

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE BENCH AT CHENNAI**

**Original Application No. 33 of 2023 (SZ)**

Nukatati Rajasekhar & another

.... Applicants

-Vs-

Union of India,  
Through its Secretary,  
Ministry of Environment Forest and CC  
& 6 others

... Respondents


**7<sup>TH</sup> RESPONDENT'S SUBMISSIONS TO THIS HON'BLE  
TRIBUNAL'S DIRECTIONS DATED 11.12.2024**

1. The 7<sup>th</sup> Respondent herein humbly submits their submissions towards this Hon'ble Tribunal's Directions dated 11.12.2024 as follows:

S. No.	Directions/Observations	Compliance status
1.	Examine the technical possibility of further treatment of the treated effluents (45,000 KLD) either through the TTRO (Tertiary Treatment Reverse Osmosis) or TTUF (Tertiary Treatment Ultra Filtration) plant :	<p>i. A feasibility study on Zero Liquid Discharge (ZLD) in Wood and Agro based Pulp and Paper Mills was done by CPPRI on request of Indian Paper Manufacturers Association (IPMA) in the month of July, 2022. The CPPRI's Report dated 20.07.2022 concludes that, ZLD is not feasible for integrated Pulp and Paper manufacturing mills. The feasibility report of the CPPRI dated 20.07.2022 is filed herewith as <b>ANNEXURE-1</b>.</p> <p>ii. Further, the Principal Bench of this Hon'ble Tribunal, in OA No.682/2019 had directed the CPCB to file a Status Report on the compliance of ZLD in respect of different categories of industries. In this regard, the CPCB has filed a Status Report dated 01.02.2023 where under it has reported that, at present, Zero Liquid Discharge is, techno-economically, not feasible for the</p>

  
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		<p>Wood/Agriculture residue based pulp and paper mills. The Status Report dated 01.02.2023 of the CPCB is filed herewith as <b>ANNEXURE-2.</b></p> <p>iii. Earlier, the CPCB carried out a ZLD feasibility study in January, 2015 and concluded that Zero Liquid Discharge is techno-economically, not feasible for most mill categories. In this report, for a 100 TPD mill – the CPCB conservatively estimated ZLD Capital expenditure cost at Rs.49.0 crores and Annual operation cost at Rs.23 Crores. It observed that no country has imposed a ZLD condition for the paper industry.</p> <p>iv. The Feasibility Study Report dated 19.01.2015 of the CPCB is filed herewith as <b>ANNEXURE-3.</b></p> <p>The capacity of the 7<sup>th</sup> Respondent being 593 TPD, the ZLD Capital Expenditure works to Rs.290.50 Crores and the Operational Expenditure works up to about Rs.136.4 Crores. Such costs of ZLD solutions are prohibitive and will render the mills unviable to operate.</p> <p>v. However, this Respondent has already implemented ZLD for Black liquor at their plant by segregation, Forced Multi Effect Evaporation and concentrated liquor to recovery boiler to generate Process steam and Captive power generation. This Black Liquor ZLD contributes to about 65 to 68% of the power demand for the mill operations.</p>
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2.	Most of the parameters are said to be within norms and effluents primarily contain only organic matter and do not contain chemicals or heavy metals.	<p>Effluent samples tested by NABL approved M/s.Vimta Labs show that the parameters are well within the prescribed norms as per The Environment (Protection) Rules, 1986 applicable to Inland surface Discharge Norms. This report refers the parameters over and above CFO parameters.</p> <p>The Report of M/s. Vimta Labs dated 29.01.2025 is filed herewith as <b>ANNEXURE 4</b></p>
3.	Examine whether the treated effluents from ETP can be supplied to farmers for irrigation purposes or growing trees in public places. The Project Proponent may also examine whether the effluents after treatment in ETP can be used as coolant water in nearby industries.	<p>i. This Respondent is already in the practice of using treated water for internal gardens, use of machine backwater in pulp mill and other areas, use of secondary condensate in process areas.</p> <p>ii. Nearby Agricultural lands are utilizing Godavari water, as it is nearer and these lands are located in Godavari delta. Hence, no farmer is interested to take Paper Mill Treated wastewater. However, Andhra Paper is in consultation with Agricultural University, Hyderabad and others to look into possibilities in this regard.</p> <p>iii. In this scenario, Andhra Paper is focusing on water and wastewater reduction. Specific water per ton of product is reduced from 68 KL to 49.11 KL from last 10 years. The Specific water report is filed herewith as <b>ANNEXURE 5</b>. The corresponding wastewater also reduced from 48 KL to 42.96 KL per ton of product.</p>



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4. The reuse and recycling of water is being continuously tracked by this Respondent and the details thereof are set out as follows:

Month	Evaporator Secondary Condensate reuse		Paper Machine Back water recycling (KL)	ETP Treated effluent Reuse (KL)
	Pulp mill (KL)	RLK & Causticizing (KL)		
Apr-24	0	0	26614	4727
May-24	83810	93151	268527	25835
Jun-24	95491	86553	283533	24940
Jul-24	95855	85963	322220	13615
Aug-24	88264	84999	276532	8729
Sep-24	88540	78378	267018	7976
Oct-24	90263	75124	265788	10651
Nov-24	91428	73389	252847	13416
Dec-24	93346	77709	276053	17724
Jan-25				
Total	726997	655266	2239132	127613
<b>Daily Average</b>	<b>2644</b>	<b>2383</b>	<b>8142</b>	<b>464</b>

From the above table it can be seen that the total per day reuse of water within the manufacturing process instead of discharge as waste water to the ETP, is totalling to 13633 KL per day on an average.

