 – 8 pH.

Sd.xxx 15.10.2020
Public Information Officer (Section – I)

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பதிவு அஞ்சல் ஒப்புகை அட்டையுடன்

பொதுப்பணித்துறை / நீர்வள ஆதாரத்துறை

அனுப்புநர்,
பொறி.M.ரவி,பி.இ,
பொது தகவல் அலுவலர் (மு) செயற்பொறியாளரின்
தொழில்நுட்ப நேர்முக உதவியாளர்,
பவானிசாகர் அணைக்கோட்டம்,
பவானிசாகர் – 638 451.
☎ 04295 - 240224.

பெறுநர்
திரு.டி.டி.அரங்கசாமி,
தலைவர்,
பவானி நதிநீர் மற்றும் நிலத்தடி நீர்
பாதுகாப்புக்குழு,
உமா சங்கர் நிலையம்,
போரே கவுடர் வீதி,
மேட்டுப்பாளையம் – 641 301

கடித எண்.வப / இவஅ.2/ கோ.த.அ.உ.ச / 2020 / 468 நாள். 27.10.2020

அய்யா,

பொருள் தகவல் அறியும் உரிமை சட்டம் 2005–ன் கீழ் தகவல்கள் கோரியது – தொடர்பாக.

பார்வை திரு.டி.டி.அரங்கசாமி, தலைவர், பவானி நதிநீர் மற்றும் நிலத்தடி நீர் பாதுகாப்புக்குழு, உமா சங்கர் நிலையம், போரே கவுடர் வீதி, மேட்டுப்பாளையம் – 641 301 மனு நாள்.26.09.2020 (இவ்வலுவலகத்தில் கிடைக்கப்பெற்ற நாள்.28.09.2020)

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பார்வையில் காணும் தங்களது தகவல் அறியும் உரிமை சட்டம் 2005–ன் கீழ் பெறப்பட்ட மனுவிற்கு கீழ்க்கண்டவாறு பதில் அனுப்பப்படுகிறது.

தங்கள் துறையினரால் கீழ்க்கண்ட தொழிற்சாலைகளுக்கு வழங்கப்பட்ட

வினா எண்.1

நீரின் அளவு தினசரி கணக்கு

பதில்

1. I.T.C.லிமிடெட், தேக்கம்பட்டி – 6600 m^3/day
2. சாரதா டெர்ரி (பி) லிமிடெட் – 150 m^3/day
3. யுனைடெட் பிளிச்சர்ஸ் (பி) லிமிடெட் – 1200 m^3/day
4. K.G.டெனிம் – 5250 m^3 / day
5. சிறுவாணி டெக்ஸ்டைல்ஸ் – 113.65 m^3/day

வினா எண்.2

நீரேற்றுபடுவதற்கு தொழிற்சாலை மீட்டர் பொருத்தப்பட்டுள்ளதா என அறிய விரும்புகிறேன்.

பதில்

பவானி ஆற்றில் தொழிற்சாலை உபயோகத்திற்கு நீர் எடுக்கும் இடத்தில் நீர்அளவு மானிகள் பொருத்தப்பட்டுள்ளது.

(த.பி.பா)

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வினா எண்.3

பயன்பாட்டிற்கு எடுக்கும் நீர் முழுவதும் தொழிற்சாலை பயன்படுத்துவதுபோக மீதமுள்ள கழிவுநீர் எவ்வளவு வெளியேற்றப்படுகிறது. எந்த வகையில் என்பதை அறிய விரும்புகிறேன்.

பதில்

I.T.C.லிமிடெட், சாரதா டெர்ரி (பி) லிமிடெட், யுனைடெட் பிளிச்சர்ஸ் (பி) லிமிடெட் ஆகிய தொழிற்சாலைகளில் மறுசுழற்சி முறையில் சுத்திகரிக்கப்பட்டு மீண்டும் தொழிற்சாலை உபயோகத்திற்கு பயன்படுத்தப்படுகிறது.

