IN THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION 797 OF 2024

IN THE MATTER OF:

GAUTAM …APPLICANTS

VERSUS

STATE OF UTTAR PRADESH …RESPONDENTS

INDEX

Through

Priyanka

Date: 10.04.2025
Place: New Delhi

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REPLY ON THE BEHALF OF RESPONDENT NO 2 DISTRICT MAGISTRATE, MUZAFFARNAGAR, STATE OF U.P. ALONG WITH THE AFFIDAVIT.

Respectfully Showeth:

1. That the Hon'ble National Green Tribunal has passed an Order dated 20.08.2024 in the matter of Original Application No. 797/2024 Gautam Verus State of Uttar Pradesh. The Executive part of the order is as follows-

> *2. Complainant has said that certain paper mills namely: Balaji Paper Mill, Agarwal Paper Mill, Meenu Paper Mill, Bageshwari Paper Mill, and Tehri Paper Mill situated in village Makhiyaali are operating by burning solid waste and plastic and thereby causing air pollution in the nearby rural area causing health hazards to the people residing in area. Black gas spread in entire surrounding villages is causing several 2 accidents on highway and many people have died but no action has been taken by concerned authorities despite several complaints.*

3. The allegations made in the letter petition is ex-facie give rise to a substantial question relating to environmental arising out of implementation of enactments mentioned in Schedule-1 of NGT Act, 2010 but before taking any further action in the matter we find it appropriate to obtain a Factual Report for which we constitute a Joint Committee comprising Uttar Pradesh State Pollution Control Board, District Magistrate, Muzaffarnagar and Central Pollution Control Board.

4. District Magistrate, Muzaffarnagar shall be the Nodal Agency for co-ordination and compliance of this order.

2. That in compliance with the Hon'ble NGT order dated 20.08.2024 and 18.11.2024, a joint committee comprising officials from the Central Pollution Control Board (CPCB), Uttar Pradesh Pollution Control Board (UPPCB), and representative from District Administration, Muzaffarnagar carried out monitoring from October 17th to 18th, 2024, and November 25th to 26th, 2024, to verify the factual status of the aforementioned issues mention below:

3. That in the present O.A., the Applicant mainly highlighted the significant air pollution caused by burning solid waste and plastic, and emission of black gases from various industrial units, namely M/s Balaji Paper Mill, M/s Meenu Paper Mill, M/s Bageshwari Paper Mill, M/s Agarwal Paper Mill, and M/s Tehri Paper Mill situated in village Makhiyali, Muzaffarnagar.

4. That in the petition, the complainant has also raised issues related to various health problems and accidents due to emission of black ash by the aforementioned industries.

5. That in reference to the above petition, the Hon'ble National Green Tribunal on dated 20.08.2024 had constituted a Joint Committee comprising Uttar Pradesh State Pollution Control Board, District Magistrate, Muzaffarnagar, and Central Pollution Control Board with direction that the Committee shall visit the site, collect relevant information, and submit a Factual Report. The Joint Committee inspected the concerned industries and carried out a survey of the area and submitted a detailed report dated 04.11.2024 before Hon'ble Tribunal it is a matter of record.

6. That the Joint Committee filed the joint inspection report which was duly submitted by the answering respondent on 14.12.2024 before Hon'ble Tribunal it is a matter of record. A copy of joint inspection report dated 14.12.2024 **ANNEXURE No. 1.**

7. Thereafter the Matter Hon'ble National Green Tribunal has passed another Order dated 17.12.2024 in the matter of Original Application No. 797/2024 Gautam Verus State of Uttar Pradesh. The Executive part of the order is as follows-

3. In view of the averments in the application and observations in the report of the Joint Committee, we consider it appropriate to have response of (1) State of Uttar Pradesh through Principal Secretary, Environment and Forest, (2) District Magistrate, Muzaffarnagar, (3) Uttar Pradesh Pollution Control Board through Member Secretary, (4) Uttar Pradesh Ground Water Department, (5) M/s. Tirupati Balaji Fibers Pvt. Ltd., (6) M/s. Meenu Paper Mills Pvt. Ltd., (7) M/s.

Shree Bhageshwari Papers Pvt. Ltd., (8) M/s. Agarwal Duplex Board Mills Ltd. and (9) M/s. Tehri Pulp and Paper ltd. who stand impleaded as respondents No. 1 to 9. The Registry is directed to prepare and attach memo of parties to the application and issue notices to respondents No. 1 to 9 requiring them to file their reply/response at least one week before the next date of hearing.

8. That the Hon'ble National Green Tribunal has passed an Order dated 24.02.2025 in the matter of Original Application No. 797/2024 Gautam Vs State of UP. The Executive part of the order is as follows-

''..... Vide order dated 17.12.2024 notices were ordered to be issued to respondents no.1 to 9 for filing of their replies/responses. In compliance thereof, replies/responses have been filed by respondents no.3, 5, 6, 7 8 and 9.

Report dated 21.02.2025 has also been filed by Mr. Rahul Khurana, learned Amicus Curiae. Learned counsel for respondent no.4 has submitted that its response has been filed but the same was filed on Saturday after 3:00 P.M and therefore, the same has not been placed on record.

The Registry shall verify the factual position and place the response filed by respondent no.4 on record and also upload the same on website, as the case may be .....''

9. That in the Compliance of the above-mentioned directions of the Hon'ble Tribunal, the Uttar Pradesh Pollution Control Board (UPPCB) had submitted a detailed factual report to the Hon'ble National Green Tribunal on dated 21.02.2025. Following the amicus curiae's report, UPPCB

Muzaffarnagar conducted an inspection of the mentioned units on 25.03.2025 to verify the facts. All the facts, present details and compliances of Hon'ble Tribunal orders are documented as **Annexure No. 2**.

10. That it is Pertinent to mention here that UPPCB has issued directions to the concerned industries where violations were found by Amicus Curie to rectify the issues.
11. That it is most respectfully submitted above by the answering respondent that steps will be taken for any further direction and compliance as directed by the Hon'ble Tribunal intru letter and spirit by the answering respondent. The said reply is on behalf of the state and shall be taken on record.

Through

Priyanka

Date: 10.04.2025
Place: New Delhi

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NOTARY PRERNA TYAGI NOTARY MUZAFFARNAGAR Reg. No 7866 GOVT. OF INDIA

IN THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION 797 OF 2024

IN THE MATTER OF:

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VERSUS

STATE OF UP. ...RESPONDENTS

AFFIDAVIT

I, **Umesh Mishra**, aged about **52** years S/o **Shri M.P. Mishra**, presently posted as District Magistrate, Muzaffarnagar do hereby solemnly affirm and state on oath as under:

1. That I am posted as stated above and well conversant with the facts of the present case and as such competent to swear this affidavit before this Tribunal.
2. That the accompanying report has been drafted by our counsel upon my instructions.
3. That the contents of the accompanying report are true and correct and the knowledge has been derived from official records and nothing material has been concealed therefrom.

11.4.25
DEPONENT

PRERNA TYAGI
NOTARY
MUZAFFARNAGAR
11 APR 2025

VERIFICATION:

I, the deponent named above, do hereby verify that the content of all paras of this affidavit are true to my knowledge and true on the basis of records and as per legal advice. No part of it is false and nothing material has been concealed.

So, help me GOD. Verified at Muzaffarnagar on 11th day of April, 2025.

Deponent

Through

Priyanka

Date: 10.04.2025
Place: New Delhi

PRIYANKA SWAMI
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NOTARIAL
PRERNA TYAGI NOTARY MUZAFFARNAGAR Reg. No 7866
NOTARY GOVT. OF INDIA

Omesh Mishra

The deponent ... is/are identified by Shri ... I have satisfied myself by examining the deponent who understands the contents of the affidavit which has been read out and explained by me to the deponent. Fee ... Charged Rs. ...
NOTARY DISTT. MUZAFFARNAGAR

Identified by

PRERNA TYAGI
NOTARY
MUZAFFARNAGAR
11 APR 2025

Annexure-1

JOINT INSPECTION REPORT

(OCTOBER 17th TO 18th, 2024 & NOVEMBER 25th TO 26th, 2024)

IN THE MATTER OF

GAUTAM

VS.

STATE OF UTTAR PRADESH

[O.A. NO. 797/2024]

-PREPARED BY-

THE JOINT COMMITTEE OF CPCB, UPPCB AND DISTRICT ADMINISTRATION MUZAFFARNAGAR

- CONSTITUTED BY -

HON'BLE NATIONAL GREEN TRIBUNAL

(ORDER DATED 20.08.2024 & 18.11.2024)

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DETAILED FACTUAL REPORT IN COMPLIANCE TO HON'BLE NATIONAL GREEN TRIBUNAL (NGT) ORDER DATED 20.08.2024 and 18.11.2024 IN ORIGINAL APPLICATION NO. 797/2024 IN THE MATTER OF GAUTAM VS STATE OF UP.

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1. SUBJECT MATTER

Matter: Original Application no. 797/2024 titled Gautam Vs State of UP

Subject: Detailed factual report in compliance to Hon'ble NGT order dated 20.08.2024 and 18.11.2024 in OA No. 797/2024 in the matter of Gautam Vs State of UP in reference to grievance registered by Hon'ble NGT on the basis of a letter petition dated 26.10.2023 sent by Gautam, s/o Virender r/o Makhiyali village, Muzaffarnagar.

2. HON'BLE NGT ORDER

Hon'ble NGT in OA No. 797/2024 in the matter of Gautam Vs State of UP directed the following vide its order dated 20.08.2024 **(ANNEXURE – I)**:

3. *"The allegations made in the letter petition is ex-facie give rise to a substantial question relating to environmental arising out of implementation of enactments mentioned in Schedule-1 of NGT Act, 2010 but before taking any further action in the matter we find it appropriate to obtain a Factual Report for which we constitute a Joint Committee comprising Uttar Pradesh State Pollution Control Board, District Magistrate, Muzaffarnagar and Central Pollution Control Board.*

4. District Magistrate, Muzaffarnagar shall be the Nodal Agency for coordination and compliance of this order.

5. Above Committee shall visit the site, collect relevant information and submit a Factual Report within two months."

Hon'ble NGT in OA No. 797/2024 in the matter of Gautam Vs State of UP directed the following vide its order dated 18.11.2024 **(ANNEXURE – II)**:

4. "We *may also notice hereat that in the Joint Committee's report dated 04.11.2024, facts with regard to air pollution have been given in respect to various industrial units but with regard to industrial effluent and discharge i.e. water pollution, relevant facts have not been given.*

5. Learned counsel appearing for State of UP stated that some time may be granted to Joint Committee to submit detailed further report covering aspect of discharge of effluent and steps taken for its management and handling.

6. Let such report be also submitted at least two days before next date by Joint Committee."

2.1. Issues highlighted by Applicant in Original Application No. 797/2024

Applicant has mainly highlighted the following issues in Original Application No. 797/2024:

i. Significant air pollution is being caused by burning solid waste & plastic and emission of black gases from various industrial units, namely M/s Balaji Paper Mill, M/s Meenu Paper Mill, M/s Bageshwari Paper Mill, M/s Agarwal Paper Mill, and M/s Tehri Paper Mill situated in village Makhiyaali, Muzaffarnagar.

ii. In petition, the complainant has also raised issues related to various health problems and accident due to emission of black ash by above mentioned industries.

3. COMPLIANCE REPORT

In compliance of Hon'ble NGT order dated 20.08.2024 and 18.11.2024, a joint committee comprising officials from the Central Pollution Control Board (CPCB), Uttar Pradesh Pollution Control Board (UPPCB) and representative from District Administration, Muzaffarnagar carried out monitoring from October 17th to 18th, 2024 and November 25th to 26th, 2024, to verify the factual status of the aforementioned issues.

3.1. Actions taken by the Committee

The petition included list of 5 nos. of industrial units, which was verified by UPPCB. The joint committee carried out inspection/monitoring of these 5 industrial units on surprise basis during October 17th to 18th, 2024 and November 25th to 26th, 2024 as below:

i. Inspection of 5 industrial units as per the list provided by UPPCB to investigate pollution issues w.r.t. effluent generation & discharge, effluent management system, and solid waste management (i.e. plastic waste, boiler ash & ETP sludge):
   1. M/s Tirupati Balaji Fibers Private Limited, Bhopa Road, Muzaffarnagar
   2. M/s Meenu Paper Mills Private Limited, Bhopa Road, Muzaffarnagar
   3. M/s Shree Bhageshwari Papers Pvt Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar
   4. M/s Agarwal Duplex Board Mills Ltd, Bhopa Road, Muzaffarnagar, and
   5. M/s Tehri Pulp and Paper Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar

ii. Stack emission monitoring in 5 industrial units mentioned above

iii. Survey of Makhiyaali village, Muzaffarnagar and monitoring of ambient air quality.

The joint team conducted inspections w.r.t. various aspects, including the industrial processes, water consumption patterns within the manufacturing processes. Additionally, the team collected samples and gathered information on following:

i. Verification of legal documents required to operate the industrial unit;
ii. Collection of samples from Effluent Treatment Plant (ETP) - Inlet, Outlet & Aeration tank for compliance verification;
iii. Collection of secondary data such as logbooks of raw material consumption, production, freshwater abstraction & consumption, effluent generation, reused & discharge, details of effluent management scheme, etc.
iv. Assessment of Groundwater withdrawal/fresh water consumption, groundwater quality and effluent management;
v. Assessment of waste disposal practices i.e., hazardous waste, plastic waste;
vi. Ash management i.e., ash generation and disposal; and
vii. Stack emission monitoring of industrial units for analysis of emission quality.

3.2. Location map

All the industries mentioned in the Hon'ble NGT order dated 20.08.2024 are located in Bhopa Road Industrial Cluster. Bhopa Road, situated in the Muzaffarnagar district, is ~14 Kms long which connects Muzaffarnagar city with Bhopa village and passes through the villages Makhiyali, Jat Mujhera and Kasampura. An industrial cluster (~area-1.7 Km^2) is located between 29°28'6.32"-29°28'19.02" N and 77°44'19.40"-77°48'29.80" E, in the stretch of ~6.76 Kms of the road. Among these units, four are located on the left-hand side of Bhopa Road (when moving from Makhiyali towards Bhopa village), while the remaining one is located on the right-hand side.

The map showing industries, and ambient air monitoring locations in Makhiyaali village are shown below in **Figure 1.**

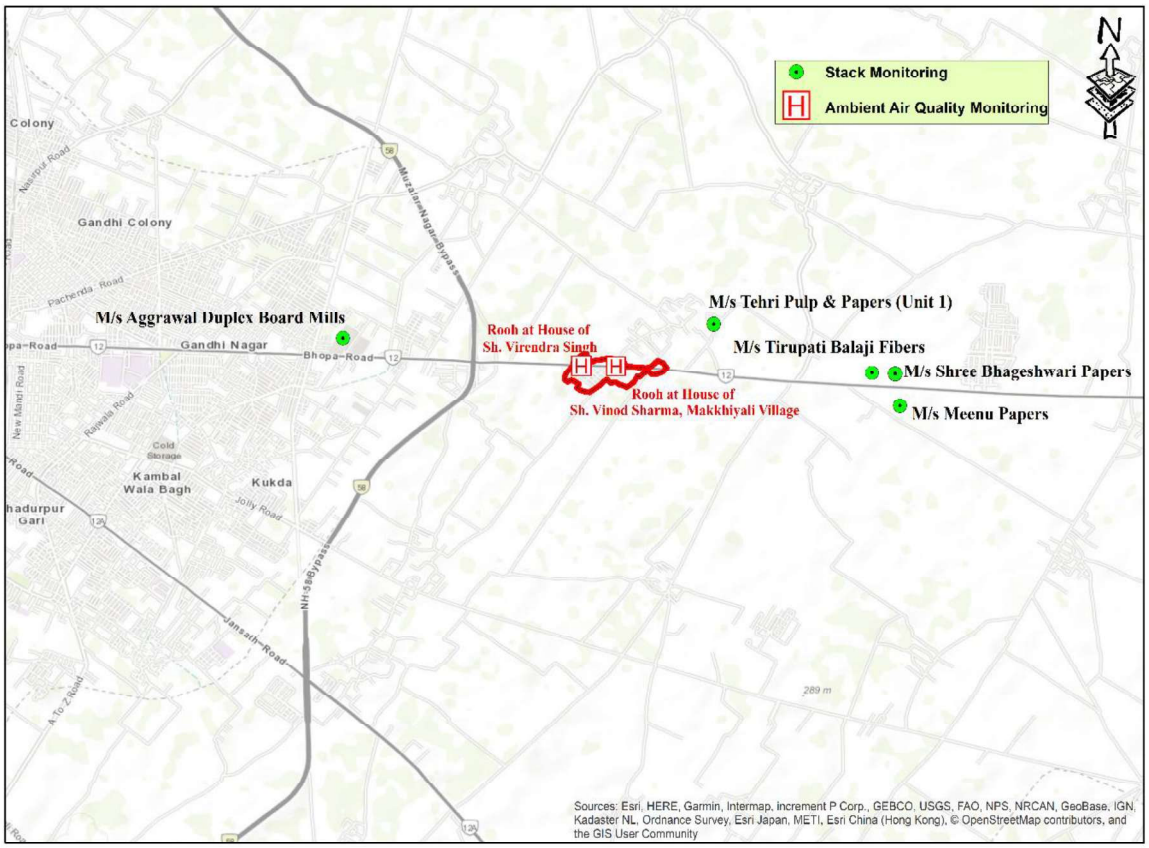

Figure 1: Map showing locations of industries, ambient air monitoring locations and village Makhiyaali

3.3. Details of site visit

All 5 industries mentioned in Hon'ble NGT order dated 20.08.2024 and 18.11.2024 in OA no. 797/2024, were found operational during visit (October 17th to 18th, 2024 and November 25th to 26th, 2024). Effluent and flue gas samples collected from these industries were analysed in the laboratory of UPPCB. Information regarding statutory documents, production details, effluent management, boiler details, ash management and air pollution control measures was collected.

