



Seshasayee Paper and Boards Limited

Regd Office & Works : Pallipalayam, Namakkal District,
Erode - 638 007, Tamilnadu, India, Ph : 91 - 4288 - 240221 to 240228
Fax: 91 - 4288 - 240229 email : edoff@spbltd.com Web : www.spbltd.com
CIN : L21012TZ1960PLC000364

Ref: Env/ W-1/

2023 10 19

The Director(s)
Regional Office (South Eastern Zone)
Ministry of Environment, Forests & Climate Change (MOEFCC)
Government of India
The Handloom Export Promotion Council Building
34 (Old No.18) Cathedral Garden Road
Nungambakkam
Chennai 600 034

Dear Sir,

Sub: Compliance Report for the period April 2023 - Sep 2023

Ref: Environmental Clearance F.No J-11011/56/95-IA-II (I) dated 21.05.1996

**Environmental Clearance F.No J-11011/194/2013-IA II (I) dated 22.01.2016 and
Amendment dated 18.11.2019.**

We submit the compliance report for the various conditions stipulated in the above Environmental Clearances dated 21 05 1996, 22 01 2016 and 18 11 2019 (amended) respectively, issued by your esteemed Ministry, for the period April 2023-Sep 2023, together with relevant enclosures.

Thanking you,

Yours faithfully
For Seshasayee Paper and Boards Limited

GANESH BALAKRISHNA BHADTI
Director (Operations)

Encl: as above



SESHASAYEE PAPER AND BOARDS LIMITED

**PALLIPALAYAM, CAUVERY R.S. P.O
ERODE 638 007, NAMAKKAL DISTRICT**

Unit: Erode



***Compliance Report for the Period
April 2023 - September 2023***

SESHASAYEE PAPER AND BOARDS LIMITED

Environment Clearance F.No. J-11011/56/95 –IA- II (I) dated 21.05.1996

COMPLIANCE REPORT FOR THE CONSENT DATED 21.05.1996

COMPLIANCE REPORT FOR THE PERIOD APRIL 2023 - SEPTEMBER 2023

Sl.No	EC Condition	Compliance Status
1	The Project Authority must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government	<ul style="list-style-type: none"> We strictly adhere to the stipulations made by the State Pollution Control Board and the State Government. Status: Complied
2	No expansion or modification of the plant should be carried out without prior approval of this Ministry	SPB mill abide with this condition.
3	Gaseous and Particulate Emissions from various processes should conform to the standards prescribed by the competent authority from time to time. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of any Pollution Control System adopted by the units, the respective unit should be put out of operation immediately and should not be restarted until the pollution control measures are rectified to achieve the desired efficiency.	<ul style="list-style-type: none"> Gaseous and Particulate Emissions are continuously monitored online round-the-clock basis and under control. Industry has installed online stack monitoring system in all the stacks and stack emissions are well within the standards prescribed. The Advances Environmental Laboratory, TNPCB, Salem is conducting AAQ/Stack Survey twice in a year and their analysis reports confirm compliance of stipulated standards in the regard. The report is enclosed (Annexure -1) Status: Complied
4	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated. The selection of the AAQ monitoring stations should be based on modelling exercise to represent short term ground level concentration, sensitive targets etc in consultation with the State Pollution Control Board Stack Emissions should also be regularly monitored by installing stack monitoring device in	<ul style="list-style-type: none"> Ambient Air Quality Monitoring Stations are established in the periphery and being continuously monitored at four locations. The report is enclosed (Annexure -2) Stack Emissions are monitored online 24x7 and transmitted to SPCB/CPCB. Industry has installed online stack monitoring system in all the stacks and stack emissions are well within the standards prescribed. The Advances Environmental Laboratory, TNPCB, Salem is conducting AAQ/Stack Survey twice in a year and their analysis reports confirm compliance of stipulated standards in the regard. The report is enclosed



	<p>consultation with the State Pollution Control Board</p> <p>Data on AAQ and Stack Emissions should be submitted regularly to the Ministry once in six months and the State Pollution Control Board once in three months along with the statistical analysis and interpretation</p>	<p>(Annexure -1)</p> <ul style="list-style-type: none"> Statistical analysis as below <table> <tr> <th>Parameters</th><th>Kg/d</th><th>mg/Nm³</th></tr> <tr> <td>SPM</td><td>32.12</td><td>25 (Lime Kiln)</td></tr> <tr> <td>SPM</td><td>33.30</td><td>19 (Chemical Recovery Boiler)</td></tr> <tr> <td>SPM</td><td>58.75</td><td>15 (Captive Power Plant- CPP)</td></tr> <tr> <td>H₂S</td><td>0.05</td><td>0.038 (Lime Kiln)</td></tr> <tr> <td>H₂S</td><td>0.22</td><td>0.124 (CRB)</td></tr> </table> <p>Extract from the Analysis Report of Advanced Environmental Laboratory, Tamil Nadu Pollution Control Board, Salem.</p> <p>Status: Complied</p>	Parameters	Kg/d	mg/Nm ³	SPM	32.12	25 (Lime Kiln)	SPM	33.30	19 (Chemical Recovery Boiler)	SPM	58.75	15 (Captive Power Plant- CPP)	H ₂ S	0.05	0.038 (Lime Kiln)	H ₂ S	0.22	0.124 (CRB)
Parameters	Kg/d	mg/Nm ³																		
SPM	32.12	25 (Lime Kiln)																		
SPM	33.30	19 (Chemical Recovery Boiler)																		
SPM	58.75	15 (Captive Power Plant- CPP)																		
H ₂ S	0.05	0.038 (Lime Kiln)																		
H ₂ S	0.22	0.124 (CRB)																		
5	<p>Interlocking facilities should be provided in the ESP's installed in the process equipments and Captive Power Plant so that the plant automatically shuts down in case of ESP failure/emissions exceeding the limits if any</p>	<ul style="list-style-type: none"> Being a continuous process industry, uninterrupted power supply to pollution control equipment is maintained through captive power generation backed by the TNEB supply. <p>Status: Complied</p>																		
6	<p>Fugitive emissions should be controlled, regularly monitored and data recorded</p>	<ul style="list-style-type: none"> Sprinkler systems are in place to mitigate the Fugitive emissions. We have installed water sprinklers and tanker mounted trailer with sprinkling arrangements to control the same. Photos are enclosed (Annexure -3) Additional green belt is developed in the boundaries to contain fugitive emissions. <p>Status: Complied</p>																		
7	<p>Liquid wastes should be reduced in both volume and concentrations by a combination of in plant control measures and better work practices.</p> <p>Liquid Effluents coming out of the plant and township should conform to the Standards as prescribed by the State Pollution Control Board/ Central Pollution Control Board under the Environment (Protection) Act, 1986.</p>	<ul style="list-style-type: none"> Volume of liquid effluent is reduced by adapting recycling in various plants of the mill and the specific water consumption is reduced. The treated effluent is regularly monitored by the Tamil Nadu Pollution Control Board / Central Pollution Control Board which is monitored online and conforming to standards. <p>Status: Complied</p>																		



Sl.No	EC Condition	Compliance Status																					
8	Recycling and reuse of the treated waste water should be maximized to the extent possible including its use for irrigation purposes. Adequate storm water drains should be provided for avoiding flooding during monsoon period	<ul style="list-style-type: none"> Various in plant water recycling and conservation measures have been implemented and specific water consumption has been reduced. Wastewater from paper machines – about 10500m³/day is recycled, treated in Clari-flocculator and reused with in the mill. The final treated effluent is used for irrigation after maximized recycling. Pre-treated wastewater recycled back to process report enclosed as annexure - 4 <p>Status: Complied</p>																					
9	Adequate number of influent and effluent quality (pH, BOD, COD, TSS) monitoring stations should be set up in consultation with Tamil Nadu Pollution Control Board. Monitored data along with the statistical analysis and interpretation in the form of a report should be submitted to this Ministry on a half yearly basis and to SPCB once in three months.	<p>Being followed Statistical details as below</p> <table> <tr> <th>Parameters</th><th>Kg/d</th><th>ppm</th></tr> <tr> <td>TSS</td><td>237.52</td><td>12.7</td></tr> <tr> <td>TDS</td><td>27352.9</td><td>1458.7</td></tr> <tr> <td>Chlorides</td><td>8938.45</td><td>476.7</td></tr> <tr> <td>Sulphates</td><td>6631.95</td><td>353.7</td></tr> <tr> <td>BOD</td><td>268.77</td><td>14.3</td></tr> <tr> <td>COD</td><td>2150.22</td><td>114.7</td></tr> </table> <p>Extract from the Analysis Report of Advanced Environmental Laboratory, Tamil Nadu Pollution Control Board, Salem (for the period April 23 – June 23).</p> <p>Status: Complied</p>	Parameters	Kg/d	ppm	TSS	237.52	12.7	TDS	27352.9	1458.7	Chlorides	8938.45	476.7	Sulphates	6631.95	353.7	BOD	268.77	14.3	COD	2150.22	114.7
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COD	2150.22	114.7																					
10	The project proponent should take measures to monitor the Cauvery river water quality in the upstream and downstream sides on a regular basis through an independent agency who should report results directly to the SPCB.	<ul style="list-style-type: none"> Cauvery water upstream and downstream is monitored regularly. Copy of our River Water Analysis Report enclosed as annexure – 5. <p>Status: Complied</p>																					
11	Chemical Recovery Plant should be set up for recovering the chemical from the Black Liquor to the maximum extent possible	<ul style="list-style-type: none"> Installed Chemical Recovery Plant with 250 TPH water evaporation plant and 950 tonnes / day Chemical Recovery Boiler with which we are able to recover chemicals and sent back to pulp process. <p>Status: Complied</p>																					