கே.ஜி.டெனிம், ஜடையம்பாளையம் மற்றும் சிறுவாணி டெக்ஸ்டைல்ஸ், ஜடையம்பாளையம் ஆகிய தொழிற்சாலைகளில் தொழிற்சாலைக்கு அரசு அனுமதி அளித்துள்ள தினசரி அளவை விட குறைவாகவே பயன்படுத்தப்படுகிறது. மேலும், கழிவுநீரினை அவர்களது விவசாய பயன்பாட்டிற்கு பயன்படுத்துகின்றனர். கழிவுநீர் எவ்வளவு வெளியேற்றப்படுகிறது என்ற விபரம் மாசு கட்டுப்பாட்டு வாரியத்திடம் கேட்டு பெற்றுக்கொள்ளலாம் என கனிவுடன் தெரிவித்துக்கொள்ளப்படுகிறது.

பொது தகவல் அலுவலர் (மு)
செயற்பொறியாளரின்
தொழில்நுட்ப நேர்முக உதவியாளர்,
பவானிசாகர் அணைக்கோட்டம்,
பவானிசாகர் – 638 451.

27/10/2020

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REGISTERED POST WITH ACKNOWLEDGE DUE

PUBLIC WORKS DEPARTMENT / WATER RESOURCE DEPARTMENT

From

Er.M.Ravi, B.E.,
Public Information Officer /
Technical Personal
Assistant of Executive
Engineer, Bhavani Sagar
Dam Division,
04295 - 240224.

To

Mr.D.D.Arangasamy
President
Bhavani River & Ground
Water Protection Committee
Uma Sankar Nilayam,
Poro Goudar Street,
Mettupalayam - 641 301.

Letter No.Va.Pa/E.Va.A2/Ko.Tha.A.Vu.Sa/2020/M.468 dated 27.10.2020

Sir,

Sub: Information sought for under Right to Information Act, 2005 - regarding.

Ref: Petition dated 26.09.2020 submitted by Mr.D.D.Arangasamy, President, Bhavani River Water and Ground Water Protection Committee, Uma Sankar Nilayam, Boro Gowdar Street, Mettupalayam - 641 301 (received by this office on 28.09.2020)

******

Below mentioned details were furnished for the letter cited under reference.

Question No.1:

Daily account of amount of water supplied to the below mentioned Industries by your Department.

Answer:

1. I.T.C.Limited, Thekkampatty - 6600 m^3/day.
2. Saratha Terry (P) Limited - 150 m^3/day
3. United Bleechers (P) Limited - 1200 m^3/day
4. K.G.Denim - 5250 m^3/day
5. Siruvani Textiles - 113.65 m^3/day

Question No.2:

I would like to know whether meter was fixed in the Industries for pumping of water.

ANSWER:

Water measurement Meters were fixed in the pumping station at Bhavani River, where the water is being taken for Industrial purposes.

Question No.3:

What amount of the sewage water is being discharged from the industries after utilizing the water take for their usage. I would like to know how it was discharged.

Answer:

In the industries namely I.T.C Limited, Saradha Terry (P) Limited and United Bleechers (P) Limited it has been refined through recycling mode and again utilized for their industries use.

The Industries like K.G.Denim, Jadayampalayam and Siruvani Textiles, Jadayampalayam are utilizing lesser than the daily permitted limit by the Government. Further They are utilizing the sewage water for their agricultural purposes. It is kindly informed to get the information regarding the amount

of discharge of sewage water from Tamilnadu Pollution Control Board.

Sd.xxx
Public Information Officer / Personal Assistant for Executive Engineer, Bhavani Sagar Dam Division,
Bhavani Sagar - 638 451.

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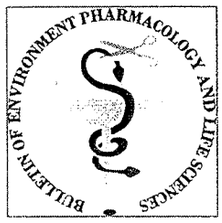

ORIGINAL ARTICLE **OPEN ACCESS**

Environmental quality assessment of Bhavani river water for drinking and irrigation purpose