4. EXECUTIVE SUMMARY

4.1. Visit to industries mentioned in the Hon'ble NGT order dated 20.08.2024 and 18.11.2024

The committee carried out site visit in 5 industrial units mentioned in the petition. All 5 industrial units were found operational during visit and laboratory analysis of wastewater

samples and stack emission samples show compliance w.r.t. consented norms. Details of industries as per the inspection carried out by Joint committee is mentioned in Table 1 and 2 below:

Table 1: General details and compliance status of industries inspected by joint committee

S. No.	Name of industry	Valid Ground water NOCs (Yes/No)	Valid Water and Air consent (Yes/No)	Valid Hazardous Waste Authorization (Yes/No)	ETP installed (Yes/No)	Air Pollution Control Device (APCD) (Yes/No)	Recipient drain	Compliance status w.r.t effluent discharge norms and *emission norms
1.	M/s Tirupati Balaji Fibers Private Limited,	Yes	Yes	Yes	Yes	Multi cyclone & wet scrubber	Dhandera drain	Complying
2.	M/s Meenu Paper Mills Pvt. Ltd.	Yes	Yes	Yes	Yes	Dust Collector and Wet scrubber	Dhandera drain	Complying
3.	M/s Shree Bhageshwari Papers Pvt Ltd Unit- 1 & 2,	Yes	Yes	Yes	Yes	Dust Collector & wet scrubber	Dhandera drain	Complying
4.	M/s Aggarwal Duplex & Board Mills Ltd.	Yes	Yes	Yes	Yes	ESP	Kukra drain	Complying
5.	M/s Tehri Pulp and Paper Ltd Unit- 1 & 2,	Yes	Yes	Yes	Yes	ESP	Dhandera drain	Complying

Table 2: Details of production, freshwater consumption, effluent discharge and solid waste management

S. No.	Name of industry		Production (MT/day)		Specific Freshwater Consumption (KL/MT)	Specific Effluent Discharge (KL/MT)	Plastic Waste (MT/day)		Boiler Ash (MT/ day)	
			Consented	Actual avg.			Estimated	Actual avg.	Estimated	Actual avg.
1.	M/s Tirupati Balaji Fibers Private Ltd.		150	91.37	4.59	3.33	3.19	1.05	2.17	0.83
2.	M/s Meenu Paper Mills Pvt. Ltd.		190	168.46	2.65	0.55	5.97	2.93	28.27	19.99
3.	M/s Shree Bhageshwari Papers Pvt Ltd	Unit-I	100	109.22	7.94	2.72	Data not provided	Data not provided	59.77	47.49
		Unit-2	100	51.43	29.95	13.30	Data not provided			
4.	M/s Aggarwal Duplex & Board Mills Ltd.		160	162.86	8.0	4.43	5.55	1.33	22.12	1.29
5.	M/s Tehri Pulp and Paper Ltd	Unit-I	250	194.57	4.52	2.43	6.25	7.53	77.24	77.95

S. No.	Name of industry		Production (MT/day)		Specific Freshwater Consumption (KL/MT)	Specific Effluent Discharge (KL/MT)	Plastic Waste (MT/day)		Boiler Ash (MT/ day)	
			Consented	Actual avg.			Estimated	Actual avg.	Estimated	Actual avg.
		Unit-2	350	246.17	2.60	2.0	8.10			

5. DETAILED REPORT

The report is prepared in two parts, which are as follows:

- Part 1 (sub-section 5.1) consists of observations and findings of the visit to industries mentioned in the Hon'ble NGT order dated 20.08.2024 and 18.11.2024.
- Part 2 (sub-section 5.2) provides details about the ambient air quality in Makhyaali village.

5.1. Observations and findings of the visit to industries mentioned in the Hon'ble NGT order dated 20.08.2024 and 18.11.2024

The petitioner in the matter of OA No. 797/2024 raised issue that air pollution is being caused by burning solid waste & plastic, and emission of black gases by following industrial units:

a. M/s Tirupati Balaji Fibers Private Limited, Bhopa Road, Muzaffarnagar
b. M/s Agarwal Duplex Board Mills Ltd, Bhopa Road, Muzaffarnagar
c. M/s Meenu Paper Mills Private Limited, Bhopa Road, Muzaffarnagar
d. M/s Shree Bhageshwari Papers Pvt Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar, and
e. M/s Tehri Pulp and Paper Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar

The schedule of visit to above mentioned industries is given in Table 3 below:

Table 3: Schedule of visit of industries mentioned in the Hon'ble NGT order dated 20.08.2024 and 18.11.2024

S. No.	Name of industrial unit	Operational status	Date of inspection
1.	M/s Tirupati Balaji Fibers Private Limited, Bhopa Road, Muzaffarnagar	Operational	October 17, 2024 & November 25, 2024
2.	M/s Meenu Paper Mills Private Limited, Bhopa Road, Muzaffarnagar	Operational	October 17, 2024 & November 25, 2024
3.	M/s Shree Bhageshwari Papers Pvt Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar	Operational	October 17, 2024 & November 25, 2024

S. No.	Name of industrial unit	Operational status	Date of inspection
4.	M/s Agarwal Duplex Board Mills Ltd, Bhopa Road, Muzaffarnagar	Operational	October 18, 2024 & November 26, 2024
5.	M/s Tehri Pulp and Paper Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar	Operational	October 18, 2024 & November 26, 2024

The observations (industry-wise) made by the joint committee are as follows:

i. M/s Tirupati Balaji Fibers Private Limited, Bhopa Road, Muzaffarnagar, Uttar Pradesh-251001

a. Statutory compliance:

- Unit is having valid Consent to Operate (CTO) issued under Water Act, 1974 and Air Act, 1981 having validity up to 31.12.2024.
- Unit is having valid Authorization issued under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 20.12.2027.
- Unit is having valid No Objection Certificates (NOCs) for abstraction of ground water from 01 borewell having validity up to 18.01.2027.

b. Production detail:

- Consented production: writing, printing & kraft paper @ 150 MT/day using waste paper as raw material.
- Average production: As per logbook data (01.09.2024 to 24.11.2024), the average daily production was 91.37 MT/day.
- Average raw material consumption: As per logbook data (01.09.2024 to 24.11.2024), the average daily raw material consumption was 105.70 MT/day.

c. Operational status:

- Unit was found operational during visit on 17.10.2024 and 25.11.2024.

d. Freshwater abstraction:

- Unit has 01 no. of borewell, in functional condition. Electromagnetic flow meter with totalizer found installed at borewell.
- Permitted withdrawal quantity: 600 KLD
- Average daily withdrawal quantity: 419.877 KLD
- Specific freshwater consumption: 4.59 KL/MT of paper production.

e. Effluent management:

- As per CTO, unit has permission to discharge 350 KLD of treated effluent. Wastewater is partially recycled back in process at paper machine section.
- Treatment scheme: Raw effluent → Bar screen → Hill screen → Equalization Tank→ Primary Clarifier→ Aeration Tank → Secondary Clarifier → Dual Media Filter → Discharge.
- V-notch was found installed at inlet and V-notch with ultrasonic flowmeter at outlet of ETP. Unit has not installed Electromagnetic flow meter with totalizer at recycled effluent reuse point (i.e. line carrying recycled effluent at paper machine).
- Effluent analysis results: Samples were collected from ETP inlet, ETP outlet & aeration tank, and analysis results are given below:

Parameter	**Sampling location**		**Consented discharge norms**	**Compliance w.r.t consented discharge norms**
	ETP inlet	**ETP outlet**		
pH	5.94	7.4	6.5-8.5	Complying
TSS (mg/l)	300	23	50	Complying
TDS (mg/l)	2700	1350	-	Complying
BOD (mg/l)	400	15	30	Complying
COD (mg/l)	1650	140	250	Complying
O&G (mg/l)	-	5.40	10	Complying
Aeration tank: MLSS-2500 mg/l & MLVSS-2000 mg/l				

f. Boiler details:

- Unit has installed 01 no. of boiler of capacity 15 TPH and same was found operational during visit.
- Unit is using wood chips, bio-briquettes, Bagasse & husk as fuel in the boiler for meeting the steam requirements in production section. As per logbook data (01.09.2024 to 24.11.2024), the average daily fuel consumption in boiler is given below:

Type of fuel	Bagasse	wood chips	Briquettes	Husk	Total
Total (MT)	1134.39	1364.37	894.23	3392.99	1134.39
Avg. daily (MT/day)	42.01	47.05	44.71	44.64	42.01

- Unit has one pyrolysis plant of capacity 10 TPD installed within its premises. Plastic waste generated from production process is used as raw material in pyrolysis plant for generation of pyro fuel oil.

g. Ash management:
    - Unit has made agreement (effective from 23.12.2023) with Sh. Nitin Kumar s/o Sh. Jagmohan, owner of Brick Kiln namely M/s Shiva Brick Field, Vill-Naseerpur, Muzaffarnagar for disposal of boiler ash (for manufacturing of bricks).
    - As per logbook data, average ash generation during 01.09.2024 to 24.11.2024 was 0.83 MT/day.

h. Air pollution control measures:
    - Unit has provided stack of height 30 m attached with 15 TPH boiler equipped with Multi cyclone & wet scrubber as Air Pollution Control Device (APCD).

i. Stack emission monitoring:
    - Particulate Matter (PM) – 48.4 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
    - Sulphur dioxide (as SO_2)- 22.0 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
    - Oxides of Nitrogen (NO_X)- 36.0 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)

Compliance status: Complying w.r.t notified effluent discharge and stack emission norms.

ii. M/s Meenu Paper Mills Private Limited, Bhopa Road, Muzaffarnagar, Uttar Pradesh-251203

a. Statutory compliance:
    - Unit is having valid Consolidated Consent and Authorization (CCA) under Water Act, 1974, Air Act, 1981, and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 31.12.2024.
    - Unit is having valid NOCs for abstraction of ground water from 02 nos. of borewells having validity up to 26.07.2026.

b. Production detail:

- Consented production: Kraft paper @ 190 MT/day using waste paper @ 230 MT/day as raw material and captive power generation @1.5 MW.
- Average production: As per logbook data (01.09.2024 to 24.11.2024), the average daily production was 168.46 MT/day, which is within the consented production capacity of the unit.

c. Operational status:

- Unit was found operational during visit on 17.10.204 and 25.11.2024.

d. Freshwater abstraction:

- Unit has 02 nos. of borewells, both in functional condition. Electromagnetic flow meter with totalizer found installed at both borewells
- Permitted withdrawal quantity: 1485 KLD
- Average daily withdrawal quantity: 445.97 KLD
- Specific freshwater consumption: 2.65 KL/MT of paper production.

e. Effluent management:

- As per CCA, unit has permission to discharge 300 KLD of treated effluent. Wastewater is partially recycled back in process at paper machine section.
- Treatment scheme: Raw effluent → Bar screen → B2 thickener → Equalization Tank→ Sedicell→ Primary Clarifier→ Aeration Tank-1→ Aeration Tank-2→ Secondary Clarifier → Sand Filter → Discharge.
- V-notch was found installed at inlet and V-notch with ultrasonic flowmeter at outlet of ETP. Unit has installed Electromagnetic flow meter with totalizer at recycled effluent reuse point (i.e. line carrying recycled effluent at paper machine).
- Effluent analysis results: Samples were collected from ETP inlet, ETP outlet, & aeration tank, and analysis results are given below:

Parameter	**Sampling location**		**Consented discharge norms**	**Compliance w.r.t consented discharge norms**
	ETP inlet	**ETP outlet**		
pH	6.56	7.73	6.5-8.5	Complying
TSS (mg/l)	355	22	30	Complying
TDS (mg/l)	2400	1400	1600	Complying
BOD (mg/l)	378	18	20	Complying
COD (mg/l)	1576	128	150	Complying
O&G (mg/l)	-	5.60	10	Complying
Aeration tank: MLSS-2800 mg/l & MLVSS-2200 mg/l				

f. Boiler details:

- The unit has installed 02 nos. of boiler (capacity-11 TPH & 12 TPH) for meeting steam requirements. Unit has also installed a turbine of capacity 1.5 MW.
- The unit was using rice husk, bagasse, coal & wooden chips as fuel in boiler. As per logbook data (01.09.2024 to 24.11.2024), the fuel consumption in boiler is given below:

Type of fuel	Straw/husk	Coal	Wooden chips	Bagasse	Total
Total (MT)	1038.7	6449.11	1157.41	100.1	8745.32
Avg. daily (MT/day)	13.67	84.85	15.23	1.32	115.07

g. Ash management:

- The unit has made agreement (effective from 06.01.2023) with Sh. Rahul Batra S/o Dinesh Mohan Batra owner of Brick Kiln namely M/s Shiva Bricks Supply, Vill-Sandhawli, Muzaffarnagar.
- As per logbook data, average ash generation during 01.09.2024 to 24.11.2024 was 18.30 MT/day.

h. Air pollution control measures:

- Unit has provided stack of height 35 m attached with boilers of 11 TPH and 12 TPH capacity equipped with dust collector & wet scrubber as APCD.

i. Stack emission monitoring:

- Particulate Matter (PM) – 46.2 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
- Sulphur dioxide (as SO_2)- 26.0 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
- Oxides of Nitrogen (NO_X)- 46.0 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)

Compliance status: Complying w.r.t notified effluent discharge and stack emission norms.

iii. M/s Shree Bhageshwari Papers Pvt Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar, Uttar Pradesh-251001

a. Statutory compliance:

- Unit is having valid Consent to Operate (CTO) under Water Act, 1974 and Air Act, 1981 having validity up to 31.12.2024 for both the units Unit-1 & Unit-2.
- Unit is having valid NOCs for abstraction of ground water from 02 nos. of borewells having validity up to 31.07.2025 for both the units.

b. Production detail:

- Consented production:
  Unit – 1: Production of unbleached grade paper (i.e. Kraft paper) @ 100 MT/day using Waste paper as raw material
  Unit – 2: Production of bleached grade paper (i.e. Writing & Printing) @ 100 MT/day using Waste paper as raw material
- Average production: As per logbook data (01.08.2024 to 16.10.2024), the average daily production was 161.16 MT/day (Unit-1: 110.10 MT/day and Unit-2: 51.06 MT/day), which indicates that Unit-1 is producing more than the consented capacity of 100 MT/day. Unit-1 is advised to revise their CTO for increased production capacity. *(The logbook data from 17.10.2024 to 25.11.2024 not provided by the unit)*

c. Operational status:

- Unit was found operational during visit on 17.10.2024 and 25.11.2024.

d. Freshwater abstraction:

- Unit has 02 nos. of borewells, both in functional condition. Electromagnetic flow meter with totalizer found installed at both borewells.
- Permitted withdrawal quantity: 2429 KLD (Unit-1: 1179 KLD & Unit-2: 1250 KLD) for both units.
- Average daily withdrawal quantity: 2052.31 KLD (Unit-1: 765.33 KLD & Unit-2: 1286.98 KLD) from Borewell-1 & 2.
- Specific freshwater consumption: 7.94 KL/MT of paper production for unit-1 and 29.95 KL/MT of paper production for unit-2.

e. Effluent management:

- As per CCA, unit has permission to discharge 2900 KLD (unit-1: 1100 KLD & unit-2: 1800 KLD) of treated effluent. Wastewater is partially recycled back in process at paper machine section.

- Treatment scheme: Unit -1 & 2: Raw effluent (after PDF) → Bar screen → Equalization tank → Hill screen →Primary clarifier → Aeration tank → Secondary Clarifier → Tube settler → Discharge into Dhandera drain
- V – notch was installed at inlet of both ETPs and V-notch with ultrasonic flowmeter was found installed at outlet of both the ETPs. Unit has installed Electromagnetic flow meter with totalizer at recycled effluent reuse point (i.e. line carrying recycled effluent at paper machine).
- Effluent analysis results: Samples were collected from ETP inlet and outlet of both ETPs and analysis results are given below:

Parameter	**Unit-1**		**Unit-2**		**Consented discharge norms**	**Unit-1**	**Unit-2**
	ETP inlet	**ETP outlet**	**ETP inlet**	**ETP outlet**		**Compliance w.r.t consented discharge norms**	
pH	5.33	7.5	6.92	7.52	6.5-8.5	Complying	Complying
TSS (mg/l)	210	25	230	26	30	Complying	Complying
TDS (mg/l)	2800	1400	3000	1524	1600	Complying	Complying
BOD (mg/l)	320	13	360	16	20	Complying	Complying
COD (mg/l)	1200	132	1500	140	150	Complying	Complying
O&G (mg/l)	-	5.30	-	5.80	10	Complying	Complying
Aeration tank of Unit-1: MLSS-2600 mg/l & MLVSS-2100 mg/l Aeration tank of Unit-2: MLSS-2500 mg/l & MLVSS-2000 mg/l							

f. Boiler details:

- The unit has installed 01 no. of boiler of 36 TPH capacity for meeting steam requirements. Unit has also installed a turbine of capacity 6 MW.
- The unit was using Coal, Bagasse, Rice husk, RDF as fuel in boiler. As per logbook data (01.08.2024 to 16.10.2024), the fuel consumption in boiler is given below:

Type of fuel	Coal	Bagasse	Rice husk	RDF	Total
Total (MT)	10720	0	2435	2914	16069
Avg. daily (MT/day)	155.36	0	35.29	42.23	232.88

g. Ash management:

- As per logbook data, average ash generation during 01.08.2024 to 16.10.2024 was 47.49 MT/day, which is less than the estimated ash generation of 59.77 MT/day.