Sl.No	EC Condition	Compliance Status										
12	The effluent from the bleaching section should be segregated from other waste water streams and treated for decolourisation. The feasibility of using only Hydrogen Peroxide instead of Calcium Hypochlorite as a bleaching agent for the bleaching of Bagasse pulp should be considered and a report submitted to the Ministry for review. A limit of 150 cubic meters of effluent per MT of paper should be adhered to	<ul style="list-style-type: none">Installed ECF Bleaching System for Bagasse Pulping thereby eliminating the use of Calicum hypochlorite and by replacing the same with Hydrogen Peroxide.Our present treated wastewater discharged is around 40 m³/ton of paper. <p>Status: Complied</p>										
13	Organic Matter from Black Liquor and pith removed from the Bagasse should be used as a fuel in the Soda Recovery and Power Boiler	<ul style="list-style-type: none">Black Liquor from the Bagasse Pulp Mill is evaporated and used in the Chemical Recovery Boiler for White Liquor Production and Power Production. Pith is used as a fuel in Boiler. <p>Status: Complied</p>										
14	The hazardous wastes should be handled as per the Hazardous Waste (Management and Handling) Rules, 1989 and (Hazardous Substance Import, Manufacture and Storage), Rules 1989 of the Environment Protection Act 1986	<ul style="list-style-type: none">SPB is possessing Hazardous Wastes Authorization No. 22HFC36355066 dated 07/07/2022 issued by TNPCB with a validity of five years from the date of issue and the Hazardous wastes are disposed as per authorization only. <p>Status: Complied</p>										
15	Adequate measures for the control of noise should be taken so as to keep the noise levels below 85 dBA in the work environment. Persons working near the noisy machines in the different units, blowers, compressors etc should be provided with a well designed ear muffs/plugs. Besides, measures should be taken to reduce the noise at the sources itself by employing Engineering methods	<ul style="list-style-type: none">Noise control measures such as Silencers, Hoods etc have been installed in Power Plant and other noisy areas. Personal Protective Equipments such as ear muffs/plugs have been provided to all the employees.This is being monitored regularly by Advanced Environmental Laboratory, Salem is conducting overall noise levels survey twice in a year and their analysis report confirm compliance of stipulated standards in this regard. <table><tr><th>Inside the Plant</th><th>85 dBA</th></tr><tr><td>Wood pulp mill – RDH</td><td>82.9</td></tr><tr><td>Paper Machine Ground floor</td><td>80.3</td></tr><tr><td>New Recovery Boiler Area</td><td>79.9</td></tr><tr><td>CPP – Power Boiler ground floor</td><td>78.9</td></tr></table> <p>Extracted from Analysis Report of Advanced Environmental Lab, TNPCB, Salem for the period April 23 – Set 23</p>	Inside the Plant	85 dBA	Wood pulp mill – RDH	82.9	Paper Machine Ground floor	80.3	New Recovery Boiler Area	79.9	CPP – Power Boiler ground floor	78.9
Inside the Plant	85 dBA											
Wood pulp mill – RDH	82.9											
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CPP – Power Boiler ground floor	78.9											



		(TNPCB survey has been conducted on 11 08 2023 and 12 08 2023) Status: Complied
16	A community welfare scheme for improving the Socio Economic Environment should also be worked out and report submitted to this Ministry for review within a period of 6 months	<ul style="list-style-type: none"> • Supply of protected potable drinking water to all the villages and neighbouring community through network of pipelines 400 numbers of drinking water taps were installed in strategic places. • Supply of treated wastewater after meeting inland surface water discharge standards for irrigation. • Desilting of community check dams for collection of rain water during monsoon for the recharge of ground water. • Education facility for the rural community in three schools run by the Company • Donated land for the Government school Running of Community Health Centres for the benefit of the downtrodden. • Regular sports activities like Cricket, Tennis, Volleyball, Kabaddi, Shuttle etc are carried out to improve the skills of the rural folk. • Lot of awareness programmes were conducted for covid-19 and spraying Lizol in around the villages nearby. • Contribution to supply of drinking water to nearby village 1.42 crores • Contribution to disaster management, including relief fund, rehabilitation and reconstruction activity. Status - Complied
17	An action plan for utilisation of fly ash and lime sludge from Hypo plant should be prepared and a report to be submitted to this Ministry for review within a period of six months	<ul style="list-style-type: none"> • Fly ash is disposed for manufacturing bricks and Lime sludge is disposed to cement industries. Status: Complied
18	Soil samples from the land fill site, lignite handling area and area irrigated by the treated effluent should be regularly analysed for any signs of soil degradation and if required corrective action should be promptly taken	<ul style="list-style-type: none"> • Soil samples of areas irrigated by the treated effluent is regularly monitored by Tamil Nadu Agricultural University, Coimbatore. • Test reports are enclosed as Annexure -6 Status: Complied



Sl.No	EC Condition	Compliance Status
19	Ground water around the land fill site, lignite handling area and areas irrigated by treated effluent should be regularly monitored and report submitted to the SPCB once in three months and to the Ministry and its Regional Office at Bangalore every six months	<ul style="list-style-type: none"> Ground water samples from the area irrigated with our treated wastewater is being regularly monitored by Tamil Nadu Agricultural University, Coimbatore and TNPCB. Test reports are enclosed as Annexure -7 Status: Complied

Sl.No	EC Condition	Compliance Status
General Conditions		
1	The ministry or any other competent authority may stipulate any additional conditions, if required from Environmental angle after review of monitoring reports or any other report prepared by the Project Authority	Till date, no additional conditions have arisen. In future, if so, the same will be complied
2	The ministry may revoke Environmental Clearance if implementation of any of the conditions is not found satisfactory. The stipulated conditions will be monitored by this Ministry as also by its Regional Office located at Bangalore. Six monthly status reports on the compliance of above conditions should be sent to the ministry (Regional Office, Banaglore).	Till date, no additional conditions have arisen. In future, if so, the same will be complied
3	The above conditions will be enforced interalia under the provisions, of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution), Act 1981; the Environment Protection Act 1986; and the Public Liability Insurance Act 1991 with their amendments and Rules.	Till date, no additional conditions have arisen. In future, if so, the same will be complied





C.M(ENV)

TAMILNADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Salem 636 004

From
Tmt.E. Gowri, M.Sc.,B.Ed.,
Chief Scientific Officer,
Advanced Environmental Laboratory,
Tamilnadu Pollution Control Board,
1/276, Meyyanur Main Road,
Salem - 636 004.

To
The Managing Director,
M/s. Seshasayee Paper & Boards Ltd.,
Alampalayam Village
Pallipalayam, Kumarapalayam Taluk,
Namakkal District - 638 007.

Lr. No.TNPCB/CSO/AEL - SLM/AAQS/F.No.NKL - KUMPLM-Air-01/2023 -24, Dated:23.08.2023

AAQS/SM/ANL SURVEY REPORT FOR 2023 -24

1st - BI - ANNUAL

Sir,

Sub : Furnishing of Report of Analysis of Ambient Air Quality, Stack Monitoring and Noise Level Survey - Regarding.

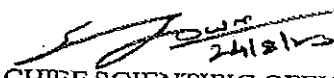
Ref : 1) T.O.Lr.No.TNPCB/CSO/AEL - SLM/AAQS/F.No.NKL/KUMPLM -Air-01/
2023 - 24, Dated. 23.06.2023.
2) Your Lr.No.A-1/351 Dated 14.08.2023.
3) Cash Receipt No.159116, Dated:27.06.2023 for Rs.2,43,450/-

I am to furnish the report of analysis of Ambient Air Quality, Stack Monitoring and Ambient Noise Level Survey conducted in the vicinity of your industry M/s. Seshasayee Paper & Boards Ltd., Alampalayam Village, Pallipalayam, Kumarapalayam Taluk, Namakkal District on 11.08.2023 & 12.08.2023 with invoice for Rs.2,43,450/- (Rupees Two Lakh Forty Three Thousand Four Hundred and Fifty Only) towards the above survey/analysis charges, and the same has been adjusted with the advance fees received vide ref (3) cited.