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ABSTRACT
Maintaining the quality of water is very essential in order to utilize the resource effectively. This study emphasizes on Bhavani River Basin, Tamil Nadu, India. People on globe are under tremendous threat due to undesired changes in the physical, chemical and biological characteristics of air, water and soil. Due to increased human population, industrialization, use of fertilizers and other man-made activity, water is highly polluted with different harmful contaminants. It is necessary that the quality of drinking water should be checked at regular time interval, for safe use. The availability of good quality water is an indispensable feature for preventing diseases and improving quality of life. Human population are suffers from various water borne diseases by consuming polluted water. The present study was conducted to assess the water quality status of river Bhavani from upstream to downstream to know its suitability for drinking and irrigation. Water samples were collected from Vanabhatharakali Amman temple (11⁰ 7' 40" N) (76⁰ 53' 33" E) to Bhavanisagar dam (11⁰ 18' 41.65" N) (76⁰ 55' 52.92" E) at 14 locations over four months from June 2017 to September 2017. The sampling points were fixed at every 2 to 3 km intervals. The collected samples were analyzed for 14 water quality parameters such as pH, EC, Dissolved Oxygen, BOD, Calcium, Magnesium, Sodium, Potassium, Total Hardness, Total Dissolved Solids, Acidity, Alkalinity, Chlorides and E. coli. The water samples collected from all the 14 locations were loaded with high amount of coliforms. In all the location EC, BOD and TDS values were high. Few water quality parameters are within the limit at few locations. On an overall, our study indicates that the water of the entire Bhavani river stretch is not fit for drinking, bathing but it can be used for irrigation.
Key words: *River Bhavani, Water Quality Parameters, Drinking purpose*

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INTRODUCTION

Water is the precious gift of nature for human beings, is being polluted day by day with increasing urbanization. Although three-fourth of the earth is being surrounded by water, a little portion of it can be used for drinking purpose. Water pollution is a phenomenon that is characterized by the deterioration of its quality as result of various human activities. Virtually almost all the surface water in India is unfit for direct consumption. In spite of the fact that the municipal water supply in most of the cities is through treated surface water, due to over contamination, more stringent treatments would be required to make the surface water potable. All living organisms on the earth need water for their survival and growth. Good quality of water is essential for living organisms. Water is most indispensable requirement for all living organisms and any alterations

According to the latest estimates, more than half of Indian rivers and other surface water bodies are now significantly polluted. River pollution is a growing problem and cause of concern in India. In developing countries, as much as 70 percent of industrial waste and 80 percent of domestic waste is said to flow untreated into rivers. In a number of industrialized countries, as well as some countries in transition, it has become common practice to base limits for discharges of hazardous substances on the best available technology. In order to reduce inputs of phosphorus, nitrogen and pesticides from non-point sources (particularly agricultural sources) to water bodies, environmental and agricultural authorities in an increasing number of countries are stipulating the need to use best environmental practices. The quality

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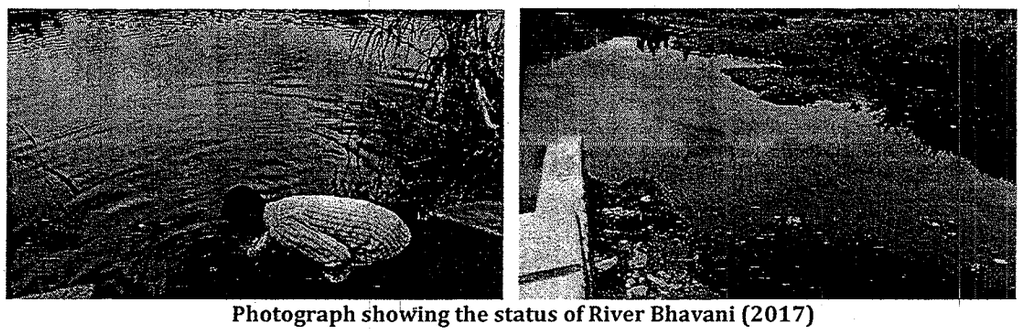
of river water is indispensable for yield of crop, maintenance of soil productivity, and protection of the environment [3], Irrigation water usually contains some dissolved salts. They originate from dissolution or weathering of the rocks and soil, including dissolution of lime, gypsum and other soil minerals [5], In irrigated agriculture, the hazard of excessive dissolved salts is a constant threat with respect to water availability to plant, water infiltration, specific ion toxicity, etc. [4, 2], So, evaluation of water used for irrigation is a prime need for sustainable crop production as well as food security. In view of the fact, the present study was undertaken to evaluate the suitability of Bhavani river water for drinking and irrigation purpose.