- Unit has made agreement with M/s Malwa trading Company, Bhopa road, Muzaffarnagar & M/s Ganpati Engineering & Construction Utility for supply of ash to cement plants.

h. Air pollution control measures:
    - Unit has provided stack of height 52 m attached with 36 TPH boiler equipped with Electro Static Precipitator (ESP) as APCDs.

i. Stack emission monitoring:
    - Particulate Matter (PM) – 44.6 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
    - Sulphur dioxide (as SO_2)- 22.0 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
    - Oxides of Nitrogen (NO_X)- 40.0 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)

Compliance status: Complying w.r.t w.r.t notified effluent discharge and stack emission norms.

iv. M/s Agarwal Duplex Board Mills Ltd, Bhopa Road, Muzaffarnagar, Uttar Pradesh-251203

a. Statutory compliance:
    - Unit is having valid Consolidated Consent and Authorization (CCA) under Water Act, 1974 and Air Act, 1981 having validity up to 31.12.2027.
    - Unit is having valid Authorization under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 26.02.2028.
    - Unit is having valid No Objection Certificates (NOCs) for abstraction of ground water from 02 nos. of borewells having validity up to 13.03.2026.

b. Production detail:
    - Consented production: Duplex Board, MG Poster & kraft paper @ 160 MT/day using waste paper@190 MT/day as raw material and captive power generation @3.0 MW.
    - Average production: As per data provided by the unit, the average daily production during 01.09.2024 to 24.11.2024 was 162.86 MT/day. Unit is advised to revise their CCA for increased production capacity.

- Average raw material consumption: As per data provided by the unit, the average daily raw material consumption during 01.09.2024 to 24.11.2024 was 177.40 MT/day.

c. Operational status:

- Unit was found operational during visit on 18.10.2024 and 26.11.2024.

d. Freshwater abstraction:

- Unit has 02 nos. of borewells, both in functional condition. Electromagnetic flow meter with totalizer found installed at both borewells.
- Permitted withdrawal quantity: 1980 KLD
- Average daily withdrawal quantity: 1302.92 KLD from Borewell-1 & 2
- Specific freshwater consumption: 8.0 KL/MT of paper production.

e. Effluent management:

- As per CCA, unit has permission to discharge 800 KLD of treated effluent. Wastewater is partially recycled back in process at paper machine section.
- Treatment scheme: Raw effluent → Bar screen → Equalization Tank→ B2 thickener → Sedicell→ Primary Clarifier→ Aeration Tank → Secondary Clarifier → Hill screen (for removal of floating material such as plant leaves before filtration) → Sand Filter → Discharge.
- V – notch with ultrasonic flowmeter was found installed at inlet and outlet of ETP. Unit has installed Electromagnetic flow meter with totalizer at recycled effluent reuse point (i.e. line carrying recycled effluent at paper machine).
- Effluent analysis results: Samples were collected from ETP inlet, ETP outlet and aeration tank and analysis results are given below:

Parameter	**Sampling location**		**Consented discharge norms**	**Compliance w.r.t consented discharge norms**
	ETP inlet	**ETP outlet**		
pH	6.0	7.68	6.5-8.5	Complying
TSS (mg/l)	250	21	30	Complying
TDS (mg/l)	3100	1200	1600	Complying
BOD (mg/l)	320	13	20	Complying
COD (mg/l)	1650	129	150	Complying
O&G (mg/l)	-	5.60	10	Complying
Aeration tank: MLSS-2600 mg/l & MLVSS-2100 mg/l				

f. Boiler details:

- The unit has installed 01 no. of boiler of capacity 23 TPH for meeting steam requirements using husk, coal & bagasse as fuel. Unit has also installed a turbine of capacity 3.0 MW.
- As per logbook data (01.09.2024 to 24.11.2024), the unit has used rice husk only as fuel in the boiler, and the avg. daily fuel consumption is given below:

Type of fuel	Total (MT)	Avg. daily (MT/day)
Rice husk	11061.5	130.13

g. Ash management:

- As per logbook data (01.09.2024 to 24.11.2024), the average daily ash generation was 1.32 MT/day.
- Unit is disposing boiler ash for landfilling in low lying land area at Barla baseda road near DJ Hotel Muzaffarnagar.

h. Air Pollution Control Measures:

- Unit has provided stack of height 47 m attached with 23 TPH boiler with Electrostatic Precipitator (ESP) as APCD.

i. Stack emission monitoring:

- Particulate Matter (PM) – 42.6 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
- Sulphur dioxide (as SO_2)- 28.0 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
- Oxides of Nitrogen (NO_X)- 44.0 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)

Compliance status: Complying w.r.t notified discharge and stack emission norms.

v. M/s Tehri Pulp and Paper Ltd Unit- 1 & 2, Bhopa Road, Muzaffarnagar, Uttar Pradesh-251001

a. Statutory compliance:

- Unit is having valid Consolidated Consent and Authorization (CCA) under Water Act, 1974 and Air Act, 1981 having validity up to 31.12.2028 for Unit-1 and 31.12.2026 for Unit-2.

- Unit is having valid Authorization under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 02.08.2027 for Unit-1 and 26.07.2027 for Unit-2.
- Unit is having valid NOCs for abstraction of ground water from 03 nos. of borewells having validity up to 30.03.2027 combined for both units i.e. Unit–1 & Unit–2.

b. Production detail:

- Consented production: Unit-1- Kraft paper @ 250 MT/day using waste paper @ 250 MT/day as raw material.
  Unit-2- Kraft paper @ 350 MT/day using waste paper as raw material (quantity of raw material consumption not mentioned in CCA).
- Average production: As per logbook data (01.09.2024 to 24.11.2024), the average daily production was 440.74 MT/day (Unit-1: 194.57 MT/day & Unit-2: 246.17 MT/day) against the consented value of 600 MT/day.
- Average raw material consumption: As per logbook data (01.09.2024 to 24.11.2024), the average daily raw material consumption was 478.03 MT/day (Unit-1: 208.23 MT/day & Unit-2: 269.80 MT/day)

c. Operational status:

- Unit (i.e. Unit-1& Unit-2) was found operational during visit on 18.10.2024 and 26.11.2024.

d. Freshwater abstraction:

- Unit has 03 nos. of borewells, all in functional condition. Electromagnetic flow meter with totalizer found installed at both borewells.
- Permitted withdrawal quantity: 3450 KLD combined for both units.
- Average daily withdrawal quantity: 2018.30 KLD from Borewell-1, 2 & 3.
- Specific freshwater consumption: 4.52 KL/MT of paper production for unit-1 and 2.60 KL/MT of paper production for unit-2.

e. Effluent management:

- As per CCA, unit has permission to discharge 2000 KLD (unit-1: 1300 KLD & unit-2: 700 KLD) of treated effluent. Wastewater is partially recycled back in process at paper machine section.

- Treatment scheme: Unit -1 & 2: Raw effluent → Bar screen → Equalization tank → Hill screen → Sedicell → Primary clarifier → Aeration tank → Secondary Clarifier → Multi Grade Filter → Discharge into Dhandera drain
- V-notch with ultrasonic flowmeter was found installed at inlet and outlet of both the ETPs. Unit has installed Electromagnetic flow meter with totalizer at recycled effluent reuse point (i.e. line carrying recycled effluent at paper machine).
- Effluent analysis results: Samples were collected from ETP inlet and outlet of both ETPs and analysis results are given below:

Parameter	**Unit-1**		**Unit-2**		**Consented discharge norms**	**Unit-1**	**Unit-2**
	ETP inlet	**ETP outlet**	**ETP inlet**	**ETP outlet**		**Compliance w.r.t consented discharge norms**	
pH	5.82	7.6	5.91	7.6	6.5-8.5	Complying	Complying
TSS (mg/l)	180	24	290	26	30	Complying	Complying
TDS (mg/l)	3000	1300	3200	1500	1600	Complying	Complying
BOD (mg/l)	204	14	380	16	20	Complying	Complying
COD (mg/l)	650	128	2000	136	150	Complying	Complying
O&G (mg/l)	-	5.0	-	6.0	10	Complying	Complying
Aeration tank of Unit-1: MLSS-2400 mg/l & MLVSS-2000 mg/l Aeration tank of Unit-2: MLSS-2400 mg/l & MLVSS-1800 mg/l							

f. Boiler details:

- The unit has installed 52 TPH (operational, common for Unit – 1 & Unit – 2) & 14 TPH (non-functional, old boiler as part of Chemical recovery plant when unit was using agro residue as raw material) for meeting steam requirements. Unit has installed a turbine of capacity 8 MW.
- The unit is using RDF, Biomass & Coal as fuel in boiler. As per logbook data (01.09.2024 to 24.11.2024), the fuel consumption in boiler is given below:

Type of fuel	Coal	Bagasse	Rice husk	RDF
Total (MT)	6520	14435.167	803.645	21005
Avg. daily (MT/day)	83.59	185.07	10.30	269.29

g. Ash management:

- As per logbook data, average ash generation during 01.09.2024 to 24.11.2024 was 77.945 MT/day, which is nearest to the estimated ash generation of 77.24 MT/day.

- The Boiler ash generated from the unit was being sent to cement plants as Unit has made agreement (effective from 01.08.2023) with M/s Bulk Ash Supplier, Bhopa road, Muzaffarnagar for supply of ash to cement plants.

h. Air pollution control measures:
    - Unit has provided stack of height 62 m attached with 52 TPH boiler with Electro Static Precipitator (ESP) as APCDs.

i. Stack emission monitoring:
    - Particulate Matter (PM)-42.8 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
    - Sulphur dioxide (as SO_2)- 18.0 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
    - Oxides of Nitrogen (NO_X)- 36.0 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)

Compliance status: Complying w.r.t effluent discharge and stack emission norms.

5.2. Ambient air quality monitoring in Makhiyaali village, Muzaffarnagar

Makhiyaali village is located in the South of Bhopa road. Makhiyaali village is located about 1.5 KM in South-East direction of four industries namely; M/s Meenu Paper Mills Private Limited, M/s Tehri Pulp and Paper Ltd Unit- 1 & 2, M/s Tirupati Balaji Fibers Private Limited, and M/s Shree Bhageshwari Papers Pvt Ltd Unit- 1 & 2, mentioned in OA No. 797/2024 and about 2.5 KM in South-west direction of one industry namely M/s Agarwal Duplex Board Mills Ltd. Residents of Makhiyaali village informed that they experience ash deposition on rooftops, as well as health issues. Villagers also emphasized on issues regarding accidents happening due to smoke on the Bhopa road. During the visit, dust consisting of ash were found deposited on the roof top of the houses.

Ambient air quality monitoring was carried out at two locations in Makhiaali village for 24 hours at the roof of house of Shri Virendra Singh (in upwind direction) and at the roof of house of Shri Vinod Sharma (in downwind direction). The value of Particulate matter-PM_{10} (Less than 10 Microns) in ambient air was found as 130.85 µg/m^3 at upwind direction and 117.89 µg/m^3 at downwind direction. The air quality of Makhiyaali village was not meeting

the National Ambient Air Quality Standards of 100 µg/m^3 (notification dated 18/11/2009). The higher value may be due to heavy vehicular movement including public transport.

6. CONCLUSIONS

6.1. Industries mentioned in the Hon'ble NGT order dated 20.08.2024 and 18.11.2024

i. The committee conducted site visits to the five industrial units mentioned in the petition. All five industries were found operational.

ii. All of these industries have valid consents under Water Act, 1974 & Air Act, 1981, Authorization under Hazardous Wastes Rules, 2016 and No Objection Certificate for abstraction of ground water from borewells installed within the premises.

iii. All five units have upgraded their Effluent Treatment Plant upto tertiary treatment level as per CPCB Charter.

iv. As recommended under the Environment (Protection) Rules, 1986, industries having boilers above 15 tonnes capacity have installed bag filter/electrostatic precipitator as air pollution control device and boilers below 15 tonnes capacity have installed cyclone/multi-cyclone as air pollution control device.

v. These industries use various fuels in their boilers, including biomass (rice husk, bagasse, bio-briquettes, wood chips), RDF, plastic waste, and coal.

vi. Boiler ash generated by these industries is being used for filling in low-lying land, brick manufacturing and in cement plant.

vii. Stack emission monitoring results showed that all five industries complied with stack emission norms.

viii. All five industries complied with consented discharge norms.

7. RECOMMENDATIONS

7.1. Industry

i. Industries shall operate the Air Pollution Control Devices (APCDs) properly so that no emission containing fly ash/black gases is emitted by industries.

ii. Industries shall conduct regular maintenance of existing air pollution control equipments to ensure their optimal performance.

iii. Industries shall ensure scientific storage & disposal of boiler ash.

iv. Industries shall ensure maintain proper records of its fuel consumption in boiler, boiler ash generation and disposal.

v. Industries shall share the details of location etc. to UPPCB for site selection of boiler ash disposal, safe operation and for development of vegetation cover after exhaustion of the capacity of filling site according to the following criteria:
   - Sites must be properly demarcated and fenced to restrict human and animal intrusion.
   - After reaching capacity, sites must be properly capped with about 30 cm of topsoil to promote vegetation growth.
   - Sites must be properly lined and made impermeable to prevent any contamination of surface water and groundwater.

vi. Boiler ash generated by the industries shall be utilized for other beneficial purposes, including:
   - Manufacturing building materials such as bricks, blocks, tiles, fiber cement sheets, pipes, boards, panels, and ash & geo-polymer-based construction materials.
   - Manufacturing cement and Ready Mix Concrete (RMC).
   - Construction of road and flyover embankments.
   - Controlled agricultural use based on soil testing.
   - Any other eco-friendly purpose as notified from time to time.

vii. Scattered/haphazard disposal of boiler ash by industrial units, if any, should be completely stopped.

viii. Industries shall maintain proper record regarding generation, storage and disposal of boiler ash.

ix. Installation of screen (ex. Rotary drum screener) at ETP inlet for separation of plastics & other coarse fractions from raw effluent stream and collected plastics shall be disposed scientifically.

x. Install electromagnetic flow meter with totalizer at ETP Inlet, ETP outlet, effluent recycle line at ETP and effluent reuse point, and maintain logbooks for the same on daily basis.

xi. Install separate flow meter with totalizer at all freshwater consumption points such as process area, domestic consumption and boiler, and maintain logbooks for the same on daily basis.

xii. Ensure scientific disposal of non-paper solid waste (i.e. Plastic waste, boiler ash and ETP sludge) and maintain proper records of generation and disposal.

xiii. Upgrade/augment their ETP by installing physico-chemical treatment, secondary biological treatment (either anaerobic-aerobic treatment or 02 stage extended aeration

system in series) followed by tertiary treatment units consisting of filtration system (i.e. Pressure Sand Filter, Activated Carbon Filter followed by Micro-filtration/Ultrafiltration).

xiv. Explore other advance effluent treatment technologies available like advance oxidation, membrane filtration etc. to ensure consistent compliance with stipulated discharge norms.

xv. Industries shall also comply with the recommendations made by the joint committee constituted in compliance to Hon'ble NGT orders dated 12.09.2023 & 12.12.2023 in OA No. 540/2023 in the matter of Niramaya Jan Utthan Sansthan Vs. State of Uttar Pradesh & Ors., which are reproduced as below:

Action Plan for management of Non-paper solid waste namely, Plastic Waste, Boiler Ash, ETP Sludge and surface drain

The action plan aims to establish a robust framework for the effective handling, disposal, and monitoring of Plastics Waste, Boiler Ash and ETP sludge generated by industrial units.

Key Components

a. Constitution of a Society and Special Purpose Vehicle (SPV)

i. **Society Formation**: A society shall be constituted, comprising all relevant stakeholders, including industrial units and regulatory bodies. The State Pollution Control Boards (SPCBs) shall facilitate the establishment of this society.

ii. **Special Purpose Vehicle (SPV)**: The society shall create an SPV specifically dedicated to managing Plastic Waste, Boiler Ash and ETP sludge generated by industrial units.

b. Membership and Participation

i. **Membership**: All industrial units within the cluster must be members of the society. This ensures collective responsibility and participation in waste management efforts.

c. Waste Generation and Record Keeping

i. **Logbook Maintenance**: Member units must maintain a logbook that records waste quantities, types, and disposal methods. This logbook will serve as a crucial reference for waste management audits and assessments.

d. Supervision and Payment

i. **SPCB Supervision**: The SPCBs shall supervise waste management practices within member units. This includes overseeing waste handling, transportation, disposal and verification through logbook & manifest system slip.

ii. **Cost Allocation**: Member units shall bear the cost associated with waste management, including transportation, treatment, and final disposal.