Kindly acknowledge the receipt of the report without fail.

Encl : As above.

M.O-1/24/8/23


CHIEF SCIENTIFIC OFFICER,
AEL, TNPCB, SALEM.

Copy submitted to :

The Deputy Director (Labs), TNPC Board, Chennai- 32 for favour of information please.

Copy to : The District Environmental Engineer, TNPC Board, Kumarapalayam, Namakkal - Dt.

Copy to : File.



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM – 636 004.
Accredited by NABL – (ISO/IEC 17025:2017)**



TC 9899

ULRTC98992300001390

TEST REPORT

Report No. 25 /AEL - SLM/AAOS/2023 – 24, Dated. 23.08.2023

1. Name of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
2. Address of the Industry : Alampalayam Village, Pallipalayam
Kumarapalayam Taluk, Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023.
4. Duration of survey : 24 Hours
5. Category : Red /Large
6. Land use classification : Residential (Rural)
7. Matrix : Ambient Air
8. Date of Analysis : 14.08.2023

Ambient Air Quality Survey Results (24 Hrs Average)

Sl. No.	Location	Direction *	Distance * (m)	Height from GL (m)	Pollutants Concentration (µg/m ³)		
					PM ₁₀	SO ₂	NO ₂
01.	On top of Scaffolding near Mr. Chinnusamy's house, Cauvery R.S	N	500	2.0	62	14	19
02.	House top of Thiru. E.Ramasamy D.No.247, Kumarappan Nagar, Karathangadu	NE	1000	8.0	65	16	21
03.	House top of Mr. Mani, D.No. 2/386, Odapalli, Cauvery R.S	E	1000	8.0	58	13	18
04.	House top of Ponni Nagar Employee Quarters	SE	600	8.0	66	18	22
05.	On top of Guest House, SPB premises	WSW	300	6.0	73	20	24
06.	On top of Scaffolding, Near water Intake well	W	350	5.0	75	22	26

Note:

- * With respect to major emission sources
- All the values are restricted to the sampling period of 08.00 Hrs.

Test method:


- Respirable Particulate Matter (PM₁₀) : IS 5182: (Part 23) – 2006
- Sulphur Dioxide (as SO₂) : IS 5182: (Part 2) – 2001
- Oxides of Nitrogen (as NO_x) : IS 5182: (Part 6) – 2006
- Sampling Procedure : AEL/SLM/SOP/G-08

- * Results relate only to the tested samples.

- ** The report shall not be reproduced except in full without approval of the laboratory can provide assurance that parts of a report are not taken out of context.

Authorized Signatory

M. R. 7/24/8/23
Env. Scientist


Chief Scientific Officer,
AEL, TNPCB, SALEM-4.

-End of Test Report -



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM – 636 004.**

TEST REPORT

Report No. 25 /AEL - SLM/AAOS/2023 – 24, Dated, 23.08.2023

1. Name of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
2. Address of the Industry : Alampalayam Village, Pallipalayam
Kumarapalayam Taluk, Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023.
4. Duration of survey : 24 Hours
5. Category : Red /Large
6. Land use classification : Residential (Rural)
7. Matrix : Ambient Air
8. Date of Analysis : 14.08.2023

Ambient Air Quality Survey Results (24 Hrs Average)

Sl. No.	Location	Direction *	Distance * (m)	Height from GL (m)	Pollutants Concentration ($\mu\text{g}/\text{m}^3$)	
					Cl ₂ *	H ₂ S *
01.	On top of Scaffolding near Mr. Chinnusamy's house, Cauvery R.S	N	500	2.0	<1	<0.02
02.	House top of Thiru. E.Ramasamy D.No.247, Kumarappan Nagar, Karathangadu	NE	1000	8.0	<1	<0.02
03.	House top of Mr. Mani, D.No. 2/386, Odapalli, Cauvery R.S	E	1000	8.0	<1	<0.02
04.	House top of Ponni Nagar Employee Quarters	SE	600	8.0	<1	<0.02
05.	On top of Guest House, SPB premises	WSW	300	6.0	<1	<0.02
06.	On top of Scaffolding, Near water Intake well	W	350	5.0	<1	<0.02

Note:

* With respect to major emission sources

All the values are restricted to the sampling period of 08.00 Hrs.

Test method:

Respirable Particulate Matter (PM₁₀) : IS 5182: (Part 23) – 2006

Sulphur Dioxide (as SO₂) : IS 5182: (Part 2) – 2001

Oxides of Nitrogen (as NO_x) : IS 5182: (Part 6) – 2006

Sampling Procedure : AEL/SLM/SOP/G-08

* Results relate only to the tested samples.

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Authorized Signatory

M.D. 4/24/8/23

Env.Scientist

Chief Scientific Officer,
AEL, TNPCB, SALEM-4.

-End of Test Report -



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,**

SALEM - 636 004.

Accredited by NABL - (ISO/IEC 17025:2017)



TC 9899

ULRTC98992300001390

TEST REPORT

Report No. 25 / AAQS/2023 - 24, Dated. 23.08.2023

1. Name of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
2. Address of the Industry : Alampalayam Village, Pallipalayam
Kumarapalayam Taluk, Namakkal District - 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023.
4. Duration of survey : 24 Hrs.
5. Category : Red / Large
6. Land use classification : Residential (Rural)
7. Matrix : Ambient Air
8. Date of Analysis : 14.08.2023.

Ambient Air Quality survey Results - PM₁₀

Sl. No	Location	Direction *	Distance * (m)	Height from GL	Pollutants Concentration ($\mu\text{g}/\text{m}^3$)			
					1 st shift	2 nd shift	3 rd shift	24hrs average
01.	On top of Scaffolding near Mr. Chinnusamy's house, Cauvery R.S	N	500	2.0	73	63	50	62
02.	House top of Thiru. E.Ramasamy D.No.247, Kumarappan Nagar, Karathangadu	NE	1000	8.0	70	66	59	65
03.	House top of Mr. Mani, D.No. 2/386, Odapalli, Cauvery R.S	E	1000	8.0	68	56	50	58
04.	House top of Ponni Nagar Employee Quarters	SE	600	8.0	78	64	56	66
05.	On top of Guest House, SPB premises	WSW	300	6.0	79	72	68	73
06.	On top of Scaffolding, Near water Intake well	W	350	5.0	77	79	69	75

Note:

* With respect to major emission sources

All the values are restricted to the sampling period of 08.00 Hrs.

Test method:

Respirable Particulate Matter (PM₁₀) : IS 5182: (Part 23) - 2006

Sulphur Dioxide (as SO₂) : IS 5182: (Part 2) - 2001

Oxides of Nitrogen (as NO_x) : IS 5182: (Part 6) - 2006

Sampling Procedure : AEL/SLM/SOP/G-08

* Results relate only to the tested samples.

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M.P. 7/24/8/23
Env.Scientist

Authorized Signatory

Chief Scientific Officer,
AEL, TNPCB, SALEM-4.

-End of Test Report -



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,**

**SALEM – 636 004,
Accredited by NABL – (ISO/IEC 17025:2017)**



TC 9899

ULRTC98992300001390

TEST REPORT

Report No. 25 / AAQS/2023 – 24, Dated. 23.08.2023

1. Name of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
2. Address of the Industry : Alampalayam Village, Pallipalayam
Kumarapalayam Taluk, Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023
4. Duration of survey : 24 Hrs.
5. Category : Red / Large
6. Land use classification : Residential (Rural)
7. Matrix : Ambient Air
8. Date of Analysis : 14.08.2023

Ambient Air Quality survey Results – SO₂

Sl. No	Location	Direction *	Distance * (m)	Height from GL	Pollutants Concentration (µg/m ³)			
					1 st shift	2 nd shift	3 rd shift	24hrs average
01.	On top of Scaffolding near Mr. Chinnusamy's house, Cauvery R.S	N	500	2.0	17	14	11	14
02.	House top of Thiru. E.Ramasamy D.No.247, Kumarappan Nagar, Karathangadu	NE	1000	8.0	20	16	12	16
03.	House top of Mr. Mani, D.No. 2/386, Odapalli, Cauvery R.S	E	1000	8.0	16	13	10	13
04.	House top of Ponni Nagar Employee Quarters	SE	600	8.0	25	17	12	18
05.	On top of Guest House, SPB premises	WSW	300	6.0	24	19	17	20
06.	On top of Scaffolding, Near water Intake well	W	350	5.0	28	22	16	22

Note:

* With respect to major emission sources

All the values are restricted to the sampling period of 08.00 Hrs.