Bhavani is a 217 km long perennial river fed mostly by the northeast monsoon. Its watershed drains an area of 0.62 million ha spread over Tamil Nadu (87%), Kerala (9%), and Karnataka (4%) mostly the river water is used for agriculture irrigation. Twelve major rivers including west and east Varagar river join Bhavani draining the southern Nilgiri slopes. At Mukkali, Bhavani takes an abrupt 120 degree turn towards the northeastern and flows for another 25 km Attapaddy plateau. It gets reinforced by the Kunda river coming from the north. Siruvani river, a perennial stream and the Kodungarapallam river, flowing from the south and southeast respectively join the Bhavani at Kerala-Tamil Nadu border. The river then flows east along the base of Nilgiris and enters the plains near Vanabathrakali Amman temple at Mettupalayam after joining with Conoor river coming from northwest. In plains it flows through Mettupalayam and reaches Bhavanisagar dam covers a distance of 30 km approximately. Then Bhavani reaches Kodiveri dam 160 km from Bhavanisagar dam. Finally this river joins Kaveri at Kooduthurai.

In between Vanabathrakali Amman Temple to Bhavanisagar dam many textiles, paper, aromatics and tannery units are functioning and they continue to dump thousands of gallons of untreated toxic effluent in the river. According to recent report by TNPCB, 77 illegal dyeing units are now functioning on both sides of the river mainly in Bhavani, Kadayampatti, Sengadu and Servarayanpalayam. The colour of the water flowing in the river has turned black due to the continuous dumping of untreated effluents from industry and domestic sewage. Both side of the river bank, farmers cultivate banana crops. They pump water from the river, the river water contains toxic substances, and it causes toxicity to human through banana. The river is also polluted by number of tea and coffee estate in Nilgiri, as they dump their waste into river. The people of Mettupalayam also discharge the domestic sewage along the river bank. People are bathing and washing their clothes in Bhavani rivers which is also a cause of concern.



Photograph showing the status of River Bhavani (2017)

MATERIALS AND METHODS

Water samples were collected from Vanabhatharakali Amman temple (11^0 7' 40" N) (76^0 53' 33" E) to Bhavanisagar dam (11^0 18' 41.65" N) (76^0 55' 52.92" E) at 14 locations over four months from June 2017 to September 2017. The sampling points were fixed at every 2 to 3 km intervals. The sampling locations are L1 - Vanabathrakali Amman temple, L2 - Samayapuram, L3 - Nanthavanam, L4 - Mettupalayam, L5 - Santhakadai, L6 - Karattumedu, L7 - Karuparayankovil, L8 - Vellipalayam, L9 - Kutharipalayam, L10 - Moolaiyur, L11 - Puthukadu, L12 - Sithankuttai, L13 - Kottakovilpalayam, L14 - Bhavanisagar dam. The water samples were collected in dry and clean polythene container. The collected samples were preserved at 4°C for testing of various water quality parameters throughout the period of analysis. Standard methods were employed during the collection, preservation and analysis of water samples [1].

Table: 1 Water quality standards [6]

S.No.	Parameter	Prescribed Limit by WHO/BIS (Drinking)	Prescribed BIS (Irrigation)
1	pH	6.5 to 9.0	6.99 to 9.05
2	EC	<1.0 dS m^{-1}	0.13 to 1.59 dS m^{-1}
3	Dissolved Oxygen	<4 mg L^{-1}	2.65 to 8.87 mg L^{-1}
4	Biological Oxygen Demand	6 mg L^{-1}	0.08 to 4.52 mg L^{-1}
5	Calcium	75 mg L^{-1}	0.56 to 1.85 mg L^{-1}
6	Magnesium	30 mg L^{-1}	2 to 14 mg L^{-1}
7	Sodium	100 mg L^{-1}	1.20 to 36.60 mg L^{-1}
8	Potassium	200 mg L^{-1}	0.14 to 5.00 mg L^{-1}
9	Hardness	200 mg L^{-1}	35 to 225 mg L^{-1}
10	Total Dissolved Solids	500 mg L^{-1}	52 to 1200 mg L^{-1}
11	Alkalinity	200 to 600 mg L^{-1}	25 to 250 mg L^{-1}
12	Chloride	250 mg L^{-1}	12.76 to 198.0
13	*E.coli*	100 ml	11 to 150 ml

BIS - Bureau of Indian standards, WHO – World Health Organization

RESULT AND DISCUSSION

pH is an indicator of the existence of biological life as most of them thrive in a quite narrow and critical pH range. The water samples collected from Kottakovilpalayam during September 2017 recorded the highest pH about 9.05. The permissible limit of pH of drinking water is 5.5 to 9.0. Except Kottakovilpalayam (9.05) the pH value of Bhavani river is within the prescribed limit (Table 1). In September 2017, Mettupalayam region recorded heavy rainfall. Even though, the pH of the river Bhavani was very high in this particular location. Increase in pH of water may be due to the mixing or discharge of any waste water with alkaline pH.