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Umesh Mishra, District Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, Env. Engineer, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	
5.	Dr. R. K Singh, Scientist 'D'	Central Pollution Control Board	

INDUSTRY INSPECTION REPORT (PULP & PAPER)

Date of inspection: 25.11.2024

A. General section

1.	Name of the unit with complete postal address	**M/s Tirupati Balaji Fibres Ltd.** **09th Km, Bhopa road, Muzaffarnagar - 251001**
2.	Spatial Co-ordinates (Latitude & longitude)	29.470074, 77.787767
3.	Industry Operational status	Operational
4.	Consent status	Consent to Operate (CTO) dated 27.01.2020 issued by UPPCB under the provisions of Water Act, 1974 & Air Act, 1981, having validity upto 31.12.2024, issued by UPPCB (Refer Annexure – 1A & 1B)

B. Details of Production process, utilities and waste management (including effluent management system)

5.	**Process**	Manufacturing of Writing, Printing and Kraft paper using Waste paper as raw material
6.	**Raw material**	
	a. Consented value	Quantity not mentioned in Consent
	b. Actual consumption (as per logbook)	

Month	Raw material (Waste Paper)		
	Indigenous (MT)	Imported (MT)	Total (MT)
September – 2024	2778.76	0.00	2778.76
October – 2024	3183.19	94.82	3278.01
November (upto 24th)	1919.54	57.10	1976.64
Total raw material (waste paper consumption)	7881.49	151.92	8033.41

	c. Avg. daily consumption	105.70 MT/day
7.	**Production**	
	a. Consented value	150 MT/day
	b. Actual Production in last three months (as per logbook)	September – 2024: 2361.10 MT October – 2024: 2800.94 MT November (upto 24th) – 2024: 1782.44 MT Total Production – 6944.47 MT Total operational days - 76
	c. Avg. daily production	91.37 MT/day
	d. Yield (%)	86.44 %
	e. Non-paper waste generation	i.e. 13.55 % = 14.32 MT/day
8.	**Fresh water consumption**	
	a. Details of borewell	One borewell with flow meter found installed
	b. NOC from CGWA/other authorized body	NOC for borewell issued by UPGWD, having validity upto 18.01.2027 (Refer Annexure – 1C)
	c. Permitted withdrawal quantity	600 KLD
	d. Actual withdrawal quantity in last three months	

Month	Borewell(KL)
September – 2024	11045
October – 2024	12493
November (upto 24th) – 2024	8372
Total groundwater withdrawal	31910

	e. Avg. daily withdrawal quantity	419.87 KLD
	f. Specific fresh water consumption	4.59 KL/MT of product
9.	**Effluent Management**	
	a. Actual effluent generation in last three months	September – 2024: 20098 KL October – 2024: 22201 KL November (upto 24th) – 2024: 14921 KL

		Total effluent generation – 57220 KL	
	b. Avg. daily effluent generation	752.89 KLD	
	c. Specific effluent generation	8.24 KL/MT of product	
	d. Consented discharge value	350 KLD	
	e. Actual effluent discharge in last three months (as per V-Notch logbook)	September – 2024: 8139 KL October – 2024: 8951 KL November (upto 24th) – 2024: 6062 KL Total effluent discharge – 23152 KL	
	f. Avg. daily effluent discharge	304.63 KLD	
	g. Specific effluent discharge	3.33 KL/MT of product	
	h. Actual recycling of treated effluent within process	From equalization tank to Pulp mill process water tank	Measurement of quantity of effluent recycled carried out based on pump running hours and its capacity and logbook maintained Recycling @ 448.03 KLD (01.09.2024 – 24.11.2024)
		Partially treated effluent from Primary clarifier to paper machine section	
	i. Specific effluent recycle	4.90 KL/MT	
	j. Losses in ETP %	0.03 %	
	k. Recipient water body	Dhandera drain	
10.	**Effluent Treatment Plant (ETP)**		
	a. ETP consists of	Raw effluent → Bar screen → Hill screen → Equalization Tank→ Primary Clarifier→ Aeration Tank → Secondary Clarifier → Dual Media Filter → Discharge	
	b. Installed capacity	…… KLD	
	c. Metering at ETP	Effluent generation	V – notch
		Effluent Discharge	V – notch (and ultrasonic flow meter)
	d. Operational status of ETP	Operational	
		Flow at inlet: 66.5 m^3/hr	
	e. OCEMS installed at ETP outlet	Installed and connected with CPCB/UPPCB server	
	f. OCEMS value	pH – 6.97; Flow- 30.08 m^3/hr, BOD-19.50 mg/l, COD- 131.92 mg/l and TSS- 21.59 mg/l	

Effluent Characteristics

Parameters	ETP inlet	ETP outlet	Norms as per consent (as per Boards Norms)	Compliance w.r.t. consent
pH	5.94	7.4	6.5 – 8.5	Complying
TSS (mg/l)	300	23	50	Complying
TDS (mg/l)	2700	1350	-	Complying
BOD (mg/l)	400	15	30	Complying
COD (mg/l)	1650	140	250	Complying
Oil & Grease (mg/l)	-	5.0	10	Complying

Aeration tank: MLSS-2500 mg/l & MLVSS-2000 mg/l

	ETP Sludge generation	
	a. Sludge Management & disposal	• Primary sludge recycled back to process (in pulp mill) • Secondary biological sludge is stored in sun drying beds and then the dried sludge is used as fuel in boiler for co-combustion
	b. Biological sludge generation (as per logbook)	Record not maintained
	c. Daily sludge generation	
	d. Estimated sludge generation @ 20 % of inlet COD load	
11.	**Non-paper solid waste management (Plastic waste)**	
	a. Actual Avg. daily plastic waste generation (as per logbook)	

Month	Plastic waste generation (kg)
September – 2024	27915
October – 2024	33165
November (upto 24th)	18920
Total	80,000 kg
Total – 80 MT (01.09.2024 – 24.11.2024) Avg. plastic waste generation – 1.052 MT/day	

	b. Mode of disposal of plastic waste	A Pyrolysis plant of capacity 10 TPD is installed within unit's premises. Plastic waste generated from production process is used as raw material in pyrolysis plant for generation of pyro oil (fuel oil).
	c. Actual Avg. daily plastic waste disposed (as per logbook)	Month: Plastic waste disposed (kg) September – 2024: 50200 October – 2024: 20100 November (upto 24th): 10100 Total: 80,400 kg Total – 80.4 MT (01.09.2024 – 24.11.2024) Avg. plastic waste disposed – 1.057 MT/day
	d. Potential solid waste generation (@3% & 4% of indigenous & imported waste paper respectively)	Month: 3% of Indigenous waste paper (MT): 4% of Imported waste paper (MT): Total (MT) September – 2024: 83.36: 0.00: 83.36 October – 2024: 95.50: 3.79: 99.29 November (upto 24th): 57.59: 2.28: 59.87 Total: 236.44: 6.08: 242.52 **Estimated Avg. daily plastic waste generation – 3.19 MT/day**
	e. Remarks	*Actual plastic waste disposal (1.057 MT/day) is much lower than the estimated plastic waste generation value (3.19 MT/day) which indicates poor record keeping*
12.	**Air Pollution management**	
	a. Boiler capacity	15 TPH
	b. Boiler operational status	Operational
	c. Stack details	Stack height – 30 m
	d. Type of APCD installed	Multi – cyclone & Wet scrubber
	e. Estimated steam requirement @2Ton/MT of kraft paper produced	182.75 MT/day
	f. Name of the Fuel used	Bagasse, wood chips, Briquettes, Husk
	g. Fuel consumption as per consent	Coal & Agro residues (Quantity not mentioned in consent)

h. Actual Avg. Daily fuel consumption (as per logbook for duration 01.09.2024 – 24.11.2024)

Type of fuel	Bagasse	Wood chips	Briquettes	Husk	Total
Total (MT)	1134.39	1364.37	894.23	3392.99	1134.39
Avg. daily (MT/day)	42.01	47.05	44.71	44.64	42.01

i. Estimated steam generation from actual fuel consumption data:

	Steam @ 2.5 T/T of bagasse	Steam @ 3 T/T of wood chippings	Steam @ 3 T/T of briquettes	Steam @ 3 T/T of husk	Total estimated steam generation from actual fuel consumption
Avg. daily (MT/day)	98.87	6.78	3.90	4.62	114.16

j. **Remarks:** *Estimated steam generation value (114.16 MT/day) is significantly less than estimated steam requirement (182.75 MT/day), therefore actual fuel consumption data submitted by unit is not accepted and same is estimated as below:*

Estimated fuel consumption:

Type of fuel	Bagasse	Wood chips	Briquettes	Husk	Total (MT/day)
Avg. daily (MT/day)	63.31	3.62	2.08	2.47	71.47

k. Actual Avg. Daily ash generation (as per logbook)	September – 2024: 17.40 MT October – 2024: 27.36 MT November (upto 24th) – 2024: 18.02 MT Total actual ash generation – 62.77 MT **Avg. actual ash generation – 0.83 MT/day**

	l. Ash generation w.r.t of fuel consumed (%)	=0.83*100/42.01 =1.97 %

m. Estimated ash generation from actual fuel consumption:

	ash @ 2.5 % from bagasse	ash @ 3% from wood chippings	ash @ 3 % from briquettes	ash @ 17% from husk	Total estimated ash generation from actual fuel consumption
Avg. daily (MT/day)	0.99	0.07	0.04	0.26	1.36

n. Estimated ash generation from estimated fuel consumption data:

	ash @ 2.5 % from bagasse	ash @ 3% from wood chippings	ash @ 3 % from briquettes	ash @ 17% from husk	Total estimated ash generation from estimated fuel consumption
Avg. daily (MT/day)	1.58	0.11	0.06	0.42	**2.17**

o. Mode of disposal of ash generated	Unit has made agreement (effective from 23.12.2023) with Sh. Nitin Kumar s/o Sh. Jagmohan, owner of Brick Kiln namely M/s Shiva Brick Field, Vill-Naseerpur, Muzaffarnagar for disposal of boiler ash (for manufacturing of bricks)
p. Actual avg. daily boiler ash disposal (as per logbook)	September – 2024: 17.40 MT October – 2024: 27.36 MT November (upto 24th) – 2024: 18.01 MT Total actual ash generation – 62.76 MT Avg. actual ash generation – 0.83 MT/day
q. Remarks	*Estimated Ash generation value (2.17) calculated from estimated fuel consumption data is greater than actual ash generation value (0.83 MT/day), which indicates poor record keeping*
r. Stack Monitoring report	Stack emission samples were analyzed in laboratory of Regional Office, Muzaffarnagar, UPPCB

Parameter	Monitoring value (mg/Nm^3)	Standard (mg/Nm^3)	Compliance status
Particulate Matter (PM)	48.4	80	Complying
Oxide of Nitrogen (NO_x)	36	300	
Sulphur Dioxide (SO_2)	22	600	

13.	**Hazardous waste management**	
	Authorization status	Authorization dated 21.12.2022 issued by UPPCB, having validity upto 20.12.2027 (Refer Annexure – 1D)
	Mode of disposal of hazardous waste (ETP sludge)	Unit has made agreement dated 01.03.2022 with TSDF (i.e. M/s Bharat Oil & Waste Management Ltd.) for disposal of hazardous waste
	Hazardous waste generated	As per copy of Form-10, quantity of hazardous waste provided to TSDF is as below:

Date	Cotton waste	Waste Oil	Waste grease	Others
25.06.2024	15 kg	10 ltr.	25 kg	-
23.09.2024	-	-	30 kg	Oily sludge – 30 kg; Waste cloth – 25 kg

14. **Recommendations:**

Unit is recommended to ensure following:

a. Install flow meter with totalizer at ETP inlet, and at pipelines carrying recycled partially treated effluent from equalization tank and primary clarifier

b. Provide totalizer facility in the ultrasonic flow meter installed at ETP outlet channel

Photographs

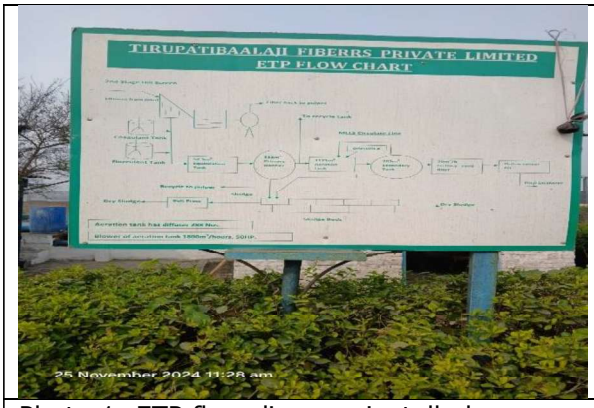

Photo 1: ETP flow diagram installed near ETP

Photo 2: ETP inlet channel

Photo 3: Hill screen

Photo 4: Equalization tank & Primary Clarifier

Photo 5: Aeration Tank

Photo 6: Secondary Clarifier

Photo 7: Tertiary filtration system

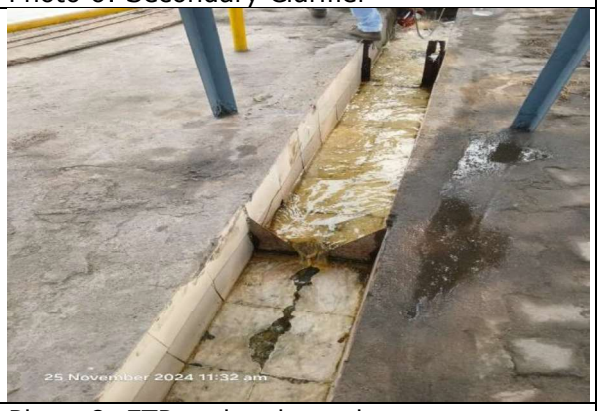

Photo 8: ETP outlet channel

	
Photo 9: OCEMS at ETP outlet	Photo 10: ETP outlet flow meter

INDUSTRY INSPECTION REPORT (PULP & PAPER)

Date of inspection: 25.11.2024

A. General section

1.	Name of the unit with complete postal address	**M/s Meenu Paper Mills Pvt. Ltd.** **9.5 Km, Bhopa Road, Muzaffarnagar (U.P.)**
2.	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.468414, 77.791202
3.	Industry Operational status	Operational
4.	Consent status	CCA dated 16.05.2023 issued by UPPCB, having validity upto 31.12.2024 (Refer Annexure – 1A)

B. Details of Production process, utilities and waste management (including effluent management system)

5.	**Process**	Manufacturing of Kraft paper by using Waste paper
6.	**Raw material**	
	a. Consented value	230 MT/day
	b. Actual consumption (as per logbook)	

Month	Raw material (Waste Paper)		
	Indigenous (MT)	Imported (MT)	Total (MT)
September – 2024	3582	905	4487
October – 2024	2375	3114	5489
November (upto 24th)	3536	216	3752
Total raw material (waste paper consumption)	9493	4235	13728

	c. Avg. daily consumption	180.63 MT/day
7.	**Production**	
	a. Consented value	190 MT/day
	b. Actual Production in last three months (as per logbook)	September – 2024: 4299.09 MT October – 2024: 4986.44 MT November (upto 24th) – 2024: 3517.53 MT Total Production – 12803.06 MT Total operational days - 76
	c. Avg. daily production	168.46 MT/day
	d. Yield (%)	93 %
	e. Non-paper waste generation	i.e. 07 % = 12.64 MT/day
8.	**Fresh water consumption**	
	a. Details of borewell	Two borewells with flow meter found installed
	b. NOC from CGWA/other authorized body	NOC for both borewells issued by UPGWD, having validity upto 26.07.2026 (Refer Annexure – 1B)
	c. Permitted withdrawal quantity	1,485 KLD (combined from both borewells)
	d. Actual withdrawal quantity in last three months	

	Borewell – 1 (KL)	Borewell – 2 (KL)	Total (KL)
September – 2024	2444	8953	11397
October – 2024	984	12261	13245
November (upto 24th)	0	9252	9252
Total groundwater withdrawal	3428	30466	33894

	e. Avg. daily withdrawal quantity	445.97 KLD
	f. Specific fresh water consumption	2.65 KL/MT of product
9.	**Effluent Management**	
	a. Actual effluent generation in last three months	September – 2024: 49509 KL October – 2024: 48956 KL

		November (upto 24th) – 2024: 32085 KL Total effluent generation – 130550 KL	
	b. Avg. daily effluent generation	1717.76 KLD	
	c. Specific effluent generation	10.19 KL/MT of product	
	d. Consented discharge value	300 KLD	
	e. Actual effluent discharge in last three months (as per V-Notch logbook)	September – 2024: 2281 KL October – 2024: 2672 KL November (upto 24th) – 2024: 2147 KL Total effluent generation – 7100 KL	
	f. Avg. daily effluent discharge	93.42 KLD (against the consented discharge value of 300 KLD)	
	g. Specific effluent discharge	0.55 KL/MT of product	
	h. Actual recycling of treated effluent within process	Partially treated effluent from Sedicell & Primary clarifier	*Flow meter installed on 01st Nov 2024* Recycled to paper machine section Quantity – 1260.38 KLD (01 – 24 Nov 2024)
		Sludge (from Primary Clarifier)	Recycled to pulp mill (without measurement)
		Treated effluent (From ETP outlet)	No recycling of treated effluent
		Total recycled	1260.38 KLD
	i. Specific effluent recycle	7.52 KL/MT	
	j. Losses in ETP %	10.8 % (of total effluent generation) against 2-3% in form of moisture in generated sludge, due to unaccounted recycling of raw primary sludge into process	
10.	**Effluent Treatment Plant (ETP)**		
	a. ETP consists of	Raw effluent → Bar screen → B2 thickener → Equalization Tank→ Sedicell→ Primary Clarifier→ Aeration Tank-1→ Aeration Tank-2→ Secondary Clarifier → Sand Filter → Discharge	
	b. Installed capacity	Equalization Tank- 229 m^3 Sedicell- 300 m^3 Primary Clarifier- 235 m^3 Aeration Tank- 363 m^3 & 300 m^3 Secondary Clarifier- 235 m^3	
	c. Metering at ETP	Effluent generation	V – notch
		Partially treated effluent from Sedicell & Primary clarifier	Flow meter installed on 01st Nov 2024
		Primary sludge recycle to process	No measuring device
		Effluent Discharge	V – notch (and ultrasonic flow meter)
	d. Operational status of ETP	Operational	
		Flow at inlet: 40.3 m^3/hr	
	e. OCEMS installed at ETP outlet	OCEMS was found installed at outlet of ETP & connected with CPCB & SPCB servers.	
	f. OCEMS value	pH – 6.98; Flow- 4.72 m^3/hr, BOD-11.25 mg/l, COD- 70.05 mg/l and TSS- 21.38 mg/l	