Test method:

Respirable Particulate Matter (PM₁₀) : IS 5182: (Part 23) – 2006

Sulphur Dioxide (as SO₂) : IS 5182: (Part 2) – 2001

Oxides of Nitrogen (as NO_x) : IS 5182: (Part 6) – 2006

Sampling Procedure : AEL/SLM/SOP/G-08

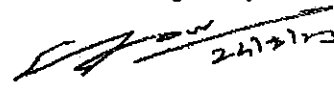
* Results relate only to the tested samples.

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Authorized Signatory

M. R. 7/24/8/23

Env. Scientist


24/8/23

Chief Scientific Officer,
AEL, TNPCB, SALEM-4.

-End of Test Report -



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD.**

SALEM – 636 004.

Accredited by NABL – (ISO/IEC 17025:2017)



TC 9899

ULRTPC98992300001390

TEST REPORT

Report No. 25 / AAQS/2023 – 24, Dated. 23.08.2023

1. Name of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
2. Address of the Industry : Alampalayam Village, Pallipalayam
Kumarapalayam Taluk, Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023
4. Duration of survey : 24 Hrs.
5. Category : Red / Large
6. Land use classification : Residential (Rural)
7. Matrix : Ambient Air
8. Date of Analysis : 14.08.2023

Ambient Air Quality survey Results – NO₂

Sl. No	Location	Direction *	Distance * (m)	Height from GL	Pollutants Concentration (µg/m ³)			
					1 st shift	2 nd shift	3 rd shift	24hrs average
01.	On top of Scaffolding near Mr. Chinnusamy's house, Cauvery R.S	N	500	2.0	23	18	16	19
02.	House top of Thiru. E.Ramasamy D.No.247, Kumarappan Nagar, Karathangadu	NE	1000	8.0	29	20	14	21
03.	House top of Mr. Mani, D.No. 2/386, Odapalli, Cauvery R.S	E	1000	8.0	23	17	14	18
04.	House top of Ponni Nagar Employee Quarters	SE	600	8.0	30	21	15	22
05.	On top of Guest House, SPB premises	WSW	300	6.0	30	22	20	24
06.	On top of Scaffolding, Near water Intake well	W	350	5.0	32	25	21	26

Note:

* With respect to major emission sources

All the values are restricted to the sampling period of 08.00 Hrs.

Test method:

Respirable Particulate Matter (PM₁₀) : IS 5182: (Part 23) – 2006

Sulphur Dioxide (as SO₂) : IS 5182: (Part 2) – 2001

Oxides of Nitrogen (as NO_x) : IS 5182: (Part 6) – 2006

Sampling Procedure : AEL/SLM/SOP/G-08

* Results relate only to the tested samples.

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Authorized Signatory

M. 07/24/8/22

Env. Scientist

Chief Scientific Officer,
AEL, TNPCB, SALEM-4.

-End of Test Report -



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,**

SALEM – 636 004.

Accredited by NABL – (ISO/IEC 17025:2017)

TEST REPORT

Report No. 25/ AAQS/2023 – 24, Dated. 23.08.2023

1. Name of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
2. Address of the Industry : Alampalayam Village, Pallipalayam
Kumarapalayam Taluk, Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023
4. Duration of survey : 24 Hrs.
5. Category : Red / Large
6. Land use classification : Residential (Rural)
7. Matrix : Ambient Air
8. Date of Analysis : 14.08.2023

Ambient Air Quality survey Results – Cl₂

Sl. No	Location	Direction *	Distance * (m)	Height from GL	Pollutants Concentration (µg/m ³)			
					1 st shift	2 nd shift	3 rd shift	24hrs average
01.	On top of Scaffolding near Mr. Chinnusamy's house, Cauvery R.S	N	500	2.0	<1	<1	<1	<1
02.	House top of Thiru. E.Ramasamy D.No.247, Kumarappan Nagar, Karathangadu	NE	1000	8.0	<1	<1	<1	<1
03.	House top of Mr. Mani, D.No. 2/386, Odapalli, Cauvery R.S	E	1000	8.0	<1	<1	<1	<1
04.	House top of Ponni Nagar Employee Quarters	SE	600	8.0	<1	<1	<1	<1
05.	On top of Guest House, SPB premises	WSW	300	6.0	<1	<1	<1	<1
06.	On top of Scaffolding, Near water Intake well	W	350	5.0	<1	<1	<1	<1

Note:

* With respect to major emission sources

All the values are restricted to the sampling period of 08.00 Hrs.

Test method:

Respirable Particulate Matter (PM₁₀) : IS 5182: (Part 23) – 2006

Sulphur Dioxide (as SO₂) : IS 5182: (Part 2) – 2001

Oxides of Nitrogen (as NO_x) : IS 5182: (Part 6) – 2006

Sampling Procedure : AEL/SLM/SOP/G-08

* Results relate only to the tested samples.

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Authorized Signatory

M. P. A / 24/8/23
Env. Scientist

Chief Scientific Officer,
AEL, TNPCB, SALEM-4.

-End of Test Report -



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,**

SALEM – 636 004.

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TEST REPORT

Report No. 25 / AAOS/2023 – 24, Dated. 23.08.2023

1. Name of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
2. Address of the Industry : Alampalayam Village, Pallipalayam
T. Code, Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023
4. Duration of survey : 24 Hrs.
5. Category : Red / Large
6. Land use classification : Residential (Rural)
7. Matrix : Ambient Air
8. Date of Analysis : 14.08.2023

Ambient Air Quality survey Results – H₂S

Sl. No	Location	Direction *	Distance * (m)	Height from GL (m)	Pollutants Concentration (µg/m ³)			
					1 st shift	2 nd shift	3 rd shift	24hrs average
01.	On top of Scaffolding near Mr. Chinnusamy's house, Cauvery R.S	N	500	2.0	<0.02	<0.02	<0.02	<0.02
02.	House top of Thiru. E.Ramasamy D.No.247, Kumarappan Nagar, Karathangadu	NE	1000	8.0	<0.02	<0.02	<0.02	<0.02
03.	House top of Mr. Mani, D.No. 2/386, Odapalli, Cauvery R.S	E	1000	8.0	<0.02	<0.02	<0.02	<0.02
04.	House top of Ponni Nagar Employee Quarters	SE	600	8.0	<0.02	<0.02	<0.02	<0.02
05.	On top of Guest House , SPB premises	WS W	300	6.0	<0.02	<0.02	<0.02	<0.02
06.	On top of Scaffolding, Near water Intake well	W	350	5.0	<0.02	<0.02	<0.02	<0.02

Note:

* With respect to major emission sources

All the values are restricted to the sampling period of 08.00 Hrs.

Test method:

Respirable Particulate Matter (PM₁₀) : IS 5182: (Part 23) – 2006

Sulphur Dioxide (as SO₂) : IS 5182: (Part 2) – 2001

Oxides of Nitrogen (as NO_x) : IS 5182: (Part 6) – 2006

Sampling Procedure : AEL/SLM/SOP/G-08


* Results relate only to the tested samples.

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Authorized Signatory

M. S. 7/24/8/23

Env.Scientist


Chief Scientific Officer,
AEL, TNPCB, SALEM-4.