Electrical conductivity is used as basic index in judging the suitability of water for potable properties. For irrigation water having electrical conductance below 1.0 is normal, 1.0 - 3.0 is critical and above 3.0 is injurious. The EC values of river Bhavani was about 0.13 dS m^{-1} to 1.59dS m^{-1} in the entire study period (Table 2). The investigation shows that the EC value of most of the water samples are under critical value. The EC values of water samples collected at Vanaphathrakali Amman temple, Moolaiyur and Karuparayankovil during the month of June to July 2017 was reportedly high. The reason for the increase in river water may be due to the mixing of domestic waste water/industrial effluent in this region. There is no systematic flow control across the river Bhavani, which needs more attention to arrest the movement of effluent/domestic sewage to the river Bhavani.

Dissolved oxygen (DO) is one of the most important parameters of water quality assessment and reflects the physical and biological processes prevailing in the water and show metabolic balance. For diverse fish population, The DO above 4.0 is good and below 4.0 is not good. For better survival of fish, the DO level must range from 4-6 mg L^{-1} (Table 3). In some of the locations (Samayapuram, Nandhavanam, Karuparayankovil, Kutharipalayam, Moolaiyur, Puthukadu and Sithankuttai) of river Bhavani, the DO value was pretty low and recorded below 4.0 mg L^{-1} during June and August 2017. The DO values were ranged from 2.65 to 8.87mg L^{-1} during the entire study period. The reason for the decrease in DO may be due to the mixing of industrial effluent and domestic sewage in these region and frequent access of human beings in Bhavani River for bathing, washing of cattle's and cloths.

Biological oxygen demand is the amount of oxygen required by the bacteria to decompose the organic matter present in the water. The maximum permissible value of BOD for drinking water is 6 mg L^{-1} and 30 mg L^{-1} for irrigation water. The BOD values of the water samples collected from all the 14 locations were in the range of 0.08 to 4.52 mg L^{-1} and it is below 6 mg L^{-1}, it is a indication that there is much scope to use the water effectively for drinking and irrigation purpose (Table 4). However, the quality of water is not confined to a particular parameter and thus we need to consider other water quality parameters also.

The concentration of Calcium in the river water was varied from 0.56 mg L^{-1} to 1.85 mg L^{-1} and Magnesium varied from 2 to 14 mg L^{-1}. The permissible limit of calcium is 75 mg L^{-1} and 30 mg L^{-1} for Magnesium. According to European Economic Community the limit for sodium is 200 mg L^{-1} and for potassium is 10 mg L^{-1} for drinking water. The value of sodium ranged from 1.20 mg L^{-1} to 36.60 mg L^{-1} (Table 5). The value of potassium ranged from 0.14 mg L^{-1} to 5.00 mg L^{-1}. The present study reveals that the value of sodium and potassium content in the water samples are below the maximum permissible limit.

Hardness refers to the bicarbonates, chlorides and sulphate of Ca, Mg and Na. According to World Health Organization, the permissible limit of hardness as calcium carbonate is 300 mg L^{-1}. The total hardness value ranged from 35 mg L^{-1} to 225 mg L^{-1}. Hence our investigation shows, all the water samples are much below the permissible limit as for as hardness is concern (Table 6).

Total dissolved solid at a given temperature is the material residue left in the vessel after evaporation of a filtered sample and subsequent drying in an oven. Water containing more than 500 mg L^{-1} of TDS is not considered as desirable for drinking water supply and normally less palatable and may induce an unfavorable physiological reaction in the transient consumer. The locations namely Vanaphathrakali Amman temple, Samayapuram, Puthukadu, Sithankuttai during June 2017, Vanaphathrakali Amman temple, Samayapuram, Mettupalayam, Karattumedu, Karuparayankovil, Vellipalayam and Sithankuttai during July 2017 and all the location during August 2017 recorded TDS value above 500 mg L^{-1}. Whereas in the month of September 2017, all the locations were recorded TDS value below 500 mg L^{-1}. In the present investigation, it is seen that TDS value ranged from 52 mg L^{-1} to 1200 mg L^{-1} (Table 7). In June to August 2017, the TDS were exceed the permissible limit, but it was in the safer level during September 2017.