Effluent Characteristics

Parameters	ETP inlet	ETP outlet	Norms as per consent (as per Boards Norms)	Compliance w.r.t. consent
pH	6.56	7.73	6.5 – 8.5	Complying
TSS (mg/l)	355	22	30	Complying
TDS (mg/l)	2400	1400	1600	Complying
BOD (mg/l)	378	18	20	Complying
COD (mg/l)	1576	128	150	Complying
Oil & Grease (mg/l)		5.60	10	Complying

Aeration tank: MLSS-2800 mg/l & MLVSS-2200 mg/l
ETP Sludge generation

	a. Sludge Management & disposal	• Primary sludge recycled back to process (in pulp mill) • Secondary biological sludge is dewatered through decanter and provided to TSDF (i.e. M/s Bharat Oil & Waste Management Ltd.) for disposal
	b. Biological sludge generation (as per logbook)	<table><tr><td></td><td>Biological sludge for disposal (kg)</td></tr><tr><td>September – 2024</td><td>40</td></tr><tr><td>October – 2024</td><td>40</td></tr><tr><td>November (upto 24th)</td><td>40</td></tr><tr><td>Total</td><td>120 kg</td></tr></table>
	c. Daily sludge generation	1.58 kg/day
	d. Estimated sludge generation @ 20 % of inlet COD load	
11.	**Non-paper solid waste management (Plastic waste)**	
	a. Actual Avg. daily plastic waste generation (as per logbook)	Total – 250.10 MT (01.09.2024 – 24.11.2024) Avg. plastic waste generation – 3.29 MT/day
	b. Mode of disposal of plastic waste	Unit has made agreement dated 01.08.2023 with M/s KK Duplex & Paper Mills Pvt. Ltd., Muzaffarnagar
	c. Actual Avg. daily plastic waste disposed (as per logbook)	Total – 222.59 MT (01.09.2024 – 24.11.2024) Avg. plastic waste disposed – 2.93 MT/day
	d. Potential solid waste generation (@3% & 4% of indigenous & imported waste paper respectively)	<table><tr><td></td><td>3% of Indigenous waste paper (MT)</td><td>4% of Imported waste paper (MT)</td><td>Total (MT)</td></tr><tr><td>Sep</td><td>107.46</td><td>36.2</td><td>143.66</td></tr><tr><td>Oct</td><td>71.25</td><td>124.56</td><td>195.81</td></tr><tr><td>Nov</td><td>106.08</td><td>8.64</td><td>114.72</td></tr><tr><td>Total</td><td>284.79</td><td>169.4</td><td>454.19</td></tr><tr><td colspan="4">Estimated Avg. daily plastic waste generation – 5.97 MT/day</td></tr></table>
12.	**e. Remarks**	*Actual plastic waste disposal (2.93 MT/day) is much lower than the estimated plastic waste generation value (5.97 MT/day). Unit has stored plastic waste in the form of heaps in its premises.*
13.	**Air Pollution management**	
	a. Boiler capacity	11 TPH & 12 TPH
	b. Boiler operational status	Operational
	c. Stack details	Common stack 105 ft
	d. Type of APCD installed	Dust collector + Wet scrubber
	e. Estimated steam requirement @2Ton/MT of kraft paper produced	336.92 MT/day
	f. Name of the Fuel used	Rice husk, Coal, Wooden Chips, bagasse
	g. Fuel consumption as per consent	Biomass/Coal @100 MT/day
	h. Actual Avg. Daily fuel consumption (as per logbook)	<table><tr><td>Type of fuel</td><td>Straw/husk</td><td>Coal</td><td>Wooden chips</td><td>Bagasse</td><td>Total</td></tr><tr><td>Total (MT)</td><td>1038.7</td><td>6449.11</td><td>1157.41</td><td>100.1</td><td>8745.32</td></tr><tr><td>Avg. daily (MT/day)</td><td>13.67</td><td>84.85</td><td>15.23</td><td>1.32</td><td>115.07</td></tr></table>
	i. Estimated steam generation from actual fuel consumption data @ 3 T/T of husk; 3 T/T of Coal, 3 T/T of wooden chips & 2.5T/T of bagasse:	<table><tr><td></td><td>Steam from Straw/husk</td><td>Steam from Coal</td><td>Steam from Wooden chips</td><td>Steam from Bagasse</td><td>Total estimated steam generation from actual fuel consumption</td></tr><tr><td>Avg. daily (MT/day)</td><td>41</td><td>254.57</td><td>45.69</td><td>0.03</td><td>341.29</td></tr></table>
	j. Actual Avg. Daily ash generation (as per logbook)	Total – 1390.9 MT (01.09.2024 – 24.11.2024) **Avg. ash generation – 18.30 MT/day**

	k. Ash generation w.r.t of fuel consumed (%)	=18.30*100/115.07 =15.90 %
	l. Estimated ash generation from actual fuel consumption @ 17% of husk; 30% of Coal, 3% of wooden chips & 2.5% of Bagasse	

	Ash from Straw/husk	Ash from Coal	Ash from Wooden chips	Ash from Bagasse	Total estimated ash generation
Avg. daily (MT/day)	2.32	25.46	0.46	0.03	**28.27**

	m. Mode of disposal of ash generated	Unit has made agreement (effective from 06.01.2023) with Sh. Rahul Batra s/o Dinesh Mohan Batra owner of Brick Kiln namely M/s Shiva Bricks Supply, Vill-Sandhawli, Muzaffarnagar
	n. Actual avg. daily boiler ash disposal (as per logbook)	Total – 1519.67 MT (01.09.2024 – 24.11.2024) Avg. ash disposal – 19.99 MT/day
	o. Remarks	a. Steam generation value calculated from actual fuel consumption data (341.29 MT/day) is greater than estimated steam requirement (336.92 MT/day), hence actual fuel consumption data is acceptable, and also the excess steam generated is being used in turbine (capacity – 1.5 MW) section for power generation b. Estimated Ash generation value calculated from actual fuel consumption data (28.27 MT/day) is greater than actual ash disposal value (19.99 MT/day), which shows gap of 8.28 MT/day and poor record keeping
	p. Stack Monitoring report	Stack emission samples were analyzed in laboratory of Regional Office, Muzaffarnagar, UPPCB

Parameter	Monitoring value (mg/Nm^3)	Standard (mg/Nm^3)	Compliance status
Particulate Matter (PM)	46.2	80	Complying
Oxide of Nitrogen (NO_x)	46	300	
Sulphur Dioxide (SO_2)	26	600	

14.	**Hazardous waste management**	
	Authorization status	CCA dated 16.05.2023 issued by UPPCB, having validity upto 31.12.2024 (Refer Annexure – 1A)
	Mode of disposal of hazardous waste (ETP sludge)	Unit has made agreement dated 10.01.2023 with TSDF (i.e. M/s Bharat Oil & Waste Management Ltd.) for disposal of hazardous waste
	Hazardous waste generated	As per copy of Form-10 provided, quantity of hazardous waste provided to TSDF is as below:

Date	Cotton waste	ETP sludge	Waste Oil	Others
13.06.2024	30 kg	670 kg	35 kg	30 kg
23.09.2024	30 kg	400 kg	-	50 kg

Photographs

Photo 1: ETP inlet

Photo 2: B2 thickener (plastic separation from effluent)

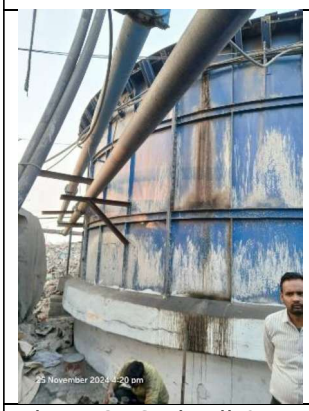

Photo 3: Sedicell & Primary Clarifier

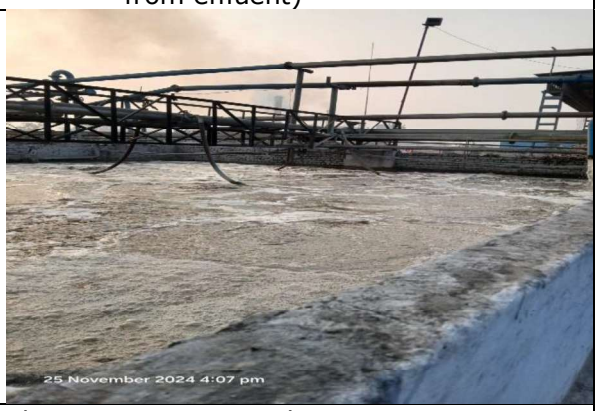

Photo 4: Aeration Tank

Photo 5: Secondary Clarifier

Photo 6: Sand filter

Photo 7: ETP outlet

Photo 8: OCEMS at ETP outlet

INDUSTRY INSPECTION REPORT (PULP & PAPER)

Date of inspection: 25.11.2024

A. General section

1.	Name of the unit with complete postal address	M/s Shree Bhageshwari Papers Pvt. Ltd. Unit - 1 9th Km stone, Bhopa road, Muzaffarnagar – 251001 & M/s Shree Bhageshwari Papers Pvt. Ltd. Unit - 2 9th Km stone, Bhopa road, Muzaffarnagar – 251001
2.	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.471250, 77.794264
3.	Industry Operational status	Operational
4.	Consent status	For Unit – 1: Consent to Operate (CTO) dated 30.12.2019 having validity upto 31.12.2024, issued by UPPCB (Refer Annexure – 1A) For Unit – 2: Consent to Operate (CTO) dated 30.12.2019 having validity upto 31.12.2024, issued by UPPCB (Refer Annexure – 1B)

B. Details of Production process, utilities and waste management (including effluent management system)

5. **Process**: Unit – 1: Production of unbleached grade paper (i.e. Kraft paper) using Waste paper as raw material
Unit – 2: Production of bleached grade paper (i.e. Writing & Printing) using Waste paper as raw material

6. **Raw material**

a. Consented value: Not mentioned in consent

b. Actual Avg. daily consumption (as per logbook for duration 01.08.2024 – 16.10.2024)

	Total Waste paper consumption (MT)	No. of operational days	Avg. daily waste paper consumption (MT/day)
Unit – 1	8719	69	126.36
Unit – 2	4452.44		64.53
Total	13171.44		190.89

Avg. daily total waste paper consumption in Unit – 1 & Unit – 2 is 190.89 MT/day

7. **Production**

a. Consented value: Unit – 1: Kraft paper @ 100 MT/day, and
Unit – 2: Writing & Printing paper @ 100 MT/day

b. Actual Avg. daily production (as per logbook)

	Total Production (MT)	No. of operational days	Avg. daily production (MT/day)
Unit – 1	7596.95	69	110.10
Unit – 2	3523.08		51.06
Total	11120.03		161.16

c. Yield (%): Unit – 1: 87.13 % & Unit – 2: 79.13% **(Overall yield – 84.42 %)**

8. **Fresh water consumption**

a. Details of borewell: 01 no. of borewell in Unit- 1,
01 no. of borewell in Unit- 2,

Both borewells having electromagnetic flow meters installed

b. NOC from CGWA/other authorized body: Two separate NOCs issued by Uttar Pradesh Ground Water Department (UPGWD) for 02 nos. of Borewells, both having validity upto 31.07.2025 (Refer Annexure – 1C)

c. Permitted withdrawal quantity: Unit-1: 1179 KLD;
Unit-1: 1250 KLD
Combined permitted withdrawal: 2429 KLD

d. Actual withdrawal quantity in last three months

		Unit – 1 (KL)	Borewell-1 operational days	Unit – 2 (KL)	Borewell-1 operational days
	September – 2024	22557	30	22684	30
	October – 2024	27338	31	71331	31
	November (upto 24th) – 2024	15158	24	15379	24
	Total groundwater withdrawal	65053	85	109394	85

e. Avg. daily withdrawal quantity: Unit-1: 765.33 KLD; Unit-2: 1286.98 KLD;

f. Actual freshwater consumption

	Total Freshwater consumption (KL)	Production plant Operational days	Avg. daily effluent generation (KLD)
Unit – 1	65053	75	867.37
Unit – 2	109394	71	1540.76

g. Specific fresh water consumption: Unit – 1: 7.94 KL/MT of product; Unit – 2: 29.95 KL/MT of product

9. **Effluent Management**

a. Actual effluent generation in last three months (during 01.09.2024 – 24.11.2024) Unit – 1: 31133 KL & Unit – 2: 55724 KL

b. Avg. daily effluent generation: Unit – 1: 415.11 KLD; Unit – 2: 784.85 KLD

c. Specific effluent generation: Unit – 1: 3.80 KL/MT of product; Unit – 2: 15.26 KL/MT of product

d. Actual effluent discharge in last three months (during 01.09.2024 – 24.11.2024) Unit – 1: 22315 KL & Unit – 2: 48564 KL

e. Consented discharge value: Unit -1: 1100 KLD & Unit – 2: 1800 KLD

f. Avg. daily effluent discharge: Unit – 1: 297.53 KLD; Unit – 2: 684 KLD

g. Specific effluent discharge: Unit – 1: 2.72 KL/MT of product; Unit – 2: 13.30 KL/MT of product

h. Actual recycling of treated effluent within process: Recycling after secondary clarifier to process — Unit-1: 103.79 KLD; Unit-2: 95.96 KLD

i. Specific effluent recycle: Unit – 1: 0.95 KL/MT of product; Unit – 2: 1.87 KL/MT of product

j. Losses in ETP %: Unit-1: 3.32 % & Unit – 2: 0.6 %

k. Remark: Loss of 0.6 % (in ETP of Unit-2) against the typical loss of around 2 – 3 % indicates that calibration is required for the ultrasonic type flow meters installed at inlet & outlet of ETP in unit-2

10. **Effluent Treatment Plant (ETP)**

a. ETP consists of: Unit -1: Raw effluent (after PDF) → Bar screen → Equalization tank → Hill screen →Primary clarifier → Aeration tank → Secondary Clarifier → Tube settler → Discharge into Dhandera drain
Unit -2: Same scheme as in Unit - 1

b. Installed capacity: Unit -1: 2000 KLD & Unit -2:2000 KLD

c. Metering at ETP

Effluent generation	V – notch at inlet of ETPs in both units Flow at inlet of ETP in Unit -1: 20.74 m^3/hr; Flow at inlet of ETP in Unit -2: 29.56 m^3/hr
Recycling after secondary clarifier to process	Separate Electromagnetic flow meter installed for both units
Effluent Discharge	V – notch & Ultrasonic flow meter at outlet of ETPs in both units

			Discharge from Unit -1@ 2.73 m^3/hr Discharge from Unit -2@ 4.98 m^3/hr
	d. Operational status of ETP	ETPs of both units found operational	
	e. OCEMS installed at ETP outlet	OCEMS was found installed at outlet of both ETP & connected with CPCB /SPCB servers.	
	f. OCEMS value	Unit -1: pH – 7.87; Flow- 2.73 m^3/hr, BOD-16.20 mg/l, COD- 106.29 mg/l and TSS- 19.95 mg/l Unit -2: pH – 7.25, BOD-17.4 mg/l, COD- 108.4 mg/l and TSS- 23.8 mg/l	

Effluent Characteristics

Parameters	Unit – 1				Unit – 2			
	ETP inlet	ETP outlet	Norms as per consent	Compliance w.r.t. consent	ETP inlet	ETP outlet	Norms as per consent	Compliance w.r.t. consent
pH	5.33	7.5	6.5 – 8.5	Complying	6.92	7.52	6.5 – 8.5	Complying
TSS (mg/l)	210	25	50	Complying	230	26	50	Complying
TDS (mg/l)	2800	1400	-	Complying	3000	1524	-	Complying
BOD (mg/l)	320	13	30	Complying	360	16	30	Complying
COD (mg/l)	1200	132	250	Complying	1500	140	250	Complying
Oil & Grease (mg/l)	-	5.30	10	Complying	-	5.80	10	Complying

Aeration tank of Unit-1: MLSS-2600 mg/l & MLVSS-2100 mg/l
Aeration tank of Unit-2: MLSS-2500 mg/l & MLVSS-2000 mg/l

ETP Sludge generation

a. Sludge Management & disposal	• Primary & Secondary biological sludge recycled back to process (in pulp mill)
b. Biological sludge generation (as per logbook)	Unit – 1: 75.06 MT Unit – 1: 447.87 MT
c. Estimated sludge generation @ 20 % of inlet COD load	

11. **Non-paper solid waste management (Plastic waste)**

a. Actual plastic waste generation (as per logbook)

Plastic waste generation from Unit-1 & Unit-2 (logbook data available for duration 01.08.2024 – 16.10.2024)

From Unit -1 (MT)	From Unit -2 (MT)	Total Quantity (MT)
98.759	31.709	130.468
Avg. daily plastic waste generation – 1.89 MT/day (combined for Unit-1 & Unit-2)		

b. Mode of disposal of plastic waste	Unit has made agreement dated 01.10.2023 with M/s KK Duplex & Paper Mills Pvt. Ltd., Mumbai for disposal of plastic waste i.e. Combustion in waste to energy boiler

c. Actual Avg. daily plastic waste disposed (as per logbook)

Plastic waste disposal from Unit-1 & Unit-2 (logbook data available for duration 01.08.2024 – 16.10.2024)

Provided to	From Unit -1 (MT)	From Unit -2 (MT)	Total Quantity (MT)	Agreement (Yes/No)	Methodology of disposal at disposal site
M/s KK Duplex and Paper Mills Pvt. Ltd.	89.915	29.81	119.725	Yes	Combustion in waste to energy boiler
Avg. daily plastic waste disposal – 1.73 MT/day (combined for Unit-1 & Unit-2)					

d. Potential solid waste generation (@3% of waste paper)

From Unit -1 (MT)	From Unit -2 (MT)	Total Quantity (MT)