-End of Test Report -



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,**

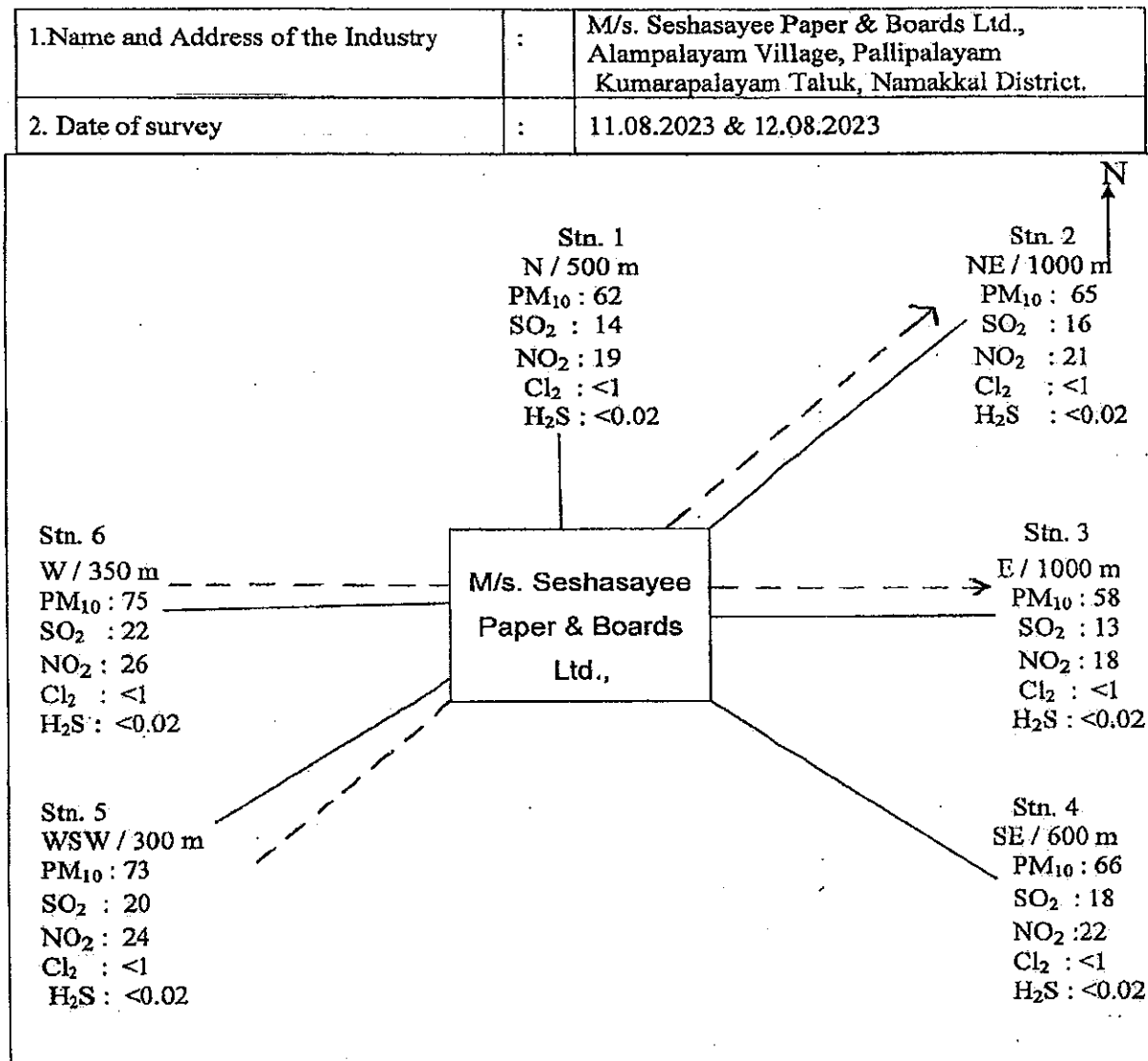
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AMBIENT AIR QUALITY SURVEY

Schematic Diagram Showing Location of Sampling

Report No. 25/AEL - SLM/AAQS/2023 - 24, Dated: 23.08.2023



Note:

All the values are expressed in $\mu\text{g}/\text{m}^3$ and restricted to the sampling period of 08.00 Hrs.

METEOROLOGICAL CONDITION:-

Predominant Wind Direction : W→E & SW→NE
Weather Condition : Clear Sky, Cloudy & Rainy
Rainfall : 23:00 – 01.00 Hrs (2 Hours)

M. P. 7/24/8/23

Env. Scientist

CHIEF SCIENTIFIC OFFICER
AEL, TNPCB, SALEM.

Page No.5 of 10



**ADVANCED ENVIRONMENTAL LABORATORY,
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TC 9899

ULRTC98992300001390

TEST REPORT

Report No. 25 / AAOS/2023 – 24, Dated. 23.08.2023

1. Name of the Industry : M/s.Seshasayee Paper & Boards Ltd.,
Alampalayam Village,
2. Address of the Industry : Pallipalayam, Kumarapalayam Taluk,
Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023
4. Matrix : Stack Emission
5. Date of Analysis : 14.08.2023

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Pollutants Concentration (mg/Nm ³)
		PM
1.	Coal Fired Boiler (117 TPH)	15
2.	New Lime Kiln	25
3.	New Chemical Recovery Boiler	19

Test Method:

Particulate Matter - IS 11255 (Part 1) – 1985, (RA 2003)

Sampling Procedure : AEL/SLM/SOP/G-08

* Results relate only to the tested samples.

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M. P. A. / 24/8/23

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-End of Test Report-

Page No.1 of 1



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM – 636 004.
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TEST REPORT

Report No. 25 / AAQS/2023 – 24, Dated. 23.08.2023

1. Name of the Industry : M/s.Seshasayee Paper & Boards Ltd.,
Alampalayam Village,
2. Address of the Industry : Pallipalayam, Kumarapalayam Taluk,
Namakkal District – 638 007.
3. Date of survey : 11.08.2023 & 12.08.2023
4. Matrix : Stack Emission
5. Date of Analysis : 14.08.2023

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Stack Temp. °C	Velocity in (m/sec)	Discharge rate in (Nm ³ /Hr)	Pollutants Concentration (mg/Nm ³)			
					SO ₂ *	NO _x *	Cl ₂ *	H ₂ S*
1.	Coal Fired Boiler (117 TPH)	130	11.1	1,63,182	113	23	-	-
2.	New Lime Kiln	145	11.8	53,540	15	12	<0.005	0.038
3.	New Chemical Recovery Boiler	158	11.1	73,037	17	15	<0.005	0.124

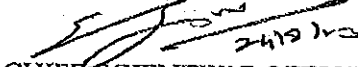
Note:

- * Indicates does not Covered in NABL Scope.
** Indicate Minimum detectable limit.

Test Method:

Particulate Matter - IS 11255 (Part 1) – 1985, (RA 2003)

M. P. H/24/8/23
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AEL, TNPCB, SALEM.



TAMILNADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Salem 636 004

STACK DETAILS

Report No. 25 /AEL - SLM/SM/2023 – 24, Dated: 23.08.2023

1.Name and Address of the Industry : M/s. Seshasayee Paper & Boards Ltd.,
 Alampalayam Village, Pallipalayam
 Kumarapalayam Taluk, Namakkal District - 638 007.

2. Date of Survey : 11.08.2023 & 12.08.2023

Sl. No.	Particulars	1	2	3
1	Stack attached to	CPP-Coal Fired Boiler	New Lime Kiln	New Chemical Recovery Boiler
2.	Details of process Stack	Coal is fired at the furnace – Steam is generated for turbine operation- Mechanical energy is converted to Electrical power energy.	Reburning of Lime mud and burning of lime stone Oxygenating Lime and Lime mud and recovering CaCO ₃ . CaCO ₃ is used in Chemical recovery process for cooling of pulp.	Generation of steam by burning black liquor a waste product from pulp production. Steam is used to rotate the turbine and electricity is generated.
3	Height from G Level in (m)	85 mtr	60 mtr	75 mtr
4	Diameter in (m) Rectangular duct	2.31 x 2.31 mtr	1.5 mtr	2.987 x 0.885-mtr
5	Port hole height from Ground Level or bends or ducts in (m)	41.5 mtr	28 mtr	12 mtr
6	Fuel Used (with L% Sulphur Content)	Imported Coal	F.O	F.O. and BLS
7	Fuel Consumption rate per day (mention units)	On 11.08.2023 Imported Coal 342 Tons	On 12.08.2023 Furnace Oil = 21.9 KL	On 11.08.2023 F.O. = 0.2 KL BLS = 902 Tons
8	Boiler type and capacity	117 T/Hr	-	-
9	APC measures provided	ESP provided	ESP provided	ESP provided
10	APC functional status		APC Measures were in operation	
11	Ambient temp in °K	305° K	303° K	305° K
12	Temp of flue gas in °K	403° K	418° K	431° K
13	Velocity of flue gas in m/sec	11.1 m/sec	11.8 m/sec	11.1 m/sec
14	Volume of flue gas sampled in m ³	0.960 m ³	0.960 m ³	0.900 m ³
15	Gaseous Discharge rate per Hr.in Nm ³ /Hr	1,63,182 Nm ³ /Hr	53,540 Nm ³ /Hr	73,037 Nm ³ /Hr

M. D. 4/24/8/23
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**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 636 004,
Accredited by NABL - (ISO/IEC 17025:2017)**



TC 9899

ULRTC98992300001390

TEST REPORT

Report No. 25 / AAQS/2023 - 24, Dated. 23.08.2023

1.	Name of the Industry	:	M/s. Seshasayee Paper & Boards Ltd.,
2.	Address of the Industry	:	Alampalayam Village, Pallipalayam Kumarapalayam Taluk, Namakkal District - 638 007.
3.	Date of survey	:	11.08.2023

Category	Red / Large
Land Use Classification	Residential (Rural)
Type of Survey	Ambient / Source
Time of Survey	Day
Meteorological Condition	Calm

Logging Parameters

Instrument Used	LARSON DAVIS SOUND LEVEL ANALYSER, SL.No.824 A/2008
Ambient Temperature	33 °C
Ambient Relative Humidity	57 %
Measuring Range	50 -110 dB(A)
Weighing	"A"
Peak Weighing	"C"
Time Weighing	--
Sound Incidence	Random
Time in Hrs	11:45 - 13:45 Hrs