The prescribed limit of chlorides for drinking water is 250 mg L^{-1} (IS 10500). In present investigation, chloride concentration ranged from 12.76 mg L^{-1} to 198.0 mg L^{-1}. Hence all the Chlorides values of river water samples were within the permissible limit (Table 8).

Domestic sewage disposal carries to spread of enteric diseases and the coliforms are the indicators of water pollution. The coliforms are *E. coli, Enterobacter aerogenus, Salmonella, Shigella, Streptococci* and *Aeromonas*. The presence of these organisms in water system indicates the contamination of human and animal wastes. The water sample collected across Bhavani river had *E. coli* present for the entire study period. The water samples collected from 14 locations along the river Bhavani over months (June 2017 to September 2017) recorded high level of coliforms ranging from 11 to 150 MPN / 100 ml (Table 9) which are above the limit prescribed by WHO for safe drinking water. In general, the coliform count was high during July 2017 and August 2017. In few locations, namely, Vanabhathrakali Amman temple, Samayapuram, Nandhavanam and Mettupalayam were recorded high amount of coliforms in the month of July and August, 2017. The reason for the high amount of coliform may be due to the mixing of domestic waste water in these region and frequent access of human beings in Bhavani River.

Table 1. Changes in pH of river Bhavani during June 2017 to September 2017

Month	Changes in pH													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	7.32	7.31	7.90	7.14	7.22	7.19	7.01	7.17	7.29	7.17	7.08	7.09	7.27	7.29
July 2017	7.36	7.16	7.58	7.35	7.26	7.45	6.99	7.23	7.16	7.56	7.25	7.31	7.42	7.53
August 2017	8.11	8.53	8.61	8.15	8.89	8.42	8.85	8.86	8.32	8.15	8.35	8.25	8.15	8.01
September2017	8.61	8.80	8.70	8.60	9.01	8.98	8.81	8.76	8.94	8.72	8.66	8.36	9.05	8.80

L denote Location; Values are mean of three replications

Table 2. Changes in Electrical Conductivity of river Bhavani during June 2017 to September 2017

Month	Changes in EC (dS m^{-1})													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	1.53	0.98	0.38	0.97	0.95	0.53	1.59	0.69	0.42	1.32	0.65	0.38	0.40	0.39
July 2017	1.12	0.53	0.65	0.58	0.65	0.54	1.32	0.53	0.42	0.46	0.23	0.38	0.65	0.45
August 2017	0.98	0.65	0.45	0.45	0.67	0.42	0.98	0.54	0.57	0.65	0.35	0.39	0.55	0.56
September 2017	0.21	0.21	0.21	0.12	0.06	0.13	0.13	0.13	0.16	0.29	0.32	0.31	0.31	0.30

L denote Location; Values are mean of three replications

Table 3. Changes in Dissolved Oxygen of river Bhavani during June 2017 to September 2017

Month	DO (mg L^{-1})													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	5.32	2.65	3.75	4.32	5.60	6.20	2.30	5.97	2.52	3.33	2.36	2.68	6.50	4.51
July 2017	6.21	6.55	5.50	6.80	6.56	6.98	5.62	5.50	5.56	6.38	5.58	6.00	6.76	6.57
August 2017	3.35	3.63	3.85	3.52	3.85	3.86	3.72	3.42	3.41	3.33	3.75	3.41	3.26	3.33
September 2017	4.65	5.45	5.85	6.54	7.95	5.90	5.14	5.54	6.65	6.24	7.45	8.87	4.32	4.24

L denote Location; Values are mean of three replications

Table 4. Changes in Biological oxygen demand of river Bhavani during June 2017 to September 2017

Month	BOD (mg L^{-1})													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	0.08	2.21	0.56	2.35	0.52	0.08	1.56	0.16	0.24	1.56	2.33	1.53	0.08	0.28
July 2017	0.30	0.35	0.31	0.56	0.38	0.22	0.26	0.38	0.38	0.40	0.45	0.65	0.25	0.15
August 2017	2.35	4.52	3.65	4.51	2.12	3.21	2.26	1.15	3.35	1.25	3.56	2.26	1.15	2.15
September 2017	0.38	0.39	0.42	0.55	0.63	0.22	0.35	0.36	0.65	0.31	0.33	0.38	0.36	0.35