2.70	0.90	3.6
Estimated Avg. daily plastic waste generation – 5.73 MT/day (combined for Unit-1 & Unit-2)		

e. Remarks	*Actual plastic waste disposal (1.73 MT/day) is much lower than the estimated plastic waste generation value (5.73 MT/day) which indicates poor record keeping*

12. **Air Pollution management**

a. Boiler capacity	36 TPH (operational, common for Unit – 1 & Unit – 2)
b. Boiler operational status	Operational
c. Stack details	Stack Height - 52 m
d. Type of APCD installed	Electro Static Precipitator (ESP)
e. Estimated steam requirement @2Ton/MT of kraft paper produced	

	Estimated steam requirement (MT/day)
Unit – 1	220.20
Unit – 2	102.12
Total	322.32 MT/day

f. Name of the Fuel used	Coal, Bagasse, Rice husk, RDF
g. Fuel consumption as per consent	RDF @ 220 MT/day, Coal @ 175 MT/day, Biomass @ 170 MT/day

h. Actual Avg. Daily fuel consumption (logbook data available for duration 01.08.2024 – 16.10.2024)

Type of fuel	Coal	Bagasse	Rice husk	RDF	Total
Total (MT)	10720	0	2435	2914	16069
Avg. daily (MT/day)	155.36	0	35.29	42.23	232.88

i.e. Total avg. daily fuel consumption = 232.88 MT/day

i. Estimated steam generation from actual fuel consumption data @ 3 T/T of Coal, 2.5 T/T of bagasse, 3 T/T of husk; & 3 T/T of RDF:

	Steam from Coal	Steam from Bagasse	Steam from Husk	Steam from RDF	Total estimated steam generation from actual fuel consumption
Avg. daily (MT/day)	466.08	0	105.87	126.69	698.64

j. Actual Avg. Daily ash generation (as per logbook)	Total – 3276.89 MT (logbook data available for duration 01.08.2024 – 16.10.2024) **Avg. ash generation – 47.49 MT/day**
k. Ash generation w.r.t of fuel consumed (%)	=47.49*100/232.88 =20.39 %

l. Estimated ash generation from actual fuel consumption @ 30% of Coal, 2.5% of Bagasse, 17% of husk; & 17% of RDF

	Ash from Coal	Ash from Bagasse	Ash from Husk	Ash from RDF	Total estimated ash generation from actual fuel consumption
Avg. daily (MT/day)	46.61	0	5.99	7.17	**59.77**

m. Mode of disposal of ash generated	Unit has made agreement with M/s Malwa trading Company, Bhopa road, Muzaffarnagar & M/s Ganpati Engineering & Construction Utility for supply of ash to cement plants
n. Actual avg. daily boiler ash disposal (as per logbook)	Total – 3243.131 MT (logbook data available for duration 01.08.2024 – 16.10.2024) **Avg. ash disposal – 47.00 MT/day**
o. Remarks	*a. Steam generation value calculated from actual fuel consumption data (698.65 MT/day) is greater than estimated steam requirement (321.30 MT/day), hence actual fuel consumption data is acceptable, and also the excess steam generated is being used in turbine (capacity – 06 MW) section for power generation* *b. Estimated Ash generation value calculated from actual fuel consumption data (59.77 MT/day) is higher than actual ash disposal value (47 MT/day) calculated from logbook data, which indicates poor record keeping*
p. Stack Monitoring report	Stack emission samples were analyzed in laboratory of Regional Office, Muzaffarnagar, UPPCB

		Parameter	Monitoring value (mg/Nm^3)	Standard (mg/Nm^3)	Compliance status
		Particulate Matter (PM)	44.6	80	Complying
		Oxide of Nitrogen (NO_x)	40	300	
		Sulphur Dioxide (SO_2)	22	600	

13.	**Hazardous waste management**	
	Authorization status	For both units (i.e. unit-1 & Unit-2), Authorization dated 19.09.2022 under the provisions of Hazardous and Other Wastes Rules, 2016 has been issued by UPPCB having validity upto 13.09.2027 (Refer Annexure – ID)
	Mode of disposal of hazardous waste (ETP sludge)	Common agreement for both Units has made with TSDF (i.e. m/s Sheetala Waste Management Project) on dated 29.06.2022 for disposal of hazardous waste

Hazardous waste generated:
As per copy of Form-10 provided, quantity of hazardous waste provided to TSDF is as below:
For Unit – 1:

Date	Used empty containers	Process sludge	Waste grease
26.07.2024	02 kg	145 kg	3 kg

For Unit – 2:

Date	Used empty containers	Process sludge	Waste grease
26.07.2024	02 kg	160 kg	3 kg

Photographs

Photo 1: Common Entrance gate of both units

Photo 2: ETP inlet (unit-1 & 2)

Photo 3: Primary Clarifier (Unit-1 & 2)

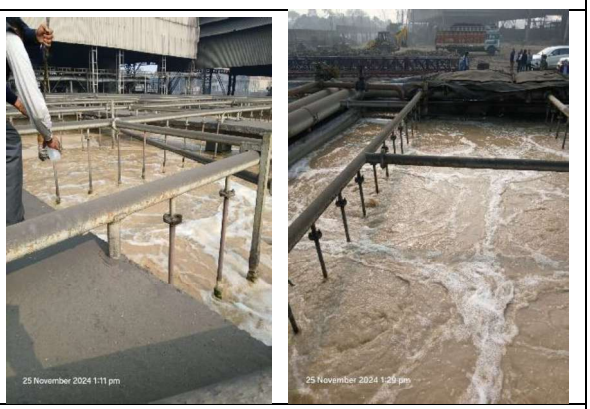

Photo 4: Aeration Tank (Unit-1 & 2)

Photo 5: Secondary Clarifier

Photo 6: ETP outlet channel (Unit-1 & 2)

Photo 7: OCEMS at ETP outlet (unit-1)

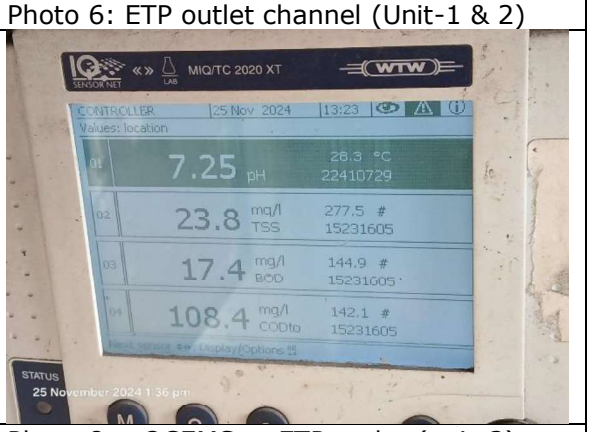

Photo 8: OCEMS at ETP outlet (unit-2)

Photo 9: Sludge drying beds

Photo 10: Belt press

INDUSTRY INSPECTION REPORT (PULP & PAPER)

Date of inspection: 26.11.2024

A. General section

1.	Name of the unit with complete postal address	**M/s Agarwal Duplex Board Mills Ltd.** **04th km, Bhopa road, Muzaffarnagar - 251001**
2.	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.472067, 77.739072
3.	Industry Operational status	Operational
4.	Consent status	Consolidated Consent & Authorization (CCA) dated 06.09.2024 having validity upto 31.12.2027, issued by UPPCB (Refer Annexure – 1A)

B. Details of Production process, utilities and waste management (including effluent management system)

5.	**Process**	Production of Duplex board/MG Poster paper/Kraft paper using Waste paper as raw material
6.	**Raw material**	
	a. Consented value	Waste paper @190 MT/day
	b. Actual consumption (as per logbook)	

Month	Raw material (Waste Paper)			Operational days
	Indigenous (MT)	Imported (MT)	Total (MT)	
September – 2024	4203.986	1203.014	5407	30
October – 2024	4767.98	628.02	5396	31
November (upto 24th) - 2024	4127	149	4276	24
Total raw material (waste paper consumption)	13098.966	1980.034	15079	85

	c. Avg. daily consumption	177.40 MT/day
7.	**Production**	
	a. Consented value	Duplex Board/MG Poster paper/Kraft Paper @ 160 MT/day
	b. Actual Production in last three months (as per logbook)	September – 2024: 5021.5537 MT October – 2024: 5007.481 MT November (upto 24th) – 2024: 3814.213 MT Total Production – 13843.2477 MT Total operational days - 85
	c. Avg. daily production	162.86 MT/day
	d. Yield (%)	91.80 %
	e. Non-paper waste generation	i.e. 8.20 % = 14.54 MT/day
8.	**Fresh water consumption**	
	a. Details of borewell	Two borewells with flow meter found installed
	b. NOC from CGWA/other authorized body	NOC for both borewells issued by UPGWD, having validity upto 13.03.2026 (Refer Annexure – 1B)
	c. Permitted withdrawal quantity	1980 KLD (combined from both borewells)
	d. Actual withdrawal quantity in last three months	

	Borewell – 1 (KL)	Borewell – 2 (KL)	Total (KL)
September – 2024	16961	23209	40170
October – 2024	16989	23073	40062
November (upto 24th)	12434	18082	30516
Total groundwater withdrawal	46384	64364	110748

	e. Avg. daily withdrawal quantity	1302.92 KLD
	f. Specific fresh water consumption	8.0 KL/MT of product

9.	**Effluent Management**		
	a. Actual effluent generation in last three months	September – 2024: 55411.7 KL October – 2024: 57500.1 KL November (upto 24th) – 2024: 44607.8 KL Total effluent generation – 157519.60 KL	
	b. Avg. daily effluent generation	1853.17 KLD	
	c. Specific effluent generation	11.38 KL/MT of product	
	d. Consented discharge value	800 KLD	
	e. Actual effluent discharge in last three months (as per V-Notch logbook)	September – 2024: 19532.43 KL October – 2024: 26243.4 KL November (upto 24th) – 2024: 15540.6 KL Total effluent generation – 61316.44 KL	
	f. Avg. daily effluent discharge	721.40 KLD (against the consented discharge value of 800 KLD)	
	g. Specific effluent discharge	4.43 KL/MT of product	
	h. Actual recycling of treated effluent within process	Partially treated effluent from Sedicell	Recycled to paper machine section Quantity – 1191.07 KLD
		Sludge (from Primary Clarifier)	Recycled to pulp mill (without measurement)
		Total recycled	1191.07 KLD
	i. Specific effluent recycle	7.31 KL/MT	
	j. Losses in ETP %	No loss in ETP against typical losses of around 2-3% (in form of moisture in generated sludge), indicates that calibration of ultrasonic type flow meters is needed from which the data of inlet and outlet is being recorded.	
10.	**Effluent Treatment Plant (ETP)**		
	a. ETP consists of	Raw effluent → Bar screen → Equalization Tank→ B2 thickener → Sedicell→ Primary Clarifier→ Aeration Tank → Secondary Clarifier → Hill screen (for removal of floating material such as plant leaves before filtration) → Sand Filter → Discharge	
	b. Installed capacity	Equalization Tank- 135 m^3 Sedicell- 250 m^3/hr Primary Clarifier- 12.65m (dia) × 5m (depth) = 626 m^3/hr Aeration Tank- 35.7m × 11.3m × 4.5m = 1815 m^3 Secondary Clarifier- 16m (dia) × 4m (depth) = 804 m^3/hr	
	c. Metering at ETP	Effluent generation	V – notch (and ultrasonic flow meter with totalizer) at ETP inlet
		Partially treated effluent from Sedicell	Electromagnetic Flow meter with totalizer flow rate – 13.13 m^3/hr
		Primary sludge recycle to process	No measuring device
		Effluent Discharge	V – notch (and ultrasonic flow meter with totalizer)
	d. Operational status of ETP	Operational	
		Flow at inlet: 132 m^3/hr	
	e. OCEMS installed at ETP outlet	OCEMS was found installed at outlet of ETP & connected with CPCB/SPCB servers.	
	f. OCEMS value	pH – 7.61; Flow- 23.6 m^3/hr, BOD-12.72 mg/l, COD- 107.36 mg/l and TSS-18.27 mg/l	

Effluent Characteristics

Parameters	ETP inlet	ETP outlet	Norms as per consent (as per Boards Norms)	Compliance w.r.t. consent
pH	6.0	7.68	6.5-8.5	Complying
TSS (mg/l)	250	21	30	Complying
TDS (mg/l)	3100	1200	1600	Complying
BOD (mg/l)	320	13	20	Complying
COD (mg/l)	1650	129	150	Complying
O&G (mg/l)	-	5.60	10	Complying

	Aeration tank: MLSS-2600 mg/l & MLVSS-2100 mg/l	
	ETP Sludge generation	
	a. Sludge Management & disposal	• Primary sludge recycled back to process (in pulp mill) • Secondary biological sludge is stored in sun drying beds and dried sludge is used as fuel for co-combustion in boiler
	b. Biological sludge generation (as per logbook)	No logbook maintained
	c. Estimated sludge generation @ 20 % of inlet COD load	
11.	**Non-paper solid waste management (Plastic waste)**	
	a. Actual Avg. daily plastic waste generation (as per logbook)	Total –113.615 MT (01.09.2024 – 24.11.2024) Avg. plastic waste generation – 1.33 MT/day
	b. Mode of disposal of plastic waste	Unit has made agreement dated 01.05.2023 with M/s Silvertoan Papers Limited, Muzaffarnagar, U.P. for disposal of plastic waste (to be used as fuel in waste to energy boiler)
	c. Actual Avg. daily plastic waste disposed (as per logbook)	Total – 116.96 MT (01.09.2024 – 24.11.2024) Avg. plastic waste disposed – 1.376 MT/day
	d. Potential solid waste generation (@3% & 4% of indigenous & imported waste paper respectively)	
	e. Remarks	*Actual plastic waste disposal (1.376 MT/day) is much lower than the estimated plastic waste generation value (5.55 MT/day) which indicates poor record keeping*

	3% of Indigenous waste paper (MT)	4% of Imported waste paper (MT)	Total (MT)
Sep	126.12	48.12	174.24
Oct	143.04	25.12	168.16
Nov	123.81	5.96	129.77
Total	392.97	79.20	472.17
Estimated Avg. daily plastic waste generation – 5.55 MT/day			

12.	**Air Pollution management**	
	a. Boiler capacity	23 TPH
	b. Boiler operational status	Operational
	c. Stack details	Stack height – 47 m
	d. Type of APCD installed	Electrostatic Precipitator (ESP)
	e. Estimated steam requirement @2Ton/MT of paper produced	325.72 MT/day
	f. Name of the Fuel used	Coal, Bagasse, Rice husk
	g. Fuel consumption as per consent	Biomass @ 150 MT/day and Coal @100 MT/day
	h. Actual Avg. Daily fuel consumption (as per logbook)	
	i. Estimated avg. steam generation from actual fuel consumption data @ 3 T/T of rice husk	390.40 MT/day
	j. Actual Avg. Daily ash generation (as per logbook)	Total – 112.3 MT (01.09.2024 – 24.11.2024) **Avg. ash generation – 1.32 MT/day**
	k. Ash generation w.r.t of fuel consumed (%)	=1.32*100/130.13 =1.014 % (against typical 17% from rice husk)
	l. Estimated ash generation from actual fuel consumption @ 17 % of rice husk	22.12 MT/day
	m.Mode of disposal of ash generated	Unit is disposing boiler ash for landfilling in low lying land area at Barla baseda road near DJ Hotel Muzaffarnagar
	n. Actual avg. daily boiler ash disposal (as per logbook)	Total – 109.43 MT (01.09.2024 – 24.11.2024) Avg. ash disposal – 1.29 MT/day

Type of fuel	Total (MT)	Avg. daily (MT/day)
Rice husk	11061.5	130.13

<table>
<tr><td></td><td>o. Remarks</td><td>a. Steam generation value calculated from actual fuel consumption data (390.40 MT/day) is greater than estimated steam requirement (325.72 MT/day), hence actual fuel consumption data is acceptable, and also the excess steam generated is being used in turbine (capacity – 3 MW) section for power generation
b. Estimated Ash generation value calculated from actual fuel consumption data (22.12 MT/day) is significantly higher than actual ash disposal value (1.29 MT/day), which indicates poor record keeping</td></tr>
<tr><td></td><td>p. Stack Monitoring report</td><td>Stack emission samples were analyzed in laboratory of Regional Office, Muzaffarnagar, UPPCB
<table>
<tr><th>Parameter</th><th>Monitoring value (mg/Nm^3)</th><th>Standard (mg/Nm^3)</th><th>Compliance status</th></tr>
<tr><td>Particulate Matter (PM)</td><td>42.6</td><td>80</td><td rowspan="3">Complying</td></tr>
<tr><td>Oxide of Nitrogen (NO_x)</td><td>44</td><td>300</td></tr>
<tr><td>Sulphur Dioxide (SO_2)</td><td>28</td><td>600</td></tr>
</table></td></tr>
<tr><td>13.</td><td colspan="2">Hazardous waste management</td></tr>
<tr><td></td><td>Authorization status</td><td>Authorization dated 27.02.2023 issued by UPPCB under the provisions of Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016, having validity upto 26.02.2028 (Refer Annexure – 1C)</td></tr>
<tr><td></td><td>Mode of disposal of hazardous waste (ETP sludge)</td><td>Unit has made agreement dated 18.01.2023 with TSDF (i.e. M/s Sheetala Waste Management Project, Bulandshahar, U.P.) for disposal of hazardous waste</td></tr>
<tr><td></td><td>Hazardous waste generated</td><td>As per copy of Form-10 provided, quantity of hazardous waste provided to TSDF is as below:
<table>
<tr><th>Date</th><th>Used empty containers</th><th>Cotton waste</th><th>Waste Oil</th></tr>
<tr><td>22.11.2024</td><td>33 kg</td><td>27 kg</td><td>60 kg</td></tr>
</table></td></tr>
</table>