Report of Noise Level Monitoring

Sl. No.	Location	Distance (m)	Direction	Sound Level- dB(A)					
				Leq	L _{Max}	L _{Min}	L ₁₀	L ₅₀	L ₉₀
I.	<u>BOUNDARY LINE:</u>								
01.	At the Main Gate (Admin.)	250	N	54.2	68.0	53.9	81.8	61.5	52.9
02.	Time Office Gate	250	NNE	54.3	65.3	52.7	82.0	61.5	52.7
03.	Old Diesel Bunk area	250	NE	53.7	66.3	52.7	82.3	62.5	52.9
04.	Odapalli Village area	300	SE	53.1	62.5	46.8	81.3	60.9	55.3
05.	SPB Guest House premises	600	WSW	54.4	63.7	53.2	82.8	77.3	52.3
06.	Intake well premises	250	W	54.8	69.8	54.2	82.7	68.9	54.1
07.	Bagasse Zone area	250	NW	54.9	63.7	52.2	82.4	65.3	55.8
08.	Vinayagar Temple premises	250	NNW	53.4	64.7	48.8	82.5	64.6	55.3
II.	<u>INSIDE THE PLANT:</u>								
1	Wood pulp mill – RDH	-	-	82.9	87.0	80.4	83.1	79.7	77.2
2	Paper machine Ground floor	-	-	80.3	86.5	73.9	82.6	67.1	56.0
3	New Recovery Boiler Area	-	-	79.9	83.4	76.0	82.1	78.9	77.2
4	CPP-Power Boiler Ground Floor	-	-	78.6	81.0	75.5	82.0	78.6	77.1

Note: *Leq Value is the average energy for the measured period.

Test Method: Sound Level (Leq) IS: 9989 - 1981 (RA 2001)

Sampling Procedure - AEL/SLM/SOP/G-08. * Results relate only to the tested samples.

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M. P. 7/24/8/23

Env. Scientist

**CHIEF SCIENTIFIC OFFICER
AEL, TNPCB, SALEM.**

-End of Test Report -

Page No.1 of 1



TAMILNADU POLLUTION CONTROL BOARD

Advanced Environmental Laboratory, Salem 636 004

GENERAL PARTICULARS

Report No. 25 /AEL - SLM/AAQS/SM/NLS/2023- 24, Dated:23.08.2023

1. Name and Address of the Industry: M/s. Seshasayee Paper & Board Ltd.,
Alampalayam Village,
Pallipalayam, Kumarapalayam Taluk,
Namakkal District – 638 007.
2. Date of Survey : 11.08.2023 & 12.08.2023

Sl. No.	Head of Particulars	Particulars	
1	Process Description	Paper production by using Bagasse , wood wet lap pulp and waste paper as raw materials.	
2	Emission Source	3 Nos. of Stacks	
3	Fugitive Emission Sources	Frequent Vehicle movements were observed	
4.	Raw Material Consumptions	On 11.08.2023	12.08.2023
		1. Bagasse : 257 Tons	258 Tons
		2. Wood : 1405 Tons	1527 Tons
		3. Wet lab pulp : 100 Tons	96 Tons
		4. Waste Paper : NIL	NIL
		5. Imported Pulp : NIL	NIL
5	Production Capacity as Per Air Consent Order No. & Date	Various grades of paper = 165000 TPA (458 P/Day) Consent Order No.2208242224684 Dated 10.08.2022 Valid Up to : 31.03.2027	
6	Production on the day of Survey \	Paper production On 11.08.2023 - 455.4 Tons On 12.08.2023 - 435.4 Tons	
7	Percent production with Respect to Air Consent Order	On 11.08.2023 – 99 % On 12.08.2023 – 95 %	
8	Details of APC	ESP's and Chimney provided	
9	Functional status of APC	All the APC measures were in operation	
10	Compliance with Consent Conditions	Complied	
11	Field Observations	Observed regular activities in routine procedures	

M.D. 7/24/8/23
Env. Scientist


CHIEF SCIENTIFIC OFFICER
AEL, TNPCB, SALEM.



TAMIL NADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Salem 636 004

INFERENCE REPORT ON AAQS/SM

Report No. 25 /AEL – SLM/AAQS/SM/NLS/2023 – 24, Dated: 23.08.2023

1. Name and address of the Industry: M/s. Seshasayee Paper & Board Ltd.,
Alampalayam Village,
Pallipalayam, Kumarapalayam Taluk,
Namakkal District – 638 007.
2. Pollution category : Red/Large
3. Land use classification : Residential/Rural
4. Date of AAQ survey : 11.08.2023 & 12.08.2023
- 5. Meteorological Conditions:**
 - (i) Predominant Wind Direction : W → E & SW → NE
 - (ii) Weather condition : Clear Sky, Cloudy & Rainy
 - (iii) Rainfall : 23:00 – 01:00 Hrs (2 Hours)
 - (iv) Temperature : min : 26 max : 34
 - (v) Relative Humidity (%) : min : 51 max : 89

STATUS OF POLLUTANTS LEVEL

I. AMBIENT AIR QUALITY:-

1. Total No. of AAQ stations monitored : 06 Nos.
2. No. of AAQ stations in which Pollutants
Level exceeded the Boards Standard : NIL

Maximum and minimum value of Pollutants Level observed:

Sl. No.	Pollutant	Values in microgram/m ³		Board's Standard (as per consent order) (µg/m ³)
		Minimum	Maximum	
1.	<u>Respirable Suspended Particulate Matter: PM₁₀</u>	58	75	100
2.	<u>Gaseous Pollutants:-</u>			
	(i) SO ₂	13	22	80
	(ii) NO ₂	18	26	80
	(iii) Cl ₂	<1	<1	-
	(iv) H ₂ S	<0.02	<0.02	-

Note: *Indicates Minimum Detectable Limit.

II) STACK MONITORING:

- 1) Total No. of Stacks Monitored : 03 Nos.
- 2) No. of Stacks in which pollutant Level
Exceeded the Board's Standard : Nil

M.P. #/24/8/23
Env. Scientist

CHIEF SCIENTIFIC OFFICER
AEL, TNPCB, SALEM.



TAMILNADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Salem 636 004

INVOICE

Report No. 25 /AEL - SLM/AAQS/SM/NLS/2023 – 24, Dated: 23.08.2023


Invoice No.	25/AIR/2023- 24
Date	23.08.2023

To
The Managing Director
M/s. Seshasayee Paper & Board Ltd.,
Alampalayam Village, Pallipalayam
Kumarapalayam Taluk, Namakkal District.

- Ref: 1) T.O.Lr.No.TNPCB/CSO/AEL – SLM/AAQS/F.No.NKL/KUMPLM –Air-01/
2023 – 24, Dated.23.06.2023.
2) Your Lr.No. A-1/351 Dated. 14.08.2023.
3) Cash Receipt No.159116 Dated: 27.06.2023 for Rs. 2,43,450/-

Sl. No.	Fees Details	Rate (Rs.)	No. of Stations	Amount (Rs.)
1.	SAMPLING CHARGES 1) Ambient Air Quality Monitoring 2) Source Emission Monitoring	10500 13100	6 3	63000 39300
2.	ANALYTICAL CHARGES: i) Ambient Air Samples PM ₁₀ : SO ₂ : NO ₂ : Cl ₂ : H ₂ S (each Rs.1050/=) ii) Source Emission Samples a) PM: SO ₂ : NO _x (each Rs.1050/=) b) PM: SO ₂ : NO _x : Cl ₂ : H ₂ S (each Rs.1050/-) c) PM: SO ₂ : NO _x : Cl ₂ (each Rs.1050/=)	5250 X 3 =(15,750) 3150 5250 4200	6 1 2 -	94500 3150 10500 -
3.	NOISE LEVEL MONITORING CHARGES:- i) For first 5 stations ii) For each Additional Station	7000 3500	5 7	7000 24500
4.	TRANSPORTATION CHARGES	-	-	1500
Total (Two Lakh Forty Three Thousand Four Hundred and Fifty Only)				2,43,450
Less : Advance fees received vide C.R.No.159116 Dated: 27.06.2023				2,43,450
Balance to be paid				NIL

M.D. 7/24/8/23
Env.Scientist


CHIEF SCIENTIFIC OFFICER
AEL, TNPCB, SALEM.