5. In addition to all the conditions and directions issued by the APPCB and CPCB, this Respondent has been voluntarily up-scaling and implementing new water saving initiatives at their plant on a regular basis. The recent water saving measures achieved by the 5<sup>th</sup> Respondent as on January, 2025 are set out here below:

S.No	Water Saving Project	Status	Expected Water Saving Volume in M3/day
1.	RJ5 fiber maizer dilution with RJ5 clear water by Arrangement of control mechanism i.e. NRV's in fresh water & back water line and Pressure interlocking on/off valve	Completed on 10.05.2018	480
2.	Improve RJ3 disc filter performance by arranging another two number of discs and Nozzles, required spares which running presently with 4 discs and having slots for 6 discs.	Completed on 11.05.2018	Potential overflows eliminated

  
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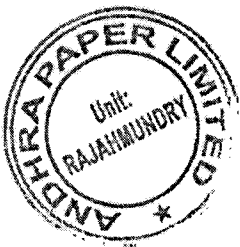
3.	Cloudy water 100% pumping back to disc filter	Completed on 05.05.2018	Potential overflows eliminated
4.	RJ 1& 4 clear water tank makeup with RJ2 clear water	Completed on 12.05.2018	600
5.	Floor cleaning hoses in RLK replacement with Back water - 6No's	Completed on 15.05.2018	50
6.	CD filter Area Hot water recycle to Hot water tanks	Completed on 30.06.2018	250
7.	Increase secondary condensate usage in Pulp mill by arranging storage and pumping system	Completed on 24.07.2018	1000
8.	WTP underflow reuse system establishment	Completed on 14.02.2018	1200
9.	RB4 AC's cooling water line to be rerouted to 4F cooling tower	Completed on 07.03.2018	340
10.	Back water usage in wet lap showers with Filter	Completed on 25.04.2018	300
11.	Replacement of fresh water with treated effluent for gardening / road wetting / process floor washings	Completed on 20.05.2019	400
12.	RLK. 1 & 2 bearing cooling, Vacuum Sealing & Barometric legs water recycling	Completed on 01.04.2022	2000
13.	Replacement of Fresh water with Hot water in 3 no's of HP showers of RJ.5 machine.	Completed on 10.08.2022	720
14.	Replacement of fresh water with paper machines RCB water on "D1 washers on both showers" in pulp Mill ( in 1 Shower )	Completed on 05.05.2023	1500
15.	Recycle of Evaporator Vacuum pump seal water	Completed on 19.08.2023	312
16.	PM -5 Roll Cooling water diverted to PM - 5 Vacuum pit	Completed on 09.11.2024	200
17.	PM - 1 to 5 Air Compressor cooling diverted to PM - 5 Vacuum pit	Completed on 29.11.2024	900
<b>Total water savings</b>			<b>10,223</b>

  
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This Respondent has therefore been constantly striving to save and conserve water and has implemented various machinery and measures to achieve maximum possible water saving in the industrial process.

5. This Respondent submits that, notwithstanding any conditions laid down by the APPCB or CPCB, this Respondent has been constantly upgrading its pollution control measures by implementing the first in the industry processes and technologies. This respondent, over the years has voluntarily implemented many systems and practices to achieve its objective of a sustainable manufacturing process.
6. This Respondent humbly prays that this Hon'ble Tribunal may be pleased to take the above responses to this Hon'ble Court's Directions dated 11.12.2024 on file and render justice.

Dated at Chennai on this the 12<sup>th</sup> day of February, 2025.

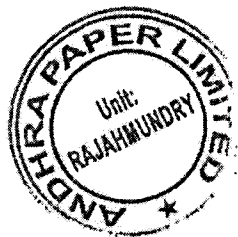


7<sup>th</sup> Respondent  
M. SURA REDDY  
Sr. Vice President Operations

Counsel for the 7<sup>th</sup> Respondent

#### Verification

**I, Sura Reddy Mallidi, the Sr. Vice President (Operations) & Mill Manager and Authorised Signatory of the 7<sup>th</sup> Respondent** herein, now come over to Chennai do hereby verify that the statements made in paragraphs 1 to 6 and the table above have been explained to me and are affirmed to be true to the best of my knowledge, belief and information.



7<sup>th</sup> Respondent

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