Photographs

Photo 1: Entrance gate of unit

Photo 2: ETP & Inlet ultrasonic flow meter

Photo 3: Equalization tank

Photo 4: B2 thickener (plastic separation from effluent)

Photo 5: Sedicell & Primary Clarifier

Photo 6: Aeration Tank

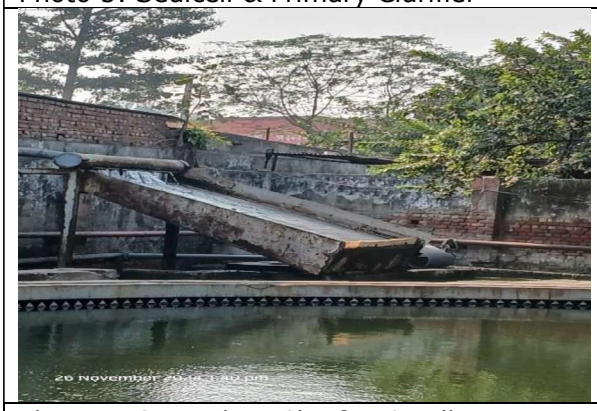

Photo 7: Secondary Clarifier & Hill screen

Photo 8: Tertiary filtration units

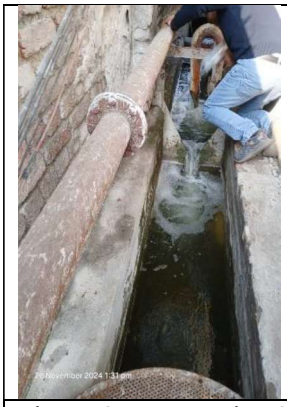 	 
Photo 9: ETP outlet & ultrasonic flow meter	Photo 10: OCEMS at ETP outlet

INDUSTRY INSPECTION REPORT (PULP & PAPER)

Date of inspection: 26.11.2024

A. General section

1.	Name of the unit with complete postal address	M/s Tehri Pulp and Paper Ltd. Unit - 1 9th Km stone, Bhopa road, Muzaffarnagar – 251001 & M/s Tehri Pulp and Paper Ltd. Unit - 2 9th Km stone, Bhopa road, Muzaffarnagar – 251001
2.	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.471250, 77.794264
3.	Industry Operational status	Operational
4.	Consent status	For Unit – 1: Consolidated Consent & Authorization (CCA) dated 07.08.2024 having validity upto 31.12.2028, issued by UPPCB (Refer Annexure – 1A) For Unit – 2: Consolidated Consent & Authorization (CCA) dated 15.03.2022 having validity upto 31.12.2026, issued by UPPCB (Refer Annexure – 1B)

B. Details of Production process, utilities and waste management (including effluent management system)

5. **Process**

Same process for Unit – 1 & Unit – 2
Production of unbleached grade paper (i.e. Kraft paper) using Waste paper as raw material

6. **Raw material**

a. Consented value: Unit – 1: 250 MT/day & Unit – 2: Not mentioned in consent

b. Actual Avg. daily consumption (as per logbook for duration 01.09.2024 – 24.11.2024)

	Indigenous waste paper (MT)	Imported waste paper (MT)	Total waste paper (MT)
Unit – 1	15463.34	778.66	16242
Unit – 2	20026.50	1018.50	21045
Total	35489.84	1797.16	37287

No. of operational days in both units: 78 days
Avg. daily waste paper consumption in Unit – 1 & Unit – 2 is 208.23 MT/day & 269.80 MT/day, respectively
Total Avg. daily waste paper consumption in Unit – 1 & Unit – 2: 478.03 MT/day

7. **Production**

a. Consented value: Unit – 1: 250 MT/day & Unit – 2: 350 MT/day

b. Actual Avg. daily production (as per logbook)

	Total Production (MT)	No. of operational days	Avg. daily production (MT/day)
Unit – 1	15176.685	78	194.57
Unit – 2	19201.066		246.17
Total	34377.751		440.74

c. Yield (%): Unit – 1: 93.44 % & Unit – 2: 91.24 %
Overall yield: 92.19 %

8. **Fresh water consumption**

a. Details of borewell: Three borewells having electromagnetic flow meters found installed
Freshwater from Borewell-1 + Borewell-2 is stored in 500 KL reservoir and then distributed to Unit-1 and Unit-2
Borewell – 3 is dedicated for meeting Boiler water requirements (common for Unit-1 & Unit-2)

b. NOC from CGWA/other authorized body: Three separate NOCs issued by Uttar Pradesh Ground Water Department (UPGWD) for 03 nos. of Borewells, all having validity upto 30.03.2027

		(combined for both units i.e. Unit – 1 & Unit – 2) (Refer Annexure – 1C)
	c. Permitted withdrawal quantity	3450 KLD (combined for both units i.e. Unit – 1 & Unit – 2)

d. Actual withdrawal quantity in last three months

	Borewell – 1 (KL)	Borewell – 2 (KL)	Borewell – 3 (KL)	Total (KL)
September – 2024	0	42331	13463	55794
October – 2024	0	47010	13032	60042
November (upto 24th)	0	31835	9756	41591
Total groundwater withdrawal	0	121176	36251	**157427 KL**

e. Avg. daily withdrawal quantity	= 157427 KL/78 days = 2018.30 KLD

f. Freshwater consumption (as per logbook for duration 01.09.2024 – 24.11.2024)

	Process freshwater consumption	Boiler freshwater consumption	Total freshwater consumption (KL)	Avg. daily freshwater consumption (KLD)
Unit – 1	52682.35	16003.66	68686	880.59
Unit – 2	29637	20247.34	49884.34	639.54
Total	50487	36251	86738	1112.02

g. Specific fresh water consumption	Unit – 1: 4.52 KL/MT of product; Unit – 2: 2.60 KL/MT of product

9. **Effluent Management**

a. Actual effluent generation in last three months

	Total Effluent generation (KL)	Operational days	Avg. daily effluent generation (KLD)
Unit – 1	222662	78	2854.64
Unit – 2	187072		2398.36
Total	409734		5253 KLD

b. Avg. daily effluent generation	Unit – 1: 2854.64 KLD; Unit – 2: 2398.36 KLD
c. Specific effluent generation	Unit – 1: 14.67 KL/MT of product; Unit – 2: 9.74 KL/MT of product

d. Actual effluent discharge in last three months

	Total Effluent generation (KL)	Operational days	Avg. daily effluent generation (KLD)
Unit – 1	36853.66	78	472.48
Unit – 2	38402		492.33
Total	107088		1372.92

e. Consented discharge value	Unit -1: 1300 KLD & Unit – 2: 700 KLD	
f. Avg. daily effluent discharge	Unit – 1: 880.59 KLD; Unit – 2: 492.33 KLD	
g. Specific effluent discharge	Unit – 1: 2.43 KL/MT of product; Unit – 2: 2.0 KL/MT of product	
h. Actual recycling of treated effluent within process	Partially treated effluent including Recovered fibers from Sedicell & Hill screen, and sludge from Primary clarifier from ETPs of both units	Total – 603.58 KLD Approx. 50% is diverted in Unit-1 & remaining in Unit-2
	Partially treated effluent from primary clarifier to pulper	Unit -1: 1835.40 KLD; Unit -2: 431.24 KLD
	Total recycled	Unit-1: 2137.19 KLD; Unit-2: 733.03 KLD
i. Specific effluent recycle	Unit – 1: 10.98 KL/MT of product; Unit – 2: 2.97 KL/MT of product	

	j. Losses in ETP %	19.22 % (of total effluent generation) against 2-3% in form of moisture in generated sludge, indicating that calibration is required for the ultrasonic type flow meters installed at inlet & outlet of ETP	
10.	**Effluent Treatment Plant (ETP)**		
	a. ETP consists of	Unit -1: Raw effluent → Bar screen → Equalization tank → Hill screen → Sedicell → Primary clarifier → Aeration tank → Secondary Clarifier → Multi Grade Filter → Discharge into Dhandera drain Unit -2: Same scheme as in Unit - 1	
	b. Installed capacity	Unit -1: 2000 KLD & Unit -2:2000 KLD	
	c. Metering at ETP	Effluent generation	V – notch & Ultrasonic flow meter at inlet of ETPs in both units Flow at inlet of ETP in Unit -1: 142 m^3/hr; Flow at inlet of ETP in Unit -2: 71 m^3/hr
		Partially treated effluent from primary clarifier to pulper	Separate Electromagnetic flow meter installed for both units Recycling from Unit -1@ 126.17 m^3/hr; Recycling from Unit -2@ 45.305 m^3/hr
		Effluent Discharge	V – notch & Ultrasonic flow meter at outlet of ETPs in both units Discharge from Unit -1@ 16.12 m^3/hr Discharge from Unit -2@ 25.51 m^3/hr
	d. Operational status of ETP	ETPs of both units found operational	
	e. OCEMS installed at ETP outlet	OCEMS was found installed at outlet of both ETP & connected with CPCB /SPCB servers.	
	f. OCEMS value	Unit -1: pH – 7.11; Flow- 6.12 m^3/hr, BOD-11.88 mg/l, COD- 163.28 mg/l and TSS- 31.61 mg/l Unit -2: pH – 7.44; Flow- 25.51 m^3/hr, BOD-12.28 mg/l, COD- 105.66 mg/l and TSS- 19.35 mg/l	

Effluent Characteristics

Parameters	Unit – 1				Unit – 2			
	ETP inlet	ETP outlet	Norms as per consent	Compliance w.r.t. consent	ETP inlet	ETP outlet	Norms as per consent	Compliance w.r.t. consent
pH	5.82	7.6	6.5-8.5	Complying	5.91	7.6	6.5-8.5	Complying
TSS (mg/l)	180	24	30	Complying	290	26	30	Complying
TDS (mg/l)	3000	1300	1600	Complying	3200	1500	1600	Complying
BOD (mg/l)	204	14	20	Complying	380	16	20	Complying
COD (mg/l)	650	128	150	Complying	2000	136	150	Complying
O&G (mg/l)	-	5.0	10	Complying	-	6.0	10	Complying

Aeration tank of Unit-1: MLSS-2400 mg/l & MLVSS-2000 mg/l Aeration tank of Unit-2: MLSS-2400 mg/l & MLVSS-1800 mg/l	
ETP Sludge generation	
a. Sludge Management & disposal	• Primary sludge recycled back to process (in pulp mill) • Secondary biological sludge is dewatered through belt press and then stored in sludge drying beds. Dewatered sludge is mixed with coal and bagasse and used as fuel in boiler.
b. Biological sludge generation (as per logbook)	No data provided for quantity of sludge used as fuel in boiler
c. Estimated sludge generation @ 20 % of inlet COD load	
11. **Non-paper solid waste management (Plastic waste)**	
a. Actual plastic waste generation (as per logbook)	

Plastic waste combined disposal from Unit-1 & Unit-2 during 01.09.2024 – 24.11.2024

Provided to	From Unit -1 (MT)	From Unit -2 (MT)	Total Quantity (MT)	Agreement (Yes/No)	Methodology of disposal at disposal site
M/s KK Duplex and Paper Mills Pvt. Ltd.	282.43	244.82	527.25	Yes	Combustion in waste to energy boiler

Total: 527.25 MT

Avg. daily plastic waste disposal – 7.53 MT/day (combined for Unit-1 & Unit-2)

b. Mode of disposal of plastic waste	i. Unit has made agreement dated 01.10.2023 with M/s KK Duplex & Paper Mills Pvt. Ltd., Muzaffarnagar for disposal of plastic waste i.e. Combustion in waste to energy boiler ii. Unit has also made agreement dated 01.10.2023 with M/s Nuvoco Vistas Corporation Limited, Muzaffarnagar for disposal of plastic waste in Cement kilns
c. Actual Avg. daily plastic waste disposed (as per logbook)	As per data provided by the unit, the generation & disposal values are same (Mentioned at Section 11a.)

d. Potential solid waste generation (@3% & 4% of indigenous & imported waste paper respectively)

	@ 3% from Indigenous waste paper (MT/day)	@ 4% from Imported waste paper (MT/day)	Total estimated plastic waste generation (MT/day)
Unit – 1	5.95	0.3	6.25
Unit – 2	7.70	0.4	8.10
Total	13.65	0.7	**14.35**

e. Remarks	*Actual plastic waste disposal (7.53 MT/day) is much lower than the estimated plastic waste generation value (14.35 MT/day) which indicates improper maintenance of logbook*

12. **Air Pollution management**

a. Boiler capacity	52 TPH (operational, common for Unit – 1 & Unit – 2) & 14 TPH (non – functional, old boiler as part of Chemical recovery plant when unit was using agro residue as raw material)
b. Boiler operational status	Operational
c. Stack details	Stack Height - 62 m
d. Type of APCD installed	Electro Static Precipitator (ESP)

e. Estimated steam requirement @2Ton/MT of kraft paper produced

	Estimated steam requirement (MT/day)
Unit – 1	389.14
Unit – 2	492.33
Total	881.47

f. Name of the Fuel used	Coal, Bagasse, Rice husk, RDF
g. Fuel consumption as per consent	RDF/Biomass/Coal (quantity not mentioned in consent)

h. Actual Avg. Daily fuel consumption (as per logbook)

Type of fuel	Coal	Bagasse	Rice husk	RDF
Total (MT)	6520	14435.167	803.645	21005
Avg. daily (MT/day)	83.59	185.07	10.30	269.29

i.e. Total avg. daily fuel consumption = 548.254 MT/day

i. Estimated steam generation from actual fuel consumption data @ 3 T/T of Coal, 2.5 T/T of bagasse, 3 T/T of husk; & 3 T/T of RDF:

	Steam from Coal	Steam from Bagasse	Steam from Husk	Steam from RDF	Total estimated steam generation from actual fuel consumption
Avg. daily (MT/day)	250.77	462.67	30.91	807.88	1552.23

j. Actual Avg. Daily ash generation (as per logbook)	Total – 6079.71 MT (01.09.2024 – 24.11.2024) Avg. ash generation – 77.945 MT/day
k. Ash generation w.r.t of fuel consumed (%)	=77.945*100/548.254 =14.22 %

l. Estimated ash generation from actual fuel consumption @ 30% of Coal, 2.5% of Bagasse, 17% of husk; & 17% of RDF

	Ash from Coal	Ash from Bagasse	Ash from Husk	Ash from RDF	Total estimated ash generation from actual fuel consumption
Avg. daily (MT/day)	25.08	4.63	1.75	45.78	77.24

m. Mode of disposal of ash generated	Unit has made agreement (effective from 01.08.2023) with M/s Bulk Ash Supplier, Bhopa road, Muzaffarnagar for supply of ash to cement plants
n. Actual avg. daily boiler ash disposal (as per logbook)	77.94 MT/day As per data provided by the unit, the generation & disposal values are same (Mentioned at Section 12j.)
o. Remarks	*i. Steam generation value calculated from actual fuel consumption data (1552.23 MT/day) is greater than estimated steam requirement (881.47 MT/day), hence actual fuel consumption data is acceptable, and also the excess steam generated is being used in turbine (capacity – 08 MW) section for power generation* *ii. Estimated Ash generation value calculated from actual fuel consumption data (77.24 MT/day) is approximately similar to actual ash disposal value (77.94 MT/day) calculated from logbook data, which indicates that unit is properly disposing generated boiler ash*
p. Stack Monitoring report	Stack emission samples were analyzed in laboratory of Regional Office, Muzaffarnagar, UPPCB

Parameter	Monitoring value (mg/Nm^3)	Standard (mg/Nm^3)	Compliance status
Particulate Matter (PM)	42.8	80	Complying
Oxide of Nitrogen (NO_x)	36	300	
Sulphur Dioxide (SO_2)	18	600	

13. **Hazardous waste management**

Authorization status	Unit – 1: Authorization under the provisions of Hazardous and Other Wastes Rules, 2016 issued by UPPCB on dated 03.08.2022 having validity upto 02.08.2027 (Refer Annexure – ID) Unit – 2: Authorization under the provisions of Hazardous and Other Wastes Rules, 2016 issued by UPPCB on dated 27.07.2022 having validity upto 26.07.2027 (Refer Annexure – ID)
Mode of disposal of hazardous waste (ETP sludge)	Unit has made agreement dated 10.01.2023 with TSDF (i.e. M/s Bharat Oil & Waste Management Ltd.) for disposal of hazardous waste
Hazardous waste generated	As per copy of Form-10 provided, quantity of hazardous waste provided to TSDF is as below:

Date	Waste Plastic Can	Waste polythene	Waste Oil
03.10.2024	10 kg	630 kg	30 Ltr.

14. **Major observations**

	1. There are two manufacturing units in same complex having names M/s Tehri Pulp & Paper (Unit-1) and M/s Tehri Pulp & Paper (Unit-2). 2. It was observed that the industrial complex has 03 no. of Borewells in its premises and electromagnetic flowmeters with totalizer found installed at all 03 borewells. Groundwater abstracted from Borewell-1 and Borewell-2 is stored in common freshwater reservoir of 500 KL capacity and then distributed to Unit-1 and Unit-2, whereas the Borewell -3 is dedicated for meeting Boiler (common for Unit-1 & Unit-2) water requirements. 3. A common boiler of 52 TPH capacity has been installed to cater the steam requirements in Unit- 1 and Unit – 2.