Seshasayee Paper and Boards Limited - Erode 638 007

Consolidated AAQ Report - April 2023 to Sept 2023

Month	S.NO	Location	Direction	PM 10 (ug/m3) (Norm 100)	SO2 (ug/m3) (Norm 80)	NOx (ug/m3) (Norm 80)
Apr-23	1	CAUVERY (RS)	NORTH	50	42	39
		SPB ODAPALLI				
	2	QUARTERS	SOUTH / SW	59	45	43
	3	AYYAKATTUR	EAST	62	52	47
May-23	4	OFFICERS HOSTEL	WEST / SW	47	48	45
	1	CAUVERY (RS)	NORTH	55	38	43
		SPB ODAPALLI				
	2	QUARTERS	SOUTH / SW	62	41	39
Jun-23	3	AYYAKATTUR	EAST	59	45	43
	4	OFFICERS HOSTEL	WEST / SW			
	1	CAUVERY (RS)	NORTH	47	43	55
		SPB ODAPALLI				
Jul-23	2	QUARTERS	SOUTH / SW	53	45	42
	3	AYYAKATTUR	EAST	58	43	45
	4	OFFICERS HOSTEL	WEST / SW	35	47	33
	1	CAUVERY (RS)	NORTH	51	40	59
Aug-23		SPB ODAPALLI				
	2	QUARTERS	SOUTH / SW	55	48	46
	3	AYYAKATTUR	EAST	60	40	57
	4	OFFICERS HOSTEL	WEST / SW	38	49	31
Sep-23	1	CAUVERY (RS)	NORTH	46	39	57
		SPB ODAPALLI				
	2	QUARTERS	SOUTH / SW	45	45	50
	3	AYYAKATTUR	EAST	53	38	53
Sep-23	4	OFFICERS HOSTEL	WEST / SW	35	52	33
	1	CAUVERY (RS)	NORTH	52	43	52
		SPB ODAPALLI				
	2	QUARTERS	SOUTH / SW	46	42	46
Sep-23	3	AYYAKATTUR	EAST	58	35	58
	4	OFFICERS HOSTEL	WEST / SW	31	58	30



Mitigate the Fugitive Emission

Enclosed: As annexure -

Mist nozzles installed



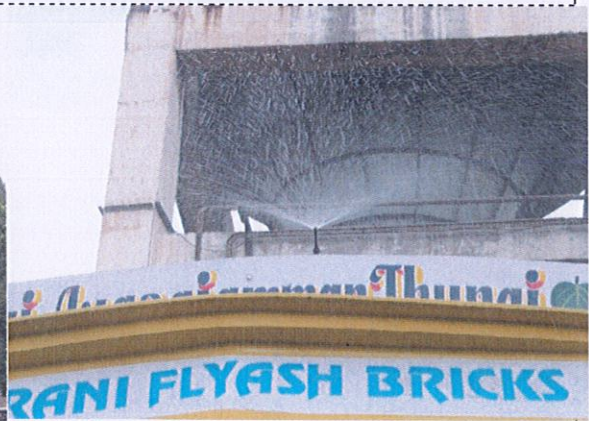
Enclosures with metaloid sheets- Bucket elevator



Sprinkler systems – Limekiln area



Fly-ash unloading area and the road area

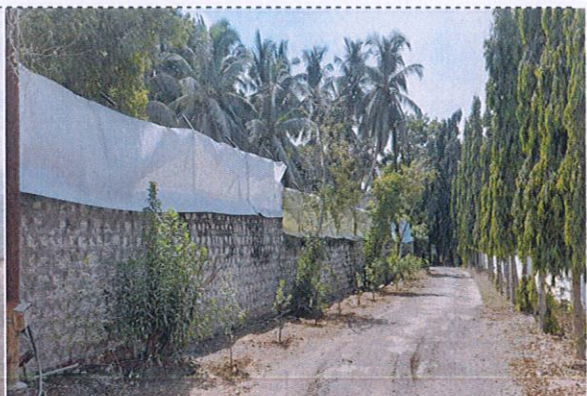


Sprinkler systems are in place to mitigate the Fugitive emissions – Coal and ash handling area





Installation Barrigade wall in lime stone area



Raised compound wall near SETP



Raised compound wall and grown up tree saplings



Tree saplings planterd



Water tanker with spray arrangement



Sprinklers in fuel handling area



- ✓ Real time data monitoring system Connected to TNPCB Care Air Centre and CPCB.
- ✓ Online Display Board installed at the main gate of the Company.



Seshasayee Paper and Boards Limited - Erode 638 007

Effluent recycled back to process

DATE	PAPER MACHINE EFFLUENT		SRP		UF & RO Reject (M3/D)	Total Recycled water (M3)	Effluent Discharged (M3)	Total effluent generated	% of water Recycled
	Non-Coloured (M3)	Coloured (M3)	Primary condensate	Secondary condensate					
Apr-23									
TOTAL	49560	127360	22330	87881	37010	324141	546801	870942	
AVG	1652	4245	744	2929	1234	10805	18227	29031	38.13
MIN	576	2755	705	2094	1002	8391	1883	12599	30.32
MAX	2560	5420	810	3169	1527	12727	20902	31542	85.05
May-23									
TOTAL	44170	128713	20624	87179	37298	317984	585087	903071	
AVG	1425	4152	665	2812	1203	10258	18874	29131	35.12
MIN	546	2160	152	656	970	5521	16450	23817	23.18
MAX	2724	5131	805	3370	1441	12487	21099	31992	39.48
Jun-23									
TOTAL	46895	148182	22088	94232	37142	348539	574547	923086	
AVG	1563	4939	736	3141	1238	11618	19152	30770	37.76
MIN	0	3975	672	2933	1097	9882	17261	29021	33.88
MAX	2557	6562	825	3350	1499	13102	21243	34345	41.53
Jul-23									
TOTAL	46015	130275	23210	91831	33956	325287	574118	885909	
AVG	1484	4202	774	2962	1095	10493	18520	28578	37.73
MIN	600	1938	620	1638	948	7448	13302	11833	32.17
MAX	2725	5923	856	3356	1288	12230	21221	33090	87.37
Aug-23									
TOTAL	39101	150850	24536	94143	34684	343314	602136	945450	
AVG	1396	4866	791	3037	1119	11075	19424	30498	36.31
MIN	345	3896	563	2867	940	8450	17019	28192	29.97
MAX	2811	6594	972	3311	1256	13263	22190	32825	41.46
Sep-23									
TOTAL	36303	135445	22403	85714	31098	310963	569989	880952	
AVG	1297	4515	773	2956	1037	10365	19000	29365	35.24
MIN	227	71	345	713	830	6806	15541	24143	26.29
MAX	2334	5930	851	3455	1224	12401	22000	33435	39.17



ABSTRACT FROM THE ANALYSIS REPORT OF IN - HOUSE IN RESPECT OF RIVER WATER - UPSTREAM AND DOWN STREAM

		Unit	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jul-23	Aug-23	Sep-23
UP STREAM	PH		8.17	8.17	8.30	8.17	8.07	8.12	8.07	8.20	8.11	8.10	8.05
	Total Hardness	ppm	126	159	175	173	187	191	188	184	169	159	155
	P Alkalinity	ppm	0	0	0	0	0	0	0	0	0	0	0
	M Alkalinity	ppm	123	163	185	187	192	206	197	192	197	176	162
	Chlorides as "Cl"	ppm	40	44	49	45	74	81	87	74	49	46	35
	Silica	ppm	11.6	12.7	15.9	17.6	19.8	20.7	20.1	19.5	19.1	19	19.1
	D.O	ppm	7.2	7.3	6.8	7.0	7.1	6.7	6.9	6.7	7.2	7.3	7.2
DOWN STREAM	PH		8.21	8.21	8.37	8.21	8.11	8.18	8.06	8.18	8.09	8.08	8.01
	Total Hardness	ppm	128	161	178	175	188	193	186	183	167	157	153
	P Alkalinity	ppm	0	0	0	0	0	0	0	0	0	0	0
	M Alkalinity	ppm	126	164	188	188	194	209	196	191	194	174	159
	Chlorides as "Cl"	ppm	41	45	51	46	76	82	86	73	48	45	33
	Silica	ppm	11.9	13	16.1	17.8	20.1	21	20.3	19.7	19.2	19.2	19.3
	D.O	ppm	7.4	7.4	7.0	7.2	7.2	6.8	7.1	6.8	7.3	7.4	7.4



**Table 5. Soil characteristics of long term effluent irrigated sites
(June-2022)**

S.No	Parameters	Effluent irrigation		
		20 years	30 years	40 years
1	pH	7.79	7.11	8.22
2	EC(dSm ⁻¹)	0.19	0.37	0.95
3	Organic carbon (%)	0.38	0.70	0.95
4	Available nitrogen (kg ha ⁻¹)	215	351	266
5	Available phosphorus (kg ha ⁻¹)	19.6	23	26
6	Available potassium(kg ha ⁻¹)	185	312	234
7	Exchangeable Ca(cmol(p ⁺)kg ⁻¹)	0.72	0.67	1.32
8	Exchangeable Mg (cmol(p ⁺)kg ⁻¹)	0.62	0.86	0.49
9	Exchangeable Na (cmol(p ⁺)kg ⁻¹)	1.36	0.44	1.51
10	Exchangeable K (cmol(p ⁺)kg ⁻¹)	0.12	0.11	0.46
11	Bacteria (*10 ⁶ CFU g ⁻¹ of soil)	16	18	19
12	Fungi(*10 ⁴ CFU g ⁻¹ of soil)	10	7	8
13	Actinomycetes (*10 ² CFU g ⁻¹ of soil)	3	2	3