L denote Location; Values are mean of three replications

Table 5. Changes in sodium concentration of river Bhavani during June 2017 to September 2017

Month	Sodium (mg L^{-1})													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	3.60	14.21	3.64	17.45	32.00	18.68	13.84	8.45	25.50	18.40	11.20	4.90	14.08	14.24
July 2017	3.60	6.45	7.54	10.23	11.69	13.41	11.24	14.92	2.96	18.25	36.60	14.25	17.70	12.20
August 2017	3.50	4.23	2.48	4.36	8.90	4.21	6.24	7.30	10.4	2.65	4.28	5.60	6.21	6.70
September 2017	3.20	7.10	5.50	8.40	1.20	4.90	4.08	4.24	3.05	1.21	4.80	1.85	2.45	3.65

L denote Location; Values are mean of three replications

Table 6. Changes in Total hardness of river Bhavani during June 2017 to September 2017

Month	Total Hardness (mg L^{-1})													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	55	52	68	98	88	52	60	78	56	78	45	60	57	59
July 2017	45	76	86	85	75	68	85	42	87	65	35	86	45	38
August 2017	54	65	75	68	87	53	85	36	85	86	53	75	62	55
September 2017	155	135	135	115	225	115	75	50	80	145	105	70	105	70

L denote Location; Values are mean of three replications

Table 7. Changes in Total Dissolved Solids of river Bhavani during June 2017 to September 2017

Month	Changes in TDS (mg L^{-1})													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	800	550	450	230	240	210	340	220	360	110	950	890	230	260
July 2017	900	850	450	620	400	550	750	630	440	365	456	580	490	465
August 2017	800	780	900	750	890	650	1200	605	625	645	680	625	650	654
September 2017	98	120	85	92	52	96	102	97	120	190	230	202	198	194

L denote Location; Values are mean of three replications

Table 8. Changes in Chloride concentration of river Bhavani during June 2017 to September 2017

Month	Chloride (mg L^{-1})													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	185.2	139.2	89.5	125.2	122.0	132.5	135.6	185.0	120.3	156.6	198.0	166.3	185.9	157.3
July 2017	125.0	45.0	29.0	40.0	65.0	87.0	42.0	56.0	45.0	25.0	85.0	110.0	24.0	28.0
August 2017	40.0	56.0	85.0	98.0	45.0	68.0	75.0	46.0	45.0	36.0	78.0	49.0	98.0	63.0
September 2017	16.3	14.9	14.9	15.6	13.5	14.9	15.6	14.9	12.8	21.9	23.4	19.1	21.9	21.9

L denote Location; Values are mean of three replications

Table 9. Changes in *E. coli* count of river Bhavani during June 2017 to September 2017

Month	*E. Coli*													
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
June 2017	23	45	53	26	26	28	31	65	32	15	22	11	19	35
July 2017	150	123	132	85	92	115	62	85	98	85	68	74	95	65
August 2017	110	135	140	136	117	98	75	65	53	45	42	58	65	62
September 2017	22	19	21	58	52	19	35	26	15	12	15	11	20	42

L denote Location; Values are mean of three replications

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CONCLUSION

The water samples collected from all the 14 locations across the river Bhavani does not match the water quality standards prescribed by WHO, moreover the water is loaded with high number of *E. coli* which make the water unfavorable for drinking purpose. The water can be used for irrigation purpose, as the water quality is well within the irrigation water quality parameter prescribed by BIS. From this study it is clearly evident that the quality of Bhavani river water is deteriorating day by day, hence at most care is needed to arrest the movement of domestic sewage and untreated effluent discharge to the river. Focus should be given to establish green belt along the river banks by planting native trees like banyan, ficus, palmera and Jamun for ecosystem stability. Removal of encroachments and closure of illegal industries would protect the water. On an overall, our study indicates that the water of the entire Bhavani river stretch is not fit for drinking, bathing but it can be used for irrigation. If the water is treated properly, it can be used for drinking.

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Longitude: 76.880612
Elevation: 431.78 m
Accuracy: 1.3 m
Time: 13-01-2021 08:40
Note: Dkuraisamy thekkampatti


Latitude: 11.24667
Longitude: 76.880675
Elevation: 431.28 m
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