Photographs

<table>
<tr><td> 
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<tr><td>Photo 1: Common entrance gate of both units</td><td>Photo 2: Equalization tank (Unit-1 & 2)</td></tr>
<tr><td> 
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<tr><td>Photo 3: Hill screen</td><td>Photo 4: Sedicell & Primary Clarifier</td></tr>
<tr><td> 
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<tr><td>Photo 5: Flow meter on common line carrying Sedicell fiber & primary sludge from both ETPs</td><td>Photo 6: Aeration Tank (Unit-1 & 2)</td></tr>
</table>

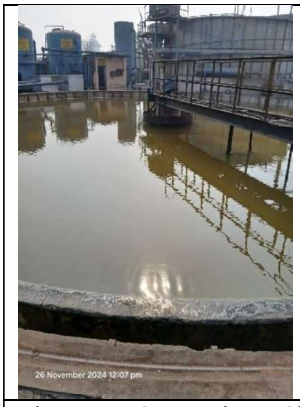



Photo 7: Secondary Clarifier (Unit-1 & 2)

Photo 8: Tertiary filtration units


Photo 9: ETP outlet

Photo 10: Inlet flow meter (unit-1&2)

Photo 11: Flow meter at recycling line from primary clarifier (Unit-1)

Photo 12: Flow meter at recycling line from primary clarifier (Unit-2)


Photo 13: OCEMS and flow meter at ETP-1 outlet


Photo 14: OCEMS and flow meter at ETP-2 outlet

Annexure-2

COMPLIANCE REPORT OF DIRECTIONS PASSED BY HON'BLE NATIONAL GREEN TRIBUNAL (NGT) ON 24.02.2025 IN ORIGINAL APPLICATION NO. 797/2024 GAUTAM VS STATE OF UP.

1.1 Background

- In the present O.A., the Applicant mainly highlighted the significant air pollution caused by burning solid waste and plastic, and emission of black gases from various industrial units, namely M/s Balaji Paper Mill, M/s Meenu Paper Mill, M/s Bageshwari Paper Mill, M/s Agarwal Paper Mill, and M/s Tehri Paper Mill situated in village Makhiyali, Muzaffarnagar.
- In the petition, the complainant has also raised issues related to various health problems and accidents due to emission of black ash by the aforementioned industries.
- In reference to the above petition, the Hon'ble National Green Tribunal on dated 20.08.2024 had constituted a Joint Committee comprising Uttar Pradesh State Pollution Control Board, District Magistrate, Muzaffarnagar, and Central Pollution Control Board with direction that the Committee shall visit the site, collect relevant information, and submit a Factual Report. The Joint Committee inspected the concerned industries and carried out a survey of the area and submitted a detailed report dated 04.11.2024 to the Hon'ble Tribunal.
- However, after scrutiny of the joint committee report, the Hon'ble Tribunal in its order dated 18.11.2024 directed that the Joint Committee's report dated 04.11.2024 mentions facts with regard to air pollution given in respect to various industrial units but with regard to industrial effluent and discharge, i.e., water pollution, relevant facts have not been given.
- In compliance with the Hon'ble NGT order dated 20.08.2024 and 18.11.2024, a joint committee comprising officials from the Central Pollution Control Board (CPCB), Uttar Pradesh Pollution Control Board (UPPCB), and representative from District Administration, Muzaffarnagar carried out monitoring from October 17th

to 18th, 2024, and November 25th to 26th, 2024, to verify the factual status of the aforementioned issues.

- The Joint Committee submitted its joint report on 14.12.2024 to the Hon'ble Tribunal.
- The Hon'ble Tribunal, after taking cognizance of the joint report, issued directions on 17.12.2024 and Mr. Rahul Khurana was appointed as amicus curiae to assist this tribunal in just and proper adjudication of the matter.
- The amicus curiae inspected the industries on 08.02.2025 and filed its report on 21.02.2025.

2.1 Hon'ble National Green Tribunal latest order dated 24.02.2025:

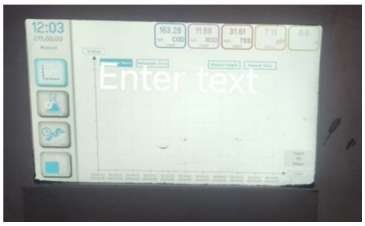
''……Vide order dated 17.12.2024 notices were ordered to be issued to respondents no.1 to 9 for filing of their replies/responses. In compliance thereof, replies/responses have been filed by respondents no.3, 5, 6, 7 8 and 9.

Report dated 21.02.2025 has also been filed by Mr. Rahul Khurana, learned Amicus Curiae. Learned counsel for respondent no.4 has submitted that its response has been filed but the same was filed on Saturday after 3:00 P.M and therefore, the same has not been placed on record.

The Registry shall verify the factual position and place the response filed by respondent no.4 on record and also upload the same on website, as the case may be ……..''

3.1 Compliance of the directions dated 24.02.2025 issued by Hon'ble Tribunal :

The Uttar Pradesh Pollution Control Board (UPPCB) had submitted a detailed factual report to the Hon'ble National Green Tribunal on dated 21.02.2025. Following the amicus curiae's report, UPPCB Muzaffarnagar conducted an inspection of the mentioned units on 25.03.2025 to verify the facts. All the facts, present details and compliances of Hon'ble Tribunal orders are documented as below :-.

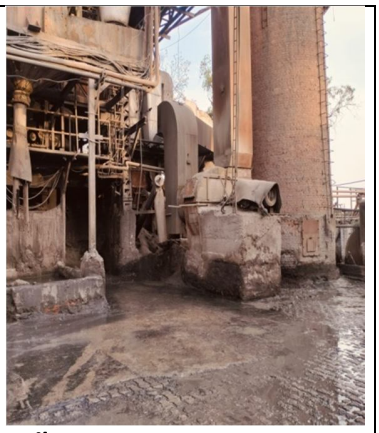
Sr. No.	Industry Name	Key Issues Identified by the Amicus Curiae	Inspection of UPPCB	Photographic Evidence Captured by UPPCB During Inspection
1.	**M/S TEHRI PULP AND PAPER LTD.**	The Unit has One multi fuel based Boiler with stated capacity of 52 TPD with RDF, rice husk, Baggase, Coal etc used as fuel. The purported **RDF was rather unsegregated MSW**. Therefore, there was **foul smell** near RDF in form of mixed solid waste. The 2 trommel machines were found. However, the trommel machines were not operational at the time of visit. The MSW was stated to be sourced from Bhalswa, Gazipur landfill Delhi. And the fly ash generated is stated to be sent to Nuvoco Cement Plant, Chittorgarh. Turbine of 8MW was installed. The Unit has 2 ETP stated to be of 2000 KLD each (Unit I and Unit II) The inlet of both ETP has V notch method to measure the flow. The Unit is not ZLD and discharges its treated Effluent in Dhandhera drain. **Key Issues Identified by the Amicus Curiae:** The Amicus Curiae's inspection revealed the following main issues: • Unsegregated solid waste • No cleanliness around the premises. • lack of cleanliness near boiler area • Tube Settler not in	**Inspection done by UPPCB on 25.03.2025**. • During the inspection, the unit was found to be functional and all the units of ETP and Air Pollution Control System (APCS) were found to be functional. • During inspection, both trammels were found operational, followed by the shredder. However, no fresh Municipal Solid Waste (MSW) was found to be stored or used. • The quality of Refuse-Derived Fuel (RDF) being prepared was deemed satisfactory. • During the inspection, it was observed that stagnated water had been pumped out from the area below the tube settler, which is currently not in use. **Directions Issued** • The unit was instructed to use only RDF and refrain from using legacy waste or fresh MSW. • The unit was directed to maintain a logbook to record the quantity of procured RDF ,non-combustible materials, inert materials, soil, and other relevant data. • The unit was instructed to ensure cleanliness within the premises at specified intervals.	   

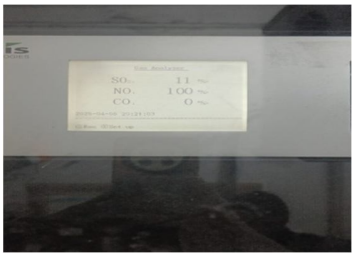
		operation. So dirty water/old effluent is stagnated.		    

2.	**M/S. SHREE BHAGESHWARI PAPERS PVT. LTD.**	The Unit was having one Boiler with stated capacity of 36 TPD. The Boiler is Multi fuel based and using Coal, Baggase and RDF as fuel. The RDF is stated to be procured from Bhalswa, Delhi through contractor namely Alfa Therm. The so called RDF is mixed solid waste. Further, labour was also found doing manual segregation of bricks and heavy objects from the waste lying at the premises. On asking the quantity of the RDF/mixed waste lying currently, it was told that 800 Tons lying at any point of time. Two ETP were found stated to be of capacity 2200 KLD and 1700 KLD. Installed above drain carrying effluent towards ETP of Unit II The **fly ash collection point was found cleaned with water.** Final outlet entering into Dhandera drain going through around 200 meter underground pipes, as stated and shown by UPPCB officials. Effluent monitoring and indicators of TSS BOD and COD not found working. **<u>Key Issues Identified by the Amicus Curiae:</u>** The Amicus Curiae's inspection revealed the following main issues: • Mixed Soild Waste was using as RDF. • No cleanliness around the premises.	**Inspection done by UPPCB on 25.03.2025.** • During the inspection, the unit was found to be functional and all the units of ETP and Air Pollution Control System (APCS) were found to be functional. • Segregation of RDF, initially done by the supplier, was further carried out using trommel and shredder in the premise. • Manual segregation is also being performed to remove larger/heavyweight stones and rubber materials from the supplied RDF. **Directions Issued** • The unit was instructed to use only RDF and refrain from using legacy waste or fresh MSW. • The unit was directed to maintain a logbook to record the quantity of procured RDF ,non-combustible materials, inert materials, soil, and other relevant data. • The unit was instructed to ensure cleanliness within the premises at specified intervals.	  

				
3.	**M/s. Tirupati Balaji Fibers Pvt. Ltd.**	The Unit has one Boiler of capacity stated to be 15 TPD. No Electro Static Precipitator system. Wet and Dry Scrubber stated to be used. Fuel was found stored mainly as Bagasse and Stubble. Disposal of flyash was stated through nearby Brick Kilns. No digital display for emission monitoring was found**.** **<u>Key Issues Identified by the Amicus Curiae:</u>** The Amicus Curiae's inspection revealed the following main issues: • **No digital display for emission monitoring was found.** • **No Electro Static Precipitator system.**	**Inspection done by UPPCB on 25.03.2025.** • During the inspection, the unit was found to be functional and all the units of ETP and Air Pollution Control System (APCS) were found to be functional. • The 15 TPH boiler was found to be utilizing bagasse and agricultural waste as fuel. • The unit is equipped with a multicyclone dust collector, a dry scrubber with lime and activated carbon chemical dosing, followed by a wet scrubber, and a 30-meter-high stack. This air pollution control system is adequate to control emission parameters within the prescribed norms. • An Online Continuous Emission Monitoring System (OCEMS) has already been installed,	 

			and a display screen is provided to display real-time Suspended Particulate Matter (SPM) readings in the flue gas. • The unit was instructed to ensure cleanliness within the premises at specified intervals.	 **SPM Display Board**  

4.	**M/s. Meenu Paper Mills Pvt. Ltd.**	The Unit is having two Boilers with capacity of 11 TPD and 12 TPD. One boiler uses baggase. Other uses Coal and rice husk. The fuel used is mixed fuel having bagasse, Coal and husk. **No Electrostatic Precipitator**. Only wet scrubber used. Flyash is stated to be disposed off at Brick Kiln. One Brick Kiln named is Shiva Brick Field, Muzaffar Nagar. Unit has ETP of 663 KLD B2 Thickner- used to separate plastic waste from the effluent Outlet point, discharge stated to be going into Dhandera Drain. **<u>Key Issues Identified by the Amicus Curiae:</u>** The Amicus Curiae's inspection revealed the following main issues: • **No Electrostatic Precipitator system was found** . • **lack of cleanliness near boiler area**	**Inspection done by UPPCB on 25.03.2025.** • During inspection the unit was found to be functional and all units of ETP and Air Pollution Control System (APCS) were found to be functional. • 11 TPH and 12 TPH boilers were found using multi-fuel in boilers. • The unit is equipped with a Multicyclone dust collector, a dry scrubber with lime and activated carbon chemical dosing, followed by a wet scrubber and 30 m high stack. This air pollution control system is adequate to control the emission parameters within the prescribed norms. • The unit was instructed to ensure cleanliness within the premises at specified intervals.	 **Boiler area**  

5.	**M/s. Agarwal Duplex Board Mills Ltd**	The Unit has one Boiler of 23 TPD capacity. The fuel used is Multi fuel i.e., Bagasse, Rice Husk and RDF. Unit is engaged in manufacturing of Tissue Paper. The RDF is stated to be sourced from Baba Balaji Trading Company Muzaffar Nagar. The flyash generated is stated to be disposed of in Land Filling. The Unit has turbine of 3 MW capacity. Unit has ETP of 1815 KLD Plastic waste is stated to be sent to Silverton Paper Mill. Final discharge is stated to be going into Kukra drain and thereafter to Dhandera drain. **<u>Key Issues Identified by the Amicus Curiae:</u>** The Amicus Curiae's inspection revealed the following main issues: • No cleanliness around the premises.	**Inspection done by UPPCB on 25.03.2025.** • The unit was found to be operational, and all units of theETP and Air Pollution Control System (APCS) were found to be functional during the inspection. • The unit was instructed to ensure cleanliness within the premises at specified intervals.	    

UPPCB issued directions to the concerned industries where violations were found by Amicus Curie to rectify the issues immediately (Notice is attached as **Annexure-A**). As per the inspections carried out by UPPCB, the industries have been found compliant with respect to treated effluent discharge norms under Water Act and emissions through stack found within norms under Air Act.

The above report is put up for perusal and necessary action please.

(Sandhya Sharma)
J.E.

(Kunwar Santosh Kumar)
A.E.E.

(Ankit Singh)
Regional Officer

Email : romuzaffarnagar@uppcb.in

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ANNEXURE-A

दूरभाष : 0131–2604307

क्षेत्रीय कार्यालय

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड, मुजफ्फरनगर

U.P. POLLUTION CONTROL BOARD, MUZAFFARNAGAR

6–बी, नई मण्डी, मुजफ्फरनगर–251001 (उ०प्र०)

संदर्भ सं०
Ref. No. 1528/NGT OA 797 of 2024/Gautham/M2R/2025

दिनांक
Dated 12-03-2025

महत्वपूर्ण / मा० एन०जी०टी० प्रकरण

1– मै० अग्रवाल डुप्लेक्स एण्ड बोर्ड मिल्स लि०, भोपा रोड, मुजफ्फरनगर।
2– मै० तिरूपति बालाजी फाइबर्स लि०, भोपा रोड, मुजफ्फरनगर।
3– मै० मीनू पेपर्स मिल्स लि०, भोपा रोड, मुजफ्फरनगर।
4– मै० टिहरी पल्प एण्ड पेपर मिल्स प्रा०लि० (यूनिट–1 एवं यूनिट–2), भोपा रोड, मुजफ्फरनगर।
5– मै० श्री भागेश्वरी पेपर्स लि० (यूनिट–1 एवं यूनिट–2), भोपा रोड, मुजफ्फरनगर।

विषयः–मा० एन०जी०टी० में योजित ओ०ए० संख्या 794 / 2024 गौतम बनाम स्टेट ऑफ यू०पी० एण्ड अदर्स के सम्बन्ध में।

उपरोक्त विषयक मा० एन०जी०टी० में योजित ओ०ए० संख्या 797 / 2024 गौतम बनाम स्टेट ऑफ यू०पी० में पारित आदेश दिनांक 17.12.2024 का संदर्भ ग्रहण करें, जिसके सुसंगत अंश निम्नवत् हैं :–

"4. ..... In view of the significant environmental issues involved in the case involved in the case Mr. Rahul Khurana Advocate (Enrollment No.D/2183/2008) is appointed as Amicus Curiae also to assist this Tribunal in just and proper adjudication of the matter.

5. Ld. Amicus Curiae may visit the sites of concerned industries physically, if so considered necessary. ....."

मा० एन०जी०टी० द्वारा पारित उक्त आदेशों के अनुपालन में Ld. Amicus Curiae द्वारा आपके उद्योगों का निरीक्षण किया गया तथा अपनी आख्या मा० एन०जी०टी० को दिनांक 22.02.2024 को प्रस्तुत की गयी है, जिसमें आपके उद्योग के निरीक्षण के दौरान पायी गयी कमियों का उल्लेख फोटोग्राफ सहित दिया गया है। Ld. Amicus Curiae द्वारा दी गयी आख्या मा० एन०जी०टी० की वेबसाइट पर उपलब्ध है, जिसका लिंक https://greentribunal.gov.in/news-update?title=amicus है, जिसके माध्यम से आप द्वारा अपने उद्योग में पायी गयी कमियों का पूर्ण विवरण प्राप्त किया जा सकता है।

अतः उपरोक्त के दृष्टिगत् आपको निर्देशित किया जाता है कि Ld. Amicus Curiae द्वारा आपके उद्योग के सम्बन्ध में पायी गयी कमियों का समुचित समाधान तत्काल कराया जाना सुनिश्चित करें। उक्त कमियों के सम्बन्ध में आप द्वारा कृत कार्यवाही का वैरिफिकेशन इस कार्यालय द्वारा शीघ्र किया जाना प्रस्तावित है। यदि वैरिफिकेशन के दौरान उक्त कमियों का समाधान नहीं पाया जाता है तो आपके उद्योग के विरूद्ध अधिनियमों के अन्तर्गत की गयी कृत कार्यवाही का पूर्ण उत्तरदायित्व आपका स्वयं का होगा।

(अंकित सिंह)
क्षेत्रीय अधिकारी

प्रतिलिपि–मुख्य पर्यावरण अधिकारी (वृत्त–3), उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ को सूचनार्थ प्रेषित।

क्षेत्रीय अधिकारी

D/Neeraj Mittal/Letter 2025