Amulya
12/12/22
Professor and Head

Dept. of Environmental Sciences

13/12/22

ABSTRACT FROM THE ANALYSIS REPORT OF ADVANCED ENVIRONMENTAL LABORATORY, (TNPCCB) SALEM IN RESPECT OF GROUND WATER SAMPLE
Dt 09 06 2023

Parameters	Unit	Sivakumar Borewell Kattur	Subramani Borewell, Appanaikenpalayam	Venila Borewell Pappampalayam	Jagathish Openwell Mukkuparai	SPB Borewell New Guest House
pH at 25 °C	Number	7.83	7.84	7.57	7.64	7.7
Total Dissolved Solids at 180 °C	mg/l	1052	1324	1052	976	1604
Chlorides as Cl	mg/l	225	310	215	205	420
Sulphates as SO ₄	mg/l	178	180	168	142	232
BOD (at 27 °C for 3days)	mg/l	<2	<2	<2	<2	<2
COD	mg/l	16	16	16	16	16
P.Alkalinity as CaCO ₃	mg/l	24	20	8	8	12
Fluoride as F	mg/l	0.122	0.127	0.122	0.111	0.166
Alkalinity as CaCO ₃	mg/l	244	268	244	236	304
Total Hardness CaCO ₃	mg/l	270	490	350	320	450
Calcium as CaCO ₃	mg/l	80	76	96	76	100
Magnesium as Mg	mg/l	17	73	27	46	49
Sodium as Na	mg/l	228	285	242	429	370
Potassium as K	mg/l	11	11	11	9	15
Iron Total as Fe	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
Total Kjeldahl Nitrogen	mg/l	3.36	3.36	3.36	3.36	3.36
Ammonical Nitrogen as NH ₃ N	mg/l	1.12	1.12	1.12	1.12	1.12
% Sodium	%	64	63	59	71	63
Oil & Grease	mg/l	<3	<3	4	<3	4
Phosphate as P ₀₄	mg/l	0.139	0.139	0.139	0.139	0.139



TAMIL NADU AGRICULTURAL UNIVERSITY

**Department of Environmental Sciences
Coimbatore - 641 003, Tamil Nadu, India.**

Dr. M. Maheswari, Ph.D.,
Professor and Head,

Phone : 0422 - 6611452 (Direct)
0422 - 6611252 (O)

E.mail : environment@tnau.ac.in

No. P&H/ENS/TNAU/CBE/SPB / Analytical Result /2023 dt.-29.09.2023

Sir,

Sub: SPB - Analytical report -water samples - Benchmark sites - Sending - Reg.

I herewith enclose the analytical results of the monitoring well water sample (11Nos.) collected and handed over by Seshasayee Paper and Boards Limited, Erode unit on 20.07.2023 for your kind perusal.

Mr. Shamshur av. Rajmanan
Eon

$$\frac{1}{30/9}$$

Professor and Head

Dept. of Environmental Sciences
Dept. of Environmental Sciences
Tamil Nadu Agricultural University
Coimbatore - 641 003.

To

The Managing Director
Seshasayee Paper & Boards Ltd.
Erode-7.

**Table 1 Characteristics of water samples collected from benchmark sites
(July- 2023)**

S.No	Sampling Points	pH	EC (dSm ⁻¹)	TS (mg/l)	BOD (mg/l)	COD (mg/l)
1.	Sakthi, Saravana Chambers, Odapalli	7.83	0.84	1235	6.6	38
2.	Rajendran, Vavakaddu, Pappampalayam	7.93	0.86	1032	5.4	40
3.	Jothimani, Chinnathottam, Pappampalayam	8.00	0.87	1059	4.9	38
4.	Rajavelu, Kattupallathuvalavu, Appanaickenpalayam	8.04	0.88	1045	5.1	31
5.	P.P.Marappan, Appanaickenpalayam	7.95	0.74	1109	3.9	36
6.	Ramasamy, Kattur	8.11	1.01	1004	4.0	32
7.	Chellapan, Thottathukadu, Devanampalayam	7.98	0.74	1141	4.9	30
8.	A.P.Chellamuthu, Pallkattuvalavu, Pappampalayam	8.04	0.68	873	3.9	38
9.	Kaliannagounder, Kalathukadu	7.99	0.65	1121	3.0	31
10.	P.Palaniappan, Kalathukadu	8.08	0.88	944	4.6	29
11.	Kadachanallur, Panchayat Borewell (Non-Irrigated Area) – Reference	8.22	1.19	1295	4.2	37

Table 2 Characteristics of anions in water samples collected from benchmark sites
(July- 2023)

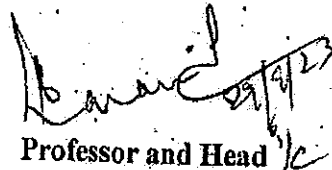
S.No	Sampling Points	Cl (meq/l)	CO ₃ (meq/l)	HCO ₃ (meq/l)	SO ₄ (meq/l)
1.	Sakthi, Saravana Chambers, Odapalli	13.1	0.04	1.8	2.31
2.	Rajendran, Vavakaddu, Pappampalayam	10.2	0.05	2.4	1.62
3.	Jothimani, Chinnathottam, Pappampalayam	6.9	0.07	2.5	1.39
4.	Rajavelu, Kattupallathuvalavu, Appanaickenpalayam	18.5	0.04	1.4	2.15
5.	P.P.Marappan, Appanaickenpalayam	14.2	0.03	1.9	1.90
6.	Ramasamy, Kattur	6.1	0.08	2.1	1.51
7.	Chellapan, Thottathukadu, Devanampalayam	12.9	0.04	1.9	1.65
8.	A.P.Chellamuthu, Pallkattuvalavu, Pappampalayam	5.9	0.08	1.7	1.35
9.	Kaliannagounder, Kalathukadu	12.5	0.04	0.9	1.89
10.	P.Palaniappan, Kalathukadu	7.1	0.08	1.8	1.29
11.	Kadachanallur, PanchayatBorewell (Non-Irrigated Area) – Reference	8.9	0.11	3.5	2.66

**Table 3 Characteristics of cations in water samples collected from benchmark sites
(July – 2023)**

S.No	Sampling Points	Na (meq/l)	K (meq/l)	Mg (meq/l)	Ca (meq/l)
1.	Sakthi, Saravana Chambers, Odapalli	4.25	0.11	11.1	7.5
2.	Rajendran, Vavakaddu, Pappampalayam	4.82	0.35	4.6	4.9
3.	Jothimani, Chinnathottam, Pappampalayam	3.01	0.16	4.8	3.9
4.	Rajavelu, Kattupallathuvalavu, Appanaickenpalayam	7.65	0.35	11.3	10.6
5.	P.P.Marappan, Appanaickenpalayam	3.62	0.19	6.1	8.9
6.	Ramasamy, Kattur	4.39	0.17	5.8	4.2
7.	Chellapan, Thottathukadu, Devanampalayam	3.05	0.16	5.4	7.6
8.	A.P.Chellamuthu, Pallkattuvalavu, Pappampalayam	3.19	0.19	3.8	3.8
9.	Kaliannagounder, Kalathukadu	3.41	0.14	5.6	5.5
10.	P.Palaniappan, Kalathukadu	2.84	0.13	2.2	4.7
11.	Kadachanallur, PanchayatBorewell (Non- Irrigated Area) – Reference	7.45	0.45	4.5	4.5

**Table 4 Characteristics of water samples collected from benchmark sites
(July – 2023)**

S.No	Sampling Points	SAR	SSP(%)	PS	RSC
1.	Sakthi, Saravana Chambers, Odapalli	1.17	18.45	16.71	-16.51
2.	Rajendran, Vavakaddu, Pappampalayam	1.80	33.80	10.26	-6.62
3.	Jothimani, Chinnathottam, Pappampalayam	1.25	26.17	7.18	6.39
4.	Rajavelu, Kattupallathuvalavu, Appanaickenpalayam	1.84	25.15	20.61	-21.27
5.	P.P.Marappan, Appanaickenpalayam	1.25	20.65	15.53	-12.61
6.	Ramasamy, Kattur	1.71	31.15	6.56	-7.75
7.	Chellapan, Thottathukadu, Devanampalayam	0.94	18.29	14.13	-11.69
8.	A.P.Chellamuthu, Pallkattuvalavu, Pappampalayam	1.41	30.31	6.41	-5.46
9.	Kaliannagounder, Kalathukadu	1.24	24.11	14.76	-9.61
10.	P.Palaniappan, Kalathukadu	1.19	28.65	8.31	-5.13
11.	Kadachanallur, PanchayatBorewell (Non- Irrigated Area) –Reference	2.85	43.59	10.14	-5.46


Professor and Head
Dept. of Environmental Sciences
 Dept. of Environmental Sciences
 Tamil Nadu Agricultural University
 Coimbatore - 641 002